



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/27/2023 4:38:53

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

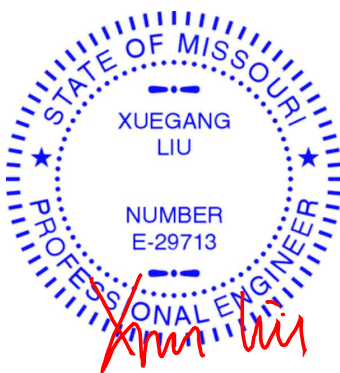
Re: P220523-P220523-02
Roof - Osage Lot 51

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS) 20300 W 207th Street.

Pages or sheets covered by this seal: I56649992 thru I56650013

My license renewal date for the state of Missouri is December 31, 2024.

Missouri COA: Engineering 001193



February 15, 2023

Liu, Xuegang, Engineer

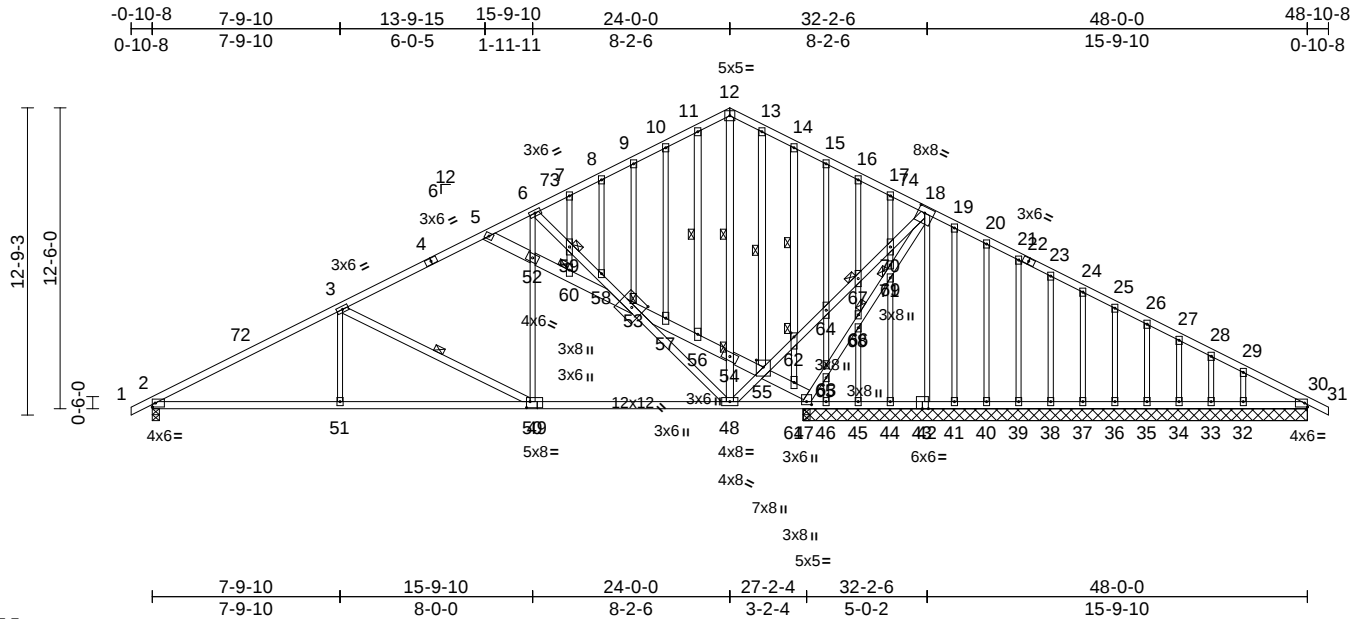
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO 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.

Truss Type	Qty	Ply	Roof - Osage Lot 51
Common Structural Gable	2	1	Job Reference (optional)

I56649992

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:34
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Page: 1



Scale = 1:95.7

Plate Offsets (X, Y): [18:0-3-8,0-3-0], [47:0-2-8,0-1-8], [49:0-1-12,0-3-0], [53:0-5-8,0-6-0], [55:0-3-8,0-3-8], [62:0-2-0,0-1-8]

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	0.67	Vert(LL)	0.10	2-51	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.24	2-51	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.05	47	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 388 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 1-4,22-31:2x4 SP
1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 51-3,50-6,42-18:2x3
SPF No.2, 5-52,52-53,53-54,54-55,55-47:2x6
SPF No.2
OTHERS 2x3 SPF No.2 *Except*
56-11,55-13,62-14:2x4 SP No.2

Max Grav 2=1215 (LC 1), 30=98 (LC 26),
32=242 (LC 1), 33=82 (LC 1),
34=128 (LC 26), 35=119 (LC 1),
36=120 (LC 26), 37=120 (LC 26),
38=121 (LC 1), 39=120 (LC 26),
40=117 (LC 26), 41=152 (LC 1),
42=317 (LC 1), 44=204 (LC 1),
45=114 (LC 26), 46=59 (LC 26),
47=1304 (LC 1)

BRACING

TOP CHORD Structural wood sheathing directly applied or
3-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing, Except:
9-1-1 oc bracing: 2-51
9-2-14 oc bracing: 50-51
10-0-0 oc bracing: 48-50.
WEBS 1 Row at midpt 3-50, 12-54, 11-56,
13-55, 14-62
JOINTS 1 Brace at Jt(s): 53,
54, 59, 60, 62, 66,
67, 69

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/17, 2-3=-1925/314, 3-5=-1159/239,
5-6=-745/157, 6-7=-170/178, 7-8=-183/197,
8-9=-142/212, 9-10=-163/234,
10-11=-180/256, 11-12=-177/268,
12-13=-185/275, 13-14=-184/262,
14-15=-160/235, 15-16=-152/208,
16-17=-161/182, 17-18=-147/160,
18-19=0/362, 19-20=0/371, 20-21=0/359,
21-23=-15/358, 23-24=-33/359,
24-25=-52/358, 25-26=-70/358,
26-27=-89/358, 27-28=-108/360,
28-29=-123/349, 29-30=-170/395,
30-31=0/17
BOT CHORD 2-51=-399/1598, 50-51=-399/1598,
48-50=-171/945, 47-48=-756/346,
46-47=-308/179, 45-46=-308/180,
44-45=-308/180, 42-44=-309/180,
41-42=-309/180, 40-41=-309/180,
39-40=-309/180, 38-39=-309/180,
37-38=-309/180, 36-37=-309/180,
35-36=-309/180, 34-35=-309/180,
33-34=-309/180, 32-33=-309/180,
30-32=-309/180

REACTIONS (size) 2=0-3-8, 30=20-11-8, 32=20-11-8,
33=20-11-8, 34=20-11-8,
35=20-11-8, 36=20-11-8,
37=20-11-8, 38=20-11-8,
39=20-11-8, 40=20-11-8,
41=20-11-8, 42=20-11-8,
44=20-11-8, 45=20-11-8,
46=20-11-8, 47=20-11-8
Max Horiz 2=-234 (LC 13)
Max Uplift 2=-223 (LC 12), 30=-112 (LC 25),
32=-86 (LC 13), 33=-28 (LC 13),
34=-42 (LC 13), 35=-41 (LC 13),
36=-41 (LC 13), 37=-41 (LC 13),
38=-40 (LC 13), 39=-42 (LC 13),
40=-48 (LC 13), 41=-6 (LC 12),
44=-15 (LC 13), 45=-53 (LC 13),
46=-81 (LC 25), 47=-272 (LC 12)



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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51
Common Structural Gable	2	1	I56649992
Job Reference (optional)			

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:34
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Page: 2

WEBS 3-51=0/339, 3-50=-738/258, 50-52=-17/564,
6-52=-80/646, 6-59=-658/120,
58-59=-618/109, 53-58=-613/120,
48-53=-1072/485, 48-54=-156/43,
12-54=-158/72, 48-55=-252/1364,
55-62=-270/1432, 62-64=-267/1390,
64-67=-268/1405, 67-70=-270/1414,
18-70=-275/1436, 18-42=-289/14,
47-65=-1078/261, 63-65=-1130/282,
63-68=-1074/260, 66-68=-1128/279,
66-71=-1076/262, 69-71=-1226/291,
18-69=-1147/278, 5-52=-375/209,
52-60=-323/185, 53-60=-409/220,
53-57=-178/0, 56-57=-200/0, 54-56=-203/0,
54-55=-200/0, 55-61=-189/0, 47-61=-302/22,
11-56=-50/19, 10-57=-105/61, 9-53=-130/81,
8-58=0/35, 7-59=-145/68, 59-60=-203/84,
13-55=-82/27, 14-62=-127/64,
61-62=-188/57, 15-64=-89/58, 63-64=-77/63,
46-65=-74/62, 16-67=-84/62, 66-67=-79/63,
45-68=-81/66, 17-70=-126/37, 69-70=-96/33,
44-71=-179/42, 19-41=-129/24,
20-40=-89/65, 21-39=-93/57, 23-38=-94/56,
24-37=-93/57, 25-36=-93/57, 26-35=-93/57,
27-34=-97/59, 28-33=-70/41, 29-32=-183/110

