

RE: P230888-02 - Roof - Repair

Site Information:

Project Customer: Clover & Hive Project Name: Emerald Townhome

Lot/Block: 48

Subdivision: Osage

Model:

Address: 3733/3735/3737/3739 SW Clayton Pl

City: Lee's Summit

State: MO

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

Design Code: IRC2018/TPI2014

Wind Code: ASCE 7-16 Wind Speed: 115 mph

Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.6

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Mean Roof Height (feet): 35

Exposure Category: C

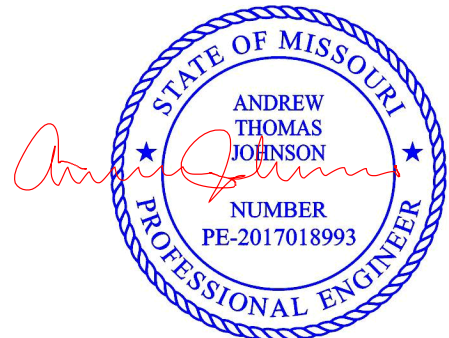
No.	Seal#	Truss Name	Date
1	I64306636	A1	3/20/24
2	I64306637	A2	3/20/24
3	I64306638	A3	3/20/24
4	I64306639	A4	3/20/24

The truss drawing(s) referenced above 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.

Truss Design Engineer's Name: Johnson, Andrew

My license renewal date for the state of Missouri is December 31, 2025.

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.



March 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - Repair	I64306636
P230888-02	A1	Roof Special Structural Gable	1	1	Job Reference (optional)	

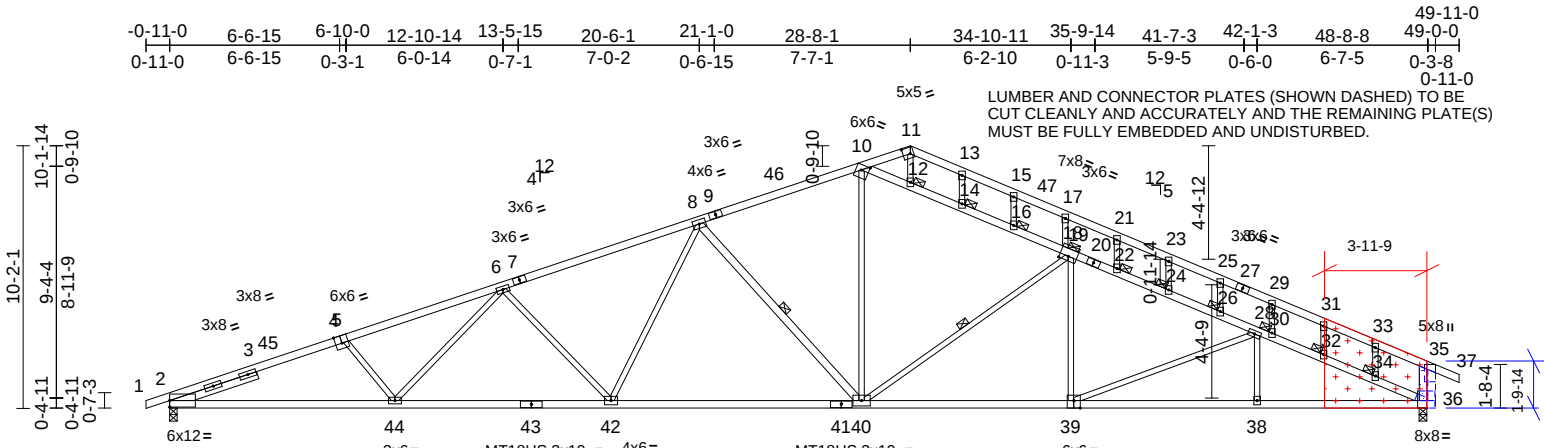
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 18 11:45:03

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ID:kkw6VMCTKypJlEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4JC7f

REPAIR:
STUB RIGHT END 4"



THIS TRUSS IS TO BE FULLY SHEATHED WITH 7/16" O.S.B. ON IT'S EXTERIOR FACE. THIS EXTERIOR SHEATHING MAY BE USED AS PART OF THIS REPAIR PROVIDED NO JOINTS/SEAMS FALL WITHIN THE GUSSETED AREAS SHOWN. IF THIS CONDITION IS VIOLATED, REMOVE THE EXTERIOR SHEATHING FOR THE AREA IN QUESTION AND INSTALL A GUSSET AS SHOWN ON THE DRAWING.



