RE: RR89
Lot 89 RR

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

Site Information:

Customer: Project Name: RR89
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 73 individual, dated Truss Design Drawings and 0 Additional Drawings.

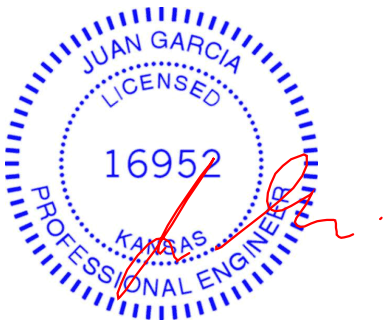
No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47899920	A5	9/15/2021	21	I47899940	E1	9/15/2021
2	I47899921	A6	9/15/2021	22	I47899941	E2	9/15/2021
3	I47899922	A7	9/15/2021	23	I47899942	E3	9/15/2021
4	I47899923	A8	9/15/2021	24	I47899943	E4	9/15/2021
5	I47899924	A9	9/15/2021	25	I47899944	E5	9/15/2021
6	I47899925	B1	9/15/2021	26	I47899945	G1	9/15/2021
7	I47899926	B2	9/15/2021	27	I47899946	G2	9/15/2021
8	I47899927	B3	9/15/2021	28	I47899947	G3	9/15/2021
9	I47899928	C9	9/15/2021	29	I47899948	G4	9/15/2021
10	I47899929	C10	9/15/2021	30	I47899949	G5	9/15/2021
11	I47899930	C11	9/15/2021	31	I47899950	J1	9/15/2021
12	I47899931	C12	9/15/2021	32	I47899951	J2	9/15/2021
13	I47899932	C13	9/15/2021	33	I47899952	J3	9/15/2021
14	I47899933	C14	9/15/2021	34	I47899953	J4	9/15/2021
15	I47899934	C15	9/15/2021	35	I47899954	J5	9/15/2021
16	I47899935	C16	9/15/2021	36	I47899955	J6	9/15/2021
17	I47899936	D1	9/15/2021	37	I47899956	J7	9/15/2021
18	I47899937	D2	9/15/2021	38	I47899957	J8	9/15/2021
19	I47899938	D3	9/15/2021	39	I47899958	J9	9/15/2021
20	I47899939	D4	9/15/2021	40	I47899959	J10	9/15/2021

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.

September 15, 2021

Garcia, Juan

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

RE: RR89 - Lot 89 RR

Site Information:

Project Customer: Project Name: RR89
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I47899960	J11	9/15/2021
42	I47899961	J12	9/15/2021
43	I47899962	J13	9/15/2021
44	I47899963	J14	9/15/2021
45	I47899964	J15	9/15/2021
46	I47899965	J16	9/15/2021
47	I47899966	J17	9/15/2021
48	I47899967	J18	9/15/2021
49	I47899968	J19	9/15/2021
50	I47899969	J20	9/15/2021
51	I47899970	J21	9/15/2021
52	I47899971	LAY1	9/15/2021
53	I47899972	LAY2	9/15/2021
54	I47899973	LAY3	9/15/2021
55	I47899974	LAY4	9/15/2021
56	I47899975	LAY5	9/15/2021
57	I47899976	P1	9/15/2021
58	I47899977	V1	9/15/2021
59	I47899978	V2	9/15/2021
60	I47899979	V3	9/15/2021
61	I47899980	V4	9/15/2021
62	I47899981	V5	9/15/2021
63	I47899982	V6	9/15/2021
64	I47899983	V7	9/15/2021
65	I47899984	V8	9/15/2021
66	I47899985	V9	9/15/2021
67	I47899986	V10	9/15/2021
68	I47899987	V11	9/15/2021
69	I47899988	V12	9/15/2021
70	I47899989	V13	9/15/2021
71	I47899990	V14	9/15/2021
72	I47899991	V15	9/15/2021
73	I47899992	V16	9/15/2021

RE: RR89
Lot 89 RR

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

Site Information:

Customer: Project Name: RR89
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 73 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I47899920	A5	9/15/2021	21	I47899940	E1	9/15/2021
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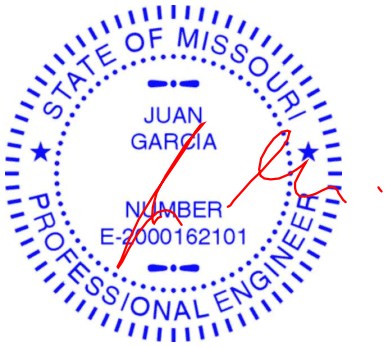
8	I47899927	B3	9/15/2021	28	I47899947	G3	9/15/2021
9	I47899928	C9	9/15/2021	29	I47899948	G4	9/15/2021
10	I47899929	C10	9/15/2021	30	I47899949	G5	9/15/2021
11	I47899930	C11	9/15/2021	31	I47899950	J1	9/15/2021
12	I47899931	C12	9/15/2021	32	I47899951	J2	9/15/2021
13	I47899932	C13	9/15/2021	33	I47899952	J3	9/15/2021
14	I47899933	C14	9/15/2021	34	I47899953	J4	9/15/2021
15	I47899934	C15	9/15/2021	35	I47899954	J5	9/15/2021
16	I47899935	C16	9/15/2021	36	I47899955	J6	9/15/2021
17	I47899936	D1	9/15/2021	37	I47899956	J7	9/15/2021
18	I47899937	D2	9/15/2021	38	I47899957	J8	9/15/2021
19	I47899938	D3	9/15/2021	39	I47899958	J9	9/15/2021
20	I47899939	D4	9/15/2021	40	I47899959	J10	9/15/2021

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.

September 15, 2021

Garcia, Juan

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

RE: RR89 - Lot 89 RR

Site Information:

Project Customer: Project Name: RR89
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
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56	I47899975	LAY5	9/15/2021
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70	I47899989	V13	9/15/2021
71	I47899990	V14	9/15/2021
72	I47899991	V15	9/15/2021
73	I47899992	V16	9/15/2021

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899920
RR89	A5	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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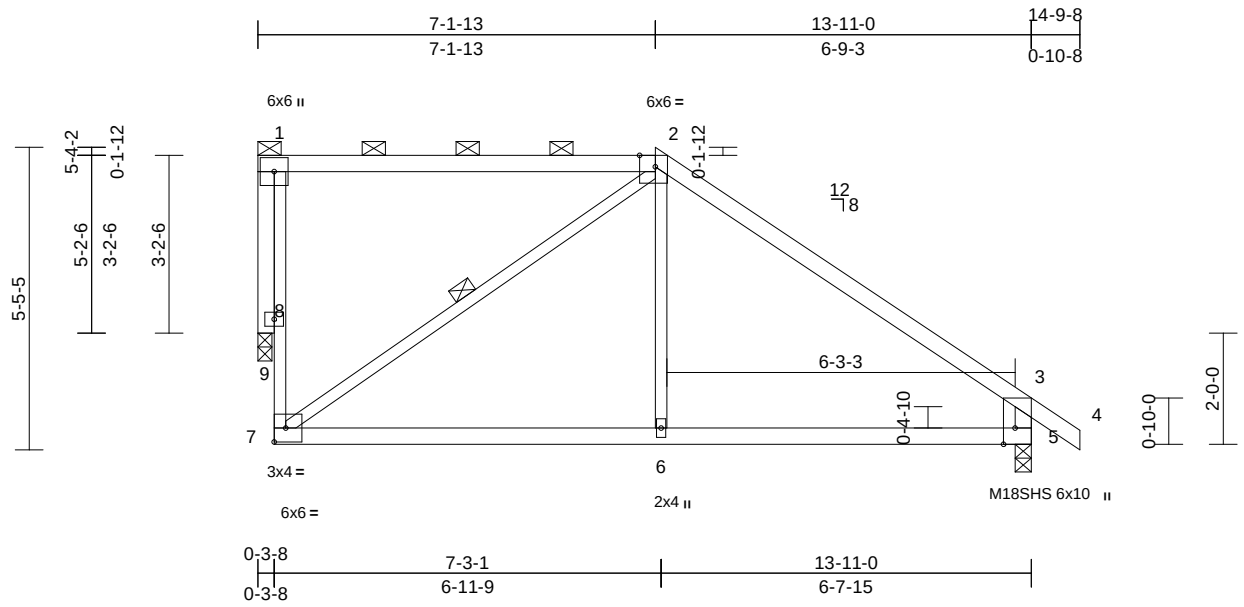

Scale = 1:41.5

Plate Offsets (X, Y): [2:0-3-6,Edge], [5:0-3-8,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	0.70	Vert(LL)	-0.06	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	6-7	>999	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6-7	>999	240	Weight: 52 lb	FT = 10%

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

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

REACTIONS (lb/size) 5=688/0-3-8, 9=587/0-3-0
Max Horiz 9=-155 (LC 9)
Max Uplift 5=-94 (LC 9), 9=-83 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 7-8=0/357, 1-8=0/357, 1-2=-70/65, 2-3=-696/77, 3-4=0/40, 3-5=-628/147
BOT CHORD 6-7=0/465, 5-6=0/467
WEBS 2-7=-492/86, 2-6=0/299, 1-9=-592/85

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) 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.
7) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 5 and 83 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.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	A6	Half Hip Girder	1	**2**	Job Reference (optional)	I47899921

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 E Aug 16 2021 Print: 8.430 E Aug 16 2021 MiTek Industries, Inc. Wed Sep 15 13:04:38 Page: 1
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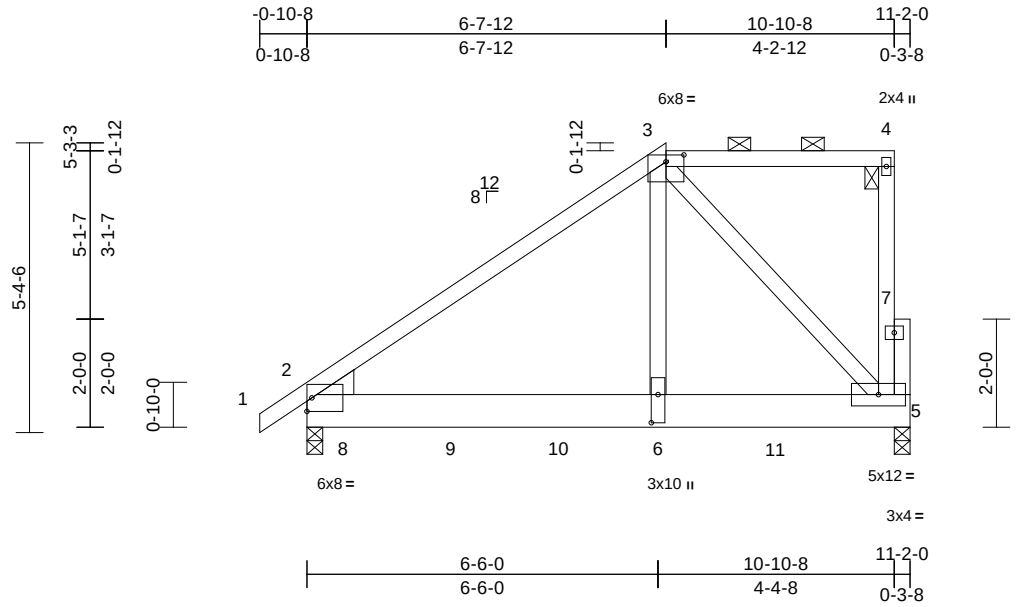

Scale = 1:42.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.07	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.13	2-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	2-6	>999	240	Weight: 138 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x8 SP DSS
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	Left: 2x6 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-6-15 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) 2=4558/0-3-8, (req. 0-3-15), 5=4728/0-3-8, (req. 0-4-1)
Max Horiz 2=189 (LC 5)
Max Uplift 2=-154 (LC 8), 5=-175 (LC 5)
Max Grav 2=4997 (LC 15), 5=5153 (LC 15)

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

TOP CHORD	2-3=-3851/119
BOT CHORD	2-8=-146/3076, 8-9=-146/3076, 9-10=-146/3076, 6-10=-146/3076, 6-11=-146/2920, 5-11=-146/2920
WEBS	3-6=-77/5080, 3-5=-4297/181

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 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.
8) WARNING: Required bearing size at joint(s) 5, 2 greater than input bearing size.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 5 and 154 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1552 lb down and 20 lb up at 0-8-0, 1548 lb down and 28 lb up at 2-8-0, 1543 lb down and 30 lb up at 4-8-0, 1543 lb down and 30 lb up at 6-8-0, and 1543 lb down and 30 lb up at 8-8-0, and 1551 lb down and 25 lb up at 10-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 5=-1383 (B), 6=-1375 (B), 8=-1378 (B), 9=-1373 (B), 10=-1375 (B), 11=-1375 (B)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899922
RR89	A7	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:12 Page: 1
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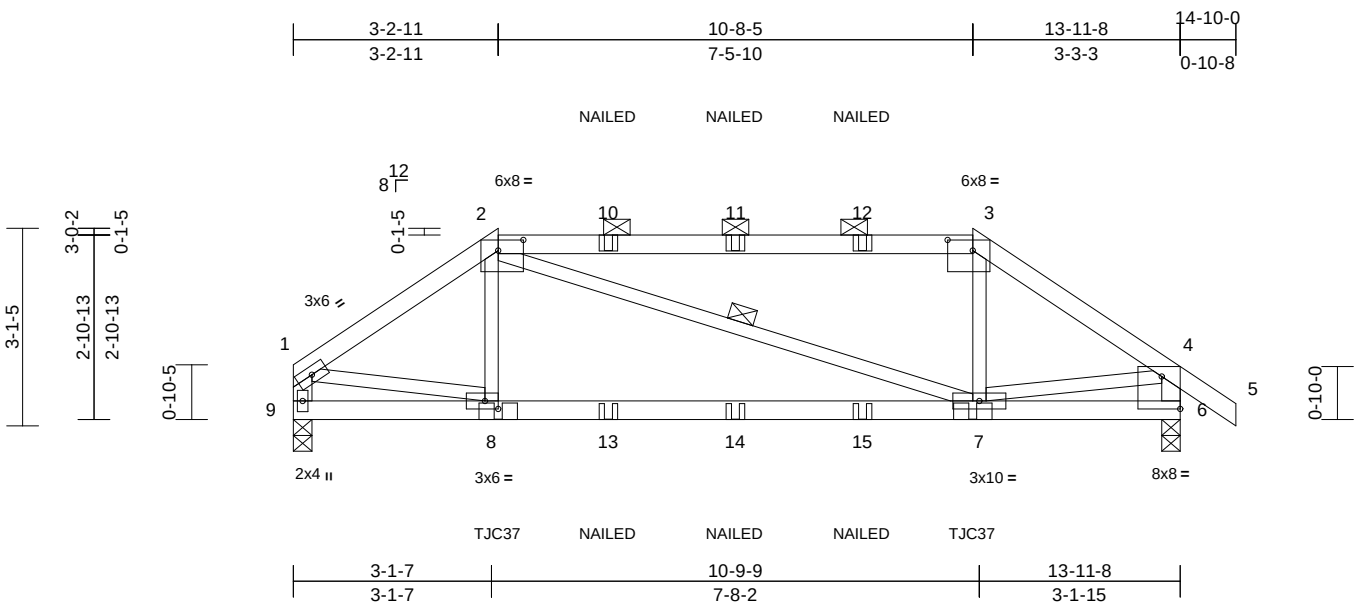

Scale = 1:36.3

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

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	0.88	Vert(LL)	-0.10	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.22	7-8	>733	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	7-8	>999	240	Weight: 51 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 2-3:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-1,6-4:2x4 SPF No.2

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

REACTIONS (lb/size) 6=992/0-3-8, 9=917/0-3-8
Max Horiz 9=-89 (LC 6)
Max Uplift 6=-236 (LC 9), 9=-213 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1240/278, 2-3=-1010/274, 3-4=-1246/280, 4-5=0/40, 1-9=-924/202, 4-6=-998/226
BOT CHORD 8-9=-92/100, 7-8=-276/1010, 6-7=-66/44
WEBS 2-8=0/299, 2-7=-53/56, 3-7=0/305, 1-8=-251/1013, 4-7=-278/1038

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 213 lb uplift at joint 9 and 236 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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 3-3-3 from the left end to connect truss(es) to front face of bottom chord, skewed 41.2 deg.to the left, sloping 0.0 deg. down.
10) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 10-8-13 from the left end to connect truss (es) to front face of bottom chord, skewed 41.2 deg.to the right, sloping 0.0 deg. down.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) 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, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-207 (F), 7=-207 (F), 10=-42 (F), 11=-42 (F), 12=-42 (F), 13=-23 (F), 14=-23 (F), 15=-23 (F)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	A8	Roof Special Girder	1	1	Job Reference (optional)	I47899923

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:12 Page: 1
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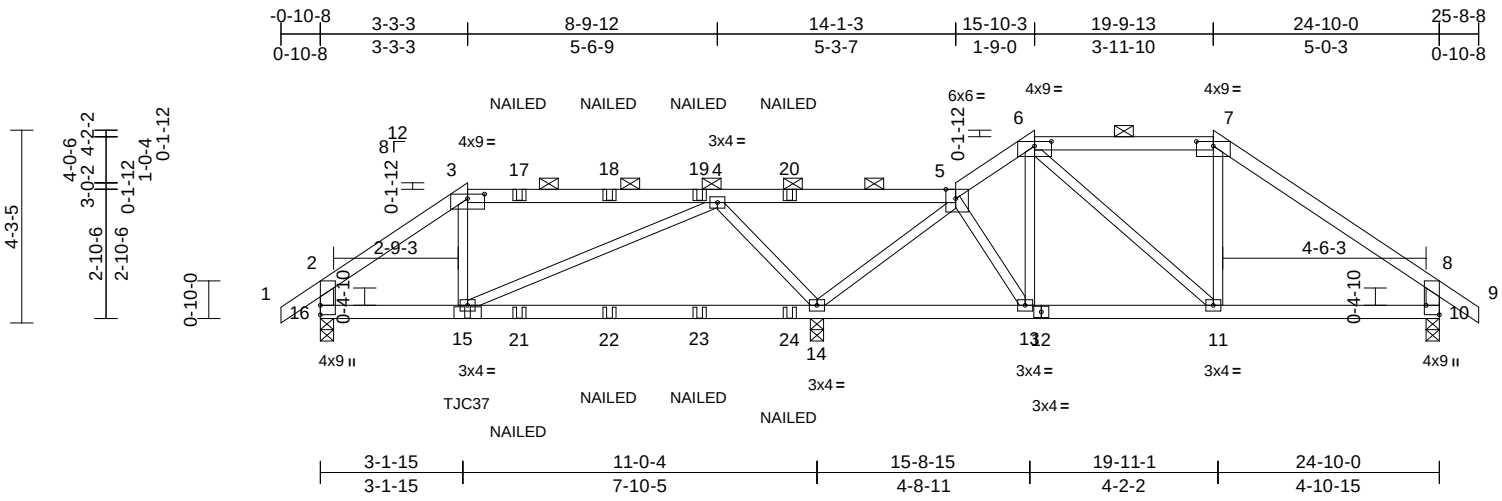

Scale = 1:51.1

Plate Offsets (X, Y): [3:0-4-8,0-1-3], [5:0-2-10,Edge], [6:0-4-8,0-1-3], [7:0-4-8,0-1-3], [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	0.77	Vert(LL)	-0.12	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.25	14-15	>527	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	14-15	>999	240	Weight: 88 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,10-8:2x4 SPF No.2

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

REACTIONS (lb/size) 10=548/0-3-8, 14=1637/0-3-8, 16=591/0-3-8
Max Horiz 16=-124 (LC 6)
Max Uplift 10=-146 (LC 28), 14=-289 (LC 8), 16=-197 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-668/208, 3-4=-490/207, 4-5=-144/722, 5-6=-251/266, 6-7=-346/183, 7-8=-520/160, 8-9=0/40, 2-16=-549/177, 8-10=-494/177
BOT CHORD 15-16=-156/543, 14-15=-148/73, 13-14=-211/103, 11-13=-130/182, 10-11=-37/344
WEBS 3-15=0/179, 4-15=-43/565, 4-14=-1058/404, 5-14=-949/136, 5-13=-54/339, 6-13=-238/80, 6-11=-40/245, 7-11=-76/80

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 197 lb uplift at joint 16, 289 lb uplift at joint 14 and 146 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 3-3-3 from the left end to connect truss(es) to front face of bottom chord, skewed 41.2 deg.to the left, sloping 0.0 deg. down.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) 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, 3-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 10-16=-20
Concentrated Loads (lb)
Vert: 15=-163 (F), 17=-42 (F), 18=-42 (F), 19=-42 (F), 20=-42 (F), 21=-23 (F), 22=-23 (F), 23=-23 (F), 24=-23 (F)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	A9	Roof Special	1	1	Job Reference (optional)	I47899924

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:13 Page: 1
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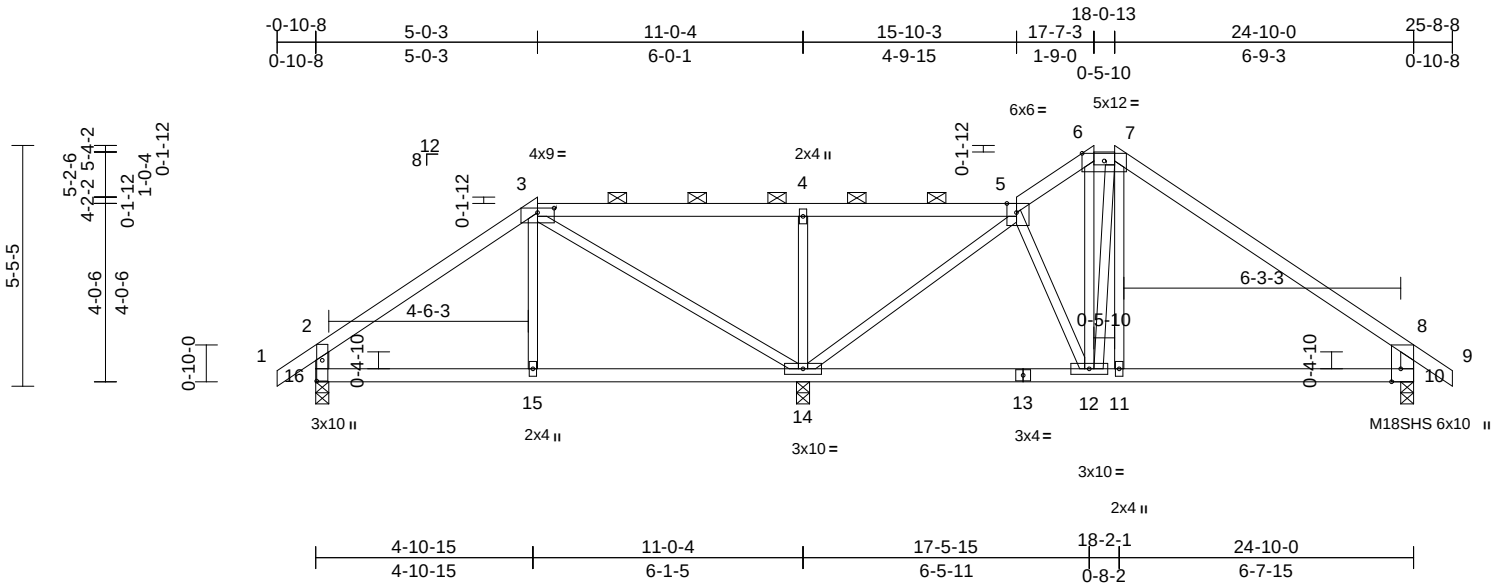

Scale = 1:52.1

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

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	0.49	Vert(LL)	-0.04	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.09	10-11	>999	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	10-11	>999	240	Weight: 94 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2,10-8:2x4 SPF No.2

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

REACTIONS (lb/size) 10=633/0-3-8, 14=1225/0-3-8, 16=494/0-3-8
Max Horiz 16=-156 (LC 6)
Max Uplift 10=-155 (LC 9), 14=-111 (LC 8), 16=-141 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/40, 2-3=-443/154, 3-4=-25/271, 4-5=-25/271, 5-6=-463/223, 6-7=-380/216, 7-8=-602/175, 8-9=0/40, 2-16=-445/171, 8-10=-576/203
BOT CHORD 15-16=-102/311, 14-15=-104/307, 12-14=-86/375, 11-12=-25/388, 10-11=-25/390
WEBS 3-15=0/218, 5-14=-628/0, 5-12=-30/171, 6-12=-263/389, 7-12=-329/170, 7-11=0/183, 4-14=-447/193, 3-14=-526/22

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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 16, 155 lb uplift at joint 10 and 111 lb uplift at joint 14.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	B1	Half Hip Girder	1	2	Job Reference (optional)	I47899925

Wheeler Lumber, Waverly, KS - 66871,

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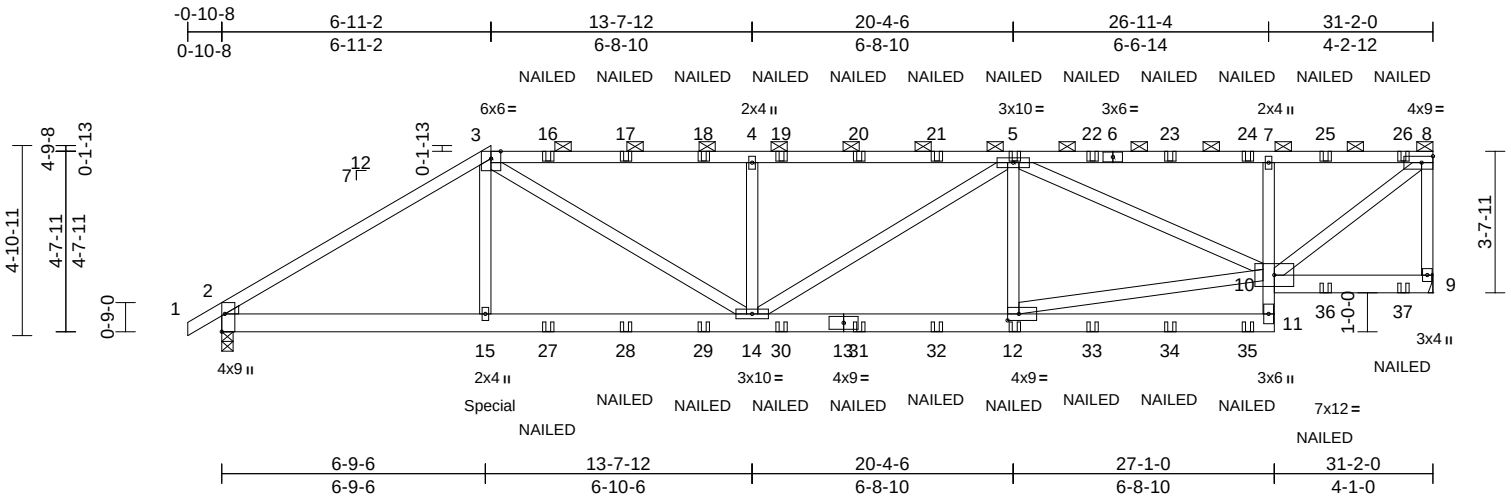


Scale = 1:59.3

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

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	0.72	Vert(LL)	-0.13	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.23	12-14	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	12-14	>999	240	Weight: 306 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 3-6:2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SPF No.2 *Except* 11-7:2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING

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

REACTIONS (lb/size) 2=2651/0-3-8, 9=2739/ Mechanical
Max Horiz 2=127 (LC 24)
Max Uplift 2=-377 (LC 8), 9=-535 (LC 5)

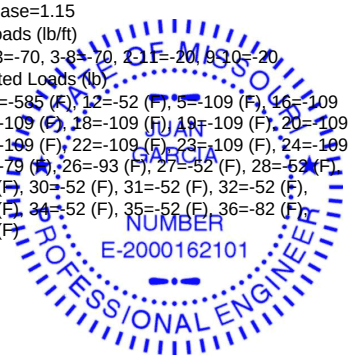
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-4438/710, 3-4=-5072/792, 4-5=-5067/790, 5-7=-2937/508, 7-8=-2932/502, 8-9=-2509/495
BOT CHORD 2-15=-662/3631, 14-15=-658/3603, 12-14=-725/4584, 11-12=-55/561, 10-11=0/254, 7-10=-681/275, 9-10=-33/51
WEBS 3-15=-130/889, 3-14=-282/1843, 4-14=-951/347, 5-14=-125/576, 5-12=-327/275, 10-12=-678/4070, 5-10=-1839/214, 8-10=-636/3703

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row 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); 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 535 lb uplift at joint 9 and 377 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 626 lb down and 234 lb up at 6-11-2 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: 1-3=-70, 3-8=-70, 2-11=-20, 8-10=-20
Concentrated Loads (lb)
Vert: 15=-585 (F), 12=-52 (F), 5=-109 (F), 16=-109 (F), 17=-109 (F), 18=-109 (F), 19=-109 (F), 20=-109 (F), 21=-109 (F), 22=-109 (F), 23=-109 (F), 24=-109 (F), 25=-79 (F), 26=-93 (F), 27=-52 (F), 28=-52 (F), 29=-52 (F), 30=-52 (F), 31=-52 (F), 32=-52 (F), 33=-52 (F), 34=-52 (F), 35=-52 (F), 36=-82 (F), 37=-86 (F)



