MiTek®

RE: P230356
Roof - Osage Lot 58

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

Site Information:

Customer: Clover & Hive Project Name: P230356
Lot/Block: 58 Model: Twin Sienna - Farmhouse
Address: 2202/2204 SW Osage Dr Subdivision: Osage
City: Lee's Summit State: MO

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 44 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I59259462	A1	6/30/2023	21	I59259482	D2	6/30/2023
2	I59259463	A2	6/30/2023	22	I59259483	D3	6/30/2023
3	I59259464	A3	6/30/2023	23	I59259484	E1	6/30/2023
4	I59259465	A4	6/30/2023	24	I59259485	E2	6/30/2023
5	I59259466	A5	6/30/2023	25	I59259486	E3	6/30/2023
6	I59259467	B1	6/30/2023	26	I59259487	E4	6/30/2023
7	I59259468	B2	6/30/2023	27	I59259488	E5	6/30/2023
8	I59259469	B3	6/30/2023	28	I59259489	E6	6/30/2023
9	I59259470	B4	6/30/2023	29	I59259490	G1	6/30/2023
10	I59259471	B5	6/30/2023	30	I59259491	G2	6/30/2023
11	I59259472	B6	6/30/2023	31	I59259492	G3	6/30/2023
12	I59259473	B7	6/30/2023	32	I59259493	J1	6/30/2023
13	I59259474	B8	6/30/2023	33	I59259494	J2	6/30/2023
14	I59259475	B9	6/30/2023	34	I59259495	J3	6/30/2023
15	I59259476	B10	6/30/2023	35	I59259496	J4	6/30/2023
16	I59259477	B11	6/30/2023	36	I59259497	J5	6/30/2023
17	I59259478	B12	6/30/2023	37	I59259498	LAY1	6/30/2023
18	I59259479	C1	6/30/2023	38	I59259499	LAY2	6/30/2023
19	I59259480	C2	6/30/2023	39	I59259500	V1	6/30/2023
20	I59259481	D1	6/30/2023	40	I59259501	V2	6/30/2023

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

Truss Design Engineer's Name: Sevier, Scott

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: 001193

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

June 30, 2023

Sevier, Scott

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

RE: P230356 - Roof - Osage Lot 58

Site Information:

Project Customer: Clover & Hive Project Name: P230356
Lot/Block: 58 Subdivision: Osage
Address: 2202/2204 SW Osage Dr
City, County: Lee's Summit State: MO

No.	Seal#	Truss Name	Date
41	I59259502	V3	6/30/2023
42	I59259503	V4	6/30/2023
43	I59259504	V5	6/30/2023
44	I59259505	V6	6/30/2023

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	A1	Half Hip Girder	2	1	Job Reference (optional)	I59259462

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:09 Page: 1
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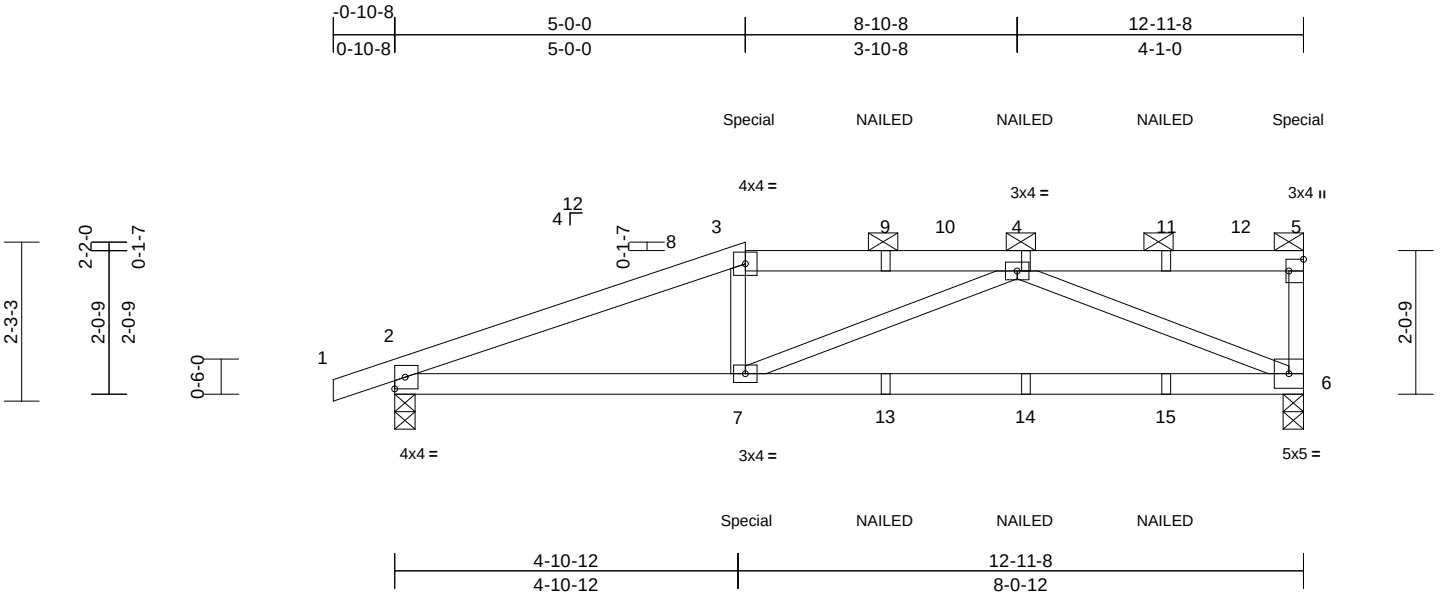

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Plate Offsets (X, Y): [5:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.20	6-7	>771	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.41	6-7	>371	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=82 (LC 8)
Max Uplift 2=-284 (LC 8), 6=-266 (LC 8)
Max Grav 2=989 (LC 1), 6=964 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2159/667, 3-4=-1948/675, 4-5=-97/0, 5-6=-174/118
BOT CHORD 2-7=-670/1965, 6-7=-693/1602
WEBS 3-7=0/422, 4-7=0/496, 4-6=-1670/766

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-0-0, Exterior(2R) 5-0-0 to 12-0-14, Interior (1) 12-0-14 to 12-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 266 lb uplift at joint 6 and 284 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.
9) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 114 lb down and 100 lb up at 5-0-0, and 13 lb down and 32 lb up at 12-10-4 on top chord, and 286 lb down and 70 lb up at 5-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-90 (F), 5=-8 (F), 7=-286 (F), 4=-90 (F), 9=-90 (F), 11=-90 (F), 13=-28 (F), 14=-28 (F), 15=-28 (F)

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	A2	Half Hip	2	1	Job Reference (optional)	I59259463

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:11 Page: 1
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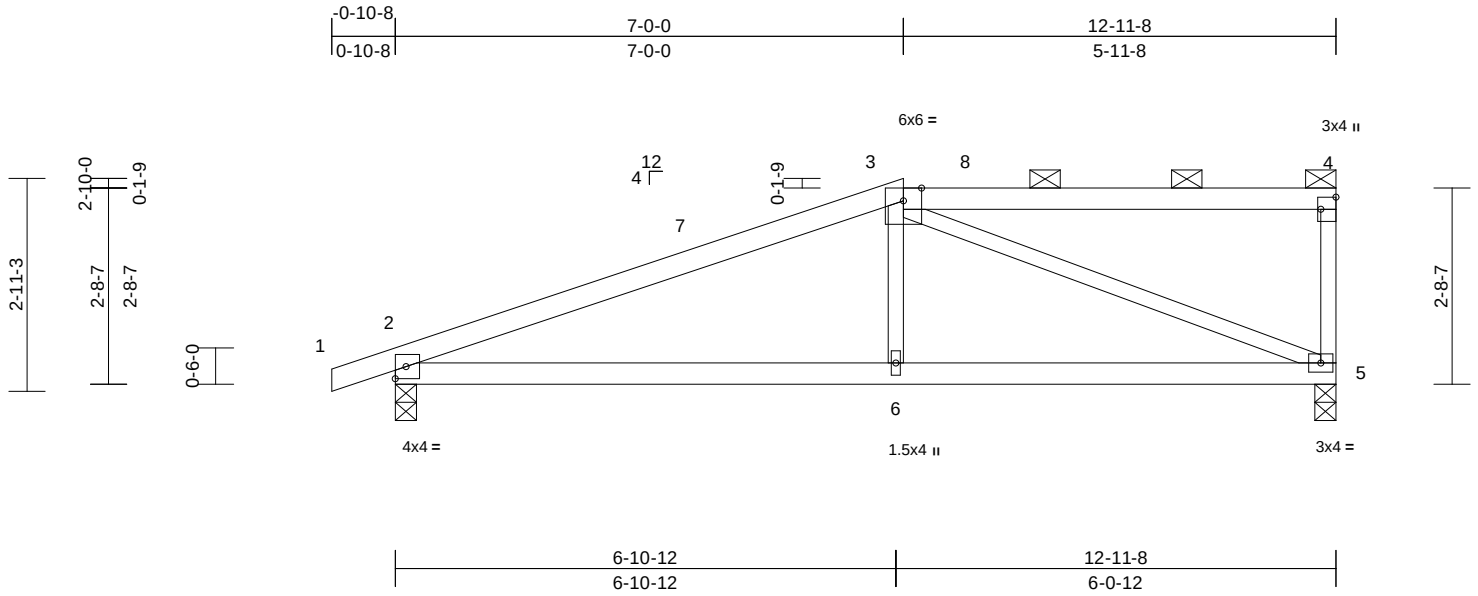

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Plate Offsets (X, Y): [4:Edge,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	0.07	2-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.14	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 5=0-3-8
Max Horiz 2=110 (LC 8)
Max Uplift 2=-164 (LC 8), 5=-133 (LC 8)
Max Grav 2=646 (LC 1), 5=569 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-970/389, 3-4=-43/24, 4-5=-201/163
BOT CHORD 2-6=-433/838, 5-6=-436/831
WEBS 3-6=0/304, 3-5=-862/451

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-0-0, Exterior(2E) 7-0-0 to 12-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 5 and 164 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	A3	Half Hip	2	1	Job Reference (optional)	I59259464

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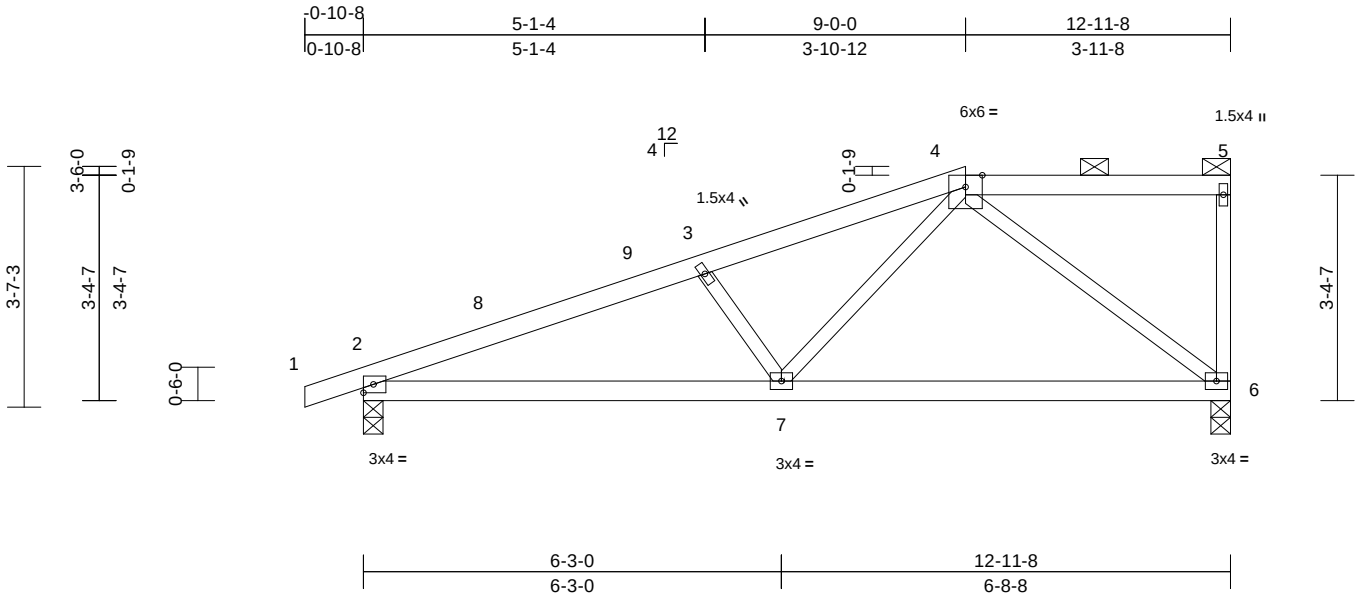

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.11	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 7-8-13 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=140 (LC 8)
Max Uplift 2=-158 (LC 8), 6=-139 (LC 8)
Max Grav 2=646 (LC 1), 6=569 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1102/467, 3-4=-913/416, 4-5=-17/6, 5-6=-132/112
BOT CHORD 2-7=-574/977, 6-7=-297/487
WEBS 3-7=-278/274, 4-7=-190/512, 4-6=-608/380

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 9-0-0, Exterior(2E) 9-0-0 to 12-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 139 lb uplift at joint 6 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	A4	Half Hip	2	1	Job Reference (optional)	I59259465

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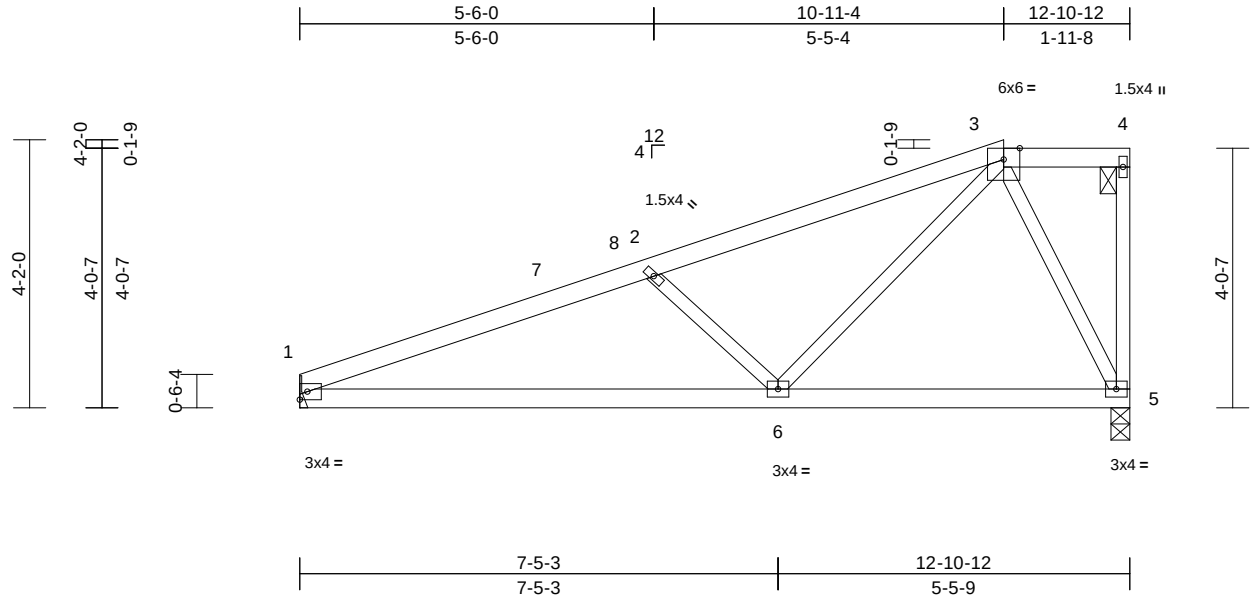

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.09	1-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.18	1-6	>832	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 7-8-13 oc bracing.

REACTIONS (size) 1= Mechanical, 5=0-3-8
Max Horiz 1=165 (LC 12)
Max Uplift 1=-101 (LC 8), 5=-149 (LC 8)
Max Grav 1=573 (LC 1), 5=573 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1075/426, 2-3=-769/282, 3-4=-4/2, 4-5=-55/36
BOT CHORD 1-6=-574/969, 5-6=-154/250
WEBS 2-6=-423/370, 3-6=-229/616, 3-5=-564/354

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-12 to 5-0-12, Interior (1) 5-0-12 to 10-11-4, Exterior(2E) 10-11-4 to 12-9-8 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 1 and 149 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.
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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	I59259466
P236350	A5	Half Hip	2	1	Job Reference (optional)	

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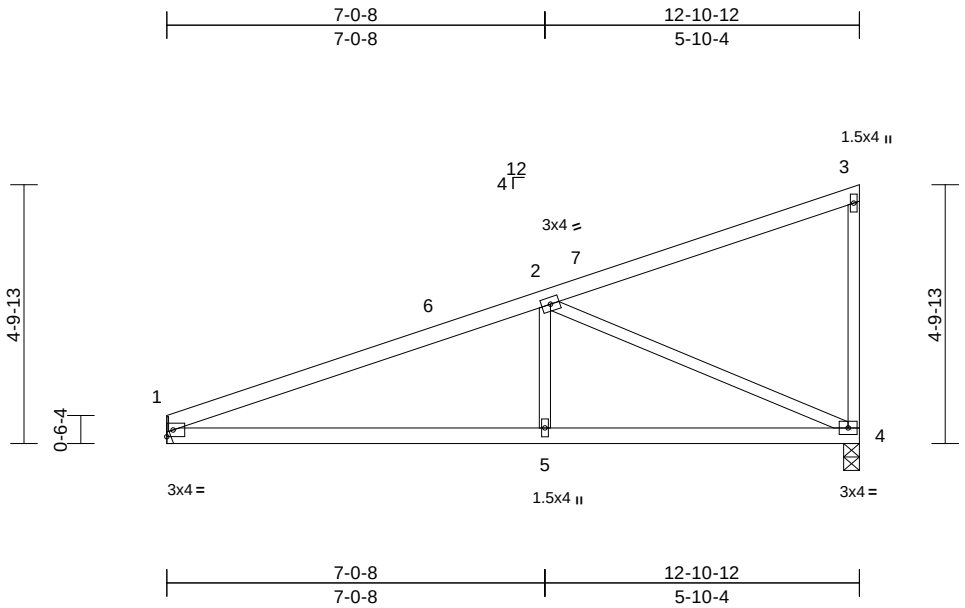

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.07	1-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.16	1-5	>959	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-11-11 oc bracing.

