MiTek®

RE: P240539-01
Roof - Osage Lot 79

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer: Clayton Properties Project Name: P240539-01
Lot/Block: 79 Model:
Address: 3716/3718 SW Knoxville Ct OS Lot 79 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 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I61197917	A1	10/6/2023
2	I61197918	A2	10/6/2023
3	I61197919	A3	10/6/2023
4	I61197920	A4	10/6/2023
5	I61197921	B1	10/6/2023
6	I61197922	B2	10/6/2023
7	I61197923	C1	10/6/2023
8	I61197924	C2	10/6/2023
9	I61197925	C3	10/6/2023
10	I61197926	C4	10/6/2023
11	I61197927	E1	10/6/2023
12	I61197928	E2	10/6/2023
13	I61197929	G1A	10/6/2023
14	I61197930	G2A	10/6/2023
15	I61197931	V5	10/6/2023
16	I61197932	V6	10/6/2023
17	I61197933	V7	10/6/2023

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, 2025.

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.

October 06, 2023

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	A1	Roof Special Structural Gable	1	1	I61197917
					Job Reference (optional)

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

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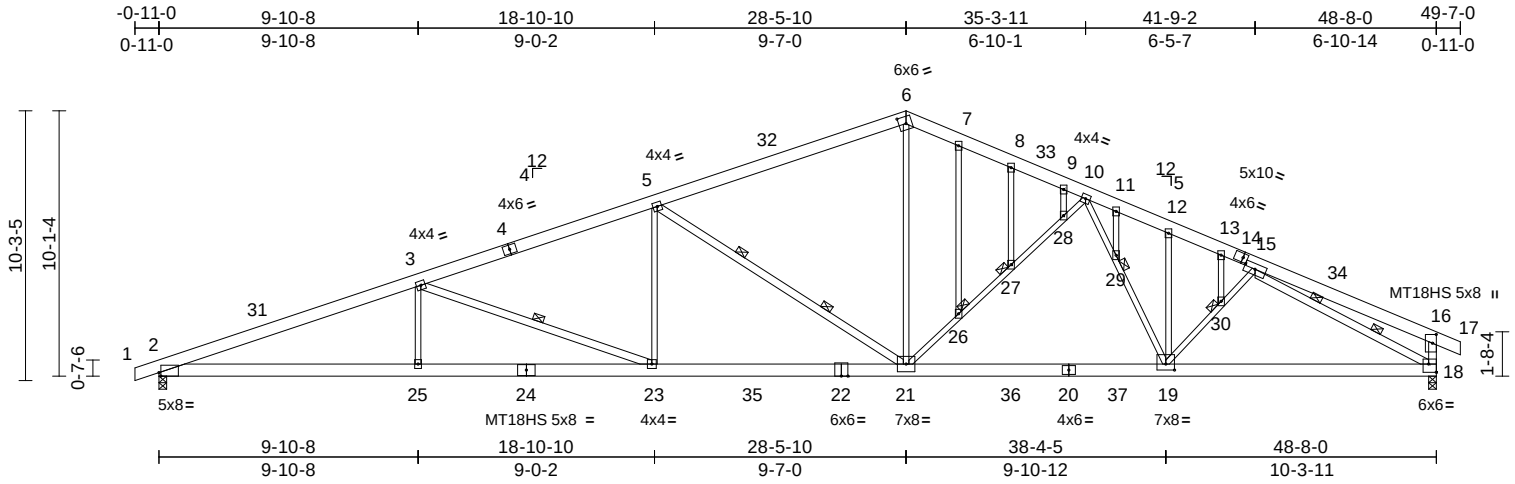
Page: 1



Scale = 1:87.8

Plate Offsets (X, Y): [2:0-0-14,Edge], [6:0-3-5,0-3-4], [14:0-2-2,0-2-0], [16:0-4-0,0-1-12], [18:Edge,0-3-12], [19:0-4-0,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.45	19-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.73	19-21	>794	180	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.15	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 319 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 6-14,14-17:2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 18-16,21-5,23-3,18-15:2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-23
WEBS 2 Rows at 1/3 pts 5-21, 15-18
JOINTS 1 Brace at Jt(s): 26, 27, 29, 30

REACTIONS (size) 2=0-3-8, 18=0-3-8
Max Horiz 2=184 (LC 12)
Max Uplift 2=-449 (LC 8), 18=-328 (LC 13)
Max Grav 2=2348 (LC 2), 18=2366 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-5861/1164, 3-5=-4575/983, 5-6=-3139/777, 6-7=-3091/796, 7-8=-3130/785, 8-9=-3164/773, 9-10=-3239/782, 10-11=-3748/840, 11-12=-3780/835, 12-13=-3795/802, 13-15=-3833/793, 15-16=-460/213, 16-17=0/29, 16-18=-480/303
BOT CHORD 2-25=-1036/5472, 23-25=-1036/5472, 21-23=-755/4260, 19-21=-563/3330, 18-19=-624/3316
WEBS 6-21=-276/1706, 3-25=0/424, 5-21=-1669/450, 3-23=-1305/354, 5-23=-18/828, 19-30=0/338, 15-30=0/330, 21-26=-705/282, 26-27=-693/274, 27-28=-679/268, 10-28=-791/316, 15-18=-3502/610, 10-29=-25/454, 19-29=-26/423, 7-26=-20/15, 8-27=-25/12, 9-28=-65/155, 11-29=-34/0, 12-19=-107/61, 13-30=0/10

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 49-7-0 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 3x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 328 lb uplift at joint 18 and 449 lb uplift at joint 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 6,2023

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	A2	Roof Special	2	1	I61197918
					Job Reference (optional)

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

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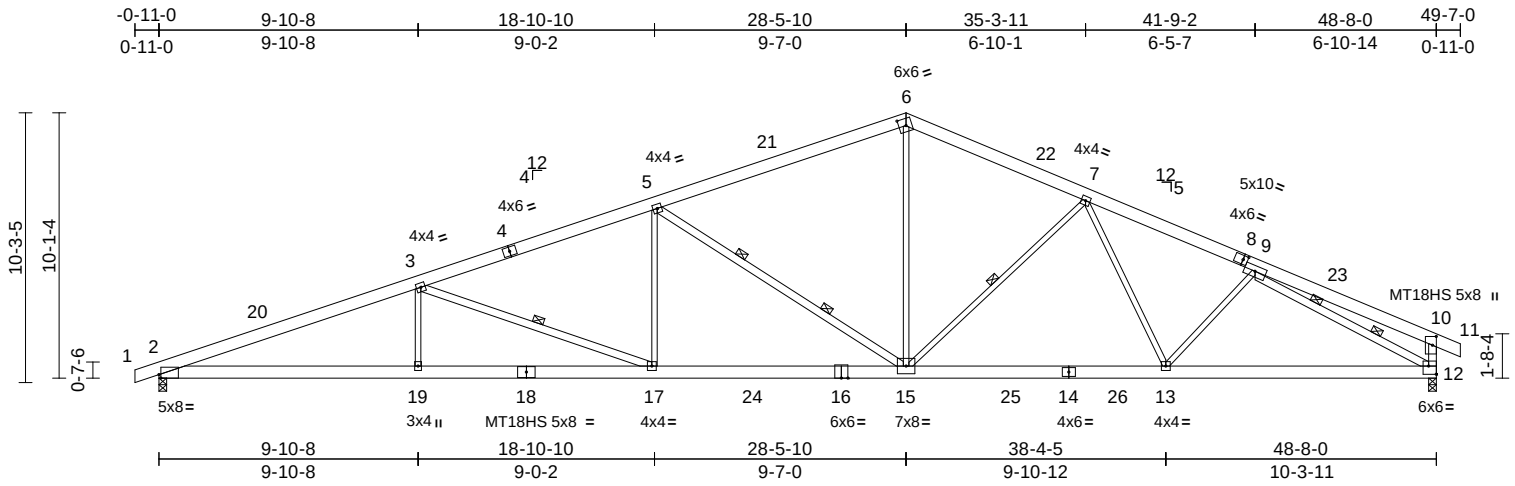

Scale = 1:87.8

Plate Offsets (X, Y): [2:0-0-14,Edge], [6:0-3-5,0-3-4], [8:0-2-2,0-2-0], [10:0-4-0,0-1-12], [12:Edge,0-3-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.43	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.70	17-19	>833	180	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.15	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 303 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 8-11,8-6:2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 0-0:2x6 SPF No.2

WEBS 2x3 SPF No.2 *Except* 12-10,15-5,17-3,12-9:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-2 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 3-17, 7-15

WEBS 2 Rows at 1/3 pts 5-15, 9-12

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=184 (LC 16)
Max Uplift 2=-449 (LC 8), 12=-328 (LC 13)
Max Grav 2=2348 (LC 2), 12=2366 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-5857/1163, 3-5=-4577/984, 5-6=-3135/775, 6-7=-3198/796, 7-9=-3818/813, 9-10=-456/207, 10-11=0/29, 10-12=-475/299

BOT CHORD 2-19=-1035/5468, 17-19=-1035/5468, 15-17=-756/4263, 13-15=-568/3334, 12-13=-630/3313

WEBS 3-19=0/422, 6-15=-283/1724, 9-13=0/317, 5-17=-17/827, 7-13=0/390, 5-15=-1677/454, 3-17=-1299/352, 7-15=-712/287, 9-12=-3497/622

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 49-7-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 449 lb uplift at joint 2 and 328 lb uplift at joint 12.
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

