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

Re: MSA2408-R
1408 NE ERNEST WAY, LEE'S SUMMIT

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Quality Truss LLC.

Pages or sheets covered by this seal: I71166308 thru I71166342

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

Missouri COA: Engineering 001193

February 5,2025

Sevier, Scott ,Engineer

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	CJ3	Jack-Open	5	1	I71166308 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:22
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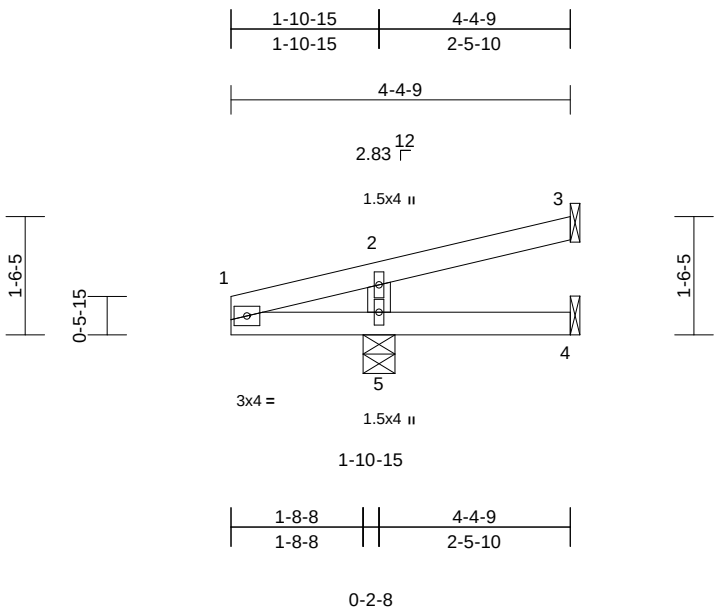

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 14 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-15
Max Horiz 5=27 (LC 8)
Max Uplift 3=-19 (LC 12), 4=-12 (LC 18), 5=-38 (LC 8)
Max Grav 3=64 (LC 18), 4=23 (LC 7), 5=450 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/35, 2-3=-39/9
BOT CHORD 1-5=-4/27, 4-5=0/0
WEBS 2-5=-320/50

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 19 lb uplift at joint 3, 12 lb uplift at joint 4 and 38 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	CJ3A	Jack-Open	1	1	I71166309 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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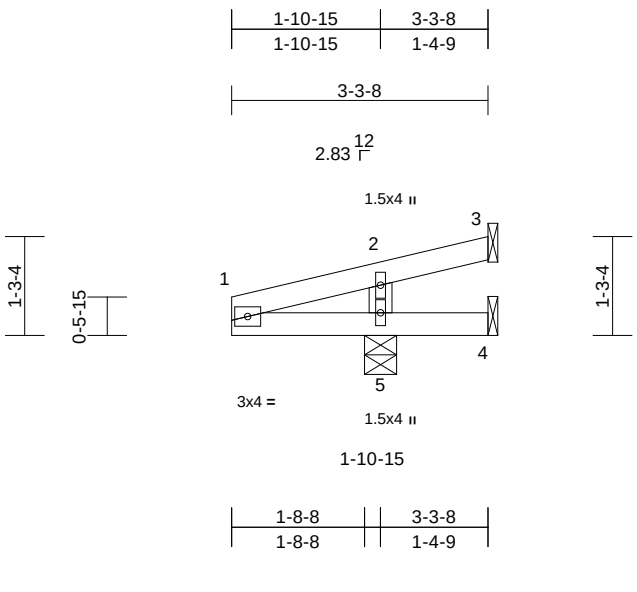

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 11 lb	FT = 0%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-3-8 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-15
Max Horiz 5=21 (LC 8)
Max Uplift 3=-26 (LC 7), 4=-61 (LC 18), 5=-45 (LC 8)
Max Grav 3=-2 (LC 8), 4=13 (LC 8), 5=446 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-17/31, 2-3=-33/0
BOT CHORD	1-5=-4/21, 4-5=0/0
WEBS	2-5=-277/40

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 26 lb uplift at joint 3, 61 lb uplift at joint 4 and 45 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	CJ5	Diagonal Hip Girder	2	1	I71166310 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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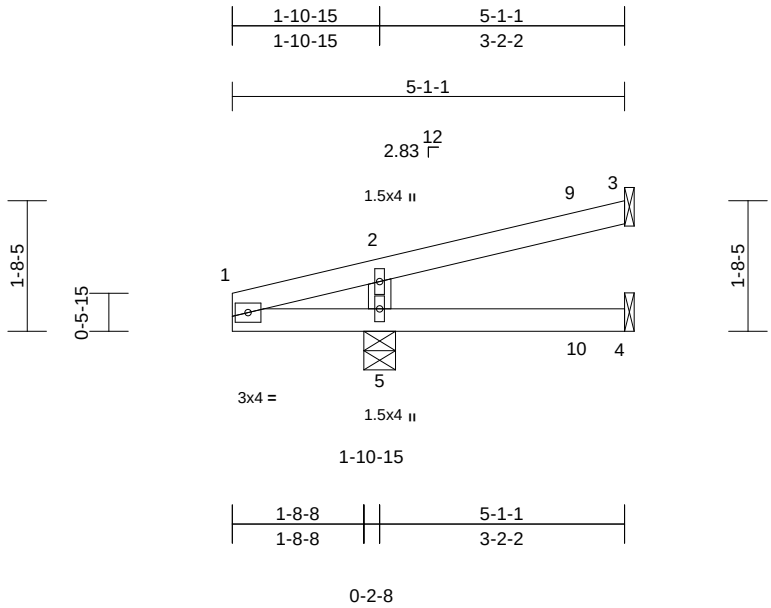

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	0.01	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 16 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-4-15
Max Horiz 5=32 (LC 8)
Max Uplift 3=-23 (LC 12), 4=-6 (LC 38), 5=-36 (LC 8)
Max Grav 3=107 (LC 18), 4=41 (LC 7), 5=478 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-31/39, 2-3=-46/17
BOT CHORD 1-5=-7/32, 4-5=0/0
WEBS 2-5=-370/61

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 23 lb uplift at joint 3, 6 lb uplift at joint 4 and 36 lb uplift at joint 5.
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.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 31 lb down and 18 lb up at 4-5-10 on top chord, and 5 lb down and 18 lb up at 4-5-10 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 10=3 (B)

February 5,2025

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Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	GR1	Hip Girder	1	2	I71166311 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:25 ID:OvBRbz0UWdwxmg5ea_KzuXz0Tue-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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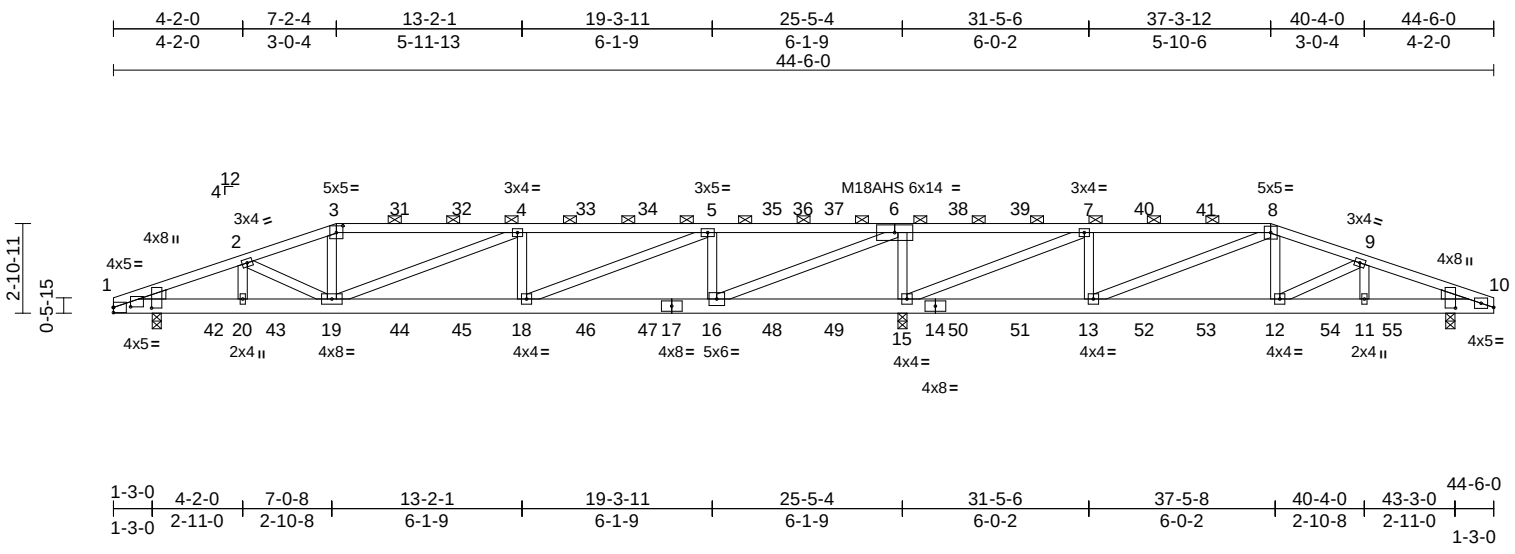

Scale = 1:74.7

Plate Offsets (X, Y): [1:0-6-10,0-0-4], [1:0-0-4,1-2-12], [3:0-2-8,0-2-11], [10:0-2-6,0-0-6], [10:0-0-4,1-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.15	16-18	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.23	16-18	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	18	>999	360		
BCDL	10.0										Weight: 502 lb	FT = 0%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 6-8:2x4 SP No.1
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SP No.2
WEDGE	Left: 2x4 SP No.2 Right: 2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-6-0 oc purlins, except 2-0-0 oc purlins (4-11-3 max.): 3-8.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.

REACTIONS (size) 1=0-3-8, 10=0-3-8, 15=0-3-8
Max Horiz 1=28 (LC 12)
Max Uplift 1=-94 (LC 12), 10=-75 (LC 13), 15=-190 (LC 8)
Max Grav 1=2348 (LC 36), 10=1581 (LC 36), 15=5797 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-3447/164, 2-3=-4067/175, 3-4=-3869/185, 4-5=-4689/195, 5-7=-2039/3721, 7-8=-639/105, 8-9=-2019/128, 9-10=-2077/129
BOT CHORD	1-20=-150/3179, 19-20=-150/3179, 18-19=-159/4689, 16-18=-62/2039, 15-16=-3376/141, 13-15=-40/639, 12-13=-75/1882, 11-12=-90/1899, 10-11=-90/1899
WEBS	3-19=0/455, 8-12=0/465, 2-20=-444/12, 2-19=-10/895, 9-11=-94/48, 9-12=-5/219, 6-15=-3488/256, 7-13=0/718, 7-15=-4645/171, 8-13=-1482/64, 4-18=-825/183, 4-19=-886/29, 5-16=-2156/215, 6-16=-193/5889, 5-18=-108/2864

NOTES

1) 2-ply truss to be connected together with 10d (0.148"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 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) All bearings are assumed to be SP 2400F 2.0E .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 15, 94 lb uplift at joint 1 and 75 lb uplift at joint 10.
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.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

February 5,2025

Continued on page 2

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14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 224 lb down and 46 lb up at 7-2-4, 224 lb down and 45 lb up at 9-3-0, 224 lb down and 45 lb up at 11-3-0, 224 lb down and 45 lb up at 13-3-0, 224 lb down and 45 lb up at 15-3-0, 224 lb down and 45 lb up at 17-3-0, 224 lb down and 45 lb up at 19-3-0, 224 lb down and 45 lb up at 21-3-0, 224 lb down and 45 lb up at 23-3-0, 224 lb down and 45 lb up at 25-3-0, 224 lb down and 45 lb up at 27-3-0, 224 lb down and 45 lb up at 29-3-0, 224 lb down and 45 lb up at 31-3-0, 224 lb down and 45 lb up at 33-3-0, and 224 lb down and 45 lb up at 35-3-0, and 224 lb down and 46 lb up at 37-3-12 on top chord, and 312 lb down and 21 lb up at 3-3-0, 242 lb down and 21 lb up at 5-3-0, 64 lb down at 7-3-0, 64 lb down at 9-3-0, 64 lb down at 11-3-0, 64 lb down at 13-3-0, 64 lb down at 15-3-0, 64 lb down at 17-3-0, 64 lb down at 19-3-0, 64 lb down at 21-3-0, 64 lb down at 23-3-0, 64 lb down at 25-3-0, 64 lb down at 27-3-0, 64 lb down at 29-3-0, 64 lb down at 31-3-0, 64 lb down at 33-3-0, 64 lb down at 35-3-0, 64 lb down at 37-3-0, and 242 lb down and 21 lb up at 39-3-0, and 312 lb down and 21 lb up at 41-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-3=-70, 3-8=-70, 8-10=-70, 21-26=-20
   Concentrated Loads (lb)
   Vert: 3=-189 (B), 19=-53 (B), 12=-53 (B), 6=-189 (B), 15=-53 (B), 7=-189 (B), 13=-53 (B), 8=-189 (B), 4=-189 (B), 18=-53 (B), 5=-189 (B), 16=-53 (B), 31=-189 (B), 32=-189 (B), 33=-189 (B), 34=-189 (B), 35=-189 (B), 37=-189 (B), 38=-189 (B), 39=-189 (B), 40=-189 (B), 41=-189 (B), 42=-312 (B), 43=-242 (B), 44=-53 (B), 45=-53 (B), 46=-53 (B), 47=-53 (B), 48=-53 (B), 49=-53 (B), 50=-53 (B), 51=-53 (B), 52=-53 (B), 53=-53 (B), 54=-242 (B), 55=-312 (B)

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	GR2	Hip Girder	1	**2**	I71166312 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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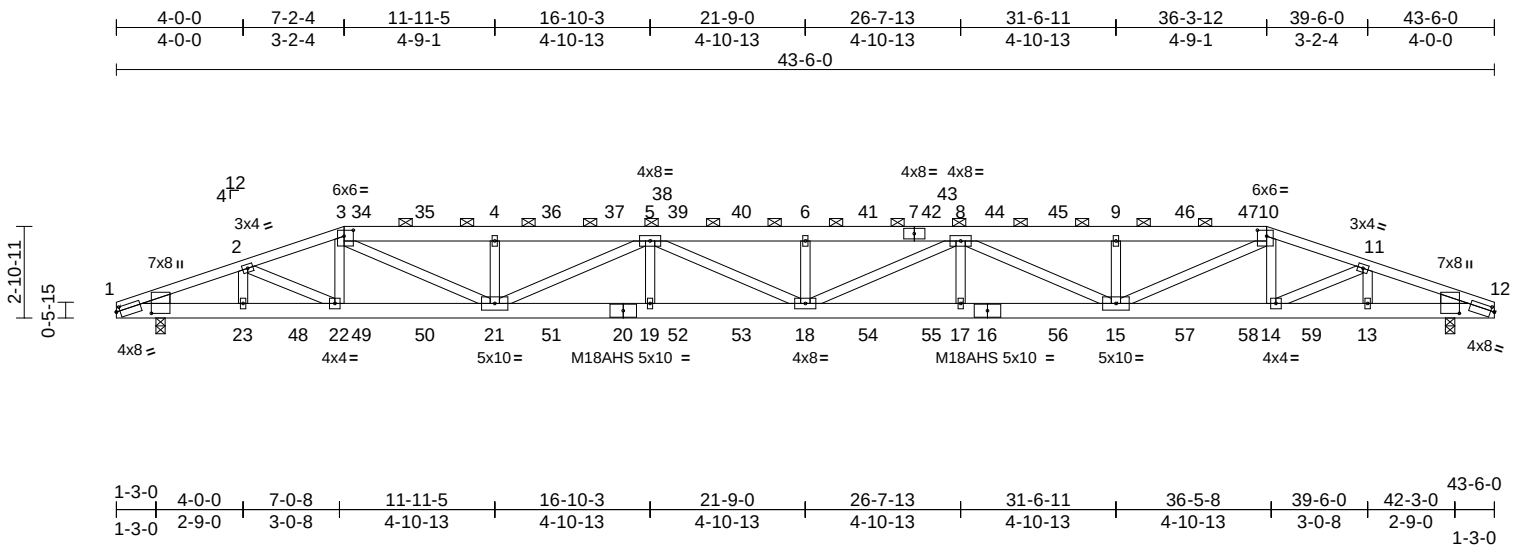

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Plate Offsets (X, Y): [1:0-1-7,0-1-8], [1:0-0-8,1-1-4], [3:0-3-8,0-2-4], [10:0-3-8,0-2-4], [12:0-1-7,0-1-8], [12:0-0-8,1-1-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.85	18	>613	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-1.27	18	>411	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.19	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.29	18	>999	360		
BCDL	10.0										Weight: 546 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-7,7-10:2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
WEDGE Left: 2x4 SP No.2
Right: 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-11-6 oc purlins, except
2-0-0 oc purlins (4-7-1 max.): 3-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 12=0-3-8
Max Horiz 1=27 (LC 12)
Max Uplift 1=-172 (LC 8), 12=-172 (LC 9)
Max Grav 1=4362 (LC 35), 12=4362 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-7336/302, 2-3=-9896/377, 3-4=-14965/537, 4-5=-14958/535, 5-6=-19531/661, 6-8=-19531/661, 8-9=-14958/535, 9-10=-14965/537, 10-11=-9896/377, 11-12=-7336/303
BOT CHORD 1-23=-275/6832, 22-23=-275/6832, 21-22=-329/9439, 19-21=-597/18429, 18-19=-597/18429, 17-18=-582/18429, 15-17=-582/18429, 14-15=-308/9439, 13-14=-255/6832, 12-13=-255/6832
WEBS 2-23=-1638/67, 2-22=-70/2868, 3-22=-275/75, 3-21=-206/6240, 4-21=-1093/158, 5-21=-3874/133, 5-19=0/359, 5-18=-76/1230, 6-18=-878/142, 8-18=-77/1230, 8-17=0/359, 8-15=-3874/132, 9-15=-1093/158, 10-15=-207/6240, 10-14=-275/76, 11-14=-71/2868, 11-13=-1638/67

