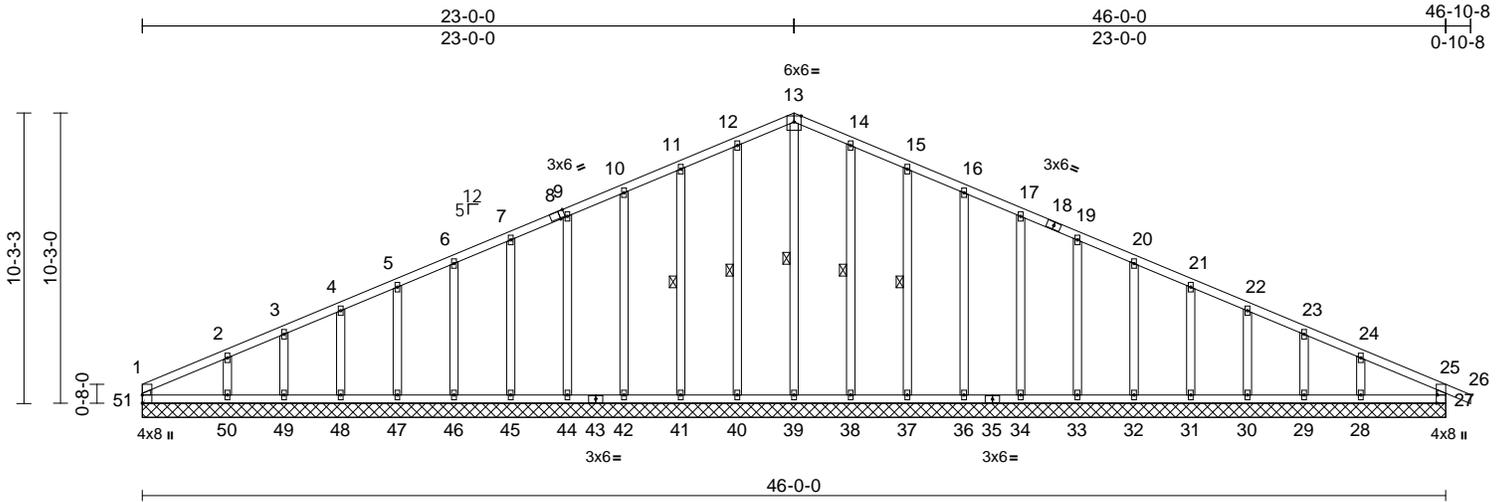


Job B240074	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849358
----------------	-------------	--------------------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Fri Apr 12 10:30:00
ID:2ncXplsXOjBj1B6I7Q?gPMzrYWU-?BvIPrq?dxQQis04QaVR9wfti9ubfH_AuknzRZuC7

Page: 1



Scale = 1:80.9

Plate Offsets (X, Y): [8:0-2-2,Edge], [27:0-3-8,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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	27	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R								
											Weight: 239 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 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 13-39, 12-40, 11-41, 14-38, 15-37

REACTIONS (lb/size)

27=207/46-0-0, 28=236/46-0-0, 29=162/46-0-0, 30=185/46-0-0, 31=179/46-0-0, 32=180/46-0-0, 33=180/46-0-0, 34=180/46-0-0, 36=180/46-0-0, 37=179/46-0-0, 38=186/46-0-0, 39=149/46-0-0, 40=186/46-0-0, 41=179/46-0-0, 42=180/46-0-0, 44=180/46-0-0, 45=180/46-0-0, 46=180/46-0-0, 47=178/46-0-0, 48=187/46-0-0, 49=153/46-0-0, 50=259/46-0-0, 51=119/46-0-0	
Max Horiz	51=151 (LC 13)
Max Uplift	27=5 (LC 5), 28=81 (LC 9), 29=23 (LC 9), 30=42 (LC 9), 31=37 (LC 9), 32=38 (LC 9), 33=38 (LC 9), 34=38 (LC 9), 36=37 (LC 9), 37=42 (LC 9), 38=32 (LC 9), 40=34 (LC 8), 41=41 (LC 8), 42=37 (LC 8), 44=38 (LC 8), 45=38 (LC 8), 46=38 (LC 8), 47=37 (LC 8), 48=43 (LC 8), 49=17 (LC 8), 50=97 (LC 8), 51=23 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD

1-51=100/35, 1-2=-152/76, 2-3=-115/83, 3-4=-96/101, 4-5=-78/120, 5-6=-61/139, 6-7=-53/157, 7-8=-53/172, 8-9=-23/176, 9-10=-53/195, 10-11=-53/213, 11-12=-52/233, 12-13=-55/249, 13-14=-55/243, 14-15=-52/212, 15-16=-53/178, 16-17=-53/154, 17-18=-26/135, 18-19=-53/130, 19-20=-53/116, 20-21=-53/97, 21-22=-53/79, 22-23=-65/60, 23-24=-84/42, 24-25=-117/34, 25-26=0/27, 25-27=-183/25

BOT CHORD

50-51=-12/121, 49-50=-12/121, 48-49=-12/121, 47-48=-12/121, 46-47=-12/121, 45-46=-12/121, 44-45=-12/121, 43-44=-12/121, 42-43=-12/121, 41-42=-12/121, 40-41=-12/121, 39-40=-12/121, 38-39=-12/121, 37-38=-12/121, 36-37=-12/121, 35-36=-12/121, 34-35=-12/121, 33-34=-12/121, 32-33=-12/121, 31-32=-12/121, 30-31=-12/121, 29-30=-12/121, 28-29=-12/121, 27-28=-12/121

WEBS

13-39=-152/0, 12-40=-149/58, 11-41=-139/65, 10-42=-140/61, 9-44=-140/62, 7-45=-140/62, 6-46=-140/62, 5-47=-139/61, 4-48=-145/66, 3-49=-121/47, 2-50=-198/106, 14-38=-149/56, 15-37=-139/66, 16-36=-140/61, 17-34=-140/62, 19-33=-140/62, 20-32=-140/62, 21-31=-139/61, 22-30=-143/65, 23-29=-128/49, 24-28=-180/100

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 2x4 MT20 unless otherwise indicated.



April 12, 2024

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.sbcscomponents.com)

MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DESIGNMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	I64849358
----------------	-------------	--------------------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Fri Apr 12 10:30:00
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-?BvlPrq?dxQQis04QaVR9wfti9ubfHpH_AuknlzRUc7

Page: 2

- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 51, 5 lb uplift at joint 27, 34 lb uplift at joint 40, 41 lb uplift at joint 41, 37 lb uplift at joint 42, 38 lb uplift at joint 44, 38 lb uplift at joint 45, 38 lb uplift at joint 46, 37 lb uplift at joint 47, 43 lb uplift at joint 48, 17 lb uplift at joint 49, 97 lb uplift at joint 50, 32 lb uplift at joint 38, 42 lb uplift at joint 37, 37 lb uplift at joint 36, 38 lb uplift at joint 34, 38 lb uplift at joint 33, 38 lb uplift at joint 32, 37 lb uplift at joint 31, 42 lb uplift at joint 30, 23 lb uplift at joint 29 and 81 lb uplift at joint 28.
- 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

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®

**RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

16023 Swinley Ridge Rd
Wheeler, MO 63091
816-424-0200 / MiTek.US.com

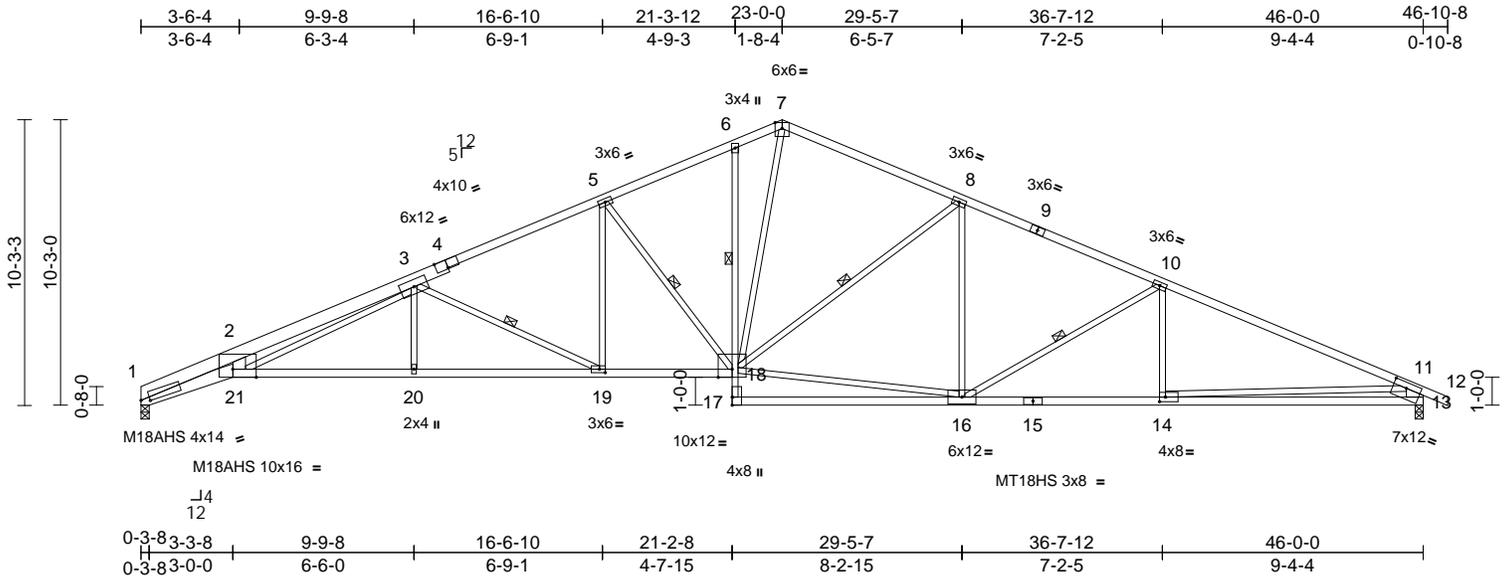
05/13/2024 2:04:31

Job B240074	Truss A2	Truss Type Roof Special	Qty 3	Ply 1	Lot 120 HT Job Reference (optional)	164849359
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Fri Apr 12 10:30:30
ID:2ncXplsXOfbjlB6I7Q?gPMzrYWU-3LrO7nD45mSuXnTEll3xSgz8i3b09Zi?K9eRuRzRUbd

Page: 1



Scale = 1:82.3

Plate Offsets (X, Y): [1:0-3-13,0-1-5], [4:0-5-0,Edge], [13:0-5-12,0-2-8], [14:0-2-8,0-2-0], [19:0-2-8,0-1-8], [21:0-10-2,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.54	20-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-1.00	20-21	>544	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.50	13	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 208 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 7-9:2x4 SPF No.2, 1-4:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 1-21:2x6 SP 2400F 2.0E, 21-18:2x4 SPF 2100F 1.8E, 6-17:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 21-2:2x6 SPF No.2, 13-11:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 14-16.
1 Row at midpt 6-18
WEBS 1 Row at midpt 3-19, 5-18, 8-18, 10-16

REACTIONS
(lb/size) 1=2049/0-3-8, 13=2133/0-3-8
Max Horiz 1=150 (LC 12)
Max Uplift 1=-181 (LC 8), 13=-203 (LC 9)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8696/852, 2-3=-7696/870, 3-4=-3881/315, 4-5=-3839/339, 5-6=-3116/291, 6-7=-3027/334, 7-8=-2754/291, 8-9=-3227/299, 9-10=-3347/269, 10-11=-4011/338, 11-12=0/32, 11-13=-2038/256
BOT CHORD 1-21=-897/7905, 20-21=-477/4794, 19-20=-477/4794, 18-19=-229/3460, 17-18=0/153, 6-18=-195/91, 16-17=0/193, 15-16=-214/3579, 14-15=-214/3579, 13-14=-274/1444
WEBS 2-21=-15/1298, 3-20=0/311, 3-19=-1490/276, 5-19=-45/784, 5-18=-1071/207, 8-18=-788/216, 8-16=0/320, 10-16=-720/184, 10-14=0/247, 11-14=0/2139, 3-21=-416/2619, 7-18=-192/1884, 16-18=-78/2825

- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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.
 - All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 1 and 203 lb uplift at joint 13.
 - 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



April 12, 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)

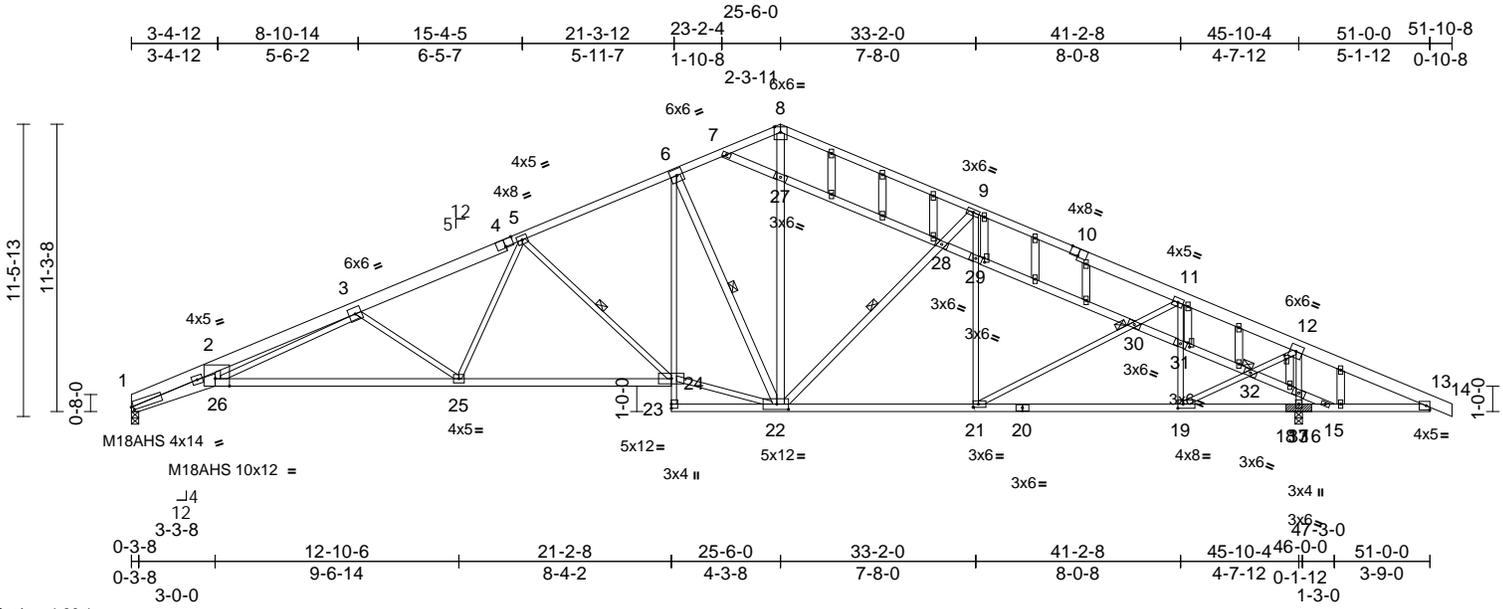
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss B1	Truss Type GABLE	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849360
----------------	-------------	---------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:08
ID:2ncXplsObljB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITxBGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:90.1
[1:0-1-1,0-1-9], [4:0-4-0,Edge], [10:0-4-0,Edge], [19:0-2-8,0-2-0], [21:0-2-8,0-1-8], [22:0-5-8,0-2-8], [26:0-6-12,Edge], [29:0-2-0,0-0-3], [31:0-2-0,0-0-12],
Plate Offsets (X, Y): [49:0-1-13,0-0-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.50	25-26	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-1.05	25-26	>521	240	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.44	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								

Weight: 302 lb FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-1,10-14:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-26:2x6 SP 2400F 2.0E, 6-23:2x3 SPF No.2, 20-23:2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 22-6,22-8,22-9,7-27,27-28,28-29,29-30,30-31,31-32,32-33,33-15:2x4 SPF No.2
OTHERS 2x4 SPF No.2
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-24, 6-22, 9-22
JOINTS 1 Brace at Jt(s): 30, 32
REACTIONS (size) 1=0-3-8, 17=(0-3-8 + bearing block), (req. 0-4-2)
Max Horiz 1=178 (LC 9)
Max Uplift 1=197 (LC 8), 17=245 (LC 9)
Max Grav 1=2023 (LC 1), 17=2615 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=8536/934, 2-3=7665/928, 3-5=4433/441, 5-6=3075/329, 6-7=2290/278, 7-8=2023/254, 8-9=2085/251, 9-11=2405/222, 11-12=1758/155, 12-13=165/657, 13-14=0/6
BOT CHORD 1-26=992/7741, 25-26=625/4995, 24-25=339/3566, 23-24=0/45, 6-24=-144/1532, 22-23=35/83, 21-22=-60/2413, 19-21=-51/1833, 17-19=-430/174, 15-17=-457/184, 13-15=-506/173

WEBS
2-26=-53/1363, 3-25=-1250/318, 5-24=-1123/236, 22-24=-137/2749, 6-22=-1586/262, 22-27=-125/1226, 8-27=-125/1230, 22-28=-544/191, 9-28=-537/188, 21-29=-137/134, 9-29=-140/133, 21-30=-10/658, 11-30=-10/633, 19-31=-986/161, 11-31=-991/162, 19-32=-170/2437, 12-32=-167/2371, 17-33=-2449/282, 12-33=-2426/288, 3-26=-351/2430, 5-25=-64/1016, 7-27=-314/50, 27-28=-304/49, 28-29=-319/49, 29-30=-326/49, 30-31=-285/49, 31-32=-299/50, 32-33=-194/49, 15-33=-135/56

- NOTES**
- 2x4 SPF 2100F 1.8E bearing block 12" long at jt. 17 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 2x4 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.
 - All bearings are assumed to be SPF No.2 .

- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 197 lb uplift at joint 1 and 245 lb uplift at joint 17.
 - 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



April 12, 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 the 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)

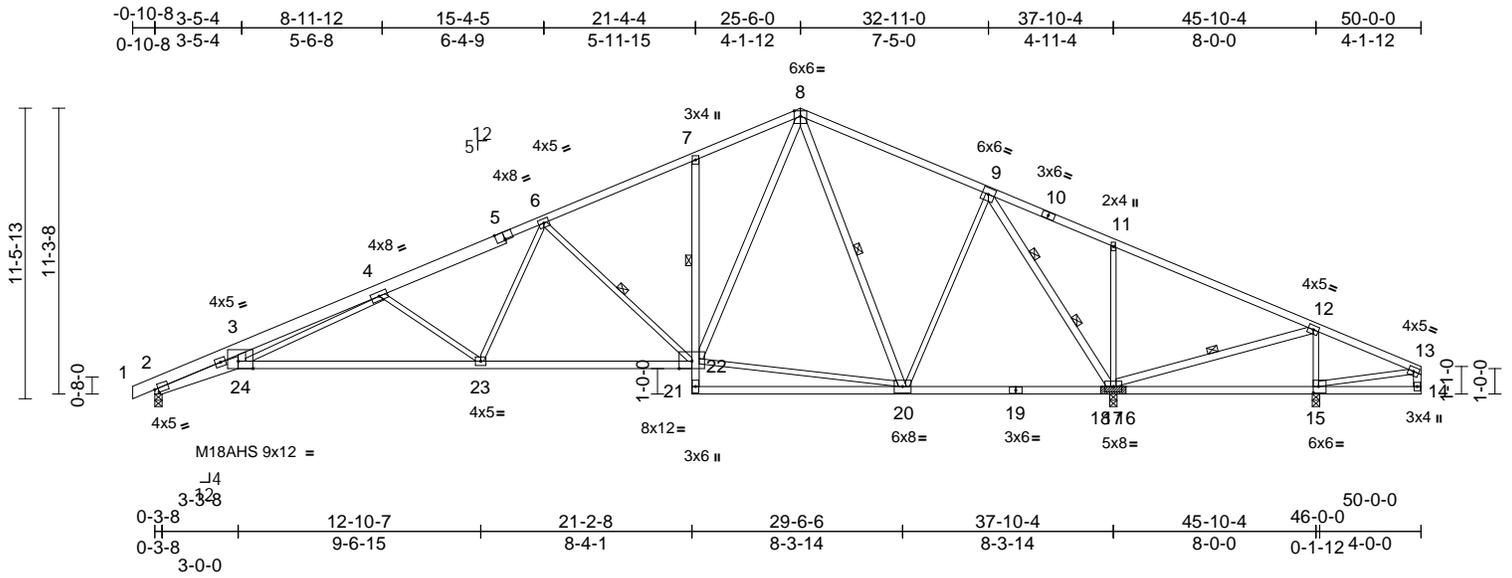
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DESIGNER'S SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss B3	Truss Type Roof Special	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849362
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 E Jan 4 2024 Print: 8.730 E Jan 4 2024 MiTek Industries, Inc. Fri Apr 12 10:32:46
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-cJVQSYrIIFTkEXHbi9_cR83CWUgWHdGsNfr477zRUZw

Page: 1



Scale = 1:90.5
Plate Offsets (X, Y): [2:0-1-9,0-1-13], [5:0-4-0,Edge], [15:0-2-8,0-3-0], [24:0-7-0,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	0.92	Vert(LL)	-0.33	23-24	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.74	23-24	>611	240	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.26	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 242 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E, 10-13:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 2-24:2x6 SPF No.2, 24-22:2x4 SPF 2100F 1.8E, 19-14,18-16:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 24-3,22-8,20-8,17-9,17-12,14-13:2x4 SPF No.2

WEBS
3-24=0/892, 4-24=-44/1774, 4-23=-1031/134, 6-23=0/887, 6-22=-1038/76, 20-22=0/580, 8-22=-56/1390, 8-20=-1122/43, 9-20=0/1246, 9-17=-2860/0, 11-17=-457/112, 12-17=-1656/79, 12-15=-4/944, 13-15=-132/52

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 7-22
WEBS 1 Row at midpt 6-22, 8-20, 12-17
WEBS 2 Rows at 1/3 pts 9-17
REACTIONS (lb/size) 2=1491/0-3-8, 15=-503/0-3-8, 17=3557/(0-3-8 + bearing block), (req. 0-3-14)
Max Horiz 2=107 (LC 10)
Max Uplift 15=-807 (LC 19)
Max Grav 2=1491 (LC 1), 15=88 (LC 8), 17=3557 (LC 1)

NOTES
1) 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 17 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF 2400F 2.0E.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
4) All plates are MT20 plates 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) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi, Joint 17 SPF 2400F 2.0E crushing capacity of 615 psi, Joint 15 SPF 2400F 2.0E crushing capacity of 615 psi.
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 807 lb uplift at joint 15.
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.

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/10, 2-3=-5726/14, 3-4=-5077/86, 4-5=-2628/0, 5-6=-2464/4, 6-7=-1394/38, 7-8=-1357/94, 8-9=-422/124, 9-10=0/1928, 10-11=0/1809, 11-12=-29/1971, 12-13=-44/237, 13-14=-23/44
BOT CHORD 2-24=-93/5171, 23-24=-66/3152, 22-23=0/1962, 21-22=0/149, 7-22=-382/96, 20-21=0/95, 19-20=-347/91, 18-19=-347/91, 17-18=-347/91, 16-17=-140/36, 15-16=-140/36, 14-15=-24/9

LOAD CASE(S) Standard



April 12, 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 the 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.sbcscomponents.com)

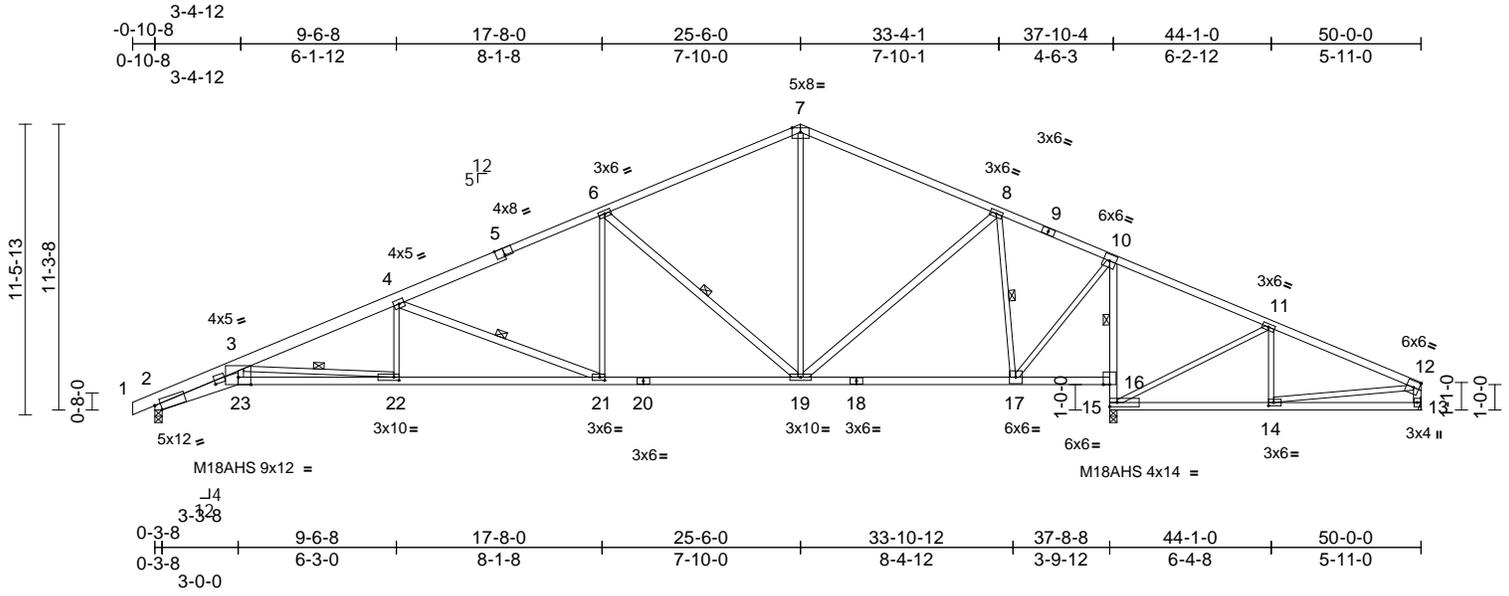
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss B4	Truss Type Roof Special	Qty 4	Ply 1	Lot 120 HT Job Reference (optional)	164849363
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:09
 ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:90.5
 Plate Offsets (X, Y): [2:0-2-13,0-2-13], [2:2-6-8,0-0-7], [5:0-4-0,Edge], [14:0-2-8,0-1-8], [21:0-2-8,0-1-8], [22:0-2-8,0-1-8]

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	0.92	Vert(LL)	-0.37	22-23	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.68	22-23	>666	240	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.23	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 227 lb	FT = 10%

LUMBER
 TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E
 BOT CHORD 2x4 SPF No.2 *Except* 2-23:2x6 SP 2400F 2.0E, 23-20:2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except* 6-19,21-4,19-8,13-12:2x4 SPF No.2

BRACING
 TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17,14-15.
 1 Row at midpt 10-16
 WEBS 1 Row at midpt 6-19, 3-22, 4-21, 8-17

REACTIONS (size) 2=0-3-8, 13= Mechanical, 15=0-3-8, (req. 0-4-0)
 Max Horiz 2=107 (LC 10)
 Max Uplift 2=-5 (LC 8), 13=-32 (LC 9)
 Max Grav 2=1691 (LC 1), 13=397 (LC 20), 15=2560 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/10, 2-3=-6608/72, 3-4=-3933/29, 4-6=-2541/38, 6-7=-1461/58, 7-8=-1460/71, 8-10=-636/73, 10-11=0/603, 11-12=-441/126, 12-13=-349/60
 BOT CHORD 2-23=-149/5979, 22-23=-140/5392, 21-22=-49/3646, 19-21=0/2224, 17-19=0/665, 16-17=-551/34, 15-16=-2188/0, 10-16=-2122/0, 14-15=-94/345, 13-14=-14/136
 WEBS 3-23=0/1895, 10-17=0/1751, 11-15=-728/39, 11-14=0/284, 7-19=0/556, 6-19=-1296/90, 4-22=0/445, 3-22=-1757/91, 4-21=-1532/86, 6-21=0/717, 8-19=0/781, 12-14=-140/210, 8-17=-1282/25

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- All plates are MT20 plates unless otherwise indicated.
- 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.
- WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- All bearings are assumed to be SPF No.2.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 2 and 32 lb uplift at joint 13.
- 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



April 12, 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.sbcscomponents.com)

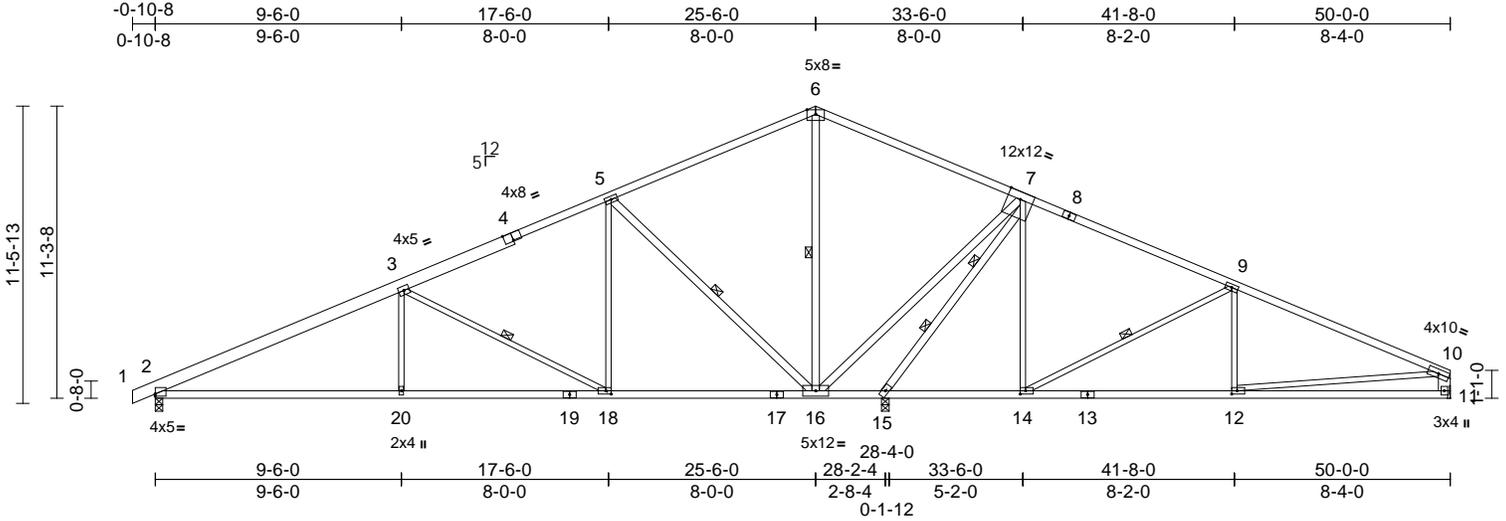
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:31

Job B240074	Truss B6	Truss Type Common	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849365
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:09
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:88.5

Plate Offsets (X, Y): [2:Edge,0-1-0], [4:0-4-0,Edge], [12:0-2-8,0-1-8], [14:0-2-8,0-1-8], [18:0-2-8,0-1-8]

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	0.82	Vert(LL)	-0.21	2-20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.46	2-20	>731	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 218 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-4:2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 17-13:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 16-5,16-6,16-7,15-7:2x4 SPF No.2, 11-10:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-11-4 oc bracing: 15-16
6-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 5-16, 6-16, 9-14, 3-18
WEBS 2 Rows at 1/3 pts 7-15

REACTIONS (size) 2=0-3-8, 11= Mechanical, 15=0-3-8
Max Horiz 2=107 (LC 10)
Max Uplift 2=-13 (LC 8), 11=-19 (LC 9)
Max Grav 2=1197 (LC 19), 11=837 (LC 20), 15=2600 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-1956/27, 3-5=-1032/65, 5-6=-94/190, 6-7=-28/203, 7-9=-421/134, 9-10=-1208/59, 10-11=-762/62
BOT CHORD 2-20=-58/1702, 18-20=-58/1702, 16-18=0/840, 15-16=-1595/53, 14-15=-95/289, 12-14=-2/1022, 11-12=-23/326
WEBS 5-18=0/627, 5-16=-1196/87, 6-16=-581/4, 7-14=0/536, 9-14=-851/59, 9-12=0/313, 7-16=0/2091, 3-20=0/375, 3-18=-982/72, 10-12=0/700, 7-15=-3003/0

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) All plates are 3x6 MT20 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 SPF No.2, Joint 15 SPF 2100F 1.8E, Joint 11 SPF No.2.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 2 and 19 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



April 12, 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®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