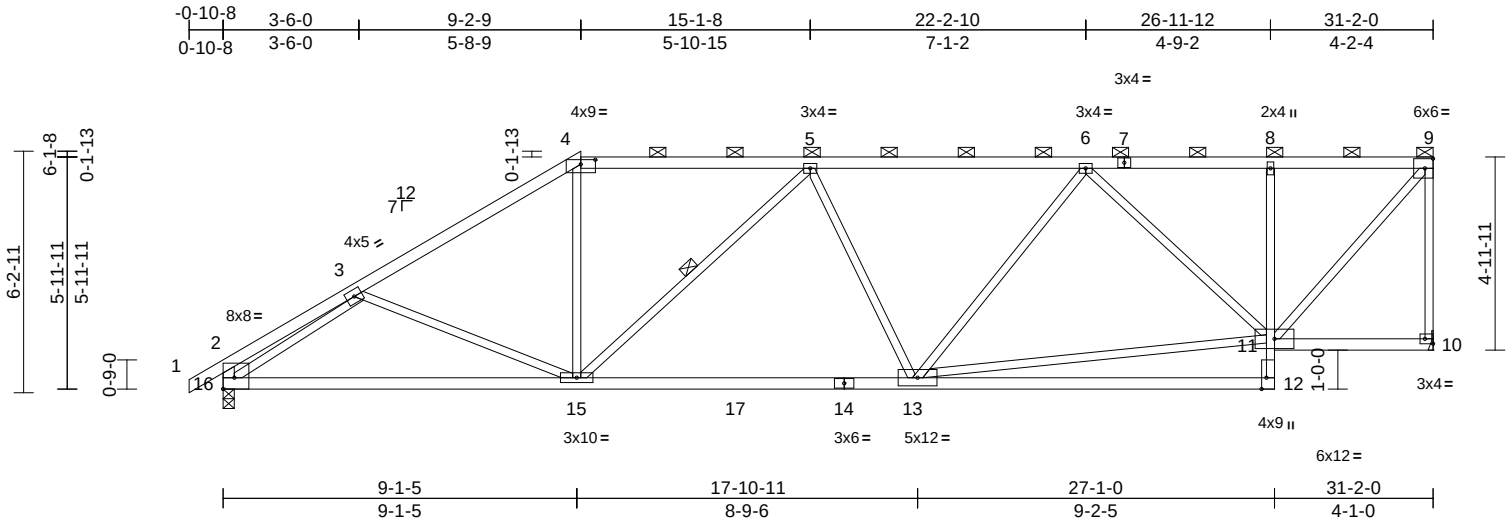
September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	B2	Half Hip	1	1	Job Reference (optional)	I47899926

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:14 ID:odoW0WixbdtP0vrk1PXPiNyU69_-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:59.3

Plate Offsets (X, Y): [2:Edge,0-3-8], [4:0-4-8,0-1-7], [10:Edge,0-1-8], [12:0-3-8,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	0.84	Vert(LL)	-0.20	12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.44	12-13	>850	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	13-15	>999	240	Weight: 129 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 12-8:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2:2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 10=1390/ Mechanical, 16=1464/0-3-8
Max Horiz 16=178 (LC 5)
Max Uplift 10=-73 (LC 5)
Max Grav 10=1449 (LC 2), 16=1512 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-521/0, 3-4=-2033/41, 4-5=-1680/53, 5-6=-1977/47, 6-8=-1097/55, 8-9=-1107/54, 9-10=-1362/92, 2-16=-393/0
BOT CHORD 15-16=-175/1744, 13-15=-144/2021, 12-13=0/202, 11-12=0/167, 8-11=-301/76, 10-11=-54/42
WEBS 3-15=-128/147, 4-15=0/671, 5-15=-587/132, 5-13=-194/93, 6-13=0/380, 11-13=-162/1561, 6-11=-920/76, 9-11=-89/1671, 3-16=-1699/93

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); 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, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	B3	Hip	1	1	Job Reference (optional)	I47899927

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:15 Page: 1
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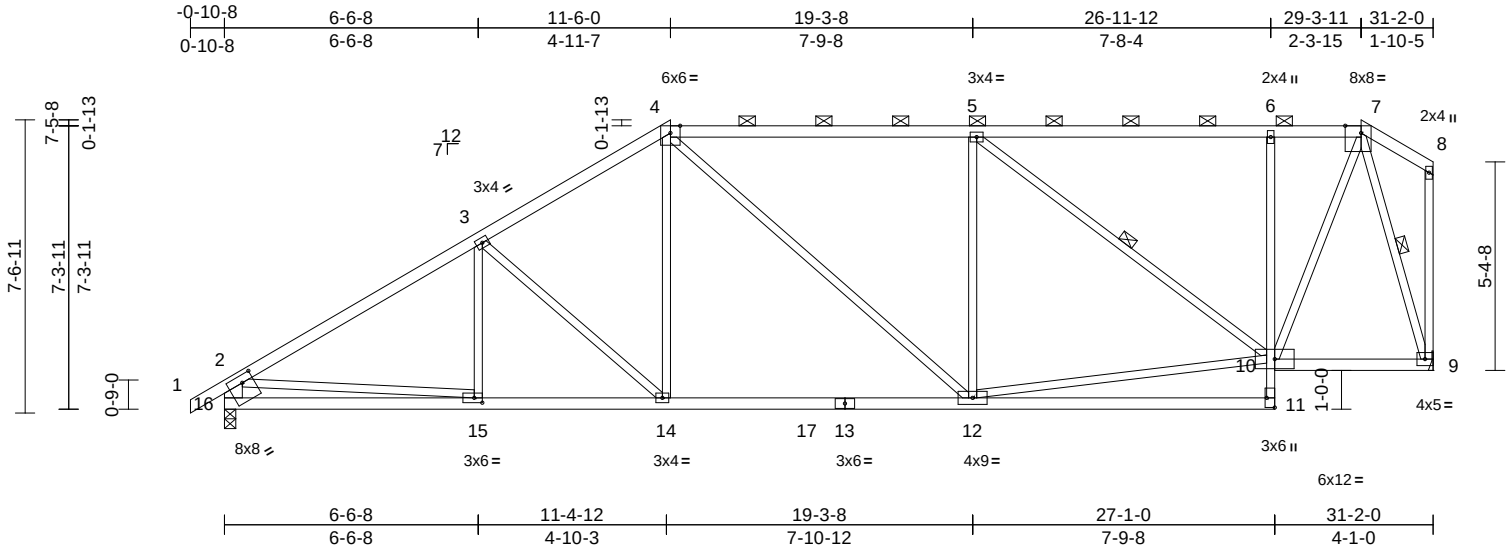

Scale = 1:59.4

Plate Offsets (X, Y): [7:0-4-15,Edge], [11:Edge,0-2-8], [15:0-2-8,0-1-8], [16:0-3-8,0-2-4]

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	0.88	Vert(LL)	-0.17	12-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.30	12-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	12-14	>999	240	Weight: 141 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 11-6:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 16-2:2x6 SPF No.2

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

REACTIONS (lb/size) 9=1386/ Mechanical, 16=1466/0-3-8
Max Horiz 16=213 (LC 5)
Max Uplift 9=-24 (LC 5), 16=-5 (LC 8)
Max Grav 9=1448 (LC 2), 16=1527 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-2148/4, 3-4=-1834/40, 4-5=-1598/47, 5-6=-880/51, 6-7=-884/52, 7-8=-102/76, 2-16=-1410/43, 8-9=-115/53
BOT CHORD 15-16=-215/700, 14-15=-132/1810, 12-14=-114/1523, 11-12=0/122, 10-11=0/133, 6-10=-451/101, 9-10=-54/380
WEBS 3-15=-5/141, 3-14=-405/98, 4-14=0/544, 4-12=-123/271, 5-12=-177/204, 10-12=-120/1487, 5-10=-913/38, 7-10=-75/1400, 2-15=0/1209, 7-9=-1351/82

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 16 and 24 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.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C9	Hip	1	1	Job Reference (optional)	I47899928

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:15 Page: 1
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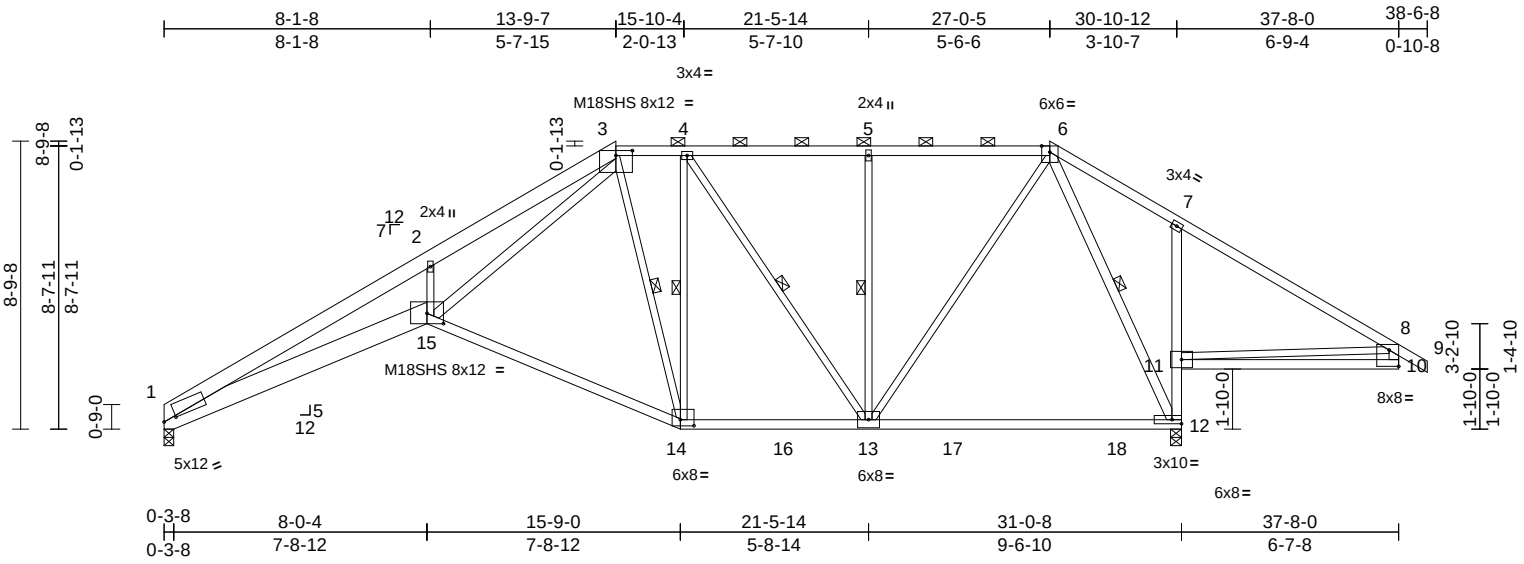

Scale = 1:70.3

Plate Offsets (X, Y): [1:0-4-11,0-0-0], [3:0-6-0,0-1-13], [10:Edge,0-6-0], [14:0-5-0,0-2-4], [15:0-6-0,0-3-13]

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	0.86	Vert(LL)	-0.48	14-15	>769	360	M18SHS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.87	14-15	>424	240	MT20	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.43	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.28	14-15	>999	240	Weight: 190 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-15:2x8 SP DSS, 14-12:2x4 SPF 2400F 2.0E, 12-7:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 10-8,12-6:2x4 SPF No.2, 15-3:2x4 SPF 2100F 1.8E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-8 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 4-14, 4-13, 5-13, 3-14, 6-12

REACTIONS (lb/size) 1=1303/0-3-8, 12=2132/0-4-0
Max Horiz 1=213 (LC 5)
Max Uplift 1=-154 (LC 8), 12=-186 (LC 9)
Max Grav 1=1400 (LC 23), 12=2264 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5764/745, 2-3=-5620/950, 3-4=-1293/214, 4-5=-1093/160, 5-6=-1096/161, 6-7=-20/440, 7-8=-108/662, 8-9=0/36, 8-10=-28/114
BOT CHORD 1-15=-765/5320, 14-15=-248/1555, 13-14=-197/1292, 12-13=-97/406, 11-12=-716/275, 7-11=-557/282, 10-11=-121/269
WEBS 4-14=-122/253, 4-13=-438/95, 5-13=-449/182, 6-13=-134/1292, 8-11=-749/288, 2-15=-267/312, 3-15=-821/4726, 3-14=-584/147, 6-12=-1576/187

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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 12 and 154 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C10	Hip	1	1	Job Reference (optional)	I47899929

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:15 Page: 1
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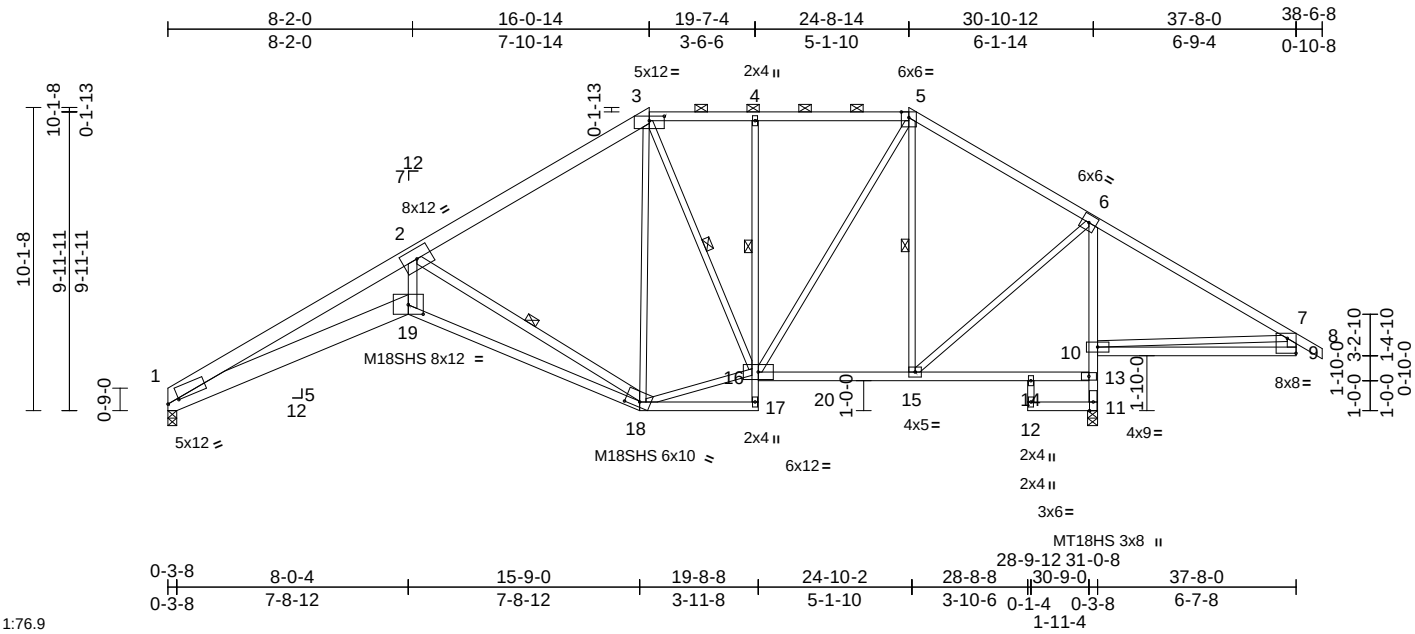

Scale = 1:76.9

Plate Offsets (X, Y): [1:0-4-11,0-0-0], [3:0-6-0,0-1-13], [9:Edge,0-6-0], [18:0-5-12,0-2-0], [19:0-6-0,0-3-13]

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)	-0.47	18-19	>779	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.86	18-19	>429	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.54	11	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.32	18-19	>999	240	Weight: 198 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-19:2x8 SP DSS, 19-18:2x4 SPF 2100F 1.8E, 17-4:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 2-19,9-7:2x4 SPF No.2, 2-18:2x4 SPF 2100F 1.8E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 3-2-6 oc bracing. Except:
1 Row at midpt 4-16
WEBS 1 Row at midpt 3-16, 5-15, 2-18

REACTIONS (lb/size) 1=1303/0-3-8, 11=2132/0-4-0
Max Horiz 1=248 (LC 5)
Max Uplift 1=-168 (LC 8), 11=-213 (LC 9)
Max Grav 1=1395 (LC 15), 11=2237 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5934/903, 2-3=-1333/226, 3-4=-1057/218, 4-5=-1062/219, 5-6=-821/161, 6-7=-109/672, 7-8=0/36, 7-9=-27/121
BOT CHORD 1-19=-938/5540, 18-19=-889/5184, 17-18=-12/29, 16-17=0/51, 4-16=-337/156, 15-16=-70/675, 14-15=-434/148, 13-14=-434/148, 11-12=0/0, 11-13=-2209/237, 10-13=-2138/255, 6-10=-1956/268, 9-10=-111/278
WEBS 12-14=0/48, 16-18=-123/1119, 3-16=-174/99, 5-16=-138/791, 5-15=-693/118, 6-15=-59/1379, 2-19=-599/4387, 3-18=-66/371, 2-18=-4368/886, 7-10=-765/277

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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 213 lb uplift at joint 11 and 168 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C11	Hip	1	1	Job Reference (optional)	I47899930

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:16

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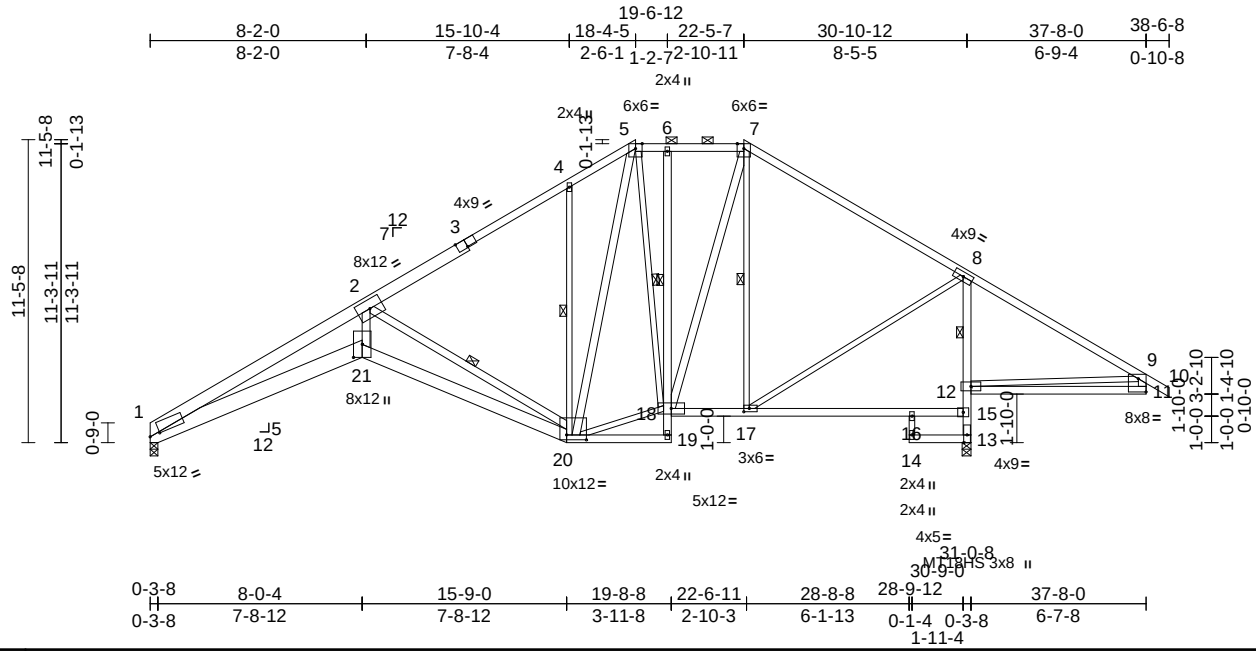

Scale = 1:87.1

Plate Offsets (X, Y): [1:0-4-11,0-0-0], [3:0-4-8,Edge], [11:Edge,0-6-0], [17:0-2-8,0-1-8], [20:0-9-0,0-2-4], [21:0-5-15,0-4-0]

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	0.95	Vert(LL)	-0.42	20-21	>885	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.74	20-21	>497	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.55	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.33	20-21	>999	240	Weight: 225 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 1-21:2x8 SP DSS, 21-20:2x6 SPF 1650F 1.4E

WEBS 2x3 SPF No.2 *Except* 21-2,20-5,18-7,11-9:2x4 SPF No.2, 20-2:2x4 SPF 2100F 1.8E

BRACING

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

BOT CHORD Rigid ceiling directly applied or 2-8-6 oc bracing. Except:

1 Row at midpt 6-18, 8-12

WEBS 1 Row at midpt 2-20, 4-20, 5-18, 7-17

REACTIONS (lb/size) 1=1303/0-3-8, 13=2132/0-4-0
Max Horiz 1=283 (LC 5)
Max Uplift 1=-178 (LC 8), 13=-236 (LC 9)
Max Grav 1=1418 (LC 15), 13=2264 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-6161/1021, 2-4=-1333/254, 4-5=-1322/388, 5-6=-870/253, 6-7=-869/254, 7-8=-979/212, 8-9=-104/658, 9-10=0/36, 9-11=-28/117

BOT CHORD 1-21=-1074/5781, 20-21=-1015/5401, 19-20=0/81, 18-19=0/58, 6-18=-181/106, 17-18=-25/800, 16-17=-378/131, 15-16=-378/131, 13-14=0/0, 13-15=-2200/261, 12-15=-2064/289, 8-12=-1928/307, 11-12=-77/220

WEBS 14-16=0/42, 2-21=-698/4571, 2-20=-4522/967, 4-20=-430/240, 5-20=-313/858, 18-20=-78/936, 5-18=-238/120, 7-18=-144/563, 7-17=-476/110, 8-17=-37/1297, 9-12=-676/233

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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 13 and 178 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C12	Piggyback Base	1	1	Job Reference (optional)	I47899931

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:16 Page: 1
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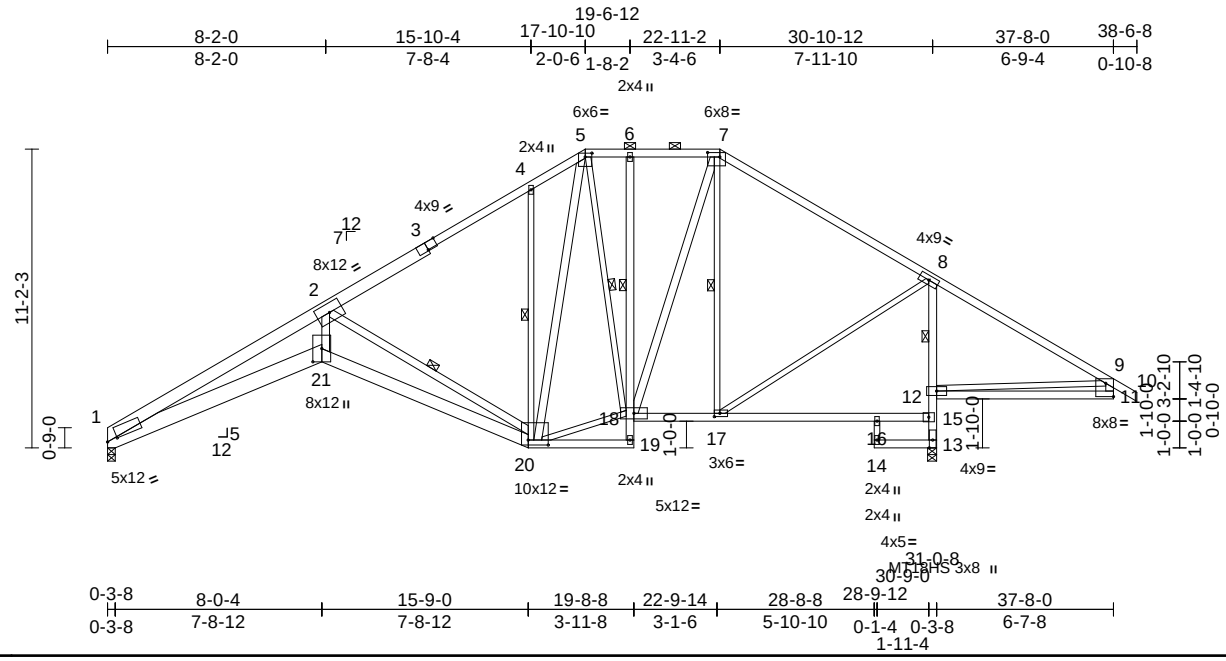

Scale = 1:86.3

Plate Offsets (X, Y): [1:0-4-11,0-0-0], [3:0-4-8,Edge], [5:0-3-0,0-1-12], [7:0-5-8,0-2-0], [11:Edge,0-6-0], [17:0-2-8,0-1-8], [20:0-9-0,0-2-4], [21:0-5-15,0-4-0]

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	0.86	Vert(LL)	-0.42	20-21	>884	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.74	20-21	>496	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.55	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.33	20-21	>999	240	Weight: 224 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 1-21:2x8 SP DSS, 21-20:2x6 SPF 1650F 1.4E
WEBS 2x3 SPF No.2 *Except* 21-2,20-5,18-7,11-9:2x4 SPF No.2, 20-2:2x4 SPF 2100F 1.8E

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 2-9-1 oc bracing. Except:
1 Row at midpt 6-18, 8-12
WEBS 1 Row at midpt 2-20, 4-20, 5-18, 7-17

REACTIONS (lb/size) 1=1303/0-3-8, 13=2132/0-4-0
Max Horiz 1=277 (LC 5)
Max Uplift 1=-175 (LC 8), 13=-231 (LC 9)
Max Grav 1=1411 (LC 15), 13=2264 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6119/1003, 2-4=-1321/249, 4-5=-1352/397, 5-6=-875/247, 6-7=-875/247, 7-8=-960/204, 8-9=-105/661, 9-10=0/36, 9-11=-28/118
BOT CHORD 1-21=-1054/5741, 20-21=-997/5364, 19-20=0/75, 18-19=0/58, 6-18=-203/112, 17-18=-34/766, 16-17=-388/135, 15-16=-388/135, 13-14=0/0, 13-15=-2203/256, 12-15=-2068/283, 8-12=-1930/300, 11-12=-85/232
WEBS 14-16=0/44, 2-21=-684/4541, 2-20=-4497/955, 4-20=-502/263, 5-20=-333/921, 18-20=-90/950, 5-18=-221/114, 7-18=-140/582, 7-17=-505/105, 8-17=-34/1297, 9-12=-695/243

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) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 13 and 175 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C13	Piggyback Base	3	1	Job Reference (optional)	I47899932

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:17 Page: 1

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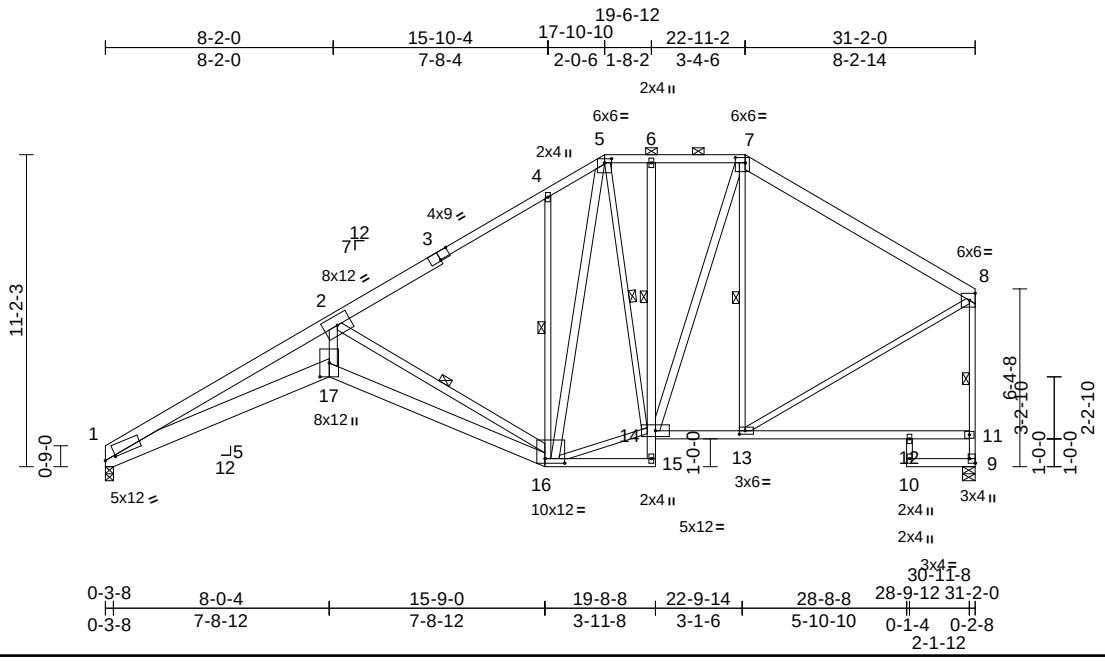


Scale = 1:82.6

Plate Offsets (X, Y): [1:0-4-11,0-0-0], [3:0-4-8,Edge], [5:0-3-0,0-1-12], [7:0-4-4,0-2-4], [9:Edge,0-2-8], [13:0-2-8,0-1-8], [16:0-8-8,0-2-0], [17:0-5-15,0-4-0]

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	0.88	Vert(LL)	-0.41	16-17	>904	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.75	16-17	>495	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.52	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.33	16-17	>999	240	Weight: 206 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-8,1-3:2x6 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except* 1-17:2x8 SP DSS, 17-16:2x6 SPF 1650F 1.4E

WEBS 2x3 SPF No.2 *Except* 17-2,16-2:2x4 SPF 2100F 1.8E, 16-5,14-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-15 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-2 max.): 5-7.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-9-9 oc bracing: 1-17
8-10-12 oc bracing: 16-17.