NOTES

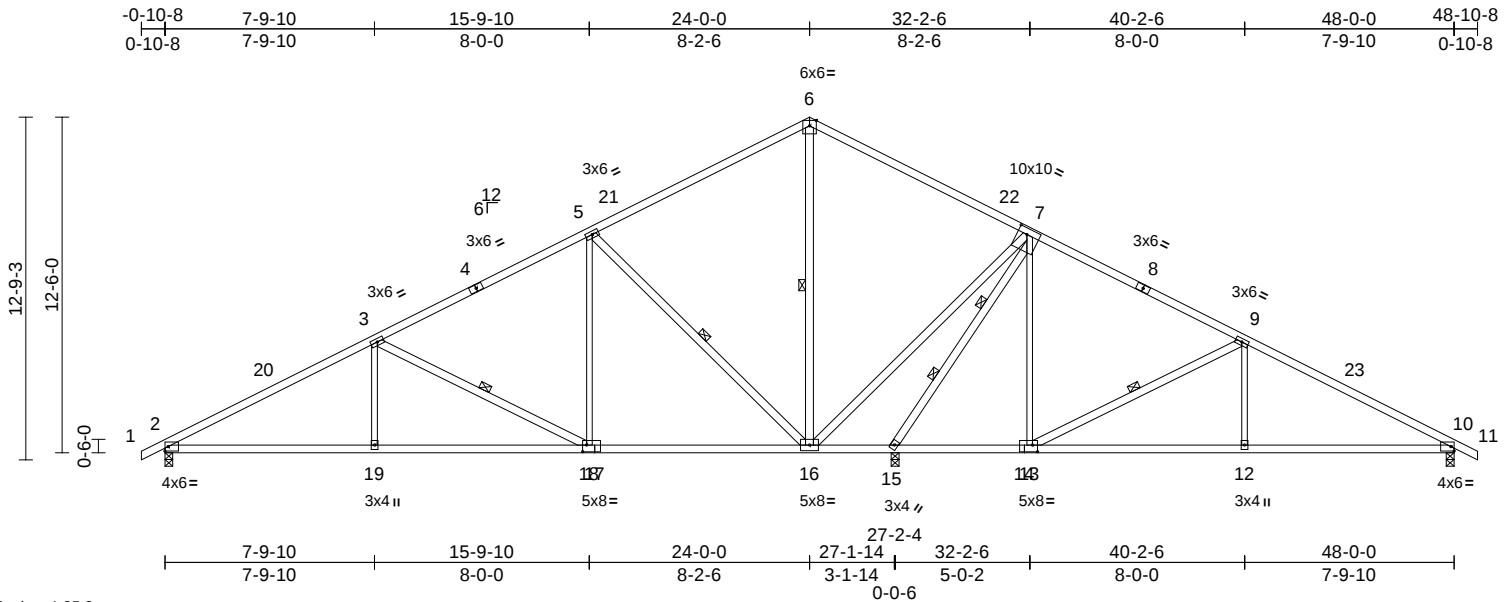
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope)
exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8,
Interior (1) 4-1-8 to 24-0-0, Exterior(2R) 24-0-0 to
31-0-14, Interior (1) 31-0-14 to 48-10-8 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 3x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 223 lb uplift at
joint 2, 272 lb uplift at joint 47, 81 lb uplift at joint 46, 53
lb uplift at joint 45, 15 lb uplift at joint 44, 6 lb uplift at
joint 41, 48 lb uplift at joint 40, 42 lb uplift at joint 39, 40
lb uplift at joint 38, 41 lb uplift at joint 37, 41 lb uplift at
joint 36, 41 lb uplift at joint 35, 42 lb uplift at joint 34, 28
lb uplift at joint 33, 86 lb uplift at joint 32 and 112 lb uplift
at joint 30.
- 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

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56649993
Common	6	1	Job Reference (optional)	

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:37
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Page: 1



Scale = 1:85.8

Plate Offsets (X, Y): [7:0-4-4,0-2-12], [14:0-2-4,0-3-0], [17:0-1-12,0-3-0]

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	0.93	Vert(LL)	-0.12	16-18	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.27	16-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 264 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 1-4-8-11:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
19-3,18-5,13-7,12-9:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 4-9-10 oc bracing.

WEBS 1 Row at midpt 3-18, 5-16, 6-16, 9-13
WEBS 2 Rows at 1/3 pts 7-15

REACTIONS

(size) 2=0-3-8, 10=0-3-8, 15=0-3-8
Max Horiz 2=-234 (LC 17)
Max Uplift 2=-222 (LC 12), 10=-198 (LC 13),
15=-301 (LC 12)
Max Grav 2=1165 (LC 25), 10=877 (LC 26),
15=2473 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-1831/315, 3-5=-1036/235,
5-6=-204/206, 6-7=-150/203, 7-9=-405/185,
9-10=-1225/265, 10-11=0/17

BOT CHORD 2-19=-402/1517, 18-19=-402/1517,
16-18=-152/818, 15-16=-1351/352,
13-15=-56/253, 12-13=-122/983,
10-12=-122/983

WEBS 3-19=0/338, 3-18=-791/280, 5-18=-26/578,
5-16=-1075/375, 6-16=-512/40,
7-16=-303/1911, 7-13=-36/520,
9-13=-829/280, 9-12=0/357, 7-15=-2793/404

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 24-0-0, Exterior(2R) 24-0-0 to
31-0-14, Interior (1) 31-0-14 to 48-10-8 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) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 222 lb uplift at
joint 2, 198 lb uplift at joint 10 and 301 lb uplift at joint
15.
- 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



February 15, 2023

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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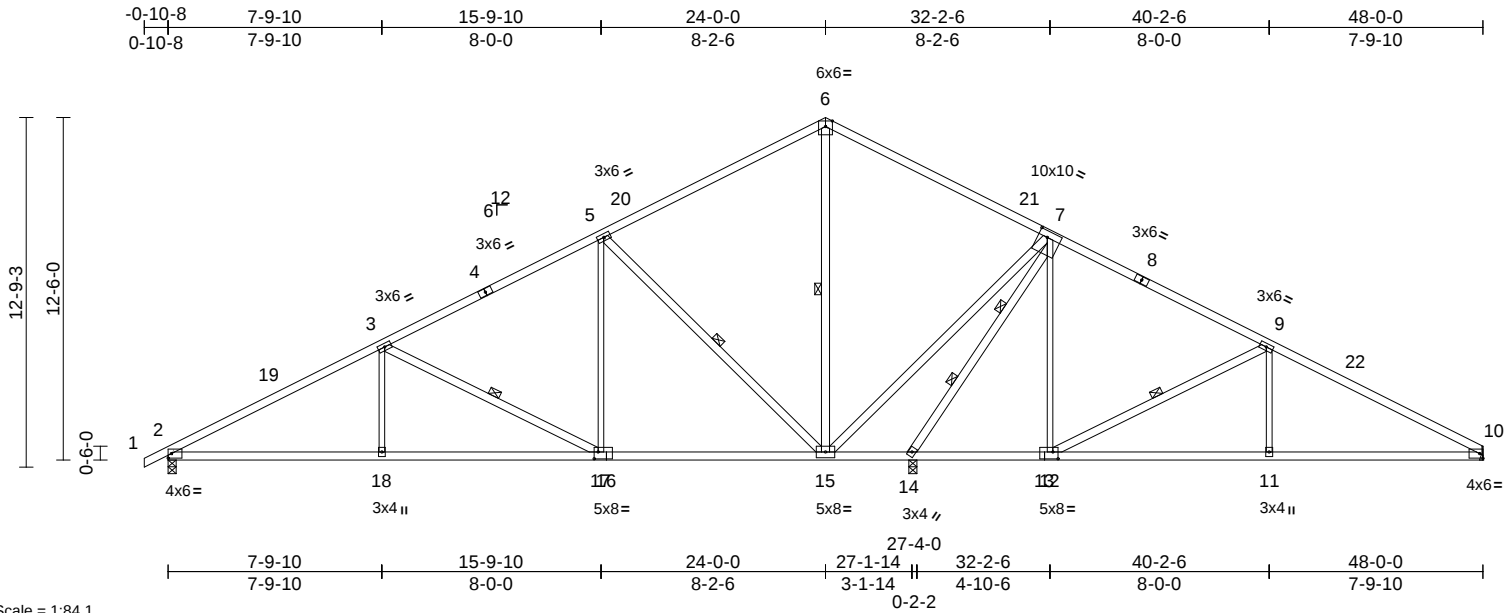


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56649994
Common	2	1	Job Reference (optional)	

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:37
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Page: 1



Scale = 1:84.1

Plate Offsets (X, Y): [7:0-4-0,0-2-12], [13:0-2-4,0-3-0], [16:0-1-12,0-3-0]

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	1.00	Vert(LL)	-0.12	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.27	15-17	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.06	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 262 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except*
18-3,17-5,12-7,11-9:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 4-9-5 oc bracing.
WEBS 1 Row at midpt 3-17, 5-15, 6-15, 9-12
WEBS 2 Rows at 1/3 pts 7-14

REACTIONS

(size) 2=0-3-8, 10= Mechanical, 14=0-3-8
Max Horiz 2=239 (LC 12)
Max Uplift 2=-220 (LC 12), 10=-169 (LC 13),
14=-304 (LC 12)
Max Grav 2=1163 (LC 25), 10=804 (LC 26),
14=2486 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-1827/313, 3-5=-1032/232,
5-6=-199/200, 6-7=-142/194, 7-9=-400/179,
9-10=-1208/261
BOT CHORD 2-18=-404/1514, 17-18=-404/1514,
15-17=-154/814, 14-15=-1366/355,
12-14=-60/248, 11-12=-131/996,
10-11=-131/996
WEBS 3-18=0/338, 3-17=-792/281, 5-17=-27/579,
5-15=-1075/374, 6-15=-520/46,
7-15=-307/1922, 7-12=-40/523,
9-12=-849/286, 9-11=0/361, 7-14=-2809/415

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 24-0-0, Exterior(2R) 24-0-0 to
31-0-14, Interior (1) 31-0-14 to 47-11-4 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
- 3) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 220 lb uplift at
joint 2, 169 lb uplift at joint 10 and 304 lb uplift at joint
14.
- 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