REACTIONS (size) 1= Mechanical, 4=0-3-8
Max Horiz 1=196 (LC 8)
Max Uplift 1=-91 (LC 8), 4=-159 (LC 8)
Max Grav 1=573 (LC 1), 4=573 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-980/252, 2-3=-90/25, 3-4=-146/157
BOT CHORD 1-5=-411/869, 4-5=-411/869
WEBS 2-5=0/308, 2-4=-942/447

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-8 to 5-1-8, Interior (1) 5-1-8 to 12-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: , Joint 4 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 1 and 159 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B1	Roof Special Girder	2	2	Job Reference (optional)	I59259467

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:13 Page: 1
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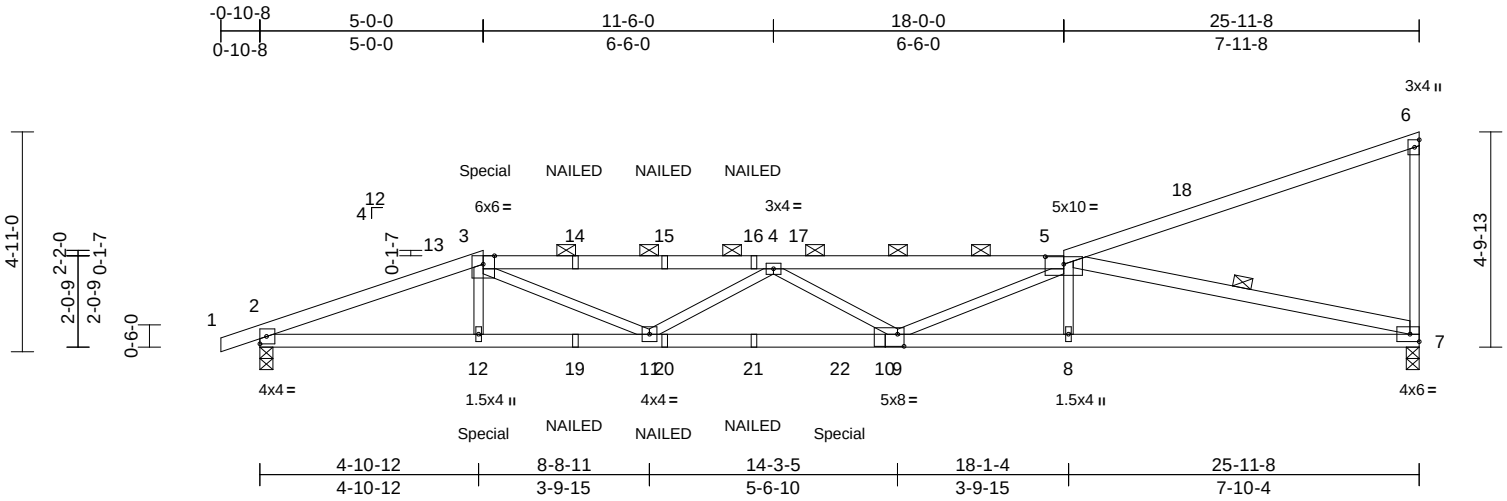

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Plate Offsets (X, Y): [5:0-5-0,0-2-0], [10:0-1-12,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.34	9-11	>914	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.61	9-11	>508	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.11	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 218 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 3-5:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 7-5:2x4 SP No.2

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

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=216 (LC 11)
Max Uplift 2=-533 (LC 8), 7=-385 (LC 12)
Max Grav 2=1968 (LC 1), 7=1548 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-4891/1363, 3-4=-6208/1640, 4-5=-6712/1763, 5-6=-175/91, 6-7=-256/195
BOT CHORD 2-12=-1445/4533, 11-12=-1445/4513, 9-11=-1996/7077, 8-9=-1304/5248, 7-8=-1297/5251
WEBS 3-12=-7/356, 5-8=0/233, 5-7=-5346/1361, 4-11=-1032/427, 3-11=-362/1881, 4-9=-435/285, 5-9=-501/1625

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, 2x3 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-0-0, Exterior(2R) 5-0-0 to 12-0-14, Interior (1) 12-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 385 lb uplift at joint 7 and 533 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.
10) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 90 lb down and 100 lb up at 5-0-0 on top chord, and 286 lb down and 70 lb up at 5-0-0, and 400 lb down and 117 lb up at 13-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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

Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 5-6=-70, 2-7=-20
Concentrated Loads (lb)
Vert: 3=-90 (F), 12=-286 (F), 14=-90 (F), 15=-90 (F), 16=-90 (F), 19=-28 (F), 20=-28 (F), 21=-28 (F), 22=-400 (F)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER
June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	I59259468
P236350	B2	Roof Special	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:13 Page: 1
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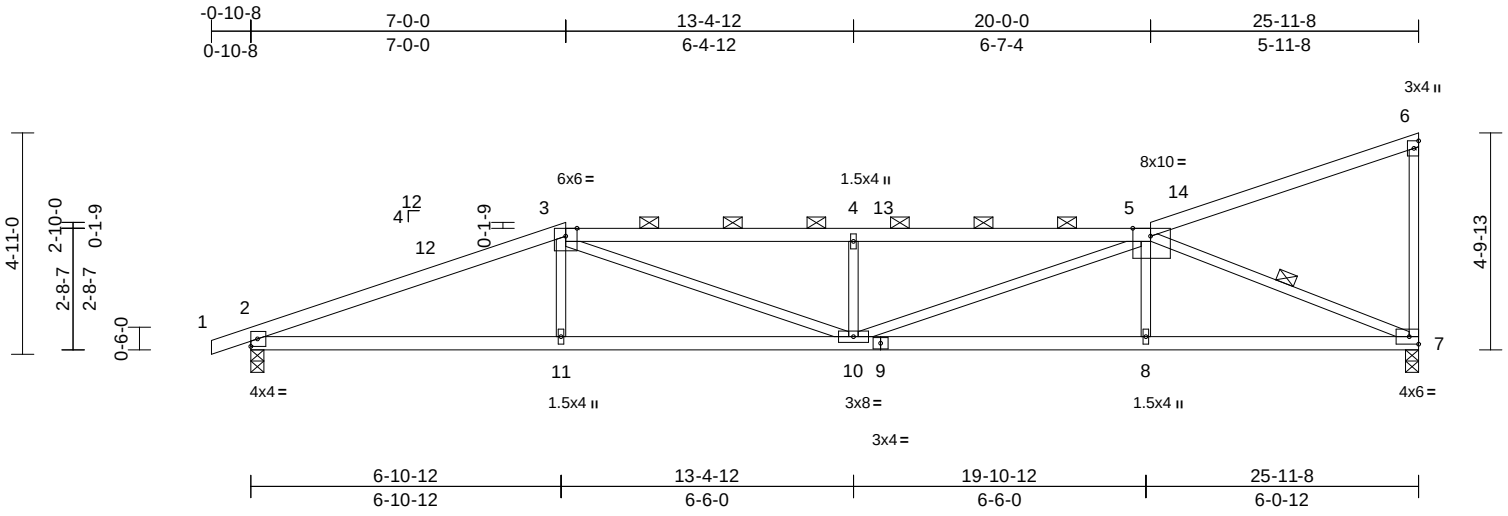

Scale = 1:51.2

Plate Offsets (X, Y): [5:0-4-12,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	0.85	Vert(LL)	-0.24	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.43	8-10	>713	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 104 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 5-6:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=201 (LC 8)
Max Uplift 2=-283 (LC 8), 7=-269 (LC 12)
Max Grav 2=1230 (LC 1), 7=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2680/618, 3-4=-3195/757, 4-5=-3193/755, 5-6=-94/45, 6-7=-185/134
BOT CHORD 2-11=-706/2446, 10-11=-709/2439, 8-10=-505/2249, 7-8=-509/2243
WEBS 3-11=0/296, 3-10=-141/808, 4-10=-520/254, 5-10=-361/1005, 5-8=0/273, 5-7=-2407/542

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-0-0, Exterior(2R) 7-0-0 to 14-0-14, Interior (1) 14-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 7 and 283 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	B3	Roof Special	2	1	Job Reference (optional)	I59259469

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:13 Page: 1
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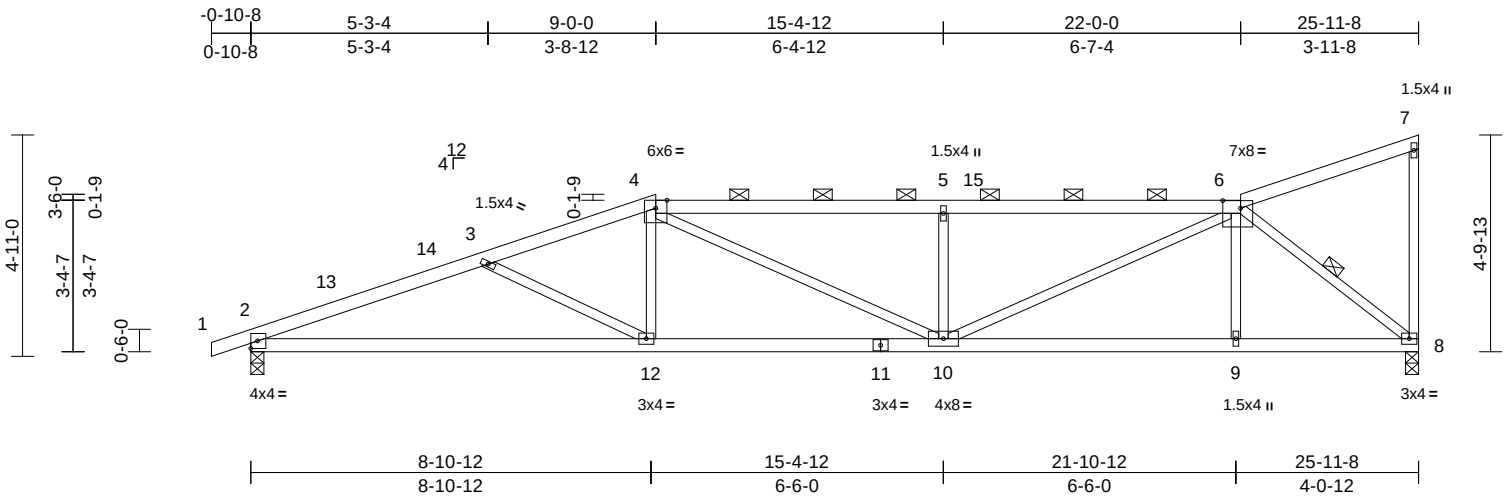

Scale = 1:51.2

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

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	0.88	Vert(LL)	-0.19	2-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.42	2-12	>740	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 109 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=201 (LC 8)
Max Uplift 2=-283 (LC 8), 8=-269 (LC 12)
Max Grav 2=1230 (LC 1), 8=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2632/666, 3-4=-2355/556, 4-5=-2438/598, 5-6=-2438/598, 6-7=-60/23, 7-8=-110/84
BOT CHORD 2-12=-790/2418, 10-12=-604/2194, 9-10=-290/1261, 8-9=-293/1257
WEBS 3-12=-239/227, 4-12=-3/354, 4-10=-56/268, 5-10=-563/273, 6-10=-406/1300, 6-9=0/241, 6-8=-1615/374

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 9-0-0, Exterior(2R) 9-0-0 to 16-0-14, Interior (1) 16-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 8 and 283 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	B4	Roof Special	2	1	Job Reference (optional)	I59259470

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:14 Page: 1
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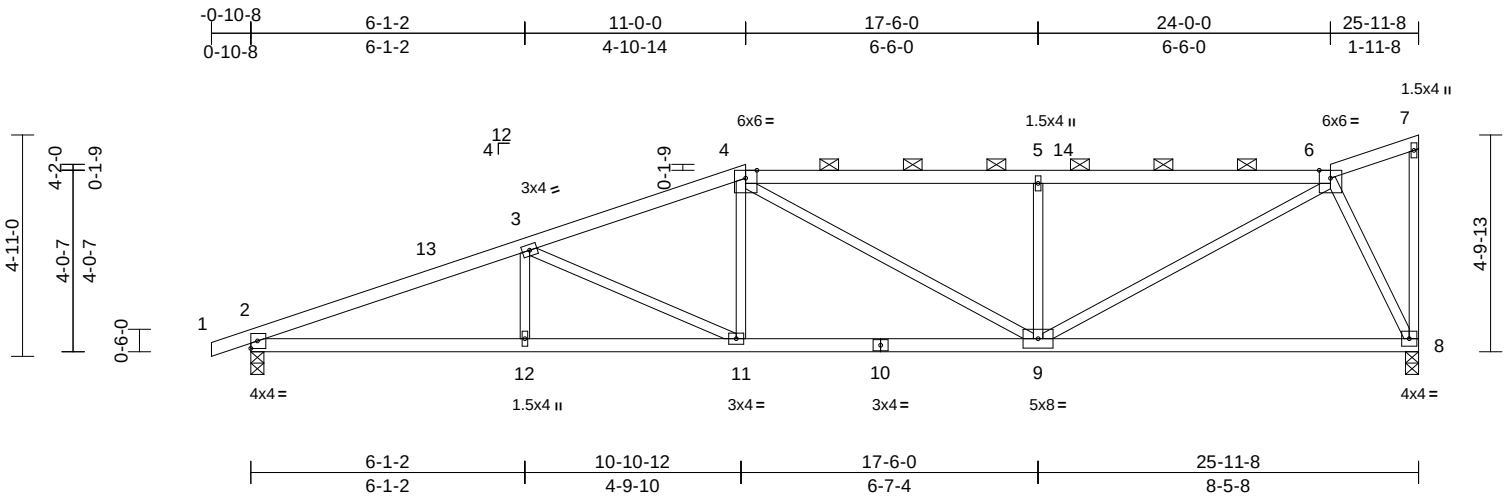

Scale = 1:51.2

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	0.74	Vert(LL)	-0.16	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.35	8-9	>889	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 110 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-3-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-9 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-10-11 oc bracing.