1 Row at midpt 6-14

WEBS 1 Row at midpt 2-16, 4-16, 5-14, 7-13, 8-9

REACTIONS (lb/size) 1=1391/0-3-8, 9=1392/0-5-8
Max Horiz 1=363 (LC 7)
Max Uplift 1=-175 (LC 8), 9=-112 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-5907/974, 2-4=-1472/249, 4-5=-1444/397, 5-6=-1013/246, 6-7=-1016/246, 7-8=-1133/195, 9-11=-1364/129, 8-11=-1316/160

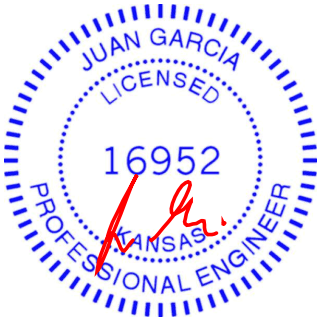
BOT CHORD 1-17=-1012/5312, 16-17=-958/4971, 15-16=0/66, 14-15=0/58, 6-14=-180/107, 13-14=-95/877, 12-13=-88/82, 11-12=-88/82, 9-10=0/0

WEBS 10-12=0/39, 2-17=-653/4114, 2-16=-4101/928, 4-16=-494/262, 5-16=-336/767, 14-16=-158/989, 5-14=-140/152, 7-14=-155/519, 7-13=-356/129, 8-13=-56/1006

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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 9 and 175 lb uplift at joint 1.
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



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C14	Piggyback Base	4	1	Job Reference (optional)	I47899933

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:17 Page: 1
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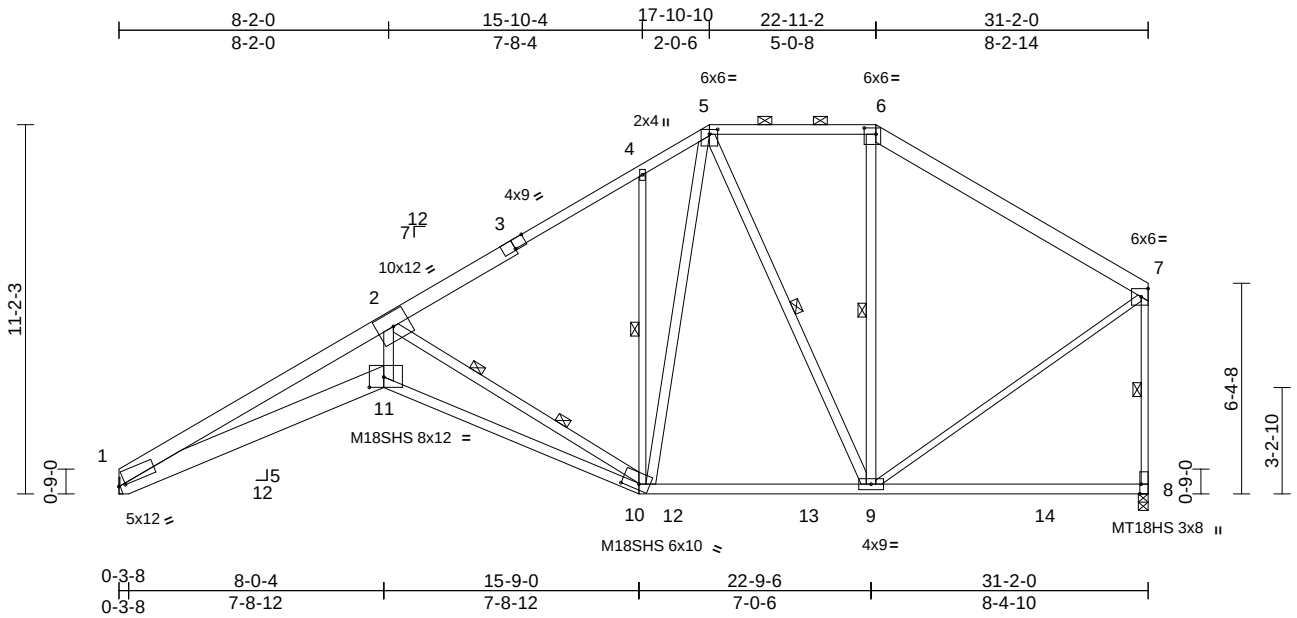

Scale = 1:69.8

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

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	0.90	Vert(LL)	-0.51	10-11	>730	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.92	10-11	>403	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.53	8	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	10-11	>999	240	Weight: 181 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 6-7,1-3:2x6 SPF No.2

BOT CHORD 2x8 SP DSS *Except* 11-10:2x4 SPF 2100F 1.8E, 10-8:2x4 SPF No.2

WEBS 2x3 SPF No.2 *Except* 11-2,10-2:2x4 SPF 2100F 1.8E, 9-5,9-6,10-5:2x4 SPF No.2

BRACING

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

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

WEBS 1 Row at midpt 4-10, 5-9, 6-9, 7-8

WEBS 2 Rows at 1/3 pts 2-10

REACTIONS (lb/size) 1=1395/ Mechanical, 8=1396/0-3-8
Max Horiz 1=294 (LC 7)
Max Uplift 1=-18 (LC 8)
Max Grav 1=1524 (LC 13), 8=1515 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-6660/231, 2-4=-1552/88, 4-5=-1570/178, 5-6=-881/93, 6-7=-1101/83, 7-8=-1359/26

BOT CHORD 1-11=-305/6195, 10-11=-296/5800, 9-10=-57/1110, 8-9=-63/53

WEBS 2-11=-121/4875, 2-10=-4780/314, 4-10=-475/152, 5-9=-484/88, 6-9=-148/210, 7-9=0/1091, 5-10=-152/1184

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

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C15	Half Hip	1	1	Job Reference (optional)	I47899934

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:18 Page: 1
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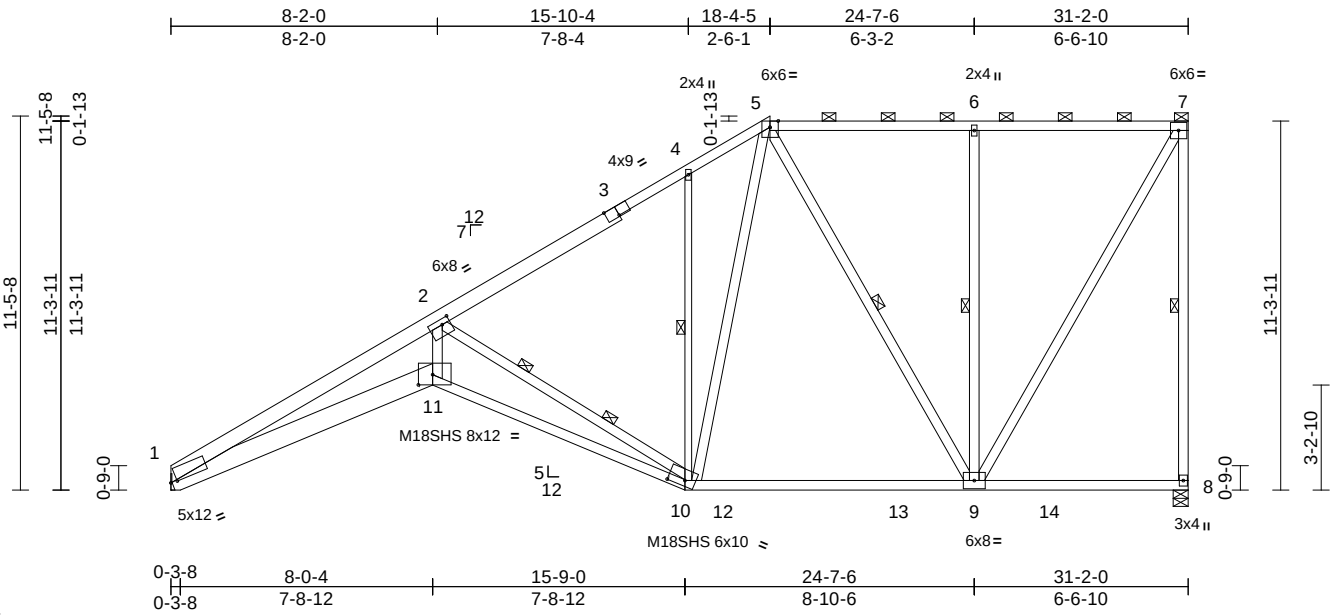

Scale = 1:70.6

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

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	0.93	Vert(LL)	-0.50	10-11	>739	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.90	10-11	>411	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.53	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.26	10-11	>999	240	Weight: 189 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x6 SPF No.2
BOT CHORD 2x8 SP DSS *Except* 11-10:2x4 SPF 2100F 1.8E, 10-8:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 7-8,11-2,10-2:2x4 SPF 2100F 1.8E, 10-4:2x3 SPF No.2

BRACING

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

REACTIONS (lb/size) 1=1393/ Mechanical, 8=1393/0-5-8
Max Horiz 1=355 (LC 7)
Max Uplift 1=-16 (LC 8), 8=-85 (LC 5)
Max Grav 1=1529 (LC 13), 8=1540 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6631/243, 2-4=-1558/81, 4-5=-1514/162, 5-6=-771/84, 6-7=-771/84, 7-8=-1428/100
BOT CHORD 1-11=-543/6158, 10-11=-521/5763, 9-10=-139/1078, 8-9=-132/98
WEBS 2-11=-301/4840, 2-10=-4741/389, 4-10=-361/134, 5-10=-117/1127, 5-9=-632/73, 6-9=-521/137, 7-9=-79/1475

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 85 lb uplift at joint 8 and 16 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	C16	Half Hip	1	1	Job Reference (optional)	I47899935

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:18 Page: 1
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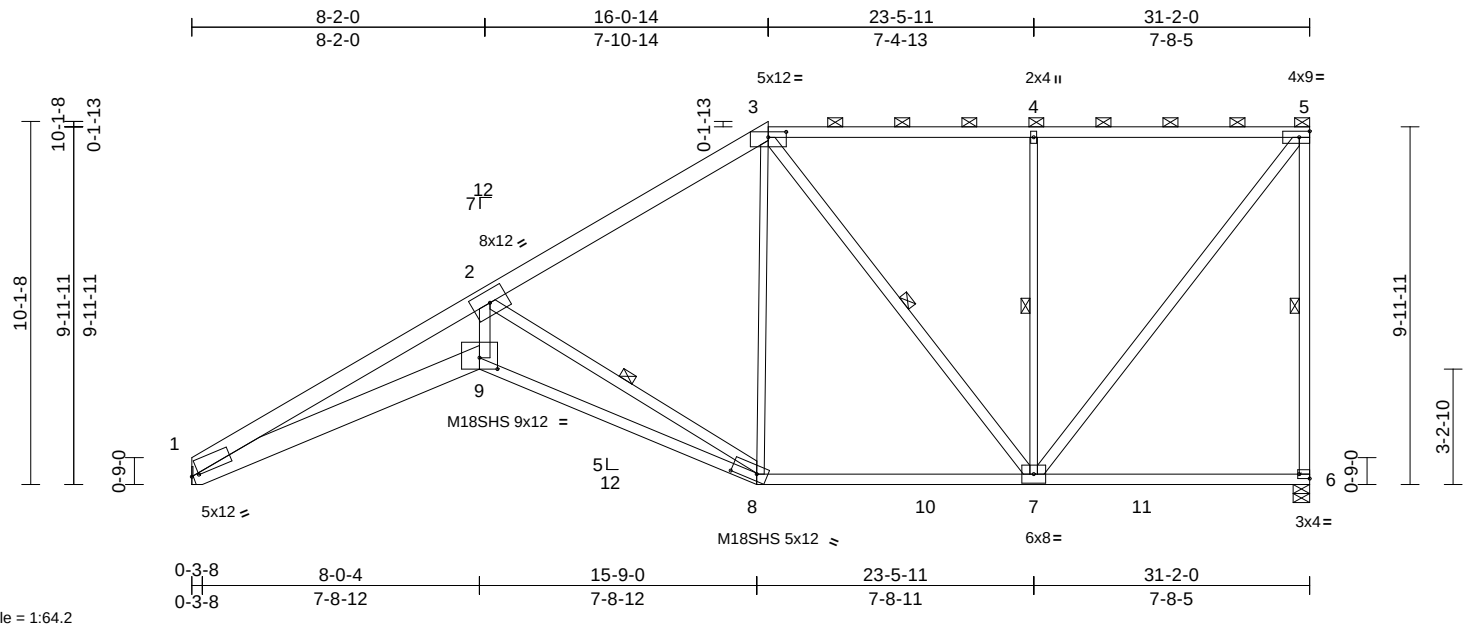

Scale = 1:64.2

Plate Offsets (X, Y): [1:0-2-7,0-0-4], [3:0-6-0,0-1-13], [6:Edge,0-1-8], [8:0-8-8,0-2-4], [9:0-6-0,0-3-13]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.49	8-9	>766	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.88	8-9	>423	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.49	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.24	8-9	>999	240	Weight: 171 lb	FT = 10%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 3-5:2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except* 9-8:2x4 SPF 2100F 1.8E, 8-6:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 8-3,4-7:2x3 SPF No.2, 2-9,2-8:2x4 SPF 2100F 1.8E

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

REACTIONS (lb/size) 1=1393/ Mechanical, 6=1393/0-5-8
Max Horiz 1=312 (LC 7)
Max Uplift 1=-11 (LC 8), 6=-81 (LC 5)
Max Grav 1=1513 (LC 13), 6=1536 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6423/254, 2-3=-1527/70, 3-4=-952/64, 4-5=-952/64, 5-6=-1383/110
BOT CHORD 1-9=-510/5941, 8-9=-481/5411, 7-8=-136/1266, 6-7=-114/86
WEBS 3-8=0/720, 3-7=-539/55, 4-7=-607/151, 5-7=-85/1523, 2-9=-267/4573, 2-8=-4425/354

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 81 lb uplift at joint 6 and 11 lb uplift at joint 1.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899936
RR89	D1	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:18

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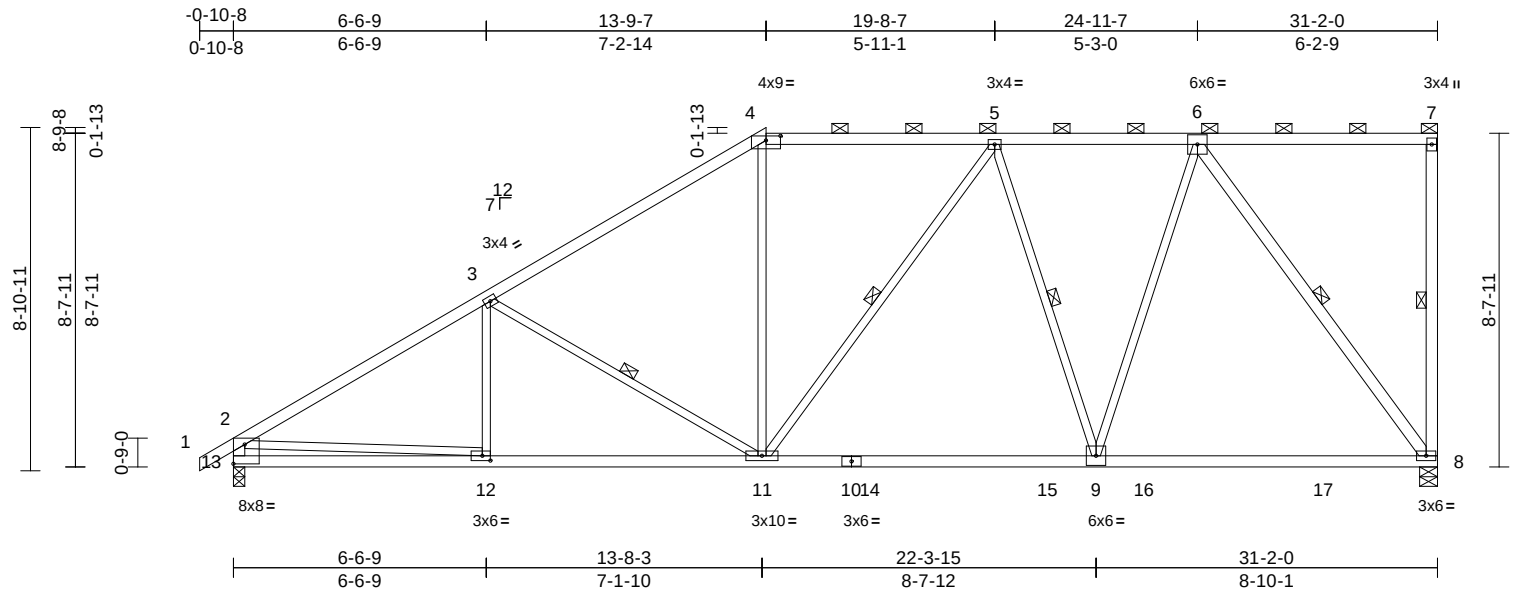

Scale = 1:59.6

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

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	0.76	Vert(LL)	-0.25	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.41	8-9	>907	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11-12	>999	240	Weight: 139 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-8,8-6,13-2:2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 8=1388/0-5-8, 13=1462/0-3-8
Max Horiz 13=341 (LC 5)
Max Uplift 8=-251 (LC 5), 13=-175 (LC 8)
Max Grav 8=1527 (LC 2), 13=1526 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-2217/231, 3-4=-1724/199, 4-5=-1394/231, 5-6=-1179/142, 6-7=-124/91, 7-8=-186/87, 2-13=-1415/209
BOT CHORD 12-13=-343/700, 11-12=-337/1921, 9-11=-290/1316, 8-9=-231/906
WEBS 3-12=0/203, 3-11=-640/240, 4-11=0/457, 5-11=-84/265, 5-9=-528/164, 6-9=-34/911, 6-8=-1513/276, 2-12=0/1322

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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 8 and 175 lb uplift at joint 13.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	D2	Half Hip	1	1	Job Reference (optional)	I47899937

Wheeler Lumber, Waverly, KS - 66871,

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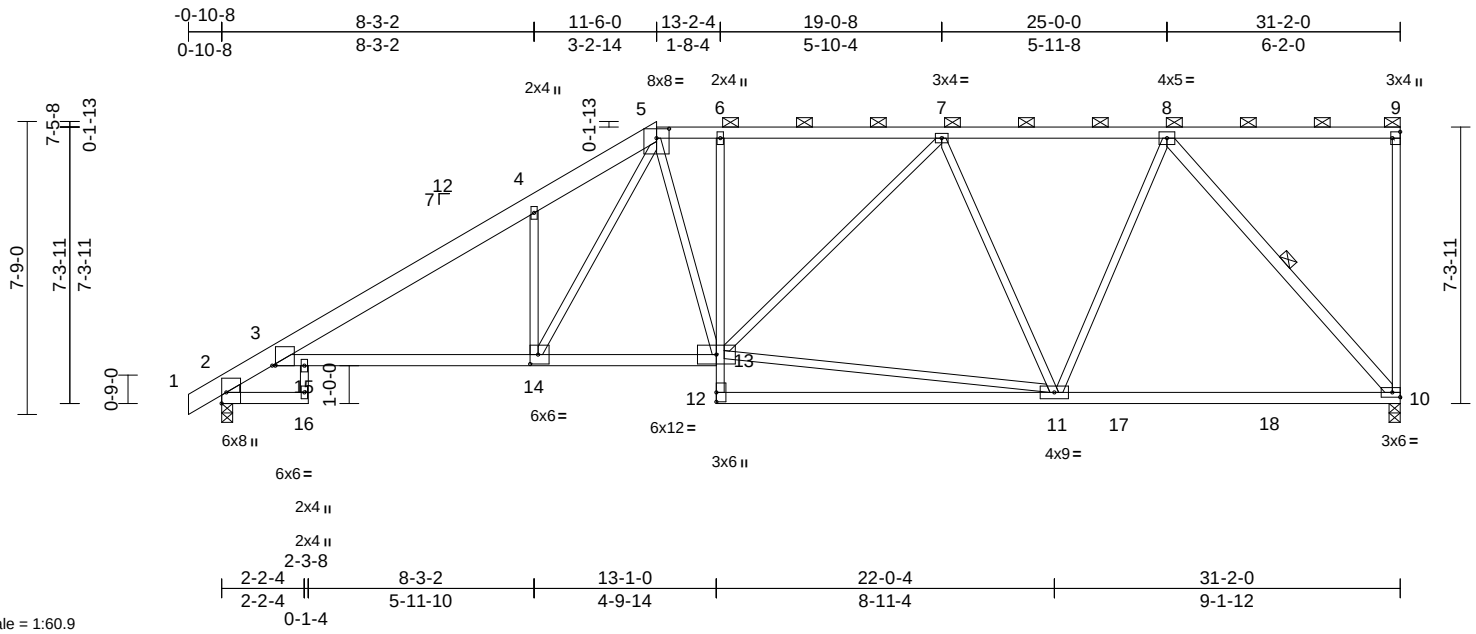

Scale = 1:60.9

Plate Offsets (X, Y): [2:Edge,0-1-8], [3:0-1-0,Edge], [5:0-4-0,0-3-0], [9:Edge,0-2-8], [14:0-2-8,0-3-0]

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	0.67	Vert(LL)	-0.28	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.50	14-15	>748	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.28	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.20	14-15	>999	240	Weight: 154 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-9:2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-16:2x4 SPF No.2, 6-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-8:2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING

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

REACTIONS (lb/size) 2=1464/0-3-8, 10=1390/0-3-8
Max Horiz 2=282 (LC 5)
Max Uplift 2=-158 (LC 8), 10=-255 (LC 5)
Max Grav 2=1512 (LC 2), 10=1479 (LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1021/62, 3-4=-2611/258, 4-5=-2762/417, 5-6=-1824/269, 6-7=-1819/269, 7-8=-1370/150
BOT CHORD 3-15=-434/2274, 14-15=-434/2274, 13-14=-362/1712, 6-13=-357/148, 11-17=-255/1037, 17-18=-255/1037, 10-18=-255/1037
WEBS 4-14=-816/328, 5-14=-306/1320, 5-13=-198/507, 11-13=-350/1442, 7-13=-63/373, 7-11=-681/218, 8-11=-27/870, 8-10=-1567/301

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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 255 lb uplift at joint 10 and 158 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	D3	Half Hip	1	1	Job Reference (optional)	I47899938

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:19 Page: 1
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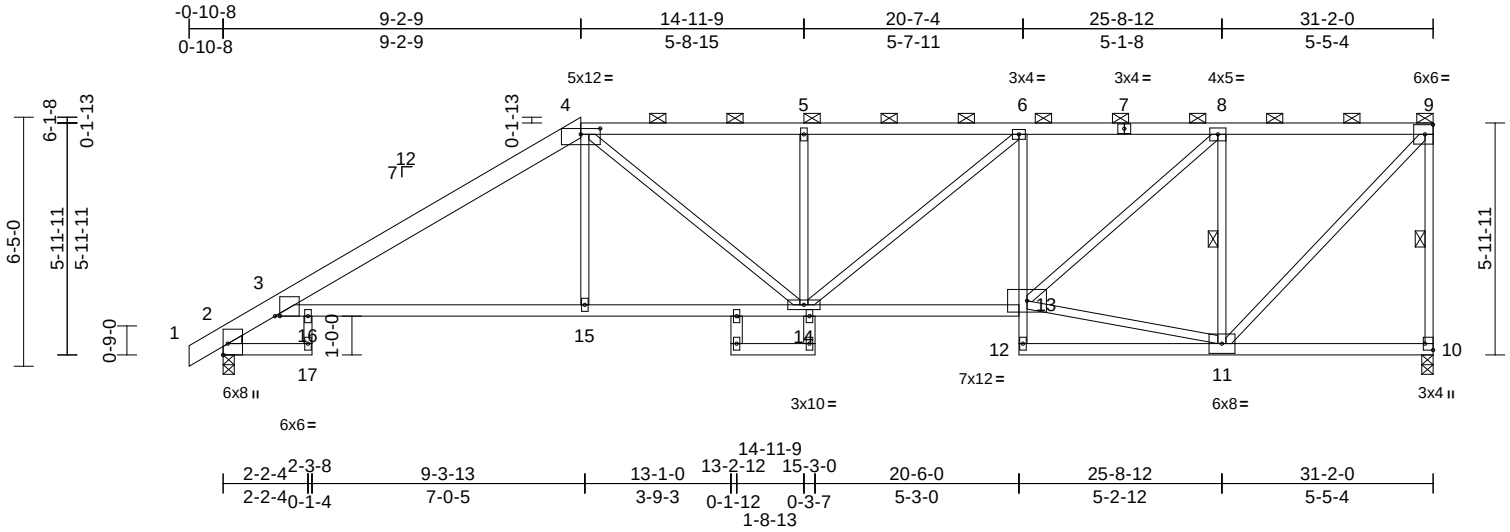

Scale = 1:59.3

Plate Offsets (X, Y): [2:Edge,0-1-8], [3:0-1-8,Edge], [4:0-6-0,0-1-13], [10: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	0.72	Vert(LL)	-0.34	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.66	15-16	>565	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.35	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	15-16	>999	240	Weight: 142 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x6 SP DSS
BOT CHORD 2x4 SPF No.2 *Except* 3-13:2x4 SPF 2100F 1.8E, 6-12:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 18-20,19-14:2x4 SPF No.2
WEDGE Left: 2x3 SPF No.2

BRACING

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

REACTIONS (lb/size) 2=1464/0-3-8, 10=1390/0-3-8
Max Horiz 2=229 (LC 5)
Max Uplift 2=-136 (LC 8), 10=-257 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/12, 2-3=-927/78, 3-4=-2335/311, 4-5=-2326/390, 5-6=-2326/390, 6-8=-2154/365, 8-9=-1121/203, 9-10=-1343/275
BOT CHORD 2-17=0/0, 3-16=-408/1986, 15-16=-408/1986, 14-15=-407/1992, 13-14=-462/2167, 12-13=0/86, 6-13=-500/166, 11-12=-15/46, 10-11=-80/60
WEBS 16-17=-11/92, 4-15=0/351, 4-14=-247/576, 5-14=-415/187, 6-14=-40/209, 11-13=-244/1101, 8-13=-275/1378, 8-11=-1315/357, 9-11=-298/1625

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 257 lb uplift at joint 10 and 136 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	D4	Half Hip Girder	1	2	Job Reference (optional)	I47899939

Wheeler Lumber, Waverly, KS - 66871,

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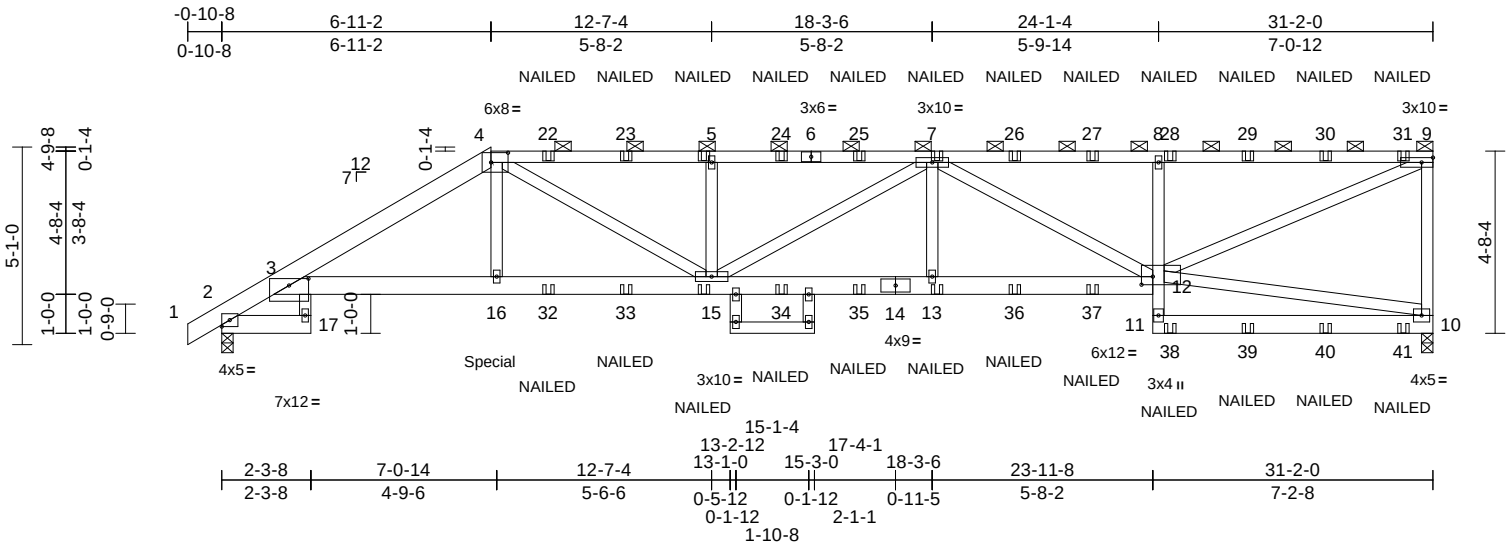

Scale = 1:59.3

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

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	0.63	Vert(LL)	-0.21	13-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.37	13-15	>998	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.21	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.15	13-15	>999	240	Weight: 366 lb	FT = 10%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6:2x4 SPF No.2, 6-9:2x4 SPF 2100F 1.8E

BOT CHORD 2x6 SP 2400F 2.0E *Except* 17-3,8-11,18-19:2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-17.