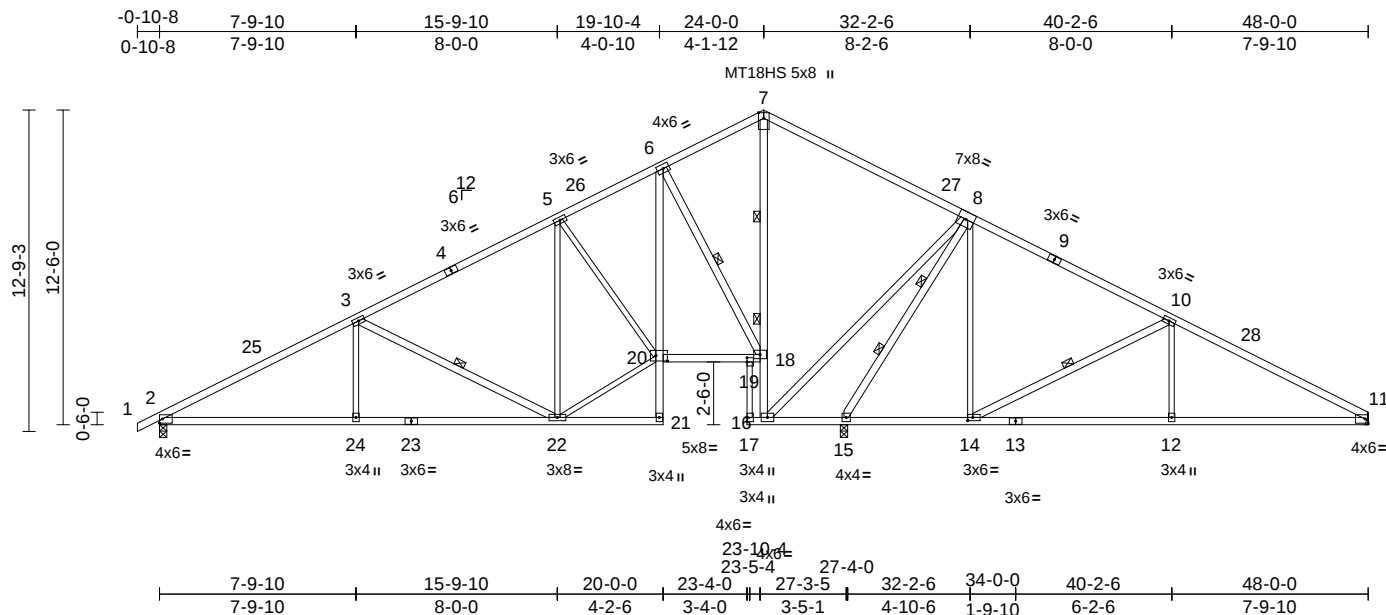
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:91.5

Plate Offsets (X, Y): [14:0-2-8,0-1-8], [19:0-2-0,Edge], [20:0-5-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	0.10	2-24	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.23	2-24	>999	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.08	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 285 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except*
18-6,22-3,16-8,8-15,10-14:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 4-7-13 oc
bracing. Except:
6-0-0 oc bracing: 7-16

WEBS 1 Row at midpt 6-18, 3-22, 10-14
WEBS 2 Rows at 1/3 pts 8-15

REACTIONS (size) 2=0-3-8, 11= Mechanical, 15=0-3-8
Max Horiz 2=239 (LC 16)
Max Uplift 2=-264 (LC 12), 11=-337 (LC 13),
15=-206 (LC 12)
Max Grav 2=1130 (LC 25), 11=803 (LC 26),
15=2547 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/17, 2-3=-1769/427, 3-5=-941/434,
5-6=-588/460, 6-7=-155/486, 7-8=-172/452,
8-10=-395/546, 10-11=-1208/621

BOT CHORD 2-24=-491/1466, 22-24=-491/1466,
21-22=-10/9, 20-21=0/44, 6-20=-233/887,
19-20=-129/453, 18-19=-129/453,
16-18=-1390/181, 7-18=-485/0, 16-17=0/0,
15-16=-1394/159, 14-15=-202/237,
12-14=-450/996, 11-12=-450/996

WEBS 6-18=-1010/335, 5-20=-479/169, 3-24=0/353,
3-22=-836/295, 5-22=0/229, 20-22=-258/844,
8-16=-185/1901, 8-15=-2789/269,
8-14=-41/514, 10-14=-855/278, 10-12=0/362,
17-19=-33/32

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 24-0-0, Exterior(2R) 24-0-0 to
31-0-14, Interior (1) 31-0-14 to 47-11-4 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
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 3x6 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 264 lb uplift at
joint 2, 206 lb uplift at joint 15 and 337 lb uplift at joint
11.
- 8) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

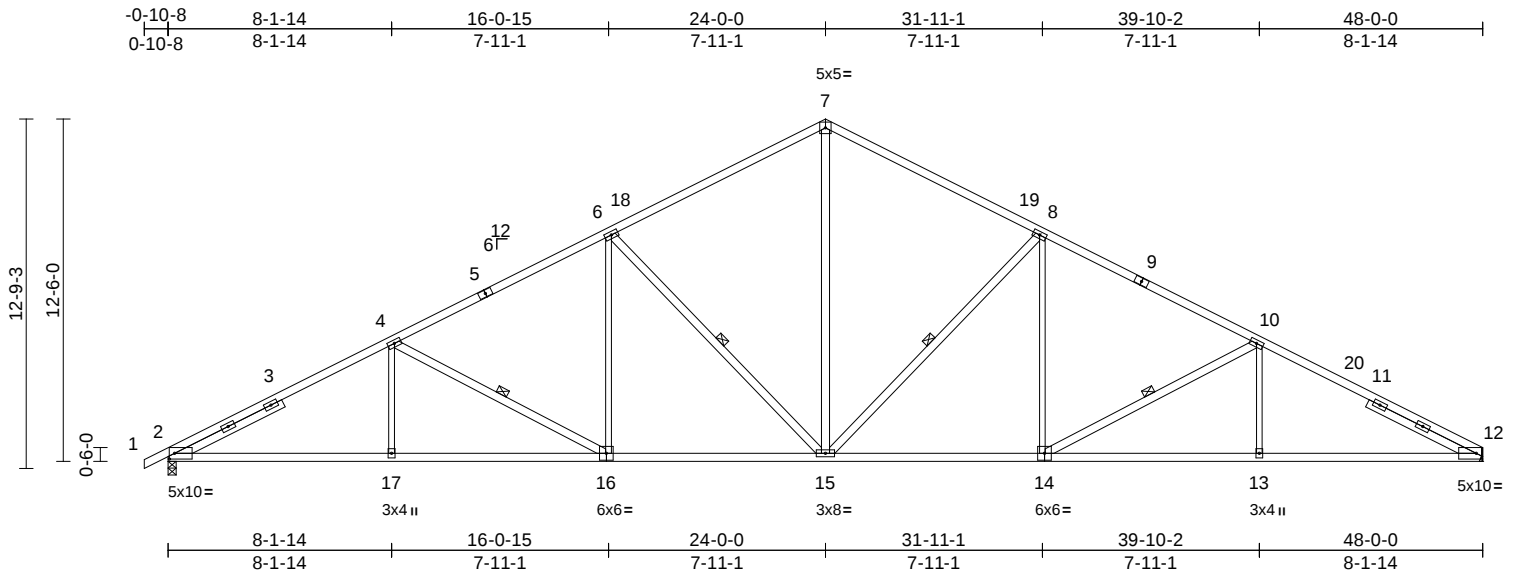
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:84.1

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

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	0.79	Vert(LL)	-0.27	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.55	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.24	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 262 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x4 SP No.2 *Except*
17-4,16-6,14-8,13-10:2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-4-7, Right 2x4 SP No.2 -- 4-4-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-0-2 oc bracing.

WEBS 1 Row at midpt 4-16, 6-15, 8-15, 10-14
REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=239 (LC 16)
Max Uplift 2=-353 (LC 12), 12=-328 (LC 13)
Max Grav 2=2223 (LC 1), 12=2150 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-4=-3980/583, 4-6=-3288/530, 6-7=-2520/513, 7-8=-2520/516, 8-10=-3299/538, 10-12=-4017/590
BOT CHORD 2-17=-634/3430, 15-17=-634/3430, 13-15=-414/3472, 12-13=-414/3472
WEBS 4-17=0/330, 4-16=-698/263, 6-16=-31/529, 6-15=-1035/370, 7-15=-251/1635, 8-15=-1044/372, 8-14=-35/539, 10-14=-732/270, 10-13=0/336

NOTES

- Unbalanced roof live loads have been considered for this design.

- 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 24-0-0, Exterior(2R) 24-0-0 to 31-0-14, Interior (1) 31-0-14 to 47-11-4 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
- All plates are 3x6 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 353 lb uplift at joint 2 and 328 lb uplift at joint 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

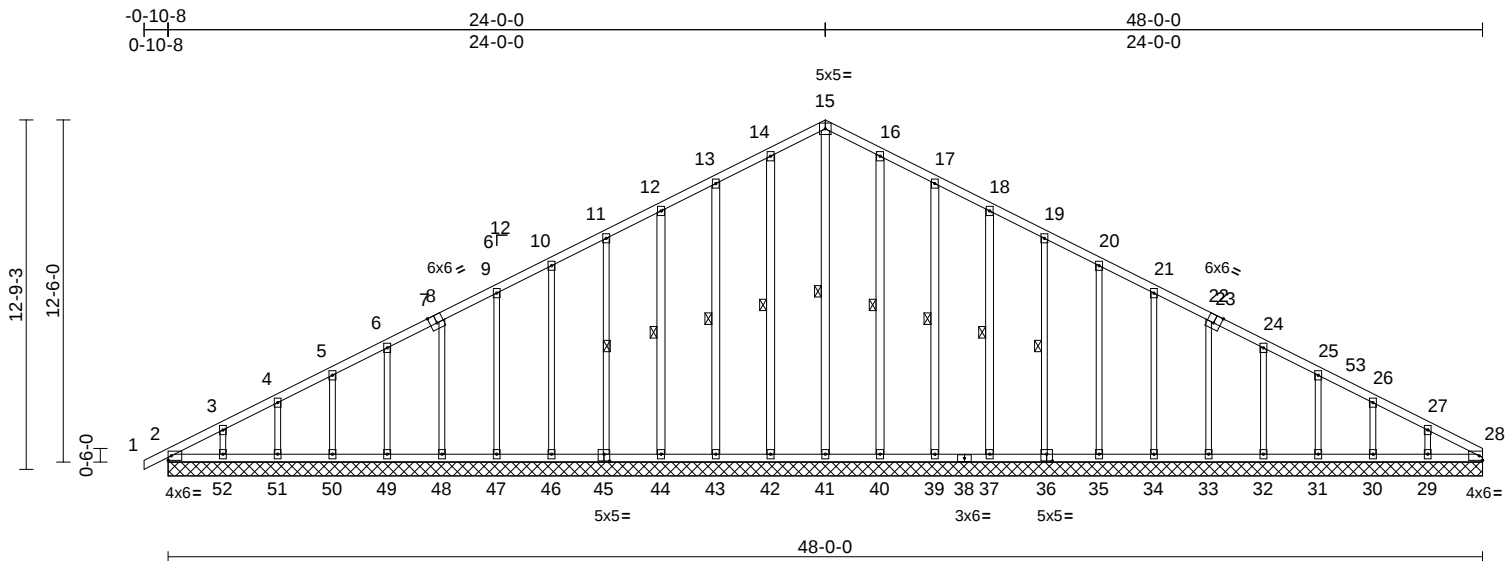
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56649997
Common Supported Gable	2	1	Job Reference (optional)	