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=201 (LC 8)
Max Uplift 2=-283 (LC 8), 8=-269 (LC 12)
Max Grav 2=1230 (LC 1), 8=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2688/607, 3-4=-2099/516, 4-5=-1853/457, 5-6=-1853/456, 6-7=-49/0, 7-8=-13/24
BOT CHORD 2-12=-731/2454, 11-12=-731/2454, 9-11=-539/1935, 8-9=-148/530
WEBS 3-12=0/231, 3-11=-563/222, 4-11=-37/354, 4-9=-97/107, 5-9=-553/272, 6-9=-391/1530, 6-8=-1189/347

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 18-0-14, Interior (1) 18-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 8 and 283 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B5	Half Hip	2	1	Job Reference (optional)	I59259471

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:14 Page: 1
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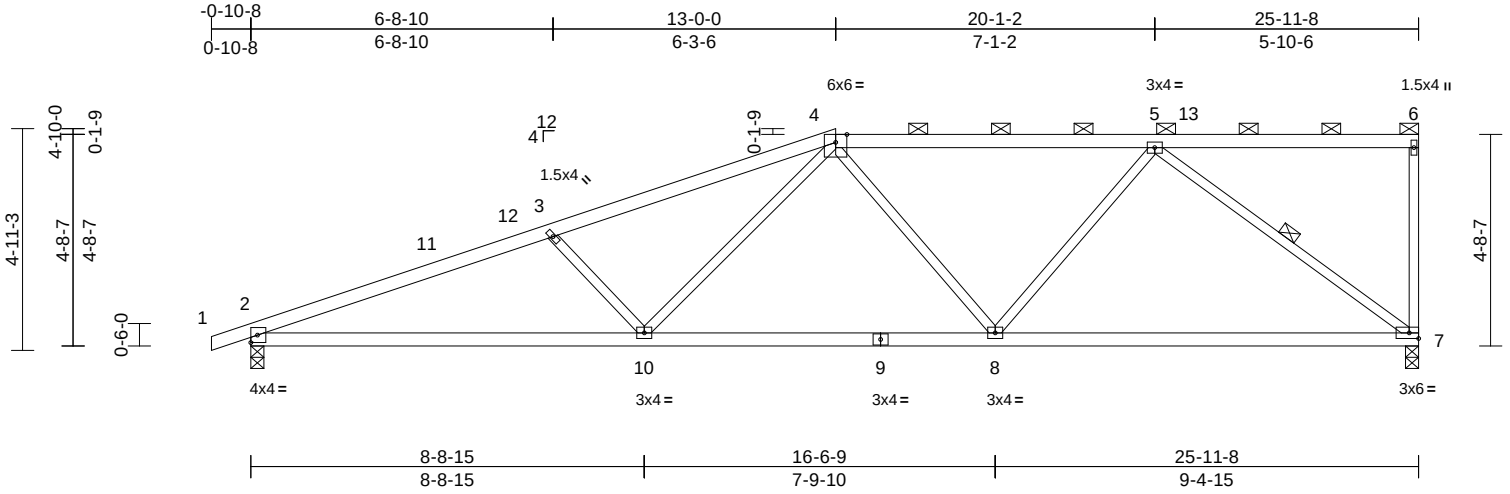

Scale = 1:51.2

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	0.79	Vert(LL)	-0.24	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.50	7-8	>619	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 105 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=198 (LC 8)
Max Uplift 2=-284 (LC 8), 7=-268 (LC 8)
Max Grav 2=1230 (LC 1), 7=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2622/658, 3-4=-2325/577, 4-5=-1530/380, 5-6=-23/0, 6-7=-153/100
BOT CHORD 2-10=-765/2411, 8-10=-484/1684, 7-8=-362/1220
WEBS 3-10=-407/271, 4-10=-145/661, 4-8=-253/171, 5-8=-26/521, 5-7=-1513/460

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 13-0-0, Exterior(2R) 13-0-0 to 20-1-2, Interior (1) 20-1-2 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 268 lb uplift at joint 7 and 284 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B6	Half Hip	2	1	Job Reference (optional)	I59259472

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:14 Page: 1
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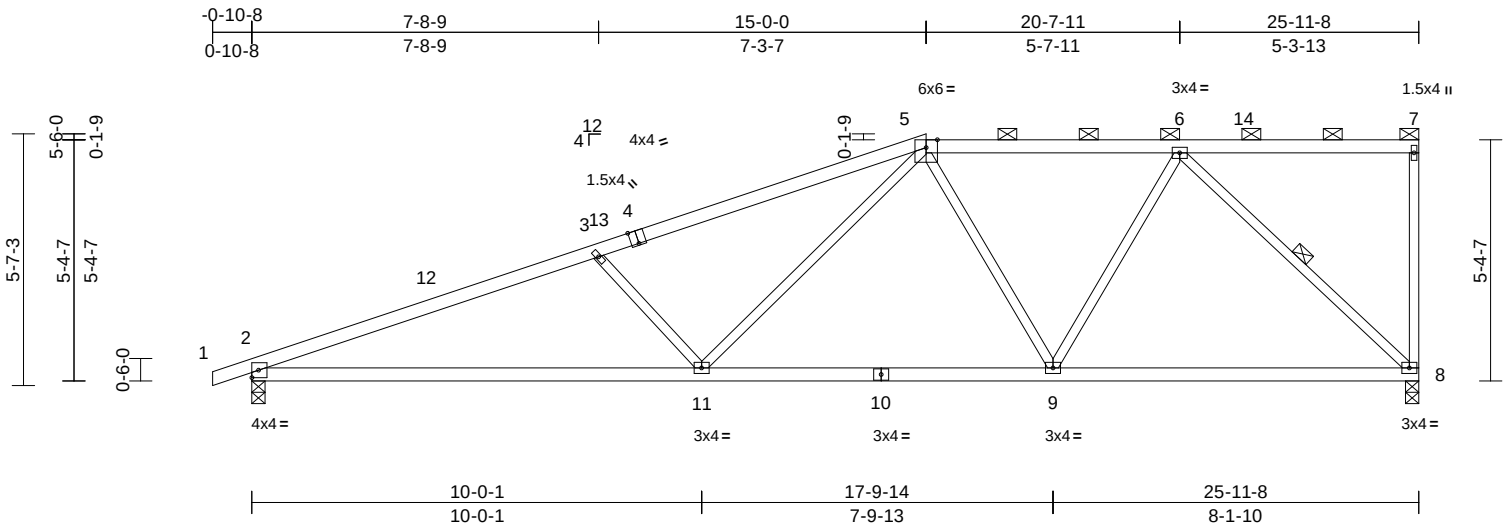

Scale = 1:51.3

Plate Offsets (X, Y): [4:0-2-0,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	0.91	Vert(LL)	-0.27	2-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.59	2-11	>525	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 107 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-1:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 10-2:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=227 (LC 8)
Max Uplift 2=-279 (LC 8), 8=-273 (LC 8)
Max Grav 2=1230 (LC 1), 8=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2563/628, 3-5=-2206/536, 5-6=-1250/336, 6-7=-13/1, 7-8=-148/95
BOT CHORD 2-11=-758/2354, 9-11=-427/1430, 8-9=-297/974
WEBS 3-11=-523/315, 5-11=-176/830, 5-9=-380/192, 6-9=-78/564, 6-8=-1343/414

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 15-0-0, Exterior(2R) 15-0-0 to 22-0-14, Interior (1) 22-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 8 SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 273 lb uplift at joint 8 and 279 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58
P236350	B7	Half Hip	2	1	I59259473
					Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:15 Page: 1
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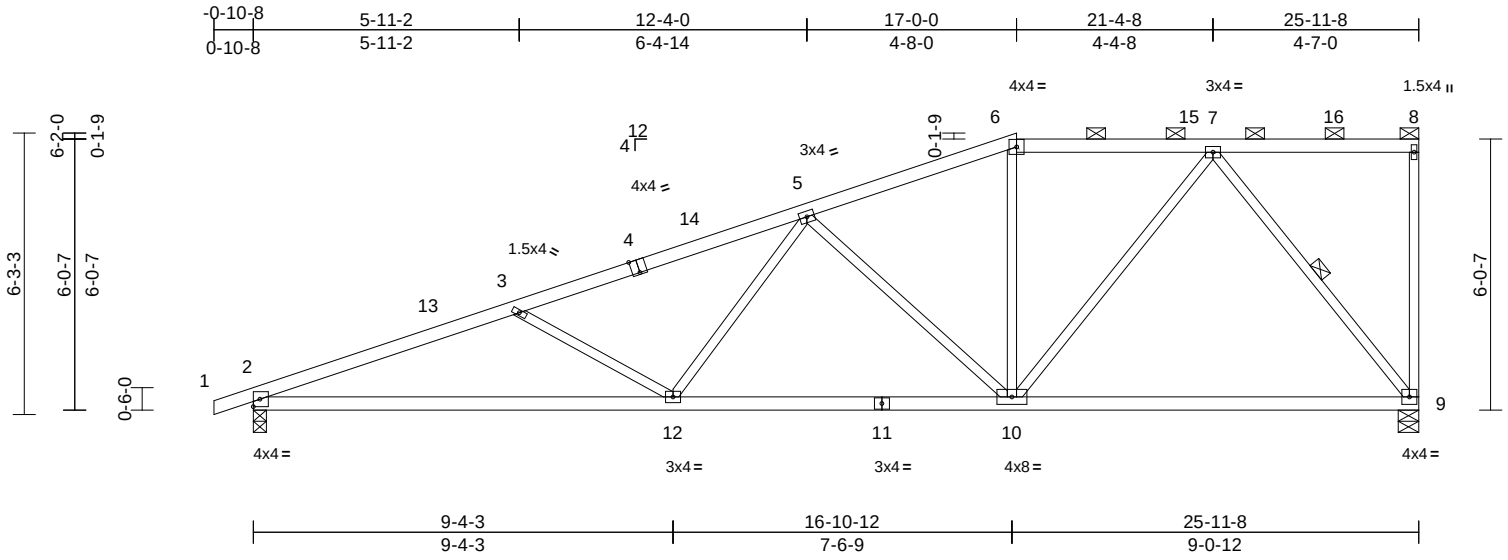

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Plate Offsets (X, Y): [4:0-2-0,Edge]

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	0.56	Vert(LL)	-0.22	2-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.49	2-12	>630	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.07	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 113 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 9=0-5-8
Max Horiz 2=256 (LC 8)
Max Uplift 2=-273 (LC 8), 9=-280 (LC 8)
Max Grav 2=1230 (LC 1), 9=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2645/607, 3-5=-2228/477, 5-6=-1317/333, 6-7=-1197/340, 7-8=-14/0, 8-9=-129/80
BOT CHORD 2-12=-776/2436, 10-12=-554/1761, 9-10=-247/749
WEBS 3-12=-455/269, 5-12=-43/495, 5-10=-777/298, 6-10=0/199, 7-10=-149/724, 7-9=-1202/404

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 17-0-0, Exterior(2R) 17-0-0 to 24-0-14, Interior (1) 24-0-14 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 280 lb uplift at joint 9 and 273 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	B8	Half Hip	2	1	Job Reference (optional)	I59259474

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:15 Page: 1
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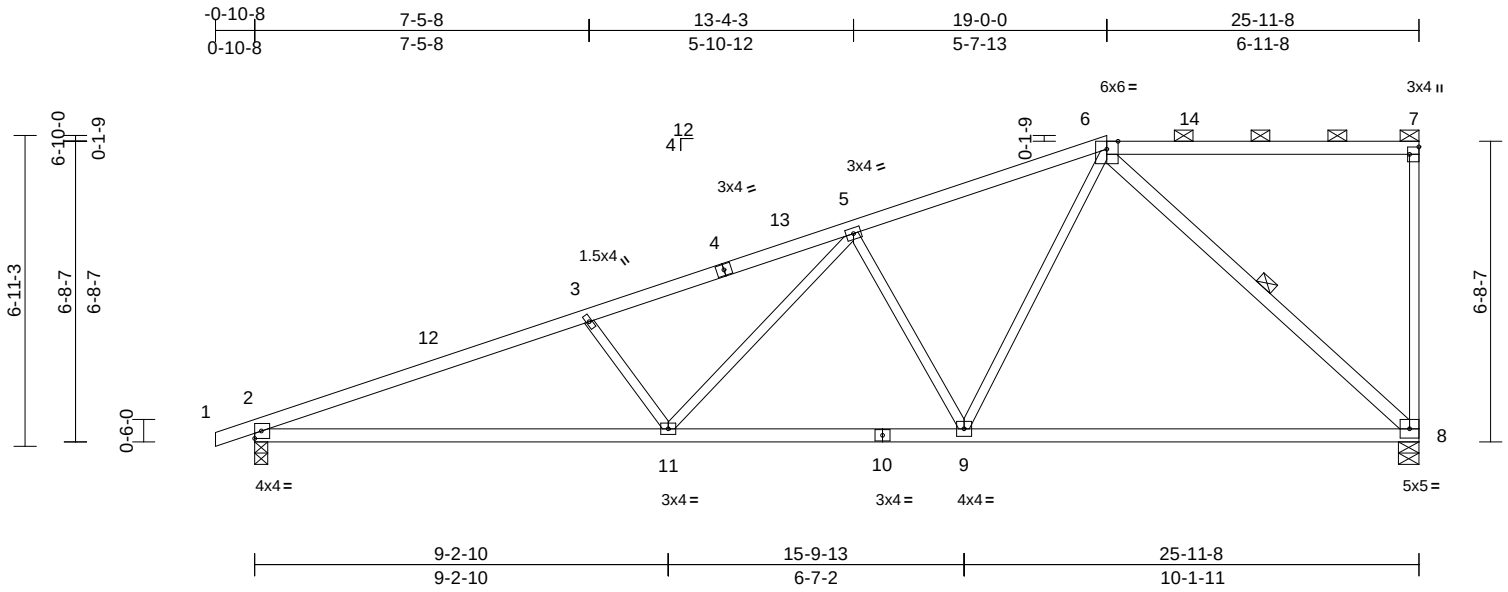

Scale = 1:51.4

Plate Offsets (X, Y): [7: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	0.90	Vert(LL)	-0.34	8-9	>906	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.70	8-9	>442	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-1:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 10-2:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 8-6:2x4 SP No.2

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

REACTIONS (size) 2=0-3-8, 8=0-5-8
Max Horiz 2=285 (LC 8)
Max Uplift 2=-266 (LC 8), 8=-286 (LC 8)
Max Grav 2=1230 (LC 1), 8=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2559/528, 3-5=-2287/492, 5-6=-1432/355, 6-7=-19/4, 7-8=-230/138
BOT CHORD 2-11=-716/2347, 9-11=-508/1637, 8-9=-302/908
WEBS 3-11=-432/242, 5-11=-154/697, 5-9=-709/291, 6-9=-158/901, 6-8=-1224/412

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 19-0-0, Exterior(2E) 19-0-0 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 8 SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 286 lb uplift at joint 8 and 266 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B9	Half Hip	2	1	Job Reference (optional)	I59259475

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:16 Page: 1
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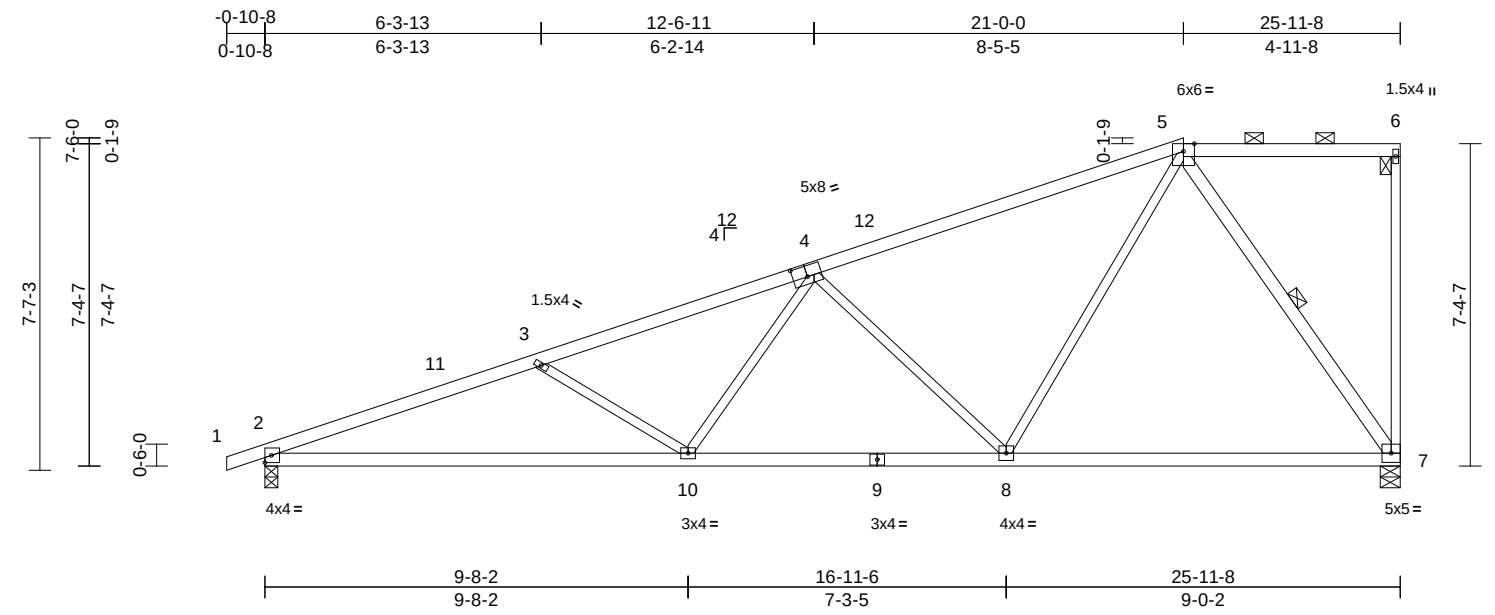

Scale = 1:52.7

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

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	0.87	Vert(LL)	-0.24	2-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.53	2-10	>579	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-5:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* 9-2:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 7-5:2x4 SP No.2

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

REACTIONS (size) 2=0-3-8, 7=0-5-8
Max Horiz 2=314 (LC 8)
Max Uplift 2=-258 (LC 8), 7=-294 (LC 8)
Max Grav 2=1230 (LC 1), 7=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2595/508, 3-5=-2214/409, 5-6=-10/1, 6-7=-158/86
BOT CHORD 2-10=-732/2384, 8-10=-558/1780, 7-8=-232/648
WEBS 3-10=-405/242, 4-10=-36/490, 4-8=-933/348, 5-8=-162/955, 5-7=-1140/415

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 21-0-0, Exterior(2E) 21-0-0 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 7 SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 294 lb uplift at joint 7 and 258 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B10	Half Hip	2	1	Job Reference (optional)	I59259476