REACTIONS (lb/size) 2=2668/0-3-8, 10=2748/0-3-8
Max Horiz 2=143 (LC 5)
Max Uplift 2=-332 (LC 8), 10=-351 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-1712/221, 3-4=-5537/852, 4-5=-6318/864, 5-7=-6317/864, 7-8=-4517/572, 8-9=-4515/588, 9-10=-2549/437

BOT CHORD 2-17=-185/20, 3-17=-34/301, 3-16=-833/4840, 15-16=-843/4891, 13-15=-840/6331, 12-13=-840/6331, 11-12=0/290, 8-12=-848/309, 10-11=0/233

WEBS 4-16=-220/1191, 4-15=-173/1654, 5-15=-682/240, 7-15=-98/19, 7-13=0/483, 7-12=-2087/247, 10-12=-206/15, 9-12=-665/4933

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
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) Wind: ASCE 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
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 351 lb uplift at joint 10 and 332 lb uplift at joint 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 632 lb down and 261 lb up at 6-11-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) Filler applied to ply: 1(Front)

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-9=-70, 2-17=-20, 3-12=-20, 10-11=-20

Concentrated Loads (lb)
Vert: 16=-594 (B), 15=-62 (B), 5=-99 (B), 13=-70 (B), 7=-92 (B), 22=-99 (B), 23=-99 (B), 24=-99 (B), 25=-92 (B), 26=-92 (B), 27=-92 (B), 28=-109 (B), 29=-109 (B), 30=-109 (B), 31=-122 (B), 32=-62 (B), 33=-62 (B), 34=-62 (B), 35=-70 (B), 36=-70 (B), 37=-70 (B), 38=-52 (B), 39=-52 (B), 40=-52 (B), 41=-56 (B)

STATE OF MISSOURI JUAN GARCIA NUMBER E-2000162101 PROFESSIONAL ENGINEER

JUAN GARCIA LICENSED 16952 KANSAS PROFESSIONAL ENGINEER

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	E1	Roof Special Structural Gable	1	1	Job Reference (optional)	I47899940

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:20 ID:odoW0WixbdtP0vrk1PXPiNyU69_-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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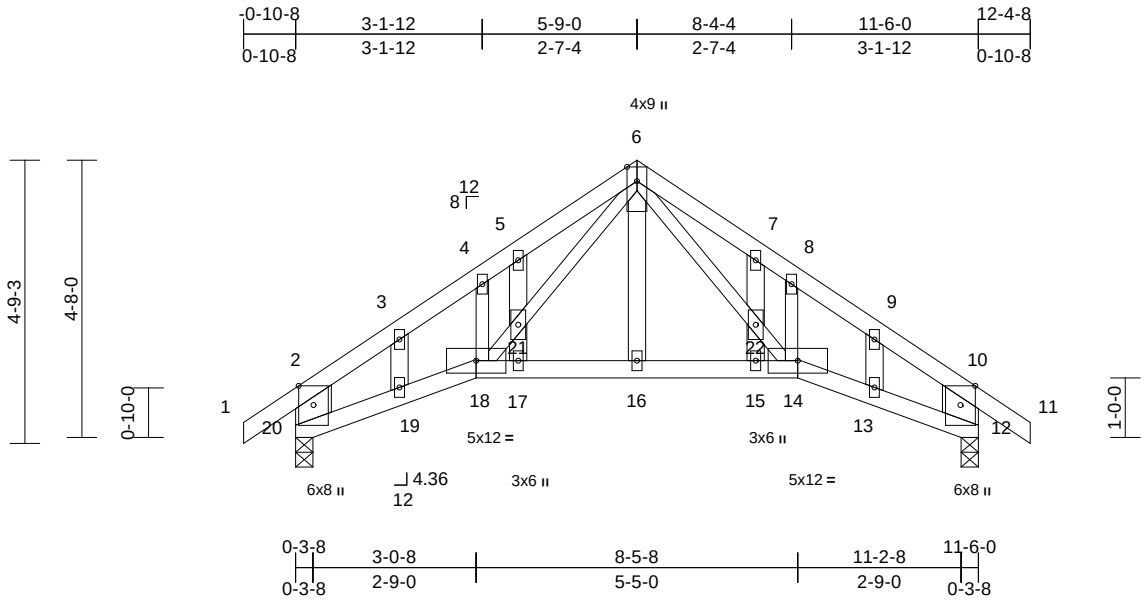

Scale = 1:38.8

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)	-0.04	15-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.08	15-16	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	17	>999	240	Weight: 55 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 20-2,12-10:2x8 SP DSS
OTHERS 2x4 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) 12=573/0-3-8, 20=573/0-3-8
Max Horiz 20=-141 (LC 6)
Max Uplift 12=-82 (LC 9), 20=-81 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/46, 2-3=-757/70, 3-4=-685/105, 4-5=-616/138, 5-6=-634/187, 6-7=-623/156, 7-8=-611/112, 8-9=-686/73, 9-10=-758/42, 10-11=0/46, 2-20=-659/97, 10-12=-659/73
BOT CHORD 19-20=-65/593, 18-19=-74/600, 17-18=0/434, 16-17=0/434, 15-16=0/438, 14-15=0/438, 13-14=0/537, 12-13=0/533
WEBS 6-22=-122/203, 14-22=-111/169, 8-14=-14/66, 18-21=-122/198, 6-21=-141/249, 4-18=0/54, 6-16=0/170, 5-21=-95/65, 17-21=-29/39, 3-19=0/51, 7-22=-82/59, 15-22=-36/44, 9-13=0/51

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) 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) Bearing at joint(s) 20, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 20 and 82 lb uplift at joint 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	E2	Roof Special	1	1	Job Reference (optional)	I47899941

Wheeler Lumber, Waverly, KS - 66871,

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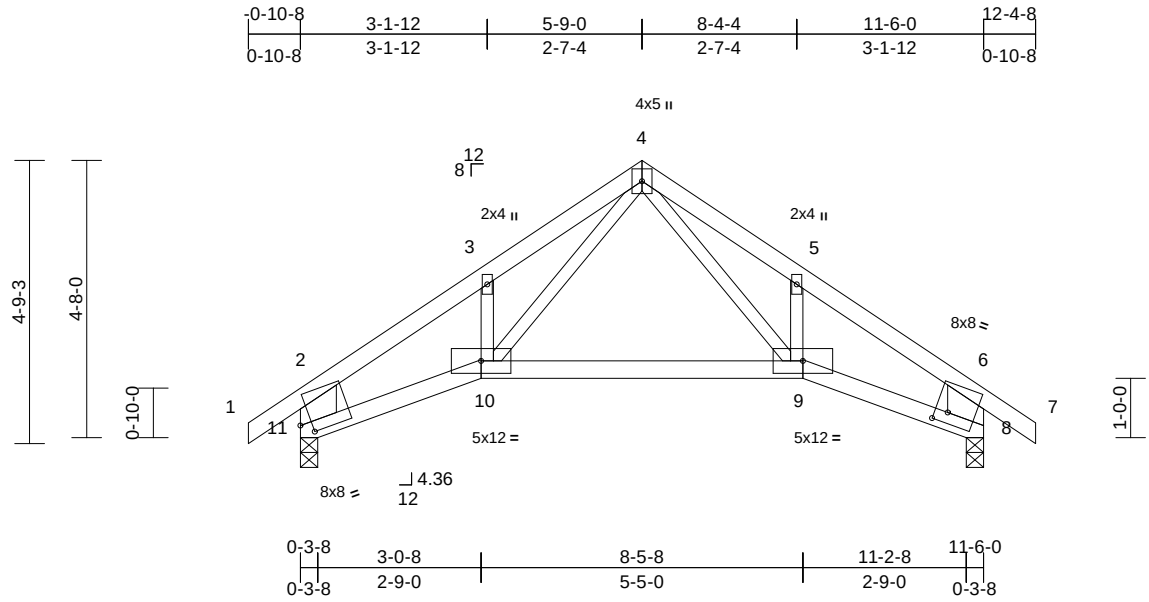

Scale = 1:38.8

Plate Offsets (X, Y): [6:0-2-9,0-2-2], [11:0-2-5,0-2-2]

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	0.61	Vert(LL)	-0.07	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.15	9-10	>863	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	9-10	>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* 11-2,8-6:2x8 SP DSS

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

REACTIONS (lb/size) 8=573/0-3-8, 11=573/0-3-8
Max Horiz 11=-142 (LC 6)
Max Uplift 8=-81 (LC 9), 11=-81 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-802/92, 3-4=-678/193, 4-5=-678/161, 5-6=-802/57, 6-7=0/46, 2-11=-691/116, 6-8=-691/89
BOT CHORD 10-11=-73/647, 9-10=0/395, 8-9=0/584
WEBS 4-9=-116/315, 5-9=-44/148, 4-10=-135/353, 3-10=-37/137

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) Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 11 and 81 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.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	E3	Roof Special	2	1	Job Reference (optional)	I47899942

Wheeler Lumber, Waverly, KS - 66871,

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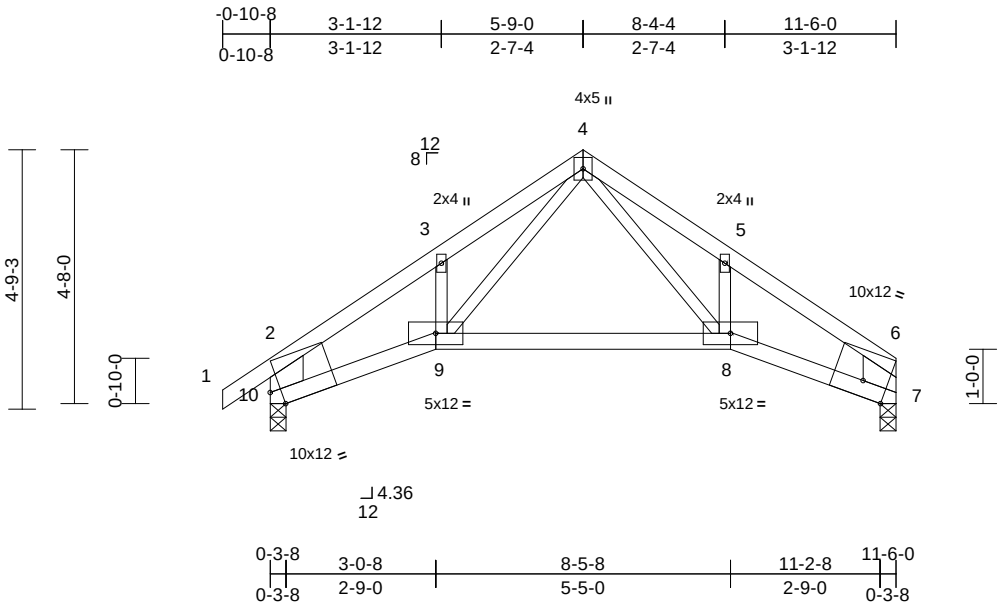

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Plate Offsets (X, Y): [6:0-5-5,Edge], [10:0-2-6,Edge]

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	0.62	Vert(LL)	-0.08	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.17	8-9	>773	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	8-9	>999	240	Weight: 44 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 10-2,7-6:2x8 SP DSS

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

REACTIONS (lb/size) 7=486/0-3-8, 10=577/0-3-8
Max Horiz 10=135 (LC 5)
Max Uplift 7=-54 (LC 9), 10=-81 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-813/102, 3-4=-687/201, 4-5=-701/181, 5-6=-804/75, 2-10=-699/122, 6-7=-587/74
BOT CHORD 9-10=-94/637, 8-9=-7/385, 7-8=-33/594
WEBS 4-8=-130/336, 5-8=-75/146, 4-9=-140/353, 3-9=-36/134

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) Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 10 and 54 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.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	E4	Half Hip	1	1	Job Reference (optional)	I47899943

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:21 Page: 1
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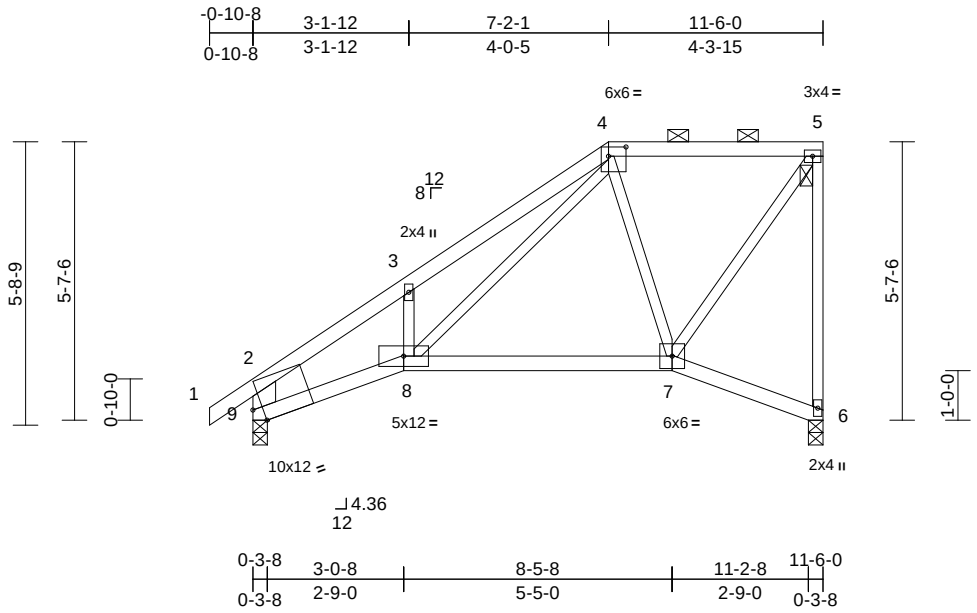

Scale = 1:46.5

Plate Offsets (X, Y): [4:0-4-4,0-2-4], [9:0-2-6,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	0.62	Vert(LL)	-0.06	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.12	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	7-8	>999	240	Weight: 48 lb	FT = 10%

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

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

REACTIONS (lb/size) 6=499/0-3-8, 9=584/0-3-8
Max Horiz 9=225 (LC 7)
Max Uplift 6=-107 (LC 5), 9=-80 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-868/140, 3-4=-803/276, 4-5=-242/80, 5-6=-480/126, 2-9=-710/139
BOT CHORD 8-9=-245/705, 7-8=-135/314, 6-7=-82/65
WEBS 3-8=-140/179, 4-7=-254/129, 5-7=-92/423, 4-8=-233/539

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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 6, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 6 and 80 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	E5	Half Hip Girder	1	**2**	Job Reference (optional)	I47899944

Wheeler Lumber, Waverly, KS - 66871,

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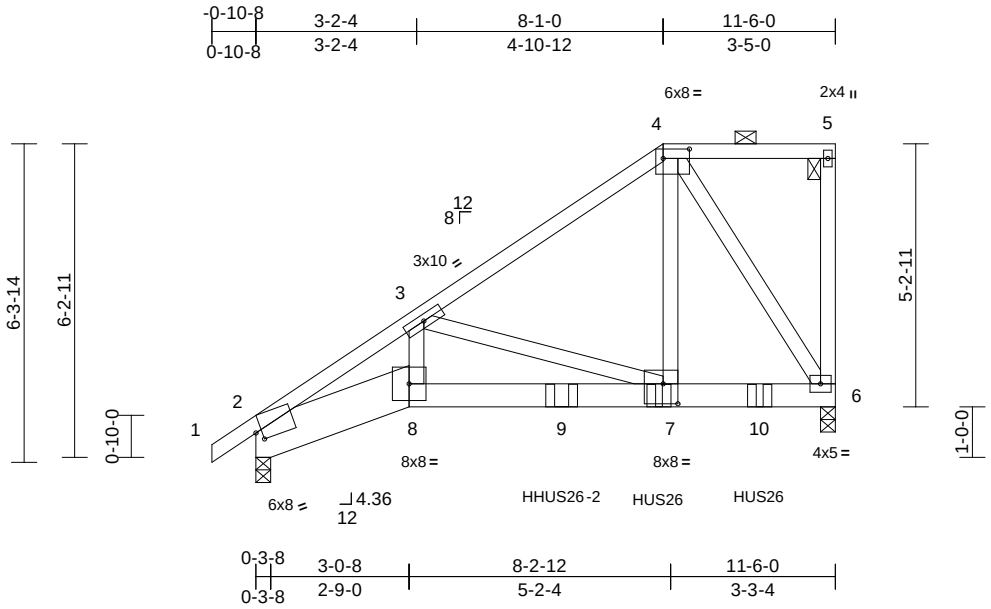

Scale = 1:45.7

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

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	0.45	Vert(LL)	-0.10	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.18	7-8	>749	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	7-8	>999	240	Weight: 146 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x10 SP DSS *Except* 8-6:2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 2=2409/0-3-8, 6=4127/0-3-8
Max Horiz 2=218 (LC 22)
Max Uplift 2=-365 (LC 8), 6=-484 (LC 5)
Max Grav 2=2421 (LC 15), 6=4289 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-6545/1061, 3-4=-3016/408, 4-5=-72/52, 5-6=-102/57
BOT CHORD 2-8=-978/5481, 7-8=-872/4892, 6-7=-394/2648
WEBS 3-8=-486/2895, 3-7=-2495/603, 4-7=-665/5249, 4-6=-4662/648

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-4-0 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) Wind: ASCE 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 484 lb uplift at joint 6 and 365 lb uplift at joint 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 6-10d Truss) or equivalent at 6-0-13 from the left end to connect truss(es) to back face of bottom chord.
12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-0-0 from the left end to 10-0-0 to connect truss(es) to back face of bottom chord.
13) 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, 4-5=-70, 2-8=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-1370 (B), 9=-2719 (B), 10=-1366 (B)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	G1	Common Supported Gable	1	1	Job Reference (optional)	I47899945

Wheeler Lumber, Waverly, KS - 66871,

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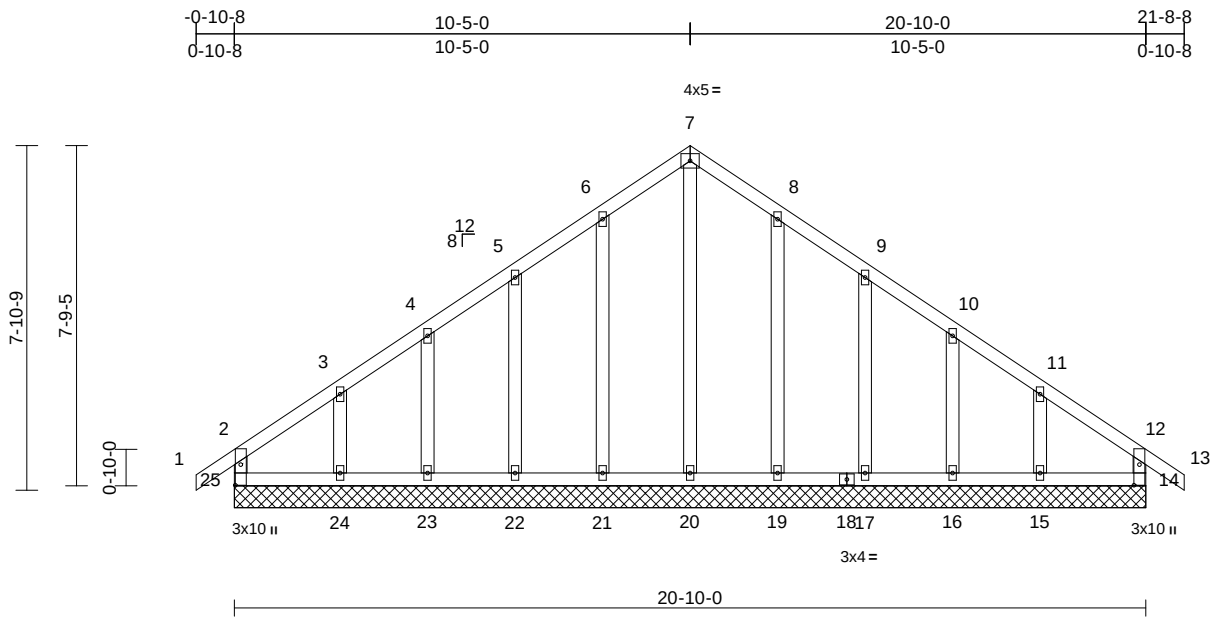

Scale = 1:52.7

Plate Offsets (X, Y): [14:0-5-10,0-1-8], [25:0-5-10,0-1-8]

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	0.07	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	0.18	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 100 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=183/20-10-0, 15=191/20-10-0, 16=177/20-10-0, 17=179/20-10-0, 19=187/20-10-0, 20=155/20-10-0, 21=187/20-10-0, 22=179/20-10-0, 23=177/20-10-0, 24=191/20-10-0, 25=183/20-10-0
Max Horiz 25=-220 (LC 6)
Max Uplift 14=-35 (LC 5), 15=-118 (LC 9), 16=-55 (LC 9), 17=-76 (LC 9), 19=-66 (LC 9), 21=-67 (LC 8), 22=-76 (LC 8), 23=-53 (LC 8), 24=-126 (LC 8), 25=-67 (LC 4)
Max Grav 14=184 (LC 15), 15=230 (LC 16), 16=177 (LC 1), 17=189 (LC 16), 19=194 (LC 16), 20=213 (LC 18), 21=195 (LC 15), 22=189 (LC 15), 23=177 (LC 1), 24=241 (LC 15), 25=209 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-25=-175/63, 1-2=0/40, 2-3=-149/132, 3-4=-113/110, 4-5=-102/147, 5-6=-88/186, 6-7=-75/218, 7-8=-63/207, 8-9=-57/165, 9-10=-72/126, 10-11=-84/90, 11-12=-113/89, 12-13=0/40, 12-14=-162/42
BOT CHORD 24-25=-90/111, 23-24=-90/111, 22-23=-90/111, 21-22=-90/111, 20-21=-90/111, 19-20=-90/111, 17-19=-90/111, 16-17=-90/111, 15-16=-90/111, 14-15=-90/111
WEBS 7-20=-184/2, 6-21=-156/91, 5-22=-147/99, 4-23=-139/83, 3-24=-177/130, 8-19=-155/90, 9-17=-147/99, 10-16=-140/84, 11-15=-171/126

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 67 lb uplift at joint 25, 35 lb uplift at joint 14, 67 lb uplift at joint 21, 76 lb uplift at joint 22, 53 lb uplift at joint 23, 126 lb uplift at joint 24, 66 lb uplift at joint 19, 76 lb uplift at joint 17, 55 lb uplift at joint 16 and 118 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	G2	Common	1	1	Job Reference (optional)	I47899946

Wheeler Lumber, Waverly, KS - 66871,

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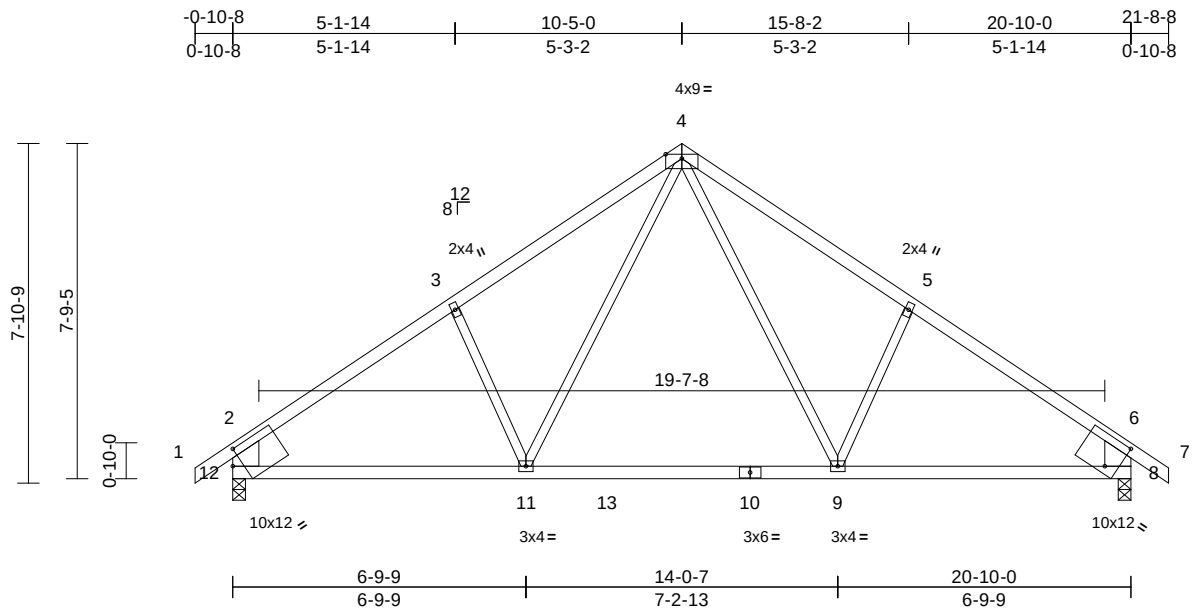

Scale = 1:53.4

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

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	0.83	Vert(LL)	-0.22	9-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.35	9-11	>694	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	9-11	>999	240	Weight: 78 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
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 3-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 8=993/0-3-8, 12=993/0-3-8
Max Horiz 12=-224 (LC 6)
Max Uplift 8=-129 (LC 9), 12=-129 (LC 8)
Max Grav 8=1071 (LC 16), 12=1071 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-1239/151, 3-4=-1127/225, 4-5=-1126/225, 5-6=-1239/151, 6-7=0/46, 2-12=-946/164, 6-8=-945/164
BOT CHORD 11-12=-143/1057, 9-11=0/740, 8-9=-34/929
WEBS 4-9=-129/515, 5-9=-243/221, 4-11=-129/516, 3-11=-243/221

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 129 lb uplift at joint 12 and 129 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	G3	GABLE	1	1	Job Reference (optional)	I47899947

Wheeler Lumber, Waverly, KS - 66871,

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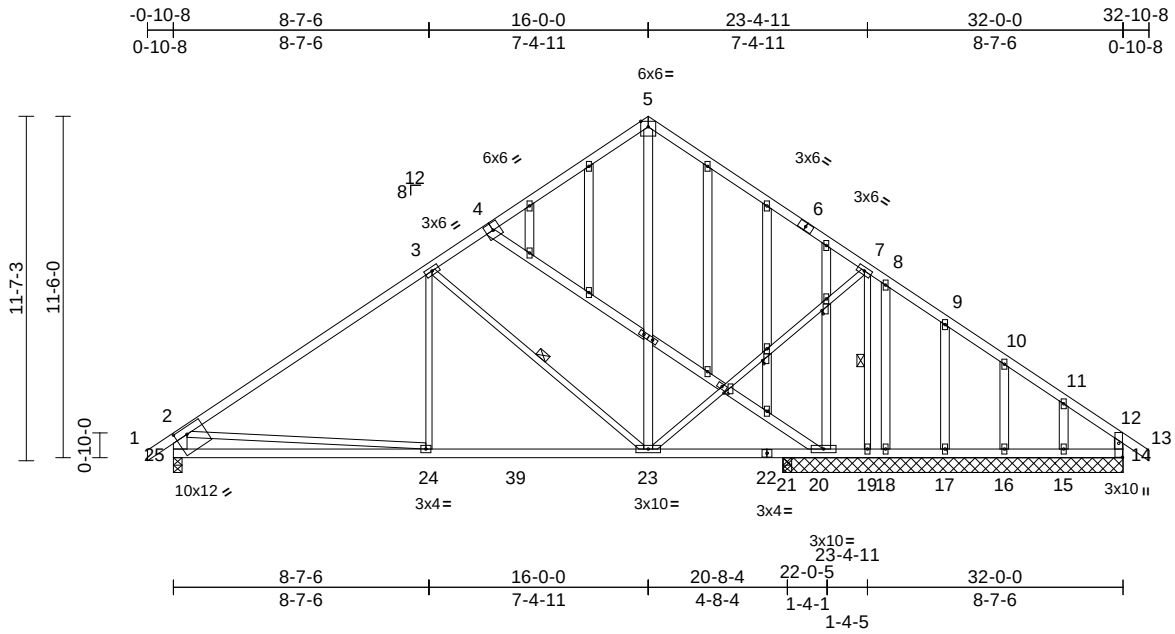

Scale = 1:77.6

Plate Offsets (X, Y): [14:0-5-10,0-1-8], [25:0-4-12,0-2-12], [27:0-0-5,0-1-10], [36:0-1-4,0-0-8], [38:0-1-4,0-0-8]

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	0.76	Vert(LL)	-0.11	24-25	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.24	24-25	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.02	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	24-25	>999	240	Weight: 191 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 23-5,4-26,26-27,27-20:2x4 SPF No.2, 25-2:2x6 SPF No.2, 14-12:2x4 SPF 2400F 2.0E
OTHERS 2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
8-10-3 oc bracing: 24-25
10-0-0 oc bracing: 23-24.
WEBS 1 Row at midpt 7-19, 3-23