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:39 Page: 1
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Scale = 1:84.1

Plate Offsets (X, Y): [7:0-3-0,Edge], [23:0-3-0,Edge], [36:0-2-8,0-3-0], [45:0-2-8,0-3-0]

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	0.11	Vert(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.02	28	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 317 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2 *Except*
41-15,40-16,39-17,37-18,42-14,43-13,44-12:
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.
WEBS 1 Row at midpt 15-41, 16-40, 17-39,
18-37, 19-36, 14-42,
13-43, 12-44, 11-45

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, 37=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,
46=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=239 (LC 16)
Max Uplift 2=-32 (LC 8), 29=90 (LC 13),
30=58 (LC 13), 31=62 (LC 13),
32=61 (LC 13), 33=61 (LC 13),
34=61 (LC 13), 35=63 (LC 13),
36=60 (LC 13), 37=61 (LC 13),
39=68 (LC 13), 40=48 (LC 13),
42=53 (LC 12), 43=66 (LC 12),
44=61 (LC 12), 45=60 (LC 12),
46=63 (LC 12), 47=61 (LC 12),
48=61 (LC 12), 49=61 (LC 12),
50=61 (LC 12), 51=61 (LC 12),
52=90 (LC 12)

FORCES

(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 15-16=-155/432, 16-17=-138/386,
17-18=-118/329, 18-19=-99/275,
19-20=-80/221, 20-21=-61/167,
21-22=-45/113, 22-24=-50/59, 24-25=-76/38,
25-26=-115/34, 26-27=-162/50,
27-28=-236/79, 1-2=0/17, 2-3=-327/107,
3-4=-260/105, 4-5=-212/119, 5-6=-163/133,
6-8=-127/152, 8-9=-96/180, 9-10=-80/208,
10-11=-80/236, 11-12=-99/275,
12-13=-118/329, 13-14=-138/386,
14-15=-155/432
BOT CHORD 2-52=-66/234, 51-52=-66/234,
50-51=-66/234, 49-50=-66/234,
48-49=-66/234, 47-48=-66/234,
46-47=-66/234, 44-46=-66/234,
43-44=-65/233, 42-43=-65/233,
41-42=-65/233, 40-41=-65/233,
39-40=-65/233, 37-39=-65/233,
35-37=-66/234, 34-35=-66/234,
33-34=-66/234, 32-33=-66/234,
31-32=-66/234, 30-31=-66/234,
29-30=-66/234, 28-29=-66/234

WEBS

15-41=-291/65, 16-40=-149/79,
17-39=-138/105, 18-37=-142/97,
19-36=-138/95, 20-35=-141/97,
21-34=-140/96, 22-33=-140/97,
24-32=-140/96, 25-31=-141/102,
26-30=-136/140, 27-29=-153/185,
14-42=-149/79, 13-43=-138/105,
12-44=-142/97, 11-45=-138/95,
10-46=-141/97, 9-47=-140/96, 8-48=-140/96,
6-49=-140/97, 5-50=-140/97, 4-51=-140/123,
3-52=-139/172

NOTES

- 1) Unbalanced roof live loads have been considered for
this design.



February 15, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51
Common Supported Gable	2	1	I56649997
Job Reference (optional)			

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:39

Page: 2

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- 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 4-0-0,
Exterior(2N) 4-0-0 to 24-0-0, Corner(3R) 24-0-0 to
29-0-0, Exterior(2N) 29-0-0 to 48-0-0 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) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 48 lb uplift at joint
40, 68 lb uplift at joint 39, 61 lb uplift at joint 37, 60 lb
uplift at joint 36, 63 lb uplift at joint 35, 61 lb uplift at joint
34, 61 lb uplift at joint 33, 61 lb uplift at joint 32, 62 lb
uplift at joint 31, 58 lb uplift at joint 30, 90 lb uplift at joint
29, 53 lb uplift at joint 42, 66 lb uplift at joint 43, 61 lb
uplift at joint 44, 60 lb uplift at joint 45, 63 lb uplift at joint
46, 61 lb uplift at joint 47, 61 lb uplift at joint 48, 61 lb
uplift at joint 49, 61 lb uplift at joint 50, 61 lb uplift at joint
51, 90 lb uplift at joint 52 and 32 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

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type

Common Supported Gable

Qty

2

Ply

1

Roof - Osage Lot 51

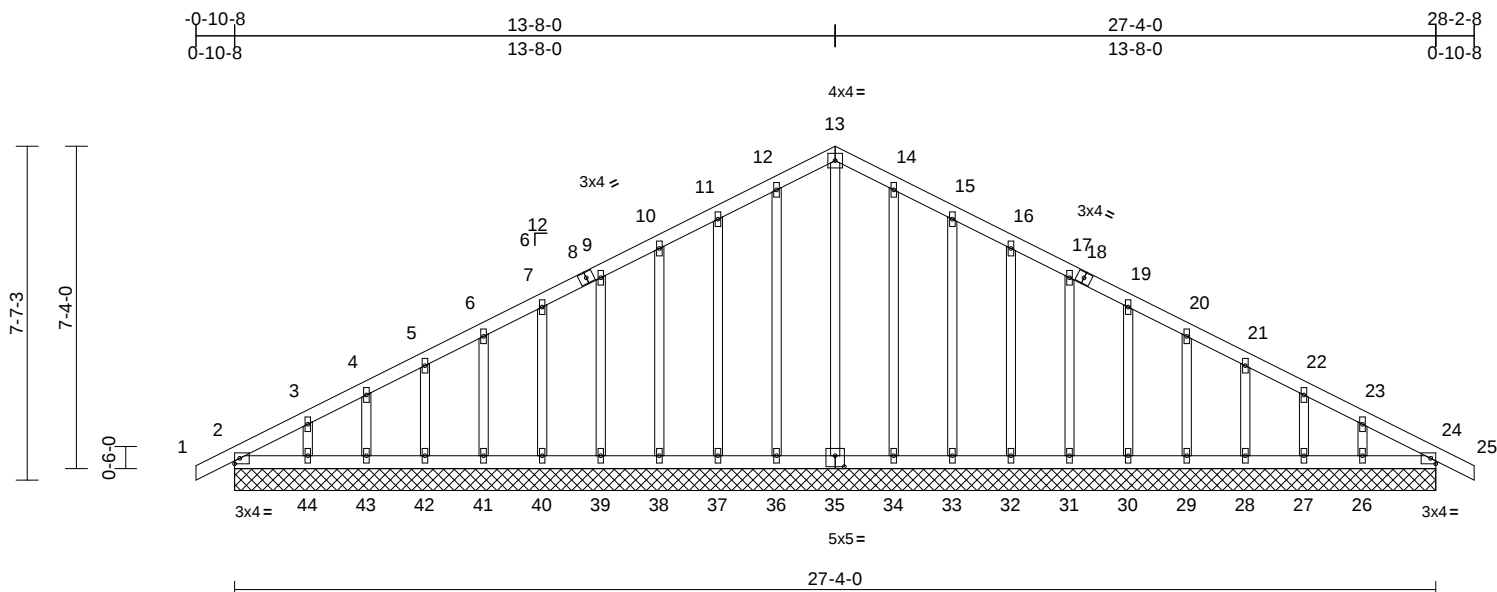
Job Reference (optional)

I56649998

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:40

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Scale = 1:52.4

Plate Offsets (X, Y): [35:0-2-8:0-3-0]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999	197/144
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: 145 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) 2=27-4-0, 24=27-4-0, 26=27-4-0, 27=27-4-0, 28=27-4-0, 29=27-4-0, 30=27-4-0, 31=27-4-0, 32=27-4-0, 33=27-4-0, 34=27-4-0, 35=27-4-0, 36=27-4-0, 37=27-4-0, 38=27-4-0, 39=27-4-0, 40=27-4-0, 41=27-4-0, 42=27-4-0, 43=27-4-0, 44=27-4-0
Max Horiz 2=137 (LC 13)
Max Uplift 2=26 (LC 8), 24=4 (LC 9), 26=57 (LC 13), 27=40 (LC 13), 28=41 (LC 13), 29=41 (LC 13), 30=41 (LC 13), 31=41 (LC 13), 32=41 (LC 13), 33=48 (LC 13), 34=21 (LC 13), 36=27 (LC 12), 37=46 (LC 12), 38=41 (LC 12), 39=41 (LC 12), 40=41 (LC 12), 41=41 (LC 12), 42=41 (LC 12), 43=40 (LC 12), 44=63 (LC 12)
Max Grav 2=150 (LC 1), 24=150 (LC 1), 26=130 (LC 26), 27=117 (LC 26), 28=121 (LC 1), 29=120 (LC 26), 30=120 (LC 26), 31=120 (LC 1), 32=120 (LC 1), 33=121 (LC 26), 34=123 (LC 26), 35=145 (LC 22), 36=123 (LC 25), 37=121 (LC 25), 38=120 (LC 1), 39=120 (LC 1), 40=120 (LC 25), 41=120 (LC 25), 42=121 (LC 1), 43=117 (LC 25), 44=130 (LC 25)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 13-14=-89/255, 14-15=-80/230, 15-16=-66/191, 16-17=-53/155, 17-19=-41/119, 19-20=-34/83, 20-21=-35/48, 21-22=-51/20, 22-23=-74/22, 23-24=-123/45, 24-25=0/17, 1-2=0/17, 2-3=-181/64, 3-4=-131/67, 4-5=-99/76, 5-6=-76/89, 6-7=-59/107, 7-9=-50/126, 9-10=-53/155, 10-11=-66/191, 11-12=-80/230, 12-13=-89/255
BOT CHORD 2-44=-40/160, 43-44=-40/160, 42-43=-40/160, 41-42=-40/160, 40-41=-40/160, 39-40=-40/160, 38-39=-40/160, 37-38=-40/160, 36-37=-40/160, 34-36=-40/160, 33-34=-40/160, 32-33=-40/160, 31-32=-40/160, 30-31=-40/160, 29-30=-40/160, 28-29=-40/160, 27-28=-40/160, 26-27=-40/160, 24-26=-40/160
WEBS 13-35=-148/26, 12-36=-96/43, 11-37=-95/74, 10-38=-93/64, 9-39=-93/64, 7-40=-93/64, 6-41=-93/64, 5-42=-94/82, 4-43=-92/99, 3-44=-99/122, 14-34=-96/40, 15-33=-95/74, 16-32=-93/64, 17-31=-93/64, 19-30=-93/64, 20-29=-93/64, 21-28=-94/82, 22-27=-92/99, 23-26=-99/119

