

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

Re: P230318-02
Roof - Osage Lot 5 A1-A4 Repair

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: I61909933 thru I61909936

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

Missouri COA: Engineering 001193



November 9, 2023

Fox, Steve, 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.

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 5 A1-A4 Repair	I61909933
P230318-02	A1	Roof Special Structural Gable	1	1	Job Reference (optional)	

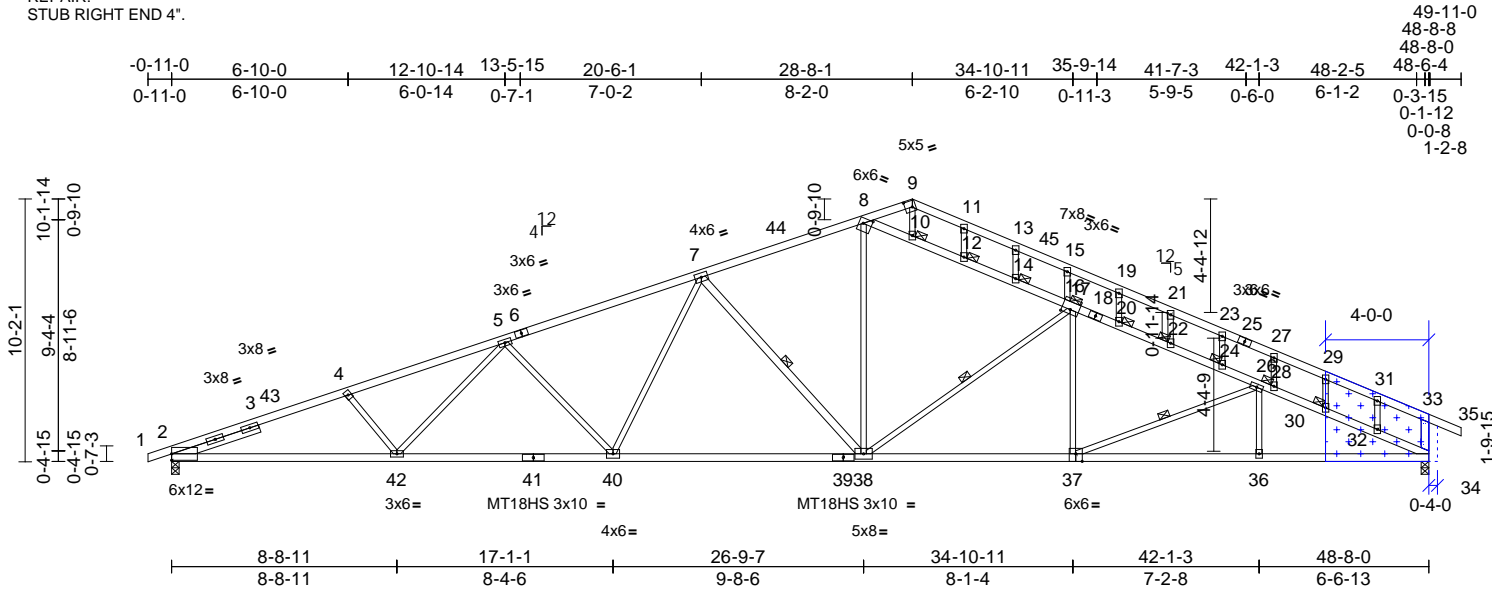
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Thu Nov 09 13:31:24

Page: 1

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REPAIR:
STUB RIGHT END 4".



ATTACH < 2 LAYERS > 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1)
TO ONE FACE OF TRUSS WITH (0.131" X 3.0") NAILS PER THE FOLLOWING NAIL SCHEDULE:
2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 2' O.C.
USE 2" MEMBER END DISTANCE. GLUE PLYWOOD LAYERS TOGETHER PRIOR TO ATTACHING TO TRUSS.



INSTALL 2 X 4 SPF/DF/SP NO.2
CUT TO FIT TIGHT.