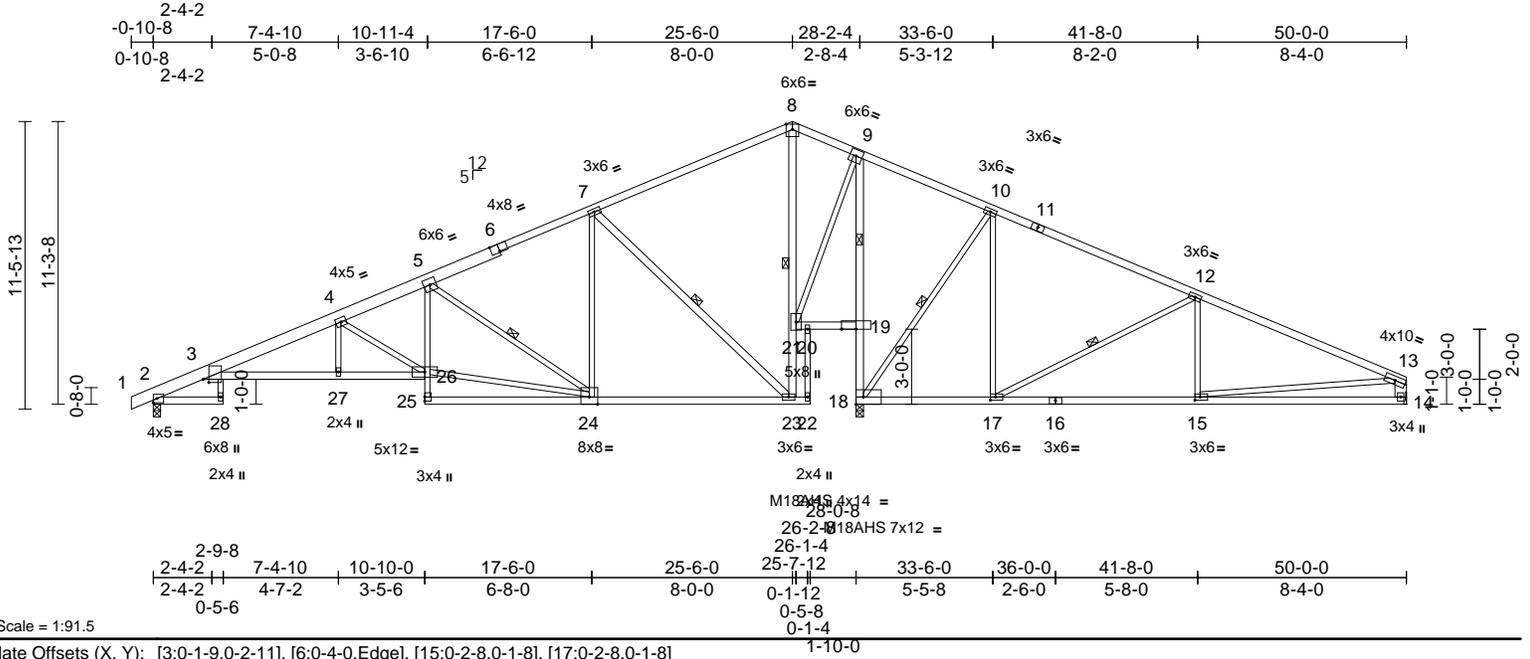
Job B240074	Truss B7	Truss Type Roof Special	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849366
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:09

Page: 1

ID:2ncXplsXObjjB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.30	28	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.54	28	>621	240	M18AHS 142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.20	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 242 lb FT = 10%

LUMBER
 TOP CHORD 2x4 SPF No.2 *Except* 1-6:2x6 SP 2400F 2.0E
 BOT CHORD 2x4 SPF No.2 *Except* 3-26,9-18,18-16:2x4 SPF 2100F 1.8E, 5-25:2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 23-7,23-8:2x4 SPF No.2, 14-13:2x6 SPF No.2

WEBS
 3-28=0/79, 20-22=-141/54, 4-26=-1128/64, 24-26=-126/1755, 5-24=-1172/90, 7-24=0/622, 7-23=-1212/82, 21-23=0/865, 8-21=-288/0, 9-21=0/1150, 10-18=-1000/55, 10-17=0/596, 12-17=-848/50, 12-15=0/291, 4-27=0/249, 13-15=-102/840

BRACING
 TOP CHORD Structural wood sheathing directly applied or 3-2-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
 1 Row at midpt 9-19
 WEBS 1 Row at midpt 5-24, 7-23, 8-23, 10-18, 12-17

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 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) Bearings are assumed to be: Joint 2 SPF No.2, Joint 18 SPF 2100F 1.8E, Joint 14 SPF No.2.
 7) Refer to girder(s) for truss to truss connections.
 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 2 and 84 lb uplift at joint 14.
 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.

REACTIONS (size) 2=0-3-8, 14= Mechanical, 18=0-3-8
 Max Horiz 2=107 (LC 10)
 Max Uplift 2=-30 (LC 8), 14=-84 (LC 9)
 Max Grav 2=1249 (LC 19), 14=905 (LC 20), 18=2463 (LC 1)

LOAD CASE(S) Standard

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/6, 2-3=-572/69, 3-4=-2987/138, 4-5=-2149/142, 5-7=-1076/126, 7-8=-184/242, 8-9=-119/231, 9-10=0/406, 10-12=-571/245, 12-13=-1353/195, 13-14=-827/127
 BOT CHORD 2-28=-47/0, 3-27=-175/2831, 26-27=-174/2831, 25-26=0/101, 5-26=-9/932, 24-25=0/146, 23-24=-51/933, 22-23=0/0, 20-21=-341/0, 19-20=-341/0, 18-19=-1654/0, 9-19=-1484/0, 17-18=-83/419, 15-17=-128/1158, 14-15=-26/324



April 12, 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.sbcscomponents.com)

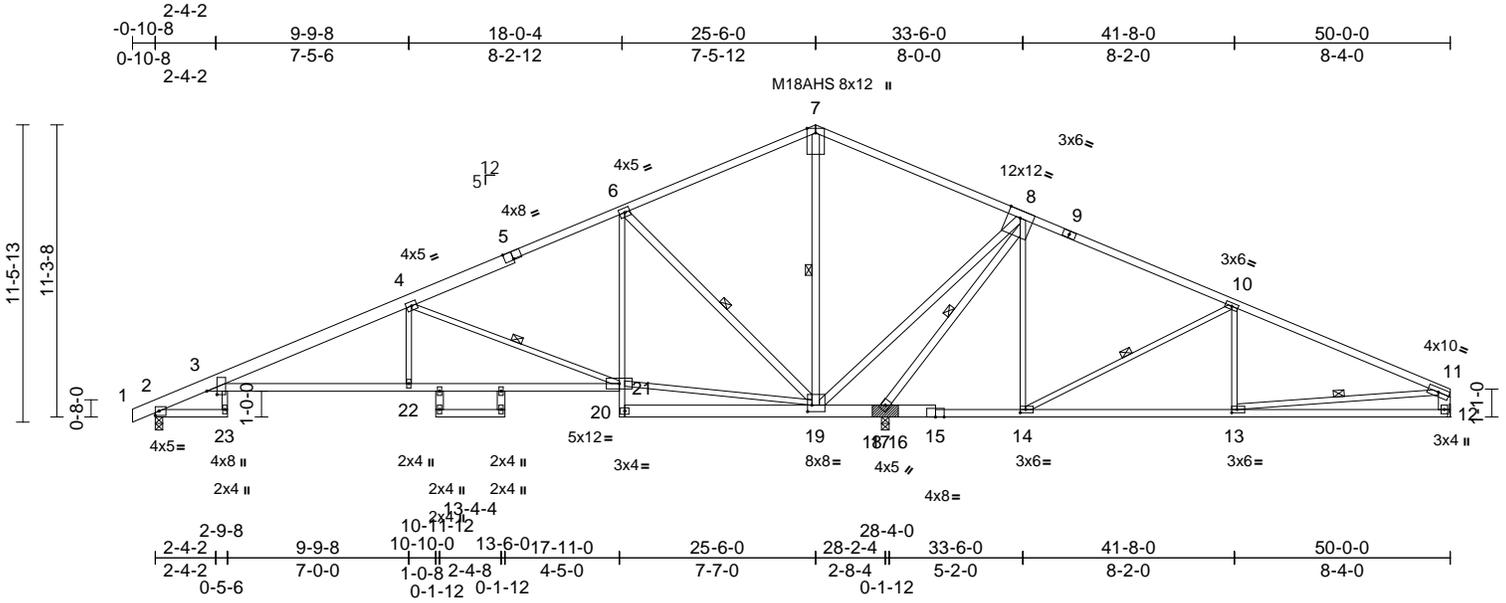
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:31

Job B240074	Truss B8	Truss Type Roof Special	Qty 3	Ply 1	Lot 120 HT Job Reference (optional)	164849367
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:09
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:88.5
Plate Offsets (X, Y): [3:0-1-10,0-4-11], [5:0-4-0,Edge], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [19:0-2-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.29	23	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.56	3-22	>602	240	M18AHS 142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.25	17	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 254 lb FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 6-20:2x3 SPF No.2, 20-15,18-16:2x6 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 24-25,26-27,19-6,19-7,19-8:2x4 SPF No.2, 12-11:2x6 SPF No.2, 17-8:2x4 SPF 2100F 1.8E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-4-8 oc bracing.
WEBS 1 Row at midpt 4-21, 6-19, 7-19, 10-14, 11-13, 8-17

REACTIONS (size) 2=0-3-8, 12= Mechanical, 17=(0-3-8 + bearing block), (req. 0-5-5)
 Max Horiz 2=107 (LC 8)
 Max Uplift 12=160 (LC 19)
 Max Grav 2=871 (LC 19), 12=648 (LC 20), 17=3368 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-384/64, 3-4=-1366/3, 4-6=-135/181, 6-7=0/1067, 7-8=0/1069, 8-10=-61/1128, 10-11=-823/629, 11-12=-576/227
BOT CHORD 2-23=-42/0, 3-22=-29/1262, 21-22=-29/1261, 20-21=0/160, 6-21=0/687, 19-20=-38/8, 17-19=-2891/116, 14-17=-1013/133, 13-14=-548/667, 12-13=-28/308
WEBS 3-23=0/70, 4-21=-1360/82, 19-21=-109/103, 6-19=-1215/86, 7-19=-1240/27, 4-22=0/376, 8-14=0/526, 10-14=-969/43, 10-13=0/380, 8-19=-15/2742, 11-13=-642/362, 8-17=-3613/0

NOTES

- 2x6 SP 2400F 2.0E bearing block 12" long at jt. 17 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- All bearings are assumed to be SPF No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 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



April 12, 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®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:31

Job B240074	Truss B9	Truss Type Roof Special	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849368
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zJC?f

Page: 1

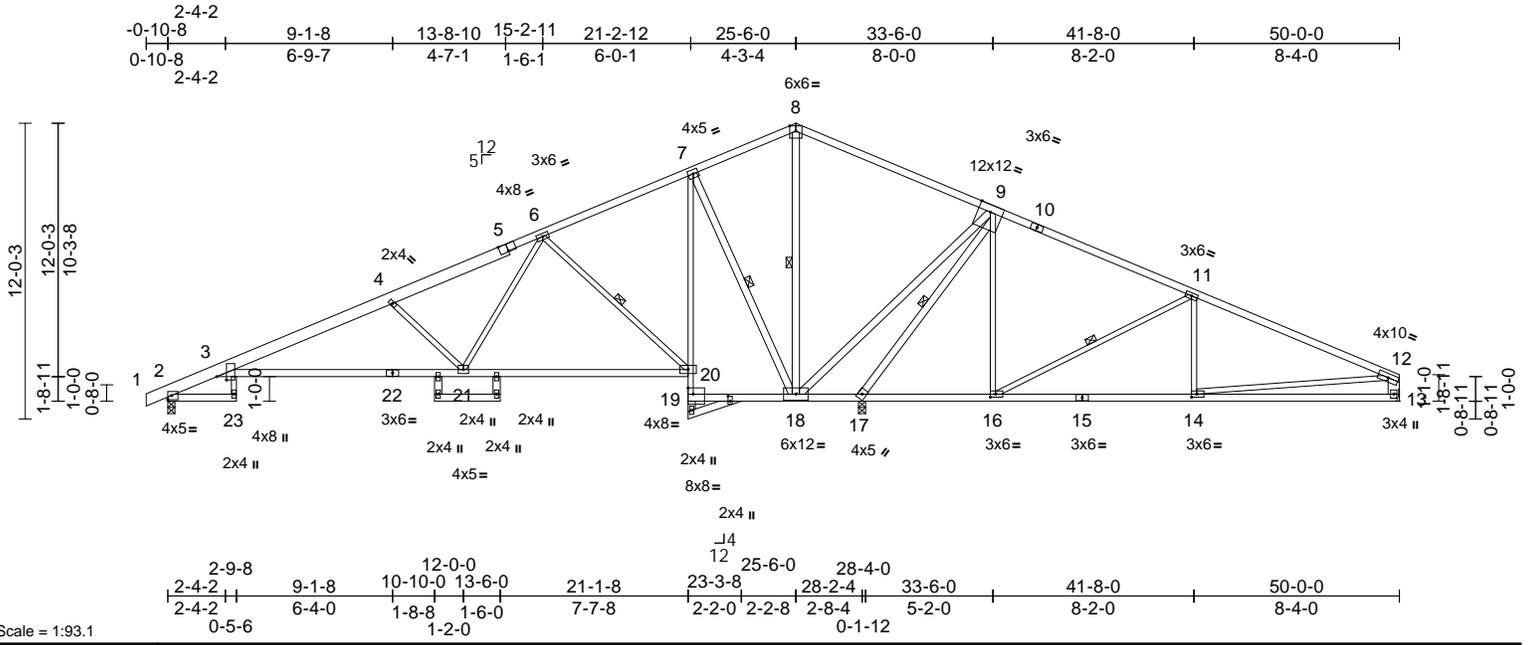


Plate Offsets (X, Y): [3:0-1-10,0-4-11], [5:0-4-0,Edge], [14:0-2-8,0-1-8], [16:0-2-8,0-1-8], [19:0-2-8,0-3-0], [29:0-2-8,0-1-0]

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)	-0.32	3-21	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.74	3-21	>452	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.21	17	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 241 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 1-5:2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except* 7-19:2x3 SPF No.2, 19-15:2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 19-28,18-8,18-7,18-9:2x4 SPF No.2, 13-12:2x6 SPF No.2, 17-9:2x4 SPF 2100F 1.8E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-20, 8-18, 7-18, 11-16, 9-17

REACTIONS (size) 2=0-3-8, 13= Mechanical, 17=0-3-8
Max Horiz 2=107 (LC 8)
Max Uplift 2=-12 (LC 8), 13=-96 (LC 9)
Max Grav 2=966 (LC 19), 13=724 (LC 20), 17=3121 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-432/74, 3-4=-1720/99, 4-6=-1208/74, 6-7=0/299, 7-8=0/728, 8-9=0/768, 9-11=-161/861, 11-12=-976/398, 12-13=-650/139
BOT CHORD 2-23=-43/0, 19-20=0/82, 7-20=0/788, 18-19=-169/24, 17-18=-2539/33, 16-17=-766/71, 14-16=-335/808, 13-14=-30/317, 3-21=-123/1600, 20-21=-37/546
WEBS 3-23=0/72, 6-20=-956/79, 8-18=-897/0, 7-18=-1103/75, 9-16=0/549, 11-16=-924/38, 11-14=0/358, 9-18=0/2650, 12-14=-443/495, 9-17=-3561/0, 6-21=0/926, 4-21=-838/145

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearings are assumed to be: Joint 2 SPF No.2, Joint 17 SPF 2400F 2.0E, Joint 13 SPF No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 2 and 96 lb uplift at joint 13.
- 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



April 12, 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)

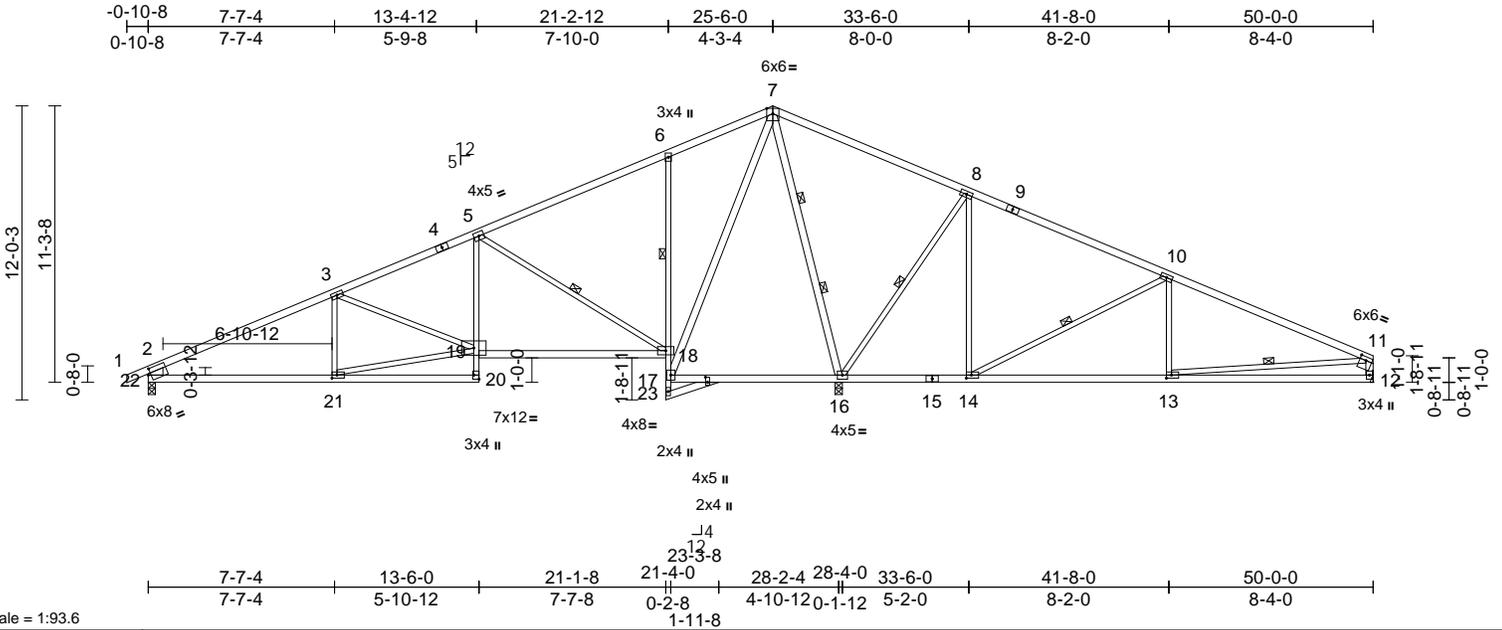
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss B10	Truss Type Roof Special	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849369
----------------	--------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWrCDoi7J4zJC?i