REACTIONS (lb/size) 14=200/11-5-8, 15=142/11-5-8, 16=210/11-5-8, 17=94/11-5-8, 18=-129/11-5-8, 19=1296/11-5-8, 20=-32/11-5-8, 21=108/0-3-8, 25=1106/0-3-8
Max Horiz 25=-318 (LC 6)
Max Uplift 14=-6 (LC 9), 15=-89 (LC 9), 16=-73 (LC 9), 17=-45 (LC 9), 18=-215 (LC 22), 19=-299 (LC 9), 20=-32 (LC 1), 25=-166 (LC 8)
Max Grav 14=227 (LC 22), 15=206 (LC 16), 16=240 (LC 16), 17=133 (LC 16), 18=262 (LC 9), 19=1308 (LC 16), 20=9 (LC 8), 21=160 (LC 3), 25=1197 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-1372/192, 3-5=-749/247, 5-7=-740/247, 7-8=0/153, 8-9=-73/167, 9-10=-122/115, 10-11=-107/52, 11-12=-121/55, 12-13=0/40, 2-25=-1066/214, 12-14=-198/26
BOT CHORD 24-25=-432/929, 23-24=-185/1220, 21-23=-38/61, 20-21=-38/61, 19-20=-38/61, 18-19=-38/61, 17-18=-38/61, 16-17=-38/61, 15-16=-38/61, 14-15=-38/61
WEBS 5-23=-98/290, 7-23=-21/736, 7-19=-1262/312, 3-23=-815/278, 3-24=0/373, 2-24=-15/486, 8-18=-246/237, 9-17=-64/69, 10-16=-172/100, 11-15=-132/102

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, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 25, 299 lb uplift at joint 19, 6 lb uplift at joint 14, 32 lb uplift at joint 20, 215 lb uplift at joint 18, 45 lb uplift at joint 17, 73 lb uplift at joint 16 and 89 lb uplift at joint 15.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	G4	Common	7	1	Job Reference (optional)	I47899948

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:23 Page: 1
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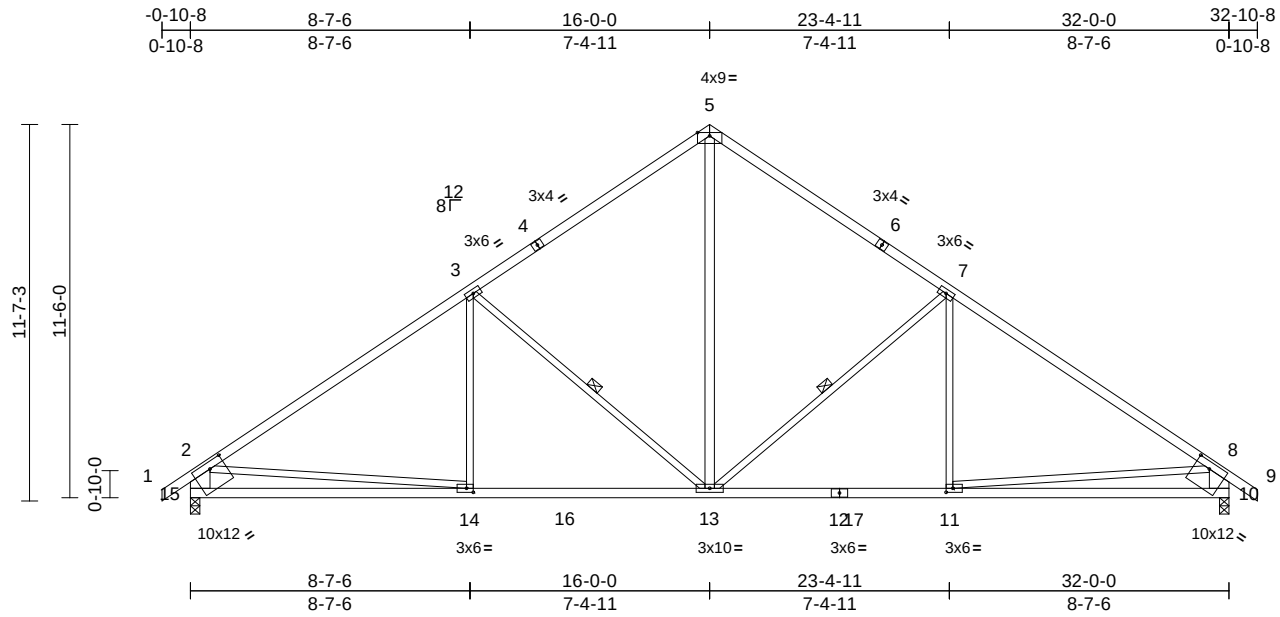

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Plate Offsets (X, Y): [10:0-5-8,0-2-8], [11:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:0-5-8,0-2-8]

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	0.80	Vert(LL)	-0.12	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.25	10-11	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.05	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	13-14	>999	240	Weight: 137 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-5:2x4 SPF No.2, 15-2,10-8:2x8 SP DSS

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

REACTIONS (lb/size) 10=1495/0-3-8, 15=1495/0-3-8
Max Horiz 15=321 (LC 7)
Max Uplift 10=-187 (LC 9), 15=-187 (LC 8)
Max Grav 10=1629 (LC 16), 15=1629 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-2044/223, 3-5=-1474/282, 5-7=-1475/282, 7-8=-2044/224, 8-9=0/46, 2-15=-1494/235, 8-10=-1494/234
BOT CHORD 14-15=-414/931, 13-14=-209/1779, 11-13=-48/1600, 10-11=-250/704
WEBS 5-13=-138/1080, 7-13=-749/275, 7-11=0/323, 3-13=-749/276, 3-14=0/323, 2-14=0/1035, 8-11=0/1048

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 187 lb uplift at joint 15 and 187 lb uplift at joint 10.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	G5	Common	3	1	Job Reference (optional)	I47899949

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:24 Page: 1
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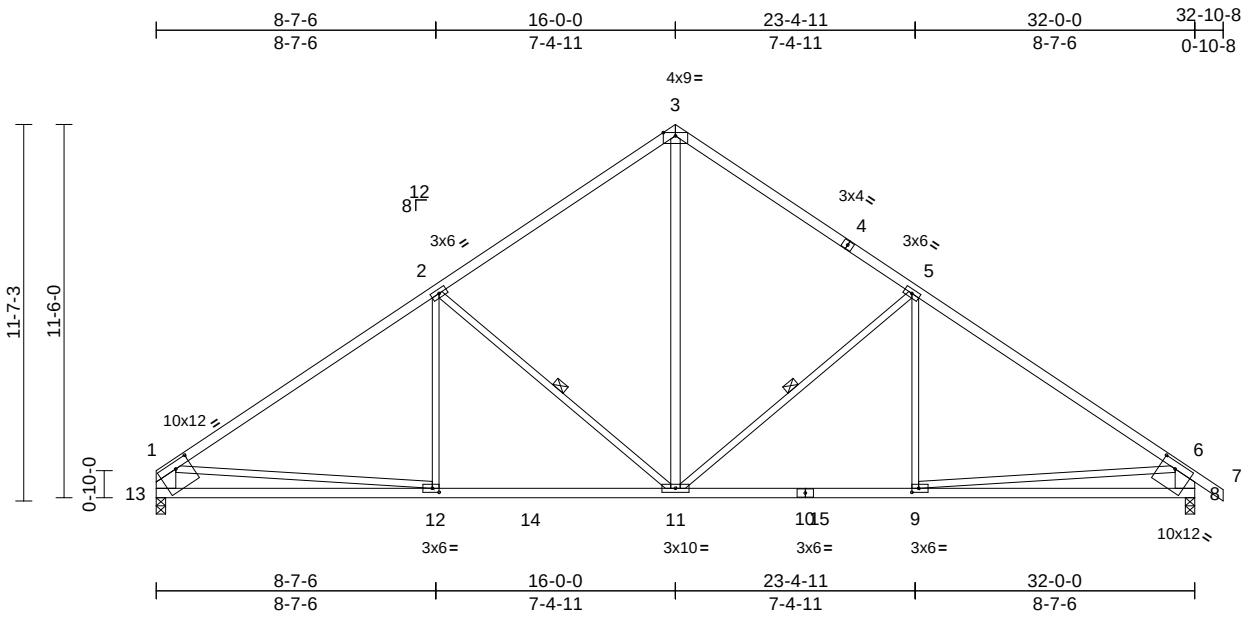

Scale = 1:71

Plate Offsets (X, Y): [1:0-5-8,0-2-8], [8:0-5-8,0-2-8], [9:0-2-8,0-1-8], [12:0-2-8,0-1-8]

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	0.80	Vert(LL)	-0.12	9-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.25	8-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	11-12	>999	240	Weight: 136 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-3:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-3:2x4 SPF No.2, 13-1,8-6:2x8 SP DSS

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

REACTIONS (lb/size) 8=1497/0-3-8, 13=1411/0-3-8
Max Horiz 13=-314 (LC 4)
Max Uplift 8=-187 (LC 9), 13=-160 (LC 8)
Max Grav 8=1630 (LC 16), 13=1552 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2043/221, 2-3=-1479/283, 3-5=-1477/282, 5-6=-2046/223, 6-7=0/46, 1-13=-1416/206, 6-8=-1495/234
BOT CHORD 12-13=-283/741, 11-12=-214/1792, 9-11=-49/1602, 8-9=-250/704
WEBS 3-11=-144/1091, 5-11=-749/275, 5-9=0/323, 2-11=-764/283, 2-12=0/318, 1-12=-19/1166, 6-9=0/1052

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 160 lb uplift at joint 13 and 187 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	I47899950

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:24 ID:xiYuNI8SjRINtFIH4xtCEeydjtg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

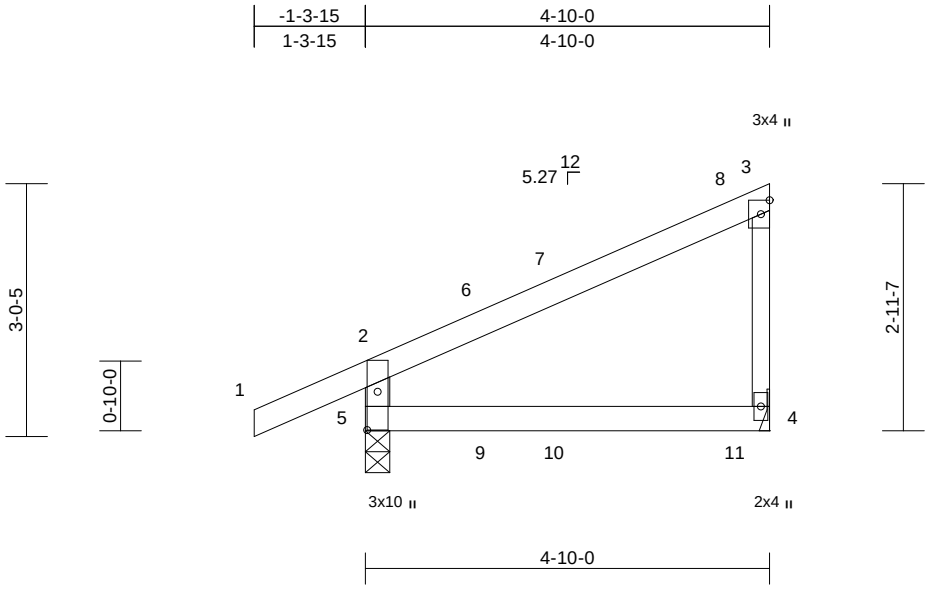

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Plate Offsets (X, Y): [5:0-5-8,0-1-8]

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	0.30	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.04	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 5-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=233/ Mechanical, 5=324/0-3-8
Max Horiz 5=123 (LC 7)
Max Uplift 4=-81 (LC 5), 5=-74 (LC 8)
Max Grav 4=242 (LC 15), 5=324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-290/102, 1-2=0/41, 2-3=-143/52, 3-4=-166/100
BOT CHORD 4-5=-31/41

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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 74 lb uplift at joint 5 and 81 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 77 lb down and 17 lb up at 1-7-0, and 74 lb down and 31 lb up at 2-5-9, and 88 lb down and 65 lb up at 4-7-7 on top chord, and 6 lb down and 7 lb up at 1-7-0, and 7 lb down and 10 lb up at 2-5-9, and 27 lb down at 4-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-32 (F), 9=5 (F), 10=3 (B), 11=-18 (F)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J2	Jack-Open	2	1	Job Reference (optional)	I47899951

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:24 Page: 1
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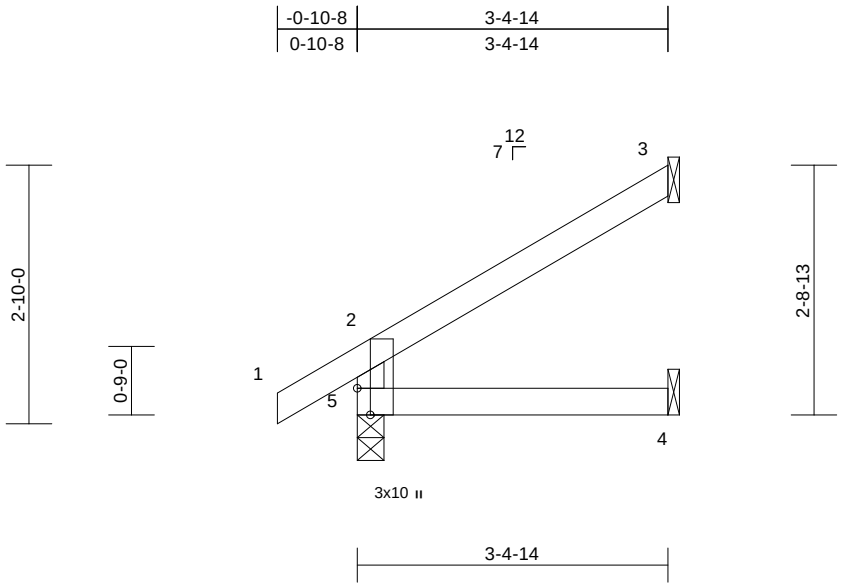

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Plate Offsets (X, Y): [5:0-3-8,Edge]

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	0.14	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	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: 10 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=96/ Mechanical, 4=36/ Mechanical, 5=227/0-3-8
Max Horiz 5=90 (LC 8)
Max Uplift 3=-63 (LC 8), 5=-19 (LC 8)
Max Grav 3=102 (LC 15), 4=60 (LC 3), 5=227 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-199/53, 1-2=0/36, 2-3=-74/42
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 19 lb uplift at joint 5 and 63 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J3	Jack-Open	7	1	Job Reference (optional)	I47899952

Wheeler Lumber, Waverly, KS - 66871,

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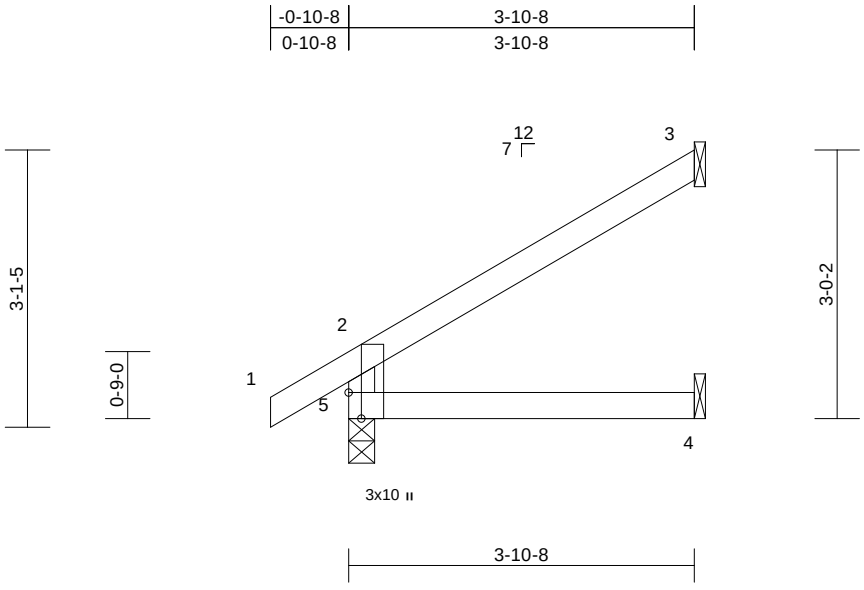

Scale = 1:25.8

Plate Offsets (X, Y): [5:0-3-8,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	0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=112/ Mechanical, 4=43/ Mechanical, 5=246/0-3-8
Max Horiz 5=101 (LC 8)
Max Uplift 3=-72 (LC 8), 5=-19 (LC 8)
Max Grav 3=118 (LC 15), 4=69 (LC 3), 5=246 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-216/57, 1-2=0/36, 2-3=-84/49
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 19 lb uplift at joint 5 and 72 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J4	Jack-Open	2	1	Job Reference (optional)	I47899953

Wheeler Lumber, Waverly, KS - 66871,

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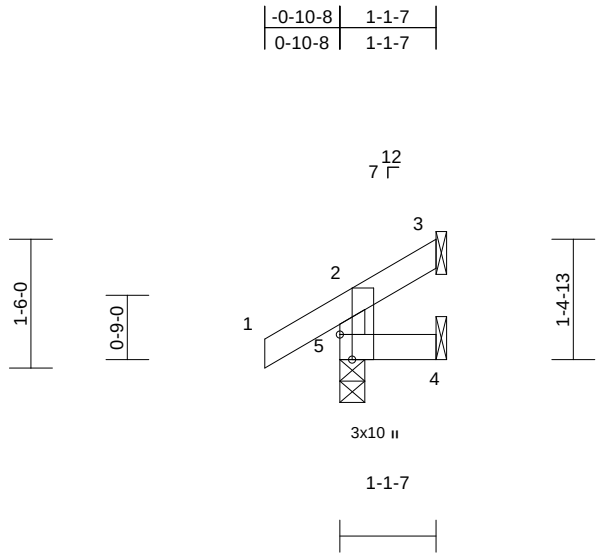

Scale = 1:26.8

Plate Offsets (X, Y): [5:0-3-8,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	0.07	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	5	>999	240	Weight: 4 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 1-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=6/ Mechanical, 4=-1/ Mechanical, 5=153/0-3-8
Max Horiz 5=36 (LC 8)
Max Uplift 3=-16 (LC 8), 4=-2 (LC 5), 5=-22 (LC 8)
Max Grav 3=12 (LC 15), 4=15 (LC 3), 5=153 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-133/35, 1-2=0/36, 2-3=-31/5
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 22 lb uplift at joint 5, 2 lb uplift at joint 4 and 16 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J5	Jack-Open	3	1	Job Reference (optional)	I47899954

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:25 Page: 1
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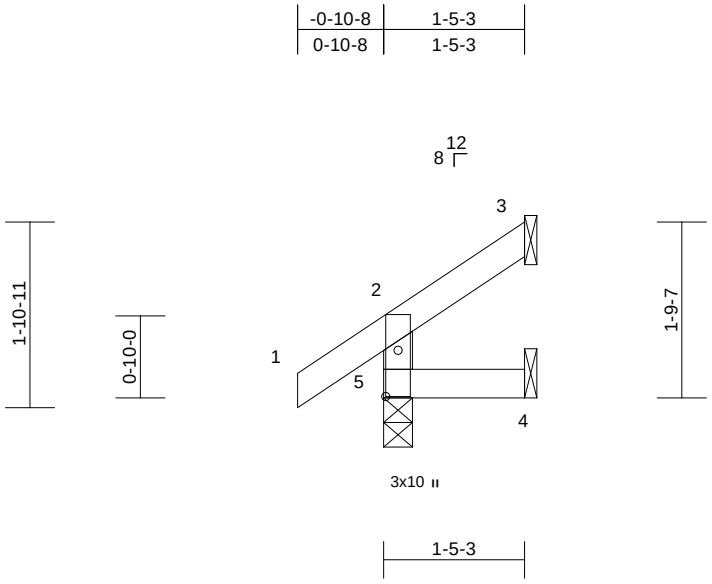

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Plate Offsets (X, Y): [5:0-5-10,0-1-8]

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	0.07	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 5 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 1-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=23/ Mechanical, 4=6/ Mechanical, 5=157/0-3-8
Max Horiz 5=50 (LC 8)
Max Uplift 3=-29 (LC 8), 4=-4 (LC 8), 5=-12 (LC 8)
Max Grav 3=30 (LC 15), 4=22 (LC 3), 5=157 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-138/31, 1-2=0/40, 2-3=-39/13
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 12 lb uplift at joint 5, 4 lb uplift at joint 4 and 29 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J6	Diagonal Hip Girder	1	1	Job Reference (optional)	I47899955

Wheeler Lumber, Waverly, KS - 66871,

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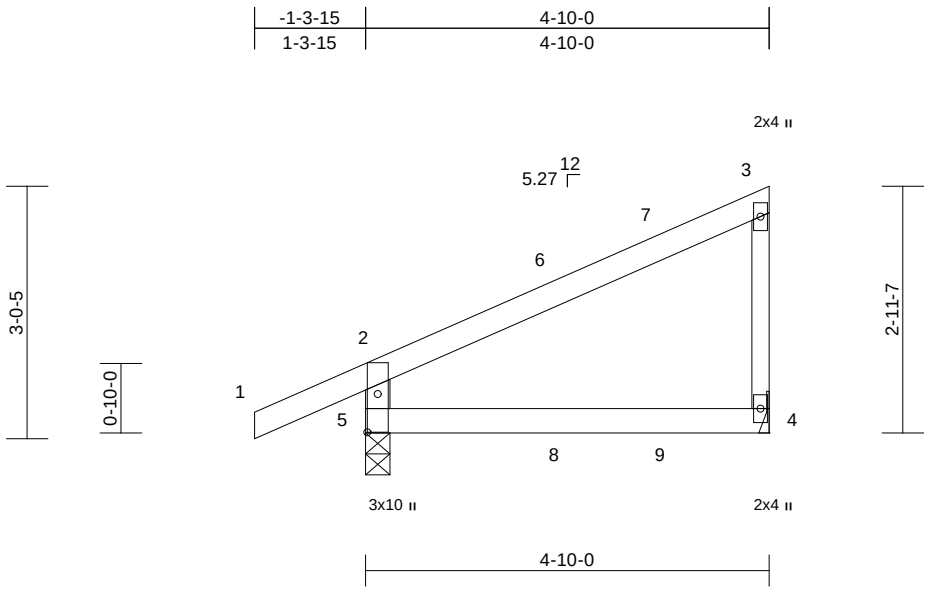

Scale = 1:27.6

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

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	0.29	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.04	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 5-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=190/ Mechanical, 5=325/0-3-8
Max Horiz 5=123 (LC 5)
Max Uplift 4=-61 (LC 5), 5=-71 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-288/102, 1-2=0/41, 2-3=-133/38, 3-4=-136/73
BOT CHORD 4-5=-32/40

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 71 lb uplift at joint 5 and 61 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 31 lb up at 2-5-9, and 88 lb down and 58 lb up at 3-8-13 on top chord, and 7 lb down and 10 lb up at 2-5-9, and 14 lb down at 3-8-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=3 (B), 9=-2 (F)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899956
RR89	J7	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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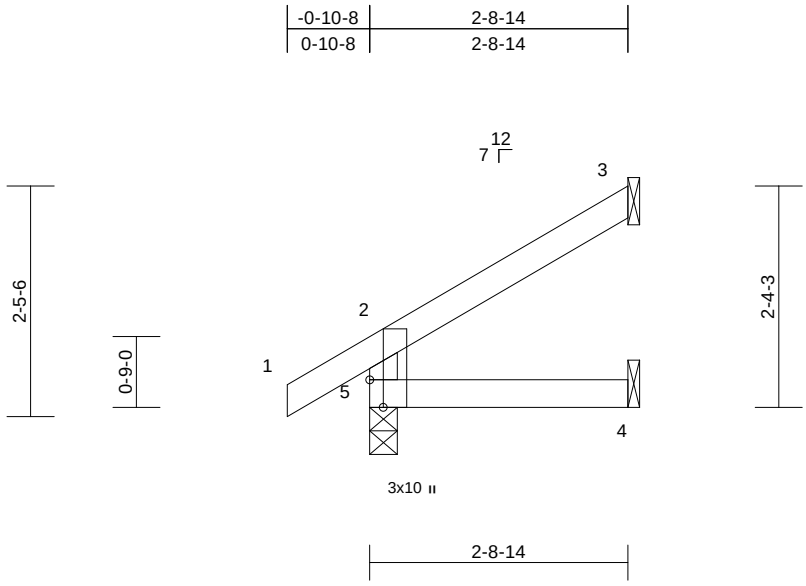

Scale = 1:24.4

Plate Offsets (X, Y): [5:0-3-8,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	0.08	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=73/ Mechanical, 4=26/ Mechanical, 5=200/0-3-8
Max Horiz 5=74 (LC 8)
Max Uplift 3=-50 (LC 8), 5=-18 (LC 8)
Max Grav 3=79 (LC 15), 4=47 (LC 3), 5=200 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-175/46, 1-2=0/36, 2-3=-59/32
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 18 lb uplift at joint 5 and 50 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J8	Diagonal Hip Girder	1	1	Job Reference (optional)	I47899957

Wheeler Lumber, Waverly, KS - 66871,

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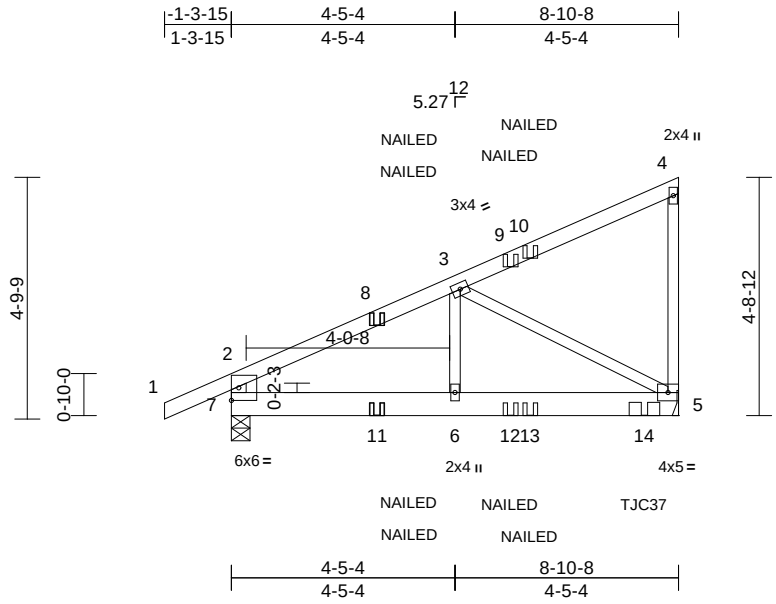

Scale = 1:45.7

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	0.33	Vert(LL)	-0.02	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	5-6	>999	240	Weight: 38 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 7-2:2x4 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) 5=616/ Mechanical, 7=537/0-4-7
Max Horiz 7=196 (LC 22)
Max Uplift 5=-216 (LC 8), 7=-123 (LC 8)
Max Grav 5=627 (LC 15), 7=537 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-458/134, 1-2=0/41, 2-3=-632/129, 3-4=-161/62, 4-5=-138/70
BOT CHORD 6-7=-200/474, 5-6=-200/474
WEBS 3-6=0/203, 3-5=-512/209

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) The Fabrication Tolerance at joint 7 = 6%, joint 7 = 6%
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 123 lb uplift at joint 7 and 216 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Use Simpson Strong-Tie TJC37 (4 nail, 30-90) or equivalent at 8-2-6 from the left end to connect truss(es) to front face of bottom chord, skewed 41.2 deg.to the left, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 9=-10 (F), 10=-28 (B), 11=1 (F), 12=-12 (F), 13=-22 (B), 14=-203 (F)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J9	Jack-Closed	1	1	Job Reference (optional)	I47899958

Wheeler Lumber, Waverly, KS - 66871,

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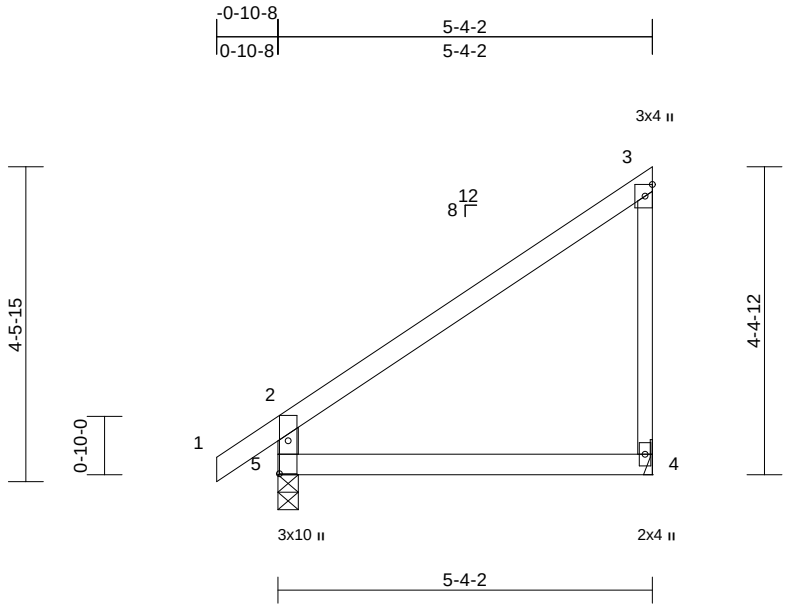

Scale = 1:32.9

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

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	0.36	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.06	4-5	>977	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	4-5	>999	240	Weight: 18 lb	FT = 10%