October 6,2023

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	A3	Roof Special	5	1	I61197919 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:27 Page: 1
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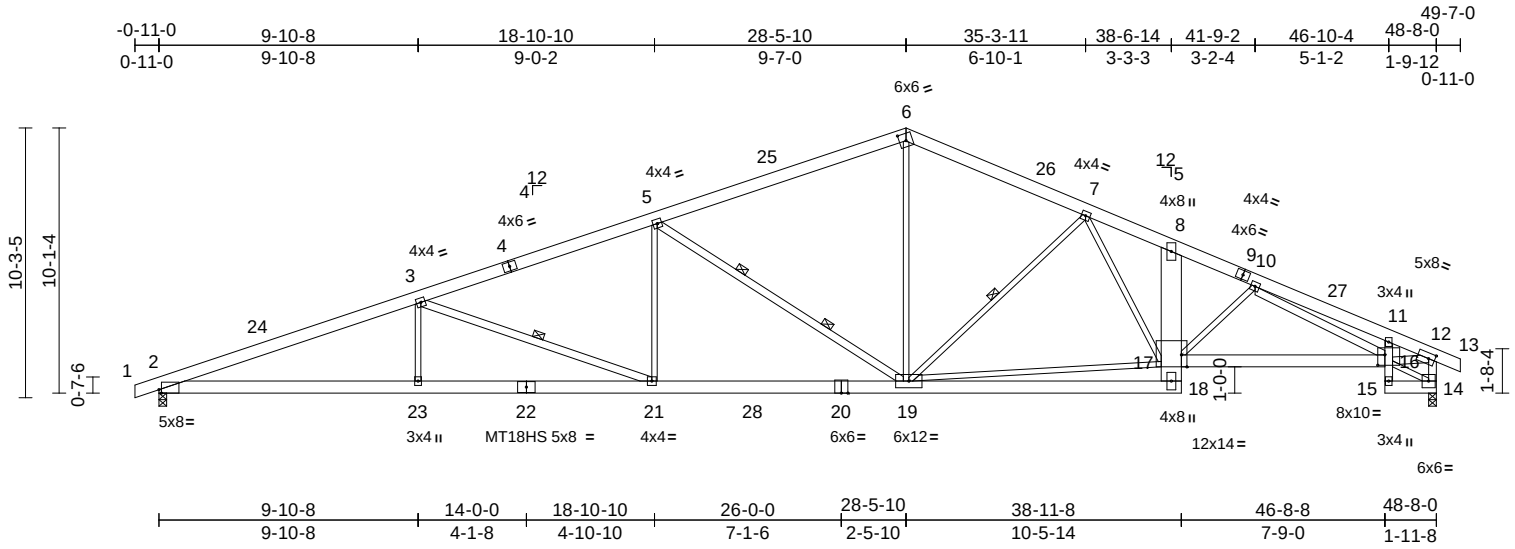

Scale = 1:87.8

Plate Offsets (X, Y): [2:0-1-2,Edge], [6:0-3-1,0-3-4], [12:0-2-12,0-2-8], [16:0-3-4,0-4-12], [17:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.37	21-23	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.68	21-23	>848	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.24	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 328 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 9-13,9-6:2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 18-8:1 1/2" x 9 1/4" 2.0E Microllam® LVL, 11-15:2x4 SP No.2, 15-14,20-22,22-2,20-18:2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 14-12,21-3,19-5,16-10,12-16:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 16-17.
WEBS 1 Row at midpt 3-21, 7-19
WEBS 2 Rows at 1/3 pts 5-19

REACTIONS (size) 2=0-3-8, 14=0-3-8
Max Horiz 2=184 (LC 12)
Max Uplift 2=-449 (LC 8), 14=-328 (LC 13)
Max Grav 2=2331 (LC 2), 14=2322 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-5793/1162, 3-5=-4529/985, 5-6=-3073/774, 6-7=-3143/795, 7-8=-3888/912, 8-10=-4450/969, 10-11=-4016/931, 11-12=-3727/811, 12-13=0/29, 12-14=-2224/556
BOT CHORD 17-18=0/189, 8-17=0/117, 16-17=-828/4190, 15-16=0/21, 11-16=-191/158, 14-15=-77/186, 2-23=-1033/5408, 21-23=-1033/5408, 19-21=-757/4218, 18-19=-367/2037
WEBS 3-23=0/418, 6-19=-278/1678, 3-21=-1285/352, 5-21=-17/836, 5-19=-1689/455, 10-17=-242/161, 7-19=-800/309, 10-16=-619/152, 7-17=-72/519, 14-16=-133/94, 12-16=-700/3324, 17-19=-232/1318

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 49-7-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 449 lb uplift at joint 2 and 328 lb uplift at joint 14.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 6,2023

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	A4	Roof Special Supported Gable	1	1	I61197920 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:27 Page: 1
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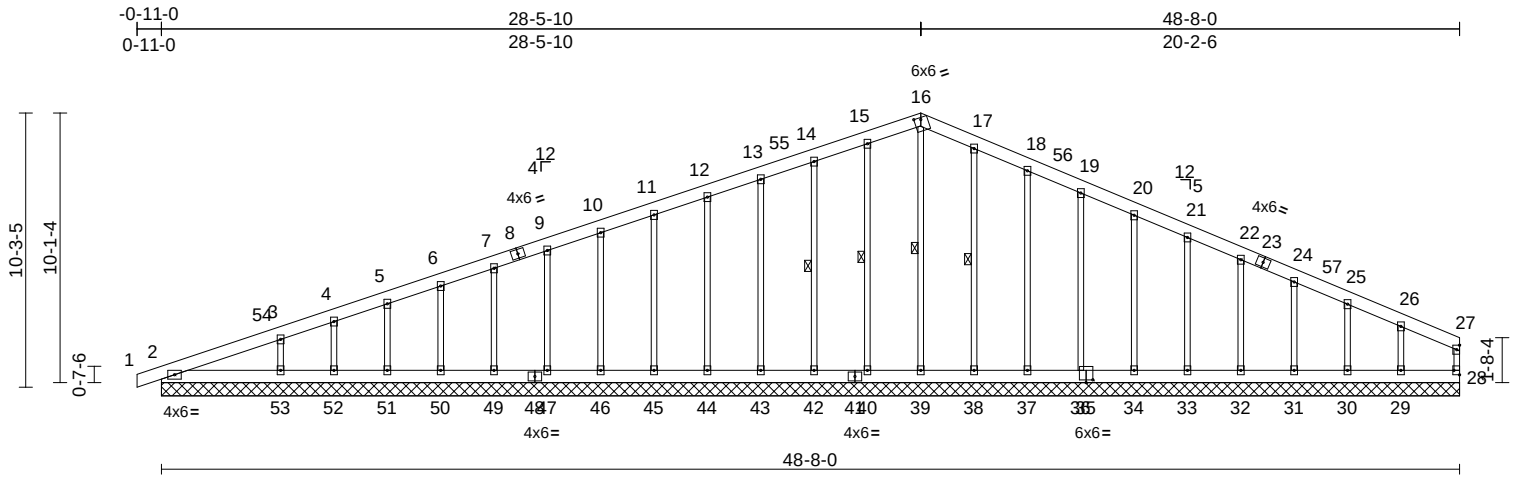

Scale = 1:86.4

Plate Offsets (X, Y): [16:0-3-0,0-0-15], [28:Edge,0-2-8], [36:0-3-0,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	28	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 275 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 16-39, 15-40, 14-42, 17-38

REACTIONS (size) 2=48-8-0, 28=48-8-0, 29=48-8-0, 30=48-8-0, 31=48-8-0, 32=48-8-0, 33=48-8-0, 34=48-8-0, 36=48-8-0, 37=48-8-0, 38=48-8-0, 39=48-8-0, 40=48-8-0, 42=48-8-0, 43=48-8-0, 44=48-8-0, 45=48-8-0, 46=48-8-0, 47=48-8-0, 49=48-8-0, 50=48-8-0, 51=48-8-0, 52=48-8-0, 53=48-8-0
Max Horiz 2=192 (LC 12)
Max Uplift 2=-44 (LC 13), 29=-94 (LC 13), 30=-43 (LC 13), 31=-58 (LC 13), 32=-59 (LC 13), 33=-51 (LC 13), 34=-53 (LC 13), 36=-58 (LC 13), 37=-64 (LC 13), 38=-20 (LC 13), 40=-26 (LC 12), 42=-57 (LC 8), 43=-50 (LC 8), 44=-49 (LC 12), 45=-49 (LC 12), 46=-46 (LC 8), 47=-51 (LC 8), 49=-54 (LC 12), 50=-45 (LC 8), 51=-52 (LC 12), 52=-30 (LC 8), 53=-111 (LC 12)
Max Grav 2=240 (LC 1), 28=84 (LC 1), 29=203 (LC 26), 30=171 (LC 1), 31=184 (LC 26), 32=189 (LC 1), 33=172 (LC 26), 34=183 (LC 1), 36=176 (LC 26), 37=186 (LC 26), 38=183 (LC 1), 39=204 (LC 22), 40=184 (LC 1), 42=183 (LC 25), 43=180 (LC 25), 44=180 (LC 1), 45=180 (LC 25), 46=174 (LC 25), 47=184 (LC 1), 49=189 (LC 1), 50=169 (LC 25), 51=198 (LC 1), 52=91 (LC 25), 53=393 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-194/131, 3-4=-144/145, 4-5=-124/159, 5-6=-102/176, 6-7=-81/193, 7-9=-84/211, 9-10=-96/229, 10-11=-107/246, 11-12=-119/263, 12-13=-131/287, 13-14=-143/317, 14-15=-156/348, 15-16=-161/365, 16-17=-165/367, 17-18=-157/334, 18-19=-140/285, 19-20=-125/245, 20-21=-109/209, 21-22=-96/173, 22-24=-79/134, 24-25=-63/96, 25-26=-50/62, 26-27=-55/34, 27-28=-66/22
BOT CHORD 2-53=-35/58, 52-53=-35/58, 51-52=-35/58, 50-51=-35/58, 49-50=-35/58, 47-49=-35/58, 46-47=-35/58, 45-46=-35/58, 44-45=-35/58, 43-44=-35/58, 42-43=-35/58, 40-42=-35/58, 39-40=-35/58, 38-39=-35/58, 37-38=-35/58, 36-37=-35/58, 34-36=-35/58, 33-34=-35/58, 32-33=-35/58, 31-32=-35/58, 30-31=-35/58, 29-30=-35/58, 28-29=-35/58
WEBS 16-39=-164/19, 15-40=-144/56, 14-42=-143/97, 13-43=-140/74, 12-44=-140/73, 11-45=-140/73, 10-46=-134/70, 9-47=-144/75, 7-49=-149/78, 6-50=-131/69, 5-51=-149/77, 4-52=-84/47, 3-53=-286/172, 17-38=-144/59, 18-37=-143/105, 19-36=-140/80, 20-34=-140/78, 21-33=-133/74, 22-32=-149/84, 24-31=-143/80, 25-30=-132/93, 26-29=-158/135