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:16 Page: 1
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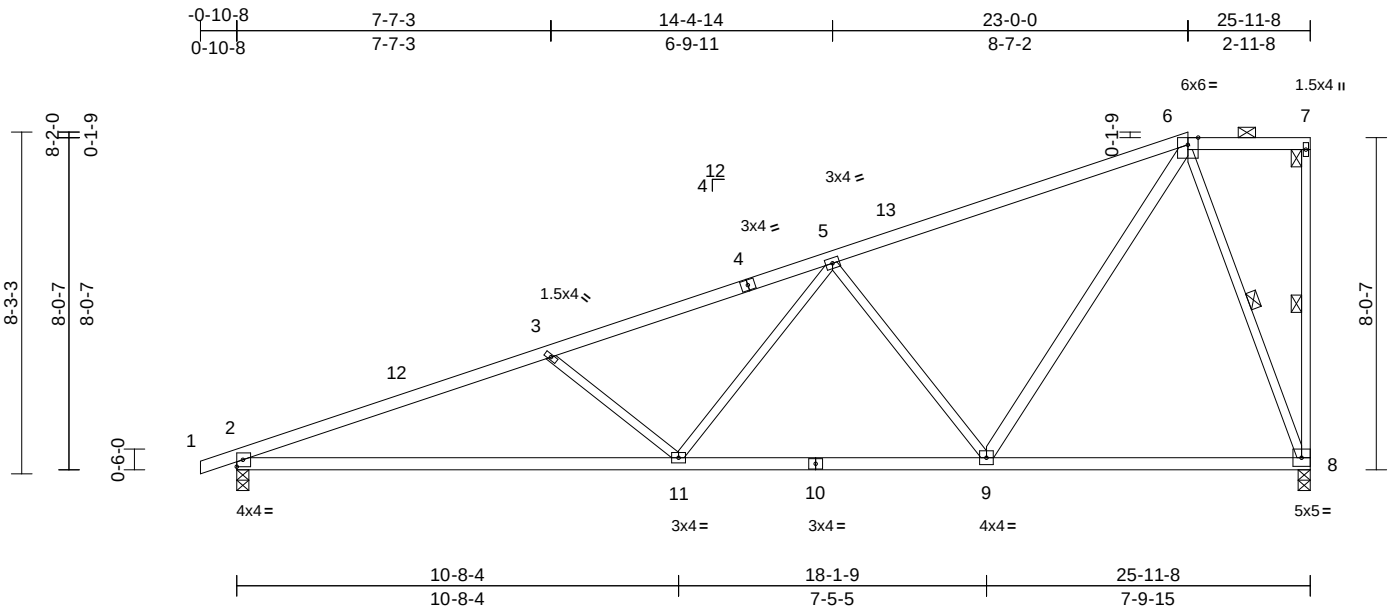

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.34	2-11	>904	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.74	2-11	>416	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 120 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 6-7:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-2:2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2 *Except* 9-6:2x4 SP No.2

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=343 (LC 8)
Max Uplift 2=-250 (LC 8), 8=-302 (LC 8)
Max Grav 2=1230 (LC 1), 8=1155 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2524/459, 3-5=-2114/348, 5-6=-1119/224, 6-7=-6/1, 7-8=-81/28
BOT CHORD 2-11=-697/2314, 9-11=-474/1547, 8-9=-141/388
WEBS 3-11=-490/270, 5-11=-76/654, 5-9=-972/356, 6-9=-227/1094, 6-8=-1121/416

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 23-0-0, Exterior(2E) 23-0-0 to 25-10-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 8 SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 302 lb uplift at joint 8 and 250 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B11	Half Hip	2	1	Job Reference (optional)	I59259477

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:16 Page: 1
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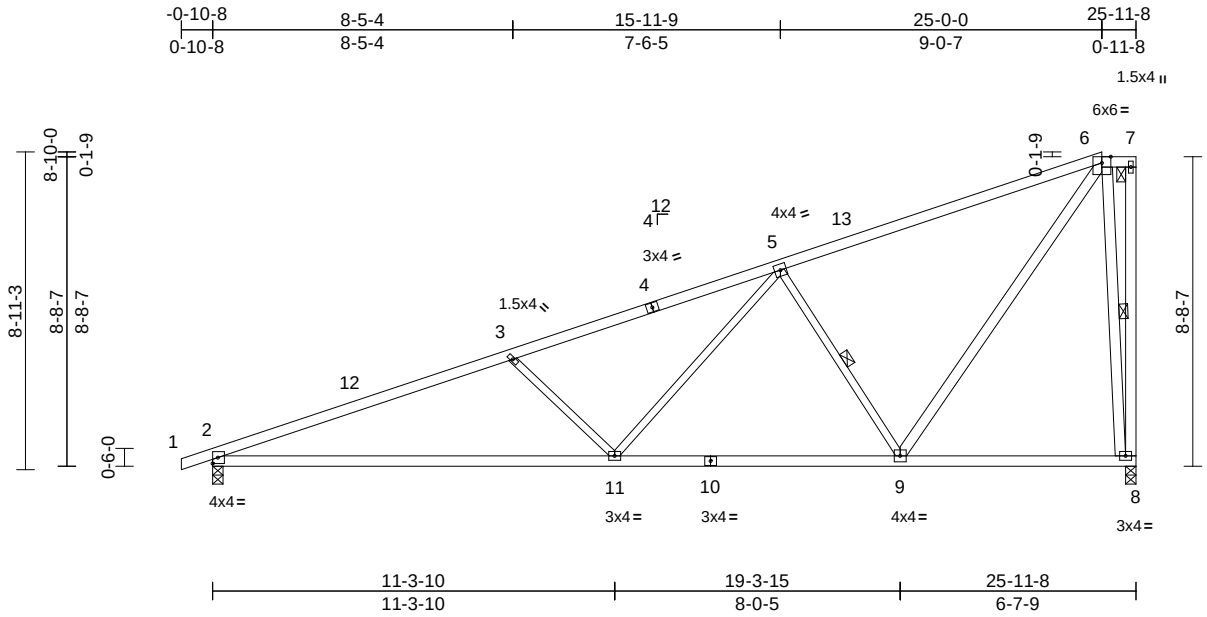

Scale = 1:64.8

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	0.99	Vert(LL)	-0.41	2-11	>749	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.90	2-11	>345	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 134 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E *Except* 6-7:2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-2:2x4 SP 1650F 1.5E
WEBS 2x4 SP No.2 *Except* 11-3,11-5,9-5:2x3 SPF No.2

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=372 (LC 8)
Max Uplift 2=-242 (LC 8), 8=-308 (LC 8)
Max Grav 2=1234 (LC 1), 8=1150 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2486/423, 3-5=-2072/323, 5-6=-978/172, 6-7=-3/5
BOT CHORD 2-11=-686/2275, 9-11=-410/1365, 8-9=-61/150
WEBS 7-8=-173/261, 3-11=-547/297, 6-9=-278/1221, 6-8=-1364/561, 5-11=-116/811, 5-9=-1023/375

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 25-0-0, Exterior(2E) 25-0-0 to 25-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP 1650F 1.5E crushing capacity of 565 psi, Joint 8 SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 308 lb uplift at joint 8 and 242 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	B12	Monopitch	4	1	Job Reference (optional)	I59259478

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:17 Page: 1
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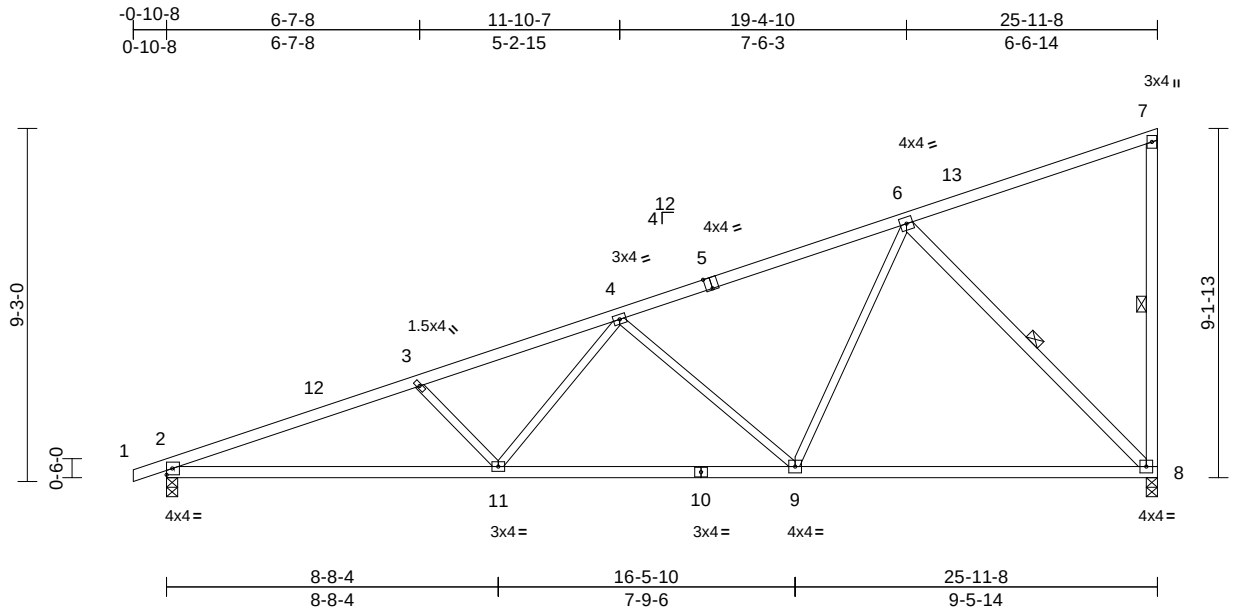

Scale = 1:60.4

Plate Offsets (X, Y): [5:0-2-0,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	0.95	Vert(LL)	-0.24	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.49	8-9	>632	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 124 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 7-8, 6-8

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=390 (LC 8)
Max Uplift 2=-234 (LC 8), 8=-317 (LC 12)
Max Grav 2=1228 (LC 1), 8=1154 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-2610/416, 3-4=-2319/355, 4-6=-1343/175, 6-7=-100/44, 7-8=-175/129
BOT CHORD 2-11=-711/2381, 9-11=-525/1816, 8-9=-265/876
WEBS 3-11=-347/214, 4-11=-82/543, 4-9=-830/300, 6-9=-95/809, 6-8=-1244/381

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 25-9-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 317 lb uplift at joint 8 and 234 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58
P236350	G1	Common Supported Gable	2	1	I59259479
					Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:17 Page: 1
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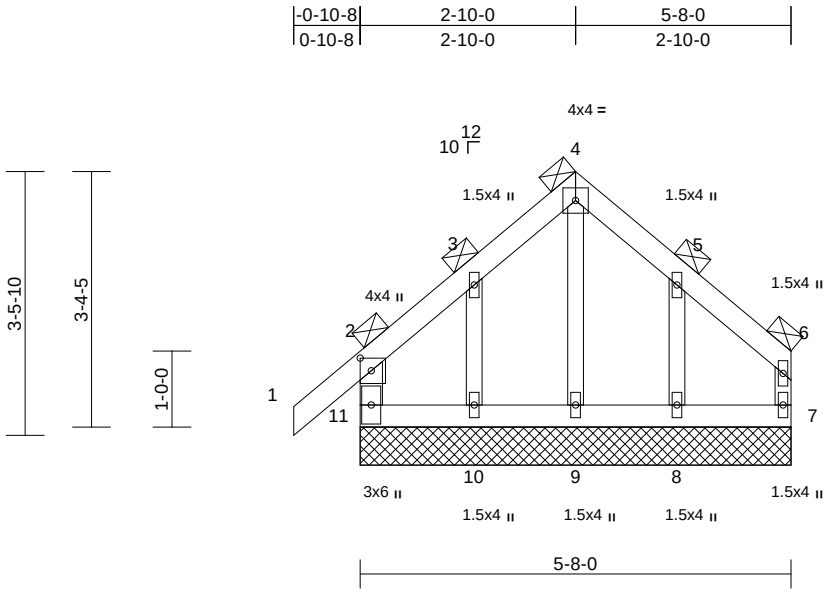

Scale = 1:30.3

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

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD 2-0-0 oc purlins, except end verticals (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 7=5-8-0, 8=5-8-0, 9=5-8-0, 10=5-8-0, 11=5-8-0
Max Horiz 11=220 (LC 9)
Max Uplift 7=-69 (LC 12), 8=-168 (LC 13), 10=-173 (LC 12), 11=-100 (LC 8)
Max Grav 7=134 (LC 19), 8=345 (LC 20), 9=237 (LC 22), 10=301 (LC 19), 11=313 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-11=-275/426, 1-2=0/91, 2-3=-157/193, 3-4=-171/382, 4-5=-178/392, 5-6=-93/139, 6-7=-96/163
BOT CHORD 10-11=-83/79, 9-10=-83/79, 8-9=-83/79, 7-8=-83/79
WEBS 4-9=-287/59, 3-10=-237/264, 5-8=-260/365

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 11, 69 lb uplift at joint 7, 173 lb uplift at joint 10 and 168 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	G2	Common	8	1	Job Reference (optional)	I59259480

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:17 Page: 1
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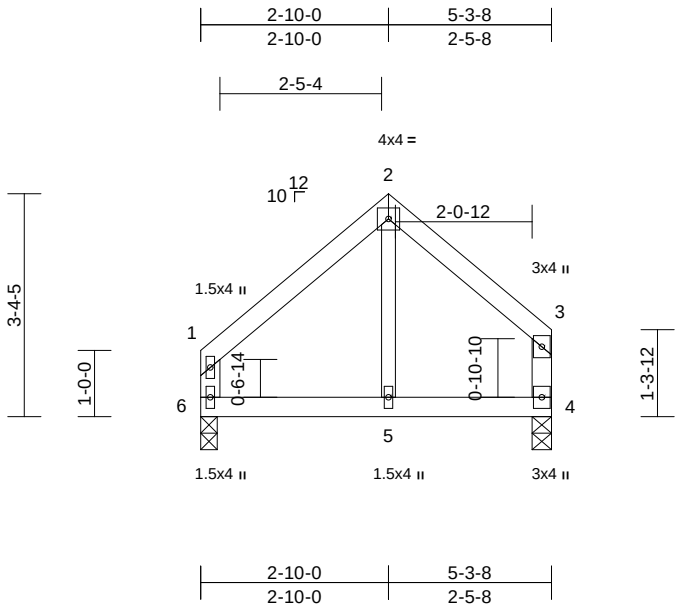

Scale = 1:34.8

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	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 23 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-8, 6=0-3-0
Max Horiz 6=99 (LC 9)
Max Uplift 4=-31 (LC 9), 6=-25 (LC 8)
Max Grav 4=225 (LC 1), 6=225 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-181/239, 2-3=-177/266, 3-4=-170/242, 1-6=-178/229
BOT CHORD 5-6=-154/90, 4-5=-154/90
WEBS 2-5=-173/73

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 6 and 31 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	D1	Monopitch	10	1	Job Reference (optional)	I59259481

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:18 Page: 1
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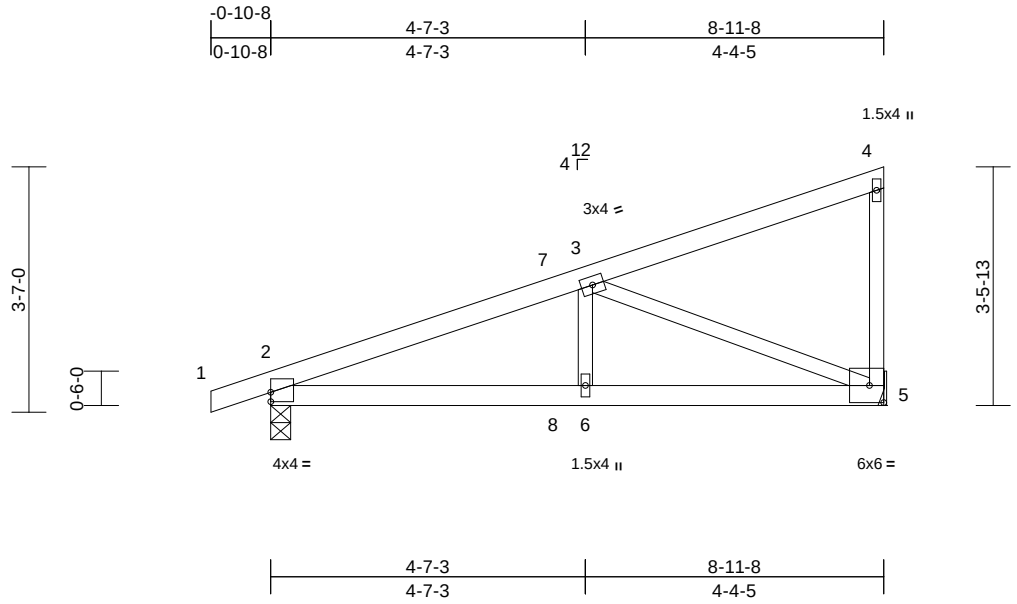

Scale = 1:33.7

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

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)	0.06	2-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	0.05	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 36 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-6-1 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=143 (LC 8)
Max Uplift 2=-201 (LC 8), 5=-198 (LC 8)
Max Grav 2=468 (LC 1), 5=388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-670/900, 3-4=-61/27, 4-5=-116/139
BOT CHORD 2-6=-1017/580, 5-6=-1017/580
WEBS 3-5=-626/1098, 3-6=-421/212

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 8-10-4 zone; cantilever left and right exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 5 and 201 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	D2	Monopitch	10	1	Job Reference (optional)	I59259482