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

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

REACTIONS (lb/size) 4=222/ Mechanical, 5=308/0-3-8
Max Horiz 5=170 (LC 5)
Max Uplift 4=-73 (LC 8), 5=-36 (LC 8)
Max Grav 4=248 (LC 15), 5=308 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-270/81, 1-2=0/40, 2-3=-167/94, 3-4=-179/89
BOT CHORD 4-5=-55/51

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 36 lb uplift at joint 5 and 73 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.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J10	Jack-Open	14	1	Job Reference (optional)	I47899959

Wheeler Lumber, Waverly, KS - 66871,

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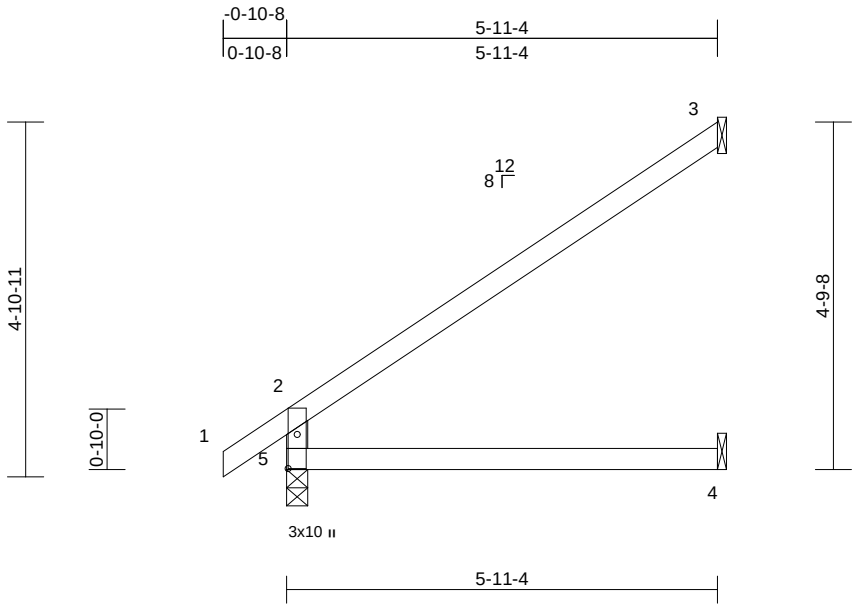

Scale = 1:31.8

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

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	0.52	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.11	4-5	>600	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.05	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.05	4-5	>999	240	Weight: 17 lb	FT = 10%

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

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

REACTIONS (lb/size) 3=179/ Mechanical, 4=72/ Mechanical, 5=336/0-3-8
Max Horiz 5=119 (LC 8)
Max Uplift 3=-75 (LC 8)
Max Grav 3=185 (LC 13), 4=109 (LC 3), 5=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-294/30, 1-2=0/40, 2-3=-127/84
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); 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 75 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J11	Jack-Open	1	1	Job Reference (optional)	I47899960

Wheeler Lumber, Waverly, KS - 66871,

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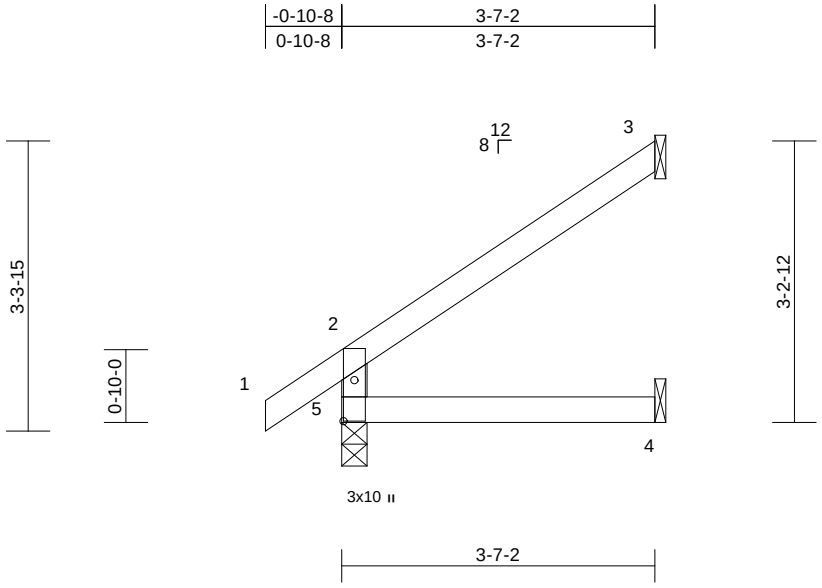

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Plate Offsets (X, Y): [5:0-5-10,0-1-8]

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	0.16	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	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 3-7-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=103/ Mechanical, 4=39/ Mechanical, 5=235/0-3-8
Max Horiz 5=107 (LC 8)
Max Uplift 3=-75 (LC 8), 5=-7 (LC 8)
Max Grav 3=111 (LC 15), 4=64 (LC 3), 5=235 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-206/46, 1-2=0/40, 2-3=-88/51
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 7 lb uplift at joint 5 and 75 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899961
RR89	J12	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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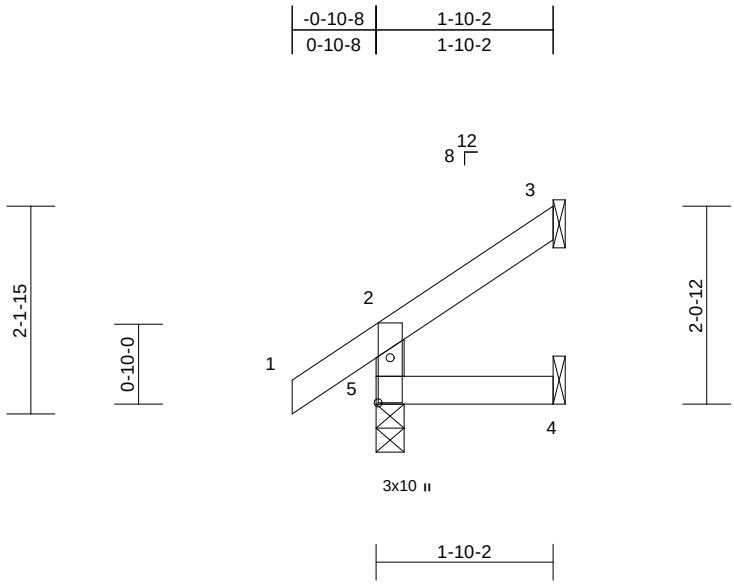

Scale = 1:24

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

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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 1-10-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=41/ Mechanical, 4=13/ Mechanical, 5=169/0-3-8
Max Horiz 5=61 (LC 8)
Max Uplift 3=-39 (LC 8), 4=-2 (LC 8), 5=-11 (LC 8)
Max Grav 3=48 (LC 15), 4=30 (LC 3), 5=169 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-148/33, 1-2=0/40, 2-3=-48/21
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 11 lb uplift at joint 5, 2 lb uplift at joint 4 and 39 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J13	Jack-Open	1	1	Job Reference (optional)	I47899962

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:26 Page: 1
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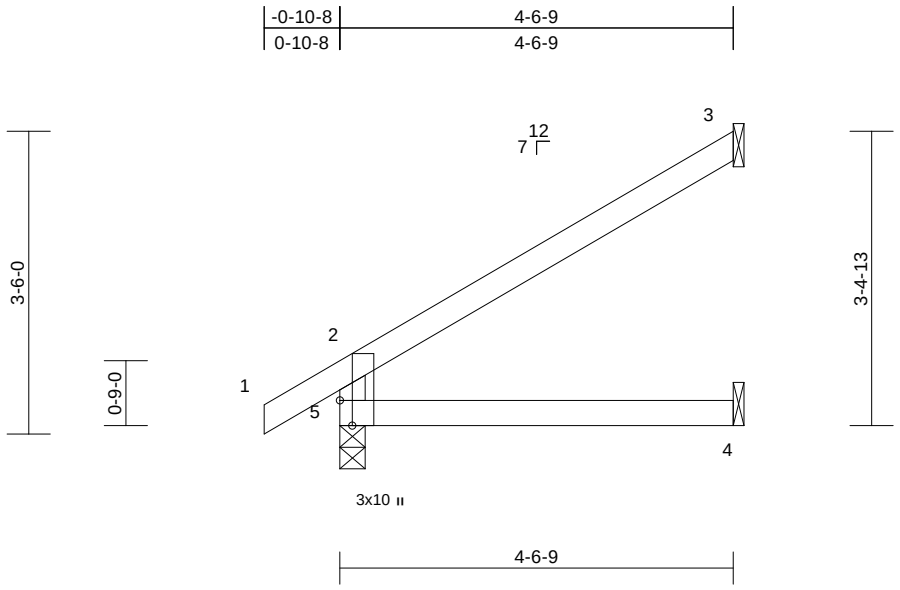

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Plate Offsets (X, Y): [5:0-3-8,Edge]

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	0.28	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.04	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240	Weight: 13 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=134/ Mechanical, 4=53/ Mechanical, 5=275/0-3-8
Max Horiz 5=117 (LC 8)
Max Uplift 3=-84 (LC 8), 5=-19 (LC 8)
Max Grav 3=141 (LC 15), 4=82 (LC 3), 5=275 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-241/64, 1-2=0/36, 2-3=-99/58
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 19 lb uplift at joint 5 and 84 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J14	Jack-Open	2	1	Job Reference (optional)	I47899963

Wheeler Lumber, Waverly, KS - 66871,

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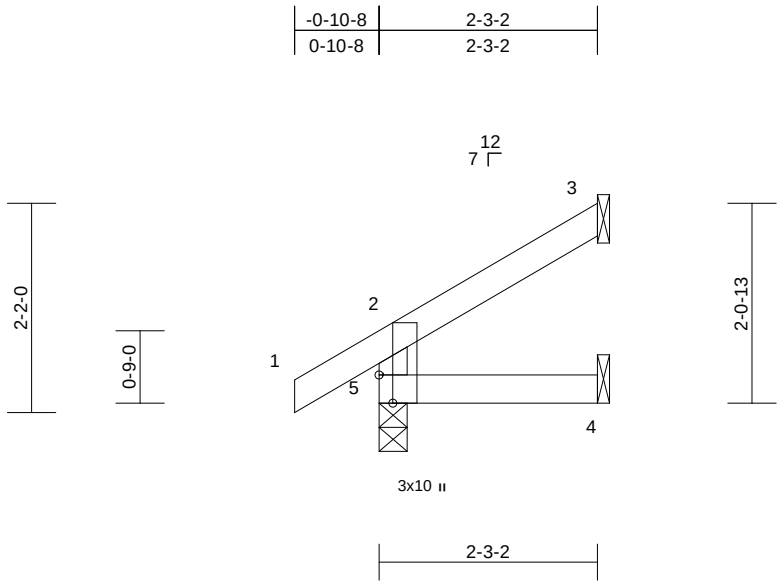

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Plate Offsets (X, Y): [5:0-3-8,Edge]

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	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 7 lb	FT = 10%

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

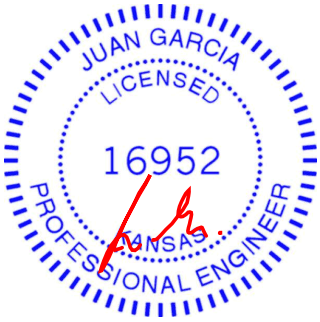
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=56/ Mechanical, 4=19/ Mechanical, 5=182/0-3-8
Max Horiz 5=62 (LC 8)
Max Uplift 3=-41 (LC 8), 5=-19 (LC 8)
Max Grav 3=61 (LC 15), 4=38 (LC 3), 5=182 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-159/42, 1-2=0/36, 2-3=-49/25
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 19 lb uplift at joint 5 and 41 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



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J15	Jack-Open	2	1	Job Reference (optional)	I47899964

Wheeler Lumber, Waverly, KS - 66871,

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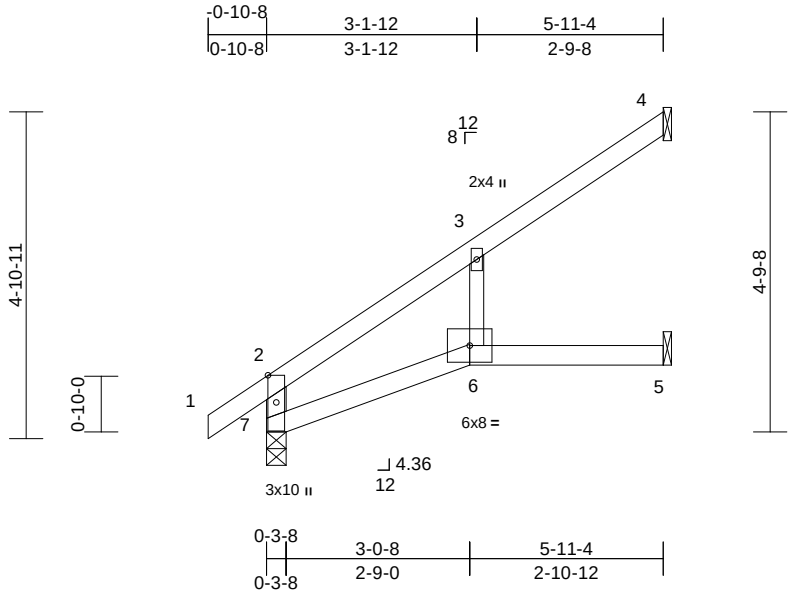

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	6	>828	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.15	6-7	>456	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.06	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.13	6-7	>536	240	Weight: 18 lb	FT = 10%

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

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

REACTIONS (lb/size) 4=149/ Mechanical, 5=102/ Mechanical, 7=336/0-3-8
Max Horiz 7=170 (LC 8)
Max Uplift 4=-89 (LC 8), 5=-28 (LC 8), 7=-3 (LC 8)
Max Grav 4=159 (LC 15), 5=109 (LC 15), 7=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-234/0, 1-2=0/40, 2-3=-146/49, 3-4=-66/79
BOT CHORD 6-7=-38/19, 5-6=0/0
WEBS 3-6=-95/100

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 7, 89 lb uplift at joint 4 and 28 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	I47899965
RR89	J16	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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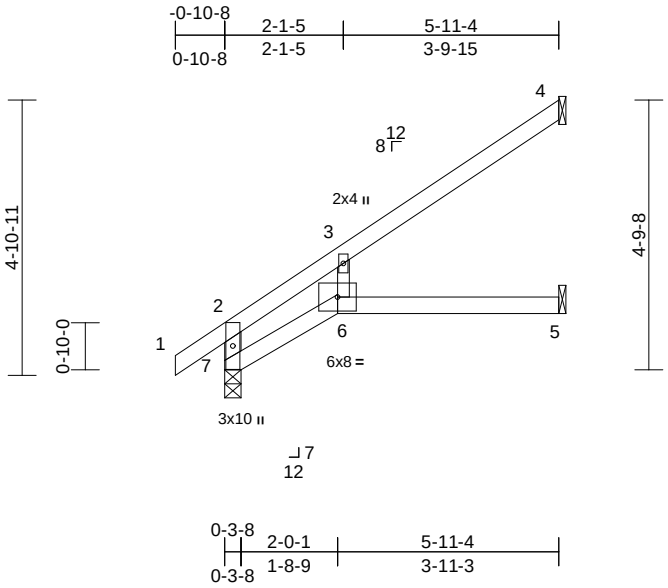


Scale = 1:40.9

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	0.40	Vert(LL)	-0.08	5-6	>885	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.14	5-6	>476	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P		Wind(LL)	0.09	5-6	>800	240	Weight: 18 lb	FT = 10%

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

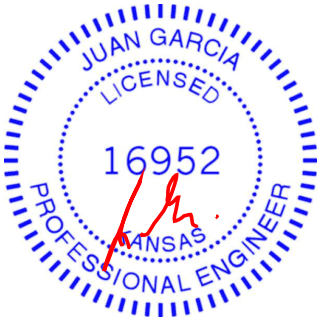
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 4=162/ Mechanical, 5=90/ Mechanical, 7=336/0-3-8
Max Horiz 7=119 (LC 8)
Max Uplift 4=-62 (LC 8)
Max Grav 4=167 (LC 13), 5=103 (LC 3), 7=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-198/0, 1-2=0/40, 2-3=-128/45, 3-4=-57/81
BOT CHORD 6-7=-78/29, 5-6=0/0
WEBS 3-6=-116/88

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 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) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 4.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J17	Jack-Open	4	1	Job Reference (optional)	I47899966

Wheeler Lumber, Waverly, KS - 66871,

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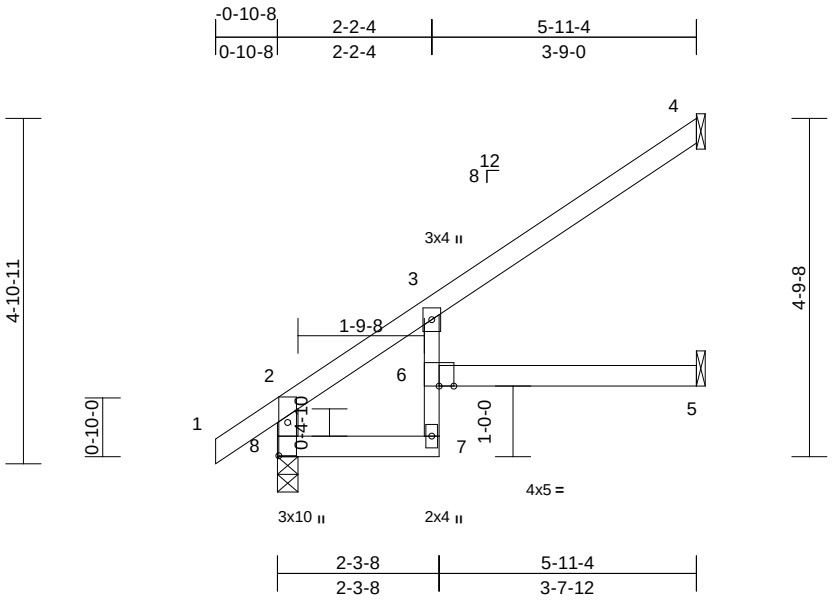

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Plate Offsets (X, Y): [8:0-5-10,0-1-8]

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	0.44	Vert(LL)	-0.08	5-6	>846	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.15	5-6	>467	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.07	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.08	5-6	>827	240	Weight: 18 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 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=169/ Mechanical, 5=82/ Mechanical, 8=336/0-3-8
Max Horiz 8=119 (LC 8)
Max Uplift 4=-63 (LC 8)
Max Grav 4=175 (LC 13), 5=98 (LC 3), 8=336 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-316/7, 1-2=0/40, 2-3=-235/0, 3-4=-57/85
BOT CHORD 7-8=-55/133, 6-7=-6/44, 3-6=0/94, 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); 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 63 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.

LOAD CASE(S) Standard

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J18	Diagonal Hip Girder	1	1	Job Reference (optional)	I47899967

Wheeler Lumber, Waverly, KS - 66871,

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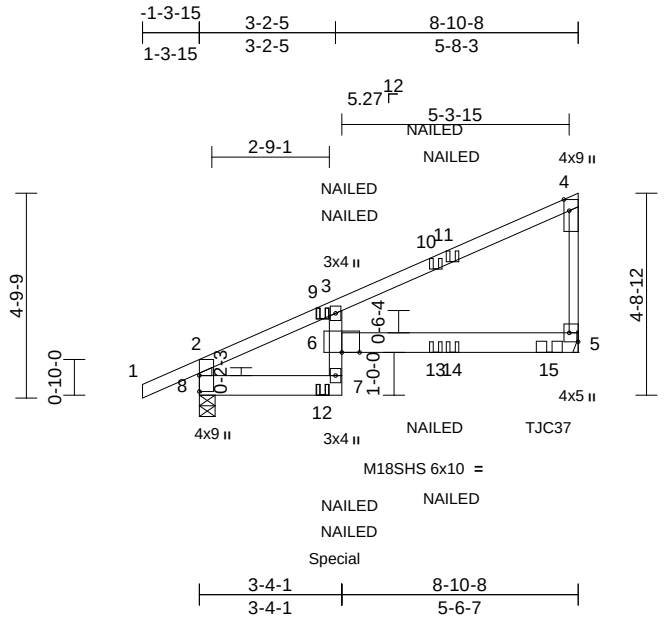

Scale = 1:54

Plate Offsets (X, Y): [4:0-3-3,Edge], [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	0.81	Vert(LL)	-0.20	5-6	>511	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.36	5-6	>287	240	M18SHS	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.11	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.25	5-6	>411	240	Weight: 33 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 7-3:2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-5:2x3 SPF No.2

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

REACTIONS (lb/size) 5=624/ Mechanical, 8=542/0-4-7
Max Horiz 8=179 (LC 5)
Max Uplift 5=-243 (LC 8), 8=-135 (LC 8)
Max Grav 5=632 (LC 15), 8=542 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-484/152, 1-2=0/41, 2-3=-636/159, 3-4=-178/44, 4-5=-218/104
BOT CHORD 7-8=-221/473, 6-7=-1/47, 3-6=-27/91, 5-6=-57/81

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) All plates are MT20 plates unless otherwise indicated.
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 135 lb uplift at joint 8 and 243 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 8-2-6 from the left end to connect truss(es) to back face of bottom chord, skewed 41.2 deg.to the right, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 7 lb down at 3-2-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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=-6 (B), 11=-16 (F), 12=1 (B), 13=-30 (B), 14=-35 (F), 15=-203 (B)

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J19	Jack-Open	1	1	Job Reference (optional)	I47899968

Wheeler Lumber, Waverly, KS - 66871,

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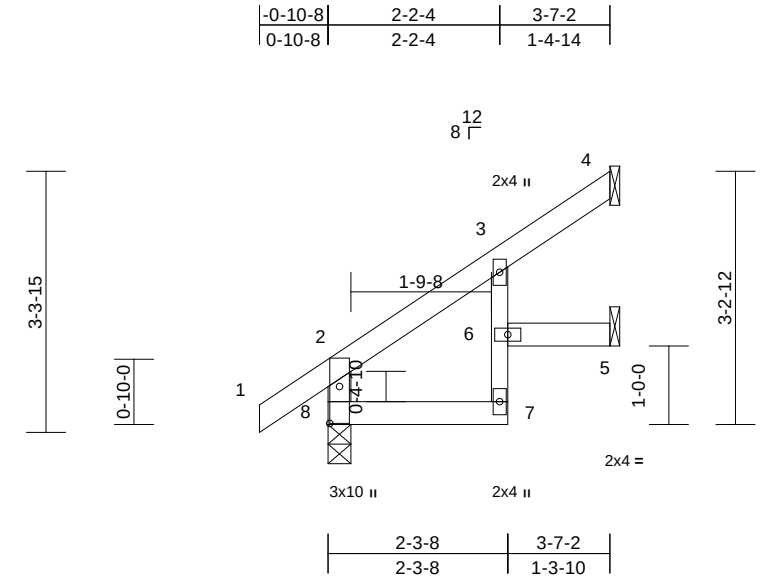

Scale = 1:29.4

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

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	0.09	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.01	6	>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 3-7-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=85/ Mechanical, 5=56/ Mechanical, 8=235/0-3-8
Max Horiz 8=107 (LC 8)
Max Uplift 4=-48 (LC 8), 5=-25 (LC 8), 8=-7 (LC 8)
Max Grav 4=91 (LC 15), 5=63 (LC 15), 8=235 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-214/36, 1-2=0/40, 2-3=-116/0, 3-4=-35/46
BOT CHORD 7-8=-39/53, 6-7=-5/41, 3-6=-10/40, 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 7 lb uplift at joint 8, 48 lb uplift at joint 4 and 25 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J20	Jack-Open	1	1	Job Reference (optional)	I47899969

Wheeler Lumber, Waverly, KS - 66871,

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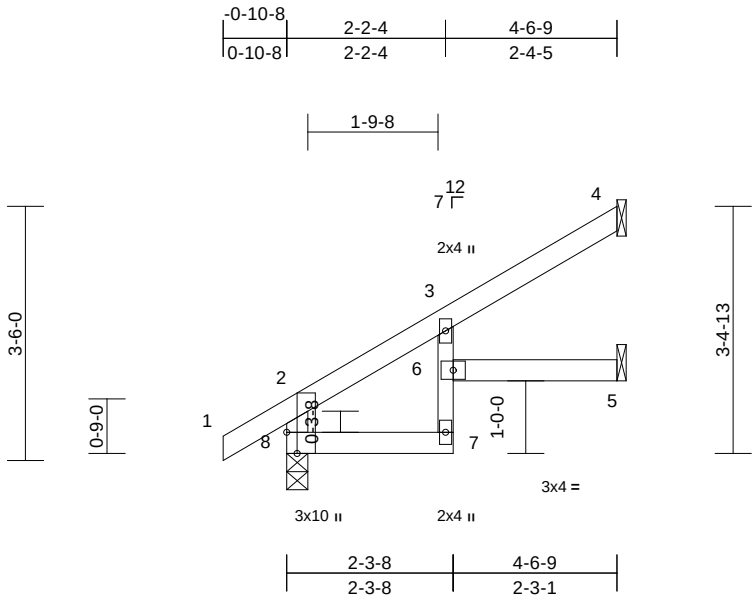

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Plate Offsets (X, Y): [8:0-3-8,Edge]

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	0.21	Vert(LL)	-0.02	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	7	>999	240	Weight: 14 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 4-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=122/ Mechanical, 5=65/ Mechanical, 8=275/0-3-8
Max Horiz 8=117 (LC 8)
Max Uplift 4=-65 (LC 8), 5=-12 (LC 8), 8=-19 (LC 8)
Max Grav 4=128 (LC 15), 5=71 (LC 3), 8=275 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-258/49, 1-2=0/36, 2-3=-166/0, 3-4=-45/58
BOT CHORD 7-8=-55/94, 6-7=-5/44, 3-6=0/64, 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 19 lb uplift at joint 8, 65 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	J21	Jack-Closed	1	1	Job Reference (optional)	I47899970

Wheeler Lumber, Waverly, KS - 66871,

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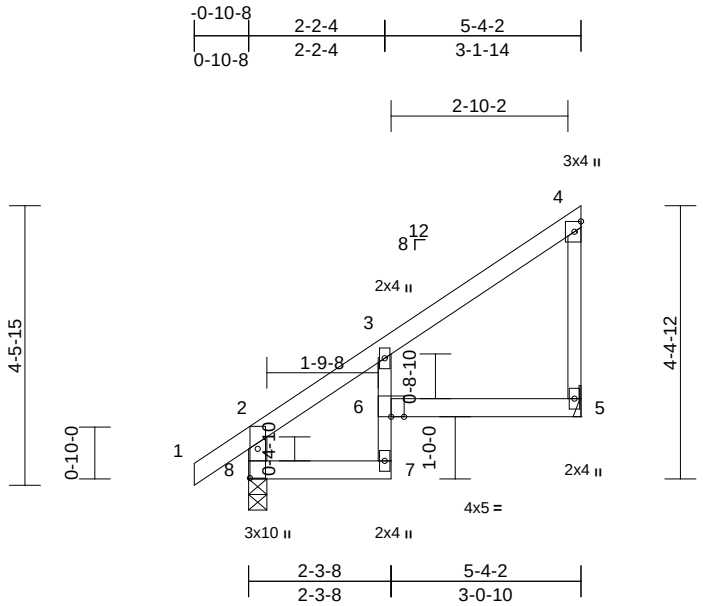

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Plate Offsets (X, Y): [8:0-5-10,0-1-8]

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	0.28	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.08	5-6	>782	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.06	5-6	>999	240	Weight: 19 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 5-4-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 5=222/ Mechanical, 8=308/0-3-8
Max Horiz 8=154 (LC 5)
Max Uplift 5=-75 (LC 8), 8=-34 (LC 8)
Max Grav 5=248 (LC 15), 8=308 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=-289/61, 1-2=0/40, 2-3=-210/7, 3-4=-88/73, 4-5=-157/67
BOT CHORD 7-8=-60/127, 6-7=-11/43, 3-6=0/73, 5-6=-40/43

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 34 lb uplift at joint 8 and 75 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	LAY1	Lay-In Gable	1	1	Job Reference (optional)	I47899971

Wheeler Lumber, Waverly, KS - 66871,

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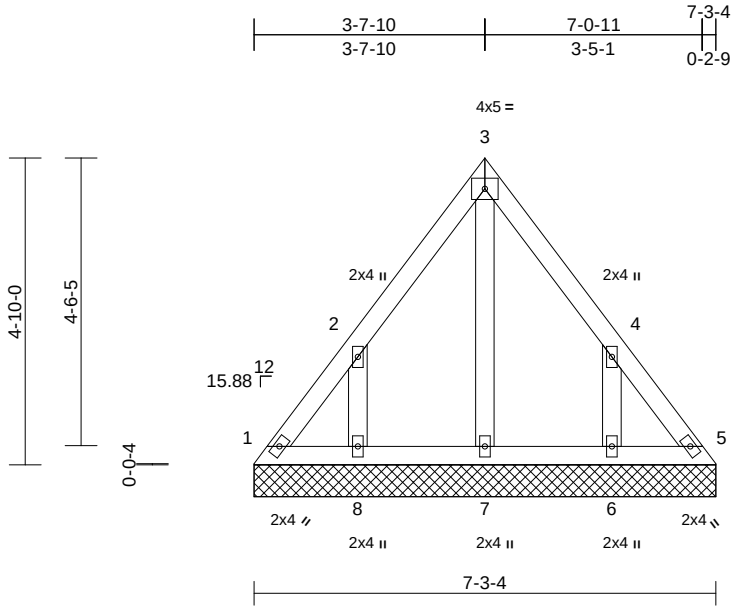