ATTACH 7/16" OSB GUSSET (7/16" RATED SHEATHING 24/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) 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 @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

INSTALL 2 X 4 SP NO.2 CUT TO FIT TIGHT.

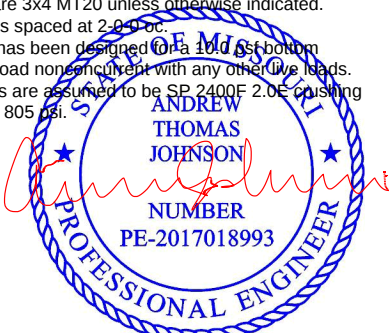
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	8-8-11	8-4-6	9-8-6	8-1-4	7-2-8	6-10-13
Plate Offsets (X, Y):	[4:0-3-0,Edge], [10:0-3-8,0-2-7], [11:0-3-7,0-3-0], [18:0-4-0,0-2-0], [35:0-3-13,Edge], [36:0-3-4,Edge], [39:0-3-0,Edge]					

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	0.94	Vert(LL)	-0.43	42	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.92	40-42	>640	180	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.27	36	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 264 lb	FT = 20%

LUMBER		TOP CHORD	1-2=0/0, 2-5=-5406/1089, 5-6=-5159/1055, 6-8=-4364/940, 8-10=-3139/767, 10-11=-603/418, 11-13=-614/420, 13-15=-623/384, 15-17=-663/362, 17-21=-603/295, 21-23=-613/266, 23-25=-648/248, 25-29=-655/211, 29-31=-613/147, 31-33=-651/131, 33-35=-684/101, 35-37=0/29, 35-36=-506/181, 10-12=-2572/459, 12-14=-2496/404, 14-16=-2535/426, 16-18=-2554/435, 18-19=-2669/485, 19-22=-3313/605, 22-24=-3352/623, 24-26=-3370/631, 26-28=-3422/662, 28-30=-3893/815, 30-32=-3984/873, 32-34=-4005/882, 34-36=-4031/910
TOP CHORD	2x4 SP No.2 *Except* 1-4,9-11,9-7:2x4 SP 2400F 2.0E, 4-7:2x4 SP 1650F 1.5E		
BOT CHORD	2x4 SP 2400F 2.0E *Except* 43-41,41-39:2x4 SP 1650F 1.5E	BOT CHORD	2-44=-969/4984, 42-44=-858/4578, 40-42=-654/3695, 38-40=-849/4242, 36-38=-849/4242
WEBS	2x3 SPF No.2 *Except* 36-35:2x4 SP 1650F 1.5E, 8-40:2x4 SP No.2		
OTHERS	2x3 SPF No.2	WEBS	11-12=-152/197, 13-14=-102/69, 15-16=-50/34, 17-18=-305/150, 21-22=-101/53, 23-24=-47/23, 25-26=-140/83, 29-30=-243/157, 31-32=-55/23, 33-34=-68/73, 5-44=-238/181, 6-44=-55/453, 6-42=-784/286, 8-42=-114/855, 8-40=-1213/367, 10-40=-287/1635, 19-40=-971/263, 19-39=-10/467, 28-39=-665/269, 28-38=0/237
SLIDER	Left 2x4 SPF No.3 -- 3-6-9		
BRACING			
TOP CHORD	Structural wood sheathing directly applied or 2-3-11 oc purlins, except end verticals.		
BOT CHORD	Rigid ceiling directly applied or 7-8-11 oc bracing.		
WEBS	1 Row at midpt 8-40, 19-40		
JOINTS	1 Brace at Jt(s): 12, 14, 16, 18, 22, 24, 26, 30, 32, 34		
REACTIONS	(size) 2=0-3-8, 36=0-3-8		
	Max Horiz 2=177 (LC 16)		
	Max Uplift 2=-413 (LC 8), 36=-301 (LC 13)		
	Max Grav 2=2262 (LC 1), 36=2273 (LC 1)		
FORCES	(lb) - Maximum Compression/Maximum Tension		

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=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.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a full bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SP 2400F 2.0E pushing capacity of 805 psi.