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 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 4-4-0, Exterior(2N) 4-4-0 to 13-8-0, Corner(3R) 13-8-0 to 18-8-0, Exterior(2N) 18-8-0 to 28-2-8 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
- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 15, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/27/2023 4:38:55

Truss Type	Qty	Ply	Roof - Osage Lot 51
Common Supported Gable	2	1	I56649998
Job Reference (optional)			

Premier Building Supply (Springhill, KS) Spring Hills, KS - 66083, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:40 Page: 2
ID:UdTxDbh?e9q_8iTwPnntXZyGxKM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2, 27 lb uplift at joint 36, 46 lb uplift at joint 37, 41 lb uplift at joint 38, 41 lb uplift at joint 39, 41 lb uplift at joint 40, 41 lb uplift at joint 41, 41 lb uplift at joint 42, 40 lb uplift at joint 43, 63 lb uplift at joint 44, 21 lb uplift at joint 34, 48 lb uplift at joint 33, 41 lb uplift at joint 32, 41 lb uplift at joint 31, 41 lb uplift at joint 30, 41 lb uplift at joint 29, 41 lb uplift at joint 28, 40 lb uplift at joint 27, 57 lb uplift at joint 26 and 4 lb uplift at joint 24.
- 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

Truss Type

Common

Qty

4

Ply

1

Roof - Osage Lot 51

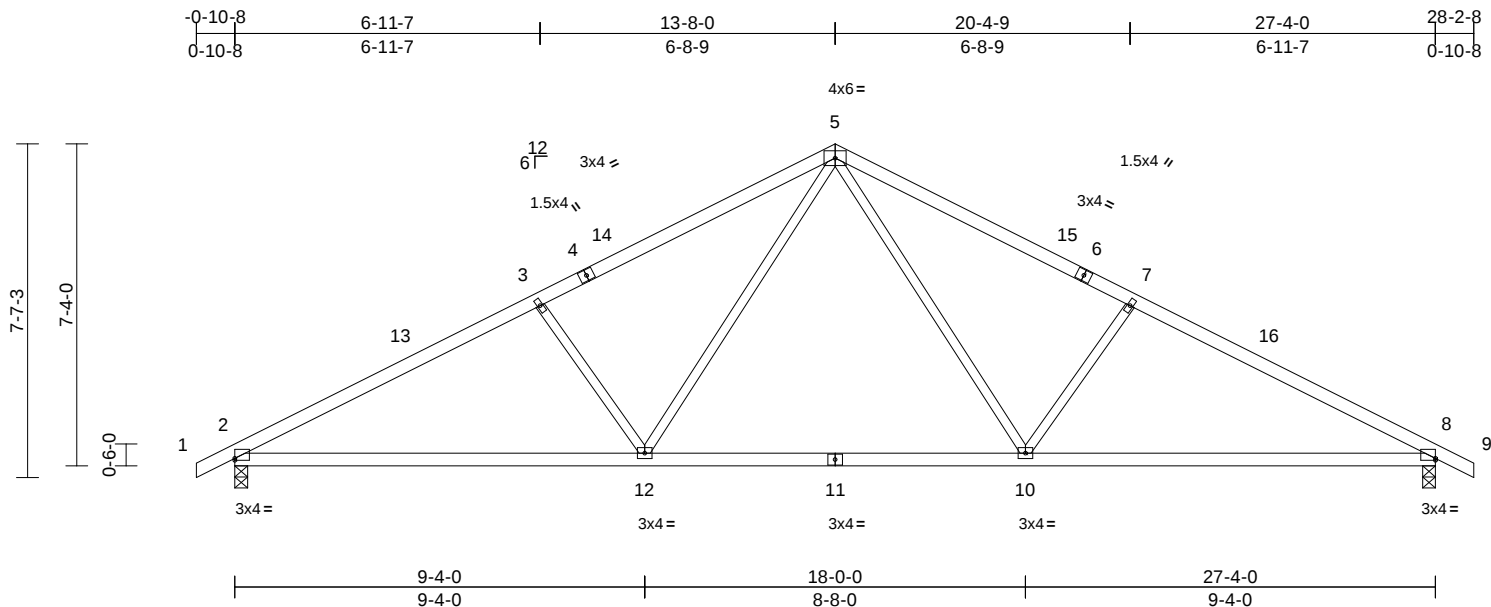
Job Reference (optional)

I56649999

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Page: 1

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Scale = 1:52.5

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

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	0.77	Vert(LL)	-0.20	2-12	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.44	2-12	>732	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.07	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 2-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-137 (LC 13)
Max Uplift 2=-211 (LC 12), 8=-211 (LC 13)
Max Grav 2=1288 (LC 1), 8=1288 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-2071/392, 3-5=-1819/403,
5-7=-1819/403, 7-8=-2071/392, 8-9=0/17
BOT CHORD 2-12=-328/1762, 10-12=-86/1180,
8-10=-263/1762
WEBS 5-10=-153/671, 7-10=-452/287,
5-12=-153/671, 3-12=-452/287

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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 13-8-0, Exterior(2R) 13-8-0 to
18-8-0, Interior (1) 18-8-0 to 28-2-8 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
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.

- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 211 lb uplift at joint
2 and 211 lb uplift at joint 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

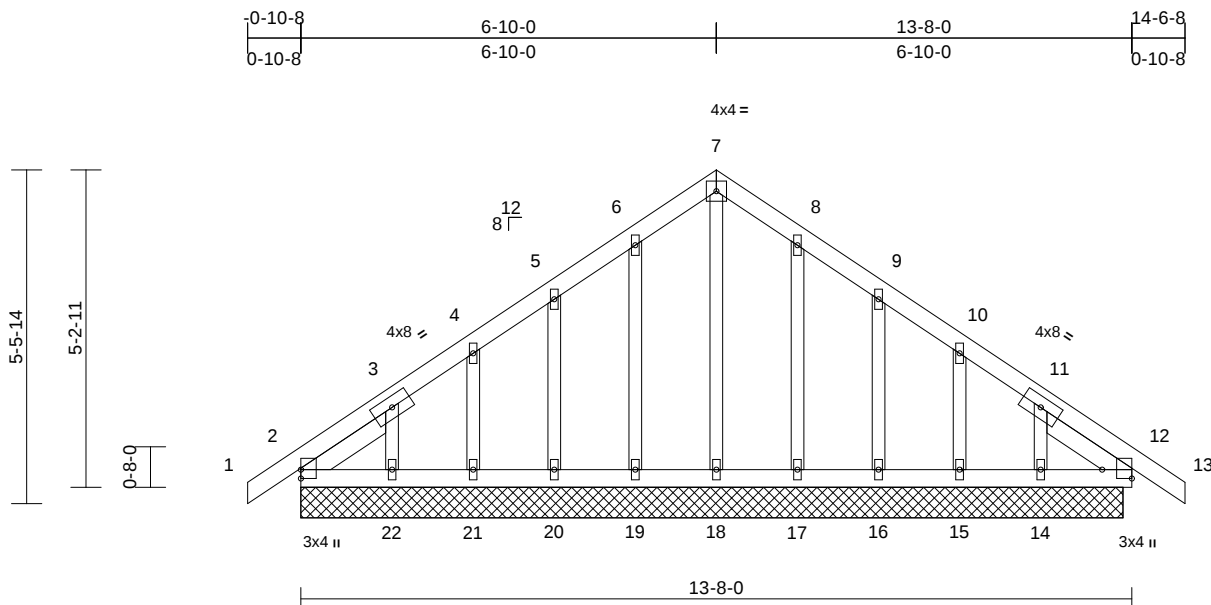
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650000
Common Supported Gable	1	1	Job Reference (optional)	
Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:41 Page: 1				
ID:pEeiREjqUZILYPLYj_L6lhyGxLc-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f				



Scale = 1:37.9

Plate Offsets (X, Y): [12:Edge,0-5-14]

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	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 73 lb FT = 20%											

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 1-8-5, Right 2x4 SP No.2 -- 1-8-5

WEBS	
7-18=-119/26, 8-17=-100/74, 9-16=-101/107,	
10-15=-100/111, 11-14=-102/129,	
6-19=-104/73, 5-20=-99/106, 4-21=-100/111,	
3-22=-109/131	

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)	
Max Horiz	2=13-6-4, 12=13-6-4, 14=13-6-4, 15=13-6-4, 16=13-6-4, 17=13-6-4, 18=13-6-4, 19=13-6-4, 20=13-6-4, 21=13-6-4, 22=13-6-4
Max Uplift	2=-144 (LC 10)
Max Grav	2=-39 (LC 8), 12=-2 (LC 9), 14=-73 (LC 13), 15=-52 (LC 13), 16=-57 (LC 13), 17=-42 (LC 13), 19=-45 (LC 12), 20=-56 (LC 12), 21=-52 (LC 12), 22=-80 (LC 12)
	2=159 (LC 20), 12=154 (LC 1), 14=132 (LC 20), 15=125 (LC 20), 16=128 (LC 20), 17=127 (LC 20), 18=119 (LC 22), 19=131 (LC 19), 20=126 (LC 19), 21=126 (LC 19), 22=139 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	7-8=-91/176, 8-9=-66/126, 9-10=-49/59, 10-11=-58/29, 11-12=-112/57, 12-13=0/16, 1-2=0/16, 2-3=-140/112, 3-4=-96/80, 4-5=-87/72, 5-6=-77/126, 6-7=-91/176
BOT CHORD	2-22=-52/150, 21-22=-52/150, 20-21=-52/150, 19-20=-52/150, 18-19=-52/150, 17-18=-52/150, 16-17=-52/150, 15-16=-52/150, 14-15=-52/150, 12-14=-52/150

NOTES

- Unbalanced roof live loads have been considered for this design.
- 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 4-2-0, Exterior(2N) 4-2-0 to 6-10-0, Corner(3R) 6-10-0 to 11-10-0, Exterior(2N) 11-10-0 to 14-6-8 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
- 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.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 12, 39 lb uplift at joint 2, 42 lb uplift at joint 17, 57 lb uplift at joint 16, 52 lb uplift at joint 15, 73 lb uplift at joint 14, 45 lb uplift at joint 19, 56 lb uplift at joint 20, 52 lb uplift at joint 21 and 80 lb uplift at joint 22.
- N/A
- This truss 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