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 30 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=63/7-3-4, 5=63/7-3-4, 6=187/7-3-4, 7=103/7-3-4, 8=187/7-3-4
Max Horiz 1=-125 (LC 4)
Max Uplift 1=-56 (LC 6), 5=-39 (LC 7), 6=-190 (LC 9), 8=-191 (LC 8)
Max Grav 1=120 (LC 8), 5=110 (LC 9), 6=235 (LC 16), 7=120 (LC 18), 8=236 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-161/116, 2-3=-112/82, 3-4=-99/69, 4-5=-148/95
BOT CHORD 1-8=-58/110, 7-8=-58/110, 6-7=-58/110, 5-6=-58/110
WEBS 3-7=-79/2, 2-8=-199/213, 4-6=-198/213

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 56 lb uplift at joint 1, 39 lb uplift at joint 5, 191 lb uplift at joint 8 and 190 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	LAY2	Lay-In Gable	1	1	Job Reference (optional)	I47899972

Wheeler Lumber, Waverly, KS - 66871,

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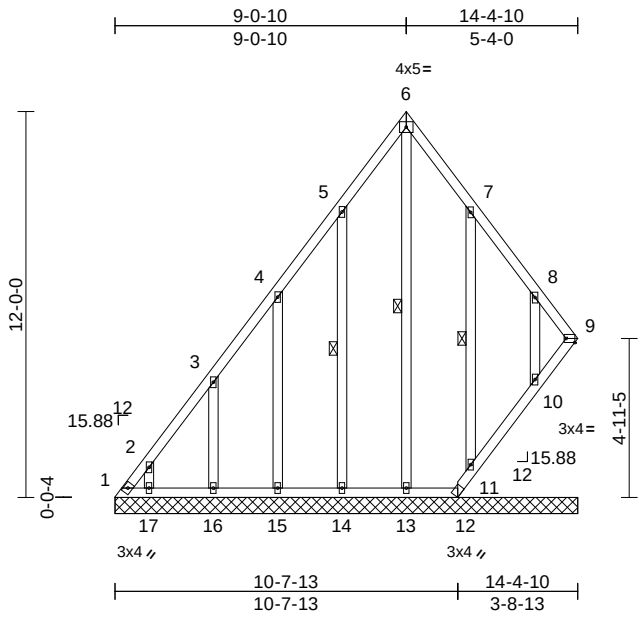

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Plate Offsets (X, Y): [9:Edge,0-1-8]

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	0.07	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	0.12	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 93 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 6-13, 7-11

REACTIONS (lb/size) 1=37/14-4-10, 9=92/14-4-10, 10=160/14-4-10, 11=188/14-4-10, 12=-30/14-4-10, 13=106/14-4-10, 14=186/14-4-10, 15=178/14-4-10, 16=186/14-4-10, 17=150/14-4-10
Max Horiz 1=316 (LC 8)
Max Uplift 1=-237 (LC 6), 9=-223 (LC 7), 10=-159 (LC 9), 11=-154 (LC 9), 12=-230 (LC 9), 14=-176 (LC 8), 15=-179 (LC 8), 16=-181 (LC 8), 17=-147 (LC 8)
Max Grav 1=464 (LC 8), 9=382 (LC 9), 10=200 (LC 16), 11=225 (LC 16), 12=147 (LC 7), 13=191 (LC 9), 14=237 (LC 15), 15=223 (LC 15), 16=233 (LC 15), 17=188 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-578/310, 2-3=-443/255, 3-4=-259/177, 4-5=-151/103, 5-6=-113/157, 6-7=-106/151, 7-8=-143/96, 8-9=-230/157
BOT CHORD 1-17=-95/156, 16-17=-95/156, 15-16=-95/156, 14-15=-95/156, 13-14=-95/156, 12-13=-95/155, 11-12=-166/290, 10-11=-174/268, 9-10=-172/263
WEBS 2-17=-153/161, 3-16=-191/206, 4-15=-183/202, 5-14=-196/201, 6-13=-169/6, 7-11=-200/205, 8-10=-161/179

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) 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 237 lb uplift at joint 1, 223 lb uplift at joint 9, 230 lb uplift at joint 12, 147 lb uplift at joint 17, 181 lb uplift at joint 16, 179 lb uplift at joint 15, 176 lb uplift at joint 14, 154 lb uplift at joint 11 and 159 lb uplift at joint 10.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 11, 10.
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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	LAY3	Lay-In Gable	2	1	Job Reference (optional)	I47899973

Wheeler Lumber, Waverly, KS - 66871,

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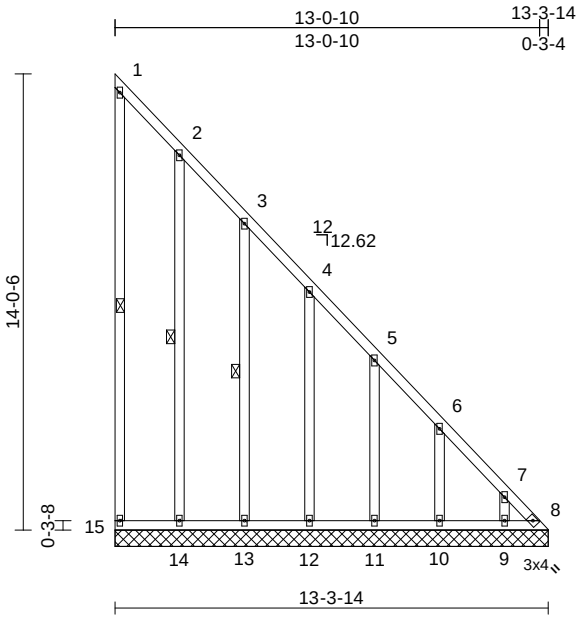

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-15, 2-14, 3-13

REACTIONS (lb/size) 8=24/13-3-14, 9=155/13-3-14, 10=185/13-3-14, 11=179/13-3-14, 12=180/13-3-14, 13=180/13-3-14, 14=187/13-3-14, 15=68/13-3-14
Max Horiz 15=-552 (LC 9)
Max Uplift 8=-196 (LC 7), 9=-106 (LC 9), 10=-127 (LC 9), 11=-123 (LC 9), 12=-124 (LC 9), 13=-125 (LC 9), 14=-125 (LC 9), 15=-49 (LC 9)
Max Grav 8=564 (LC 9), 9=174 (LC 16), 10=209 (LC 16), 11=201 (LC 16), 12=203 (LC 16), 13=203 (LC 16), 14=210 (LC 16), 15=77 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-62/56, 1-2=-70/37, 2-3=-184/90, 3-4=-309/126, 4-5=-434/172, 5-6=-557/218, 6-7=-685/266, 7-8=-782/300
BOT CHORD 14-15=-204/551, 13-14=-204/551, 12-13=-204/551, 11-12=-204/551, 10-11=-204/551, 9-10=-204/551, 8-9=-204/551
WEBS 2-14=-168/152, 3-13=-163/148, 4-12=-163/148, 5-11=-162/147, 6-10=-168/153, 7-9=-138/121

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever 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) All plates are 2x4 MT20 unless otherwise indicated.
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 49 lb uplift at joint 15, 196 lb uplift at joint 8, 125 lb uplift at joint 14, 125 lb uplift at joint 13, 124 lb uplift at joint 12, 123 lb uplift at joint 11, 127 lb uplift at joint 10 and 106 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	LAY4	Lay-In Gable	2	1	Job Reference (optional)	I47899974

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:29 Page: 1
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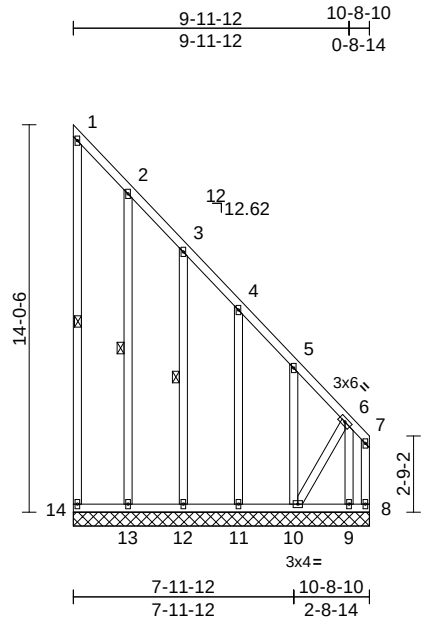


Scale = 1:83.4

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	0.08	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	0.15	Horiz(TL)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 93 lb	FT = 10%

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

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

REACTIONS (lb/size) 8=2/10-8-10, 9=134/10-8-10, 10=189/10-8-10, 11=178/10-8-10, 12=180/10-8-10, 13=187/10-8-10, 14=68/10-8-10
Max Horiz 14=-447 (LC 9)
Max Uplift 8=-85 (LC 7), 9=-216 (LC 7), 10=-755 (LC 9), 11=-135 (LC 9), 12=-123 (LC 9), 13=-125 (LC 9), 14=-50 (LC 9)
Max Grav 8=223 (LC 9), 9=790 (LC 9), 10=387 (LC 16), 11=205 (LC 16), 12=203 (LC 16), 13=210 (LC 16), 14=77 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-62/57, 1-2=-70/37, 2-3=-184/90, 3-4=-308/125, 4-5=-440/174, 5-6=-539/212, 6-7=-144/63, 7-8=-174/64
BOT CHORD 13-14=-166/447, 12-13=-166/447, 11-12=-166/447, 10-11=-166/447, 9-10=-9/26, 8-9=-9/26
WEBS 2-13=-168/152, 3-12=-163/146, 4-11=-165/159, 5-10=-158/113, 6-9=-822/268, 6-10=-294/792

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 ; 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) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 50 lb uplift at joint 14, 85 lb uplift at joint 8, 125 lb uplift at joint 13, 123 lb uplift at joint 12, 135 lb uplift at joint 11, 755 lb uplift at joint 10 and 216 lb uplift at joint 9.
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

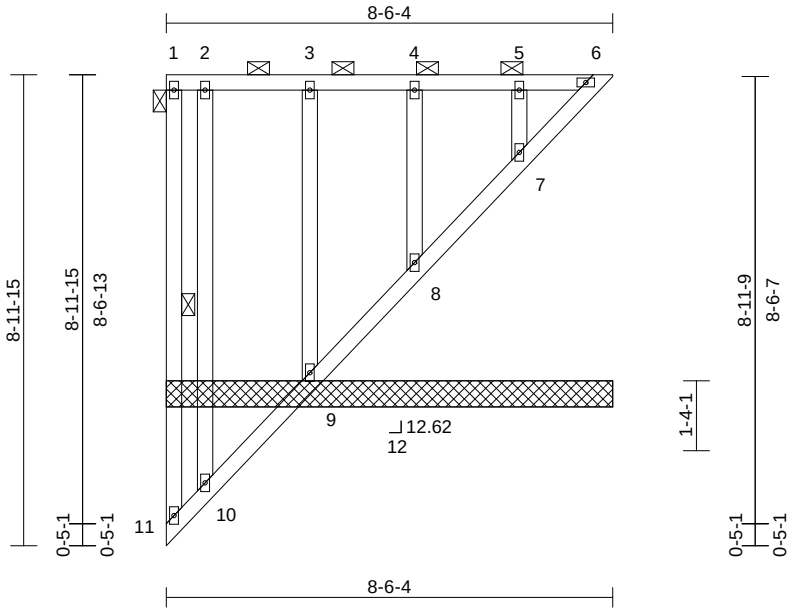
September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	LAY5	Lay-In Gable	1	1	Job Reference (optional)	I47899975

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Aug 16 2021 Print: 8.430 S Aug 16 2021 MiTek Industries, Inc. Tue Sep 14 14:18:29 ID:odoW0WixbdtP0vrk1PXPiNyU69_-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:44

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	0.51	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	0.10	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 53 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	2-0-0 oc purlins: 1-6, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 1-11

REACTIONS (lb/size) 6=47/8-6-4, 7=174/8-6-4, 8=180/8-6-4, 9=191/8-6-4, 10=130/8-6-4, 11=4/8-6-4

Max Horiz 11=-241 (LC 6)

Max Uplift 6=-105 (LC 5), 7=-33 (LC 5), 8=-33 (LC 5), 9=-37 (LC 4), 10=-19 (LC 5), 11=-130 (LC 6)

Max Grav 6=132 (LC 6), 7=174 (LC 1), 8=180 (LC 1), 9=191 (LC 1), 10=130 (LC 1), 11=92 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-11=-7/3, 1-2=-120/91, 2-3=-120/91, 3-4=-120/91, 4-5=-120/91, 5-6=-120/91
BOT CHORD	10-11=-131/185, 9-10=-141/190, 8-9=-141/189, 7-8=-141/189, 6-7=-141/180
WEBS	2-10=-96/40, 3-9=-150/62, 4-8=-140/57, 5-7=-135/56

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) 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 130 lb uplift at joint 11, 105 lb uplift at joint 6, 19 lb uplift at joint 10, 37 lb uplift at joint 9, 33 lb uplift at joint 8 and 33 lb uplift at joint 7.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 6, 10, 9, 8, 7.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	P1	Piggyback	8	1	Job Reference (optional)	I47899976

Wheeler Lumber, Waverly, KS - 66871,

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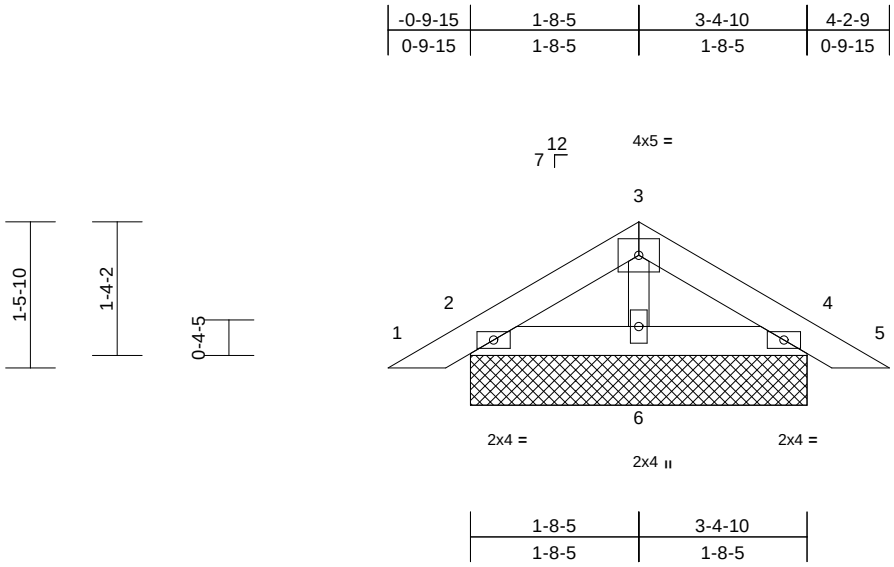

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	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

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

REACTIONS (lb/size) 2=125/3-4-10, 4=125/3-4-10, 6=130/3-4-10
Max Horiz 2=34 (LC 7)
Max Uplift 2=-34 (LC 8), 4=-38 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-53/28, 3-4=-52/20, 4-5=0/17
BOT CHORD 2-6=-6/25, 4-6=-6/25
WEBS 3-6=-87/20

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 34 lb uplift at joint 2 and 38 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V1	Valley	1	1	Job Reference (optional)	I47899977

Wheeler Lumber, Waverly, KS - 66871,

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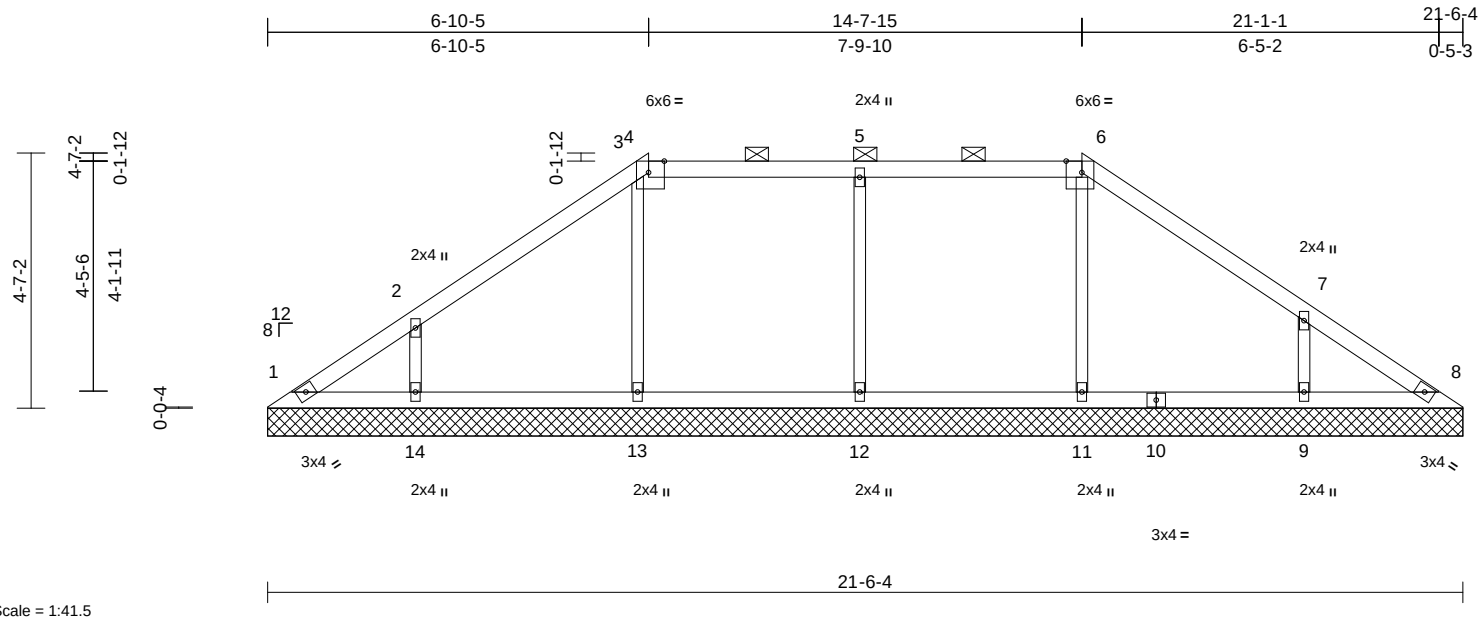

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Plate Offsets (X, Y): [4:0-3-6,Edge], [6:0-3-6,Edge]

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	0.21	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	0.14	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 63 lb	FT = 10%

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

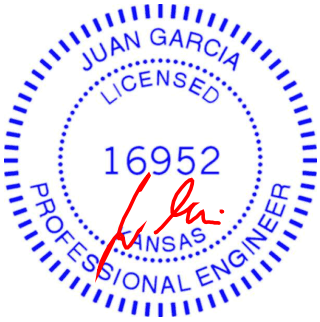
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=76/21-6-4, 8=84/21-6-4, 9=342/21-6-4, 11=317/21-6-4, 12=380/21-6-4, 13=331/21-6-4, 14=325/21-6-4
Max Horiz 1=110 (LC 5)
Max Uplift 1=-32 (LC 4), 9=-142 (LC 9), 11=-1 (LC 4), 12=-88 (LC 4), 13=-36 (LC 5), 14=-138 (LC 8)
Max Grav 1=100 (LC 16), 8=90 (LC 18), 9=410 (LC 16), 11=366 (LC 2), 12=462 (LC 24), 13=390 (LC 15), 14=394 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-109/111, 2-3=-129/96, 3-4=-70/102, 4-5=-43/99, 5-6=-43/100, 6-7=-123/74, 7-8=-81/57
BOT CHORD 1-14=-35/72, 13-14=-35/72, 12-13=-35/72, 11-12=-35/72, 9-11=-35/72, 8-9=-35/72
WEBS 6-11=-235/51, 5-12=-313/136, 3-13=-252/86, 2-14=-277/180, 7-9=-289/183

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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 1, 1 lb uplift at joint 11, 88 lb uplift at joint 12, 36 lb uplift at joint 13, 138 lb uplift at joint 14 and 142 lb uplift at joint 9.
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.
12) 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



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V2	Valley	1	1	Job Reference (optional)	I47899978

Wheeler Lumber, Waverly, KS - 66871,

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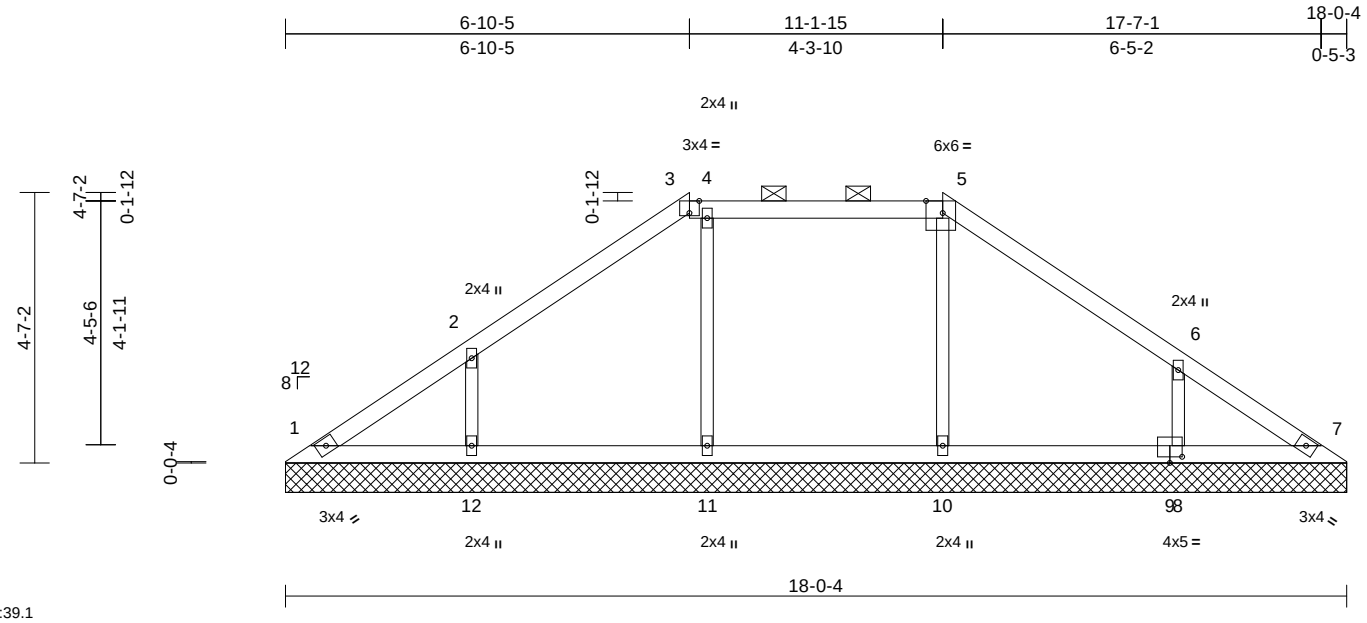

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Plate Offsets (X, Y): [3:0-2-0,Edge], [5:0-3-6,Edge], [9:0-2-8,0-1-4]

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 10%

LUMBER

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

BRACING

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

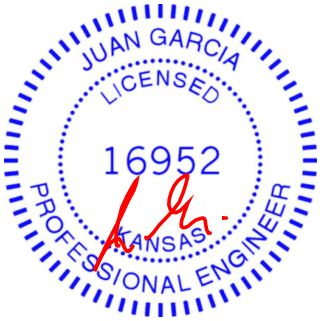
REACTIONS (lb/size) 1=102/18-0-4, 7=81/18-0-4, 8=341/18-0-4, 10=328/18-0-4, 11=353/18-0-4, 12=336/18-0-4
Max Horiz 1=110 (LC 5)
Max Uplift 1=-11 (LC 9), 8=-141 (LC 9), 10=-42 (LC 4), 11=-63 (LC 5), 12=-135 (LC 8)
Max Grav 1=129 (LC 16), 7=102 (LC 15), 8=408 (LC 16), 10=403 (LC 24), 11=410 (LC 23), 12=409 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-112/67, 2-3=-127/100, 3-4=-54/95, 4-5=-47/100, 5-6=-117/85, 6-7=-89/74
BOT CHORD 1-12=-25/79, 11-12=-25/79, 10-11=-25/79, 8-10=-25/79, 7-8=-25/79
WEBS 5-10=-277/91, 4-11=-287/112, 2-12=-281/176, 6-8=-288/183

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) Provide adequate drainage to prevent water ponding.
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 11 lb uplift at joint 1, 42 lb uplift at joint 10, 63 lb uplift at joint 11, 135 lb uplift at joint 12 and 141 lb uplift at joint 8.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V3	Valley	1	1	Job Reference (optional)	I47899979

Wheeler Lumber, Waverly, KS - 66871,

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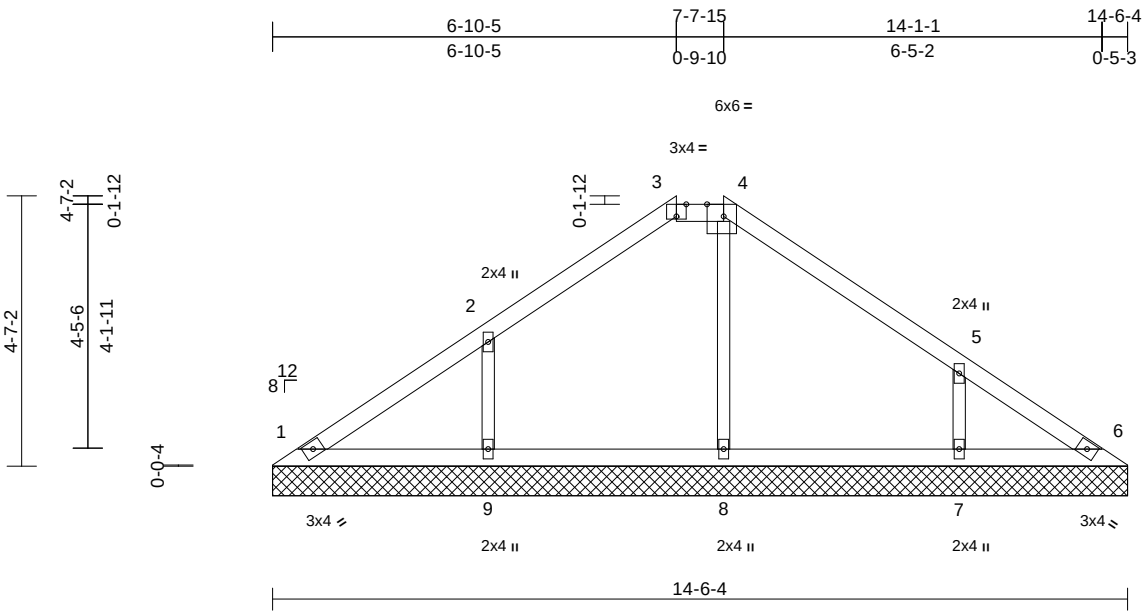

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Plate Offsets (X, Y): [3:0-2-0,Edge], [4:0-3-6,Edge]

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	0.17	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	0.08	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 lb	FT = 10%

LUMBER

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

BRACING

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

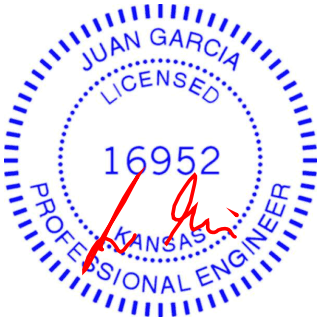
REACTIONS (lb/size) 1=167/14-6-4, 6=121/14-6-4, 7=340/14-6-4, 8=242/14-6-4, 9=356/14-6-4
Max Horiz 1=110 (LC 5)
Max Uplift 6=-22 (LC 5), 7=-144 (LC 9), 9=-132 (LC 8)
Max Grav 1=179 (LC 21), 6=127 (LC 15), 7=358 (LC 16), 8=266 (LC 22), 9=372 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-166/31, 2-3=-206/77, 3-4=-108/92, 4-5=-186/88, 5-6=-162/91
BOT CHORD 1-9=-65/133, 8-9=-65/133, 7-8=-65/133, 6-7=-65/133
WEBS 4-8=-184/45, 2-9=-287/174, 5-7=-286/185

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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) Provide adequate drainage to prevent water ponding.
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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 6, 132 lb uplift at joint 9 and 144 lb uplift at joint 7.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V4	Valley	1	1	Job Reference (optional)	I47899980