NOTES

1) 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) All plates are 2x4 (||) MT20 unless otherwise indicated.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) All bearings are assumed to be SP 2400F 2.0E .
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 1 and 172 lb uplift at joint 12.
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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 224 lb down and 45 lb up at 7-9-0, 224 lb down and 45 lb up at 9-9-0, 224 lb down and 45 lb up at 11-9-0, 224 lb down and 45 lb up at 13-9-0, 224 lb down and 45 lb up at 15-9-0, 224 lb down and 45 lb up at 17-9-0, 224 lb down and 45 lb up at 19-9-0, 224 lb down and 45 lb up at 21-9-0, 224 lb down and 45 lb up at 23-9-0, 224 lb down and 45 lb up at 25-9-0, 224 lb down and 45 lb up at 27-9-0, 224 lb down and 45 lb up at 29-9-0, 224 lb down and 45 lb up at 31-9-0, and 224 lb down and 45 lb up at 33-9-0, and 224 lb down and 45 lb up at 35-9-0 on top chord, and 305 lb down and 25 lb up at 3-9-0, 235 lb down and 22 lb up at 5-9-0, 64 lb down at 7-9-0, 64 lb down at 9-9-0, 64 lb down at 11-9-0, 64 lb down at 13-9-0, 64 lb down at 15-9-0, 64 lb down at 17-9-0, 64 lb down at 19-9-0, 64 lb down at 21-9-0, 64 lb down at 23-9-0, 64 lb down at 25-9-0, 64 lb down at 27-9-0, 64 lb down at 29-9-0, 64 lb down at 31-9-0, 64 lb down at 33-9-0, 64 lb down at 35-9-0, and 235 lb down and 22 lb up at 37-9-0, and 305 lb down and 25 lb up at 39-9-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

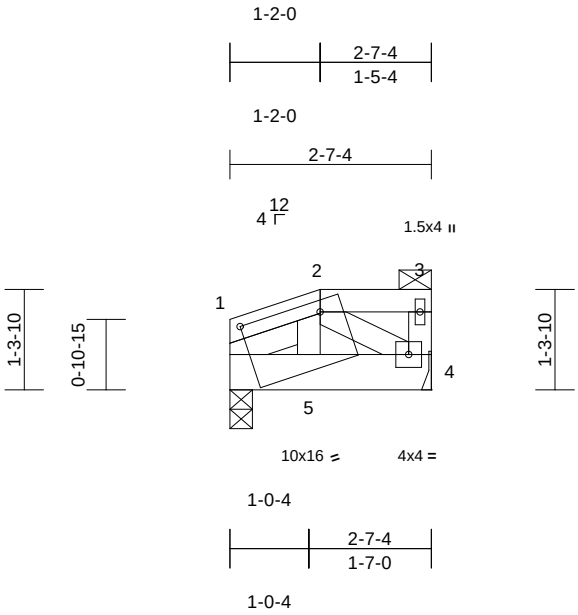
LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-3=-70, 3-10=-70, 10-12=-70, 24-29=-20
   Concentrated Loads (lb)
   Vert: 20=-53 (F), 23=-305 (F), 21=-53 (F), 4=-189 (F), 18=-53 (F), 6=-189 (F), 9=-189 (F), 15=-53 (F), 13=-305 (F), 16=-53 (F), 34=-189 (F), 35=-189 (F), 36=-189 (F), 37=-189 (F), 39=-189 (F), 40=-189 (F), 41=-189 (F), 42=-189 (F), 44=-189 (F), 45=-189 (F), 46=-189 (F), 47=-189 (F), 48=-235 (F), 49=-53 (F), 50=-53 (F), 51=-53 (F), 52=-53 (F), 53=-53 (F), 54=-53 (F), 55=-53 (F), 56=-53 (F), 57=-53 (F), 58=-53 (F), 59=-235 (F)

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	GR3	Half Hip Girder	1	1	I71166313 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:28 ID:KO7Uxx5wOgADLuNX_F5H7Kya1oG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:18.5

Plate Offsets (X, Y): [1:1-0-8,0-1-12]

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	0.11	Vert(LL)	0.00	5-8	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	0.00	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	5	>999	360		
BCDL	10.0										Weight: 15 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 0-11-10

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 4= Mechanical
Max Horiz 1=22 (LC 11)
Max Uplift 1=-73 (LC 8), 4=-41 (LC 9)
Max Grav 1=1774 (LC 33), 4=522 (LC 32)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-619/35, 2-3=-9/7, 3-4=-71/10
BOT CHORD 1-5=-52/646, 4-5=-51/558
WEBS 2-5=-14/574, 2-4=-685/56

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
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 1 SP 2400F 2.0E .
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 1 and 41 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb up at 1-2-0 on top chord, and 2089 lb down and 44 lb up at 0-8-0, and 86 lb up at 1-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 5=34 (F), 2=33 (F), 8=-2089 (B)

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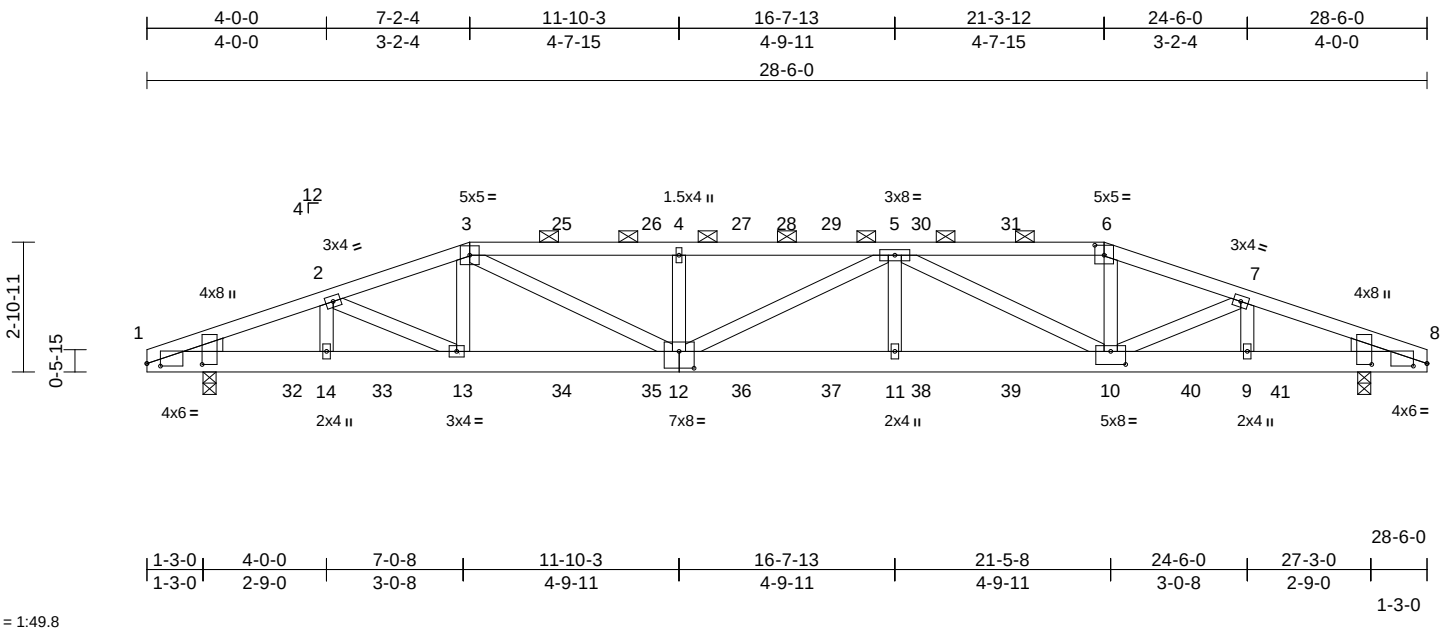
Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	GR4	Hip Girder	1	**2**	I71166314 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:29 ID:HerTJcOXXwntufBFeVyP6Sya17H-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.8

Plate Offsets (X, Y): [1:0-3-10,0-0-11], [1:0-0-4,1-2-12], [6:0-2-8,0-2-11], [8:0-3-10,0-0-11], [8:0-0-4,1-2-12], [10:0-4-0,0-3-8], [12:0-4-0,0-4-8]

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	0.59	Vert(LL)	-0.22	11-12	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.34	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.08	11-12	>999	360		
BCDL	10.0										Weight: 320 lb	FT = 0%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SP No.2
WEDGE	Left: 2x4 SP No.2 Right: 2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-11-2 oc purlins, except 2-0-0 oc purlins (4-0-10 max.): 3-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 8=0-3-8
Max Horiz 1=28 (LC 57)
Max Uplift 1=-113 (LC 8), 8=-113 (LC 9)
Max Grav 1=2951 (LC 36), 8=2951 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-4457/193, 2-3=-5593/227, 3-4=-7166/272, 4-5=-7165/272, 5-6=-5195/225, 6-7=-5523/223, 7-8=-4476/195
BOT CHORD	1-14=-172/4127, 13-14=-172/4127, 11-13=-225/7287, 10-11=-225/7287, 9-10=-153/4146, 8-9=-153/4146
WEBS	2-14=-802/39, 2-13=-33/1403, 3-13=0/248, 3-12=-72/2095, 4-12=-869/143, 5-12=-187/50, 5-11=0/361, 5-10=-2362/87, 6-10=0/1072, 7-10=-28/1305, 7-9=-742/35

NOTES

1) 2-ply truss to be connected together with 10d (0.148"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 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
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 SP 2400F 2.0E .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 1 and 113 lb uplift at joint 8.
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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 224 lb down and 46 lb up at 7-2-4, 224 lb down and 45 lb up at 9-3-0, 224 lb down and 45 lb up at 11-3-0, 224 lb down and 45 lb up at 13-3-0, 224 lb down and 45 lb up at 15-3-0, 224 lb down and 45 lb up at 17-3-0, and 224 lb down and 45 lb up at 19-3-0, and 224 lb down and 46 lb up at 21-3-12 on top chord, and 312 lb down and 21 lb up at 3-3-0, 242 lb down and 21 lb up at 5-3-0, 64 lb down at 7-3-0, 64 lb down at 9-3-0, 64 lb down at 11-3-0, 64 lb down at 13-3-0, 64 lb down at 15-3-0, 64 lb down at 17-3-0, 64 lb down at 19-3-0, 64 lb down at 21-3-0, and 242 lb down and 21 lb up at 23-3-0, and 312 lb down and 21 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-6=-70, 6-8=-70, 15-20=-20
Concentrated Loads (lb)

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Vert: 6=-189 (B), 13=-53 (B), 3=-189 (B), 10=-53 (B), 25=-189 (B), 26=-189 (B), 27=-189 (B), 29=-189 (B), 30=-189 (B), 31=-189 (B), 32=-312 (B), 33=-242 (B), 34=-53 (B), 35=-53 (B), 36=-53 (B), 37=-53 (B), 38=-53 (B), 39=-53 (B), 40=-242 (B), 41=-312 (B)

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1	Roof Special	1	1	I71166315 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:29 Page: 1
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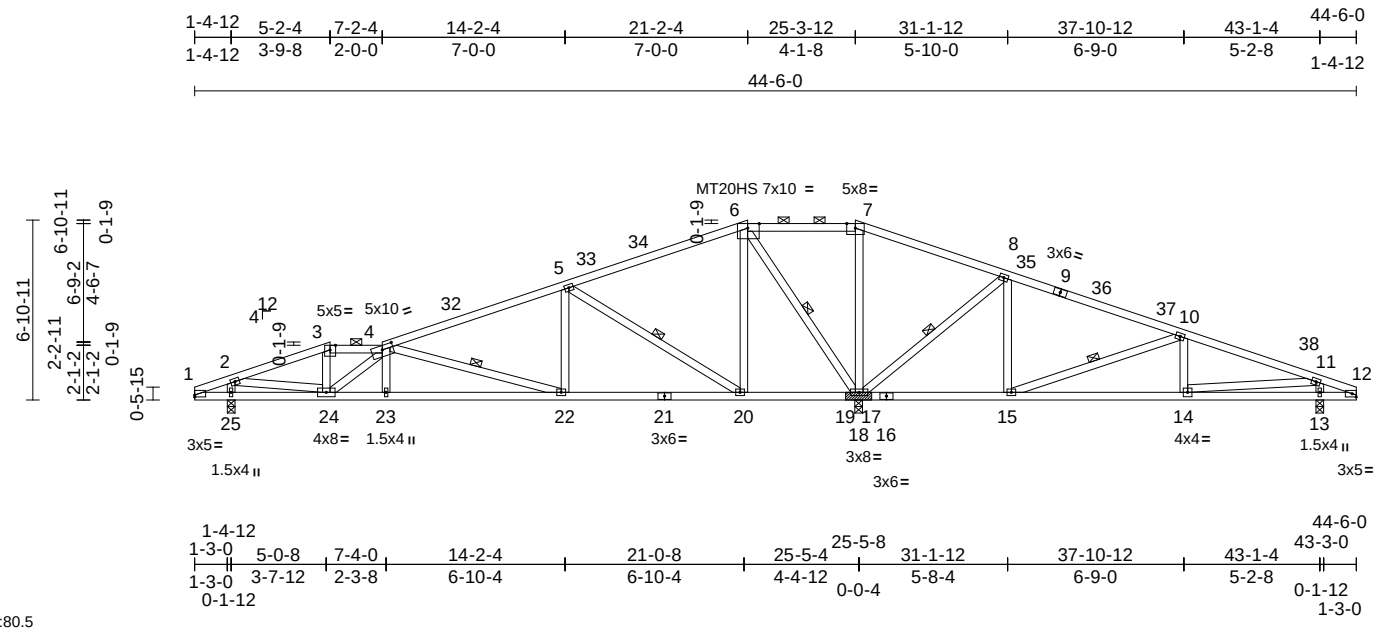

Scale = 1:80.5

Plate Offsets (X, Y): [1:Edge,0-0-14], [4:0-5-0,0-2-0], [6:0-5-4,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	0.96	Vert(LL)	-0.12	22-23	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.21	22-23	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.04	18	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	22-23	>999	360		
BCDL	10.0										Weight: 247 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-6,7-9:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-4, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 18-20,15-18,14-15.
WEBS 1 Row at midpt 4-22, 5-20, 6-18, 8-18, 10-15

REACTIONS (size) 13=0-3-8, 18=(0-3-8 + bearing block), (req. 0-4-2), 25=0-3-8
Max Horiz 25=74 (LC 12)
Max Uplift 13=-62 (LC 9), 25=-49 (LC 8)
Max Grav 13=645 (LC 48), 18=3499 (LC 40), 25=1135 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-114/6, 2-3=-1514/57, 3-4=-1368/63, 4-5=-1020/68, 5-6=0/760, 6-7=0/1698, 7-8=0/1886, 8-10=-51/783, 10-11=-801/281, 11-12=-126/10
BOT CHORD 1-25=-2/136, 24-25=-72/160, 23-24=-112/1961, 22-23=-107/1969, 20-22=-46/891, 18-20=-643/95, 15-18=-706/87, 14-15=-249/715, 13-14=-10/155, 12-13=-10/155
WEBS 3-24=0/398, 4-24=-805/33, 4-23=0/210, 4-22=-1246/63, 5-22=0/475, 5-20=-1632/80, 6-20=0/964, 6-18=-1926/51, 7-18=-863/37, 8-18=-1457/63, 8-15=0/517, 10-15=-1163/44, 10-14=0/232, 2-25=-1055/91, 2-24=-30/1256, 11-13=-575/111, 11-14=-253/638

NOTES
1) 2x4 SP No.2 bearing block 12" long at jt. 18 attached to front face with 2 rows of 10d (0.148"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SP No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 3x4 (=) MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) All bearings are assumed to be SP No.2 .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 25 and 62 lb uplift at joint 13.
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.
13) 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