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:18 Page: 1
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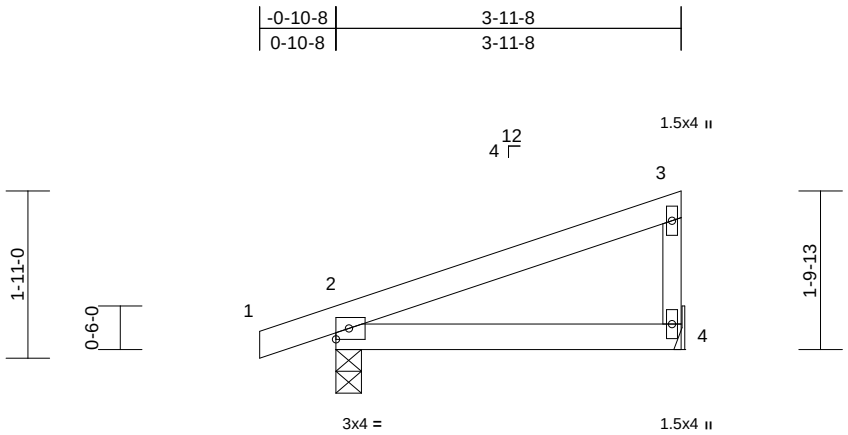

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.01	2-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	2-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 4= Mechanical
Max Horiz 2=70 (LC 8)
Max Uplift 2=-77 (LC 8), 4=-46 (LC 12)
Max Grav 2=248 (LC 1), 4=157 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-82/36, 3-4=-120/175
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 4 and 77 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	D3	Monopitch Supported Gable	2	1	Job Reference (optional)	I59259483

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:18 Page: 1
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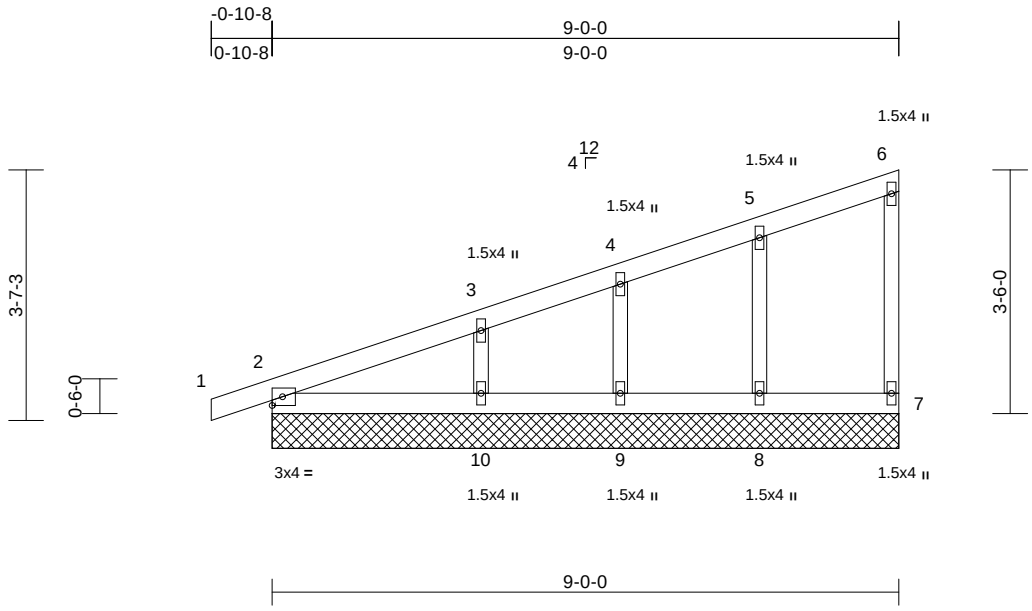

Scale = 1:33.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 35 lb	FT = 20%

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

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

REACTIONS (size) 2=9-0-0, 7=9-0-0, 8=9-0-0, 9=9-0-0, 10=9-0-0
Max Horiz 2=143 (LC 8)
Max Uplift 2=-26 (LC 8), 7=-18 (LC 8), 8=-54 (LC 12), 9=-43 (LC 8), 10=-79 (LC 12)
Max Grav 2=183 (LC 1), 7=66 (LC 1), 8=202 (LC 1), 9=149 (LC 1), 10=261 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-259/84, 3-4=-151/45, 4-5=-97/33, 5-6=-28/12, 6-7=-52/65
BOT CHORD 2-10=0/0, 9-10=0/0, 8-9=0/0, 7-8=0/0
WEBS 5-8=-156/196, 4-9=-118/147, 3-10=-199/273

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 8-10-12 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 7, 26 lb uplift at joint 2, 54 lb uplift at joint 8, 43 lb uplift at joint 9 and 79 lb uplift at joint 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	E1	Common Supported Gable	2	1	Job Reference (optional)	I59259484

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:19 Page: 1
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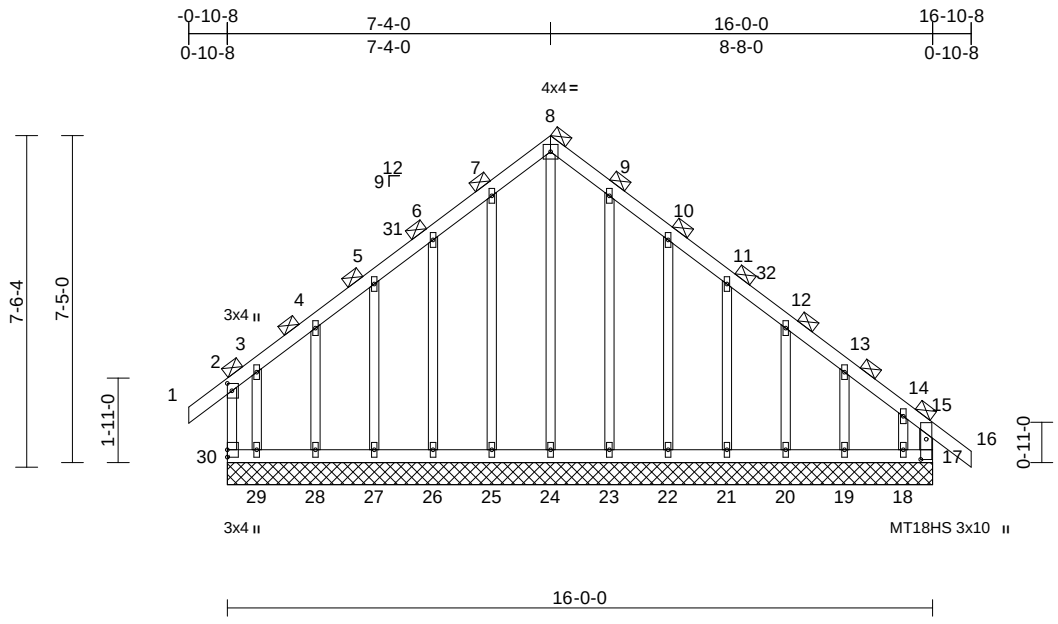

Scale = 1:52.3

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

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	n/a	-	n/a	999	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.01	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 97 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 17-15:2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 17=16-0-0, 18=16-0-0, 19=16-0-0, 20=16-0-0, 21=16-0-0, 22=16-0-0, 23=16-0-0, 24=16-0-0, 25=16-0-0, 26=16-0-0, 27=16-0-0, 28=16-0-0, 29=16-0-0, 30=16-0-0
Max Horiz 30=-485 (LC 10)
Max Uplift 17=-701 (LC 9), 18=-553 (LC 8), 19=-107 (LC 13), 20=-121 (LC 13), 21=-116 (LC 13), 22=-138 (LC 13), 23=-68 (LC 13), 24=-121 (LC 10), 25=-47 (LC 12), 26=-145 (LC 12), 27=-118 (LC 12), 28=-115 (LC 12), 29=-188 (LC 9), 30=-138 (LC 8)
Max Grav 17=780 (LC 10), 18=616 (LC 11), 19=250 (LC 26), 20=258 (LC 20), 21=255 (LC 20), 22=251 (LC 20), 23=281 (LC 20), 24=510 (LC 12), 25=249 (LC 1), 26=264 (LC 19), 27=257 (LC 19), 28=252 (LC 19), 29=266 (LC 10), 30=265 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-30=-249/273, 1-2=0/82, 2-3=-67/184, 3-4=-100/266, 4-5=-166/394, 5-6=-226/521, 6-7=-298/669, 7-8=-331/736, 8-9=-331/736, 9-10=-298/669, 10-11=-319/521, 11-12=-350/391, 12-13=-379/392, 13-14=-408/402, 14-15=-561/533, 15-16=0/86, 15-17=-527/450
BOT CHORD 29-30=-386/387, 28-29=-386/387, 27-28=-386/387, 26-27=-386/387, 25-26=-386/387, 24-25=-386/387, 23-24=-386/387, 22-23=-386/387, 21-22=-386/387, 20-21=-386/387, 19-20=-386/387, 18-19=-386/387, 17-18=-386/387
WEBS 8-24=-679/227, 7-25=-195/80, 6-26=-211/224, 5-27=-202/216, 4-28=-204/221, 3-29=-142/121, 9-23=-228/100, 10-22=-198/218, 11-21=-203/186, 12-20=-201/216, 13-19=-210/228, 14-18=-276/273

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 7-4-0, Corner(3R) 7-4-0 to 12-4-0, Exterior(2N) 12-4-0 to 16-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 MT20 plates unless otherwise indicated.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 30, 701 lb uplift at joint 17, 121 lb uplift at joint 24, 47 lb uplift at joint 25, 145 lb uplift at joint 26, 118 lb uplift at joint 27, 115 lb uplift at joint 28, 188 lb uplift at joint 29, 68 lb uplift at joint 23, 138 lb uplift at joint 22, 116 lb uplift at joint 21, 121 lb uplift at joint 20, 107 lb uplift at joint 19 and 553 lb uplift at joint 18.
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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	E2	Common	10	1	Job Reference (optional)	I59259485

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:20 Page: 1
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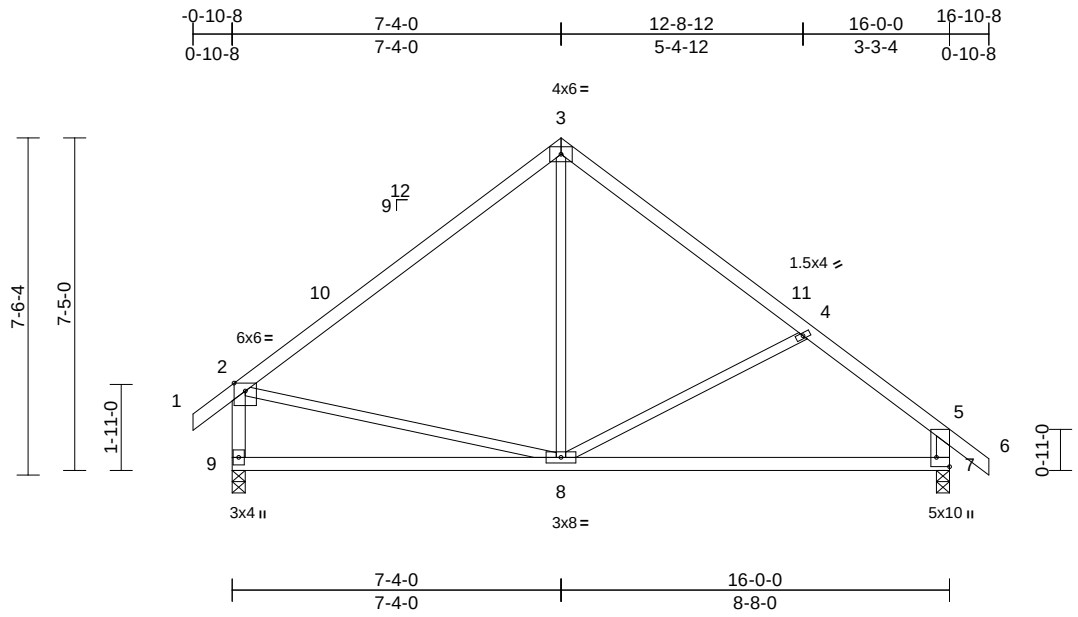

Scale = 1:51.4

Plate Offsets (X, Y): [7: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	0.73	Vert(LL)	-0.12	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.23	7-8	>825	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 77 lb	FT = 20%

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

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

REACTIONS (size) 7=0-3-8, 9=0-3-8
Max Horiz 9=-243 (LC 10)
Max Uplift 7=-121 (LC 13), 9=-110 (LC 12)
Max Grav 7=778 (LC 1), 9=778 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-687/163, 3-4=-631/182, 4-5=-832/206, 5-6=0/43, 2-9=-713/202, 5-7=-688/210
BOT CHORD 8-9=-245/362, 7-8=-84/577
WEBS 3-8=-3/323, 4-8=-239/226, 2-8=-53/328

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 12-4-0, Interior (1) 12-4-0 to 16-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 9 and 121 lb uplift at joint 7.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	E3	Common	8	1	Job Reference (optional)	I59259486

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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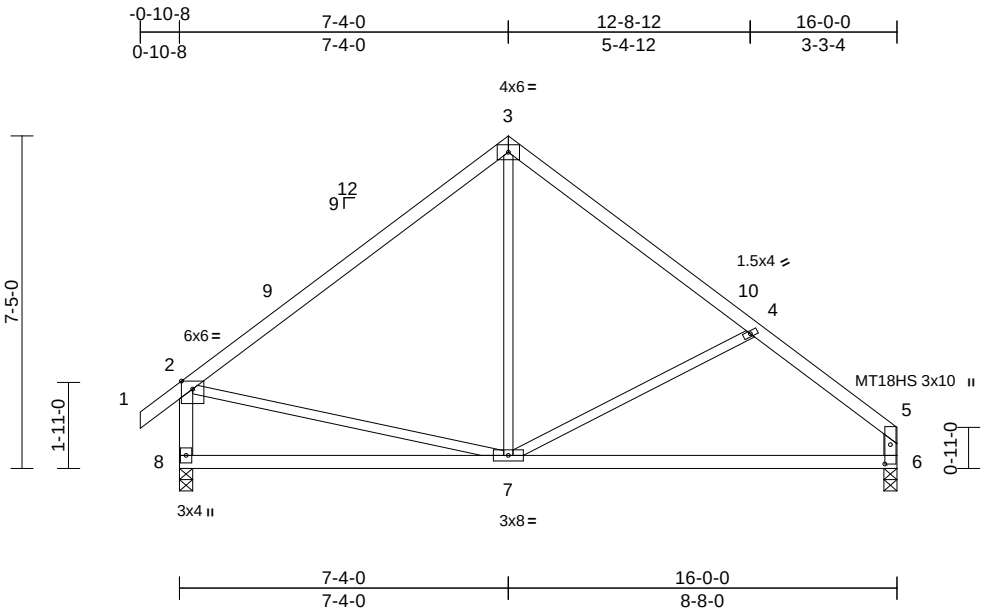

Scale = 1:51.4

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

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	0.73	Vert(LL)	-0.12	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	6-7	>841	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-2,6-5:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=-229 (LC 10)
Max Uplift 6=-95 (LC 13), 8=-110 (LC 12)
Max Grav 6=705 (LC 1), 8=781 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-688/162, 3-4=-632/182, 4-5=-839/208, 2-8=-713/202, 5-6=-610/160
BOT CHORD 7-8=-254/353, 6-7=-133/591
WEBS 3-7=-3/323, 4-7=-252/229, 2-7=-53/328

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 12-4-0, Interior (1) 12-4-0 to 15-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 8 and 95 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	E4	Roof Special	4	1	Job Reference (optional)	I59259487

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:20 Page: 1
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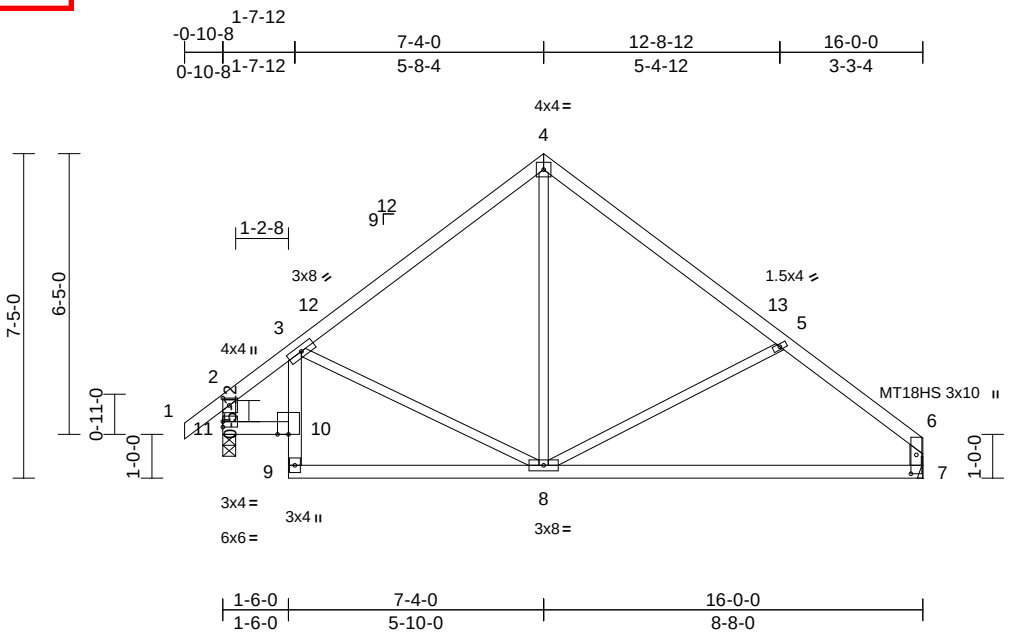