Scale = 1:89.2

Plate Offsets (X, Y): [8:0-4-0,0-2-7], [9:0-3-7,0-3-0], [16:0-4-0,0-2-0], [37:0-3-0,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	0.85	Vert(LL)	-0.45	38-40	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.95	38-40	>617	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.27	34	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH								Weight: 264 lb FT = 20%

LUMBER	TOP CHORD	BOT CHORD	WEBS	OTHERS	SLIDER	BRACING	TOP CHORD	BOT CHORD	WEBS	REACTIONS	FORCES
TOP CHORD	2x4 SP No.2 *Except* 1-6:2x4 SP 2400F 2.0E, 6-9:2x4 SP 1650F 1.5E	2x4 SP 2400F 2.0E *Except* 41-39,39-37:2x4 SP 1650F 1.5E	2x3 SPF No.2 *Except* 7-38:2x4 SP No.2, 33-34:2x4 SPF No.2	2x3 SPF No.2	Left 2x4 SPF No.3 -- 3-6-9	Structural wood sheathing directly applied or 2-6-8 oc purlins.	Rigid ceiling directly applied or 7-9-10 oc bracing.	1 Row at midpt 7-38, 17-38, 26-37	1 Brace at Jt(s): 10, 12, 14, 16, 20, 22, 24, 28, 30, 32	(lb/size) 2=2256/0-3-8, 34=2277/0-3-8 Max Horiz 2=208 (LC 12) Max Uplift 2=-412 (LC 8), 34=-301 (LC 13)	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/0, 2-3=-5377/1055, 3-43=-5287/1071, 4-43=-5271/1081, 4-5=-5135/1048, 5-6=-4345/906, 6-7=-4331/935, 7-44=-3130/747, 8-44=-3005/761, 8-9=-171/421, 9-11=-158/436, 11-13=-152/402, 13-45=-144/383, 15-45=-158/376, 15-19=-108/325, 19-21=-99/297, 21-23=-102/280, 23-25=-78/241, 25-27=-88/233, 27-29=-53/177, 29-31=-52/156, 31-33=-80/124, 33-35=0/38, 8-10=-3089/451, 10-12=-3105/396, 12-14=-3133/424, 14-16=-3153/436, 16-17=-3285/495, 17-18=-4004/621, 18-20=-4004/621, 20-22=-4045/640, 22-24=-4062/648, 24-26=-4116/677, 26-28=-4668/788, 28-30=-4756/840, 30-32=-4790/847, 32-34=-4821/872	2-42=-970/4954, 41-42=-840/4570, 40-41=-840/4570, 39-40=-620/3667, 38-39=-620/3667, 37-38=-605/3773, 36-37=-792/4428, 34-36=-792/4428	9-10=-169/49, 11-12=-73/73, 13-14=-54/33, 15-16=-344/154, 19-20=-106/52, 21-22=-45/24, 23-24=-143/82, 27-28=-238/153, 29-30=-89/28, 31-32=-77/63, 4-42=-222/176, 5-42=-50/440, 5-40=-800/290, 7-40=-117/866, 7-38=-1181/365, 8-38=-283/1676, 17-38=-1080/249, 17-37=-4/478, 26-37=-737/250, 26-36=0/269, 33-34=-239/222								

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; 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 28-8-1, Exterior(2R) 28-8-1 to 33-8-1, Interior (1) 33-8-1 to 49-11-0 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
- 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 MT20 plates unless otherwise indicated.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- N/A



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

November 9, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbccomponents.com)



Job P230318-02	Truss A1	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	Roof - Osage Lot 5 A1-A4 Repair Job Reference (optional)	I61909933
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

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Page: 2

- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) 2 X 4 notch at 2000 o.c. is allowed along the stacked top chord. No notches allowed in overhang and 1100 from left end and 1100 from right end or 12" along rake from scarf, whichever is larger. Minimum 1.5x4 tie plates required at 2-0-0 o.c. maximum between the stacking chords. For edge-wise notching, provide at least one tie plate between each notch.