February 5,2025

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Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1A	Roof Special	1	1	I71166316 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:30 Page: 1
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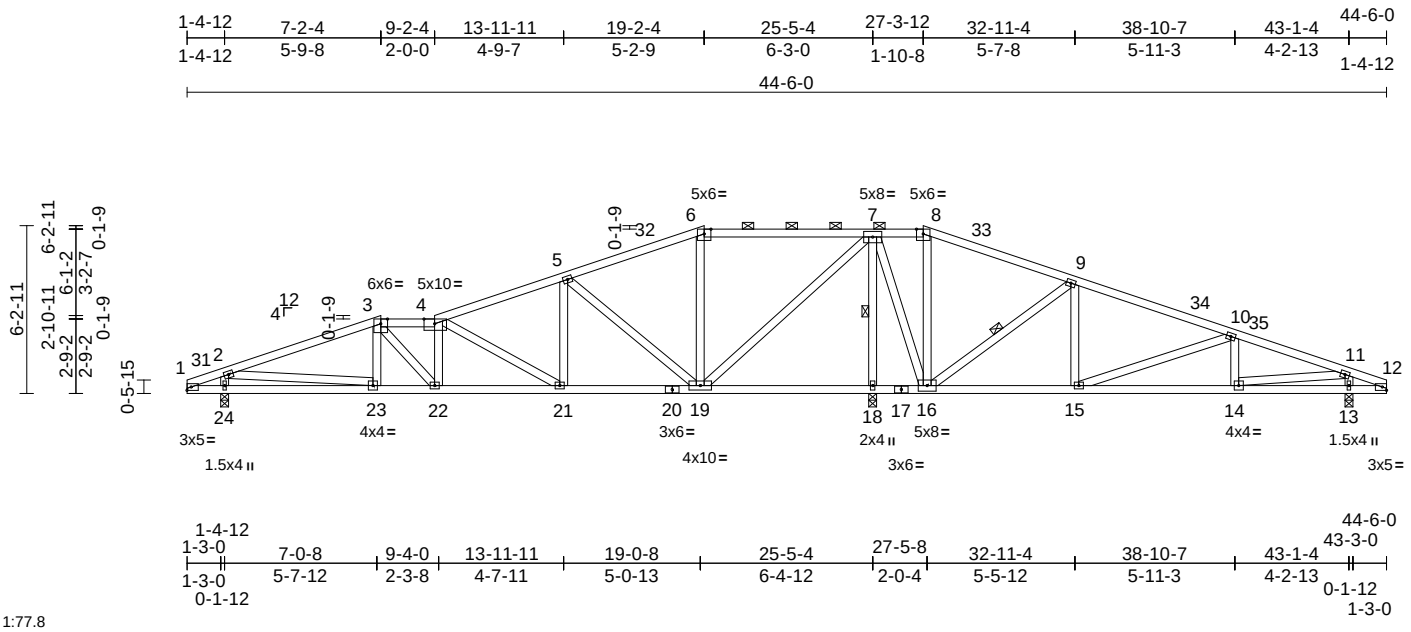

Scale = 1:77.8

Plate Offsets (X, Y): [4:0-4-12,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)	-0.10	21-22	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.17	21-22	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.02	13	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.04	21-22	>999	360		
BCDL	10.0										Weight: 257 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-4, 6-8.
BOT CHORD Rigid ceiling directly applied or 4-8-11 oc bracing.
WEBS 1 Row at midpt 9-16, 7-18

REACTIONS (size) 13=0-3-8, 18=0-3-8, 24=0-3-8
Max Horiz 24=66 (LC 12)
Max Uplift 13=-59 (LC 9), 18=-6 (LC 8), 24=-52 (LC 8)
Max Grav 13=871 (LC 40), 18=2914 (LC 40), 24=1244 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-322/16, 2-3=-1789/69, 3-4=-1764/88, 4-5=-1188/81, 5-6=-357/129, 6-7=-304/91, 7-8=0/872, 8-9=0/1015, 9-10=-549/348, 10-11=-1118/103, 11-12=-44/12
BOT CHORD 1-24=-8/373, 23-24=-74/373, 22-23=-77/1609, 21-22=-72/1757, 19-21=-34/1061, 18-19=-1365/47, 16-18=-1365/47, 15-16=-311/440, 14-15=-61/1025, 13-14=-4/56, 12-13=-4/56
WEBS 3-23=-67/82, 4-22=-247/104, 6-19=-432/66, 8-16=-671/14, 9-16=-1281/55, 3-22=-63/397, 5-21=0/513, 5-19=-1243/68, 4-21=-871/44, 7-18=-2751/62, 7-16=-14/1510, 7-19=-47/1895, 2-24=-1206/131, 2-23=-21/1241, 9-15=0/406, 10-15=-809/33, 10-14=-67/149, 11-13=-787/88, 11-14=-57/987

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 3x4 (=) MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 18, 52 lb uplift at joint 24 and 59 lb uplift at joint 13.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1B	Roof Special	1	1	I71166317 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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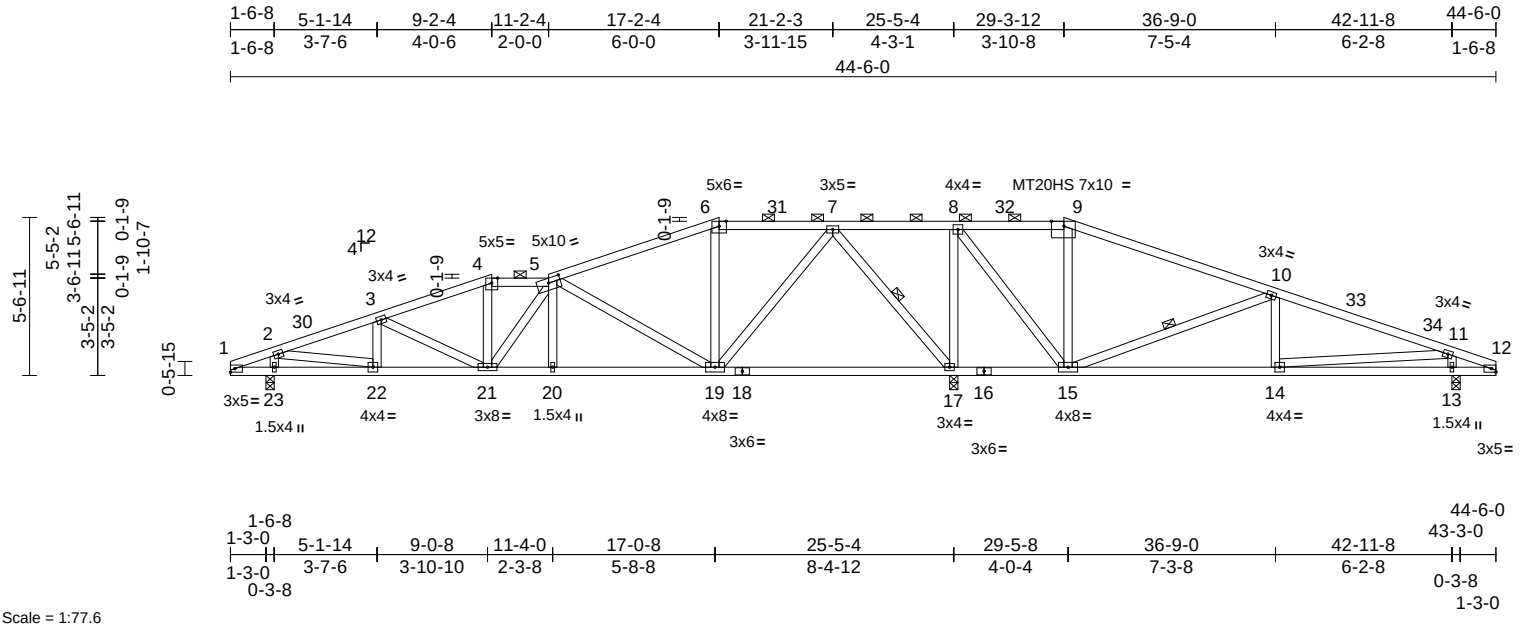


Scale = 1:77.6

Plate Offsets (X, Y): [5:0-5-0,0-2-0], [9:0-5-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.11	17-19	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	17-19	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.03	17	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.03	20	>999	360		
BCDL	10.0										Weight: 247 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 9-12:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-7 oc purlins, except
2-0-0 oc purlins (4-0-8 max.): 4-5, 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 17-19,14-15
4-8-12 oc bracing: 15-17.
WEBS 1 Row at midpt 10-15, 7-17

REACTIONS (size) 13=0-3-8, 17=0-3-8, 23=0-3-8
Max Horiz 23=-58 (LC 13)
Max Uplift 13=-59 (LC 9), 17=-21 (LC 8), 23=-55 (LC 8)
Max Grav 13=904 (LC 40), 17=2569 (LC 40), 23=1256 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-45/21, 2-3=-1673/59, 3-4=-1460/77, 4-5=-1311/83, 5-6=-642/72, 6-7=-554/85, 7-8=0/1388, 8-9=0/472, 9-10=-15/563, 10-11=-1119/108, 11-12=-197/13
BOT CHORD 1-23=0/51, 22-23=-53/76, 21-22=-67/1529, 20-21=-58/1379, 19-20=-56/1381, 17-19=-452/67, 15-17=-1388/53, 14-15=-51/987, 13-14=-10/226, 12-13=-10/226
WEBS 4-21=0/304, 5-20=0/127, 5-19=-1148/77, 6-19=-322/61, 9-15=-690/68, 10-15=-1326/56, 10-14=0/266, 3-21=-254/50, 5-21=-265/122, 3-22=-250/58, 2-23=-1142/78, 2-22=-41/1523, 11-13=-843/121, 11-14=-75/766, 7-19=-1/1323, 7-17=-1475/73, 8-17=-1302/74, 8-15=-35/1599

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 23, 59 lb uplift at joint 13 and 21 lb uplift at joint 17.
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.
11) 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

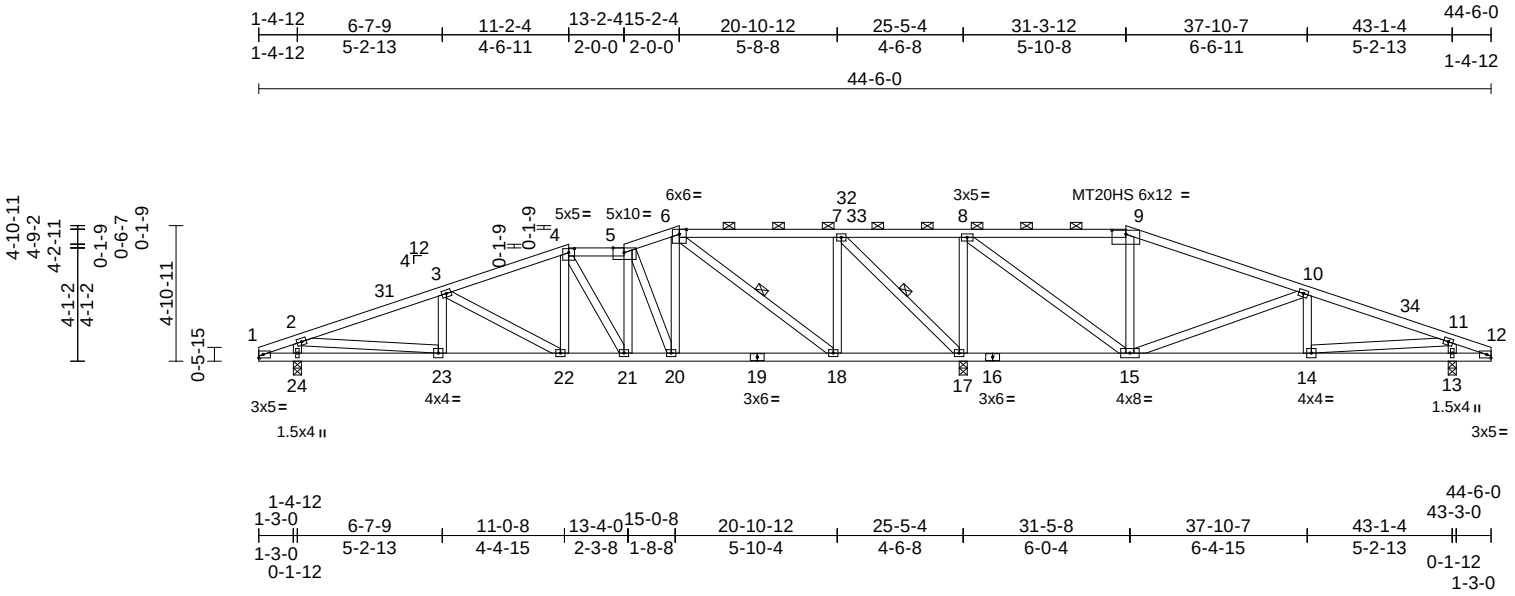
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1C	Roof Special	1	1	I71166318 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:31 ID:QeVbIS9GAqgPui3a0?HT_4z0UAX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.1

Plate Offsets (X, Y): [4:0-2-8,0-1-12], [5:0-4-12,Edge], [9:0-6-0,0-1-11]

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	0.86	Vert(LL)	-0.07	22-23	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.13	22-23	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.03	17	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.03	22-23	>999	360		
BCDL	10.0										Weight: 252 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-13 oc purlins, except 2-0-0 oc purlins (5-5-2 max.): 4-5, 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18 5-2-4 oc bracing: 15-17.
WEBS 1 Row at midpt 6-18, 7-17

REACTIONS (size) 13=0-3-8, 17=0-3-8, 24=0-3-8
Max Horiz 24=50 (LC 12)
Max Uplift 13=-52 (LC 9), 17=-36 (LC 8), 24=-52 (LC 8)
Max Grav 13=945 (LC 48), 17=2666 (LC 39), 24=1266 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-238/11, 2-3=-1842/69, 3-4=-1294/83, 4-5=-1091/86, 5-6=-973/82, 6-7=-226/237, 7-8=0/1255, 8-9=-236/164, 9-10=-339/206, 10-11=-1236/85, 11-12=-130/9
BOT CHORD 1-24=-3/274, 23-24=-53/274, 22-23=-57/1660, 21-22=-29/1176, 20-21=-25/1093, 18-20=-11/945, 17-18=-236/223, 15-17=-1255/47, 14-15=-37/1103, 13-14=-4/153, 12-13=-4/153
WEBS 3-22=-575/44, 4-22=0/366, 4-21=-393/23, 5-21=-23/325, 5-20=-625/53, 6-20=0/679, 6-18=-1156/31, 7-18=0/815, 7-17=-1746/47, 8-17=-1328/88, 8-15=-27/1634, 9-15=-476/77, 10-15=-1051/56, 10-14=-12/191, 2-24=-1196/114, 11-14=-34/958, 11-13=-868/102, 3-23=-94/91, 2-23=-29/1397

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) All plates are 3x4 (=) MT20 unless otherwise indicated.
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 SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 17, 52 lb uplift at joint 24 and 52 lb uplift at joint 13.
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.
12) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1D	Hip	1	1	I71166319 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:31 Page: 1
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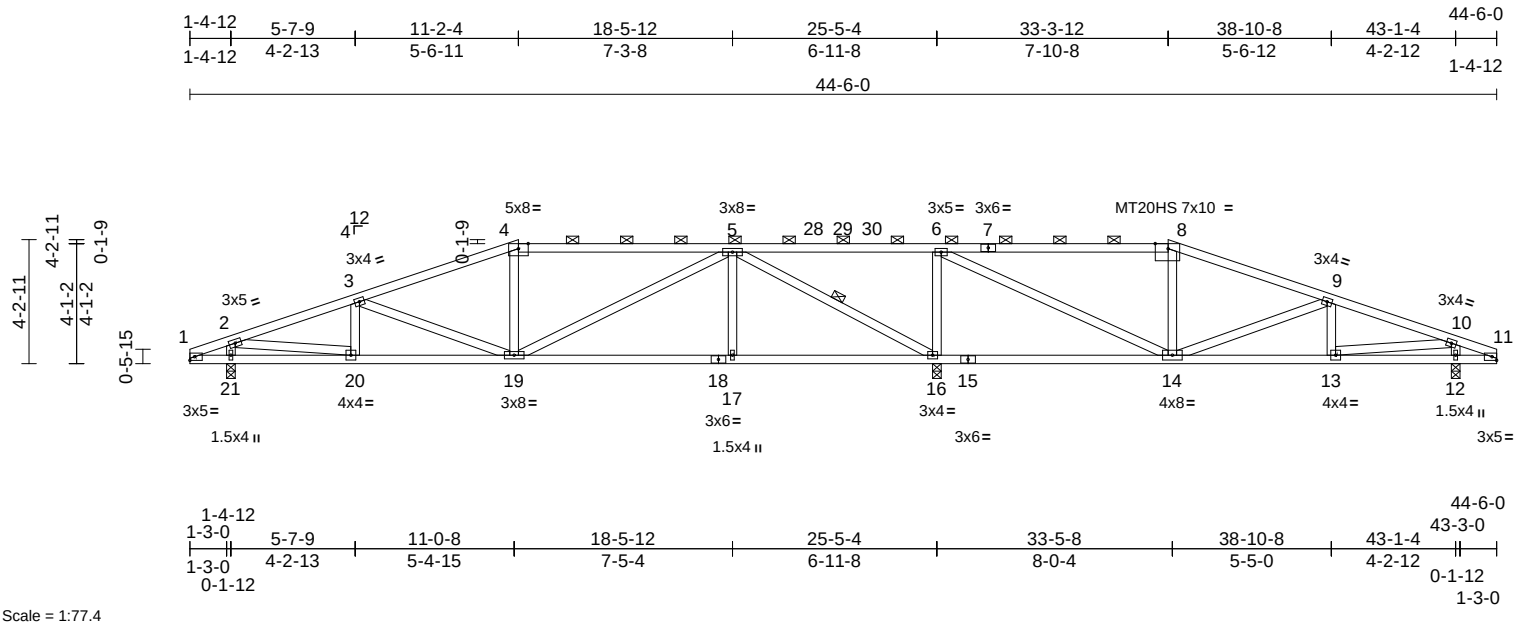