March 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - Repair
P230888-02	A1	Roof Special Structural Gable	1	1	Job Reference (optional)

I64306636

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- 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 20000 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



March 21, 2024

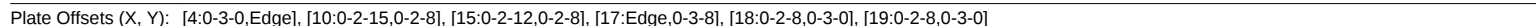
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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®

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314.434.1200 / MiTek-US.com

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LUMBER		2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
TOP CHORD	2x4 SP 1650F 1.5E *Except* 14-16:2x4 SP No.2, 9-10, 9-7:2x4 SP 2400F 2.0E	Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope)
BOT CHORD	2x4 SP 2400F 2.0E *Except* 19-21:2x4 SP 1650F 1.5E	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
WEBS	2x3 SPF No.2 *Except* 17-15,18-15,20-8:2x4 SP No.2	3) All plates are MT20 plates unless otherwise indicated.
SLIDER	Left 2x4 SPF No.3 -- 4-3-0	4) All plates are 3x6 MT20 unless otherwise indicated.
BRACING		5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
TOP CHORD	Structural wood sheathing directly applied, except end verticals.	6) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
BOT CHORD	Rigid ceiling directly applied or 8-5-5 oc bracing.	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.
WEBS	1 Row at midpt 13-19, 8-20, 11-20	
REACTIONS		
	(size) 2=0-3-8, 17=0-3-8	
	Max Horiz 2=177 (LC 16)	
	Max Uplift 2=-413 (LC 8), 17=-301 (LC 13)	
	Max Grav 2=2262 (LC 1), 17=2273 (LC 1)	

FORCES	(lb) - Maximum Compression/Maximum Tension	LOAD CASE(S)	Standard
TOP CHORD	1-2=0/0, 2-5=-5391/1090, 5-6=-5159/1057, 6-8=-4375/934, 8-10=-2917/733, 10-11=-2985/750, 11-13=-3408/775, 13-15=-3421/708, 15-16=0/29, 15-17=-2203/573		
BOT CHORD	2-24=-973/4986, 22-24=-853/4578, 20-22=-663/3707, 18-20=-572/3077, 17-18=-88/190		
WEBS	15-18=-495/2952, 5-24=-244/182, 10-20=-296/1547, 6-22=-757/281, 13-18=-476/204, 11-19=-6/232, 13-19=-186/146, 8-20=-1392/411, 6-24=-66/451, 11-20=-688/266, 8-22=-89/865		



NOTES

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

 PE-2017018993



March 21.2024

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Job	Truss	Truss Type	Qty	Ply	Roof - Repair	I64306638
P230888-02	A3	Roof Special	5	1	Job Reference (optional)	

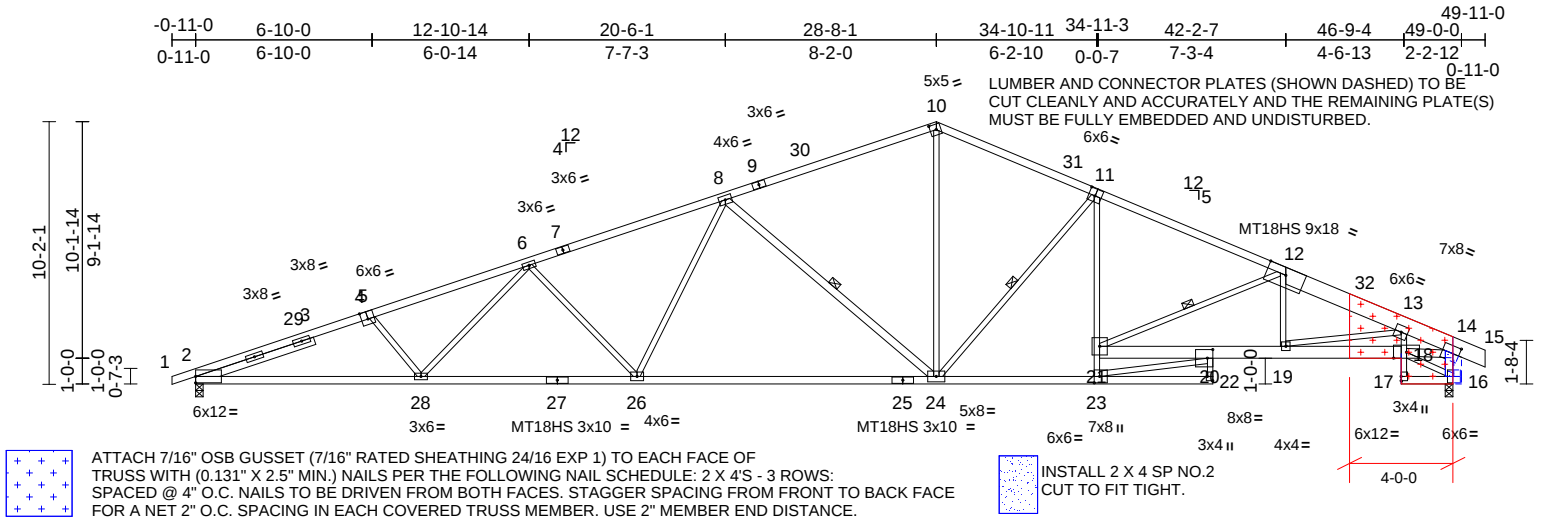
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REPAIR:
STUB RIGHT END 4"