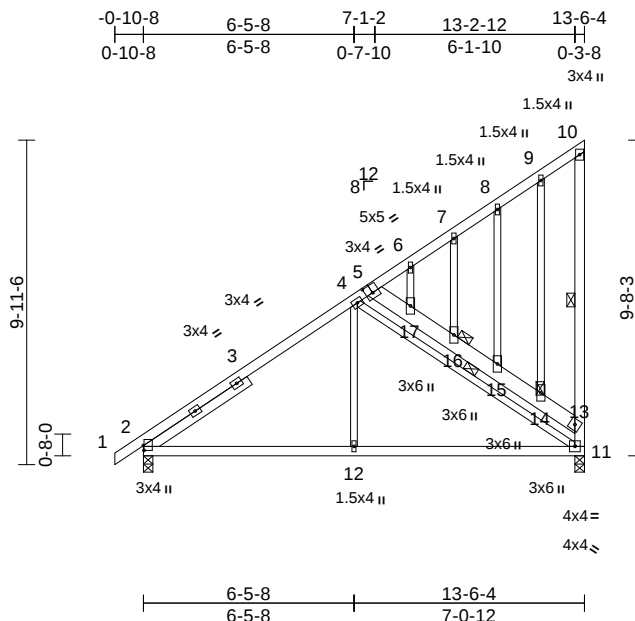
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:70.6

Plate Offsets (X, Y): [2:0-1-13.0-0-4], [5:0-2-8.0-3-0]

[illegible]

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 10-11:2x4 SP No.2,
5-13:2x6 SPF No.2
OTHERS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-10-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-9-7 oc bracing.
WEBS	1 Row at midpt 10-11, 4-11
JOINTS	1 Brace at Jt(s): 14, 16

REACTIONS (size) 2=0-3-8, 11=0-3-8
 Max Horiz 2=399 (LC 9)
 Max Uplift 2=-83 (LC 12), 11=-202 (LC 12)
 Max Grav 2=665 (LC 1), 11=658 (LC 19)

FORCES

Tension

TOP CHORD 1-2=0/16, 2-4=-710/137, 4-6=-398/249,
6-7=-262/227, 7-8=-225/205, 8-9=-188/186,
9-10=-127/138, 11-13=-346/275,
10-13=-96/74

BOT CHORD 2-12=-341/590, 11-12=-341/590

WEBS 4-12=0/306, 4-11=-759/547, 5-17=-546/486,
16-17=-441/390, 15-16=-502/443,
14-15=-538/473, 13-14=-516/441,
9-14=-111/93, 8-15=-79/56, 7-16=-112/96,
6-17=-178/195

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 13-4-8 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
- 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 1-4-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 202 lb uplift at joint 11 and 83 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



February 15, 2023



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Code**

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type
Monopitch Girder

Qty
2

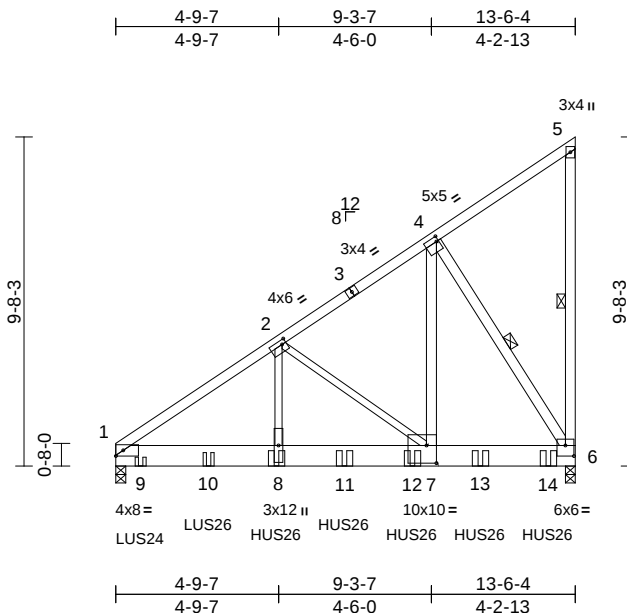
Ply
2

Roof - Osage Lot 51
Job Reference (optional)

I56650002

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:42
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Page: 1



Scale = 1:67.8

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

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	0.61	Vert(LL)	-0.08	7-8	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.15	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.02	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 210 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except* 2-8,7-2:2x3 SPF No.2

BRACING

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

WEBS 1 Row at midpt 5-6, 4-6

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=388 (LC 28)
Max Uplift 1=-1106 (LC 12), 6=-1377 (LC 12)
Max Grav 1=5709 (LC 1), 6=7705 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-7730/1434, 2-4=-4248/811,
4-5=-205/172, 5-6=-150/127

BOT CHORD 1-8=-1408/6191, 7-8=-1408/6191,
6-7=-763/3467

WEBS 2-8=-740/3927, 2-7=-3406/807,
4-7=-1287/7362, 4-6=-6404/1229

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 4 rows staggered 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.
- 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.

- 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 13-4-8 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
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 1377 lb uplift at
joint 6 and 1106 lb uplift at joint 1.
- This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d
Truss) or equivalent at 0-8-12 from the left end to
connect truss(es) to back face of bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d
Truss, Single Ply Girder) or equivalent at 2-8-12 from
the left end to connect truss(es) to back face of bottom
chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d
Truss) or equivalent spaced at 2-0-0 oc max. starting at
4-8-12 from the left end to 12-8-12 to connect truss(es)
to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 8=-2130 (B), 9=-788 (B), 10=-783 (B),
11=-2130 (B), 12=-2130 (B), 13=-2130 (B), 14=-2133
(B)



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

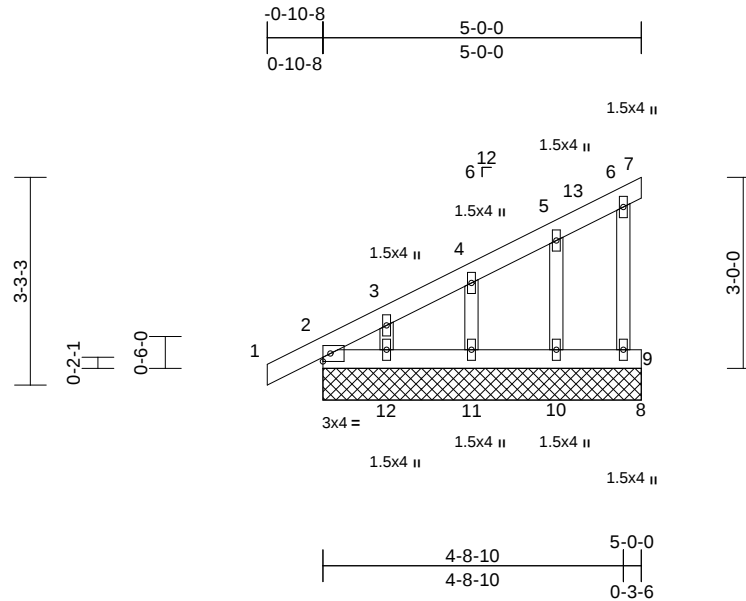
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:36.2

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	0.15	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	9	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	Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size)	2=5-0-0, 8=5-0-0, 9=5-0-0, 10=5-0-0, 11=5-0-0, 12=5-0-0
Max Horiz	2=121 (LC 9)
Max Uplift	2=-17 (LC 8), 8=-3 (LC 3), 9=-14 (LC 9), 10=-37 (LC 12), 11=-45 (LC 12), 12=-40 (LC 12)
Max Grav	2=127 (LC 1), 8=-1 (LC 8), 9=52 (LC 1), 10=112 (LC 1), 11=130 (LC 1), 12=78 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/17, 2-3=-346/150, 3-4=-251/125, 4-5=-163/99, 5-6=-88/76, 6-7=-3/0, 6-9=-67/107
BOT CHORD	2-12=-53/70, 11-12=-53/70, 10-11=-53/70, 9-10=-53/70, 8-9=0/0
WEBS	5-10=-88/154, 4-11=-103/185, 3-12=-83/176

NOTES

- 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 5-0-0 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
- 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.

- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 9, 17 lb uplift at joint 2, 3 lb uplift at joint 8, 37 lb uplift at joint 10, 45 lb uplift at joint 11 and 40 lb uplift at joint 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



February 15, 2023

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

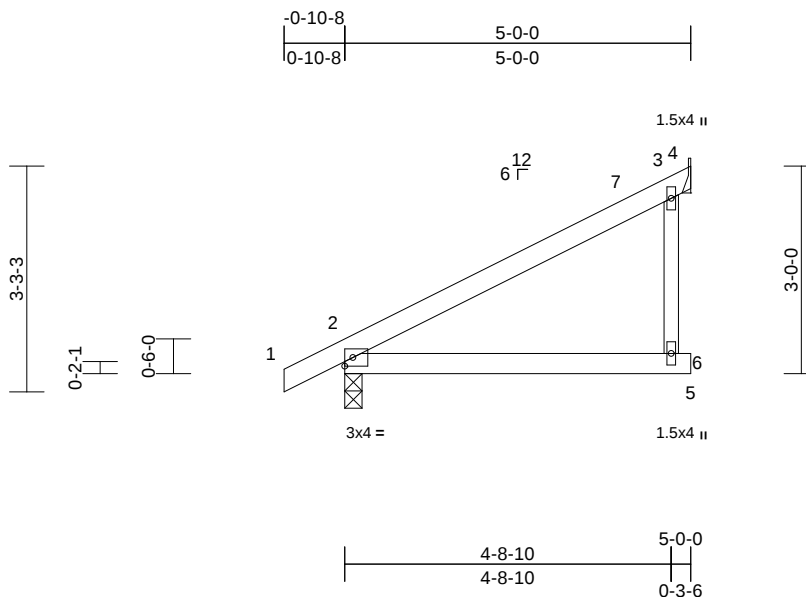
Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650005
Monopitch	12	1	Job Reference (optional)	

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

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:43

Page: 1

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Scale = 1:33.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.03	2-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.06	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 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
5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 2=0-3-0, 4= Mechanical
Max Horiz 2=121 (LC 9)
Max Uplift 2=-58 (LC 12), 4=-61 (LC 12)
Max Grav 2=294 (LC 1), 4=211 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/17, 2-3=-140/106, 3-4=-64/94,
3-6=0/103