Scale = 1:77.4

Plate Offsets (X, Y): [8:0-5-4,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	0.84	Vert(LL)	-0.08	17-19	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.18	17-19	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.04	16	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.04	19-20	>999	360		
BCDL	10.0										Weight: 226 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-7:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-3 oc purlins, except 2-0-0 oc purlins (5-1-10 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 5-7-2 oc bracing: 14-16.
WEBS 1 Row at midpt 5-16

REACTIONS (size) 12=0-3-8, 16=0-3-8, 21=0-3-8
Max Horiz 21=42 (LC 12)
Max Uplift 12=-49 (LC 9), 16=-45 (LC 8), 21=-53 (LC 8)
Max Grav 12=977 (LC 36), 16=2812 (LC 35), 21=1265 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-124/5, 2-3=-1852/77, 3-4=-1477/87, 4-5=-1406/100, 5-6=0/1025, 6-8=-554/124, 8-9=-659/110, 9-10=-1255/96, 10-11=-66/6
BOT CHORD 1-21=0/132, 20-21=-41/135, 19-20=-77/1694, 17-19=-29/1020, 16-17=-29/1020, 14-16=-1025/42, 13-14=-52/1133, 12-13=-3/79, 11-12=-3/79
WEBS 3-19=-535/75, 4-19=-74/138, 5-19=-19/878, 5-17=0/280, 5-16=-2331/56, 6-16=-1530/128, 6-14=-30/1612, 8-14=-457/86, 9-14=-704/38, 2-21=-1152/90, 10-13=-50/1067, 10-12=-879/93, 3-20=-184/62, 9-13=-95/96, 2-20=-42/1592

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 16, 53 lb uplift at joint 21 and 49 lb uplift at joint 12.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H1E	Hip	1	1	I71166320 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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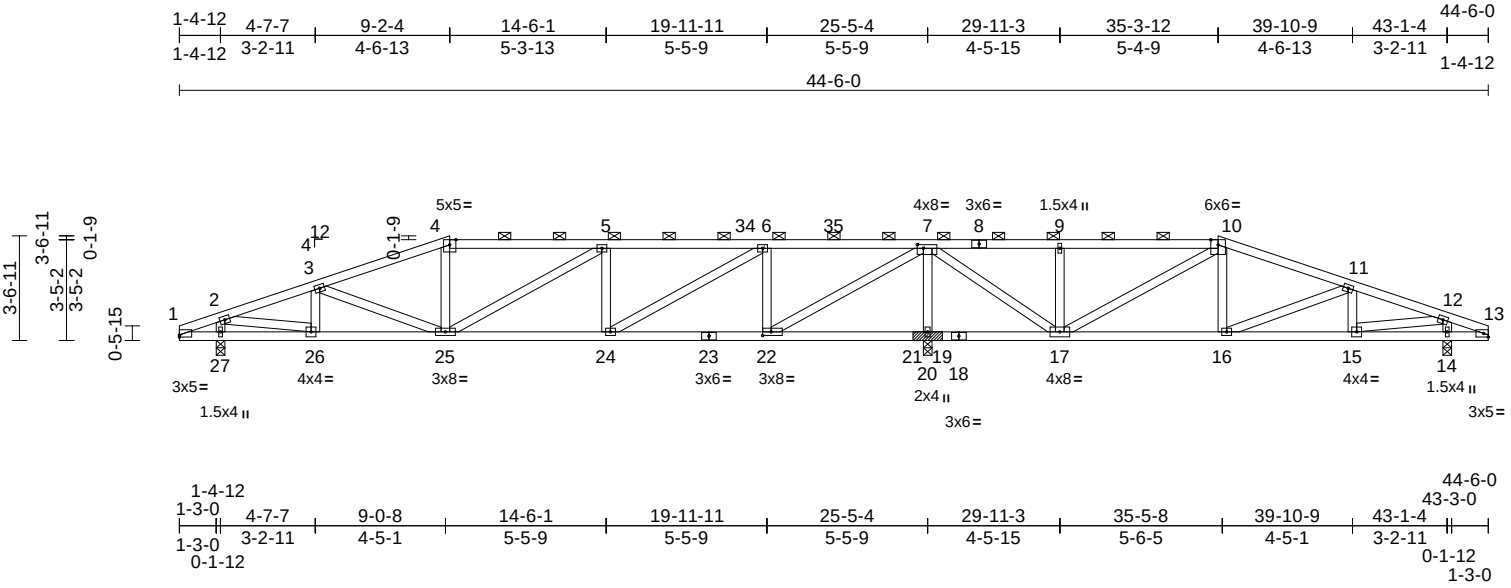

Scale = 1:77.4

Plate Offsets (X, Y): [1:Edge,0-0-14], [7:0-2-8,0-1-8], [22:0-3-8,0-1-8]

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	0.63	Vert(LL)	-0.12	24	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.19	24-25	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	20	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	24-25	>999	360		
BCDL	10.0										Weight: 231 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-9 oc purlins, except 2-0-0 oc purlins (3-10-7 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 4-6-5 oc bracing.

REACTIONS (size) 14=0-3-8, 20=(0-3-8 + bearing block), 27=0-3-8
Max Horiz 27=-34 (LC 13)
Max Uplift 14=-45 (LC 9), 20=-56 (LC 8), 27=-53 (LC 8)
Max Grav 14=926 (LC 36), 20=3002 (LC 35), 27=1188 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-81/12, 2-3=-1610/72, 3-4=-1703/87, 4-5=-1613/97, 5-6=-1816/99, 6-7=-731/73, 7-9=-51/218, 9-10=-51/220, 10-11=-758/106, 11-12=-1105/86, 12-13=-27/43
BOT CHORD 1-27=-1/84, 26-27=-31/91, 25-26=-71/1479, 24-25=-54/1816, 22-24=-29/731, 20-22=-1572/53, 17-20=-1572/53, 16-17=-36/643, 15-16=-50/1002, 14-15=-3/31, 13-14=-3/31
WEBS 3-25=-250/248, 4-25=0/198, 10-16=0/269, 11-16=-418/25, 3-26=-258/56, 2-27=-1067/71, 2-26=-43/1479, 11-15=-160/56, 12-14=-820/73, 12-15=-51/1026, 7-20=-2877/113, 7-17=-35/1751, 9-17=-542/75, 10-17=-861/18, 7-22=-64/2655, 5-24=-512/82, 5-25=-238/310, 6-24=-31/1250, 6-22=-1224/99

NOTES

1) 2x4 SP No.2 bearing block 12" long at jt. 20 attached to front face with 2 rows of 10d (0.148"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SP No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 3x4 (=) MT20 unless otherwise indicated.
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 SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 27, 45 lb uplift at joint 14 and 56 lb uplift at joint 20.
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.
12) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H2	Roof Special Girder	1	1	I71166321 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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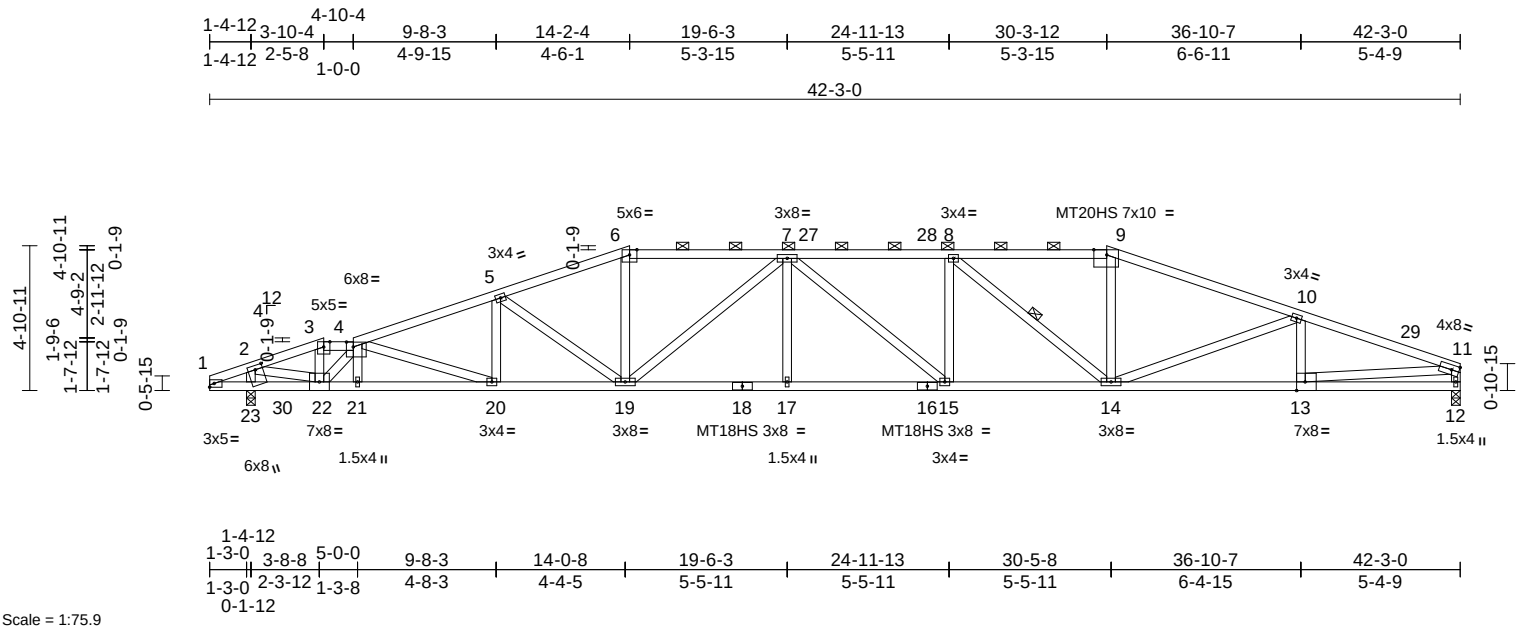


Scale = 1:75.9

Plate Offsets (X, Y): [4:0-2-12,0-2-0], [9:0-5-4,Edge], [13:0-3-8,Edge], [23:0-1-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.47	15-17	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.80	15-17	>610	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.21	12	n/a	n/a	MT18HS	244/190
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.21	15-17	>999	360		
BCDL	10.0										Weight: 232 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-9,9-11:2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-4-9 max.): 3-4, 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-14

REACTIONS (size) 12=0-3-8, 23=0-3-8
Max Horiz 23=57 (LC 12)
Max Uplift 12=-42 (LC 9), 23=-117 (LC 8)
Max Grav 12=2032 (LC 40), 23=2661 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-368/26, 2-3=-3623/119, 3-4=-3378/118, 4-5=-4524/133, 5-6=-4209/132, 6-7=-3969/137, 7-8=-4754/124, 8-9=-3767/128, 9-10=-4012/115, 10-11=-4098/100
BOT CHORD 1-23=-17/332, 22-23=-61/332, 21-22=-158/4634, 20-21=-152/4634, 19-20=-107/4200, 17-19=-63/4832, 15-17=-63/4832, 14-15=-40/4754, 13-14=-66/3839, 12-13=0/0
WEBS 3-22=-37/1064, 2-23=-2049/90, 4-21=-12/126, 4-22=-2114/113, 6-19=0/937, 5-20=0/237, 9-14=0/849, 10-13=-374/88, 2-22=-88/3224, 7-17=0/224, 7-19=-1118/64, 8-15=0/264, 8-14=-1279/59, 5-19=-804/75, 4-20=-452/77, 11-12=-1982/65, 11-13=-67/3870, 10-14=-496/270, 7-15=-256/94

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.1 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 23 and 42 lb uplift at joint 12.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 502 lb down and 53 lb up at 2-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-9=-70, 9-11=-70, 12-24=-20
Concentrated Loads (lb)
Vert: 30=-502 (B)

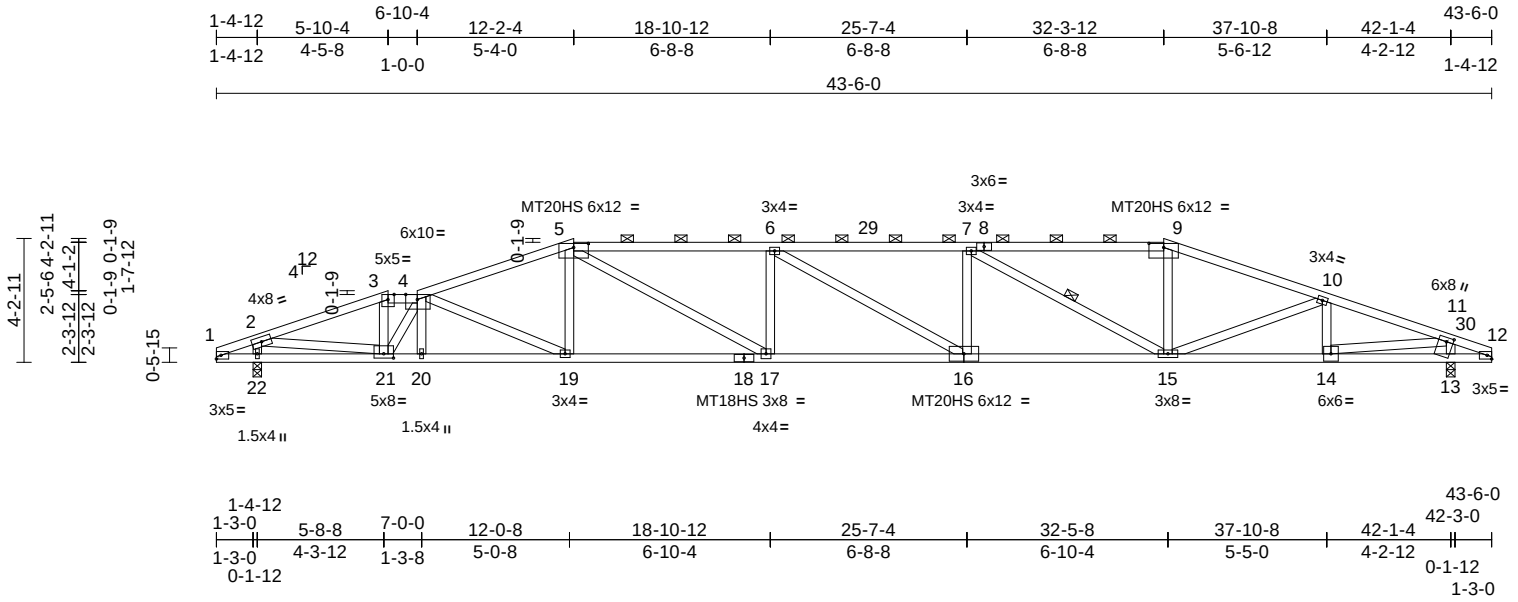
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H2A	Roof Special	1	1	I71166322 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:33 ID:UoRh?PYLefiskdVjukszHqz0UA1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:75.9

Plate Offsets (X, Y): [4:0-4-12,Edge], [5:0-6-0,0-1-11], [9:0-6-0,0-1-11], [11:0-1-12,0-2-12], [21:0-4-0,0-1-12]

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	0.86	Vert(LL)	-0.57	16-17	>858	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.91	16-17	>534	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.19	13	n/a	n/a	MT18HS	244/190
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.22	16-17	>999	360		
BCDL	10.0										Weight: 226 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 5-8,8-9:2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-5 oc purlins, except 2-0-0 oc purlins (2-5-3 max.): 3-4, 5-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-15

REACTIONS (size) 13=0-3-8, 22=0-3-8
Max Horiz 22=43 (LC 12)
Max Uplift 13=-68 (LC 9), 22=-71 (LC 8)
Max Grav 13=2046 (LC 40), 22=2027 (LC 40)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-390/8, 2-3=-3975/105, 3-4=-3725/111, 4-5=-4756/133, 5-6=-6051/156, 6-7=-5956/143, 7-9=-4183/132, 9-10=-4433/121, 10-11=-3809/100, 11-12=-347/5
BOT CHORD 1-22=0/384, 21-22=-27/384, 20-21=-114/4555, 19-20=-112/4563, 17-19=-77/4502, 15-17=-89/6048, 14-15=-57/3579, 13-14=0/348, 12-13=0/348
WEBS 3-21=0/1043, 4-21=-1826/51, 4-20=0/134, 4-19=-617/80, 5-19=0/370, 5-17=-69/1784, 6-17=-757/116, 6-16=-251/92, 7-16=0/297, 7-15=-2026/73, 9-15=0/895, 10-15=-109/679, 2-22=-1861/116, 2-21=-66/3410, 10-14=-483/69, 11-13=-1861/101, 11-14=-67/3271