LOAD CASE(S) Standard

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Job P230318-02	Truss A2	Truss Type Roof Special	Qty 2	Ply 1	Roof - Osage Lot 5 A1-A4 Repair Job Reference (optional)	I61909934
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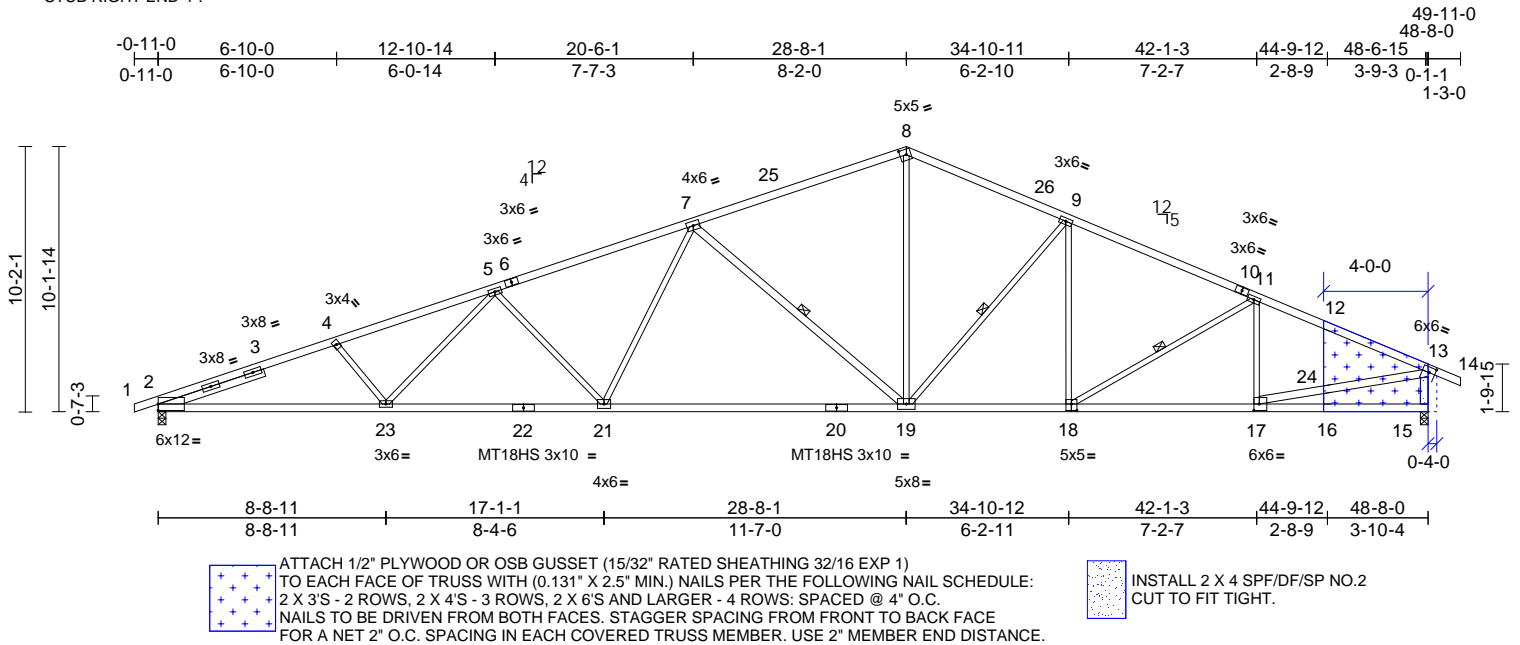
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Thu Nov 09 13:49:23

Page: 1

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REPAIR:
STUB RIGHT END 4".



Scale = 1:88.3

Plate Offsets (X, Y): [8:0-2-15,0-2-8], [13:0-2-12,0-2-8], [17:0-2-8,0-3-0], [18:0-2-8,0-3-0]

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	0.94	Vert(LL)	-0.41	19-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.97	19-21	>598	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.20	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH								
										Weight: 241 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP 1650F 1.5E *Except* 10-14:2x4 SP No.2, 6-8:2x4 SP 2400F 2.0E

BOT CHORD 2x4 SP 2400F 2.0E *Except* 18-20:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 *Except* 17-13,19-7:2x4 SP No.2, 13-15,15-24,12-24,24-16:2x4 SPF No.2

SLIDER Left 2x4 SPF No.3 -- 4-3-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-0-2 oc purlins.

BOT CHORD Rigid ceiling directly applied or 8-5-7 oc bracing.