Scale = 1:89.2	8-8-11	14-0-0	17-1-1	27-4-8	28-8-1	34-10-11	34-11-15	39-4-8	42-1-3	46-8-0	49-0-0
	8-8-11	5-3-5	3-1-1	10-3-7	1-3-9	6-2-10	0-1-4	4-4-9	2-8-11	4-6-13	2-4-0

Plate Offsets (X, Y): [4:0-3-0,Edge], [10:0-2-15,0-2-8], [11:0-3-0,0-3-4], [14:0-2-5,0-3-8], [20:0-2-8,0-4-0], [22:Edge,0-2-8], [23:0-2-8,0-3-0]

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	0.93	Vert(LL)	-0.43	24-26	>999	240	MT18HS	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.02	24-26	>574	180	MT20	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.31	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 262 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP 1650F 1.5E *Except* 12-15:2x8 SPF No.2, 9-10:2x4 SP 2400F 2.0E, 11-10:2x4 SP No.2
BOT CHORD	2x4 SP 2400F 2.0E *Except* 22-20,13-17:2x3 SPF No.2, 21-18:2x6 SP 2400F 2.0E, 17-16:2x4 SP No.2, 25-22:2x4 SP 1650F 1.5E
WEBS	2x3 SPF No.2 *Except* 16-14:2x4 SPF No.3, 24-8,14-18:2x4 SP No.2
SLIDER	Left 2x4 SPF No.3 -- 4-9-11
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-5-15 oc bracing: 2-28 8-11-11 oc bracing: 26-28 8-10-12 oc bracing: 24-26.
WEBS	1 Row at midpt 8-24, 11-24, 12-21
REACTIONS	(size) 2=0-3-8, 16=0-3-8 Max Horiz 2=176 (LC 16) Max Uplift 2=-413 (LC 8), 16=-300 (LC 13) Max Grav 2=2262 (LC 1), 16=2273 (LC 1)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/0, 2-5=-5398/1092, 5-6=-5167/1058, 6-8=-4375/935, 8-10=-2916/732, 10-13=-4799/979, 13-14=-3869/808, 14-15=0/29, 14-16=-2219/554
BOT CHORD	2-28=-961/4992, 26-28=-843/4581, 24-26=-649/3703, 23-24=-499/3055, 22-23=-26/257, 20-22=0/87, 20-21=-315/1400, 19-20=-809/4421, 18-19=-702/3497, 17-18=0/37, 13-18=-582/147, 16-17=-25/119

WEBS	10-24=-296/1544, 8-24=-1386/409, 8-26=-92/869, 11-24=-687/270, 14-18=-682/3439, 13-19=-141/929, 6-26=-765/285, 6-28=-64/456, 5-28=-241/179, 12-21=-1473/336, 21-23=-603/169, 11-21=-11/252, 20-23=-482/2848, 16-18=-61/39, 12-19=-4/624
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 49-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 3) All plates are MT20 plates unless otherwise indicated. 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. 5) Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SP No.2 crushing capacity of 565 psi. 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/TP1 1.
LOAD CASE(S)	Standard



March 21,2024

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Job	Truss	Truss Type	Qty	Ply	Roof - Repair	I64306639
P230888-02	A4	Roof Special Supported Gable	1	1	Job Reference (optional)	