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 22 and 68 lb uplift at joint 13.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H2B	Roof Special	1	1	I71166323 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:34 Page: 1
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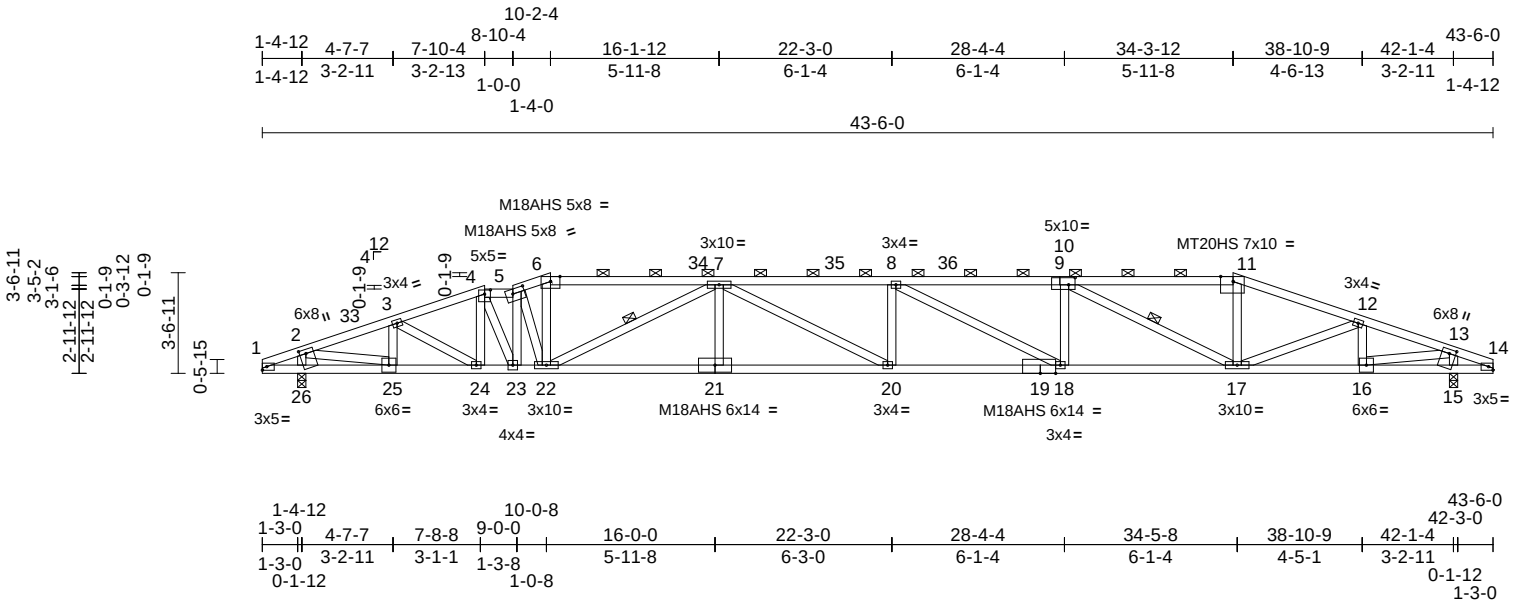


Scale = 1:76.4

Plate Offsets (X, Y): [2:0-1-12,0-2-12], [4:0-2-8,0-1-12], [5:0-5-0,0-2-0], [9:0-2-12,0-3-0], [11:0-5-4,Edge], [13:0-1-12,0-2-12], [19:0-6-8,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	0.93	Vert(LL)	-0.82	20-21	>598	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-1.25	20-21	>392	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.25	15	n/a	n/a	MT20HS	187/143
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.28	20-21	>999	360		
BCDL	10.0										Weight: 232 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 6-9:2x4 SP 2400F 2.0E, 9-11:2x4 SP No.1
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-2 oc purlins, except 2-0-0 oc purlins (2-1-10 max.): 4-5, 6-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-17, 7-22

REACTIONS (size) 15=0-3-8, 26=0-3-8
Max Horiz 26=-35 (LC 13)
Max Uplift 15=-73 (LC 9), 26=-75 (LC 8)
Max Grav 15=2137 (LC 39), 26=2142 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-308/7, 2-3=-3780/100, 3-4=-4650/132, 4-5=-4985/143, 5-6=-5214/142, 6-7=-5014/149, 7-8=-7936/187, 8-10=-7044/172, 10-11=-4516/136, 11-12=-4788/128, 12-13=-3780/98, 13-14=-301/8
BOT CHORD 1-26=-2/303, 25-26=-15/303, 24-25=-88/3554, 23-24=-93/4456, 22-23=-100/4912, 20-22=-134/7283, 18-20=-133/7936, 17-18=-100/7044, 16-17=-61/3553, 15-16=-3/298, 14-15=-3/298
WEBS 4-24=-356/41, 4-23=-27/1375, 5-23=-1392/0, 5-22=-88/364, 6-22=0/995, 10-17=-2845/80, 11-17=0/1048, 12-17=-25/1082, 3-24=-12/1013, 3-25=-718/59, 2-26=-1927/94, 2-25=-75/3318, 7-22=-2554/75, 7-21=0/246, 7-20=-34/740, 8-20=-211/90, 8-18=-1003/37, 10-18=0/571, 12-16=-688/62, 13-15=-1937/89, 13-16=-74/3323

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP 2400F 2.0E .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 26 and 73 lb uplift at joint 15.
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.
11) 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

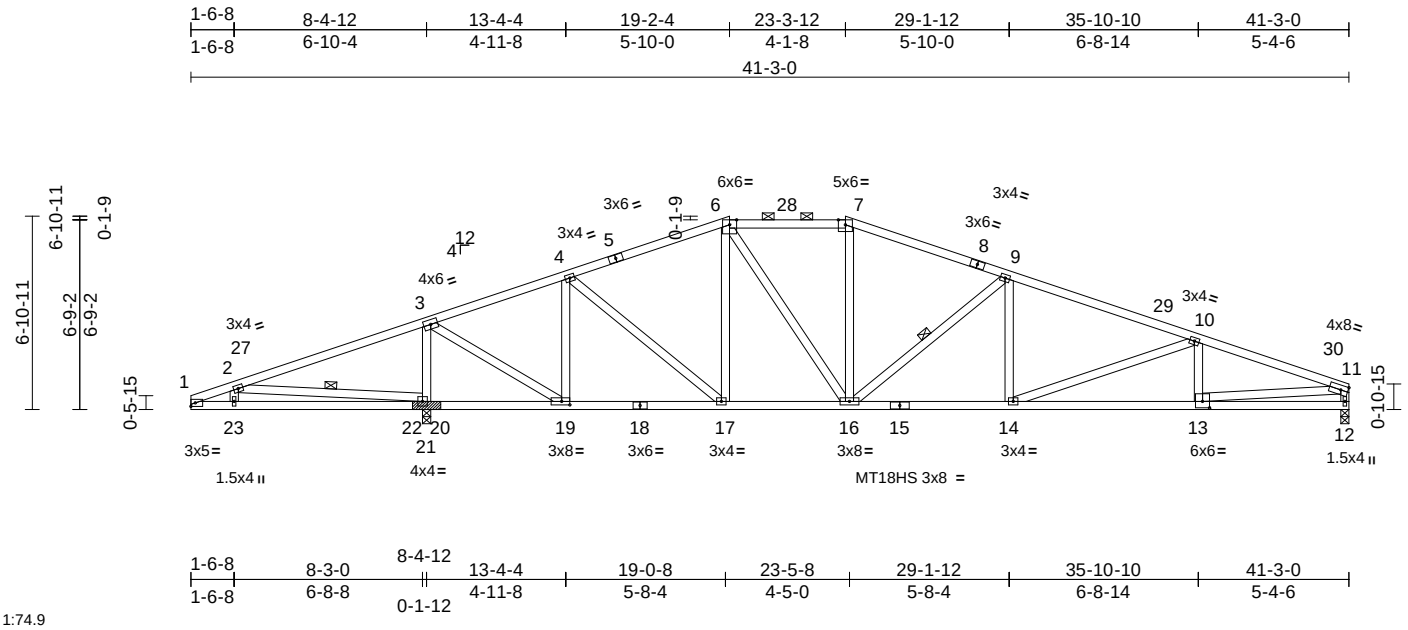
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H3	Hip	1	1	I71166324 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:34 ID:gSPqfllYdRVn2QsX0FxRLkz1i5K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.9

Plate Offsets (X, Y): [13:0-3-0,0-2-12], [19:0-3-8,0-1-8]

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	0.96	Vert(LL)	-0.24	13-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.38	13-14	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.08	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.08	13-14	>999	360		
BCDL	10.0										Weight: 235 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 1-5:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-6-12 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-2-0 oc bracing: 19-21
2-2-0 oc bracing: 13-14.
WEBS 1 Row at midpt 9-16, 2-21

REACTIONS (size) 12=0-3-8, 21=(0-3-8 + bearing block), (req. 0-3-10)
Max Horiz 21=81 (LC 12)
Max Uplift 12=-33 (LC 9), 21=-150 (LC 8)
Max Grav 12=1859 (LC 36), 21=3072 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-228/36, 2-3=-178/1343, 3-4=-1208/64, 4-6=-1853/87, 6-7=-2018/110, 7-9=-2243/100, 9-10=-3220/94, 10-11=-3753/80
BOT CHORD 1-23=-39/288, 21-23=-39/288, 19-21=-1158/138, 17-19=0/1055, 16-17=0/1672, 14-16=0/2946, 13-14=-47/3513, 12-13=0/0
WEBS 4-19=-1256/95, 6-17=-387/61, 6-16=-46/654, 7-16=0/315, 3-21=-2763/145, 3-19=-42/2585, 4-17=-2/786, 9-14=0/350, 9-16=-1189/66, 11-12=-1811/56, 10-13=-327/87, 10-14=-602/56, 11-13=-48/3541, 2-23=-51/242, 2-21=-1453/240

NOTES

1) 2x4 SP No.2 bearing block 12" long at jt. 21 attached to front face with 2 rows of 10d (0.148"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SP No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
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 SP No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 12 and 150 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.
12) 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

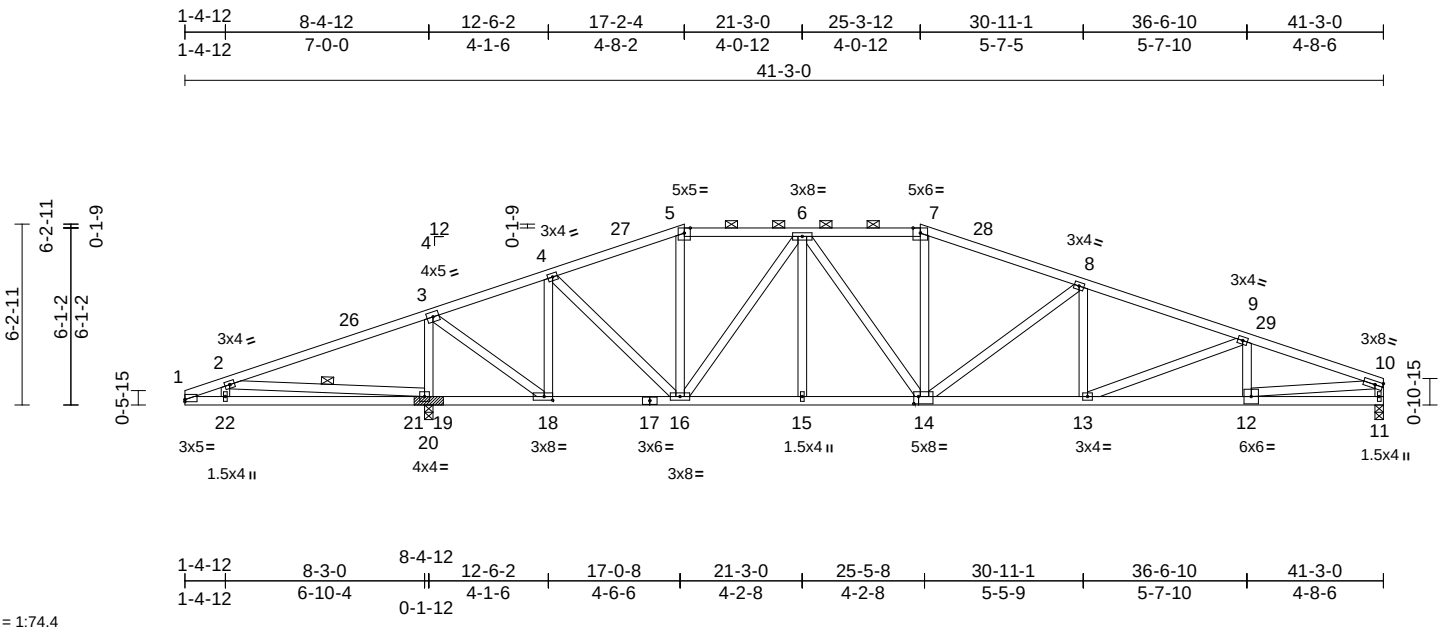
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H3A	Hip	1	1	I71166325 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:35 ID:FcCGSSV?KI_dfMKhr2alXWz1i5e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.4

Plate Offsets (X, Y): [1:Edge,0-0-14], [14:0-2-0,0-3-0], [18:0-3-8,0-1-8]

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	0.90	Vert(LL)	-0.19	12-13	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.31	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.08	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.08	13	>999	360		
BCDL	10.0										Weight: 242 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-5:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-6 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 4-8-13 oc bracing: 18-20.
WEBS 1 Row at midpt 2-20

REACTIONS (size) 11=0-3-8, 20=0-3-8
Max Horiz 20=72 (LC 12)
Max Uplift 11=-40 (LC 9), 20=-160 (LC 8)
Max Grav 11=1748 (LC 36), 20=2990 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-224/42, 2-3=-176/1548, 3-4=-850/78, 4-5=-1509/94, 5-6=-1419/96, 6-7=-2086/124, 7-8=-2259/116, 8-9=-3059/110, 9-10=-3362/91
BOT CHORD 1-22=-48/297, 20-22=-48/297, 18-20=-1351/141, 16-18=0/776, 15-16=0/1926, 13-15=-28/2813, 12-13=-60/3144, 11-12=0/0
WEBS 5-16=-30/196, 6-16=-869/33, 6-14=-42/553, 7-14=0/308, 8-13=0/272, 8-14=-1015/58, 10-11=-1703/60, 9-12=-361/77, 10-12=-61/3177, 9-13=-355/43, 4-18=-1310/87, 3-20=-2669/150, 4-16=-21/988, 2-22=-70/255, 2-20=-1655/247, 3-18=-46/2305, 6-15=0/152

NOTES

1) 2x4 SP No.2 bearing block 12" long at jt. 20 attached to front face with 2 rows of 10d (0.148"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SP No.2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 11 and 160 lb uplift at joint 20.
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.
11) 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

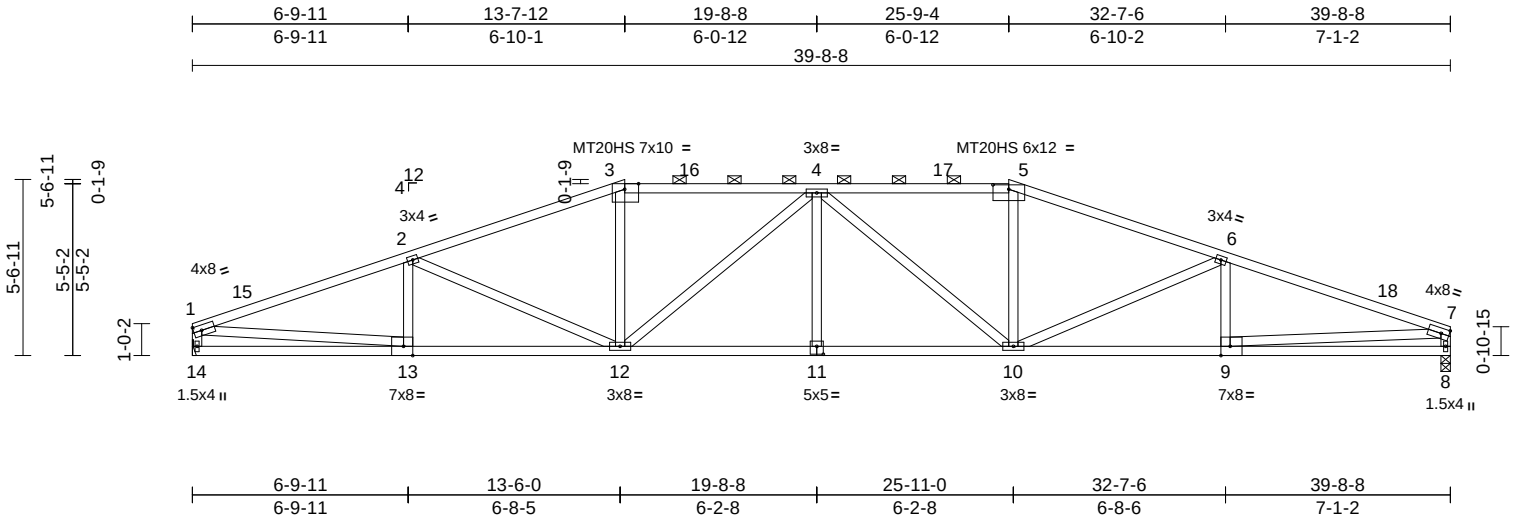
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H3B	Hip	1	1	I71166326 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:35 ID:OTplqGGJqoHn6tE7AV3tcEyeynL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.3

Plate Offsets (X, Y): [3:0-5-4,Edge], [5:0-6-0,0-1-11], [9:0-3-8,Edge], [11:0-2-8,0-3-0], [13:0-3-8,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	0.91	Vert(LL)	-0.33	11	>999	240	MT20HS	187/143
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.57	10-11	>829	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.14	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.14	11	>999	360		
BCDL	10.0										Weight: 215 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E *Except* 3-5:2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 14= Mechanical
Max Horiz 14=-54 (LC 13)
Max Uplift 8=-35 (LC 9), 14=-34 (LC 8)
Max Grav 8=2112 (LC 36), 14=2105 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-4207/85, 2-3=-3557/97, 3-4=-3247/110, 4-5=-3283/112, 5-6=-3597/99, 6-7=-4364/89
BOT CHORD 13-14=-50/54, 12-13=-79/3926, 10-12=-9/3639, 9-10=-45/4072, 8-9=0/0
WEBS 2-13=-309/97, 2-12=-726/73, 3-12=0/605, 4-12=-717/57, 4-11=0/243, 4-10=-680/57, 5-10=0/622, 6-9=-246/98, 6-10=-845/74, 7-8=-2050/68, 7-9=-45/4090, 1-14=-2046/66, 1-13=-43/3951