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 48-6-12 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

October 6,2023

Continued on page 2

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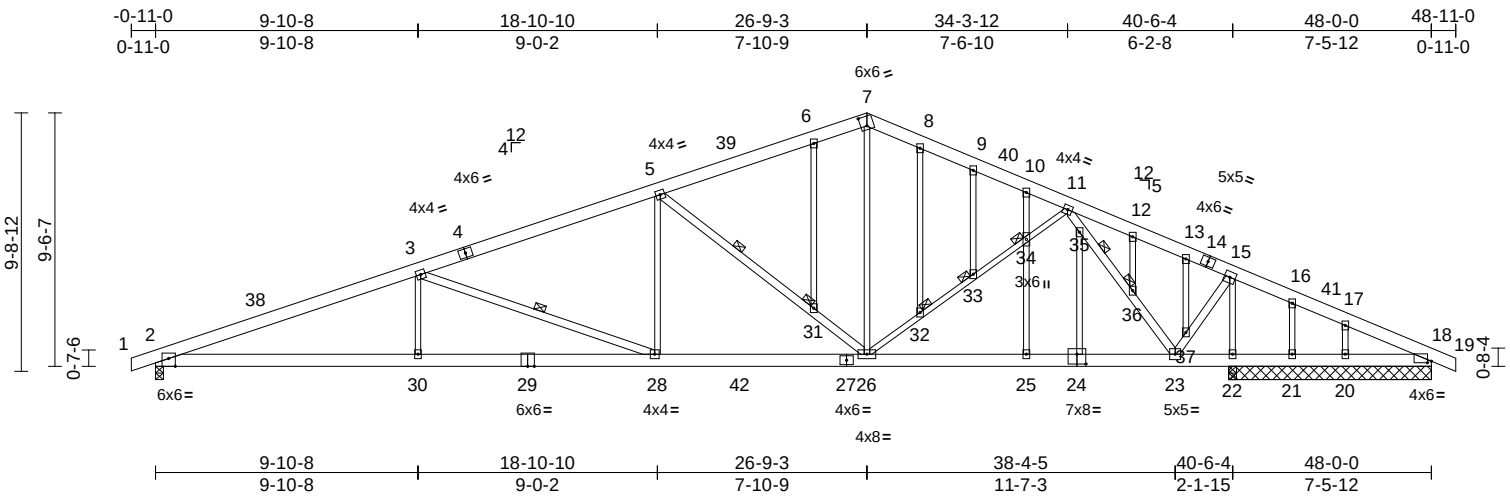
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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 3x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 26 lb uplift at joint 40, 57 lb uplift at joint 42, 50 lb uplift at joint 43, 49 lb uplift at joint 44, 49 lb uplift at joint 45, 46 lb uplift at joint 46, 51 lb uplift at joint 47, 54 lb uplift at joint 49, 45 lb uplift at joint 50, 52 lb uplift at joint 51, 30 lb uplift at joint 52, 111 lb uplift at joint 53, 20 lb uplift at joint 38, 64 lb uplift at joint 37, 58 lb uplift at joint 36, 53 lb uplift at joint 34, 51 lb uplift at joint 33, 59 lb uplift at joint 32, 58 lb uplift at joint 31, 43 lb uplift at joint 30 and 94 lb uplift at joint 29.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	B1	Roof Special Structural Gable	2	1	I61197921 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:28 Page: 1
ID:?AVNLbq4WBVV5137XnfsuHz_dHf-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:86.7

Plate Offsets (X, Y): [2:0-3-0,Edge], [7:0-2-13,0-4-4], [18:0-1-12,0-0-10], [24:0-4-0,0-4-8]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.31	28-30	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.59	28-30	>825	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.11	22	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 286 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except* 18-24:2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 28-3,23-15,23-11,26-5:2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-28, 11-36, 5-31
JOINTS 1 Brace at Jt(s): 31, 32, 33, 34, 36

REACTIONS (size) 2=0-3-8, 18=7-7-8, 20=7-7-8, 21=7-7-8, 22=0-3-8
Max Horiz 2=-169 (LC 13)
Max Uplift 2=-365 (LC 8), 18=-431 (LC 27), 20=-94 (LC 13), 21=-180 (LC 27), 22=-384 (LC 8)
Max Grav 2=1783 (LC 2), 18=102 (LC 12), 20=397 (LC 2), 21=42 (LC 12), 22=2808 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-4169/818, 3-5=-2887/650, 5-6=-1706/500, 6-7=-1629/518, 7-8=-1634/516, 8-9=-1698/510, 9-10=-1733/498, 10-11=-1798/462, 11-12=-84/306, 12-13=-139/282, 13-15=-184/239, 15-16=-200/1265, 16-17=-230/1252, 17-18=-293/1291, 18-19=0/11
BOT CHORD 2-30=-716/3855, 28-30=-716/3855, 26-28=-406/2660, 25-26=-104/1054, 23-25=-104/1054, 22-23=-1129/309, 21-22=-1129/309, 20-21=-1129/309, 18-20=-1129/309
WEBS 3-30=0/413, 5-28=-12/805, 3-28=-1282/332, 7-26=-130/772, 23-37=-293/1901, 15-37=-325/1858, 11-35=-2007/391, 35-36=-2075/396, 23-36=-2054/399, 5-31=-1421/356, 26-31=-1487/379, 26-32=-136/740, 32-33=-127/695, 33-34=-130/702, 11-34=-138/757, 6-31=-104/35, 8-32=-14/73, 9-33=-22/12, 10-34=0/127, 25-34=0/178, 24-35=-6/85, 12-36=0/32, 13-37=-15/98, 16-21=-115/61, 17-20=-224/148, 15-22=-2291/474

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-3, Exterior(2R) 26-9-3 to 31-9-3, Interior (1) 31-9-3 to 48-11-0 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 3x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi, Joint 22 SP 2400F 2.0E crushing capacity of 805 psi, Joint 22 SP 2400F 2.0E crushing capacity of 805 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 431 lb uplift at joint 18, 365 lb uplift at joint 2, 180 lb uplift at joint 21, 94 lb uplift at joint 20 and 384 lb uplift at joint 22.
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

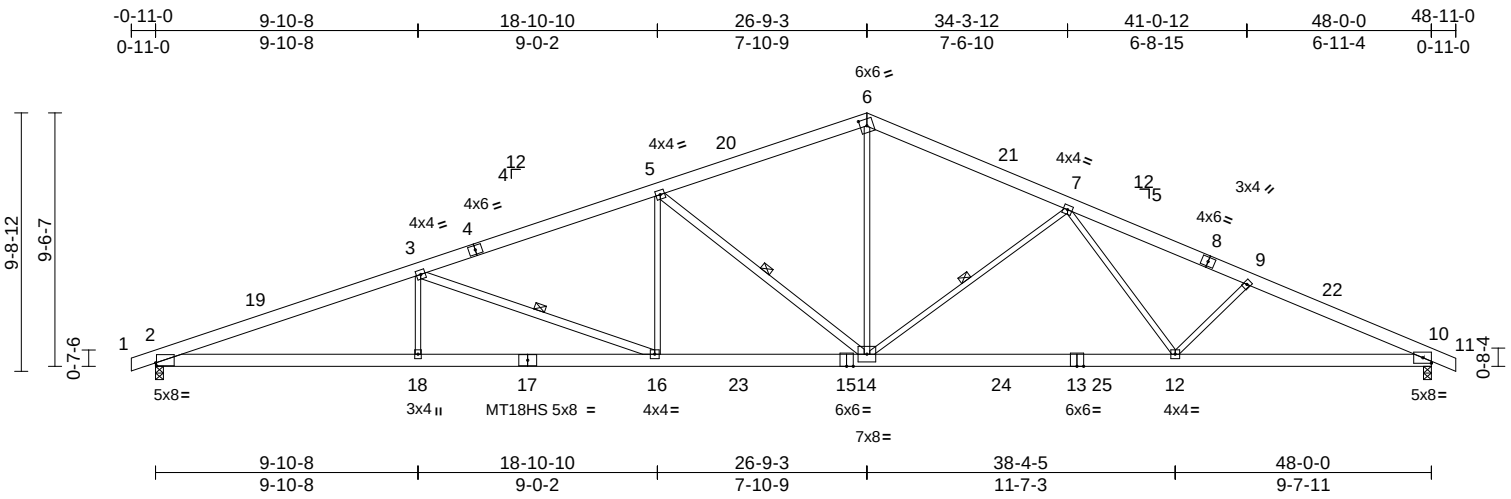
October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	B2	Roof Special	4	1	I61197922
					Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:28 ID:TM3lYxriHVdLiBeK5VA5RVz_dHe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:86.7

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

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	0.82	Vert(LL)	-0.57	12-14	>997	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.99	12-14	>579	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.17	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 262 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 13-15:2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-5,16-3:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-0-8 oc bracing.
WEBS 1 Row at midpt 7-14, 5-14, 3-16

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-174 (LC 17)
Max Uplift 2=-437 (LC 8), 10=-339 (LC 13)
Max Grav 2=2311 (LC 2), 10=2327 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-5737/1125, 3-5=-4431/954, 5-6=-3224/808, 6-7=-3321/819, 7-9=-4720/933, 9-10=-4954/981, 10-11=0/12
BOT CHORD 2-18=-950/5331, 16-18=-950/5331, 14-16=-661/4121, 12-14=-648/3781, 10-12=-789/4440
WEBS 3-18=0/433, 6-14=-312/1825, 9-12=-352/251, 5-16=-16/820, 7-14=-1037/335, 7-12=-20/912, 5-14=-1484/379, 3-16=-1307/345

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 26-9-3, Exterior(2R) 26-9-3 to 31-9-3, Interior (1) 31-9-3 to 48-11-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 339 lb uplift at joint 10 and 437 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.