Scale = 1:52.7

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

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	0.53	Vert(LL)	-0.13	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.26	7-8	>731	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 11-2,7-6:2x4 SP No.2

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

REACTIONS (size) 7= Mechanical, 11=0-3-8
Max Horiz 11=209 (LC 11)
Max Uplift 7=-101 (LC 13), 11=-115 (LC 12)
Max Grav 7=705 (LC 1), 11=781 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-594/124, 3-4=-636/184, 4-5=-626/173, 5-6=-838/213, 2-11=-510/129, 6-7=-607/155
BOT CHORD 10-11=-119/491, 9-10=0/85, 3-10=-183/93, 8-9=-125/452, 7-8=-131/593
WEBS 3-8=-56/163, 4-8=-36/321, 5-8=-255/230

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 12-4-0, Interior (1) 12-4-0 to 15-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 11 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 11 and 101 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	E5	Roof Special	2	1	Job Reference (optional)	I59259488

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:21 Page: 1
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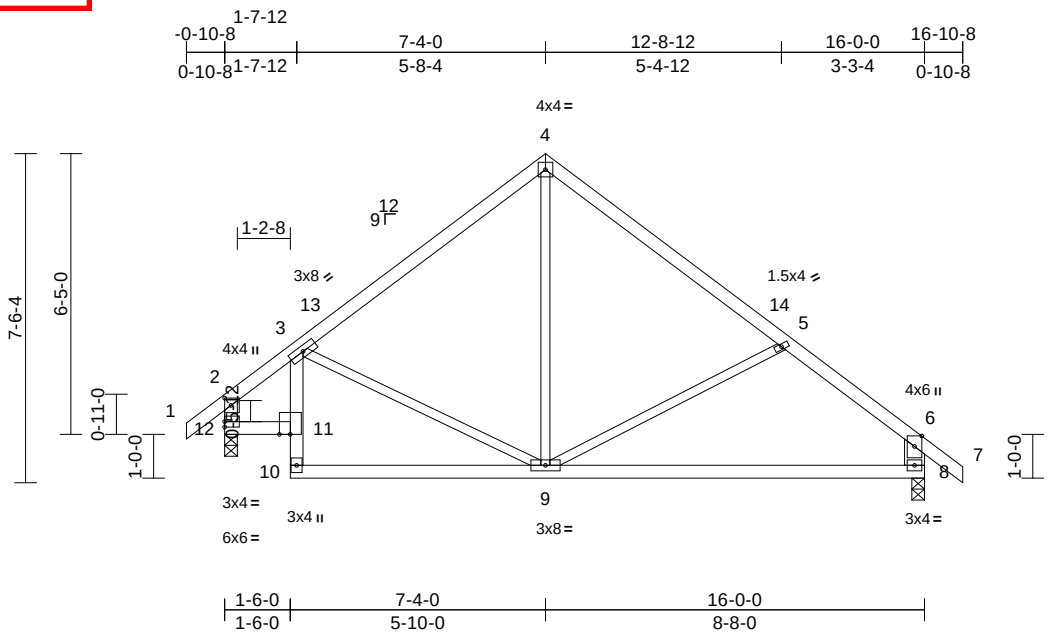

Scale = 1:52.7

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

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	0.69	Vert(LL)	-0.12	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.25	8-9	>763	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 8-6:2x6 SPF No.2, 12-2:2x4 SP No.2

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

REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=218 (LC 11)
Max Uplift 8=-130 (LC 13), 12=-114 (LC 12)
Max Grav 8=781 (LC 1), 12=774 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/43, 2-3=-588/125, 3-4=-630/187, 4-5=-620/177, 5-6=-815/213, 6-7=0/46, 6-8=-688/212, 2-12=-505/131
BOT CHORD 11-12=-105/498, 10-11=0/85, 3-11=-183/92, 9-10=-114/457, 8-9=-80/560
WEBS 4-9=-40/315, 3-9=-57/166, 5-9=-227/221

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 12-4-0, Interior (1) 12-4-0 to 16-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 12 and 130 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	I59259489
P236350	E6	Roof Special Supported Gable	2	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:21 Page: 1
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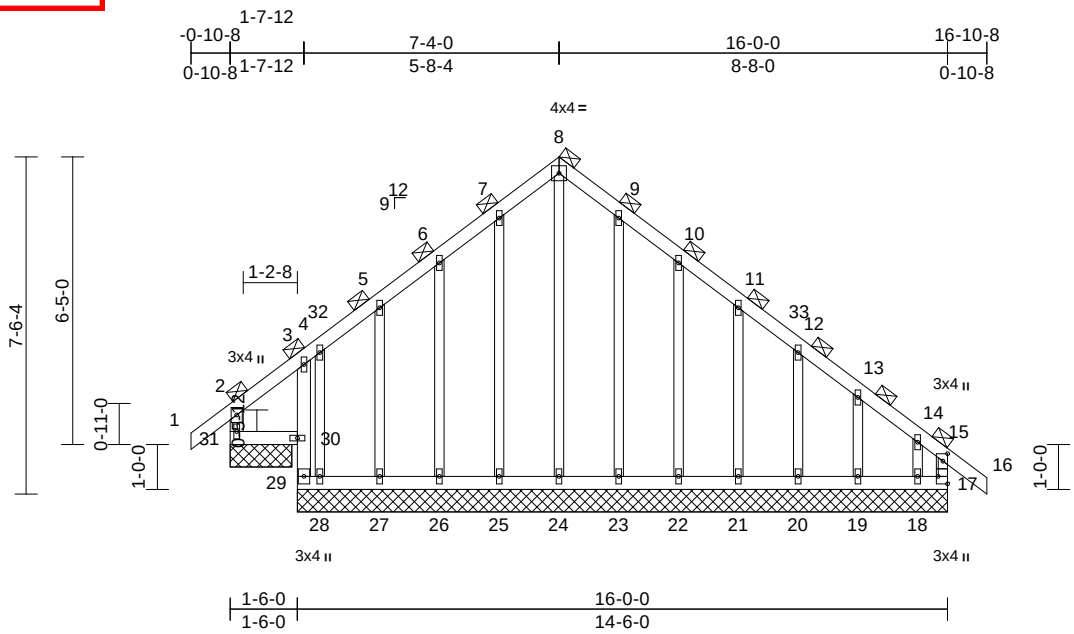

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Plate Offsets (X, Y): [15:0-2-0,0-1-4], [17:Edge,0-2-8]

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.00	30-31	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	0.00	30-31	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.02	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 98 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 15-17:2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 17=14-6-0, 18=14-6-0, 19=14-6-0, 20=14-6-0, 21=14-6-0, 22=14-6-0, 23=14-6-0, 24=14-6-0, 25=14-6-0, 26=14-6-0, 27=14-6-0, 28=14-6-0, 29=14-6-0, 31=1-4-8
Max Horiz 31=431 (LC 11)
Max Uplift 17=-160 (LC 9), 18=-261 (LC 13), 19=-111 (LC 13), 20=-120 (LC 13), 21=-116 (LC 13), 22=-143 (LC 13), 23=-53 (LC 13), 24=-35 (LC 11), 25=-68 (LC 12), 26=-140 (LC 12), 27=-113 (LC 12), 28=-262 (LC 13), 29=-202 (LC 11), 31=-184 (LC 8)
Max Grav 17=329 (LC 19), 18=246 (LC 11), 19=259 (LC 20), 20=256 (LC 20), 21=255 (LC 20), 22=262 (LC 20), 23=250 (LC 20), 24=465 (LC 13), 25=274 (LC 19), 26=252 (LC 19), 27=267 (LC 19), 28=240 (LC 20), 29=307 (LC 10), 31=392 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-31=-327/212, 1-2=0/86, 2-3=-264/258, 3-4=-282/305, 4-5=-265/319, 5-6=-231/380, 6-7=-263/454, 7-8=-298/501, 8-9=-298/494, 9-10=-262/426, 10-11=-192/304, 11-12=-130/211, 12-13=-85/141, 13-14=-106/105, 14-15=-190/137, 15-16=0/82, 15-17=-263/112
BOT CHORD 30-31=-214/245, 29-30=-180/157, 3-30=-129/121, 28-29=-143/174, 27-28=-143/174, 26-27=-143/174, 25-26=-143/174, 24-25=-143/174, 23-24=-143/174, 22-23=-143/174, 21-22=-143/174, 20-21=-143/174, 19-20=-143/174, 18-19=-143/174, 17-18=-143/174
WEBS 8-24=-451/192, 7-25=-220/101, 6-26=-201/173, 5-27=-207/150, 4-28=-136/98, 9-23=-197/85, 10-22=-208/175, 11-21=-202/149, 12-20=-202/148, 13-19=-209/155, 14-18=-170/159

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-4-0, Exterior(2R) 7-4-0 to 12-4-0, Interior (1) 12-4-0 to 16-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 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 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 31, 160 lb uplift at joint 17, 202 lb uplift at joint 29, 35 lb uplift at joint 24, 68 lb uplift at joint 25, 140 lb uplift at joint 26, 113 lb uplift at joint 27, 262 lb uplift at joint 28, 53 lb uplift at joint 23, 143 lb uplift at joint 22, 116 lb uplift at joint 21, 120 lb uplift at joint 20, 111 lb uplift at joint 19 and 261 lb uplift at joint 18.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	G1	Common Supported Gable	2	1	Job Reference (optional)	I59259490

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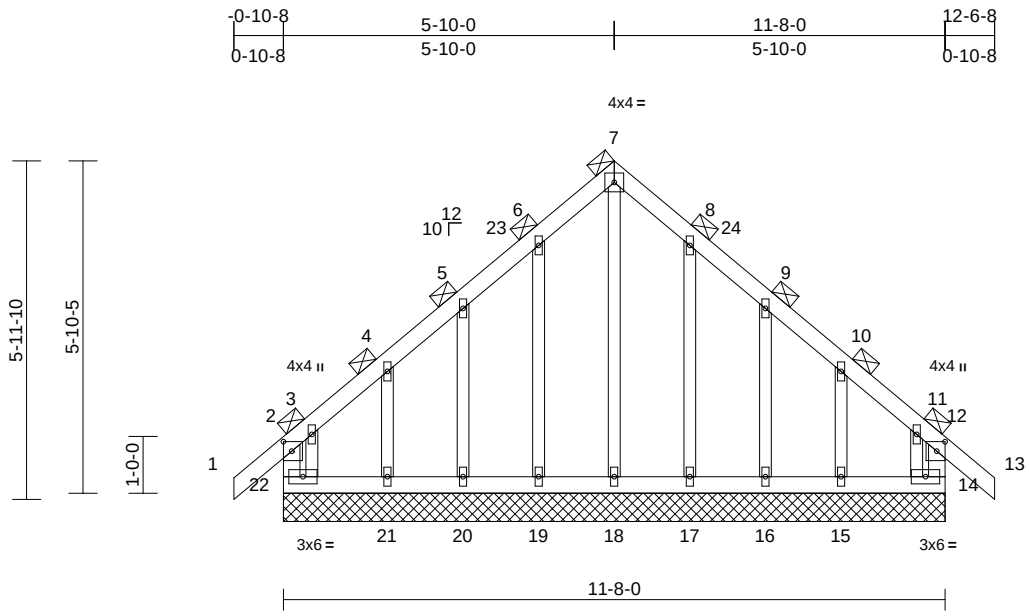

Scale = 1:40.6

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

Loading	(psf)	Spacing	4-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 66 lb	FT = 20%

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

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 14=11-8-0, 15=11-8-0, 16=11-8-0, 17=11-8-0, 18=11-8-0, 19=11-8-0, 20=11-8-0, 21=11-8-0, 22=11-8-0
Max Horiz 22=376 (LC 11)
Max Uplift 14=-138 (LC 9), 15=-255 (LC 13), 16=-119 (LC 13), 17=-101 (LC 13), 19=-103 (LC 12), 20=-116 (LC 12), 21=-266 (LC 12), 22=-176 (LC 8)
Max Grav 14=355 (LC 19), 15=348 (LC 20), 16=247 (LC 26), 17=274 (LC 20), 18=348 (LC 22), 19=279 (LC 19), 20=247 (LC 25), 21=368 (LC 19), 22=386 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-22=-278/448, 1-2=0/91, 2-3=-13/124, 3-4=-228/224, 4-5=-130/258, 5-6=-206/435, 6-7=-270/561, 7-8=-270/563, 8-9=-205/434, 9-10=-124/257, 10-11=-185/188, 11-12=-18/124, 12-13=0/91, 12-14=-266/447
BOT CHORD 21-22=-184/229, 20-21=-184/229, 19-20=-184/229, 18-19=-184/229, 17-18=-184/229, 16-17=-184/229, 15-16=-184/229, 14-15=-184/229
WEBS 7-18=-532/175, 6-19=-221/176, 5-20=-195/299, 4-21=-267/338, 3-22=-316/252, 8-17=-218/176, 9-16=-197/300, 10-15=-254/337, 11-14=-267/202

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 5-10-0, Corner(3R) 5-10-0 to 10-10-0, Exterior(2N) 10-10-0 to 12-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 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 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 176 lb uplift at joint 22, 138 lb uplift at joint 14, 103 lb uplift at joint 19, 116 lb uplift at joint 20, 266 lb uplift at joint 21, 101 lb uplift at joint 17, 119 lb uplift at joint 16 and 255 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.
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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	G2	Common	4	1	Job Reference (optional)	I59259491

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:22 Page: 1
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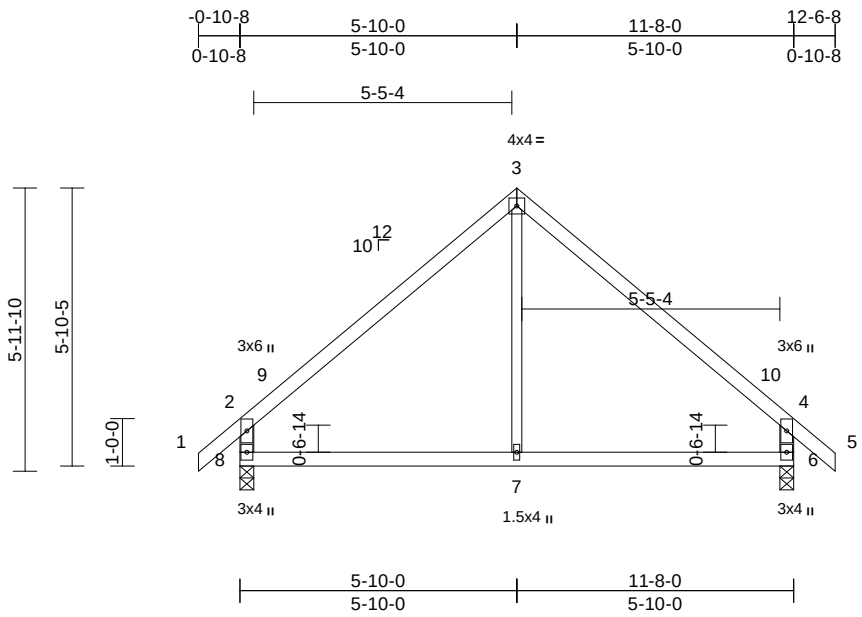

Scale = 1:48.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 50 lb	FT = 20%

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

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

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=188 (LC 11)
Max Uplift 6=-87 (LC 13), 8=-87 (LC 12)
Max Grav 6=583 (LC 1), 8=583 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/46, 2-3=-510/184, 3-4=-510/184, 4-5=0/46, 2-8=-528/254, 4-6=-528/254
BOT CHORD 7-8=-10/316, 6-7=-10/316
WEBS 3-7=0/241

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-10-0, Exterior(2R) 5-10-0 to 10-10-0, Interior (1) 10-10-0 to 12-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 8 and 87 lb uplift at joint 6.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	I59259492
P230350	G3	Common Girder	2	2	Job Reference (optional)	

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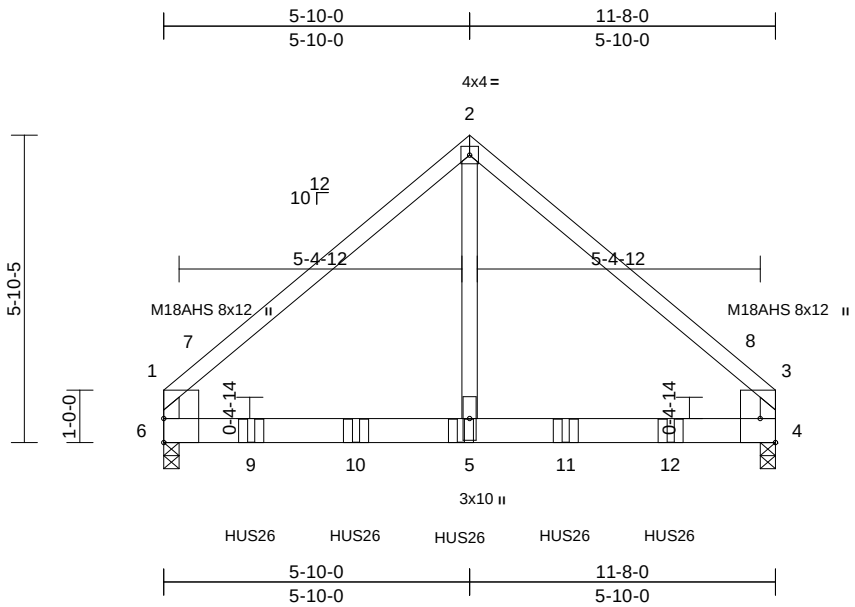