BOT CHORD 2-6=-53/57, 5-6=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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 61 lb uplift at joint
4 and 58 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

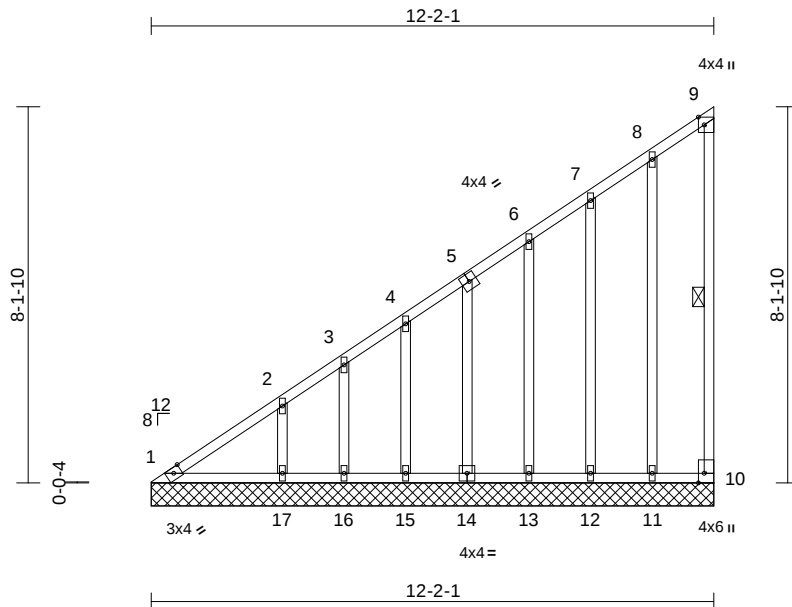


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650006
Valley	2	1	Job Reference (optional)	

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Tue Feb 14 19:28:44
ID:3dyyPIGdvpWQ0?oJPG2wlyGxRL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zC?f

Page: 1



Scale = 1:49.9

Plate Offsets (X, Y): [9:0-2-0,Edge], [10:0-2-8,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	0.76	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.00	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb FT = 20%

LUMBER

TOP CHORD	2x3 SPF No.2
BOT CHORD	2x3 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 9-10

REACTIONS

(size)	1=12-2-1, 10=12-2-1, 11=12-2-1, 12=12-2-1, 13=12-2-1, 14=12-2-1, 15=12-2-1, 16=12-2-1, 17=12-2-1
Max Horiz	1=334 (LC 9)
Max Uplift	1=-47 (LC 8), 10=-77 (LC 11), 11=-64 (LC 12), 12=-44 (LC 12), 13=-57 (LC 12), 14=-50 (LC 12), 15=-56 (LC 12), 16=-33 (LC 12), 17=-100 (LC 12)
Max Grav	1=174 (LC 20), 10=81 (LC 8), 11=126 (LC 19), 12=129 (LC 19), 13=126 (LC 19), 14=124 (LC 19), 15=136 (LC 19), 16=79 (LC 19), 17=243 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-503/385, 2-3=-417/318, 3-4=-380/302, 4-6=-330/269, 6-7=-234/209, 7-8=-193/188, 8-9=-111/110, 9-10=-41/38
BOT CHORD	1-17=-145/159, 16-17=-145/159, 15-16=-145/159, 13-15=-145/159, 12-13=-145/159, 11-12=-145/159, 10-11=-145/159
WEBS	8-11=-177/154, 7-12=-101/93, 6-13=-101/73, 5-14=-98/70, 4-15=-106/74, 3-16=-67/49, 2-17=-182/126

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) 0-4-3 to 5-6-7, Interior (1) 5-6-7 to 12-1-3 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 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 10, 64 lb uplift at joint 11, 44 lb uplift at joint 12, 57 lb uplift at joint 13, 50 lb uplift at joint 14, 56 lb uplift at joint 15, 33 lb uplift at joint 16, 100 lb uplift at joint 17 and 47 lb uplift at joint 1.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

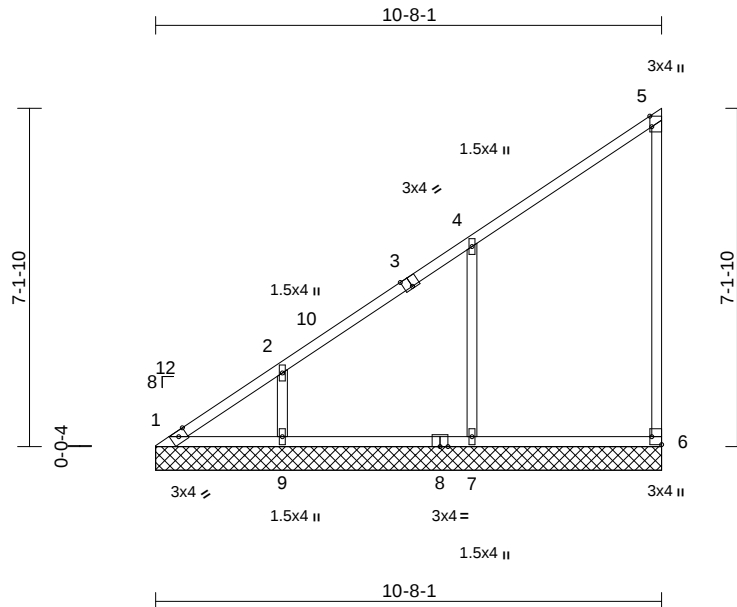
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:48.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS	(size)	1=10-8-1, 6=10-8-1, 7=10-8-1, 9=10-8-1
	Max Horiz	1=291 (LC 9)
	Max Uplift	1=-47 (LC 10), 6=-60 (LC 9), 7=-174 (LC 12), 9=-135 (LC 12)
	Max Grav	1=145 (LC 9), 6=168 (LC 19), 7=419 (LC 19), 9=327 (LC 19)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-465/296, 2-4=-356/245, 4-5=-174/146, 5-6=-130/137
BOT CHORD	1-9=-126/140, 7-9=-126/140, 6-7=-126/140
WEBS	4-7=-337/286, 2-9=-253/197

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) 0-4-3 to 5-4-3, Interior (1) 5-4-3 to 10-7-3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1, 60 lb uplift at joint 6, 174 lb uplift at joint 7 and 135 lb uplift at joint 9.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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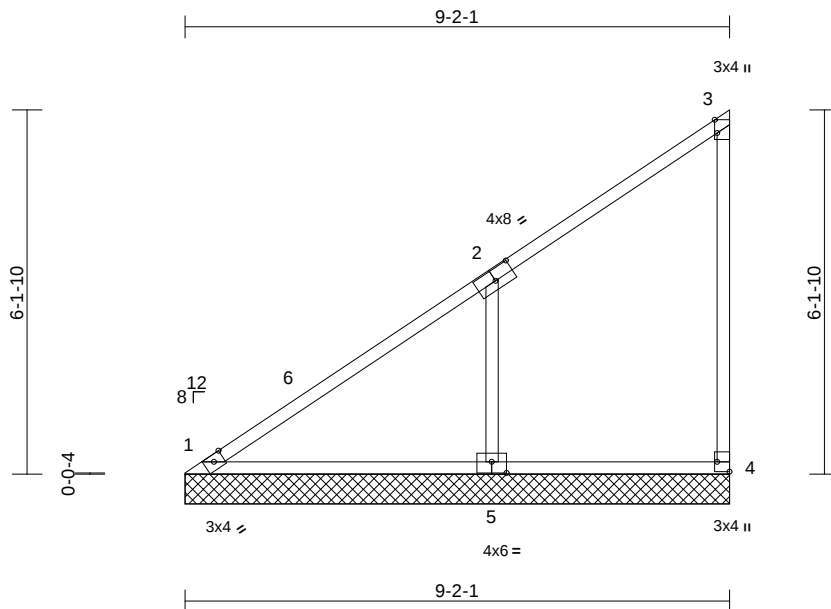


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650008
Valley	2	1	Job Reference (optional)	

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Page: 1



Scale = 1:38.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 23 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=9-2-1, 4=9-2-1, 5=9-2-1
Max Horiz	1=249 (LC 9)
Max Uplift	1=-1 (LC 8), 4=-51 (LC 9), 5=-213 (LC 12)
Max Grav	1=205 (LC 20), 4=144 (LC 19), 5=515 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-381/259, 3-4=-120/131
BOT CHORD	1-4=-111/123
WEBS	2-5=-399/341

NOTES

- 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) 0-4-3 to 5-2-7,
Interior (1) 5-2-7 to 9-1-3 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.

- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 51 lb uplift at joint
4, 213 lb uplift at joint 5 and 1 lb uplift at joint 1.
- This truss 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

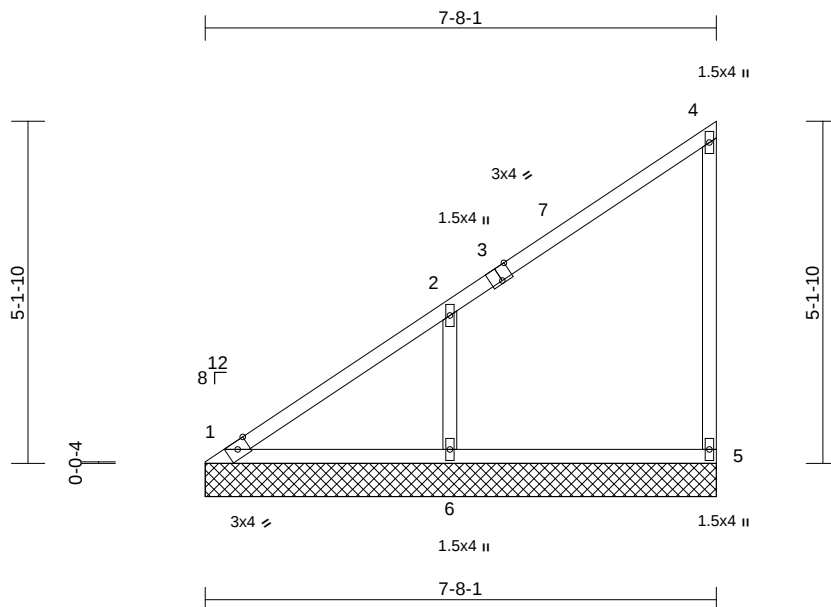


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650009
Valley	2	1	Job Reference (optional)	