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.15	18-19	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.33	18-19	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.04	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 212 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 7-9:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 20-5,6-23:2x3 SPF No.2, 17-15:2x4 SPF 2400F 2.0E

WEBS 2x3 SPF No.2 *Except* 17-7,16-7,12-11:2x4 SPF No.2, 22-2:2x8 SP 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt 6-18

WEBS 1 Row at midpt 5-18, 11-13, 8-16, 10-14

WEBS 2 Rows at 1/3 pts 7-16

REACTIONS (size) 12= Mechanical, 16=0-3-8, 22=0-3-8

Max Horiz 22=168 (LC 12)

Max Uplift 12=-194 (LC 9), 16=-166 (LC 8), 22=-150 (LC 8)

Max Grav 12=711 (LC 22), 16=3098 (LC 1), 22=984 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-1446/221, 3-5=-1051/247, 5-6=-39/302, 6-7=-5/302, 7-8=0/1274, 8-10=-123/805, 10-11=-952/350, 11-12=-636/236, 2-22=-897/193

BOT CHORD 21-22=-291/1227, 20-21=-32/31, 19-20=0/96, 5-19=-12/521, 18-19=-223/922, 17-23=0/0, 17-18=-1157/296, 6-18=-472/210, 16-17=-583/94, 14-16=-714/128, 13-14=-290/786, 12-13=-80/320

WEBS 3-21=-123/140, 19-21=-264/1221, 3-19=-366/77, 5-18=-1162/256, 7-17=-275/1300, 7-16=-2108/220, 11-13=-401/468, 8-16=-1089/252, 8-14=0/544, 10-13=0/361, 10-14=-928/163

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 3) All plates are 3x6 MT20 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 22 SPF No.2, Joint 16 SPF 2400F 2.0E, Joint 12 SPF No.2.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 22, 166 lb uplift at joint 16 and 194 lb uplift at joint 12.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 12, 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
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:31

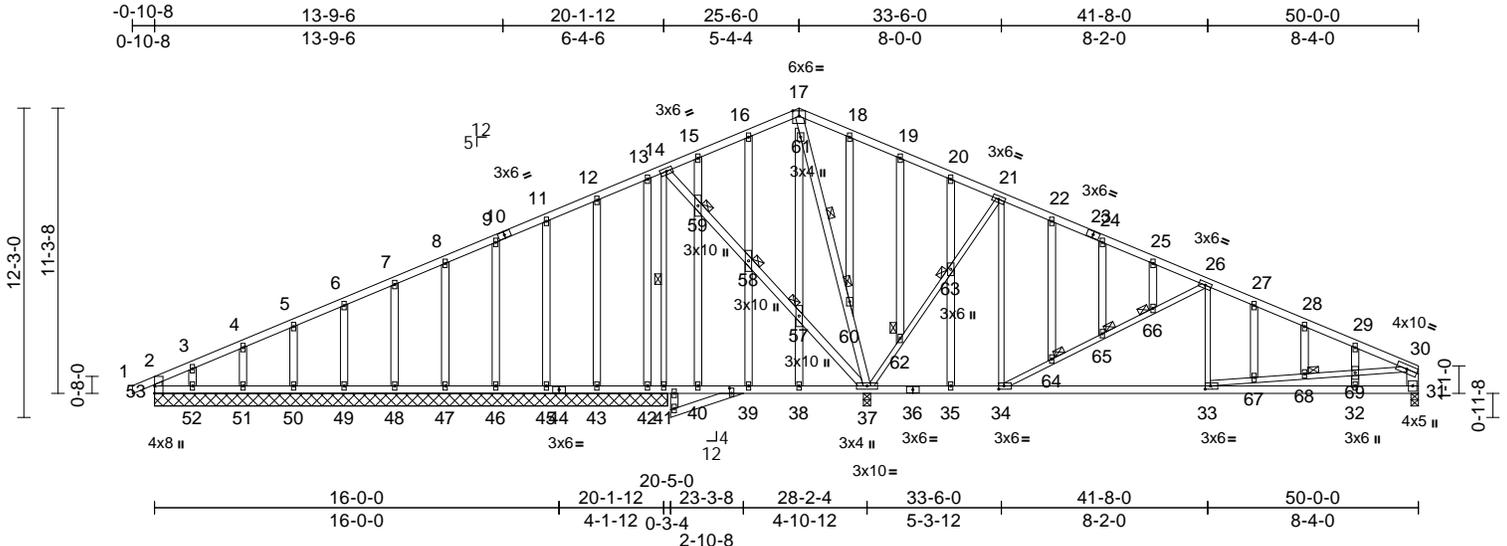
Job B240074	Truss B11	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849370
----------------	--------------	---	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10

Page: 1

ID:2ncXplsXObljB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRcDoi7J4zC?f



Scale = 1:90.7

Plate Offsets (X, Y): [33:0-2-8,0-1-8], [34:0-2-8,0-1-8], [56:0-2-8,0-1-0]

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	0.73	Vert(LL)	-0.10	32-33	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.19	33-34	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.01	31	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 319 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 37-14,37-17,53-2:2x4 SPF No.2, 31-30:2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing:
35-37,34-35,33-34,32-33,31-32.

WEBS
1 Row at midpt 14-41, 17-60
JOINTS
1 Brace at Jt(s): 57, 58, 59, 60, 62, 63, 64, 65, 66, 68

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD
1-2=0/27, 2-3=-189/166, 3-4=-148/157, 4-5=-116/159, 5-6=-83/158, 6-7=-50/158, 7-8=-17/158, 8-9=-2/158, 9-11=-2/164, 11-12=-3/171, 12-13=0/178, 13-14=0/206, 14-15=0/381, 15-16=0/398, 16-17=0/424, 17-18=0/605, 18-19=0/603, 19-20=0/577, 20-21=0/531, 21-22=-26/87, 22-24=-62/79, 24-25=-88/63, 25-26=-171/56, 26-27=-823/142, 27-28=-903/138, 28-29=930/118, 29-30=-964/81, 30-31=-563/65, 2-53=-115/51
BOT CHORD
52-53=-139/169, 51-52=-139/169, 50-51=-139/169, 49-50=-139/169, 48-49=-139/169, 47-48=-139/169, 46-47=-139/169, 45-46=-139/169, 43-45=-139/169, 42-43=-139/169, 41-42=-139/169, 40-41=-139/169, 39-40=-139/169, 38-39=-139/169, 37-38=-139/169, 35-37=-8/115, 34-35=-8/115, 33-34=-59/824, 32-33=-94/476, 31-32=-94/476

WEBS
14-41=-96/141, 14-59=-336/127, 58-59=-333/129, 57-58=-360/125, 37-57=-335/126, 17-61=-626/0, 60-61=-713/0, 37-60=-843/0, 33-67=0/355, 67-68=0/346, 68-69=0/351, 30-69=0/349, 37-62=-1035/238, 62-63=-965/209, 21-63=-1001/224, 21-34=-20/596, 26-33=0/283, 34-64=-882/200, 64-65=-882/202, 65-66=-849/189, 26-66=-872/196, 38-57=0/99, 16-58=-72/51, 39-58=-15/49, 15-59=-63/33, 40-59=-78/34, 13-42=-20/105, 12-43=-142/66, 11-45=-143/62, 9-46=-140/62, 8-47=-140/62, 7-48=-140/62, 6-49=-140/62, 5-50=-139/63, 4-51=-146/58, 3-52=-128/91, 18-60=-148/71, 57-61=-2/135, 19-62=-86/35, 20-63=-22/4, 35-63=-65/23, 22-64=-9/2, 24-65=-74/31, 25-66=-16/52, 27-67=-14/84, 28-68=-70/27, 29-69=-86/74, 32-69=-110/87

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



April 12, 2024

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 the 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®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DESIGNER'S SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss B11	Truss Type Roof Special Structural Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	I64849370
----------------	--------------	---	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?

Page: 2

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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 2x4 MT20 unless otherwise indicated.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 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 SPF No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 53, 19 lb uplift at joint 41, 90 lb uplift at joint 31, 268 lb uplift at joint 37, 251 lb uplift at joint 42, 43 lb uplift at joint 43, 38 lb uplift at joint 45, 38 lb uplift at joint 46, 38 lb uplift at joint 47, 38 lb uplift at joint 48, 37 lb uplift at joint 49, 41 lb uplift at joint 50, 28 lb uplift at joint 51 and 100 lb uplift at joint 52.
- 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)

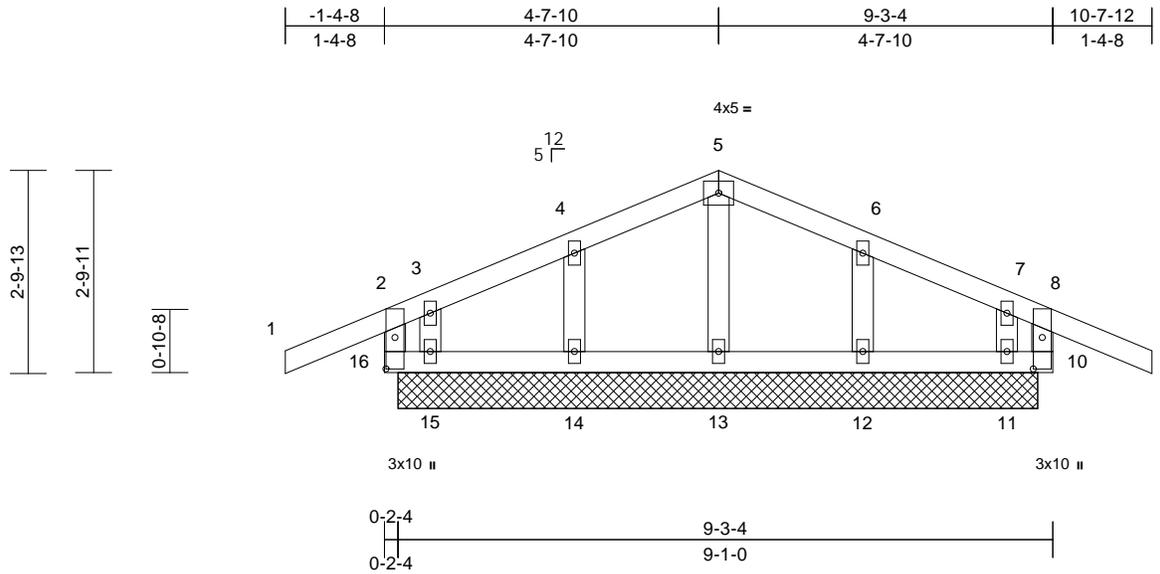
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 16023 Swingley Ridge Rd
 Missouri, MO 63071
 816-424-0200 / MiTek.US
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:31

Job B240074	Truss C1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849371
----------------	-------------	--------------------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10
ID:2ncXplsxOfbjlB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:31.8

Plate Offsets (X, Y): [10:0-5-4,0-1-8], [16:0-5-4,0-1-8]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 34 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 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 6-0-0 oc bracing.

REACTIONS

(size) 10=8-10-8, 11=8-10-8, 12=8-10-8, 13=8-10-8, 14=8-10-8, 15=8-10-8, 16=8-10-8
 Max Horiz 16=-20 (LC 13)
 Max Uplift 10=-86 (LC 5), 11=-12 (LC 9), 12=-43 (LC 9), 14=-43 (LC 8), 15=-16 (LC 8), 16=-87 (LC 4)
 Max Grav 10=220 (LC 22), 11=67 (LC 3), 12=199 (LC 22), 13=189 (LC 1), 14=199 (LC 21), 15=67 (LC 3), 16=220 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-16=-212/85, 1-2=0/41, 2-3=-22/23, 3-4=-8/64, 4-5=-9/66, 5-6=-9/63, 6-7=-4/64, 7-8=-22/18, 8-9=0/41, 8-10=-212/84
 BOT CHORD 15-16=-31/27, 14-15=-31/27, 13-14=-31/27, 12-13=-31/27, 11-12=-31/27, 10-11=-31/27
 WEBS 5-13=-150/0, 4-14=-158/69, 3-15=-20/24, 6-12=-158/69, 7-11=-19/22

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

- 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 2x4 MT20 unless otherwise indicated.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 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 SPF No.2.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 16, 86 lb uplift at joint 10, 43 lb uplift at joint 14, 16 lb uplift at joint 15, 43 lb uplift at joint 12 and 12 lb uplift at joint 11.
- 10) Non Standard bearing condition. Review required.
- 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



April 12, 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)

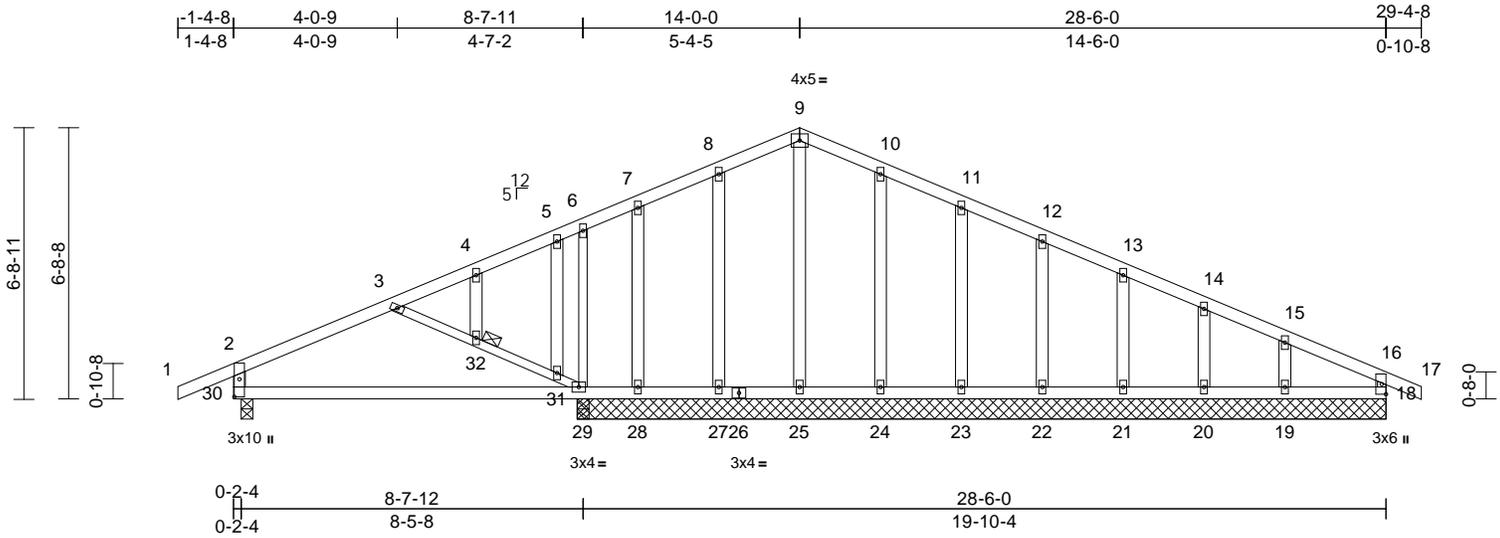
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:32

Job B240074	Truss C2	Truss Type GABLE	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849372
----------------	-------------	---------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:10
ID:2ncXplsxObljB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:56.7

Plate Offsets (X, Y): [30:0-5-4-0-1-8]

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	0.24	Vert(LL)	-0.12	29-30	>864	360
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.23	29-30	>439	240
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	18	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						
										Weight: 125 lb FT = 10%

LUMBER
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 30-2:2x4 SPF No.2
 OTHERS 2x4 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 6-0-0 oc bracing, Except:
 10-0-0 oc bracing: 29-30.