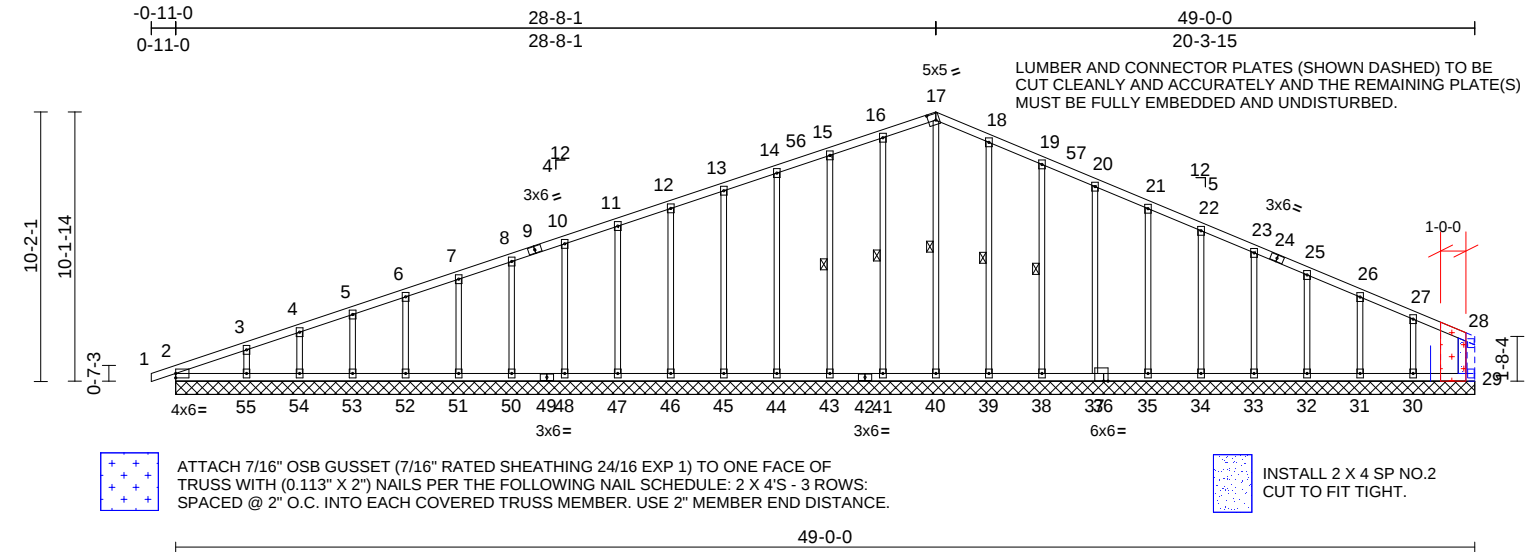
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REPAIR:
STUB RIGHT END 4"

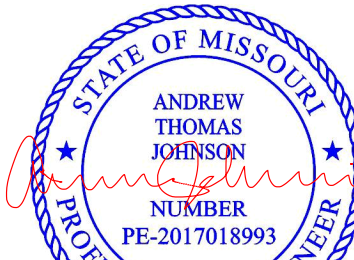


Scale = 1:86.9

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	0.11	Ver(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Ver(CT)	n/a	-	n/a	999	244/190
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: 253 lb FT = 20%											