WEBS 1 Row at midpt 11-18, 7-19, 9-19

REACTIONS (lb/size) 2=2247/0-3-8, 15=2282/0-3-8
Max Horiz 2=207 (LC 12)
Max Uplift 2=-411 (LC 8), 15=-306 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/0, 2-3=-5348/1061, 3-4=-5262/1079, 4-5=-5115/1045, 5-6=-4329/893, 6-7=-4315/922, 7-25=-2868/701, 8-25=-2768/720, 8-26=-2845/742, 9-26=-2937/716, 9-10=-3311/757, 10-11=-3326/724, 11-12=-3153/690, 12-13=-3183/634, 13-14=0/31

BOT CHORD 2-23=-968/4946, 22-23=-825/4534, 21-22=-825/4534, 20-21=-622/3662, 19-20=-622/3662, 18-19=-490/2986, 17-18=-509/2891, 16-17=-138/382, 15-16=-138/382

WEBS 17-24=-408/2573, 13-24=-596/3323, 4-23=-245/182, 8-19=-290/1518, 5-21=-757/281, 11-17=-468/169, 9-18=0/200, 11-18=-73/225, 7-19=-1393/411, 5-23=-67/453, 9-19=-658/263, 7-21=-88/866, 13-15=-2168/544, 15-24=-741/229, 12-24=-200/114, 16-24=0/113

- 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=0.96; 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 28-8-1, Exterior(2R) 28-8-1 to 33-8-1, Interior (1) 33-8-1 to 49-11-0 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
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 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



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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Chesterfield, MO 63017
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Job P230318-02	Truss A3	Truss Type Roof Special	Qty 5	Ply 1	Roof - Osage Lot 5 A1-A4 Repair Job Reference (optional)	I61909935
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Thu Nov 09 13:53:31

Page: 1

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REPAIR:
STUB RIGHT END 4".