JOINTS
 1 Brace at Jt(s): 32

REACTIONS (size)
 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0, 25=20-0-0, 27=20-0-0, 28=20-0-0, 29=20-0-0, 30=0-3-8
 Max Horiz 30=86 (LC 13)
 Max Uplift 18=5 (LC 21), 19=76 (LC 9), 20=26 (LC 9), 21=41 (LC 9), 22=37 (LC 9), 23=39 (LC 9), 24=38 (LC 9), 27=30 (LC 8), 28=183 (LC 3), 29=56 (LC 8), 30=44 (LC 8)
 Max Grav 18=171 (LC 22), 19=238 (LC 1), 20=172 (LC 22), 21=184 (LC 1), 22=180 (LC 22), 23=178 (LC 22), 24=193 (LC 1), 25=244 (LC 1), 27=228 (LC 21), 28=49 (LC 19), 29=647 (LC 21), 30=420 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/41, 2-3=-283/64, 3-4=-77/117, 4-5=-59/163, 5-6=-44/168, 6-7=-41/123, 7-8=-39/160, 8-9=-40/160, 9-10=-40/156, 10-11=-39/143, 11-12=-39/142, 12-13=-39/142, 13-14=-39/143, 14-15=-67/139, 15-16=-112/152, 16-17=0/26, 2-30=-340/89, 16-18=-152/15

BOT CHORD 29-30=-71/214, 28-29=-108/120, 27-28=-108/120, 25-27=-108/120, 24-25=-108/120, 23-24=-108/120, 22-23=-108/120, 21-22=-108/120, 20-21=-108/120, 19-20=-108/120, 18-19=-108/120
WEBS 3-32=-339/157, 31-32=-350/162, 29-31=-365/170, 6-29=-251/106, 9-25=-210/0, 8-27=-165/69, 7-28=-35/19, 5-31=-31/16, 4-32=-29/12, 10-24=-151/63, 11-23=-138/63, 12-22=-140/61, 13-21=-142/64, 14-20=-135/54, 15-19=-174/90

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 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 2x4 MT20 unless otherwise indicated.
 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 6) Gable studs spaced at 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 SPF No.2.
 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 30, 56 lb uplift at joint 29, 5 lb uplift at joint 18, 30 lb uplift at joint 27, 183 lb uplift at joint 28, 38 lb uplift at joint 24, 39 lb uplift at joint 23, 37 lb uplift at joint 22, 41 lb uplift at joint 21, 26 lb uplift at joint 20 and 76 lb uplift at joint 19.

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



April 12, 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)

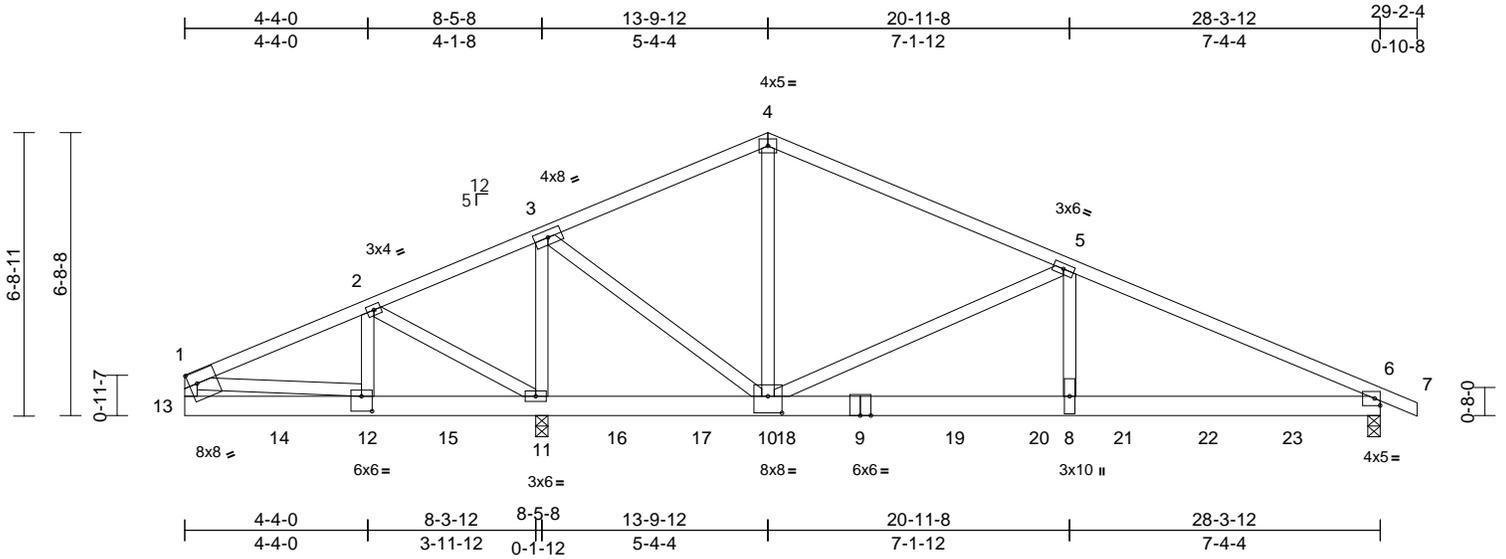
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:32

Job B240074	Truss C3	Truss Type COMMON GIRDER	Qty 1	Ply 3	Lot 120 HT Job Reference (optional)	164849373
----------------	-------------	-----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsxObljB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:54.3

Plate Offsets (X, Y): [10:0-4-0,0-4-12], [12:0-3-0,0-4-4], [13:0-2-4,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.14	6-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.19	6-8	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.39	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S								
											Weight: 388 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 12-13.

REACTIONS (size) 6=0-3-8, 11=0-3-8
Max Horiz 11=105 (LC 35)
Max Uplift 6=593 (LC 9), 11=766 (LC 8)
Max Grav 6=3700 (LC 22), 11=6792 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=93/658, 2-3=-215/1926, 3-4=-2382/372, 4-5=-2477/351, 5-6=-6375/877, 6-7=0/6, 1-13=-23/206
BOT CHORD 12-13=-37/153, 11-12=-549/89, 10-11=-1722/262, 8-10=-722/5728, 6-8=-722/5728
WEBS 2-12=-77/872, 2-11=-1354/188, 3-11=-4829/540, 3-10=-443/4772, 4-10=-264/1546, 5-10=-3917/662, 5-8=-307/2809, 1-12=-710/126

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 2-12 2x4 - 1 row at 0-6-0 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 11 greater than input bearing size.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 766 lb uplift at joint 11 and 593 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 377 lb down and 44 lb up at 2-3-0, 377 lb down and 44 lb up at 4-3-0, 377 lb down and 44 lb up at 6-3-0, 377 lb down and 44 lb up at 8-3-0, 680 lb down and 108 lb up at 10-3-0, 680 lb down and 108 lb up at 12-3-0, 817 lb down and 31 lb up at 14-3-0, 885 lb down and 96 lb up at 16-3-0, 628 lb down and 180 lb up at 18-3-0, 628 lb down and 180 lb up at 20-3-0, 628 lb down and 180 lb up at 22-3-0, and 704 lb down and 108 lb up at 24-3-0, and 691 lb down and 206 lb up at 26-3-0 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.

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

Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-7=-70, 6-13=-20
Concentrated Loads (lb)
Vert: 9=-885 (B), 12=-377 (B), 11=-377 (B), 14=-377 (B), 15=-377 (B), 16=-680 (B), 17=-680 (B), 18=-817 (B), 19=-628 (B), 20=-628 (B), 21=-628 (B), 22=-704 (B), 23=-691 (B)



April 12, 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)

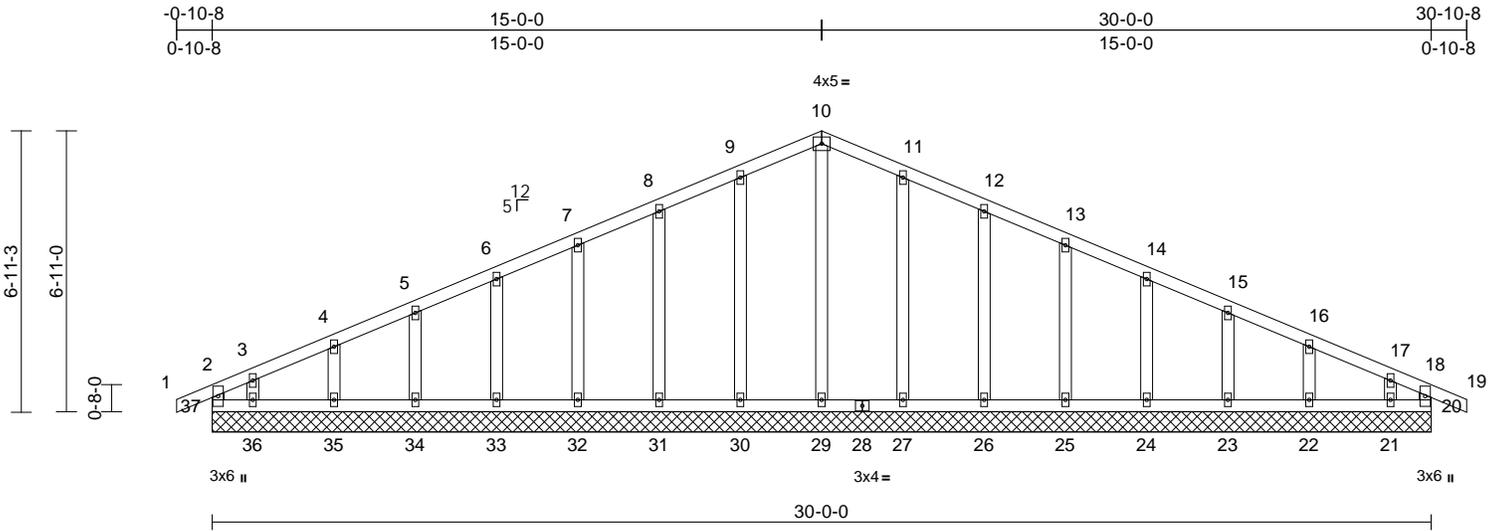
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss D1	Truss Type GABLE	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849374
----------------	-------------	---------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsObljB6I7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:56.4

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	0.07	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	20	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 130 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 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 6-0-0 oc bracing.

REACTIONS (size)
20=30-0-0, 21=30-0-0, 22=30-0-0,
23=30-0-0, 24=30-0-0, 25=30-0-0,
26=30-0-0, 27=30-0-0, 29=30-0-0,
30=30-0-0, 31=30-0-0, 32=30-0-0,
33=30-0-0, 34=30-0-0, 35=30-0-0,
36=30-0-0, 37=30-0-0

Max Horiz 37=92 (LC 13)
Max Uplift 20=3 (LC 5), 21=65 (LC 9),
22=36 (LC 9), 23=38 (LC 9),
24=38 (LC 9), 25=38 (LC 9),
26=39 (LC 9), 27=38 (LC 9),
30=39 (LC 8), 31=39 (LC 8),
32=38 (LC 8), 33=38 (LC 8),
34=39 (LC 8), 35=35 (LC 8),
36=84 (LC 8), 37=25 (LC 9)
Max Grav 20=131 (LC 22), 21=99 (LC 1),
22=190 (LC 22), 23=178 (LC 1),
24=181 (LC 1), 25=180 (LC 22),
26=178 (LC 1), 27=190 (LC 22),
29=176 (LC 18), 30=190 (LC 21),
31=178 (LC 1), 32=180 (LC 21),
33=181 (LC 1), 34=178 (LC 1),
35=190 (LC 21), 36=99 (LC 1),
37=133 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-37=-118/22, 1-2=0/27, 2-3=-122/50,
3-4=-89/61, 4-5=-62/67, 5-6=-44/85,
6-7=-27/103, 7-8=-26/122, 8-9=-25/142,
9-10=-29/159, 10-11=-29/153, 11-12=-25/120,
12-13=-26/88, 13-14=-26/69, 14-15=-26/51,
15-16=-37/41, 16-17=-55/36, 17-18=-85/13,
18-19=0/27, 18-20=-118/13
BOT CHORD 36-37=-13/83, 35-36=-13/83, 34-35=-13/83,
33-34=-13/83, 32-33=-13/83, 31-32=-13/83,
30-31=-13/83, 29-30=-13/83, 27-29=-13/83,
26-27=-13/83, 25-26=-13/83, 24-25=-13/83,
23-24=-13/83, 22-23=-13/83, 21-22=-13/83,
20-21=-13/83
WEBS 10-29=-136/0, 9-30=-150/63, 8-31=-138/63,
7-32=-140/62, 6-33=-140/62, 5-34=-138/62,
4-35=-147/62, 3-36=-77/76, 11-27=-150/62,
12-26=-138/63, 13-25=-140/62,
14-24=-140/62, 15-23=-138/62,
16-22=-147/63, 17-21=-77/66

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 7) Gable studs spaced at 2-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) All bearings are assumed to be SPF No.2.

- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 37, 3 lb uplift at joint 20, 39 lb uplift at joint 30, 39 lb uplift at joint 31, 38 lb uplift at joint 32, 38 lb uplift at joint 33, 39 lb uplift at joint 34, 35 lb uplift at joint 35, 84 lb uplift at joint 36, 38 lb uplift at joint 27, 39 lb uplift at joint 26, 38 lb uplift at joint 25, 38 lb uplift at joint 24, 38 lb uplift at joint 23, 36 lb uplift at joint 22 and 65 lb uplift at joint 21.

- 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



April 12, 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)

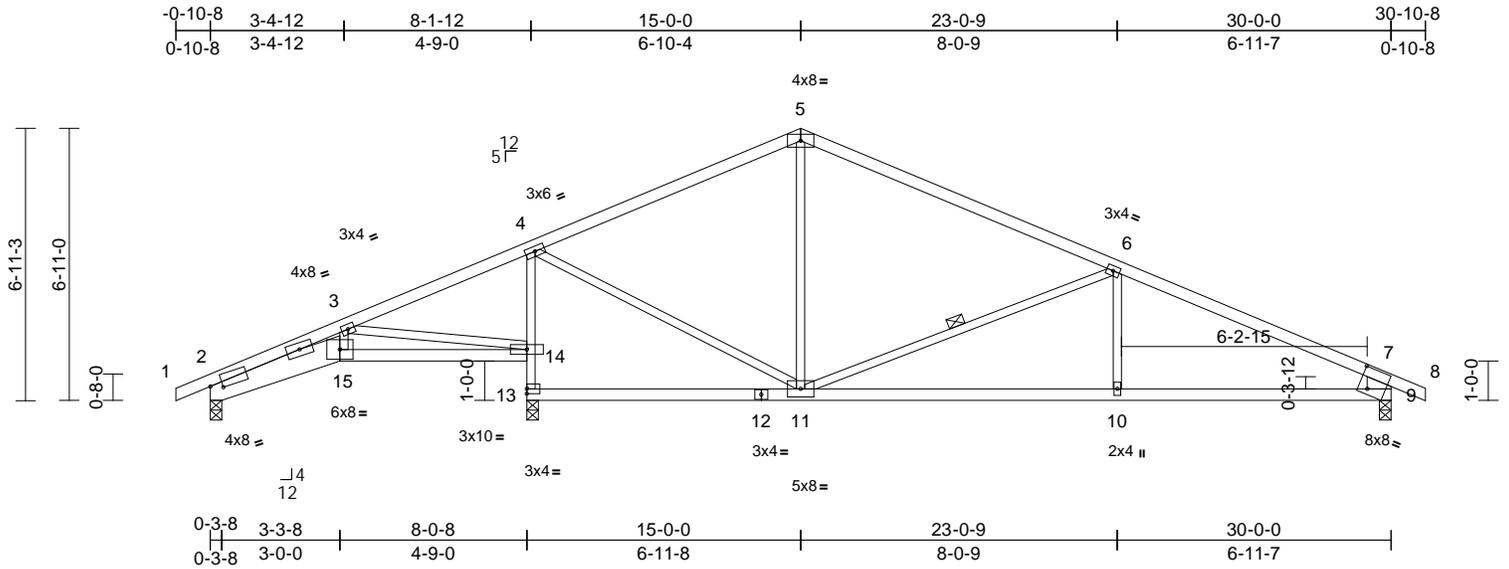
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss D2	Truss Type Roof Special	Qty 4	Ply 1	Lot 120 HT Job Reference (optional)	164849375
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:58.3

Plate Offsets (X, Y): [2:0-3-11,0-1-7], [9:0-2-13,0-6-6]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.13	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.28	10-11	>919	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	-0.03	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 110 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 2-15:2x8 SP 2400F 2.0E, 4-13:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 9-7:2x8 SP 2400F 2.0E

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-13.
WEBS 1 Row at midpt 6-11