LOAD CASE(S) Standard

October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	C1	Roof Special Structural Gable	1	1	I61197923 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:29 Page: 1
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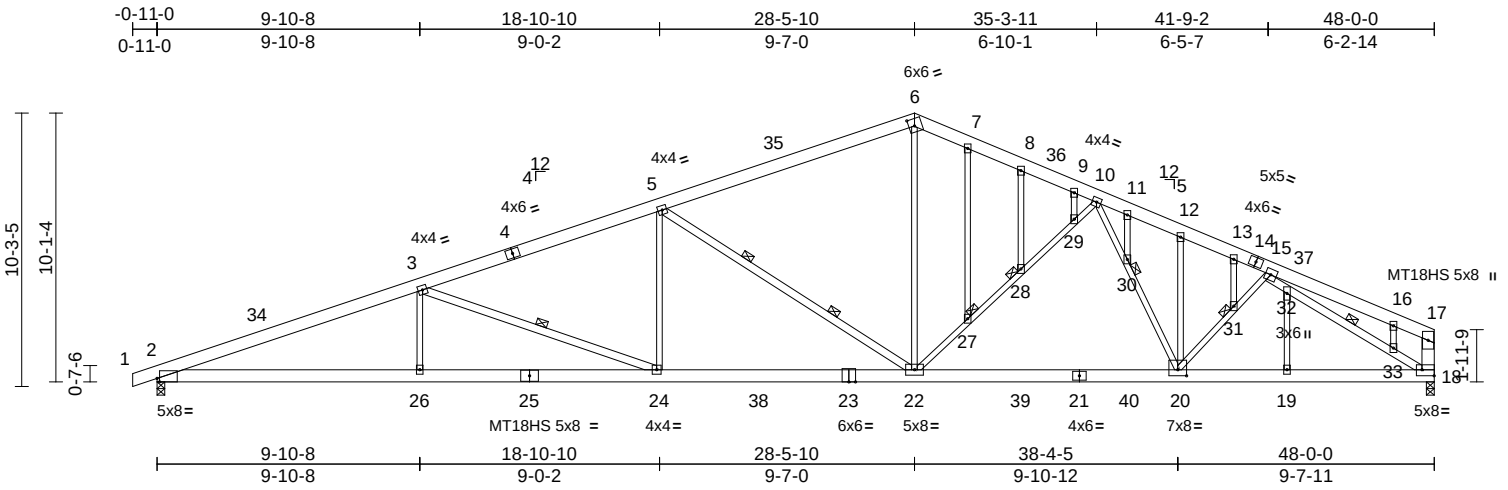


Scale = 1:86.6

Plate Offsets (X, Y): [2:0-1-2,Edge], [6:0-2-9,0-3-4], [18:Edge,0-2-12], [20:0-4-0,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.37	24-26	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.67	24-26	>851	180	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.14	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 317 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 14-17,14-6:2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 0-0:2x6 SPF No.2

WEBS 2x3 SPF No.2 *Except* 18-17:2x6 SPF No.2, 24-3,22-5:2x4 SP No.2, 18-15:2x4 SP 2400F 2.0E

OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-9 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 3-24, 15-18

WEBS 2 Rows at 1/3 pts 5-22

JOINTS 1 Brace at Jt(s): 27, 28, 30, 31

REACTIONS (size) 2=0-3-8, 18=0-3-8
Max Horiz 2=193 (LC 16)
Max Uplift 2=-445 (LC 8), 18=-292 (LC 13)
Max Grav 2=2313 (LC 2), 18=2270 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-5747/1140, 3-5=-4472/964, 5-6=-3029/755, 6-7=-2978/778, 7-8=-3017/767, 8-9=-3052/755, 9-10=-3119/763, 10-11=-3492/802, 11-12=-3527/798, 12-13=-3526/761, 13-15=-3584/752, 15-16=-784/259, 16-17=-928/249, 17-18=-760/253

BOT CHORD 2-26=-1070/5365, 24-26=-1070/5365, 22-24=-793/4163, 20-22=-587/3147, 19-20=-586/2823, 18-19=-586/2823

WEBS 3-26=0/421, 6-22=-260/1626, 10-30=-9/336, 20-30=-11/314, 5-24=-19/833, 20-31=-12/672, 15-31=-12/630, 3-24=-1298/352, 22-27=-612/265, 27-28=-600/258, 28-29=-586/252, 10-29=-686/297, 15-32=-2739/509, 32-33=-2595/472, 18-33=-2448/463, 5-22=-1675/452, 7-27=-17/17, 8-28=-25/11, 9-29=-61/138, 11-30=-26/0, 12-20=-149/70, 13-31=-1/56, 19-32=-350/80, 16-33=-27/275

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-9-4 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) 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 3x4 MT20 unless otherwise indicated.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 18 and 445 lb uplift at joint 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

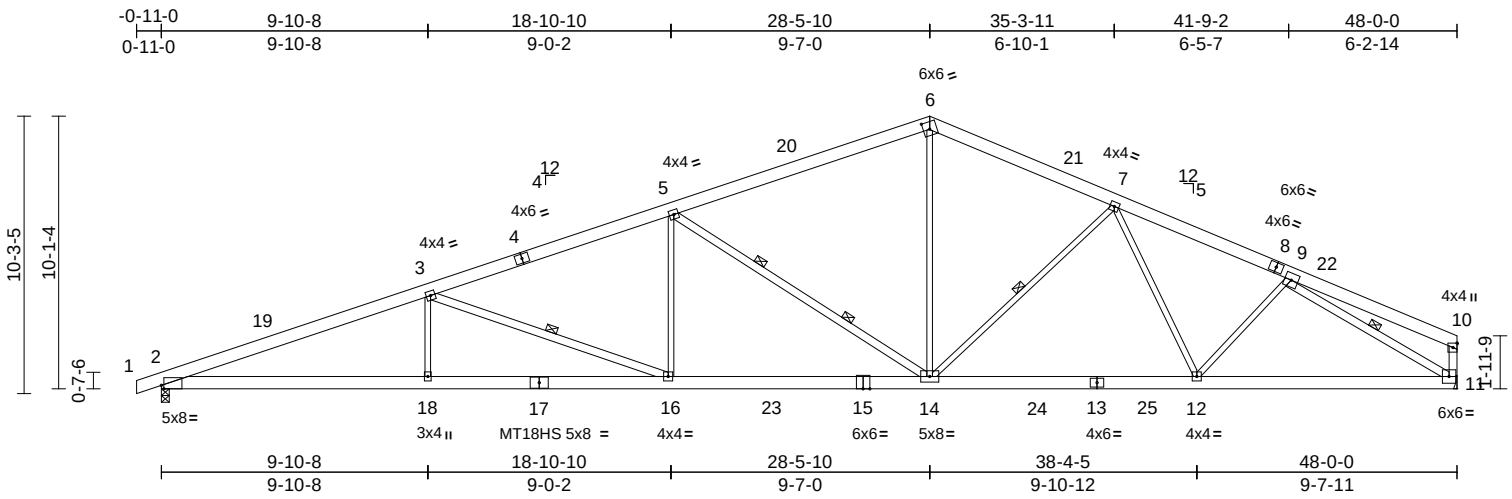
October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	C2	Roof Special	2	1	I61197924 Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:29 ID:4EauqFdo3SKWQ9muUfydzZz_WW6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:85.4

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

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	0.47	Vert(LL)	-0.40	12-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.68	16-18	>847	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 297 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 8-10,8-6:2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 11-10:2x4 SPF No.3, 14-5,16-3,11-9:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 3-16, 7-14, 9-11

WEBS 2 Rows at 1/3 pts 5-14

REACTIONS (size) 2=0-3-8, 11= Mechanical
Max Horiz 2=193 (LC 16)
Max Uplift 2=-446 (LC 8), 11=-293 (LC 13)
Max Grav 2=2317 (LC 2), 11=2274 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-5764/1144, 3-5=-4482/966, 5-6=-3039/756, 6-7=-3099/781, 7-9=-3586/778, 9-10=-247/137, 10-11=-275/165

BOT CHORD 2-18=-1071/5380, 16-18=-1071/5380, 14-16=-793/4173, 12-14=-594/3173, 11-12=-631/2987

WEBS 3-18=0/423, 6-14=-270/1656, 9-12=0/439, 5-16=-17/828, 7-12=-27/287, 5-14=-1678/454, 3-16=-1302/352, 7-14=-631/272, 9-11=-3430/682

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-10-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 446 lb uplift at joint 2 and 293 lb uplift at joint 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