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearings are assumed to be: , Joint 8 SP No.1 .
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 14 and 35 lb uplift at joint 8.
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.
12) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H4	Hip	1	1	I71166327 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:35 Page: 1
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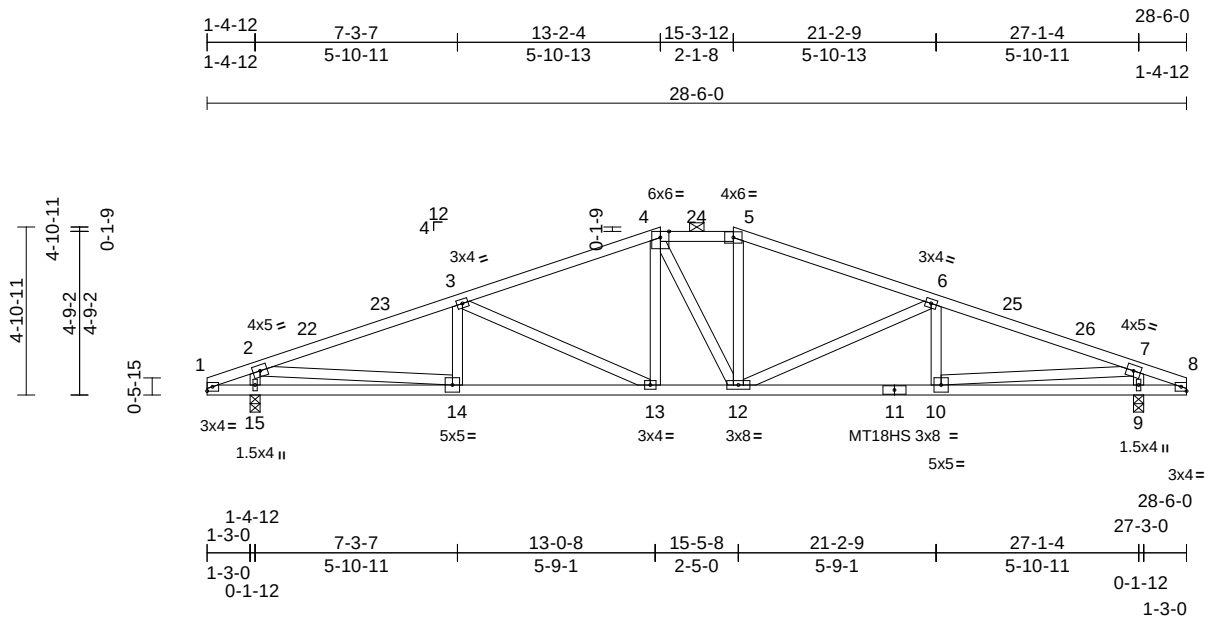

Scale = 1:59.6

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	0.74	Vert(LL)	-0.18	13-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.29	13-14	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.07	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	13-14	>999	360		
BCDL	10.0										Weight: 150 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except 2-0-0 oc purlins (3-1-2 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=50 (LC 12)
Max Uplift 9=-34 (LC 9), 15=-34 (LC 8)
Max Grav 9=1774 (LC 36), 15=1774 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-381/14, 2-3=-3043/29, 3-4=-2405/34, 4-5=-2180/48, 5-6=-2407/34, 6-7=-3042/29, 7-8=-383/14
BOT CHORD 1-15=-2/422, 14-15=-53/422, 13-14=-16/2791, 12-13=0/2178, 10-12=0/2789, 9-10=-5/424, 8-9=-5/424
WEBS 3-14=-170/104, 3-13=-661/63, 4-13=0/359, 4-12=-244/251, 5-12=0/386, 6-12=-658/63, 6-10=-171/103, 2-15=-1687/106, 2-14=0/2383, 7-9=-1687/106, 7-10=0/2380

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 15 and 34 lb uplift at joint 9.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H4A	Hip	1	1	I71166328 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:36

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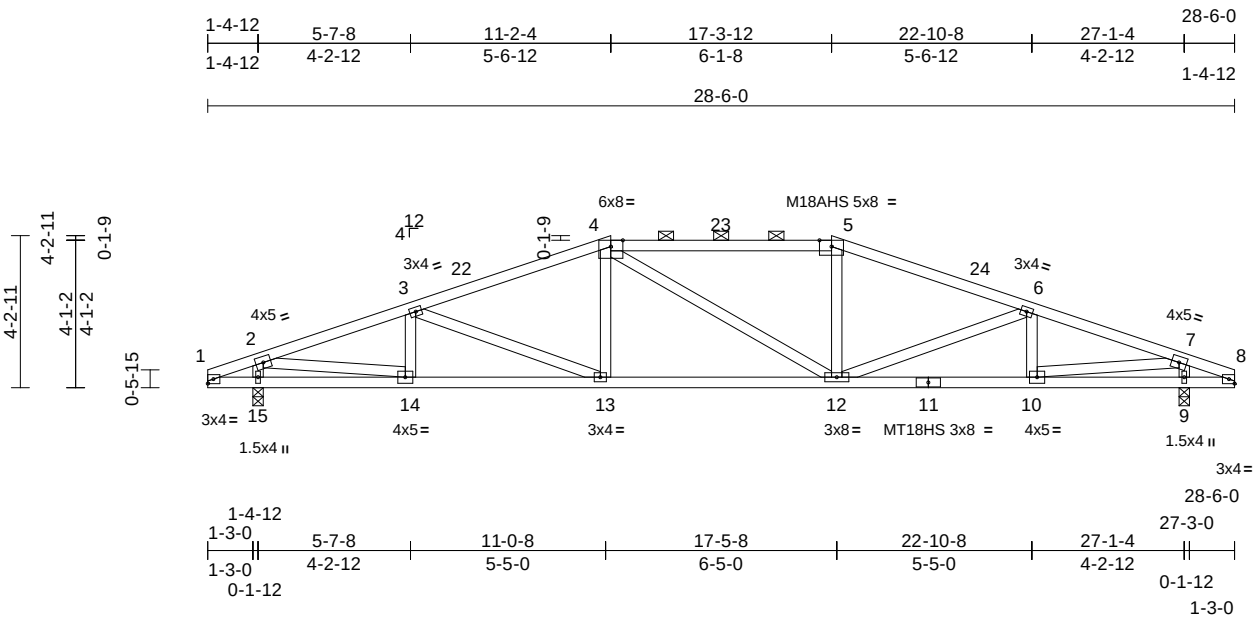

Scale = 1:56.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.14	13-14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.25	12-13	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	9	n/a	n/a	MT18HS	244/190
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	13	>999	360		
BCDL	10.0										Weight: 143 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

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

REACTIONS (size) 9=0-3-8, 15=0-3-8
Max Horiz 15=43 (LC 12)
Max Uplift 9=-42 (LC 9), 15=-42 (LC 8)
Max Grav 9=1624 (LC 36), 15=1624 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-155/4, 2-3=-2624/44, 3-4=-2283/53, 4-5=-2072/68, 5-6=-2283/52, 6-7=-2624/45, 7-8=-155/4
BOT CHORD 1-15=0/166, 14-15=-36/166, 13-14=-36/2425, 12-13=0/2072, 10-12=-5/2425, 9-10=0/166, 8-9=0/166
WEBS 3-13=-368/131, 4-13=0/277, 4-12=-237/238, 5-12=0/277, 6-12=-367/131, 3-14=-296/62, 6-10=-296/61, 7-9=-1490/77, 7-10=-19/2286, 2-15=-1490/77, 2-14=-21/2287

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 9 and 42 lb uplift at joint 15.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	H4B	Hip	1	1	I71166329 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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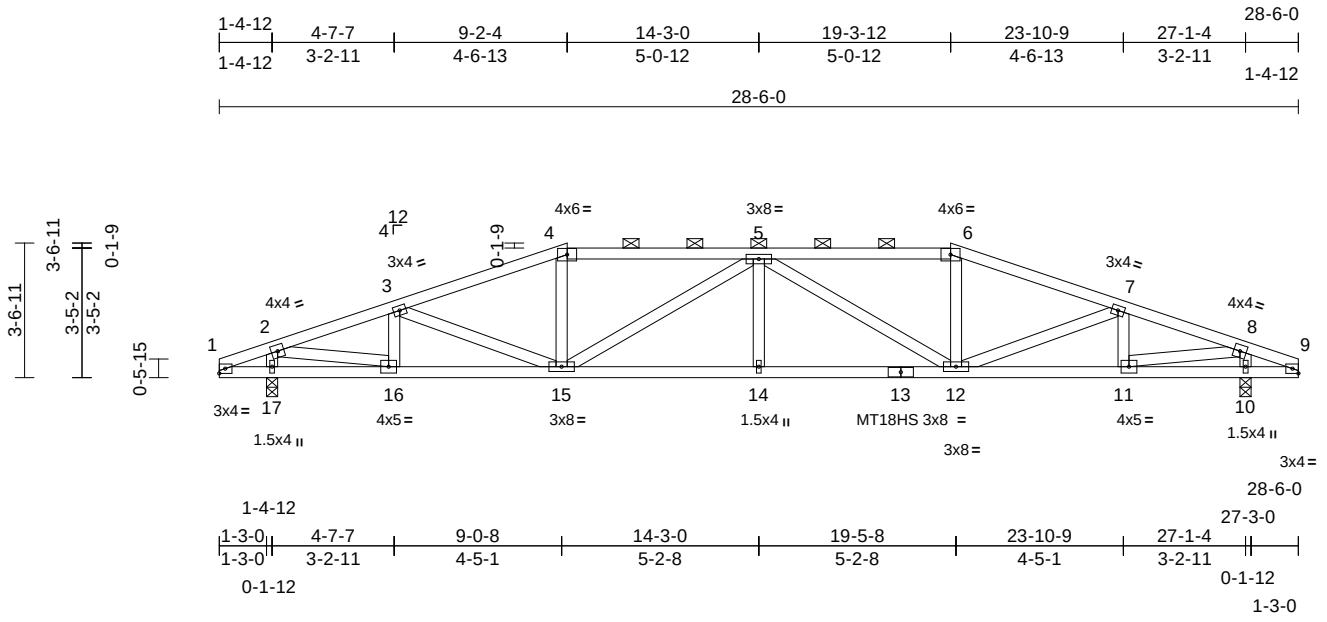

Scale = 1:54.3

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	0.59	Vert(LL)	-0.16	14	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.27	14-15	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.07	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.07	14	>999	360		
BCDL	10.0										Weight: 144 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-2 oc purlins, except 2-0-0 oc purlins (3-5-13 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10=0-3-8, 17=0-3-8
Max Horiz 17=34 (LC 12)
Max Uplift 10=-49 (LC 9), 17=-49 (LC 8)
Max Grav 10=1474 (LC 36), 17=1474 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-111/9, 2-3=-2157/52, 3-4=-2349/68, 4-5=-2189/79, 5-6=-2189/79, 6-7=-2349/68, 7-8=-2157/53, 8-9=-111/9
BOT CHORD 1-17=-2/113, 16-17=-27/113, 15-16=-44/1996, 14-15=-18/2771, 12-14=-18/2771, 11-12=-18/1996, 10-11=0/113, 9-10=0/113
WEBS 3-15=-69/394, 4-15=0/343, 5-15=-717/38, 5-14=0/207, 5-12=-717/37, 6-12=0/343, 7-12=-69/394, 3-16=-366/55, 7-11=-366/55, 2-17=-1336/67, 2-16=-36/1968, 8-10=-1336/67, 8-11=-35/1968

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 17 and 49 lb uplift at joint 10.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J2	Jack-Open	8	1	I71166330 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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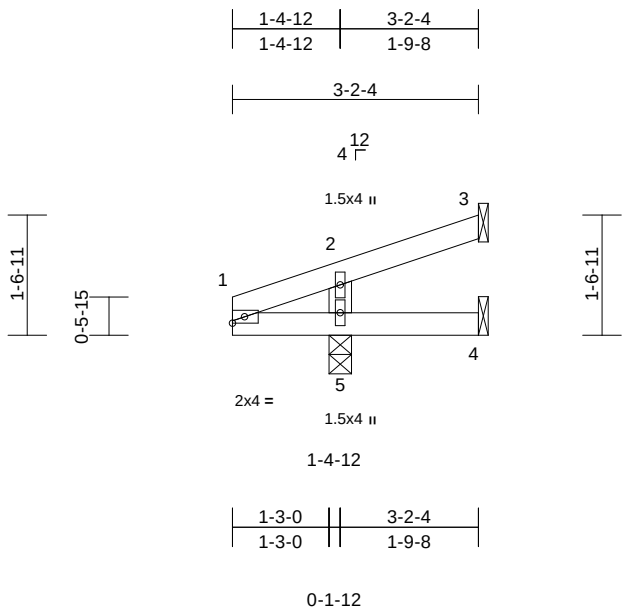

Scale = 1:18.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 10 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-4 oc purlins.
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=28 (LC 8)
Max Uplift 3=-17 (LC 12), 4=-10 (LC 18), 5=-22 (LC 8)
Max Grav 3=46 (LC 18), 4=16 (LC 7), 5=329 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-25/34, 2-3=-38/9
BOT CHORD 1-5=-3/28, 4-5=0/0
WEBS 2-5=-230/34

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 17 lb uplift at joint 3, 10 lb uplift at joint 4 and 22 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J3	Jack-Open	2	1	I71166331 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:37

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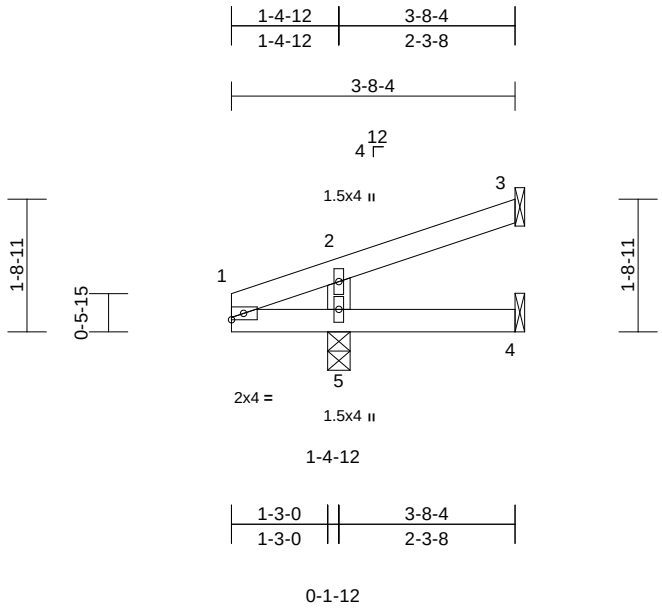

Scale = 1:19.5

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)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 12 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins.
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=33 (LC 8)
Max Uplift 3=-20 (LC 12), 5=-20 (LC 8)
Max Grav 3=76 (LC 18), 4=29 (LC 7), 5=349 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-32/38, 2-3=-45/17
BOT CHORD 1-5=-3/33, 4-5=0/0
WEBS 2-5=-264/42

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 20 lb uplift at joint 3 and 20 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J3A	Jack-Open	2	1	I71166332 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:37 Page: 1
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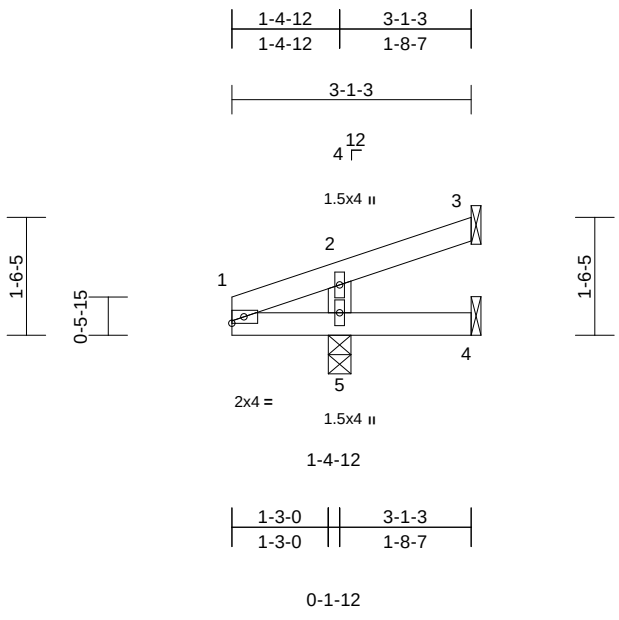

Scale = 1:18.8

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	0.14	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	4-5	>999	360		
BCDL	10.0										Weight: 10 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins.
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=27 (LC 8)
Max Uplift 3=-16 (LC 12), 4=-13 (LC 18), 5=-22 (LC 8)
Max Grav 3=40 (LC 18), 4=13 (LC 7), 5=326 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-24/34, 2-3=-37/8
BOT CHORD 1-5=-3/27, 4-5=0/0
WEBS 2-5=-225/33

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 16 lb uplift at joint 3, 13 lb uplift at joint 4 and 22 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J6	Jack-Partial	39	1	I71166333 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:37