REACTIONS (size) 2=0-3-8, 9=0-3-8, 13=0-3-8
Max Horiz 2=99 (LC 12)
Max Uplift 2=-44 (LC 4), 9=-145 (LC 9), 13=-141 (LC 8)
Max Grav 2=341 (LC 21), 9=1013 (LC 1), 13=1475 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-686/66, 3-4=-50/310, 4-5=-794/182, 5-6=-809/157, 6-7=-1581/228, 7-8=0/32, 7-9=-916/177
BOT CHORD 2-15=-124/594, 14-15=-116/523, 13-14=-1429/175, 4-14=-1258/179, 11-13=-161/24, 10-11=-140/1365, 9-10=-140/1365
WEBS 3-15=0/287, 3-14=-683/150, 4-11=0/916, 5-11=0/229, 6-11=-803/204, 6-10=0/274

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SPF No.2 .
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 141 lb uplift at joint 13 and 145 lb uplift at joint 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



April 12, 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)

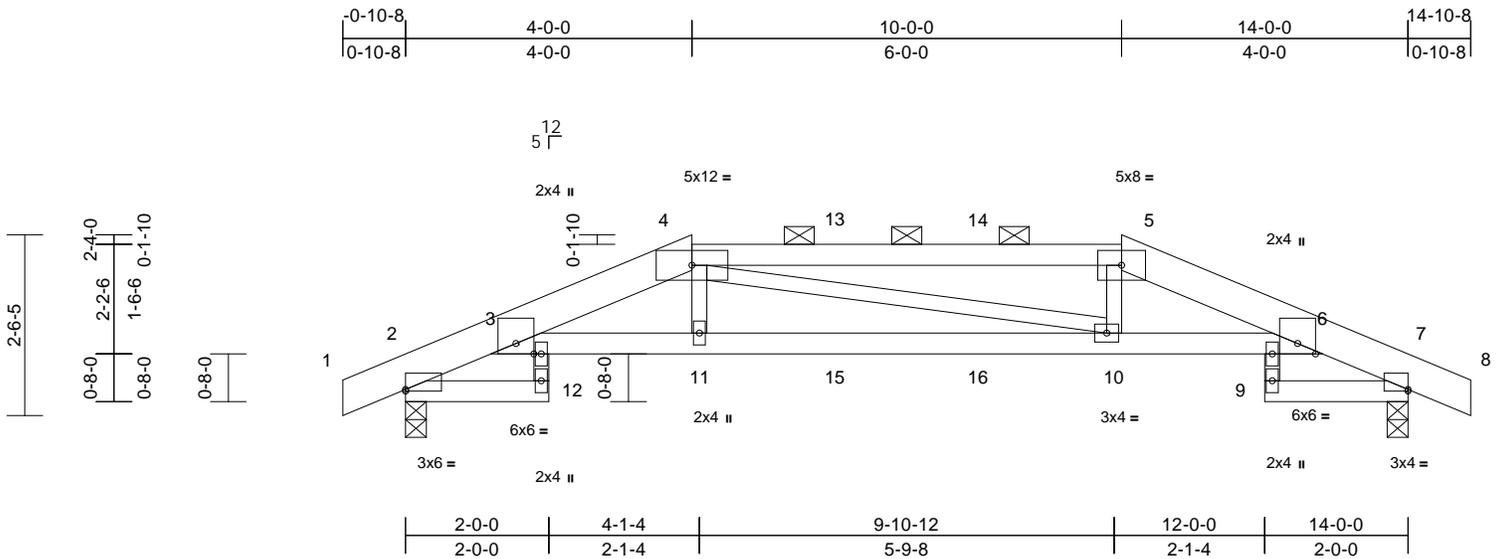
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss E1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849376
----------------	-------------	--------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:32
Plate Offsets (X, Y): [2:Edge,0-0-4], [7:Edge,0-0-4]

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	0.87	Vert(LL)	-0.14	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.28	10-11	>591	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.19	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF No.2 *Except* 4-5:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 12-3,6-9:2x3 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-5 oc purlins, except 2-0-0 oc purlins (4-1-9 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 8-8-14 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=-32 (LC 13)
Max Uplift 2=-178 (LC 4), 7=-178 (LC 5)
Max Grav 2=1042 (LC 1), 7=1042 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-498/110, 3-4=-2706/514, 4-5=-2585/500, 5-6=-2693/510, 6-7=-498/105, 7-8=0/6
BOT CHORD 2-12=0/0, 3-11=-455/2564, 10-11=-457/2599, 6-10=-449/2549, 7-9=0/0
WEBS 4-11=-28/409, 5-10=-36/435, 4-10=-104/76

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 178 lb uplift at joint 2 and 178 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 44 lb up at 4-0-0, 78 lb down and 42 lb up at 6-0-0, and 78 lb down and 42 lb up at 8-0-0, and 73 lb down and 44 lb up at 10-0-0 on top chord, and 229 lb down and 67 lb up at 4-0-0, 34 lb down and 13 lb up at 6-0-0, and 34 lb down and 13 lb up at 8-0-0, and 229 lb down and 67 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-5=-70, 5-8=-70, 2-12=-20, 3-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-37 (F), 5=-37 (F), 11=-229 (F), 10=-229 (F), 13=-37 (F), 14=-37 (F), 15=-34 (F), 16=-34 (F)

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SPF No.2.



April 12, 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)

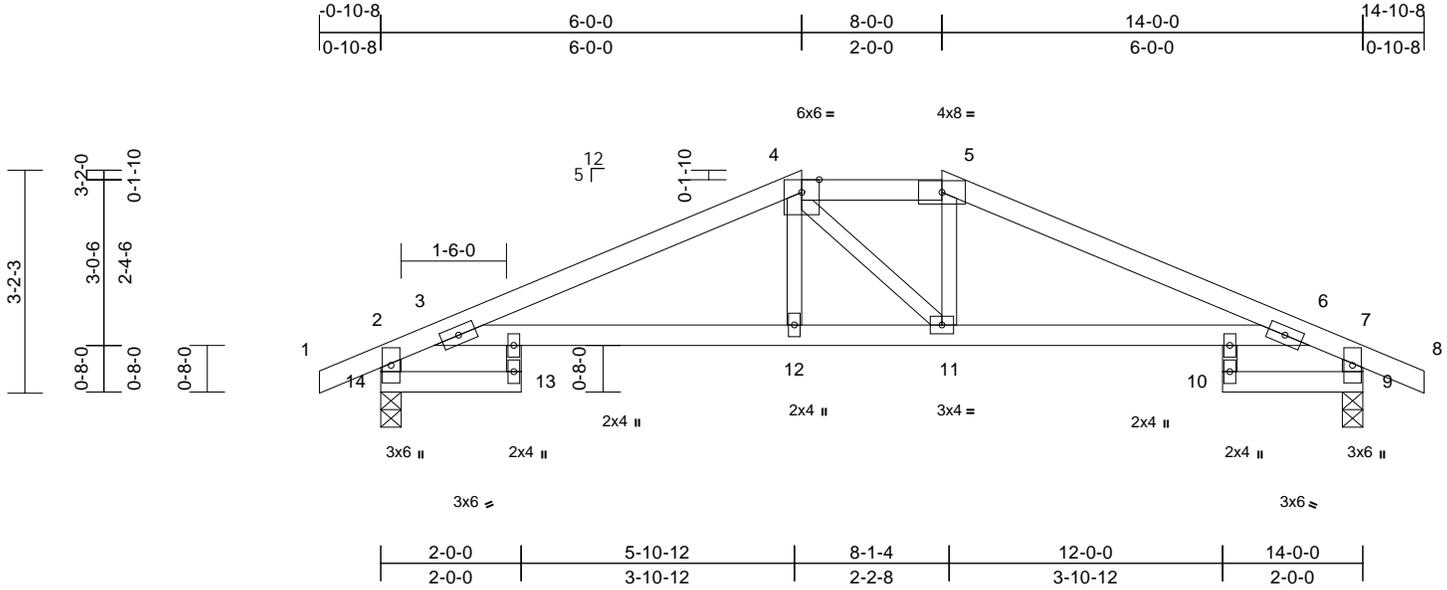
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss E2	Truss Type Hip	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849377
----------------	-------------	-------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:K8aU9itBpOq47P4gWxpBbNzRoSq-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:32.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.15	13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.31	13	>526	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.23	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 45 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-5:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except* 13-15,16-10:2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except* 14-2,9-7:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 14=0-3-8
Max Horiz 14=31 (LC 13)
Max Uplift 9=-52 (LC 9), 14=-52 (LC 8)
Max Grav 9=713 (LC 1), 14=713 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-221/48, 3-4=-1180/47, 4-5=-1057/63, 5-6=-1181/43, 6-7=-221/30, 7-8=0/27, 2-14=-676/74, 7-9=-676/74
BOT CHORD 13-14=0/0, 3-12=-8/1062, 11-12=-10/1056, 6-11=0/1063, 9-10=0/0
WEBS 4-12=0/180, 4-11=-149/151, 5-11=0/195

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) All bearings are assumed to be SPF No.2.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 14 and 52 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



April 12, 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)

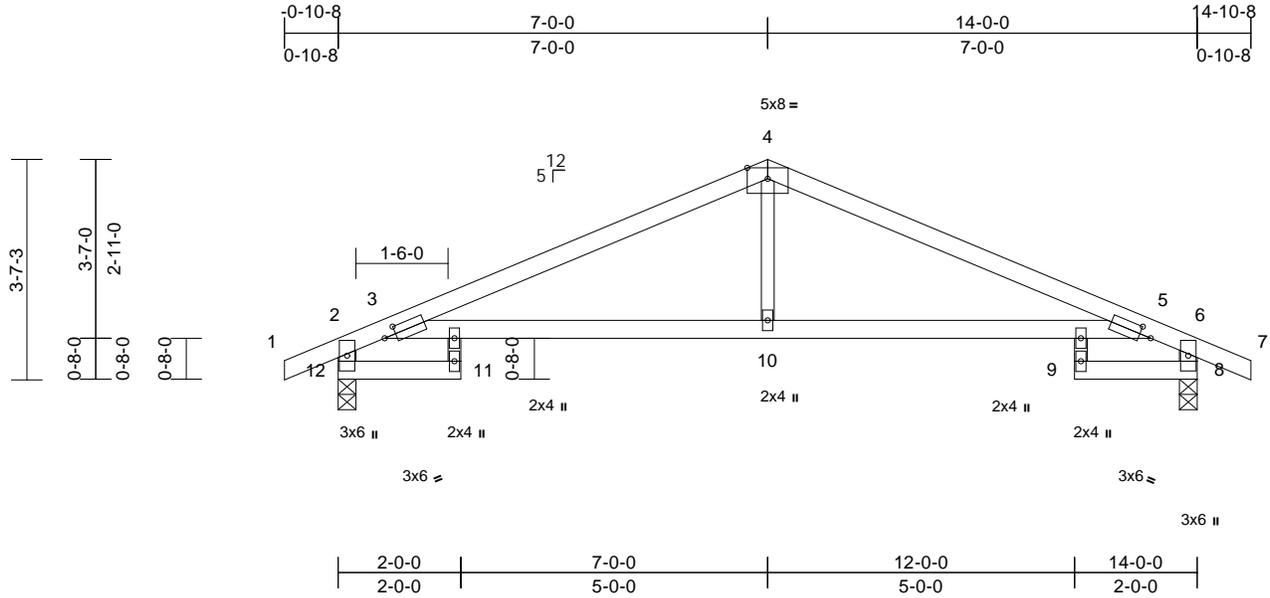
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss E3	Truss Type Roof Special	Qty 3	Ply 1	Lot 120 HT Job Reference (optional)	164849378
----------------	-------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:37.4
Plate Offsets (X, Y): [3:0-2-5,0-1-8], [5:0-2-5,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.19	11	>867	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.37	11	>443	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.27	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 41 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 11-13,14-9:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 10-4:2x3 SPF No.2
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=-39 (LC 9)
Max Uplift 8=-59 (LC 9), 12=-59 (LC 8)
Max Grav 8=713 (LC 1), 12=713 (LC 1)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-221/59, 3-4=-1086/56, 4-5=-1086/69, 5-6=-221/33, 6-7=0/27, 2-12=-676/81, 6-8=-676/81
BOT CHORD 11-12=0/0, 3-10=-4/963, 5-10=-4/963, 8-9=0/0
WEBS 4-10=0/345

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

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) All bearings are assumed to be SPF No.2.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 12 and 59 lb uplift at joint 8.



April 12, 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.sbccomponents.com)

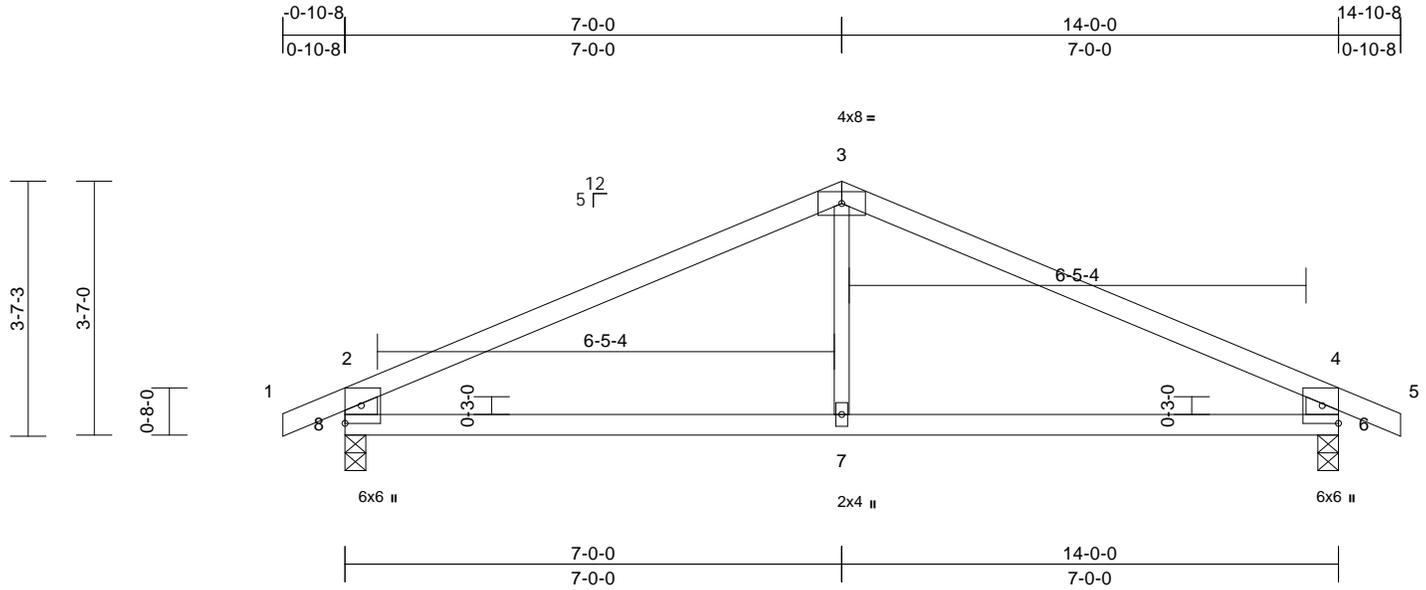
MiTek®
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW
16023 Swinley Ridge Rd
Missouri, MO 64080
816-424-0200 / MiTek US, Inc.
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss E4	Truss Type Common	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849379
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:11
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:32.3

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	0.56	Vert(LL)	-0.05	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.10	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 39 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SPF No.2
- BOT CHORD 2x4 SPF No.2
- WEBS 2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2

BRACING

- TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8

- Max Horiz 8=-38 (LC 13)
- Max Uplift 6=-75 (LC 9), 8=-75 (LC 8)
- Max Grav 6=687 (LC 1), 8=687 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-2=0/30, 2-3=-842/74, 3-4=-842/74, 4-5=0/30, 2-8=-626/121, 4-6=-626/121
- BOT CHORD 7-8=-10/683, 6-7=-10/683
- WEBS 3-7=0/291

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SPF No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 8 and 75 lb uplift at joint 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



April 12, 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)

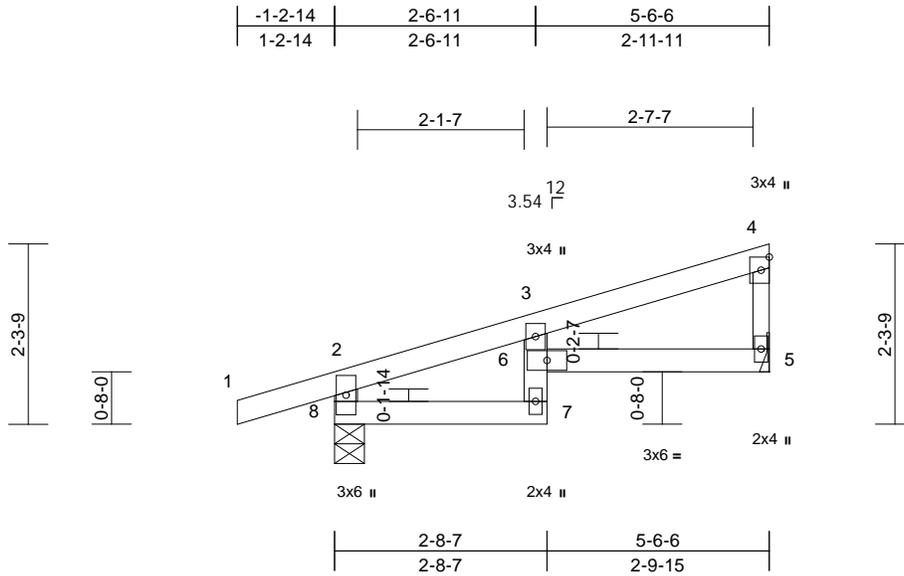
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
 16023 Swingley Ridge Rd
 Missouri, MO 64087
 816-424-0200 / MiTek-USA.com
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss J1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 120 HT Job Reference (optional)	164849380
----------------	-------------	-----------------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:29.2