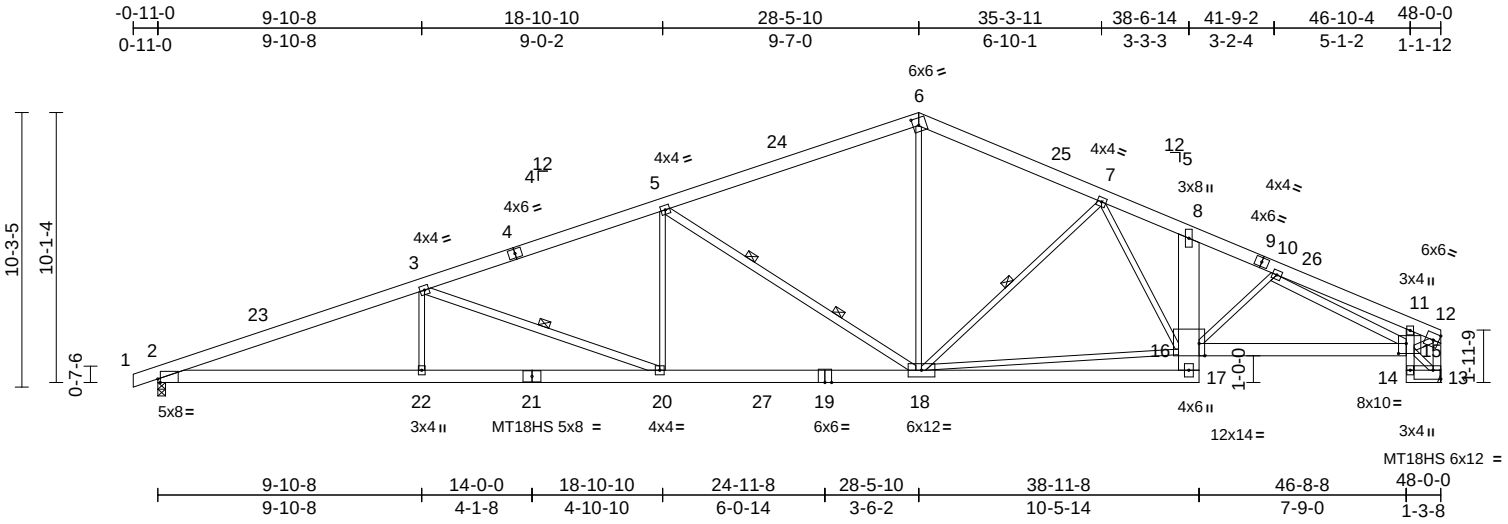
October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	C3	Roof Special	5	1	I61197925 Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:30 ID:Sb0KJjJkHtSHkuN7kDNnkhz_WMA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:86.2

Plate Offsets (X, Y): [2:0-1-2,Edge], [6:0-2-9,0-3-4], [13:Edge,0-4-0], [15:0-3-8,0-4-8], [16:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.34	20-22	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.63	20-22	>903	180	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.21	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 320 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 9-12,9-6:2x6 SPF No.2

BOT CHORD 2x6 SPF No.2 *Except* 17-8:2x10 SP 2400F 2.0E, 11-14:2x4 SP No.2, 21-2,19-17,19-21:2x6 SP 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 13-12:2x4 SPF No.3, 20-3,15-10,18-5:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-1-1 oc bracing: 15-16.

WEBS 1 Row at midpt 3-20, 7-18

WEBS 2 Rows at 1/3 pts 5-18

REACTIONS (size) 2=0-3-8, 13= Mechanical
Max Horiz 2=193 (LC 12)
Max Uplift 2=-446 (LC 8), 13=-293 (LC 13)
Max Grav 2=2300 (LC 2), 13=2230 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/11, 2-3=-5692/1145, 3-5=-4441/965, 5-6=-2989/751, 6-7=-3056/776, 7-8=-3633/879, 8-10=-4162/936, 10-11=-2716/705, 11-12=-2337/552, 12-13=-2126/475

BOT CHORD 16-17=0/176, 8-16=0/95, 15-16=-834/3775, 14-15=0/7, 11-15=-319/242, 13-14=-67/119, 2-22=-1072/5313, 20-22=-1072/5313, 18-20=-792/4134, 17-18=-384/1922

WEBS 3-22=0/408, 5-20=-19/832, 3-20=-1273/356, 6-18=-262/1617, 7-16=-58/382, 10-16=-86/151, 10-15=-1549/340, 7-18=-715/299, 5-18=-1684/457, 13-15=-135/112, 12-15=-608/2397, 16-18=-242/1271

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-10-4 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 293 lb uplift at joint 13 and 446 lb uplift at joint 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 6,2023

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	C4	Roof Special Supported Gable	1	1	I61197926 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:30 Page: 1
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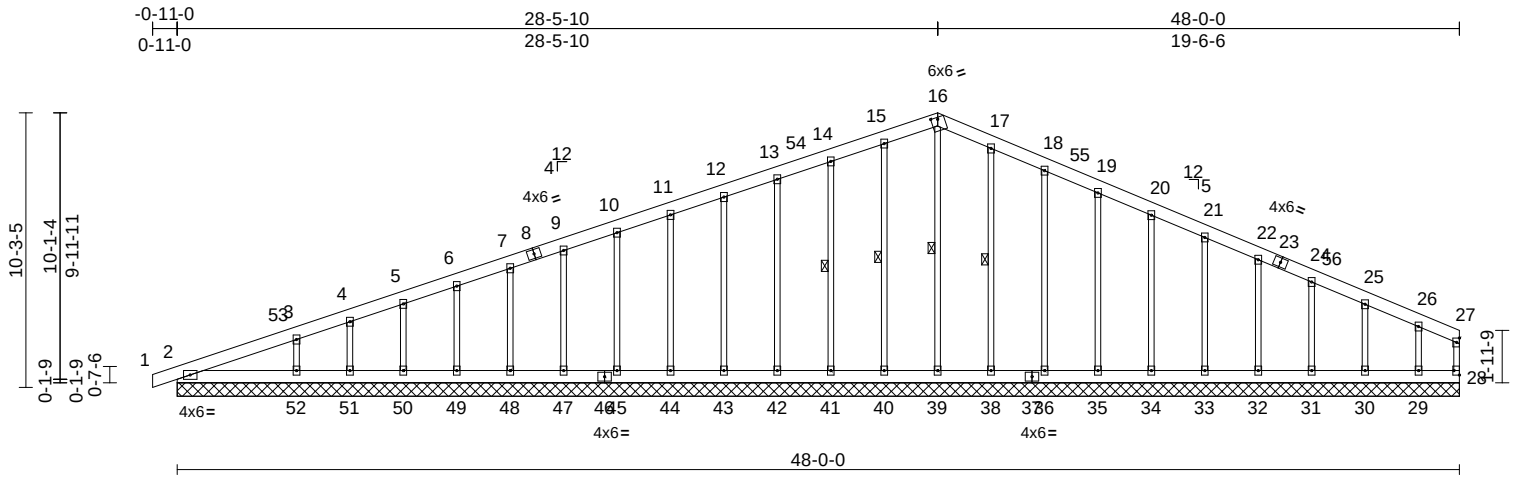

Scale = 1:86.2

Plate Offsets (X, Y): [16:0-3-0,0-0-15], [28: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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	28	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 273 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 16-39, 15-40, 14-41, 17-38

REACTIONS (size) 2=48-0-0, 28=48-0-0, 29=48-0-0, 30=48-0-0, 31=48-0-0, 32=48-0-0, 33=48-0-0, 34=48-0-0, 35=48-0-0, 36=48-0-0, 38=48-0-0, 39=48-0-0, 40=48-0-0, 41=48-0-0, 42=48-0-0, 43=48-0-0, 44=48-0-0, 45=48-0-0, 47=48-0-0, 48=48-0-0, 49=48-0-0, 50=48-0-0, 51=48-0-0, 52=48-0-0
Max Horiz 2=193 (LC 12)
Max Uplift 2=-44 (LC 13), 29=-81 (LC 13), 30=-49 (LC 13), 31=-57 (LC 13), 32=-59 (LC 13), 33=-50 (LC 13), 34=-54 (LC 13), 35=-56 (LC 13), 36=-65 (LC 13), 38=-20 (LC 13), 40=-26 (LC 12), 41=-57 (LC 8), 42=-50 (LC 8), 43=-49 (LC 12), 44=-49 (LC 12), 45=-46 (LC 8), 47=-51 (LC 8), 48=-54 (LC 12), 49=-45 (LC 8), 50=-52 (LC 12), 51=-30 (LC 8), 52=-111 (LC 12)
Max Grav 2=239 (LC 1), 28=58 (LC 22), 29=165 (LC 26), 30=179 (LC 1), 31=182 (LC 26), 32=189 (LC 1), 33=173 (LC 26), 34=181 (LC 1), 35=179 (LC 26), 36=183 (LC 26), 38=184 (LC 1), 39=204 (LC 22), 40=184 (LC 1), 41=183 (LC 25), 42=180 (LC 25), 43=180 (LC 1), 44=180 (LC 25), 45=175 (LC 25), 47=183 (LC 1), 48=189 (LC 1), 49=169 (LC 25), 50=198 (LC 1), 51=91 (LC 25), 52=393 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-195/129, 3-4=-145/143, 4-5=-125/157, 5-6=-103/175, 6-7=-82/192, 7-9=-88/210, 9-10=-100/228, 10-11=-111/245, 11-12=-123/264, 12-13=-135/293, 13-14=-147/323, 14-15=-160/354, 15-16=-165/371, 16-17=-169/372, 17-18=-161/340, 18-19=-144/291, 19-20=-129/251, 20-21=-114/215, 21-22=-100/179, 22-24=-83/140, 24-25=-67/102, 25-26=-53/66, 26-27=-45/36, 27-28=-41/19
BOT CHORD 2-52=-38/53, 51-52=-38/53, 50-51=-38/53, 49-50=-38/53, 48-49=-38/53, 47-48=-38/53, 45-47=-38/53, 44-45=-38/53, 43-44=-38/53, 42-43=-38/53, 41-42=-38/53, 40-41=-38/53, 39-40=-38/53, 38-39=-38/53, 36-38=-38/53, 35-36=-38/53, 34-35=-38/53, 33-34=-38/53, 32-33=-38/53, 31-32=-38/53, 30-31=-38/53, 29-30=-38/53, 28-29=-38/53
WEBS 16-39=-164/21, 15-40=-144/57, 14-41=-143/97, 13-42=-140/74, 12-43=-140/73, 11-44=-140/73, 10-45=-134/70, 9-47=-144/75, 7-48=-149/78, 6-49=-131/69, 5-50=-149/77, 4-51=-84/47, 3-52=-286/172, 17-38=-144/59, 18-36=-143/105, 19-35=-140/80, 20-34=-140/78, 21-33=-133/74, 22-32=-149/84, 24-31=-143/84, 25-30=-138/105, 26-29=-129/112