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Page: 1



Scale = 1:34.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=7-8-1, 5=7-8-1, 6=7-8-1
Max Horiz	1=206 (LC 9)
Max Uplift	1=-14 (LC 8), 5=-47 (LC 9), 6=-178 (LC 12)
Max Grav	1=142 (LC 20), 5=156 (LC 19), 6=430 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-355/236, 2-4=-162/132, 4-5=-135/147
BOT CHORD	1-6=-95/104, 5-6=-95/104
WEBS	2-6=-339/312

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) 0-4-3 to 5-4-3, Interior (1) 5-4-3 to 7-7-3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 5, 178 lb uplift at joint 6 and 14 lb uplift at joint 1.
- 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



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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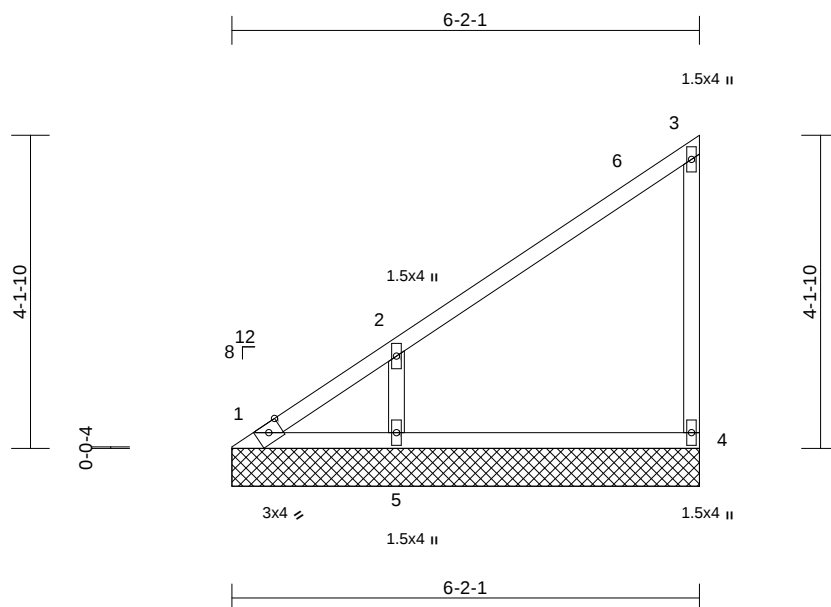


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650010
Valley	2	1	Job Reference (optional)	

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size)	1=6-2-1, 4=6-2-1, 5=6-2-1
Max Horiz	1=163 (LC 9)
Max Uplift	1=-44 (LC 10), 4=-41 (LC 9), 5=-156 (LC 12)
Max Grav	1=84 (LC 9), 4=160 (LC 19), 5=379 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-332/216, 2-3=-156/121, 3-4=-136/153
BOT CHORD	1-5=-78/85, 4-5=-78/85
WEBS	2-5=-299/297

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) 0-4-3 to 5-4-3, Interior (1) 5-4-3 to 6-1-3 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 1, 41 lb uplift at joint 4 and 156 lb uplift at joint 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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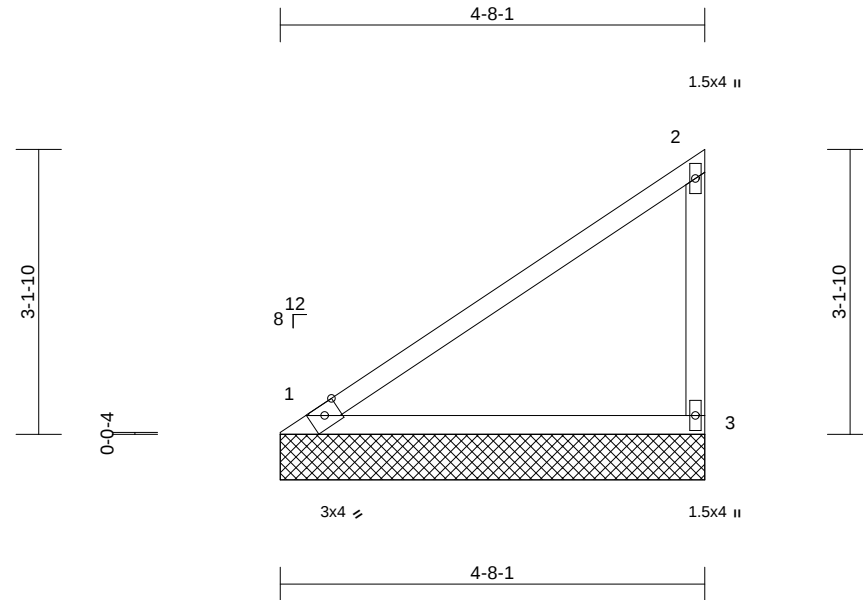


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650011
Valley	2	1	Job Reference (optional)	

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Page: 1



Scale = 1:25.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	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: 10 lb	FT = 20%

LUMBER

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-8-1, 3=4-8-1

Max Horiz 1=121 (LC 9)
Max Uplift 1=-21 (LC 12), 3=-63 (LC 12)
Max Grav 1=191 (LC 1), 3=208 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-167/124, 2-3=-166/193
BOT CHORD 1-3=-58/63

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 63 lb uplift at joint 3.



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

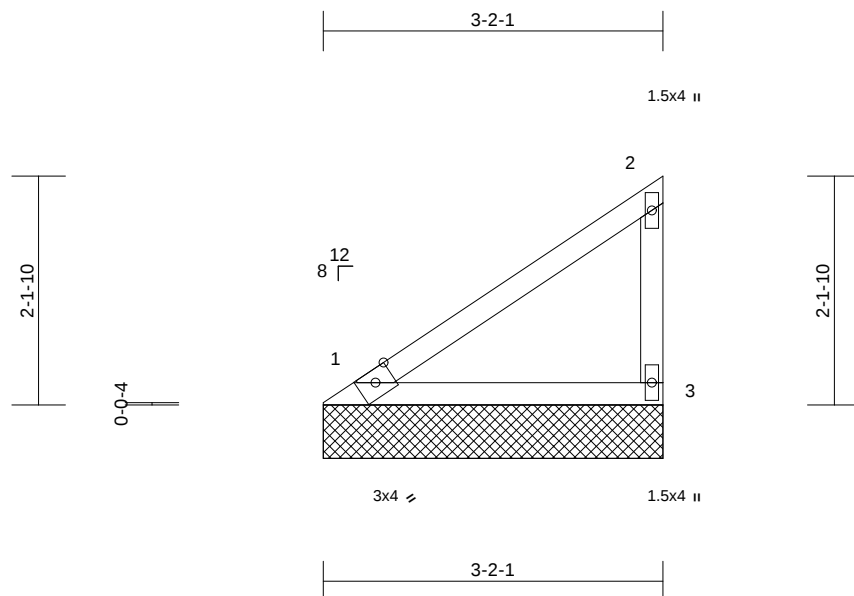
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:21.5

[illegible]

LUMBER

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(size)	1=3-2-1, 3=3-2-1
Max Horiz	1=78 (LC 9)
Max Uplift	1=-13 (LC 12), 3=-41 (LC 12)
Max Grav	1=124 (LC 1), 3=135 (LC 19)

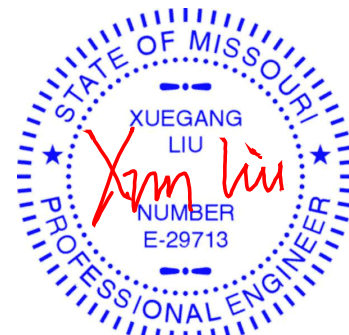
FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-112/83, 2-3=-110/132
BOT CHORD 1-3=-38/41

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) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 13 lb uplift at joint
1 and 41 lb uplift at joint 3.



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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

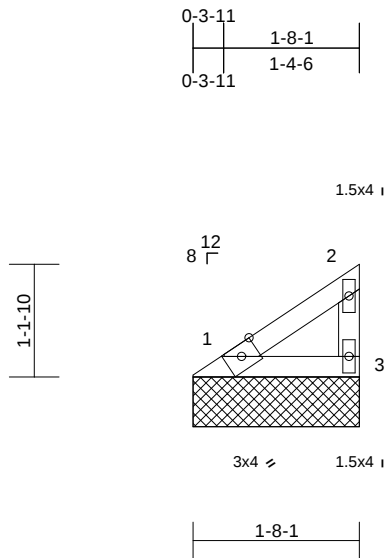


16023 Swingley Ridge Rd
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Truss Type	Qty	Ply	Roof - Osage Lot 51	I56650013
Valley	2	1	Job Reference (optional)	

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Page: 1



Scale = 1:23.2

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	197/144
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: 3 lb FT = 20%

LUMBER

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-8-1, 3=1-8-1

Max Horiz 1=36 (LC 9)
Max Uplift 1=-6 (LC 12), 3=-19 (LC 12)
Max Grav 1=56 (LC 1), 3=61 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-52/39, 2-3=-53/62
BOT CHORD 1-3=-17/19

NOTES

- 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
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 19 lb uplift at joint 3.



February 15, 2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

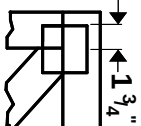
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



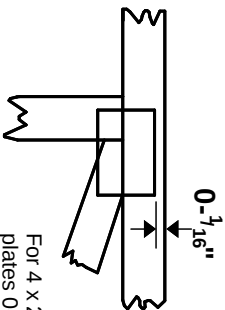
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Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

—
This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE

4 X 4

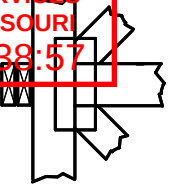
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



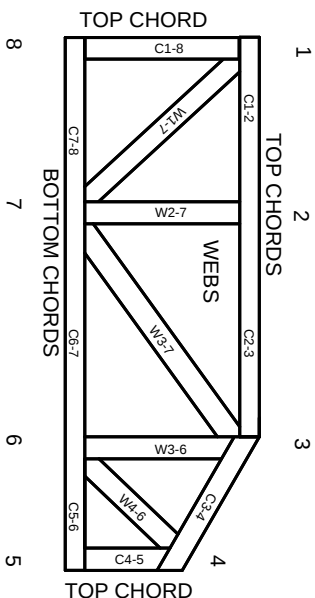
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
BCS: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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.

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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 T or 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.