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	0.31	Vert(LL)	-0.04	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	6	>960	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 16 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2 *Except* 4-5:2x3 SPF No.2

BRACING

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

REACTIONS

(size) 5= Mechanical, 8=0-4-9
 Max Horiz 8=73 (LC 5)
 Max Uplift 5=-37 (LC 8), 8=-84 (LC 4)
 Max Grav 5=224 (LC 1), 8=345 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-311/97, 1-2=0/27, 2-3=-245/26, 3-4=-94/14, 4-5=-140/42
 BOT CHORD 7-8=-39/184, 6-7=0/44, 3-6=-16/66, 5-6=-15/79

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) All bearings are assumed to be SPF No.2.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 8 and 37 lb uplift at joint 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 61 lb down and 30 lb up at 2-9-8, and 61 lb down and 30 lb up at 2-9-8 on top chord, and 2 lb down and 2 lb up at 2-6-11, and 2 lb down and 2 lb up at 2-6-11 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
 Concentrated Loads (lb)
 Vert: 7=3 (F=2, B=2)



April 12, 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)

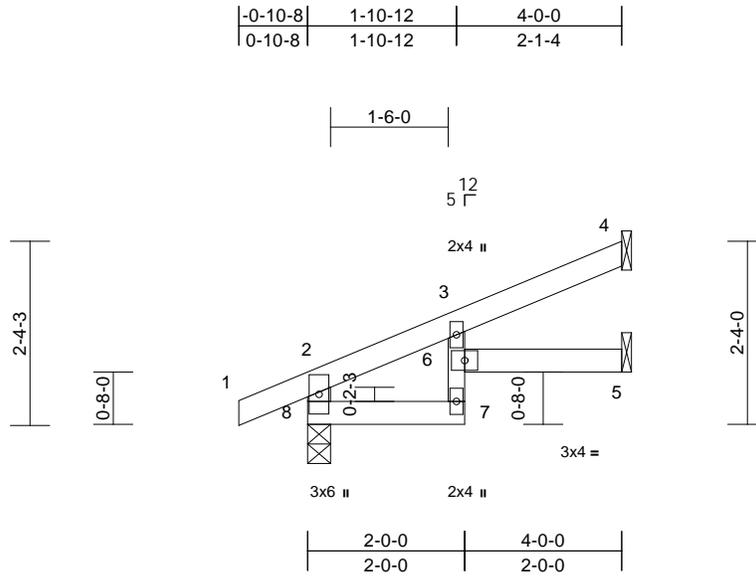
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:32

Job B240074	Truss J2	Truss Type Jack-Open	Qty 4	Ply 1	Lot 120 HT Job Reference (optional)	164849381
----------------	-------------	-------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:29.2

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	0.16	Vert(LL)	0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 12 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-3-8
Max Horiz 8=66 (LC 8)
Max Uplift 4=-39 (LC 8), 5=-1 (LC 8), 8=-27 (LC 8)
Max Grav 4=107 (LC 1), 5=61 (LC 3), 8=252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-233/45, 1-2=0/27, 2-3=-140/0, 3-4=-24/36
BOT CHORD 7-8=-36/85, 6-7=0/35, 3-6=0/56, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) All bearings are assumed to be SPF No.2.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 8, 39 lb uplift at joint 4 and 1 lb uplift at joint 5.
- 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



April 12, 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)

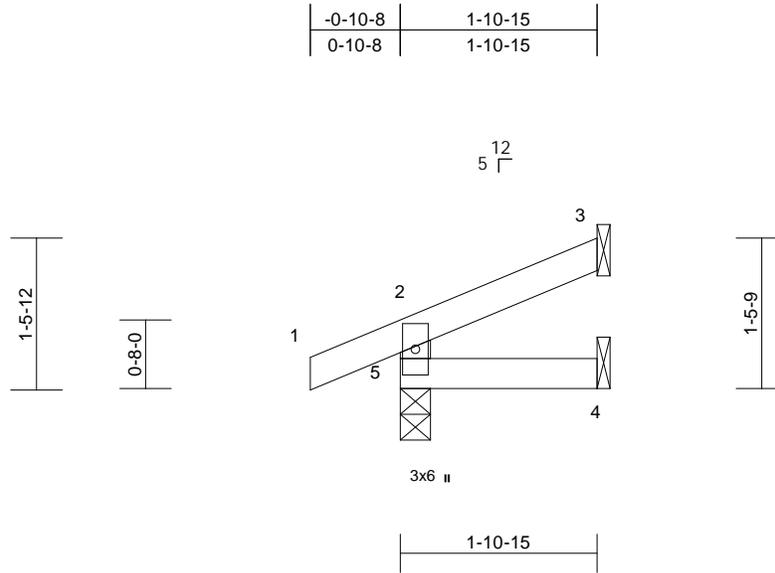
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss J3	Truss Type Jack-Open	Qty 4	Ply 1	Lot 120 HT Job Reference (optional)	I64849382
----------------	-------------	-------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 6 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=35 (LC 8)
Max Uplift 3=-24 (LC 8), 5=-27 (LC 4)
Max Grav 3=44 (LC 1), 4=31 (LC 3), 5=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-150/40, 1-2=0/27, 2-3=-31/12
BOT CHORD 4-5=0/0

- NOTES**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) All bearings are assumed to be SPF No.2.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 5 and 24 lb uplift at joint 3.
 - 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



April 12, 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)

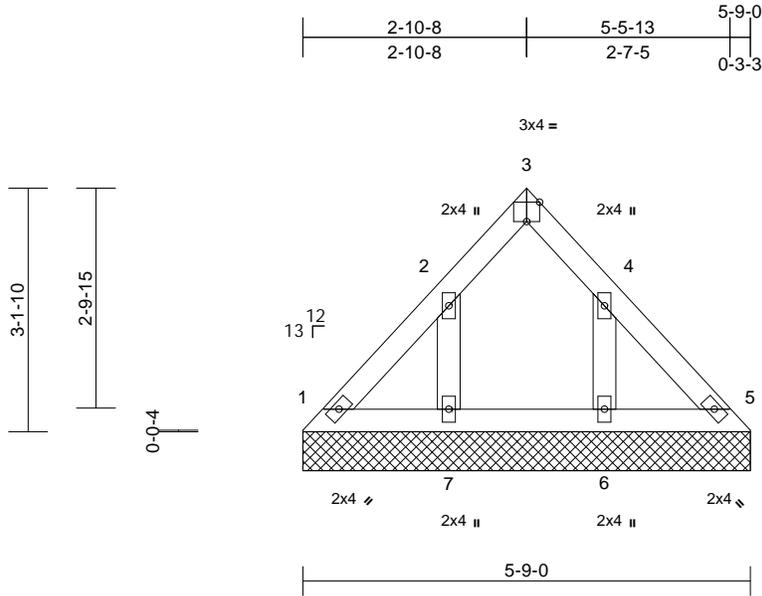
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss LAY1	Truss Type Lay-In Gable	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	I64849383
----------------	---------------	----------------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:K8aU9itBpOq47P4gWxpBbNzRoSq-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:29.5

Plate Offsets (X, Y): [3:Edge,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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	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 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-9-0, 5=5-9-0, 6=5-9-0, 7=5-9-0
Max Horiz 1=67 (LC 7)
Max Uplift 6=82 (LC 9), 7=82 (LC 8)
Max Grav 1=85 (LC 17), 5=85 (LC 18), 6=170 (LC 16), 7=171 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-93/48, 2-3=-64/14, 3-4=-64/13, 4-5=-92/47
BOT CHORD 1-7=-32/86, 6-7=-32/86, 5-6=-32/86
WEBS 2-7=-131/106, 4-6=-130/105

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 0-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - All bearings are assumed to be SPF No.2.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 7 and 82 lb uplift at joint 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



April 12, 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)

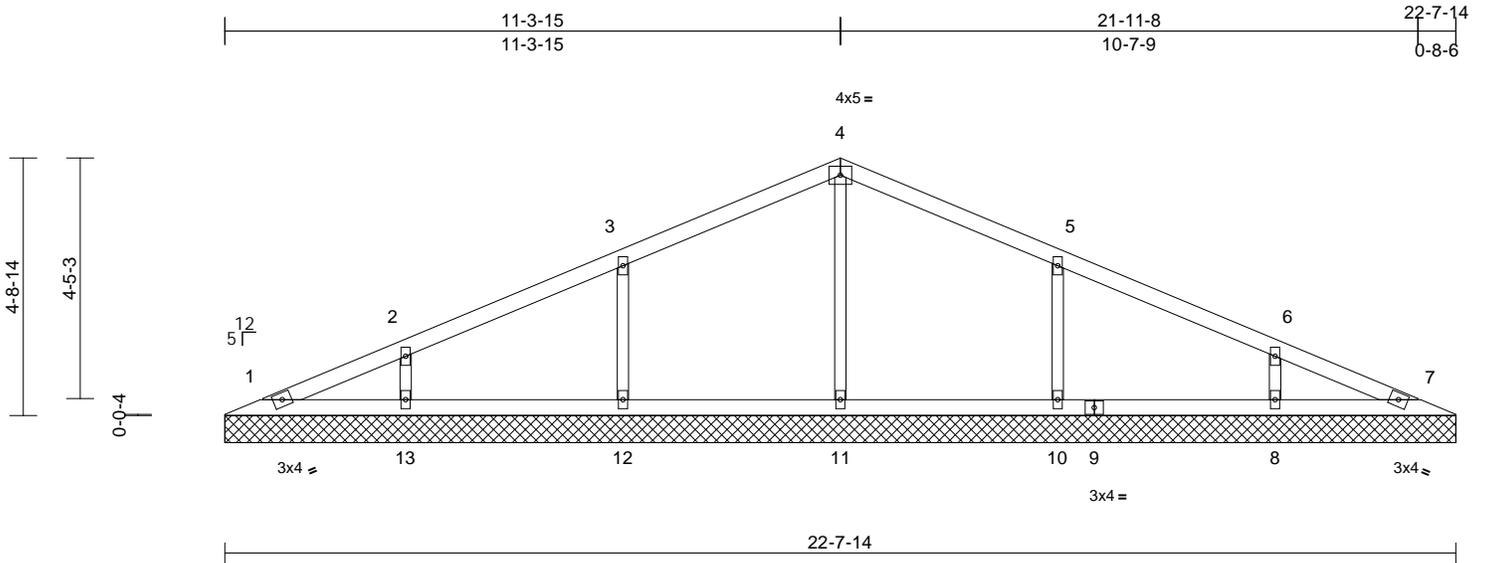
MiTek®
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES
16023 Swinley Ridge Rd
Missouri, MO 64080
816-424-0200 / MiTek.US.com
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849384
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:42.2

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 61 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=22-7-14, 7=22-7-14, 8=22-7-14,
10=22-7-14, 11=22-7-14,
12=22-7-14, 13=22-7-14
Max Horiz 1=70 (LC 9)
Max Uplift 1=6 (LC 9), 8=67 (LC 9), 10=87 (LC 9), 12=87 (LC 8), 13=68 (LC 8)
Max Grav 1=91 (LC 1), 7=91 (LC 1), 8=326 (LC 1), 10=392 (LC 22), 11=308 (LC 1), 12=392 (LC 21), 13=326 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=85/42, 2-3=80/68, 3-4=87/106, 4-5=87/95, 5-6=78/41, 6-7=62/28
BOT CHORD 1-13=-1/56, 12-13=-1/56, 11-12=-1/56, 10-11=-1/56, 8-10=-1/56, 7-8=-1/56
WEBS 4-11=-229/13, 3-12=-310/137, 2-13=-249/109, 5-10=-310/137, 6-8=-249/109

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 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 2x4 MT20 unless otherwise indicated.
- 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.
- All bearings are assumed to be SPF No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 87 lb uplift at joint 12, 68 lb uplift at joint 13, 87 lb uplift at joint 10 and 67 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



April 12, 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)

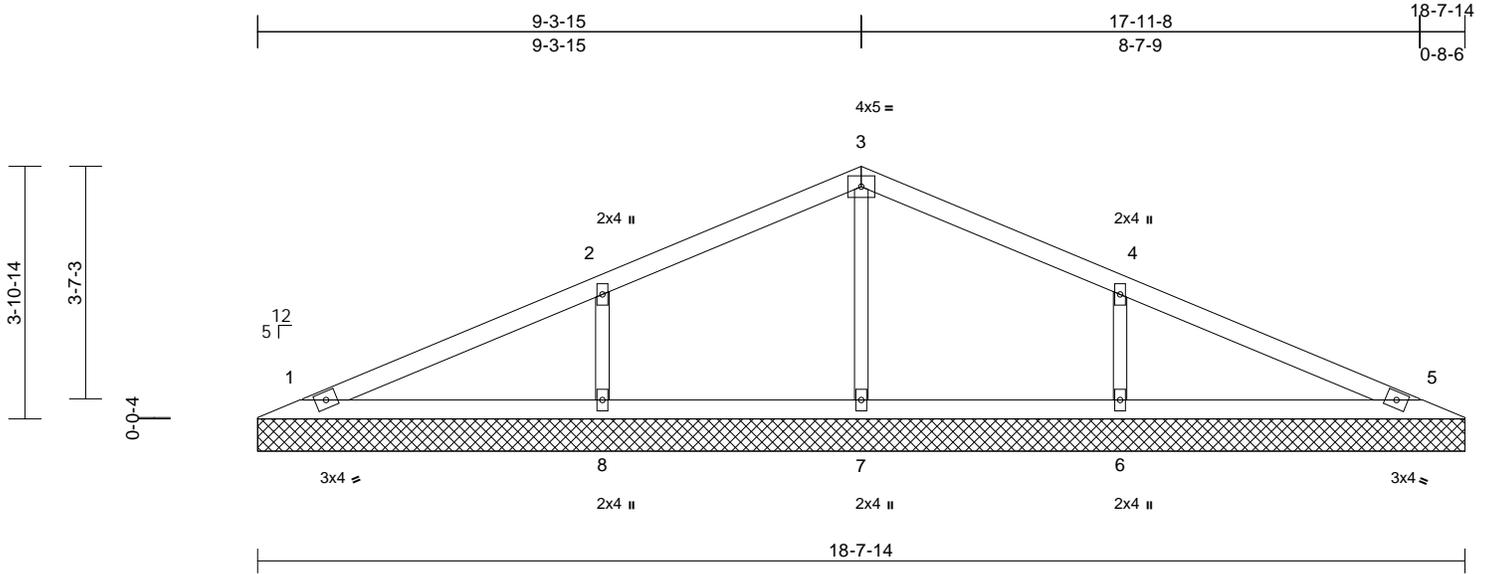
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849385
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:35.4

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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 lb	FT = 10%

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

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

REACTIONS (size) 1=18-7-14, 5=18-7-14, 6=18-7-14, 7=18-7-14, 8=18-7-14
Max Horiz 1=57 (LC 8)
Max Uplift 1=-6 (LC 8), 5=-16 (LC 9), 6=-103 (LC 9), 8=-103 (LC 8)
Max Grav 1=174 (LC 1), 5=174 (LC 1), 6=472 (LC 22), 7=267 (LC 1), 8=472 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-80/67, 2-3=-89/86, 3-4=-89/75, 4-5=-64/57
BOT CHORD 1-8=-1/45, 7-8=-1/45, 6-7=-1/45, 5-6=-1/45
WEBS 3-7=-205/18, 2-8=-361/156, 4-6=-361/156

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 4-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) All bearings are assumed to be SPF No.2 .
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 16 lb uplift at joint 5, 103 lb uplift at joint 8 and 103 lb uplift at joint 6.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



April 12, 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)