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 28-5-10, Exterior(2R) 28-5-10 to 33-5-10, Interior (1) 33-5-10 to 47-10-12 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

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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 3x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 26 lb uplift at joint 40, 57 lb uplift at joint 41, 50 lb uplift at joint 42, 49 lb uplift at joint 43, 49 lb uplift at joint 44, 46 lb uplift at joint 45, 51 lb uplift at joint 47, 54 lb uplift at joint 48, 45 lb uplift at joint 49, 52 lb uplift at joint 50, 30 lb uplift at joint 51, 111 lb uplift at joint 52, 20 lb uplift at joint 38, 65 lb uplift at joint 36, 56 lb uplift at joint 35, 54 lb uplift at joint 34, 50 lb uplift at joint 33, 59 lb uplift at joint 32, 57 lb uplift at joint 31, 49 lb uplift at joint 30 and 81 lb uplift at joint 29.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	E1	Roof Special Supported Gable	2	1	I61197927 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:31 Page: 1
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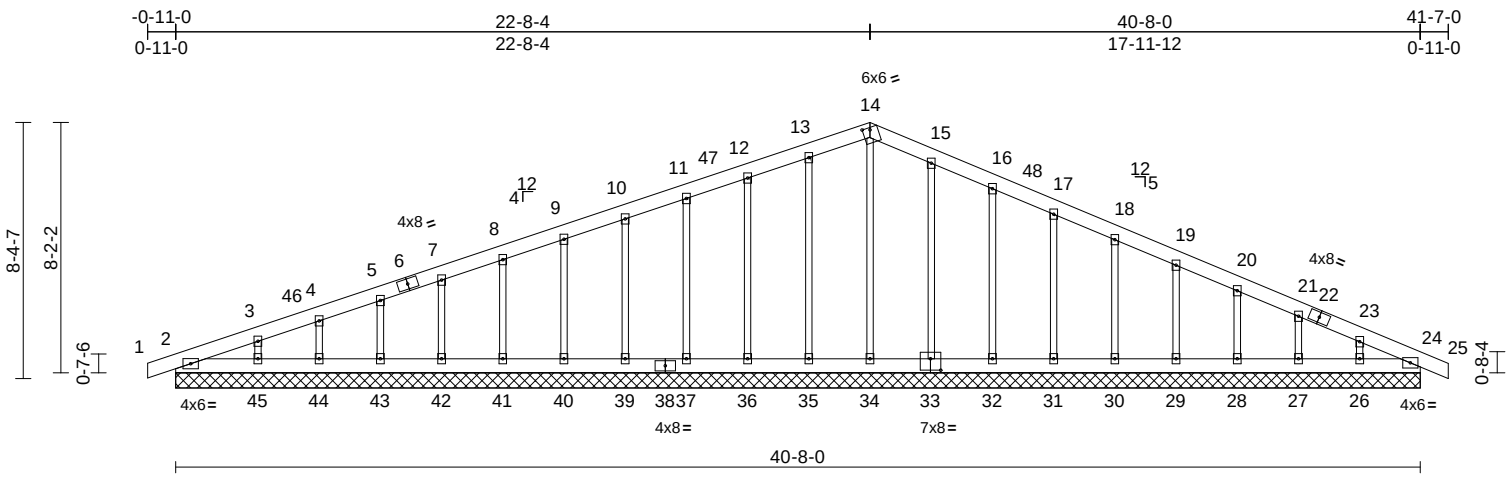

Scale = 1:75.3

Plate Offsets (X, Y): [14:0-3-0,0-0-15], [33:0-4-0,0-4-8]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 213 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 2=40-8-0, 24=40-8-0, 26=40-8-0, 27=40-8-0, 28=40-8-0, 29=40-8-0, 30=40-8-0, 31=40-8-0, 32=40-8-0, 33=40-8-0, 34=40-8-0, 35=40-8-0, 36=40-8-0, 37=40-8-0, 39=40-8-0, 40=40-8-0, 41=40-8-0, 42=40-8-0, 43=40-8-0, 44=40-8-0, 45=40-8-0
Max Horiz 2=-144 (LC 13)
Max Uplift 2=-20 (LC 13), 24=-14 (LC 9), 26=-62 (LC 13), 27=-58 (LC 13), 28=-49 (LC 13), 29=-53 (LC 13), 30=-52 (LC 13), 31=-54 (LC 13), 32=-57 (LC 13), 33=-39 (LC 13), 35=-34 (LC 12), 36=-54 (LC 8), 37=-46 (LC 8), 39=-48 (LC 12), 40=-48 (LC 8), 41=-44 (LC 12), 42=-49 (LC 8), 43=-53 (LC 12), 44=-42 (LC 8), 45=-69 (LC 12)
Max Grav 2=178 (LC 1), 24=155 (LC 1), 26=170 (LC 26), 27=184 (LC 26), 28=167 (LC 1), 29=175 (LC 26), 30=175 (LC 1), 31=173 (LC 1), 32=182 (LC 26), 33=169 (LC 1), 34=170 (LC 22), 35=177 (LC 1), 36=175 (LC 25), 37=177 (LC 1), 39=174 (LC 1), 40=174 (LC 25), 41=169 (LC 25), 42=177 (LC 25), 43=187 (LC 1), 44=151 (LC 25), 45=226 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-171/68, 3-4=-127/73, 4-5=-100/82, 5-7=-83/95, 7-8=-67/112, 8-9=-50/129, 9-10=-53/146, 10-11=-65/163, 11-12=-76/180, 12-13=-88/206, 13-14=-97/230, 14-15=-100/236, 15-16=-88/207, 16-17=-72/169, 17-18=-57/133, 18-19=-44/97, 19-20=-44/61, 20-21=-53/28, 21-23=-72/18, 23-24=-114/39, 24-25=0/11
BOT CHORD 2-45=-35/125, 44-45=-35/125, 43-44=-35/125, 42-43=-35/125, 41-42=-35/125, 40-41=-35/125, 39-40=-35/125, 37-39=-35/125, 36-37=-35/125, 35-36=-35/125, 34-35=-35/125, 32-34=-35/125, 31-32=-35/125, 30-31=-35/125, 29-30=-35/125, 28-29=-35/125, 27-28=-35/125, 26-27=-35/125, 24-26=-35/125
WEBS 14-34=-127/0, 13-35=-139/67, 12-36=-138/92, 11-37=-135/71, 10-39=-136/71, 9-40=-136/71, 8-41=-130/68, 7-42=-139/72, 5-43=-146/76, 4-44=-118/64, 3-45=-169/116, 15-33=-139/75, 16-32=-138/98, 17-31=-135/76, 18-30=-136/76, 19-29=-137/77, 20-28=-128/72, 21-27=-146/97, 23-26=-130/103

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 22-8-4, Exterior(2R) 22-8-4 to 27-8-4, Interior (1) 27-8-4 to 41-7-0 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 3x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

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9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 34 lb uplift at joint 35, 54 lb uplift at joint 36, 46 lb uplift at joint 37, 48 lb uplift at joint 39, 48 lb uplift at joint 40, 44 lb uplift at joint 41, 49 lb uplift at joint 42, 53 lb uplift at joint 43, 42 lb uplift at joint 44, 69 lb uplift at joint 45, 39 lb uplift at joint 33, 57 lb uplift at joint 32, 54 lb uplift at joint 31, 52 lb uplift at joint 30, 53 lb uplift at joint 29, 49 lb uplift at joint 28, 58 lb uplift at joint 27, 62 lb uplift at joint 26 and 14 lb uplift at joint 24.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
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.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	E2	Roof Special	4	1	I61197928 Job Reference (optional)

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

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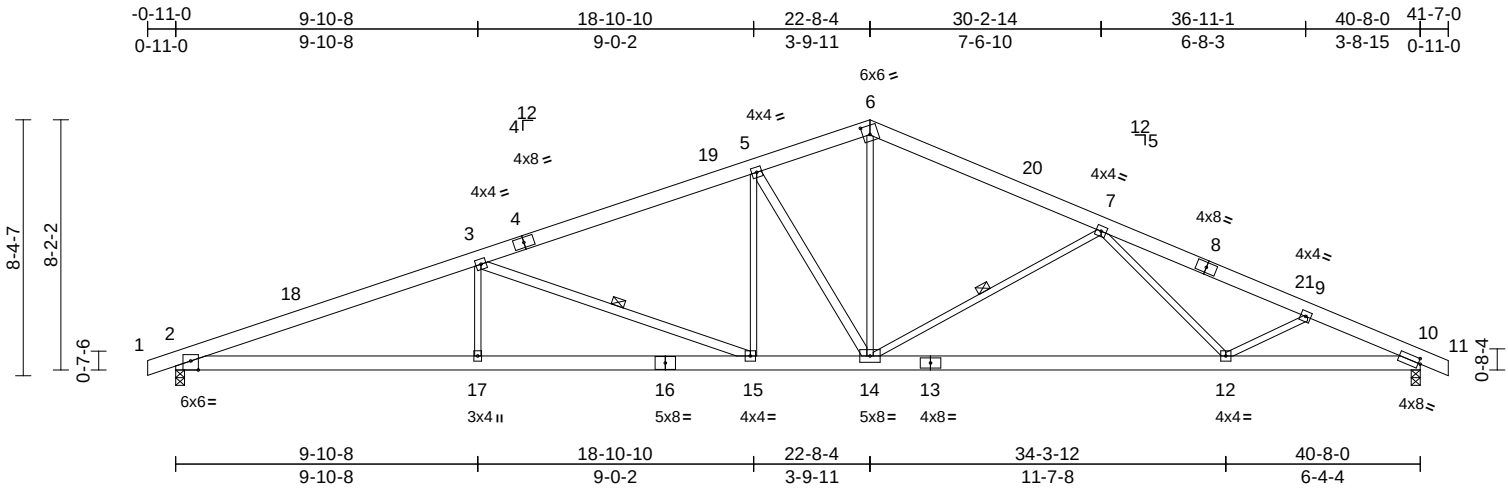