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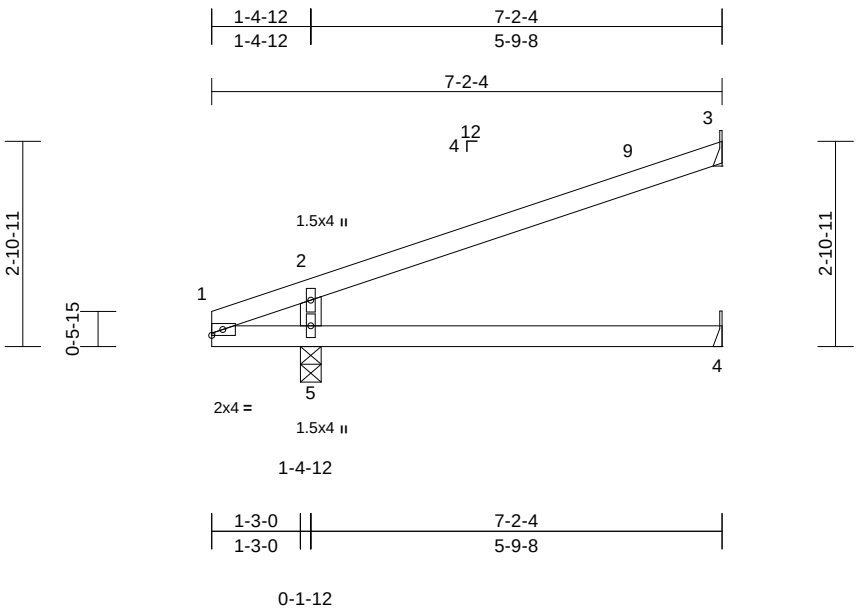

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.05	4-5	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.11	4-5	>633	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.05	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.03	4-5	>999	360		
BCDL	10.0										Weight: 23 lb	FT = 0%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins.
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=64 (LC 8)
Max Uplift 3=-44 (LC 8), 5=-18 (LC 8)
Max Grav 3=259 (LC 18), 4=104 (LC 7), 5=546 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-82/96, 2-3=-105/63
BOT CHORD 1-5=-49/64, 4-5=0/0
WEBS 2-5=-635/135

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
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 5 SP 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 44 lb uplift at joint 3 and 18 lb uplift at joint 5.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

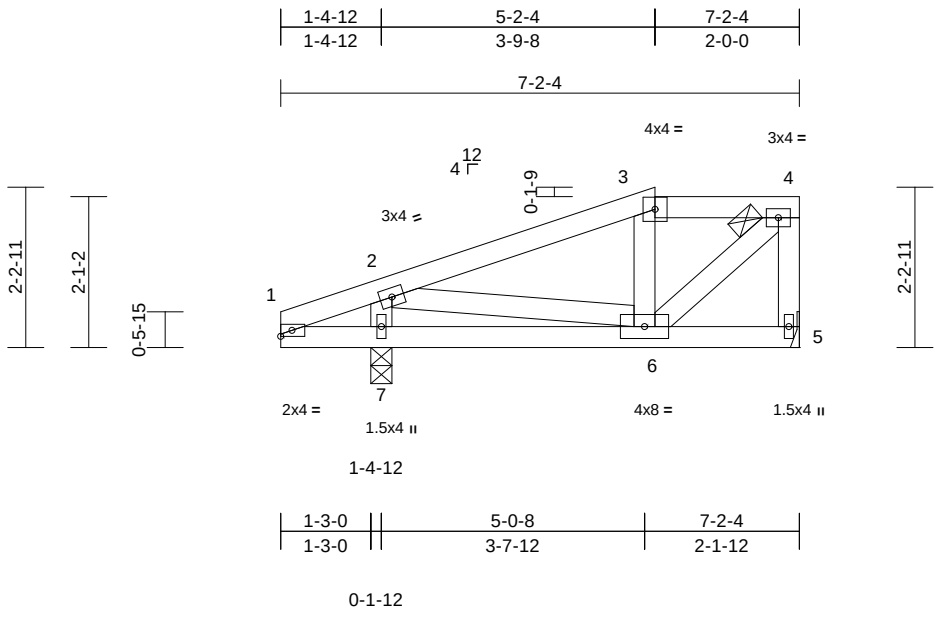
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J6A	Half Hip	4	1	I71166334 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:37 ID:JarXyh6kxAQ8GlurDwB4u4z1iKL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	0.00	6-7	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	6-7	>999	360		
BCDL	10.0										Weight: 36 lb	FT = 0%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP 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 (6-0-0 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=50 (LC 11)
Max Uplift 5=-9 (LC 8), 7=-29 (LC 8)
Max Grav 5=262 (LC 32), 7=548 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-40/8, 2-3=-270/5, 3-4=-189/14, 4-5=-251/14
BOT CHORD	1-7=-13/65, 6-7=-47/65, 5-6=-17/13
WEBS	2-7=-518/70, 2-6=0/123, 3-6=-136/36, 4-6=0/260

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: Joint 7 SP No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5 and 29 lb uplift at joint 7.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J6B	Half Hip Girder	4	1	I71166335 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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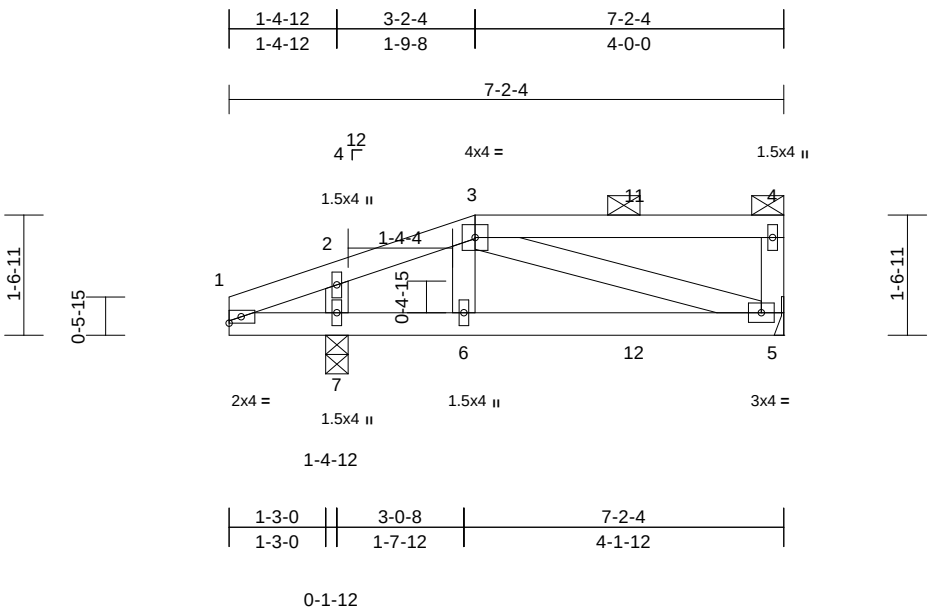

Scale = 1:19.3

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	0.59	Vert(LL)	-0.01	5-6	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.01	5-6	>999	360		
BCDL	10.0										Weight: 31 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=29 (LC 71)
Max Uplift 5=-9 (LC 9), 7=-29 (LC 8)
Max Grav 5=332 (LC 32), 7=474 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-234/4, 2-3=-261/0, 3-4=0/0
BOT CHORD 1-7=0/233, 6-7=-1/222, 5-6=-5/227
WEBS 4-5=-212/29, 3-6=-71/81, 3-5=-239/6, 2-7=-294/30

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: Joint 7 SP No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 5 and 29 lb uplift at joint 7.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 41 lb up at 3-2-4, and 37 lb down and 18 lb up at 5-3-0 on top chord, and 14 lb down and 37 lb up at 3-2-4, and 5 lb down and 16 lb up at 5-3-0 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 6=7 (F), 12=3 (F)

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J6C	Half Hip	2	1	I71166336 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:38 Page: 1
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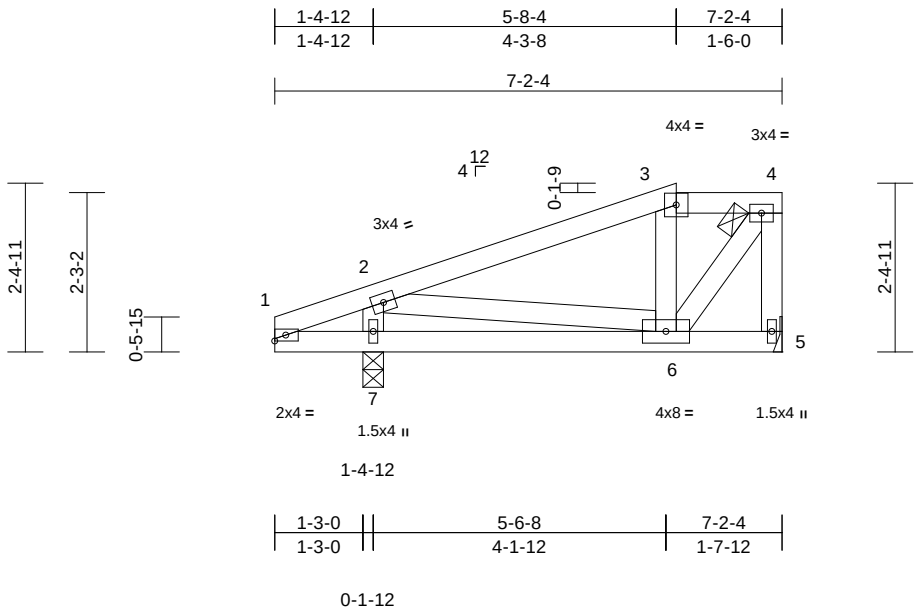

Scale = 1:22.1

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	0.43	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	6-7	>999	360		
BCDL	10.0										Weight: 37 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 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 (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=55 (LC 11)
Max Uplift 5=-10 (LC 8), 7=-29 (LC 8)
Max Grav 5=255 (LC 33), 7=559 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-90/10, 2-3=-252/3, 3-4=-164/13, 4-5=-258/8
BOT CHORD 1-7=-14/125, 6-7=-51/125, 5-6=-18/14
WEBS 2-7=-548/79, 2-6=0/72, 3-6=-157/36, 4-6=0/280

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: Joint 7 SP No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 5 and 29 lb uplift at joint 7.
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.
11) 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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	J6D	Half Hip Girder	2	1	I71166337 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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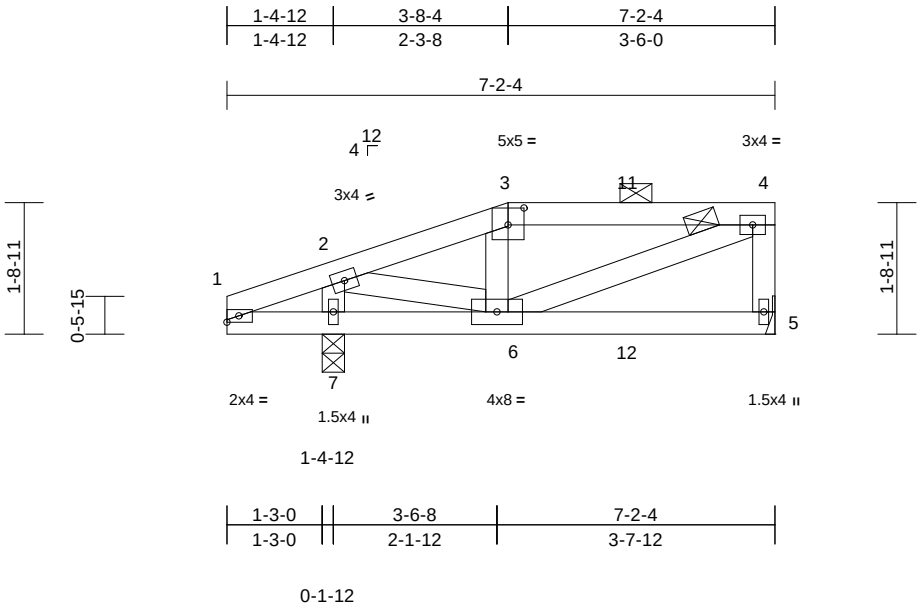

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Plate Offsets (X, Y): [3:0-2-8,0-2-11]

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	0.44	Vert(LL)	0.00	5-6	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP		Wind(LL)	0.00	5-6	>999	360		
BCDL	10.0										Weight: 34 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP 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 (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-3-8
Max Horiz 7=40 (LC 11)
Max Uplift 5=-13 (LC 9), 7=-31 (LC 8)
Max Grav 5=325 (LC 32), 7=516 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-18/112, 2-3=-291/6, 3-4=-254/10, 4-5=-295/29
BOT CHORD 1-7=-68/19, 6-7=-76/6, 5-6=-13/10
WEBS 3-6=-139/39, 4-6=-8/277, 2-6=0/292, 2-7=-454/40

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: Joint 7 SP No.2 .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 5 and 31 lb uplift at joint 7.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 32 lb up at 3-8-4, and 55 lb down and 24 lb up at 5-3-0 on top chord, and 12 lb down and 25 lb up at 3-8-4, and 3 lb down and 6 lb up at 5-3-0 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 3=-16 (F), 6=4 (F), 11=-13 (F), 12=2 (F)

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	T1	Roof Special Girder	1	1	I71166338 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089, Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:39 Page: 1
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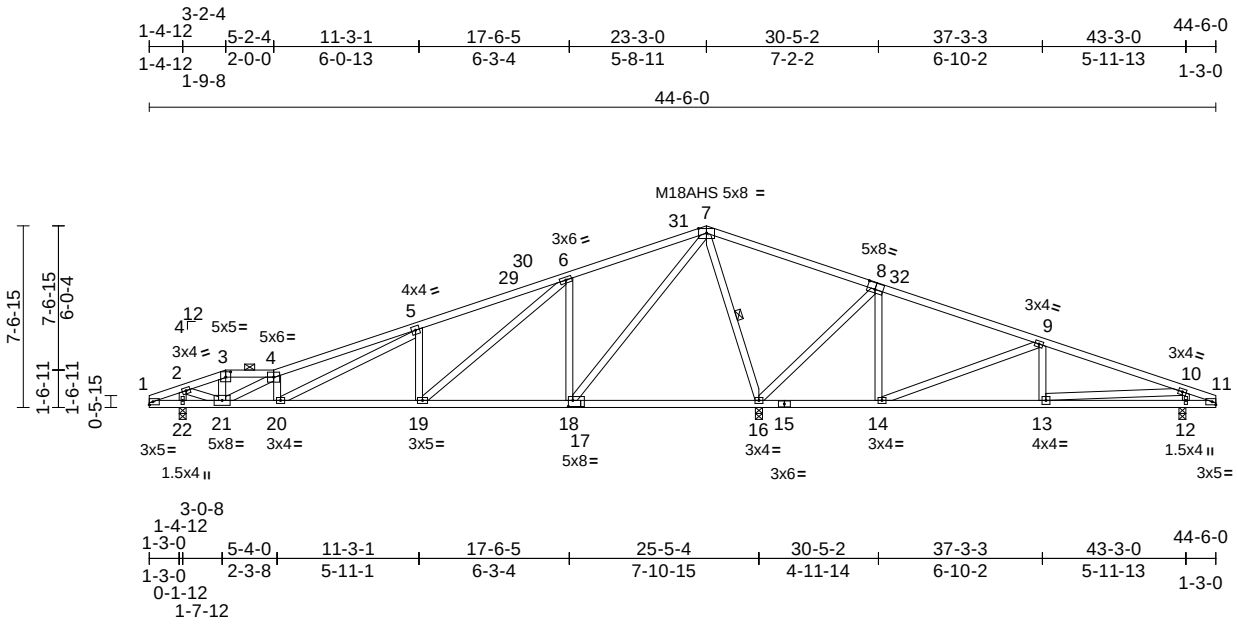


Scale = 1:81.4

Plate Offsets (X, Y): [3:0-2-8,0-2-11], [8:0-4-0,0-3-4], [17:0-2-4,0-3-0]

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	0.98	Vert(LL)	-0.17	19-20	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.26	19-20	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.02	16	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.06	19-20	>999	360		
BCDL	10.0										Weight: 242 lb	FT = 0%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 7-8,8-11:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except 2-0-0 oc purlins (5-1-12 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 5-8-1 oc bracing.
WEBS 1 Row at midpt 7-16

REACTIONS (size) 12=0-3-8, 16=0-3-8, 22=0-3-8
Max Horiz 22=-82 (LC 13)
Max Uplift 12=-65 (LC 89), 22=-46 (LC 8)
Max Grav 12=630 (LC 85), 16=2755 (LC 38), 22=1213 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-21/106, 2-3=-1218/40, 3-4=-1065/41, 4-5=-2666/109, 5-6=-1789/124, 6-7=-516/169, 7-9=-45/1534, 9-10=-757/444, 10-11=-204/16
BOT CHORD 1-22=-71/23, 21-22=-82/80, 20-21=-131/2488, 19-20=-81/1617, 18-19=-136/389, 16-18=-757/69, 14-16=-994/83, 13-14=-386/659, 12-13=-22/237, 11-12=-22/237
WEBS 3-21=-31/389, 4-21=-1656/58, 4-20=-400/86, 7-16=-2287/72, 2-22=-1101/58, 2-21=-23/1235, 5-20=-46/945, 5-19=-900/123, 6-19=-81/1584, 6-18=-1310/144, 7-18=-69/1850, 10-12=-576/140, 8-16=-1148/89, 8-14=0/431, 9-14=-882/43, 9-13=0/271, 10-13=-446/430