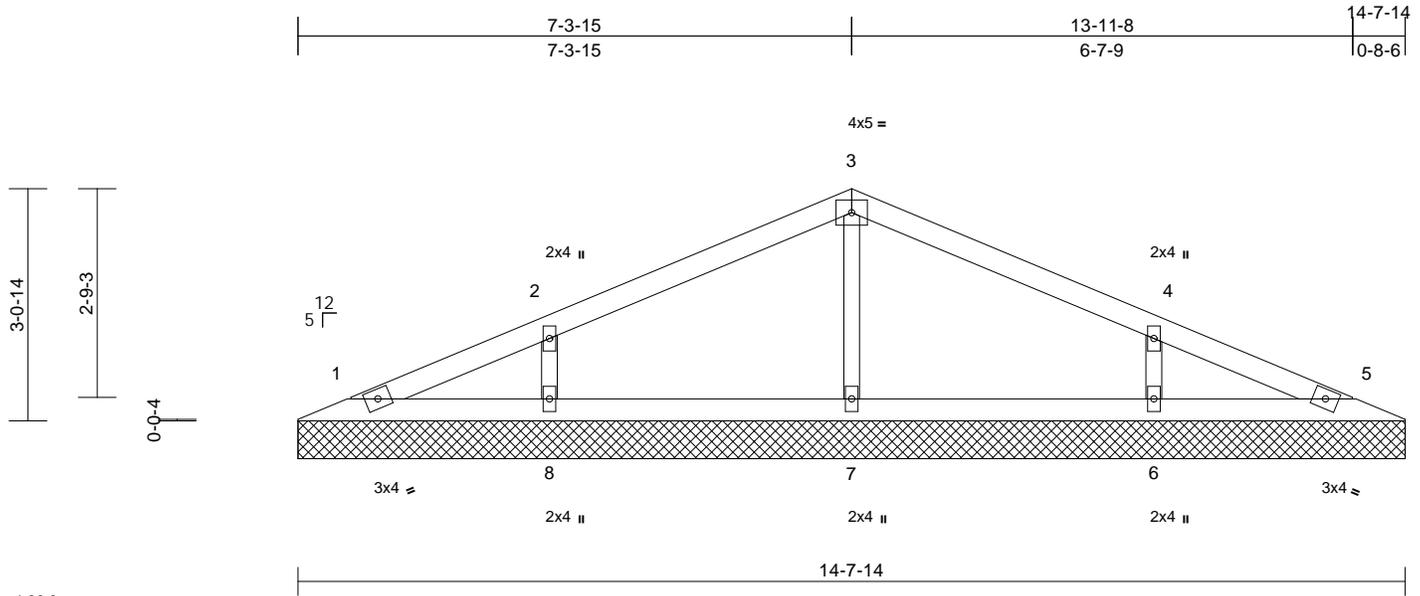
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849386
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRcDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
OTHERS	2x3 SPF No.2
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size)	
	1=14-7-14, 5=14-7-14, 6=14-7-14, 7=14-7-14, 8=14-7-14
Max Horiz	1=44 (LC 8)
Max Uplift	1=-5 (LC 9), 5=-1 (LC 9), 6=-82 (LC 9), 8=-82 (LC 8)
Max Grav	1=86 (LC 1), 5=86 (LC 1), 6=358 (LC 22), 7=321 (LC 1), 8=358 (LC 21)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-62/37, 2-3=-87/66, 3-4=-87/54, 4-5=-47/31
BOT CHORD	1-8=0/39, 7-8=0/39, 6-7=0/39, 5-6=0/39
WEBS	3-7=-238/38, 2-8=-284/124, 4-6=-284/124

- All bearings are assumed to be SPF No.2 .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 1 lb uplift at joint 5, 82 lb uplift at joint 8 and 82 lb uplift at joint 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

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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.



April 12, 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)

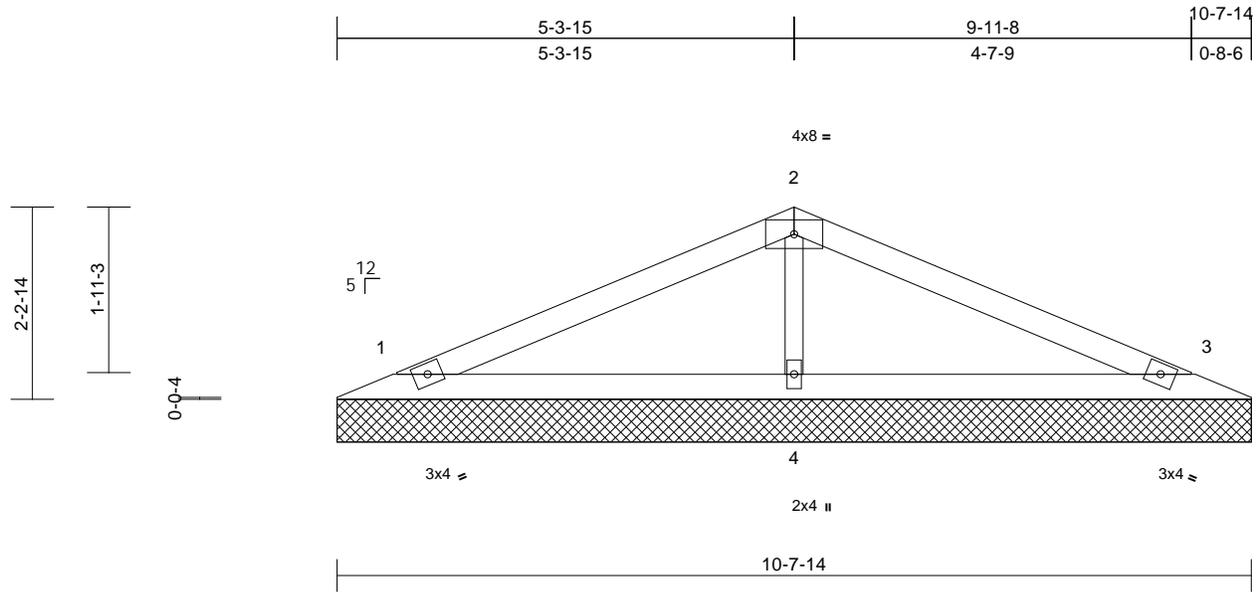
MiTek®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849387
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsXOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?#

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 25 lb	FT = 10%

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

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

REACTIONS (size) 1=10-7-14, 3=10-7-14, 4=10-7-14
 Max Horiz 1=-31 (LC 9)
 Max Uplift 1=-31 (LC 8), 3=-36 (LC 9), 4=-13 (LC 8)
 Max Grav 1=191 (LC 21), 3=191 (LC 22), 4=458 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-98/46, 2-3=-98/38
 BOT CHORD 1-4=-1/38, 3-4=-1/38
 WEBS 2-4=-318/70

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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.
 - All bearings are assumed to be SPF No.2.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 36 lb uplift at joint 3 and 13 lb uplift at joint 4.
- 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



April 12, 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)

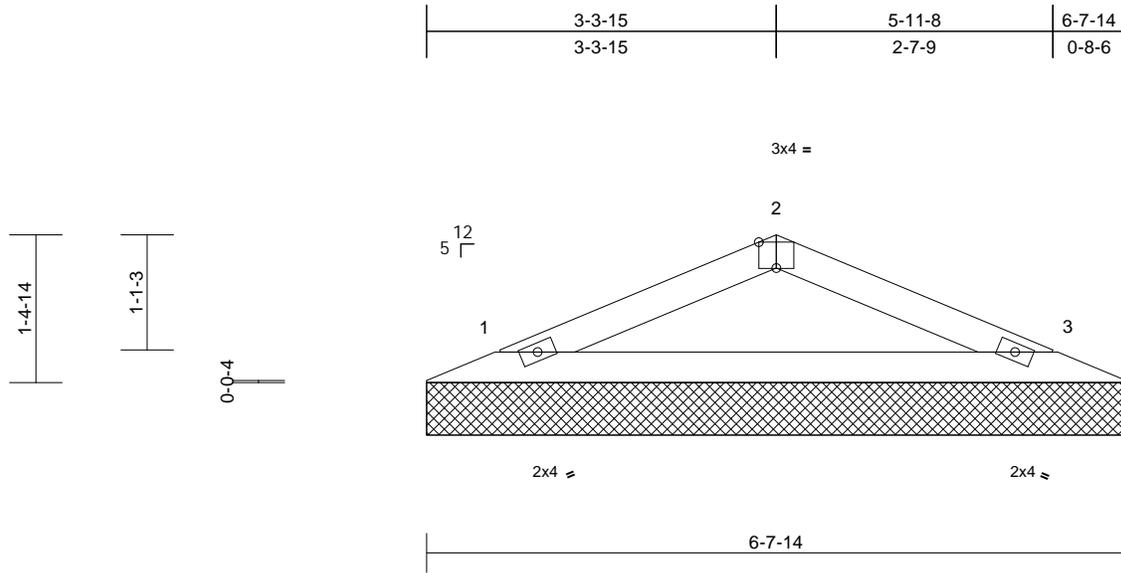
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:32

Job B240074	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	I64849388
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	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: 14 lb	FT = 10%

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

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

REACTIONS (size) 1=6-7-14, 3=6-7-14
Max Horiz 1=17 (LC 12)
Max Uplift 1=-21 (LC 8), 3=-21 (LC 9)
Max Grav 1=236 (LC 1), 3=236 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-265/66, 2-3=-265/66
BOT CHORD 1-3=-45/218

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) All bearings are assumed to be SPF No.2 .
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 21 lb uplift at joint 3.
 - 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



April 12, 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)

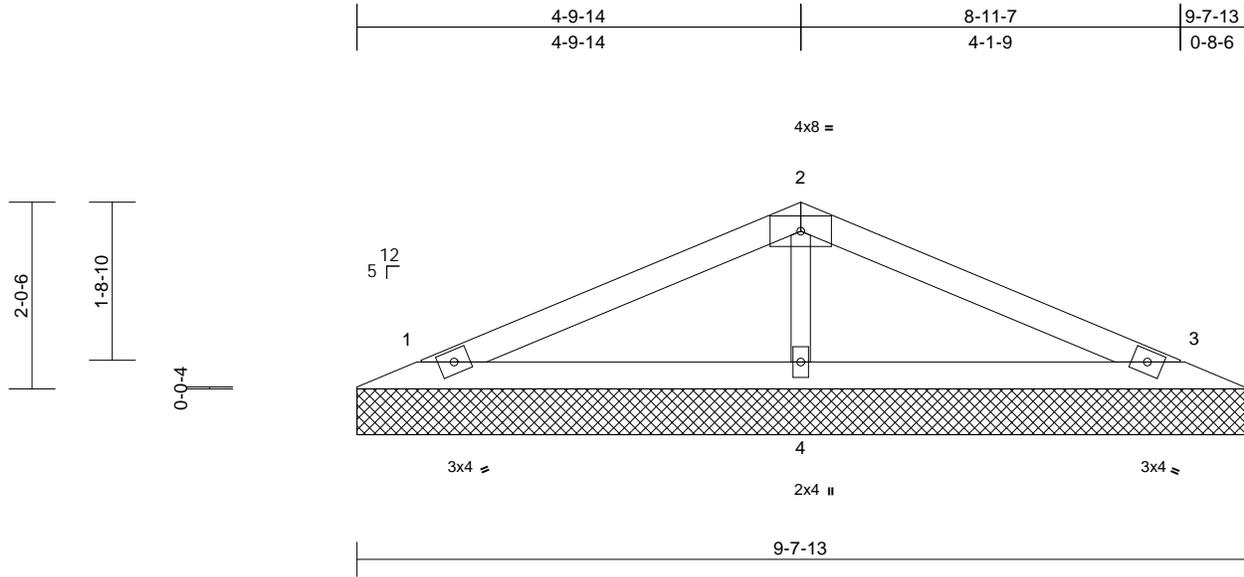
MiTek®
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES
16023 Swingley Ridge Rd
Missouri, MO 64480
816-424-0200 / MiTek.US.com
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:32

Job B240074	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	164849389
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:2ncXplsxOfbjlB6i7Q?gPMzrYWU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 1=9-7-13, 3=9-7-13, 4=9-7-13
 Max Horiz 1=27 (LC 8)
 Max Uplift 1=-27 (LC 8), 3=-32 (LC 9), 4=-11 (LC 8)
 Max Grav 1=170 (LC 21), 3=170 (LC 22), 4=408 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-87/41, 2-3=-87/34
 BOT CHORD 1-4=-1/34, 3-4=-1/34
 WEBS 2-4=-284/62

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) Gable studs spaced at 2-0-0 oc.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) All bearings are assumed to be SPF No.2.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 32 lb uplift at joint 3 and 11 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



April 12, 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)

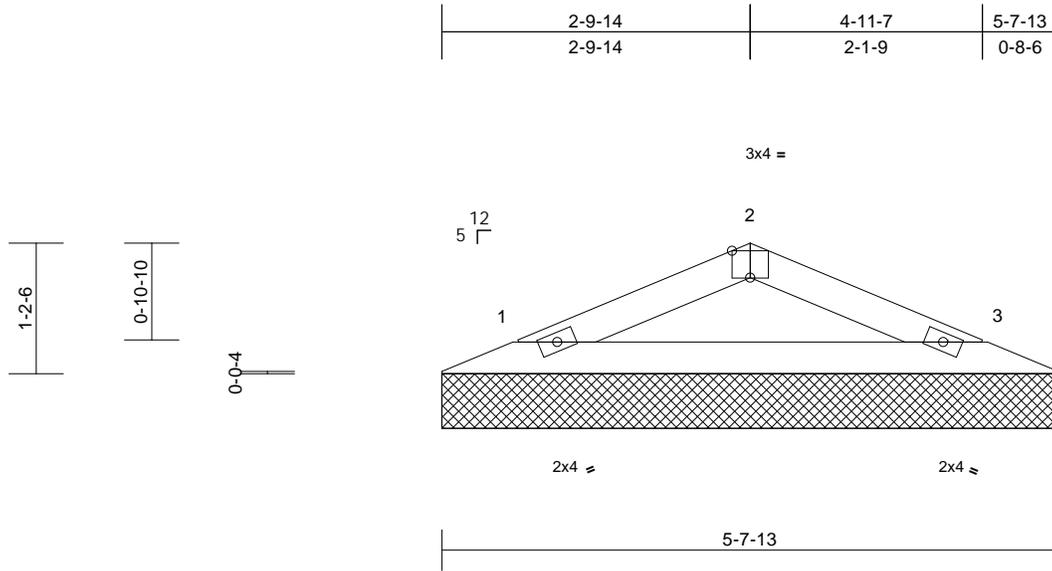
MiTek®
 RELEASE FOR CONSTRUCTION
 AS NOTED ON PLANS REVIEW
 DEVELOPMENT SERVICES
 LEE'S SUMMIT, MISSOURI
 05/13/2024 2:04:32

Job B240074	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 120 HT Job Reference (optional)	I64849390
----------------	-------------	----------------------	----------	----------	--	-----------

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.73 S Apr 3 2024 Print: 8.730 S Apr 3 2024 MiTek Industries, Inc. Thu Apr 11 12:09:12
ID:seNNh?SjUjooJ5E4TY33FNzRoLe-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:21

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	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: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-7-13, 3=5-7-13
Max Horiz 1=14 (LC 8)
Max Uplift 1=-17 (LC 8), 3=-17 (LC 9)
Max Grav 1=191 (LC 1), 3=191 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-214/53, 2-3=-214/53
BOT CHORD 1-3=-36/176

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

- 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - All bearings are assumed to be SPF No.2.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1 and 17 lb uplift at joint 3.



April 12, 2024

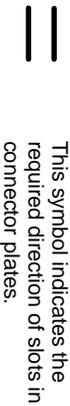
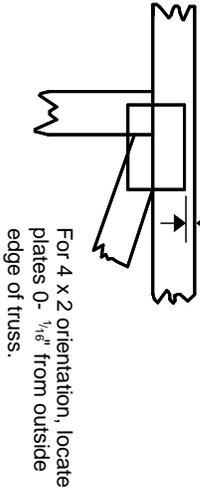
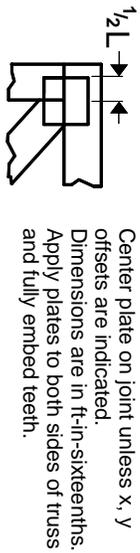
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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®
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:33

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

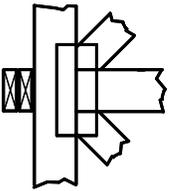
4 X 4

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

LATERAL BRACING LOCATION



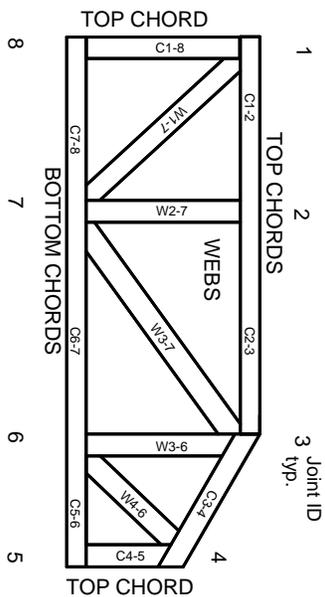
BEARING



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

© 2023 MITtek® All Rights Reserved

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.

MITek®

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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/13/2024 2:04:33