LUMBER		Max Grav	2=175 (LC 1), 29=91 (LC 1), 30=205 (LC 26), 31=174 (LC 1), 32=181 (LC 26), 33=180 (LC 1), 34=180 (LC 26), 35=180 (LC 26), 37=180 (LC 1), 38=180 (LC 26), 39=188 (LC 26), 40=213 (LC 22), 41=188 (LC 25), 43=180 (LC 25), 44=180 (LC 1), 45=180 (LC 25), 46=180 (LC 1), 47=180 (LC 25), 48=180 (LC 1), 50=180 (LC 1), 51=180 (LC 1), 52=179 (LC 25), 53=185 (LC 1), 54=159 (LC 25), 55=242 (LC 25)	WEBS	17-40=-179/36, 16-41=-148/118, 15-43=-140/123, 14-44=-140/71, 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=-148/123, 19-38=-140/133, 20-37=-140/75, 21-35=-140/75, 22-34=-140/75, 23-33=-140/75, 25-32=-141/77, 26-31=-135/67, 27-30=-160/106
TOP CHORD	2x4 SP No.2				
BOT CHORD	2x4 SP 2400F 2.0E *Except* 36-42,42-49:2x4 SP No.2				
WEBS	2x4 SPF No.3				
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	17-40, 16-41, 15-43, 18-39, 19-38			
REACTIONS (size)		2=49-0-0, 29=49-0-0, 30=49-0-0, 31=49-0-0, 32=49-0-0, 33=49-0-0, 34=49-0-0, 35=49-0-0, 37=49-0-0, 38=49-0-0, 39=49-0-0, 40=49-0-0, 41=49-0-0, 43=49-0-0, 44=49-0-0, 45=49-0-0, 46=49-0-0, 47=49-0-0, 48=49-0-0, 50=49-0-0, 51=49-0-0, 52=49-0-0, 53=49-0-0, 54=49-0-0, 55=49-0-0	FORCES (lb) - Maximum Compression/Maximum Tension		
Max Horiz	2=187 (LC 16)				
Max Uplift	2=-32 (LC 13), 30=-101 (LC 13), 31=-38 (LC 13), 32=-54 (LC 13), 33=-50 (LC 13), 34=-51 (LC 13), 35=-51 (LC 13), 37=-50 (LC 13), 38=-57 (LC 13), 39=-41 (LC 13), 41=-39 (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=-62 (LC 12)	TOP CHORD 1-2=0/18, 2-3=-194/110, 3-4=-162/118, 4-5=-141/134, 5-6=-120/151, 6-7=-99/168, 7-8=-78/185, 8-10=-85/208, 10-11=-97/236, 11-12=-108/264, 12-13=-119/292, 13-14=-131/320, 14-15=-142/348, 15-16=-154/377, 16-17=-164/400, 17-18=-169/398, 18-19=-155/341, 19-20=-140/281, 20-21=-125/243, 21-22=-111/207, 22-23=-96/171, 23-25=-81/135, 25-26=-66/99, 26-27=-53/65, 27-28=-61/41, 28-29=-72/21	NOTES	1) Unbalanced roof live loads have been considered for this design.	
		BOT CHORD 2-55=-42/78, 54-55=-38/76, 53-54=-38/76, 52-53=-38/76, 51-52=-38/76, 50-51=-38/76, 48-50=-38/76, 47-48=-38/76, 46-47=-38/76, 45-46=-38/76, 44-45=-38/76, 43-44=-38/76, 41-43=-38/76, 40-41=-38/76, 39-40=-38/76, 38-39=-38/76, 37-38=-38/76, 35-37=-38/76, 34-35=-38/76, 33-34=-38/76, 32-33=-38/76, 31-32=-38/76, 30-31=-38/76, 29-30=-38/76			





March 21,2024

Job	Truss	Truss Type	Qty	Ply	Roof - Repair
P230888-02	A4	Roof Special Supported Gable	1	1	Job Reference (optional)

I64306639

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Mar 18 11:45:05

Page: 2

ID:kkw6VMCTKypIjEPYbt576Oz_rGt-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

- 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 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 48-10-4 zone; cantilever
left and right exposed ; end vertical left and right
exposed;C-C for members and forces & MWFRS for
reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
- 3) 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) All bearings are assumed to be SP 2400F 2.0E crushing
capacity of 805 psi.
- 9) Solid blocking is required on both sides of the truss at
joint(s), 2.
- 10) Beveled plate or shim required to provide full bearing
surface with truss chord at joint(s) 2.
- 11) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



March 21, 2024

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

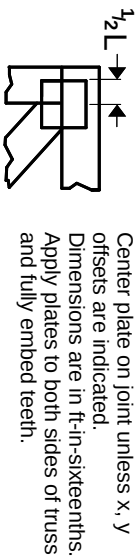
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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®

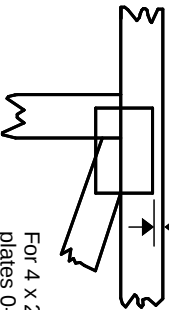
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



0- $\frac{1}{16}$ "



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 software or upon request.

PLATE SIZE

4 X 4

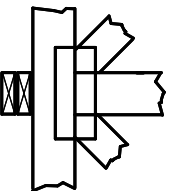
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

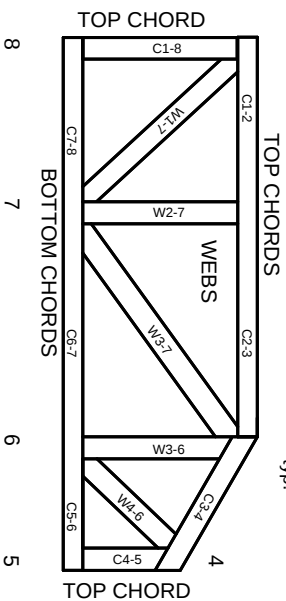
Industry Standards:

ANSI/TP1.1: 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

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

1 2 3 Joint ID typ.



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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Mitek Engineering Reference Sheet: MIL-7473 rev. 1/12/2023

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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.