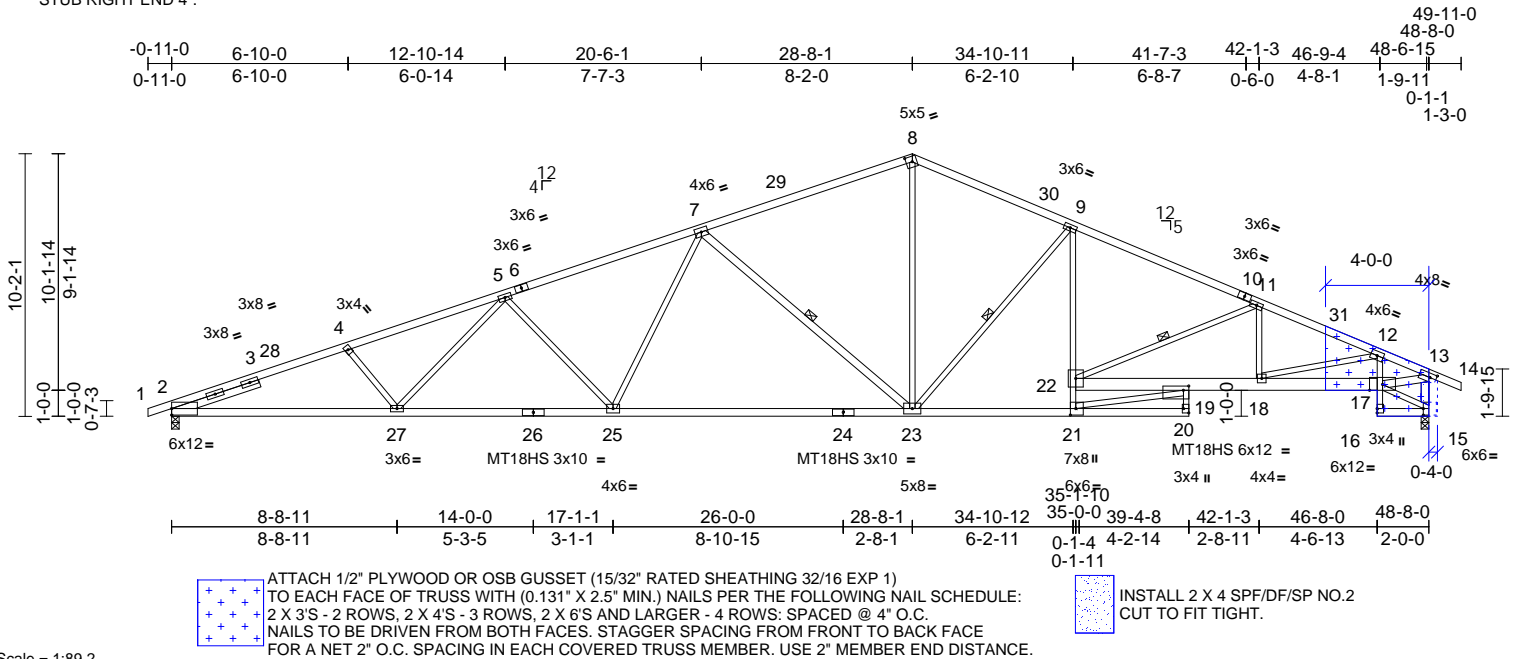


Plate Offsets (X, Y): [8:0-2-15,0-2-8], [13:0-2-15,0-2-0], [15:0-0-1,0-3-1], [19:0-2-8,0-2-0], [20:Edge,0-2-8], [21:0-2-8,0-3-0]

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	0.80	Vert(LL)	-0.42	23-25	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-1.00	23-25	>587	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.31	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH								
										Weight: 252 lb	FT = 20%	

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 10-14:2x4 SP No.2, 10-8:2x4 SP 1650F 1.5E

BOT CHORD 2x4 SP No.2 *Except* 20-19,12-16:2x3 SPF No.2, 22-17:2x6 SP 2400F 2.0E, 24-26,26-2:2x4 SP 2400F 2.0E, 20-24:2x4 SP 1650F 1.5E

WEBS 2x3 SPF No.2 *Except* 23-7,13-17:2x4 SP No.2, 13-15:2x4 SPF No.2

SLIDER Left 2x4 SPF No.3 -- 3-6-9

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-1 oc purlins.

BOT CHORD Rigid ceiling directly applied or 8-5-3 oc bracing.

WEBS 1 Row at midpt 11-22, 7-23, 9-23

REACTIONS (lb/size) 2=2256/0-3-8, 15=2276/0-3-8
Max Horiz 2=207 (LC 12)
Max Uplift 2=-412 (LC 8), 15=-302 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/0, 2-3=-5378/1060, 3-28=-5289/1075, 4-28=-5272/1085, 4-5=-5131/1051, 5-6=-4357/900, 6-7=-4343/928, 7-29=-2896/707, 8-29=-2796/726, 8-30=-2874/748, 9-30=-2964/722, 9-10=-3362/771, 10-11=-3377/738, 11-31=-4433/916, 12-31=-4546/902, 12-13=-3314/690, 13-14=0/31

BOT CHORD 19-20=0/87, 19-22=-2511/1162, 18-19=-732/4153, 17-18=-581/3067, 16-17=0/46, 12-17=-926/213, 15-16=-23/112, 2-27=-974/4957, 26-27=-832/4561, 25-26=-832/4561, 24-25=-627/3687, 23-24=-627/3687, 21-23=-501/3025, 20-21=-27/257

WEBS

11-18=0/528, 4-27=-238/181, 8-23=-293/1534, 5-25=-759/282, 9-22=-1/213, 21-22=-596/170, 11-22=-1227/268, 7-23=-1392/411, 5-27=-64/440, 7-25=-90/867, 9-23=-673/269, 15-17=-219/49, 13-17=-601/3193, 12-18=-166/1126, 19-21=-483/2816, 13-15=-2165/537

- 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=0.96; 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 28-8-1, Exterior(2R) 28-8-1 to 33-8-1, Interior (1) 33-8-1 to 49-10-14 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 is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 9, 2023