Scale = 1:75.3

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

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	0.92	Vert(LL)	-0.26	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.55	15-17	>874	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 206 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-5,15-3:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-15, 7-14

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-149 (LC 17)
Max Uplift 2=-377 (LC 8), 10=-291 (LC 13)
Max Grav 2=1891 (LC 1), 10=1891 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-4410/924, 3-5=-3163/749, 5-6=-2570/697, 6-7=-2707/687, 7-9=-3717/822, 9-10=-3910/910, 10-11=0/12
BOT CHORD 2-17=-758/4059, 15-17=-758/4059, 14-15=-466/2902, 12-14=-625/3123, 10-12=-762/3488
WEBS 3-17=0/404, 6-14=-333/1488, 9-12=-212/226, 5-15=-49/573, 7-12=0/484, 5-14=-1045/305, 3-15=-1256/348, 7-14=-885/362

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) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 22-8-4, Exterior(2R) 22-8-4 to 27-8-4, Interior (1) 27-8-4 to 41-7-0 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 377 lb uplift at joint 2 and 291 lb uplift at joint 10.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

October 6,2023

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Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	G1A	Common Supported Gable	1	1	I61197929
					Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:32 Page: 1
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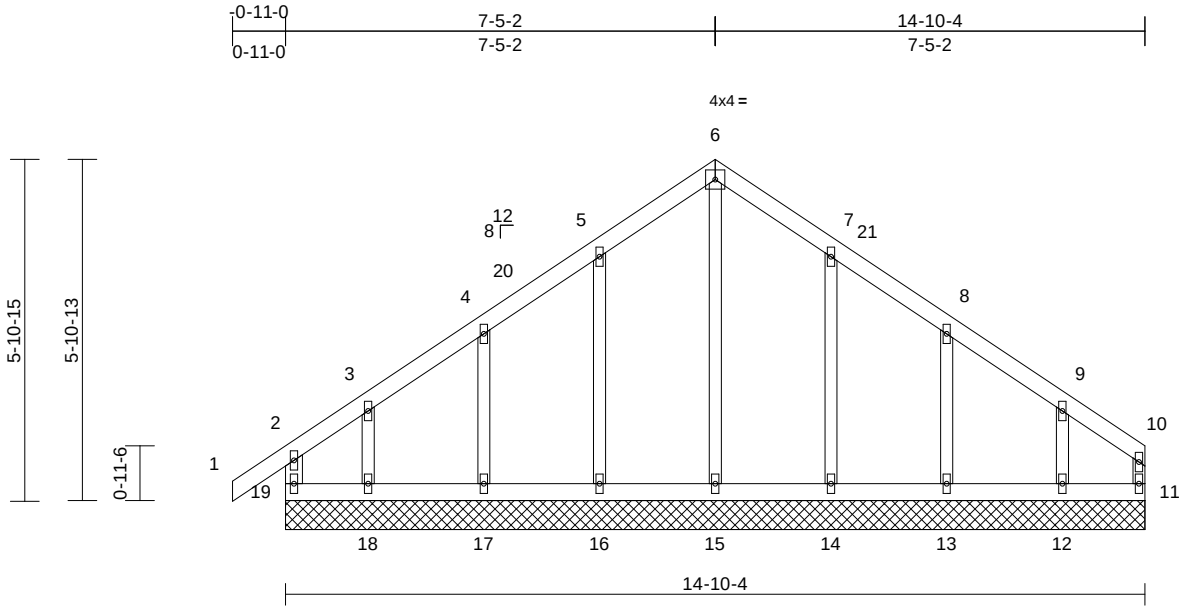

Scale = 1:39.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 69 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 10-11:2x3 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) 11=14-10-4, 12=14-10-4, 13=14-10-4, 14=14-10-4, 15=14-10-4, 16=14-10-4, 17=14-10-4, 18=14-10-4, 19=14-10-4
Max Horiz 19=178 (LC 9)
Max Uplift 11=-44 (LC 9), 12=-109 (LC 13), 13=-76 (LC 13), 14=-78 (LC 13), 16=-80 (LC 12), 17=-74 (LC 12), 18=-120 (LC 12), 19=-97 (LC 8)
Max Grav 11=84 (LC 19), 12=202 (LC 20), 13=187 (LC 20), 14=198 (LC 20), 15=191 (LC 22), 16=199 (LC 19), 17=188 (LC 19), 18=189 (LC 19), 19=197 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-19=-159/94, 1-2=0/41, 2-3=-130/119, 3-4=-96/96, 4-5=-89/170, 5-6=-129/251, 6-7=-130/252, 7-8=-88/169, 8-9=-63/81, 9-10=-71/67, 10-11=-60/34
BOT CHORD 18-19=-66/71, 17-18=-66/71, 16-17=-66/71, 15-16=-66/71, 14-15=-66/71, 13-14=-66/71, 12-13=-66/71, 11-12=-66/71
WEBS 6-15=-188/42, 5-16=-159/123, 4-17=-151/160, 3-18=-133/129, 7-14=-157/133, 8-13=-149/164, 9-12=-149/156

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) -0-11-0 to 4-1-0, Exterior(2N) 4-1-0 to 7-5-2, Corner(3R) 7-5-2 to 12-5-2, Exterior(2N) 12-5-2 to 14-9-0 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 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) 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 97 lb uplift at joint 19, 44 lb uplift at joint 11, 80 lb uplift at joint 16, 74 lb uplift at joint 17, 120 lb uplift at joint 18, 78 lb uplift at joint 14, 76 lb uplift at joint 13 and 109 lb uplift at joint 12.
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.

LOAD CASE(S) Standard

October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	G2A	Common Girder	1	3	Job Reference (optional) I61197930

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:32 Page: 1
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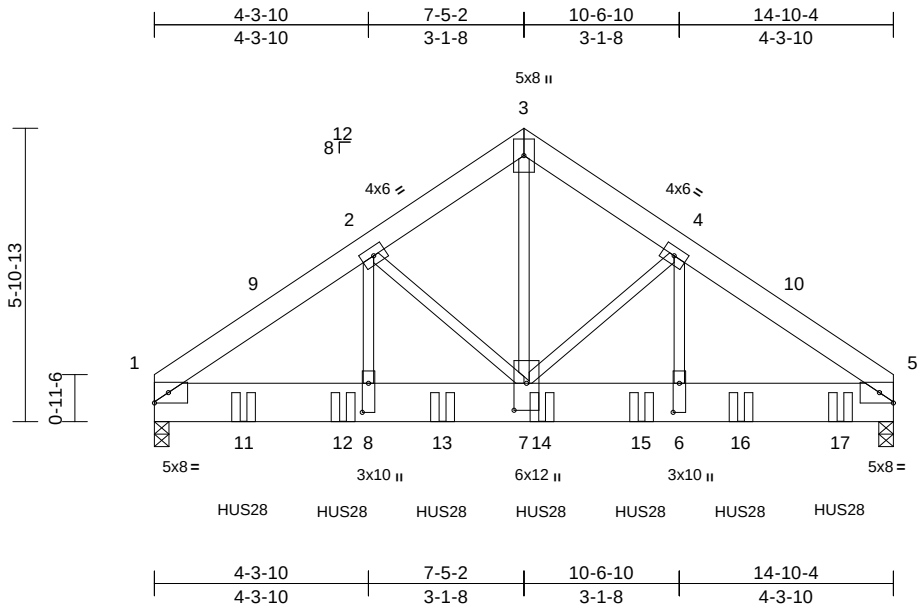

Scale = 1:46.3

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

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	0.22	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.09	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 317 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 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=0-3-8, 5=0-3-8
Max Horiz 1=-146 (LC 10)
Max Uplift 1=-1105 (LC 12), 5=-1212 (LC 13)
Max Grav 1=7954 (LC 2), 5=8734 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9871/1429, 2-3=-7507/1164, 3-4=-7508/1164, 4-5=-9913/1435
BOT CHORD 1-8=-1108/7790, 7-8=-1111/7813, 6-7=-1074/7850, 5-6=-1071/7825
WEBS 2-8=-416/3290, 3-7=-1166/7827, 2-7=-2163/406, 4-6=-422/3347, 4-7=-2214/416

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 5 rows staggered at 0-7-0 oc.
Web connected as follows: 2x3 - 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 7-5-2, Exterior(2R) 7-5-2 to 12-5-2, Interior (1) 12-5-2 to 14-8-8 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
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1105 lb uplift at joint 1 and 1212 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Use Simpson Strong-Tie HUS28 (22-10d Girder, 4-10d Truss) or equivalent spaced at 12-0-0 oc max. starting at 1-9-8 from the left end to 13-9-8 to connect truss(es) to back face of bottom chord.
11) Use Simpson Strong-Tie HUS28 (22-16d Girder, 4-16d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 3-9-8 from the left end to 11-9-8 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: 1-3=-70, 3-5=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 11=-2126 (B), 12=-2126 (B), 13=-2126 (B), 14=-2126 (B), 15=-2126 (B), 16=-2126 (B), 17=-2127 (B)