Scale = 1:43.9

Plate Offsets (X, Y): [3: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	0.45	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.08	4-5	>999	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 106 lb	FT = 20%

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

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

REACTIONS (size) 4=0-3-8, 6=0-3-8
Max Horiz 6=161 (LC 9)
Max Uplift 4=-325 (LC 13), 6=-344 (LC 12)
Max Grav 4=2183 (LC 1), 6=2263 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2034/426, 2-3=-2034/426, 1-6=-1435/356, 3-4=-1435/357
BOT CHORD 5-6=-223/1452, 4-5=-223/1452
WEBS 2-5=-287/2082

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.
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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 5-10-0, Exterior(2R) 5-10-0 to 10-10-0, Interior (1) 10-10-0 to 11-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) The Fabrication Tolerance at joint 6 = 0%, joint 4 = 0%
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 344 lb uplift at joint 6 and 325 lb uplift at joint 4.
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) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-0 from the left end to 9-8-0 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 5=-685 (B), 9=-685 (B), 10=-685 (B), 11=-685 (B), 12=-685 (B)

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	J1	Jack-Closed	4	1	Job Reference (optional)	I59259493

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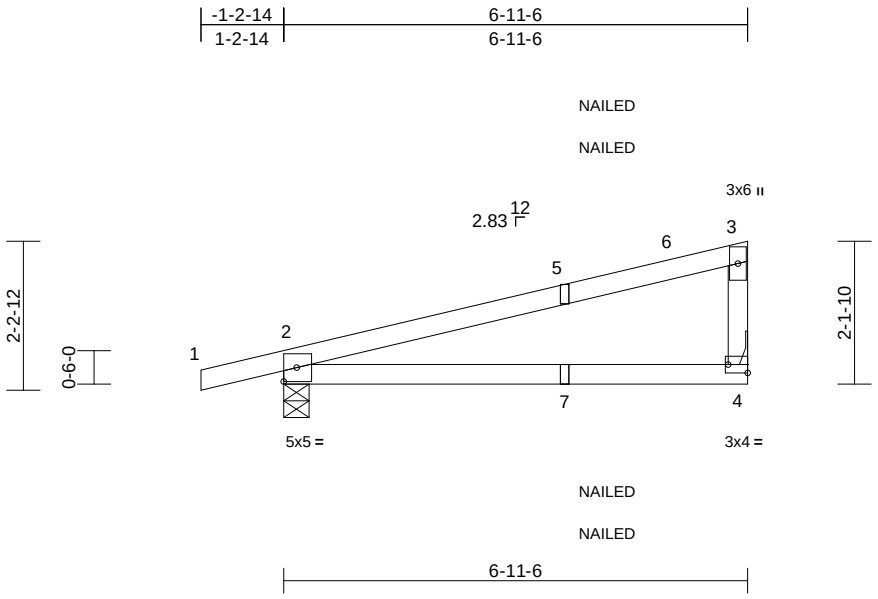


Scale = 1:34.5

Plate Offsets (X, Y): [4: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	0.65	Vert(LL)	-0.04	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10	2-4	>821	180		
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							Weight: 25 lb	FT = 20%

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

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

REACTIONS (size) 2=0-4-9, 4= Mechanical
Max Horiz 2=94 (LC 9)
Max Uplift 2=-132 (LC 8), 4=-69 (LC 12)
Max Grav 2=408 (LC 1), 4=287 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-282/126, 3-4=-189/230
BOT CHORD 2-4=-200/218

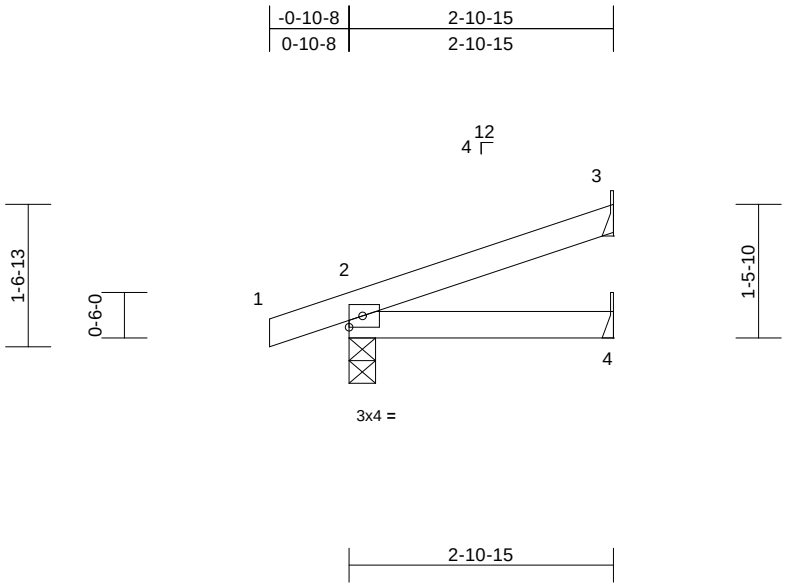
NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 6-9-10 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 2 and 69 lb uplift at joint 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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: 1-3=-70, 2-4=-20

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	J2	Jack-Open	8	1	Job Reference (optional)	I59259494



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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	0.12	Vert(LL)	0.00	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	2-4	>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-P							Weight: 10 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=55 (LC 8)
Max Uplift 2=-72 (LC 8), 3=-48 (LC 12)
Max Grav 2=207 (LC 1), 3=81 (LC 1), 4=54 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-60/28
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 3 and 72 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	J3	Jack-Open	16	1	Job Reference (optional)	I59259495

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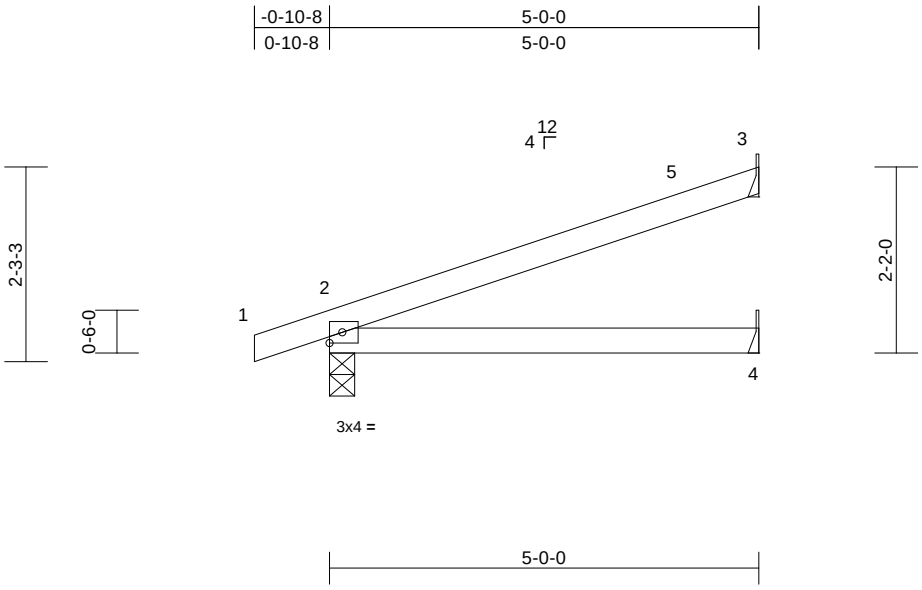

Scale = 1:26.8

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)	-0.03	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	2-4	>909	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-P							Weight: 17 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=86 (LC 8)
Max Uplift 2=-84 (LC 8), 3=-89 (LC 12)
Max Grav 2=295 (LC 1), 3=160 (LC 1), 4=96 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-95/46
BOT CHORD 2-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 4-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 3 and 84 lb uplift at joint 2.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P230350	J4	Jack-Open Supported Gable	2	1	Job Reference (optional)	I59259496

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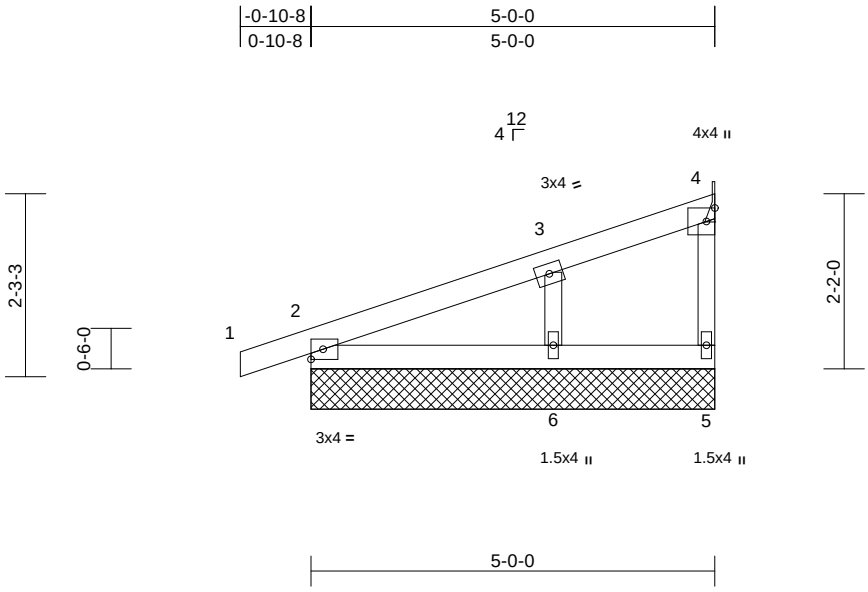

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	2-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

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

REACTIONS (size) 2=5-0-0, 4= Mechanical, 5=5-0-0, 6=5-0-0
Max Horiz 2=85 (LC 8)
Max Uplift 2=-50 (LC 8), 4=-22 (LC 8), 6=-76 (LC 12)
Max Grav 2=184 (LC 1), 4=42 (LC 1), 5=20 (LC 3), 6=266 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-148/52, 3-4=-30/9
BOT CHORD 2-6=-12/7, 5-6=0/0
WEBS 4-5=0/0, 3-6=-203/342

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 4-1-8, Exterior(2N) 4-1-8 to 4-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: , Joint 6 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 4, 50 lb uplift at joint 2 and 76 lb uplift at joint 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	J5	Jack-Closed Girder	2	1	Job Reference (optional)	I59259497

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 E Jun 15 2023 Print: 8.630 E Jun 15 2023 MiTek Industries, Inc. Thu Jun 29 10:59:42 Page: 1
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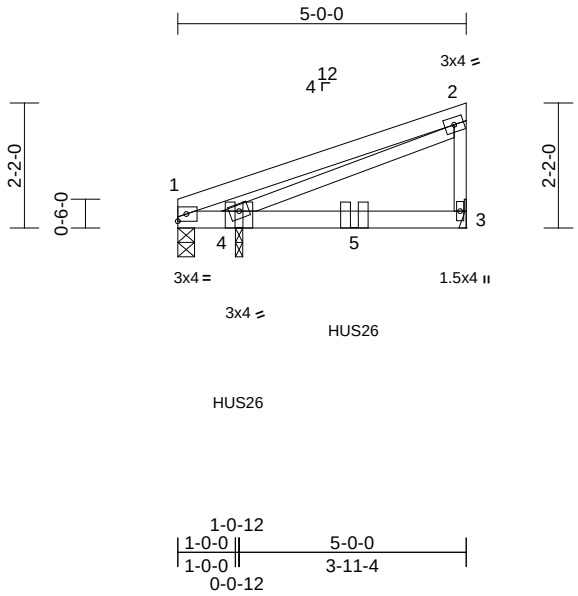

Scale = 1:39.9

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	0.60	Vert(LL)	-0.05	3-4	>925	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.10	3-4	>491	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2

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

REACTIONS (lb/size) 1=-462/0-3-8, 3=420/ Mechanical, 4=1575/0-1-8, (req. 0-1-14)
Max Horiz 1=87 (LC 9)
Max Uplift 1=-462 (LC 1), 3=-105 (LC 12), 4=-207 (LC 8)
Max Grav 1=52 (LC 13), 3=420 (LC 1), 4=1575 (LC 1)

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

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) WARNING: Required bearing size at joint(s) 4 greater than input bearing size.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 462 lb uplift at joint 1, 105 lb uplift at joint 3 and 207 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) Use Simpson Strong-Tie HUS26 (14-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-0-12 from the left end to 3-0-12 to connect truss(es) to front face of bottom chord.
8) N/A
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 4=-554 (F), 5=-553 (F)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	LAY1	Lay-In Gable	2	1	Job Reference (optional)	I59259498

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:25 Page: 1
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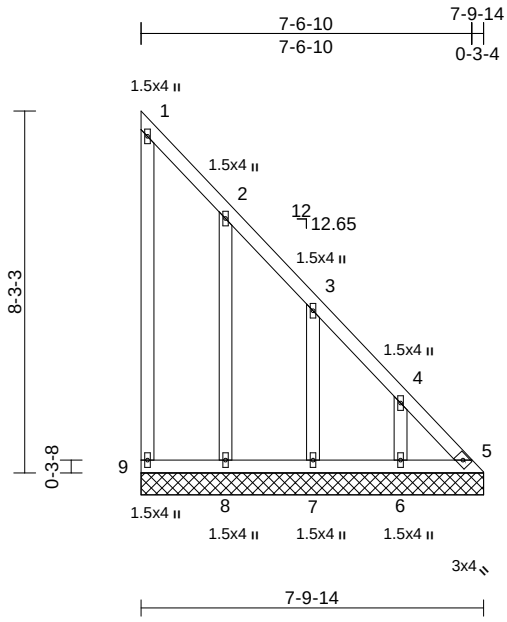

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 51 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.

REACTIONS (size) 5=7-9-14, 6=7-9-14, 7=7-9-14, 8=7-9-14, 9=7-9-14
Max Horiz 9=-330 (LC 8)
Max Uplift 5=-132 (LC 11), 6=-135 (LC 13), 7=-139 (LC 13), 8=-139 (LC 13), 9=-113 (LC 10)
Max Grav 5=258 (LC 8), 6=205 (LC 20), 7=206 (LC 20), 8=215 (LC 20), 9=115 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-195/163, 1-2=-205/219, 2-3=-342/353, 3-4=-473/473, 4-5=-598/592
BOT CHORD 8-9=-422/435, 7-8=-422/435, 6-7=-422/435, 5-6=-422/435
WEBS 2-8=-216/196, 3-7=-209/196, 4-6=-204/190

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2R) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 0-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 9, 132 lb uplift at joint 5, 139 lb uplift at joint 8, 139 lb uplift at joint 7 and 135 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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	LAY2	Lay-In Gable	2	1	Job Reference (optional)	I59259499

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:25 Page: 1
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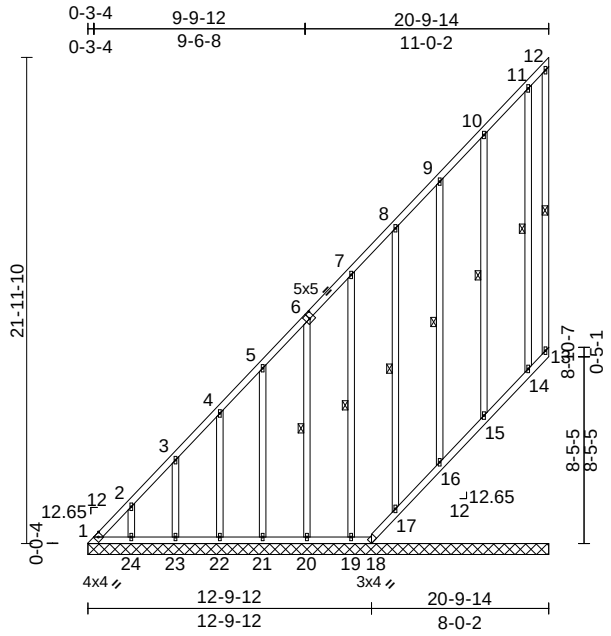

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Plate Offsets (X, Y): [6:0-2-8,0-3-0]

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	0.23	Horiz(TL)	0.00	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 232 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2 *Except*
24-2,23-3,22-4,21-5:2x4 SPF No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 12-13, 6-20, 7-19, 8-17, 9-16, 10-15, 11-14

REACTIONS (size) 1=20-9-14, 13=20-9-14, 14=20-9-14, 15=20-9-14, 16=20-9-14, 17=20-9-14, 18=20-9-14, 19=20-9-14, 20=20-9-14, 21=20-9-14, 22=20-9-14, 23=20-9-14, 24=20-9-14
Max Horiz 1=937 (LC 12)
Max Uplift 1=-321 (LC 10), 13=-24 (LC 12), 14=-90 (LC 12), 15=-145 (LC 12), 16=-135 (LC 12), 17=-140 (LC 12), 19=-138 (LC 12), 20=-137 (LC 12), 21=-134 (LC 12), 22=-134 (LC 12), 23=-137 (LC 12), 24=-138 (LC 12)
Max Grav 1=945 (LC 12), 13=21 (LC 19), 14=153 (LC 19), 15=217 (LC 19), 16=206 (LC 19), 17=201 (LC 19), 18=20 (LC 3), 19=198 (LC 19), 20=210 (LC 19), 21=202 (LC 19), 22=203 (LC 19), 23=207 (LC 19), 24=209 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1319/1039, 2-3=-1194/939, 3-4=-1058/833, 4-5=-927/731, 5-7=-796/629, 7-8=-528/420, 8-9=-394/315, 9-10=-261/212, 10-11=-121/100, 11-12=-32/15, 12-13=-21/20
BOT CHORD 1-24=0/0, 23-24=0/0, 22-23=0/0, 21-22=0/0, 20-21=0/0, 19-20=-1/0, 18-19=-1/0, 17-18=-6/23, 16-17=-28/30, 15-16=-29/29, 14-15=-30/28, 13-14=-21/4
WEBS 2-24=-177/152, 3-23=-186/163, 4-22=-180/157, 5-21=-181/158, 6-20=-186/162, 7-19=-182/159, 8-17=-184/161, 9-16=-183/159, 10-15=-194/169, 11-14=-133/115