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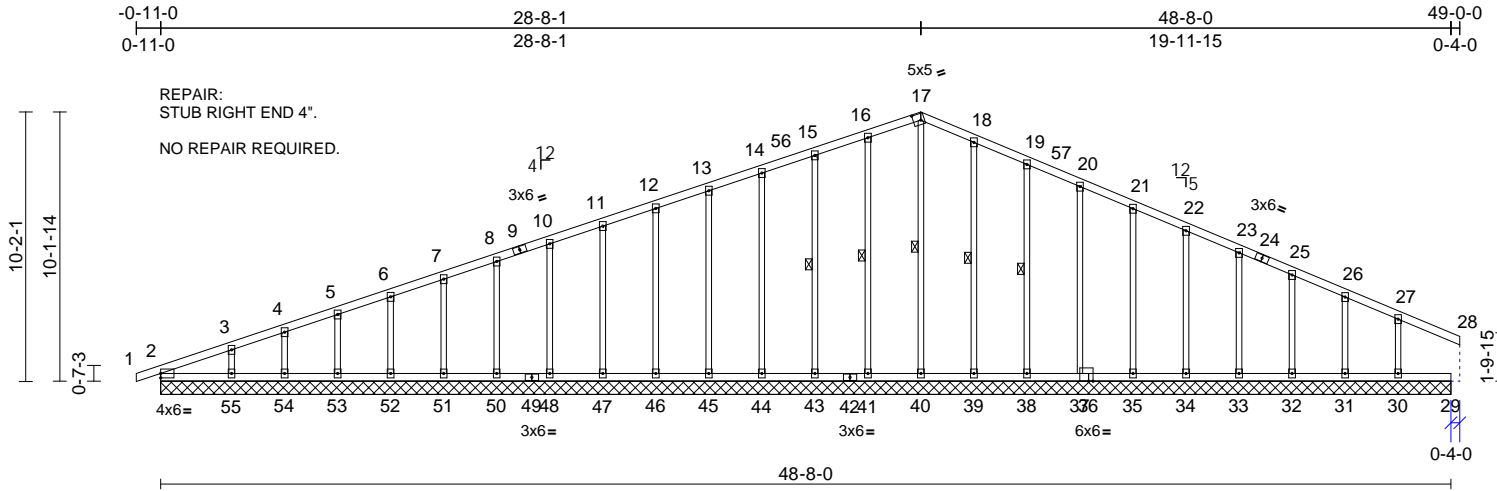
Job P230318-02	Truss A4	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	Roof - Osage Lot 5 A1-A4 Repair Job Reference (optional)	I61909936
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Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Thu Nov 09 14:02:37

Page: 1

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Scale = 1:86.9

Plate Offsets (X, Y): [17:0-3-7,0-3-0], [36:0-2-0,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	0.52	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	29	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH								
											Weight: 252 lb	FT = 20%

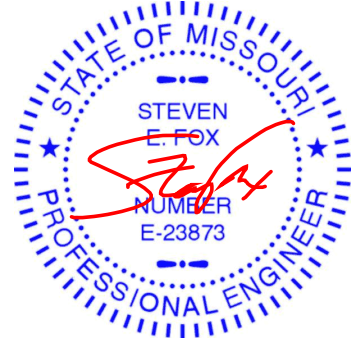
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 2400F 2.0E *Except*
36-42,42-49:2x4 SP No.2
OTHERS 2x3 SPF No.2
BRACING
TOP CHORD Structural wood sheathing directly applied or
6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing. Except:
6-0-0 oc bracing: 2-55.
WEBS 1 Row at midpt 17-40, 16-41, 15-43,
18-39, 19-38

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-203/171, 3-4=-166/177,
4-5=-138/186, 5-6=-116/198, 6-7=95/215,
7-8=-74/232, 8-9=-64/244, 9-10=-60/248,
10-11=-75/265, 11-12=-86/282,
12-13=-98/299, 13-14=-109/316,
14-15=-121/336, 15-16=-114/343,
16-17=-133/372, 17-18=-143/395,
18-19=-146/393, 19-20=-109/292, 20-21=-117/283,
21-22=-103/256, 22-23=-73/184, 23-24=-51/149,
24-25=-59/141, 25-26=-39/106,
26-27=-66/104, 27-28=0/63
BOT CHORD 2-55=6/5, 54-55=0/0, 53-54=0/0, 52-53=0/0,
51-52=0/0, 50-51=0/0, 49-50=0/0, 48-49=0/0,
47-48=0/0, 46-47=0/0, 45-46=0/0, 44-45=0/0,
43-44=0/0, 42-43=0/0, 41-42=0/0, 40-41=0/0,
39-40=0/0, 38-39=0/0, 37-38=0/0, 36-37=0/0,
35-36=0/0, 34-35=0/0, 33-34=0/0, 32-33=0/0,
31-32=0/0, 30-31=0/0, 29-30=0/0