Wheeler Lumber, Waverly, KS - 66871,

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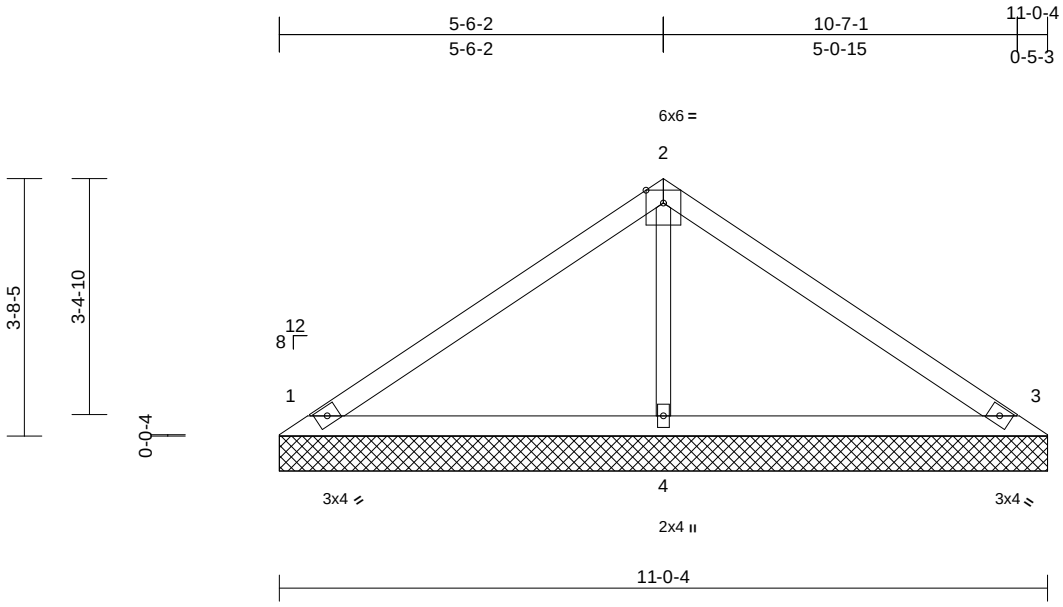

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 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=234/11-0-4, 3=234/11-0-4, 4=443/11-0-4
Max Horiz 1=-88 (LC 4)
Max Uplift 1=-44 (LC 8), 3=-55 (LC 9), 4=-17 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-175/83, 2-3=-174/63
BOT CHORD 1-4=-17/81, 3-4=-17/81
WEBS 2-4=-288/73

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 44 lb uplift at joint 1, 55 lb uplift at joint 3 and 17 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V5	Valley	1	1	Job Reference (optional)	I47899981

Wheeler Lumber, Waverly, KS - 66871,

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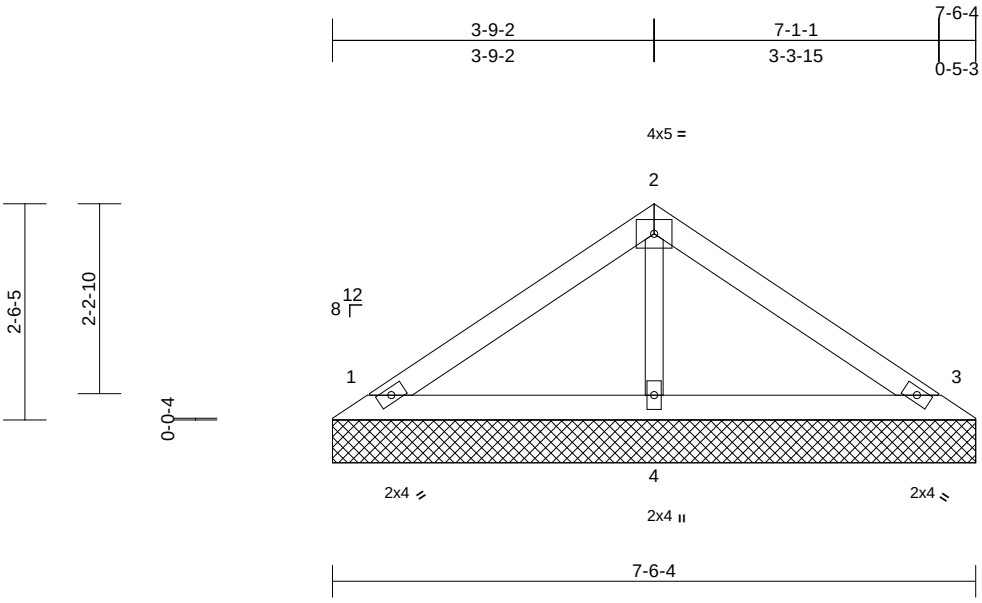

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 10%

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

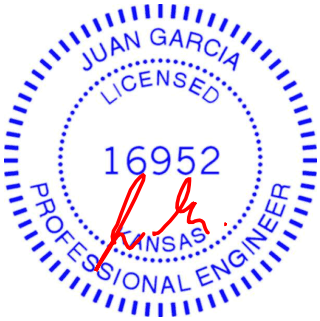
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=168/7-6-4, 3=168/7-6-4, 4=261/7-6-4
Max Horiz 1=58 (LC 7)
Max Uplift 1=-37 (LC 8), 3=-44 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-104/53, 2-3=-100/40
BOT CHORD 1-4=-12/48, 3-4=-12/48
WEBS 2-4=-178/45

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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 and 44 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



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V6	Valley	1	1	Job Reference (optional)	I47899982

Wheeler Lumber, Waverly, KS - 66871,

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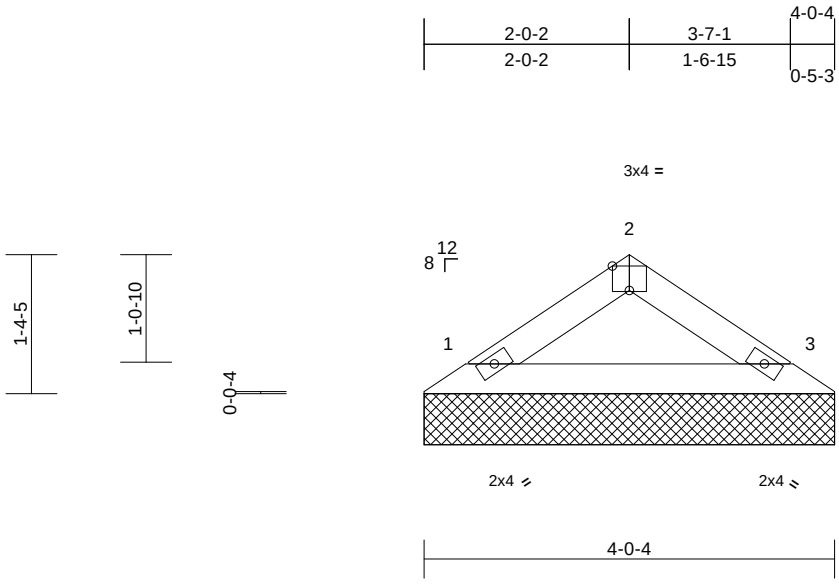

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Plate Offsets (X, Y): [2:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=140/4-0-4, 3=140/4-0-4
Max Horiz 1=27 (LC 7)
Max Uplift 1=-16 (LC 8), 3=-16 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-123/38, 2-3=-123/38
BOT CHORD 1-3=-16/82

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 16 lb uplift at joint 1 and 16 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V7	Valley	1	1	Job Reference (optional)	I47899983

Wheeler Lumber, Waverly, KS - 66871,

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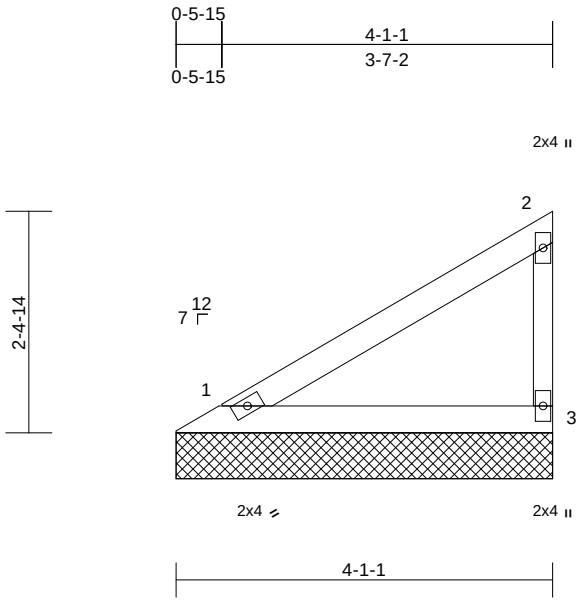

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 11 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=157/4-1-1, 3=157/4-1-1
Max Horiz 1=81 (LC 5)
Max Uplift 1=-17 (LC 8), 3=-42 (LC 8)
Max Grav 1=157 (LC 1), 3=165 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/62, 2-3=-130/63
BOT CHORD 1-3=-29/22

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 17 lb uplift at joint 1 and 42 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V8	Valley	1	1	Job Reference (optional)	I47899984

Wheeler Lumber, Waverly, KS - 66871,

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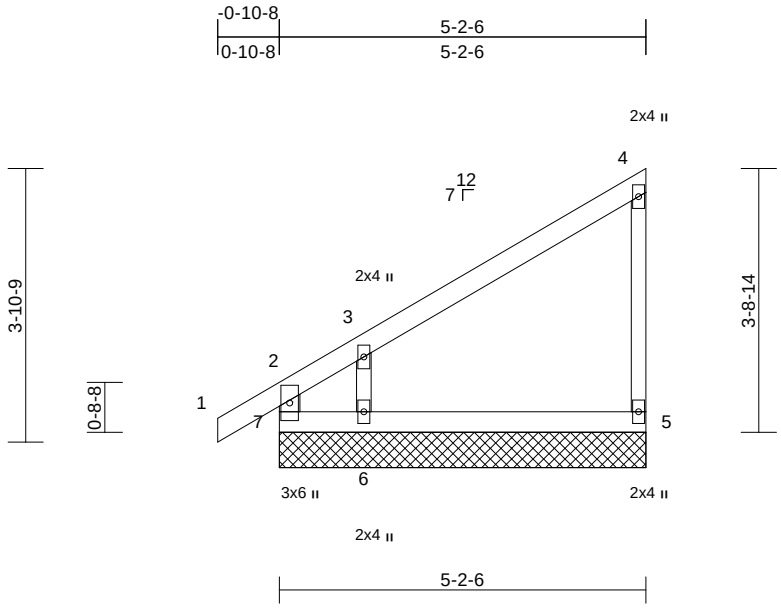

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 18 lb	FT = 10%

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

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

REACTIONS (lb/size) 5=146/5-2-6, 6=326/5-2-6, 7=45/5-2-6
Max Horiz 7=144 (LC 5)
Max Uplift 5=-29 (LC 8), 6=-156 (LC 8), 7=-67 (LC 4)
Max Grav 5=156 (LC 15), 6=364 (LC 15), 7=103 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-7=-97/53, 1-2=0/36, 2-3=-133/98, 3-4=-120/54, 4-5=-121/52
BOT CHORD 6-7=-46/39, 5-6=-46/39
WEBS 3-6=-290/187

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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 67 lb uplift at joint 7, 29 lb uplift at joint 5 and 156 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V9	Valley	1	1	Job Reference (optional)	I47899985

Wheeler Lumber, Waverly, KS - 66871,

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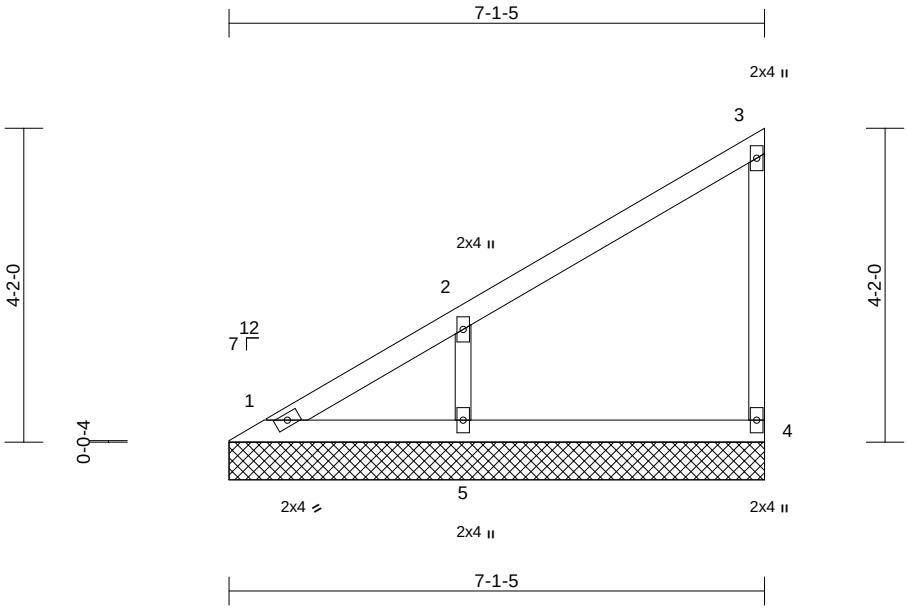

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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=66/7-1-5, 4=141/7-1-5, 5=377/7-1-5
Max Horiz 1=151 (LC 5)
Max Uplift 1=-10 (LC 4), 4=-30 (LC 5), 5=-128 (LC 8)
Max Grav 1=91 (LC 16), 4=153 (LC 15), 5=387 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-130/113, 2-3=-123/62, 3-4=-122/48
BOT CHORD	1-5=-54/41, 4-5=-54/41
WEBS	2-5=-303/179

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) 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 10 lb uplift at joint 1, 30 lb uplift at joint 4 and 128 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V10	Valley	1	1	Job Reference (optional)	I47899986

Wheeler Lumber, Waverly, KS - 66871,

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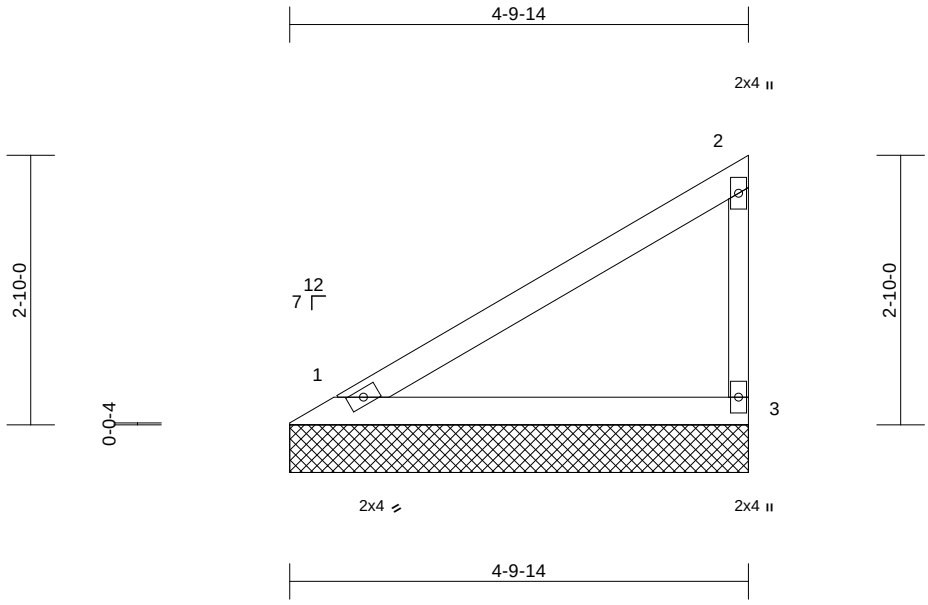

Scale = 1:24.2

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	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	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: 13 lb	FT = 10%

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

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

REACTIONS (lb/size) 1=190/4-9-14, 3=190/4-9-14
Max Horiz 1=98 (LC 5)
Max Uplift 1=-20 (LC 8), 3=-50 (LC 8)
Max Grav 1=190 (LC 1), 3=200 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-91/75, 2-3=-157/76
BOT CHORD 1-3=-35/26

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 20 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V11	Valley	1	1	Job Reference (optional)	I47899987

Wheeler Lumber, Waverly, KS - 66871,

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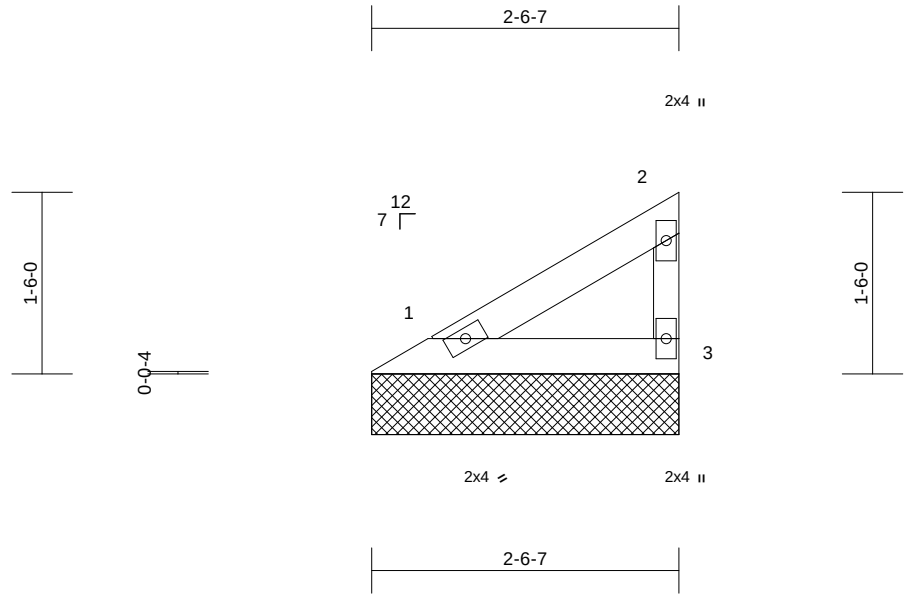

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=87/2-6-7, 3=87/2-6-7
Max Horiz 1=45 (LC 5)
Max Uplift 1=-9 (LC 8), 3=-23 (LC 8)
Max Grav 1=87 (LC 1), 3=91 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-42/34, 2-3=-72/35
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 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 1 and 23 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V12	Valley	1	1	Job Reference (optional)	I47899988

Wheeler Lumber, Waverly, KS - 66871,

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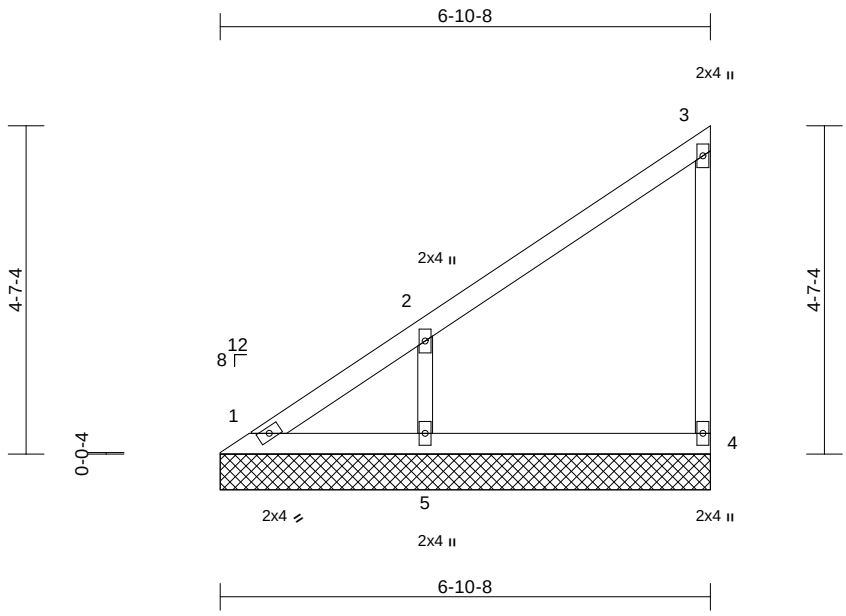

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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=55/6-10-8, 4=142/6-10-8, 5=371/6-10-8
Max Horiz 1=168 (LC 7)
Max Uplift 1=-21 (LC 4), 4=-38 (LC 5), 5=-144 (LC 8)
Max Grav 1=94 (LC 16), 4=158 (LC 15), 5=385 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/127, 2-3=-139/70, 3-4=-126/57
BOT CHORD 1-5=-60/45, 4-5=-60/45
WEBS 2-5=-303/193

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 21 lb uplift at joint 1, 38 lb uplift at joint 4 and 144 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V13	Valley	1	1	Job Reference (optional)	I47899989

Wheeler Lumber, Waverly, KS - 66871,

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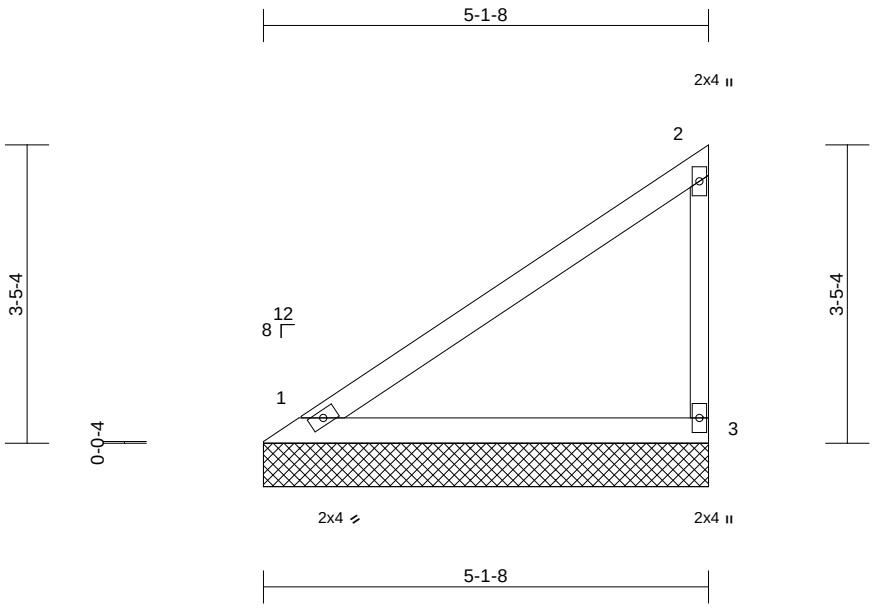

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 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 5-1-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=206/5-1-8, 3=206/5-1-8
Max Horiz 1=121 (LC 5)
Max Uplift 1=-17 (LC 8), 3=-60 (LC 8)
Max Grav 1=206 (LC 1), 3=221 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/92, 2-3=-175/87
BOT CHORD 1-3=-43/33

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 17 lb uplift at joint 1 and 60 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V14	Valley	1	1	Job Reference (optional)	I47899990

Wheeler Lumber, Waverly, KS - 66871,

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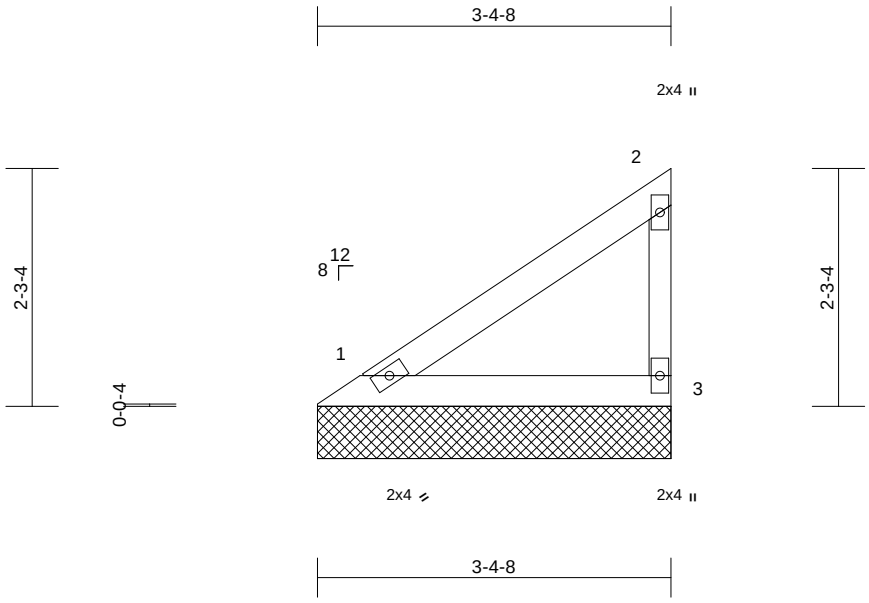

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=127/3-4-8, 3=127/3-4-8
Max Horiz 1=75 (LC 5)
Max Uplift 1=-11 (LC 8), 3=-37 (LC 8)
Max Grav 1=127 (LC 1), 3=136 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-70/57, 2-3=-108/54
BOT CHORD 1-3=-27/20

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 11 lb uplift at joint 1 and 37 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

September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V15	Valley	1	1	Job Reference (optional)	I47899991

Wheeler Lumber, Waverly, KS - 66871,

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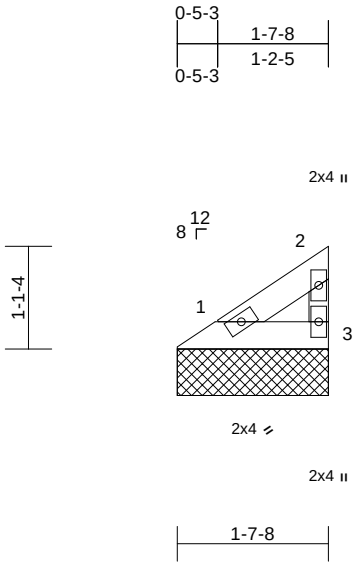

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00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

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

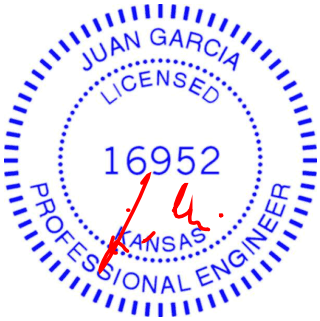
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=48/1-7-8, 3=48/1-7-8
Max Horiz 1=28 (LC 5)
Max Uplift 1=-4 (LC 8), 3=-14 (LC 8)
Max Grav 1=48 (LC 1), 3=52 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-26/22, 2-3=-41/20
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 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 4 lb uplift at joint 1 and 14 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



September 15,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 89 RR	
RR89	V16	Valley	1	1	Job Reference (optional)	I47899992

Wheeler Lumber, Waverly, KS - 66871,

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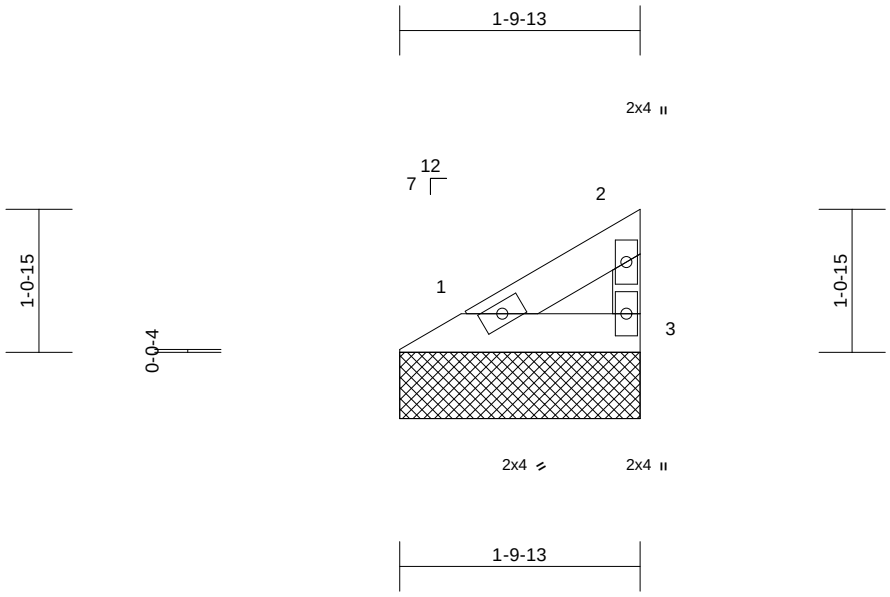

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00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

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

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

REACTIONS (lb/size) 1=54/1-9-13, 3=54/1-9-13
Max Horiz 1=28 (LC 7)
Max Uplift 1=-6 (LC 8), 3=-14 (LC 8)
Max Grav 1=54 (LC 1), 3=57 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-26/21, 2-3=-45/22
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 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 6 lb uplift at joint 1 and 14 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.

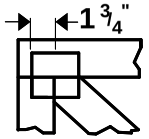
LOAD CASE(S) Standard

September 15,2021

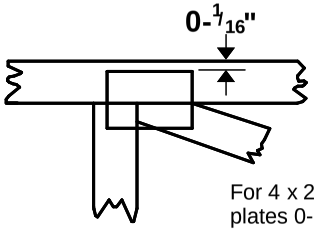
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

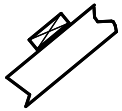
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

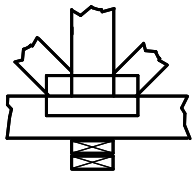
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

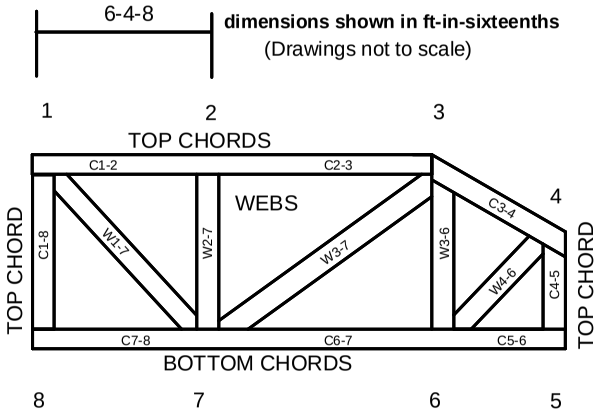


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.