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 22 and 65 lb uplift at joint 12.
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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 43 lb down and 22 lb up at 3-2-4 on top chord, and 9 lb down and 21 lb up at 3-2-4 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.
13) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-7=-70, 7-11=-70, 23-26=-20

Concentrated Loads (lb)
Vert: 21=4 (F)

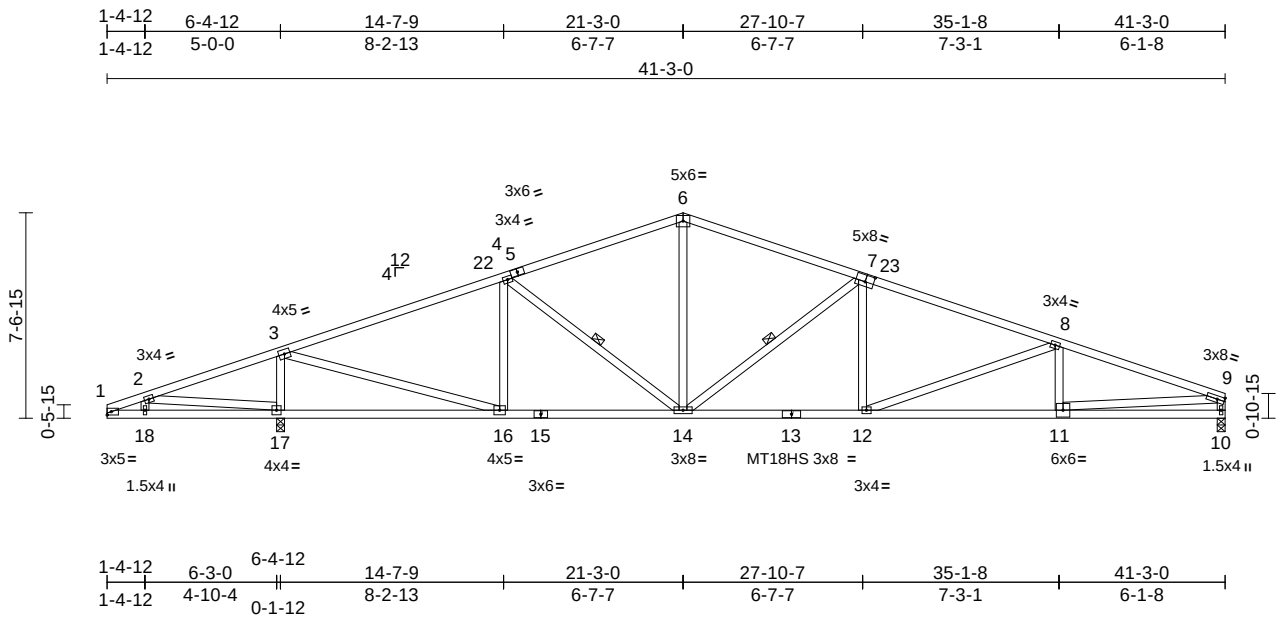
February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	T3	Common	4	1	I71166339 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:39 ID:FqkHRZ5AvlKhh3O1MSahbzz1iDv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:77.6

Plate Offsets (X, Y): [7:0-3-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.20	11-12	>999	240	MT18HS	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.39	11-12	>999	180	MT20	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.09	11-12	>999	360		
BCDL	10.0										Weight: 221 lb	FT = 0%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP 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 4-14, 7-14

REACTIONS (size) 10=0-3-8, 17=0-3-8
Max Horiz 17=90 (LC 12)
Max Uplift 10=-21 (LC 9), 17=-106 (LC 8)
Max Grav 10=1555 (LC 19), 17=2191 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-2/132, 2-3=-132/697, 3-4=-1924/19, 4-6=-1891/70, 6-8=-2814/62, 8-9=-3213/51
BOT CHORD	1-18=-100/3, 17-18=-100/3, 16-17=-591/77, 14-16=0/1738, 12-14=0/2609, 11-12=-15/3010, 10-11=0/0
WEBS	6-14=0/699, 2-18=-29/101, 9-10=-1504/47, 4-16=-511/100, 3-16=-14/2408, 4-14=-207/191, 7-12=0/396, 7-14=-1106/78, 8-11=-195/91, 8-12=-528/63, 9-11=-15/3028, 3-17=-1961/142, 2-17=-508/153

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are MT20 plates unless otherwise indicated.
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 SP No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 10 and 106 lb uplift at joint 17.
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

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	T3A	Common	6	1	I71166340 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Mon Feb 03 11:17:40 Page: 1
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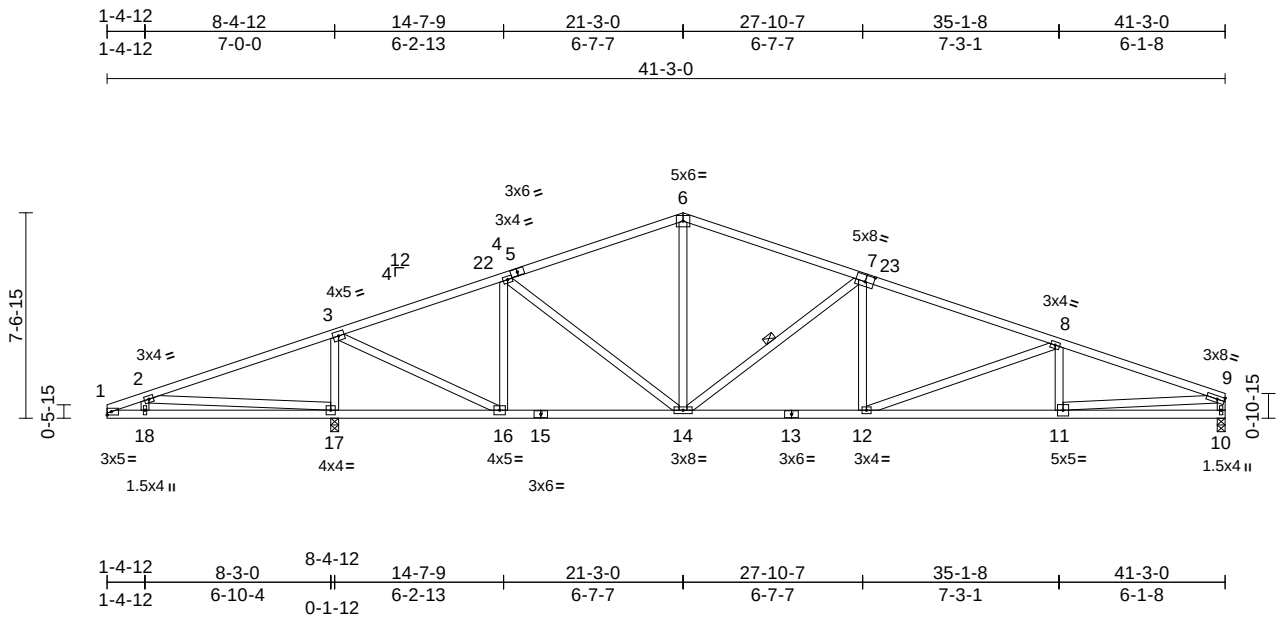

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Plate Offsets (X, Y): [7:0-3-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.18	11-12	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.34	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.08	11-12	>999	360		
BCDL	10.0										Weight: 223 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
5-9-15 oc bracing: 16-17.
WEBS 1 Row at midpt 7-14

REACTIONS (size) 10=0-3-8, 17=0-3-8
Max Horiz 17=90 (LC 12)
Max Uplift 10=-26 (LC 9), 17=-139 (LC 8)
Max Grav 10=1454 (LC 19), 17=2324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-156/47, 2-3=-179/1057, 3-4=-1137/50, 4-6=-1552/83, 6-8=-2535/75, 8-9=-2974/63
BOT CHORD 1-18=-52/200, 17-18=-52/200, 16-17=-927/131, 14-16=0/1022, 12-14=0/2344, 11-12=-26/2784, 10-11=0/0
WEBS 3-17=-2060/144, 4-16=-813/97, 3-16=-30/2138, 6-14=0/474, 4-14=0/537, 7-12=0/404, 7-14=-1116/77, 8-11=-169/98, 8-12=-560/60, 2-18=-17/240, 2-17=-1131/253, 9-10=-1403/52, 9-11=-26/2801

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 10 and 139 lb uplift at joint 17.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	T3B	Common	1	1	I71166341 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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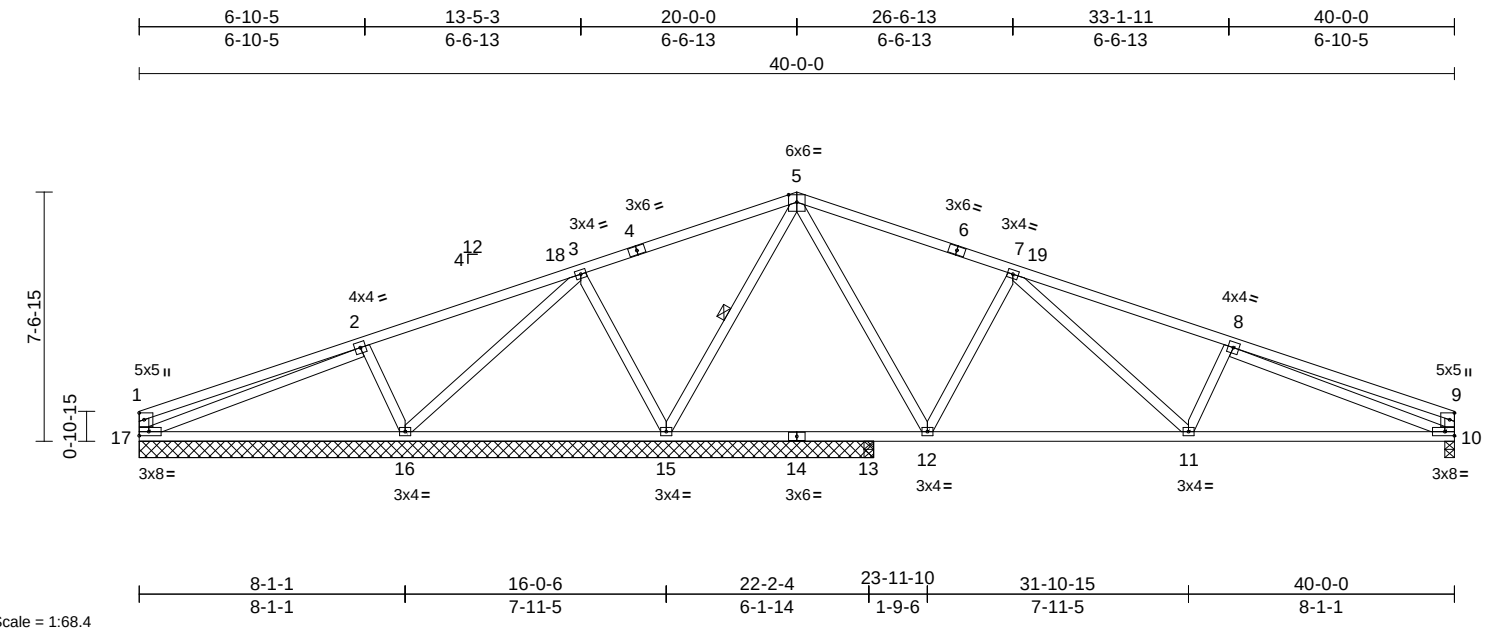

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.10	11-12	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.22	11-12	>955	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.04	11-12	>999	360		
BCDL	10.0										Weight: 214 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-15

REACTIONS All bearings 22-4-0. except 10=0-3-8, 13=0-3-8
(lb) - Max Horiz 17=-62 (LC 13)
Max Uplift All uplift 100 (lb) or less at joint(s) 10, 15, 16, 17
Max Grav All reactions 250 (lb) or less at joint (s) 13 except 10=907 (LC 19), 15=1957 (LC 1), 16=542 (LC 31), 17=317 (LC 31)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-535/39, 3-4=0/775, 4-5=0/840, 5-6=-476/101, 6-7=-587/78, 7-19=-1338/96, 8-19=-1491/94, 8-9=-690/47, 1-17=-374/56, 9-10=-435/59
BOT CHORD 15-16=-563/92, 11-12=0/857, 10-11=-43/1488
WEBS 2-17=-23/402, 8-10=-986/36, 2-16=-490/117, 3-16=-4/538, 3-15=-655/94, 5-15=-1583/64, 5-12=-35/937, 7-12=-891/120, 7-11=-2/720, 8-11=-360/111

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 17, 10, 16, 15.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 5,2025

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

Job	Truss	Truss Type	Qty	Ply	1408 NE ERNEST WAY, LEE'S SUMMIT
MSA2408-R	T4	Common	1	1	I71166342 Job Reference (optional)

Quality Truss LLC (Smithville, MO), Smithville, MO - 64089,

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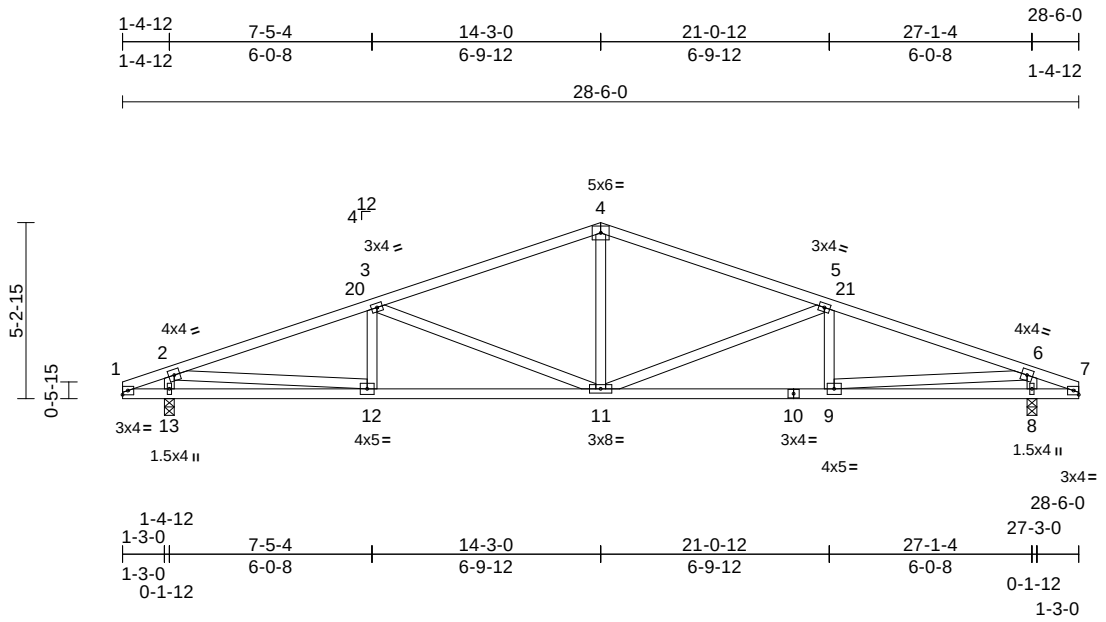

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.12	9-11	>999	240	MT20	244/190
Snow (Pf)	25.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.24	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR		Wind(LL)	0.05	11-12	>999	360		
BCDL	10.0										Weight: 140 lb	FT = 0%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-3-8, 13=0-3-8
Max Horiz 13=55 (LC 12)
Max Uplift 8=-29 (LC 9), 13=-29 (LC 8)
Max Grav 8=1322 (LC 19), 13=1322 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-288/13, 2-3=-2363/19, 3-4=-1721/25, 4-5=-1721/25, 5-6=-2363/19, 6-7=-288/13
BOT CHORD 1-13=0/313, 12-13=-54/313, 11-12=-10/2186, 9-11=0/2186, 8-9=-2/313, 7-8=-2/313
WEBS 3-12=-103/121, 3-11=-736/78, 4-11=0/546, 5-11=-736/78, 5-9=-103/121, 2-13=-1193/101, 2-12=0/1926, 6-8=-1193/101, 6-9=0/1926

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=20ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=25.0 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SP No.2 .
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 13 and 29 lb uplift at joint 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

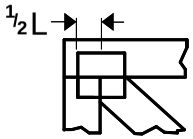
LOAD CASE(S) Standard

February 5,2025

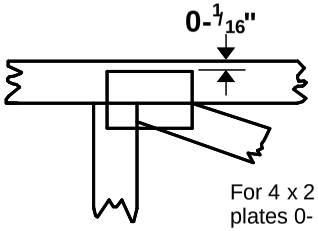
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

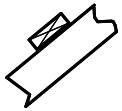
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

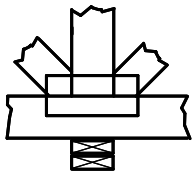
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

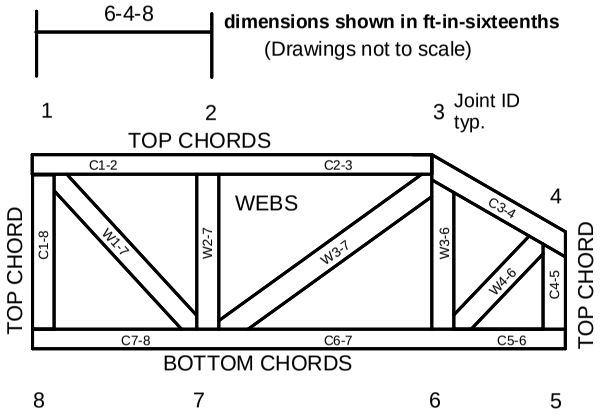


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

MiTek®

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.