WEBS 17-40=-206/39, 16-41=-149/115,
15-43=-139/124, 14-44=-140/70,
13-45=-140/70, 12-46=-140/70,
11-47=-140/70, 10-48=-140/70,
8-50=-140/70, 7-51=-140/70, 6-52=-139/70,
5-53=-143/71, 4-54=-128/66, 3-55=-178/85,
18-39=-149/123, 19-38=-139/133,
20-37=-140/75, 21-35=-140/75,
22-34=-141/76, 23-33=-135/73,
25-32=-168/89, 26-31=-71/22,
27-30=-335/217

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

REACTIONS (lb/size)
2=170/48-8-0, 29=168/48-8-0,
30=380/48-8-0, 31=53/48-8-0,
32=208/48-8-0, 33=175/48-8-0,
34=181/48-8-0, 35=180/48-8-0,
37=180/48-8-0, 38=179/48-8-0,
39=187/48-8-0, 40=168/48-8-0,
41=187/48-8-0, 43=179/48-8-0,
44=180/48-8-0, 45=180/48-8-0,
46=180/48-8-0, 47=180/48-8-0,
48=180/48-8-0, 50=180/48-8-0,
51=180/48-8-0, 52=179/48-8-0,
53=185/48-8-0, 54=159/48-8-0,
55=243/48-8-0
Max Horiz 2=218 (LC 12)
Max Uplift 2=-50 (LC 13), 30=-152 (LC 9),
32=-63 (LC 13), 33=-49 (LC 13),
34=-52 (LC 13), 35=-51 (LC 13),
37=-50 (LC 13), 38=-58 (LC 13),
39=-38 (LC 13), 41=-40 (LC 12),
43=-50 (LC 8), 44=-45 (LC 12),
45=-46 (LC 8), 46=-46 (LC 12),
47=-46 (LC 8), 48=-46 (LC 12),
50=-46 (LC 8), 51=-46 (LC 12),
52=-46 (LC 8), 53=-47 (LC 12),
54=-43 (LC 8), 55=-59 (LC 12)



November 9, 2023

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsc.com)

Job	Truss	Truss Type	Qty	Ply	Roof - Osage Lot 5 A1-A4 Repair	I61909936
P230318-02	A4	Roof Special Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 E Feb 9 2023 Print: 8.630 E Feb 9 2023 MiTek Industries, Inc. Thu Nov 09 14:02:37

Page: 2

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-GvVXuhSYImNsm?tiXoKiaJzY9g9ZFAXjk9v_KyKuYW

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=35ft;
Ke=0.96; 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 28-8-1, Corner(3R) 28-8-1 to
33-8-1, Exterior(2N) 33-8-1 to 49-0-0 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) Solid blocking is required on both sides of the truss at
joint(s), 2.
- 9) Beveled plate or shim required to provide full bearing
surface with truss chord at joint(s) 2.
- 10) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

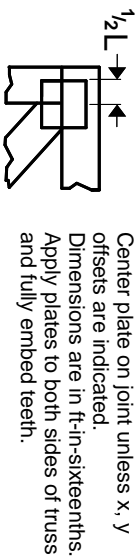
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

MiTek®

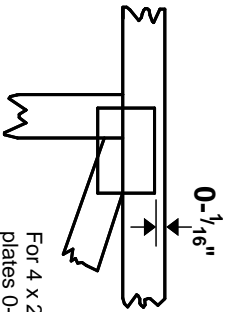
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

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\"/>



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

* Plate location details available in MITtek 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

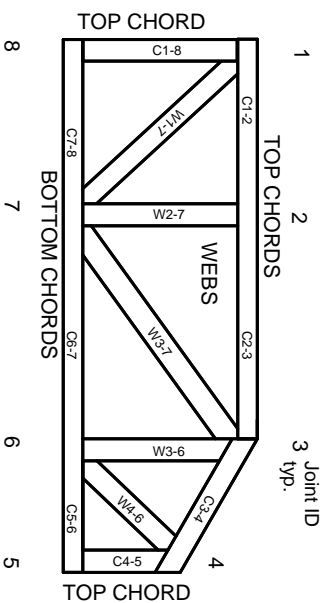


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TFP1: 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-1-1988, ESR-2-362, ESR-2-685, ESR-3-282
 ESR-4-722, ESL-1-388

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/TFP 1 section 6.3. These truss designs rely on Lumber values established by others.

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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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITtek Engineering Reference Sheet: Mill-7473 rev. 1/2/2023