October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	V5	Valley	1	1	I61197931
					Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:32 Page: 1
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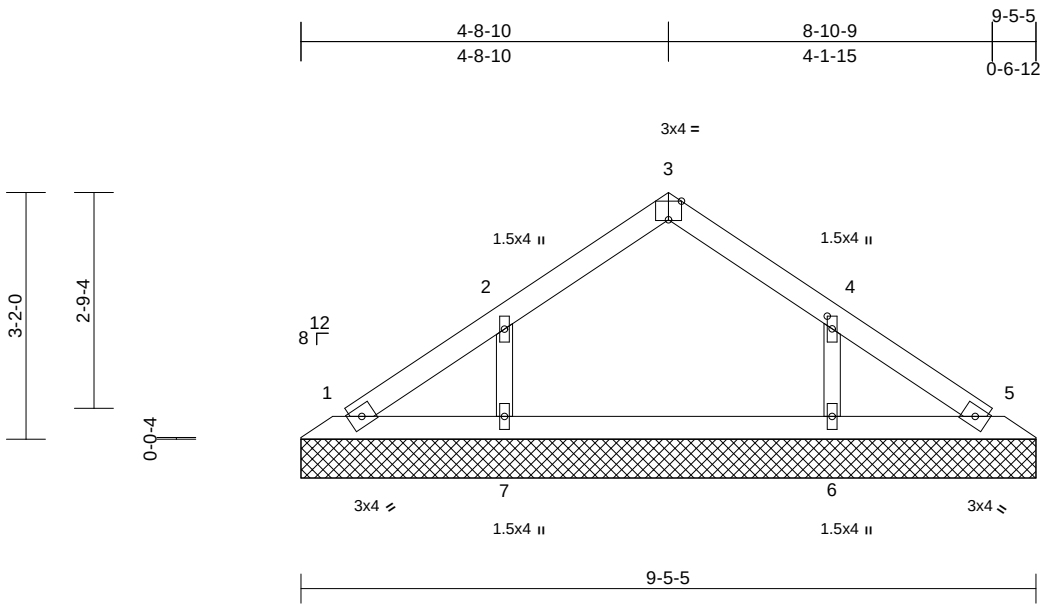

Scale = 1:29.6

Plate Offsets (X, Y): [3:0-2-0,Edge], [4:0-1-15,0-0-12]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 31 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=9-5-5, 5=9-5-5, 6=9-5-5, 7=9-5-5
Max Horiz 1=-80 (LC 8)
Max Uplift 1=-5 (LC 13), 5=-4 (LC 12), 6=-82 (LC 13), 7=-83 (LC 12)
Max Grav 1=127 (LC 1), 5=127 (LC 1), 6=256 (LC 20), 7=257 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/26, 2-3=-159/76, 3-4=-159/76, 4-5=-149/23
BOT CHORD 1-7=-14/109, 6-7=-14/109, 5-6=-14/109
WEBS 2-7=-178/151, 4-6=-177/151

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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 5 lb uplift at joint 1, 4 lb uplift at joint 5, 83 lb uplift at joint 7 and 82 lb uplift at joint 6.
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

October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	V6	Valley	1	1	I61197932
					Job Reference (optional)

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

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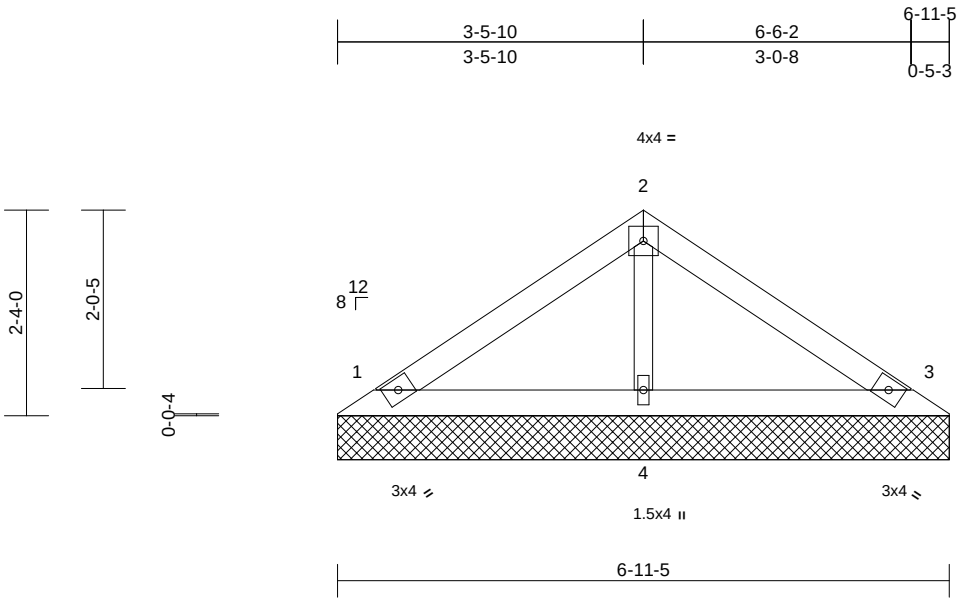

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 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=6-11-5, 3=6-11-5, 4=6-11-5
Max Horiz 1=-56 (LC 10)
Max Uplift 1=-39 (LC 12), 3=-46 (LC 13)
Max Grav 1=153 (LC 1), 3=153 (LC 1), 4=238 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-96/61, 2-3=-91/61
BOT CHORD 1-4=-12/45, 3-4=-12/45
WEBS 2-4=-162/92

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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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 39 lb uplift at joint 1 and 46 lb uplift at joint 3.
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

October 6,2023

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 79
P240539-01	V7	Valley	1	1	I61197933
					Job Reference (optional)

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

Run: 8.63 S Aug 30 2023 Print: 8.630 S Aug 30 2023 MiTek Industries, Inc. Wed Oct 04 10:09:33 Page: 1
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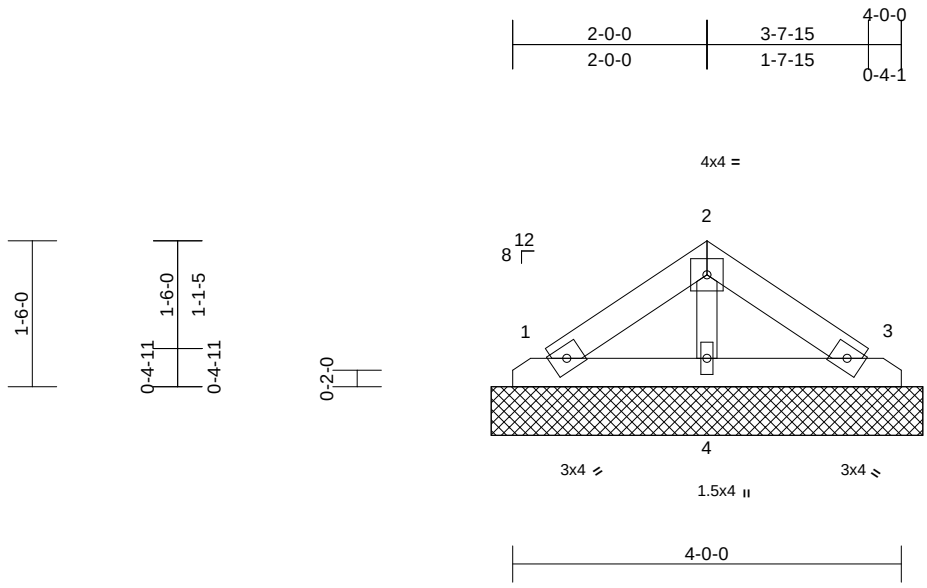


Scale = 1:23.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	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	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 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 4-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-5-5, 3=4-5-5, 4=4-5-5
Max Horiz 1=33 (LC 9)
Max Uplift 1=-21 (LC 12), 3=-25 (LC 13)
Max Grav 1=83 (LC 1), 3=83 (LC 1), 4=120 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/38, 2-3=-53/38
BOT CHORD 1-4=-7/26, 3-4=-7/26
WEBS 2-4=-81/51

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) 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 21 lb uplift at joint 1 and 25 lb uplift at joint 3.
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.

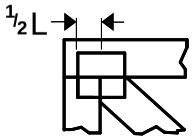
LOAD CASE(S) Standard

October 6,2023

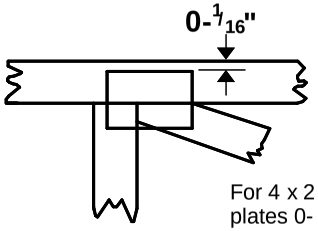
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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.

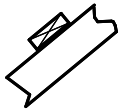
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

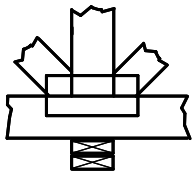
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

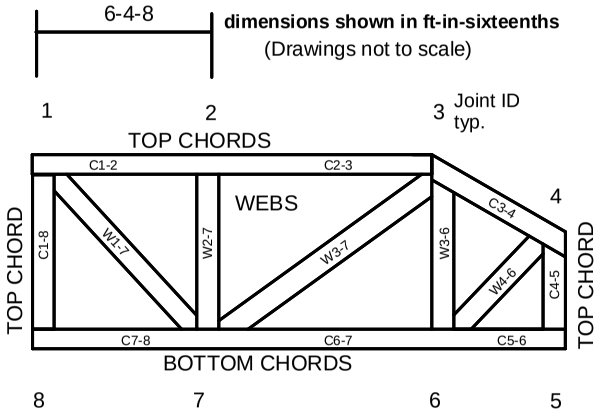


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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®

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.