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 20-8-6 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 0-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 13, 321 lb uplift at joint 1, 138 lb uplift at joint 24, 137 lb uplift at joint 23, 134 lb uplift at joint 22, 134 lb uplift at joint 21, 137 lb uplift at joint 20, 138 lb uplift at joint 19, 140 lb uplift at joint 17, 135 lb uplift at joint 16, 145 lb uplift at joint 15 and 90 lb uplift at joint 14.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 13, 17, 16, 15, 14.
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

June 30,2023

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	I59259500
P236350	V1	Valley	2	1	Job Reference (optional)	

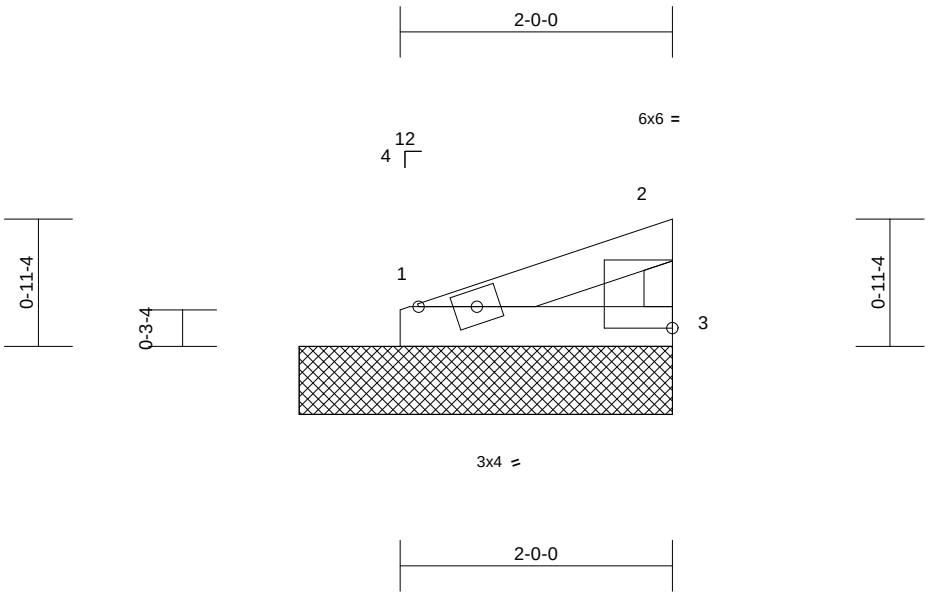

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Plate Offsets (X, Y): [2:Edge,0-1-14]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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 = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-8-15, 3=2-8-15
Max Horiz 1=29 (LC 9)
Max Uplift 1=-15 (LC 8), 3=-20 (LC 12)
Max Grav 1=79 (LC 1), 3=79 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-40/25, 2-3=-62/81
BOT CHORD 1-3=-12/13

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 20 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

June 30,2023

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	V2	Valley	2	1	Job Reference (optional)	I59259501

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:27 Page: 1
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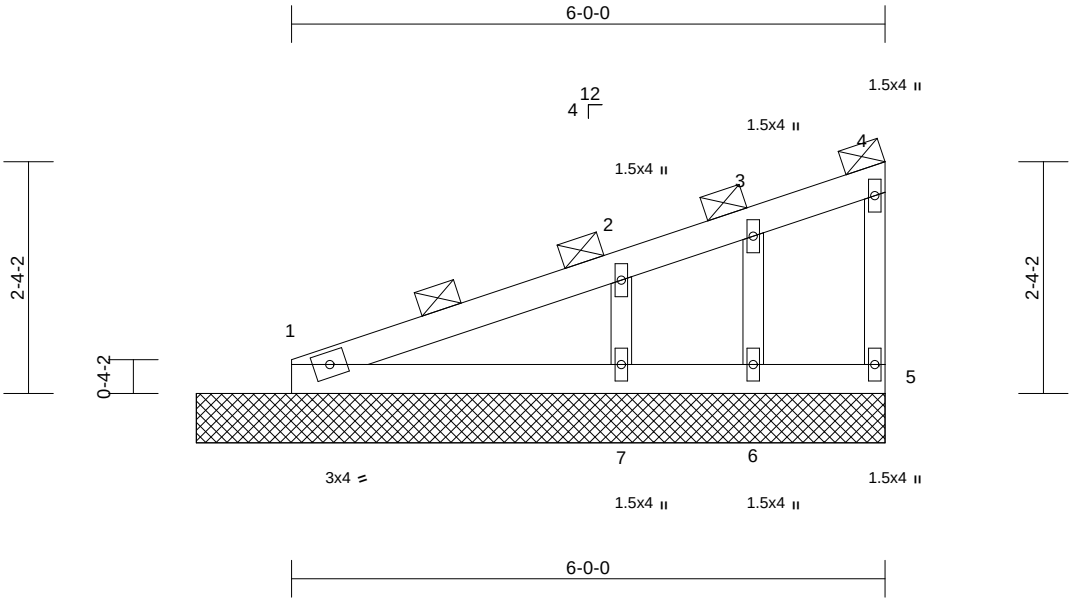

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Loading	(psf)	Spacing	3-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.12	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 22 lb	FT = 20%

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

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=6-11-9, 5=6-11-9, 6=6-11-9, 7=6-11-9
Max Horiz 1=143 (LC 9)
Max Uplift 1=-15 (LC 8), 5=-17 (LC 9), 6=-20 (LC 12), 7=-124 (LC 12)
Max Grav 1=175 (LC 1), 5=85 (LC 1), 6=73 (LC 1), 7=443 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-293/154, 2-3=-114/84, 3-4=-81/81, 4-5=-68/106
BOT CHORD 1-7=-62/83, 6-7=-62/83, 5-6=-62/83
WEBS 3-6=-58/79, 2-7=-344/489

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 1-2-1 to 6-2-1, Exterior(2N) 6-2-1 to 6-11-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 17 lb uplift at joint 5, 20 lb uplift at joint 6 and 124 lb uplift at joint 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	V3	Valley	2	1	Job Reference (optional)	I59259502

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:27 Page: 1
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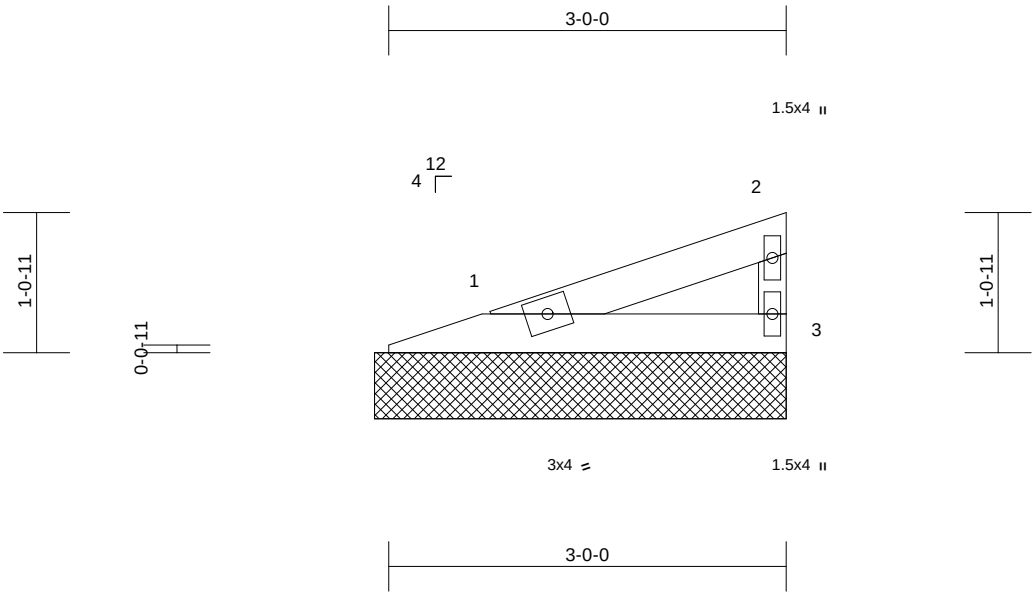

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-1-5, 3=3-1-5
Max Horiz 1=34 (LC 9)
Max Uplift 1=-18 (LC 8), 3=-24 (LC 12)
Max Grav 1=96 (LC 1), 3=96 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-49/29, 2-3=-74/98
BOT CHORD 1-3=-15/16

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 24 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.

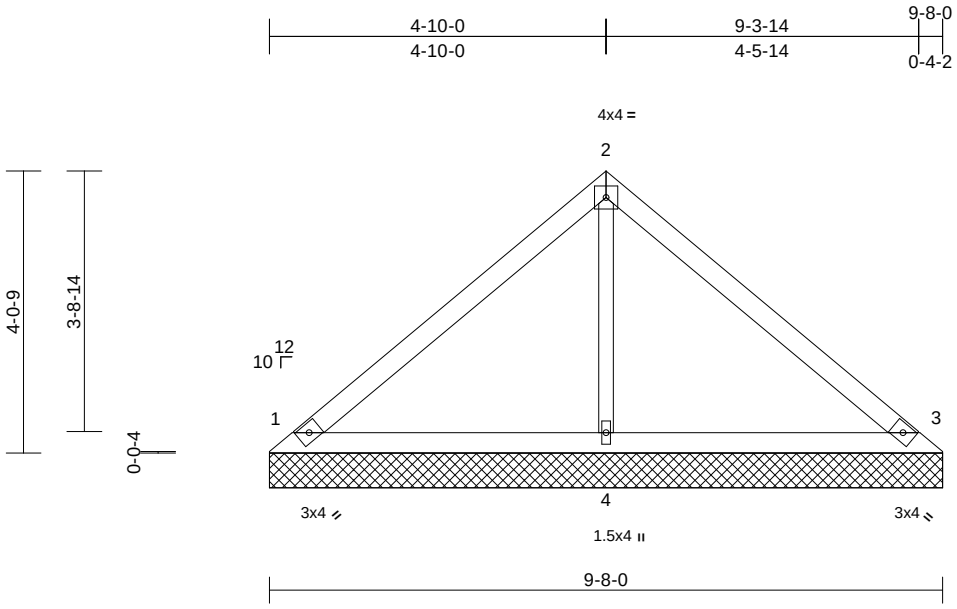
LOAD CASE(S) Standard

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	V4	Valley	2	1	Job Reference (optional)	I59259503

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Apr 6 2023 Print: 8.630 S Apr 6 2023 MiTek Industries, Inc. Thu Jun 29 09:16:27 Page: 1
ID:dGP0ZTpd5VN4LEpd6Yg6o1zxF?h-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 34 lb	FT = 20%

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

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

REACTIONS (size) 1=9-8-0, 3=9-8-0, 4=9-8-0
Max Horiz 1=-104 (LC 8)
Max Uplift 1=-44 (LC 12), 3=-56 (LC 13), 4=-16 (LC 12)
Max Grav 1=223 (LC 1), 3=223 (LC 1), 4=355 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-187/91, 2-3=-184/101
BOT CHORD 1-4=-24/88, 3-4=-24/88
WEBS 2-4=-218/106

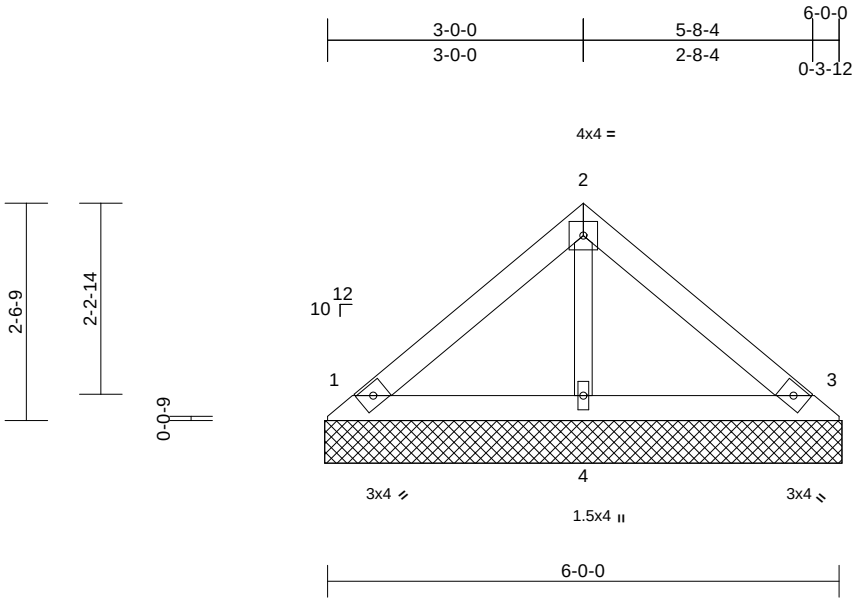
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1, 56 lb uplift at joint 3 and 16 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

June 30,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	V5	Valley	2	1	Job Reference (optional)	I59259504



Scale = 1:27

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	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 1=6-0-13, 3=6-0-13, 4=6-0-13
Max Horiz 1=-62 (LC 8)
Max Uplift 1=-34 (LC 12), 3=-41 (LC 13)
Max Grav 1=144 (LC 1), 3=144 (LC 1), 4=190 (LC 1)

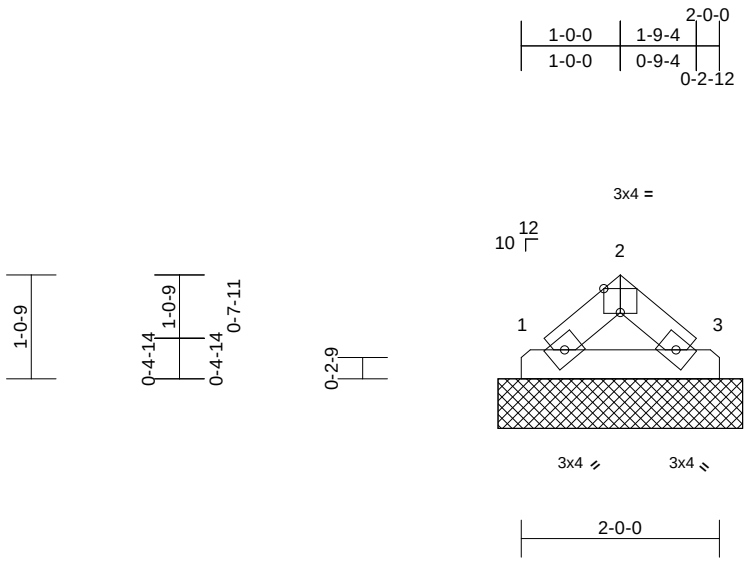
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-102/66, 2-3=-96/71
BOT CHORD 1-4=-14/49, 3-4=-14/49
WEBS 2-4=-123/77

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=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 41 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

June 30,2023

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 58	
P236350	V6	Valley	2	1	Job Reference (optional)	I59259505



Scale = 1:23.2

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-6-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-5-10, 3=2-5-10
Max Horiz 1=-20 (LC 8)
Max Uplift 1=-7 (LC 13), 3=-7 (LC 12)
Max Grav 1=60 (LC 1), 3=60 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-46/34, 2-3=-46/36
BOT CHORD 1-3=-6/26

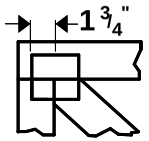
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 7 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

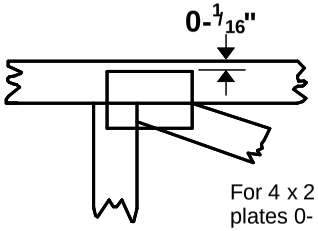
June 30,2023

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



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.

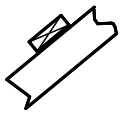
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

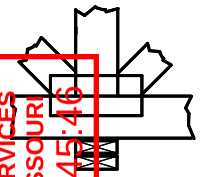
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

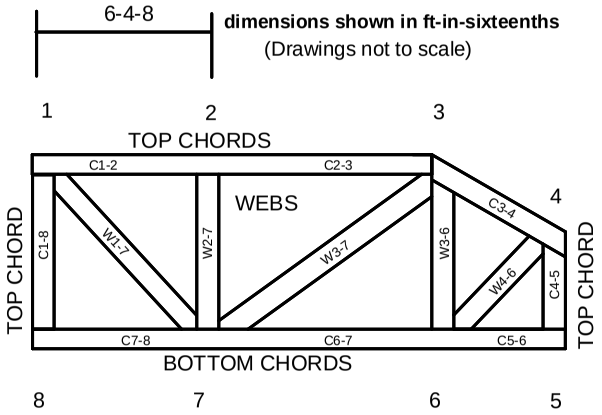


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.