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

01/26/2021

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

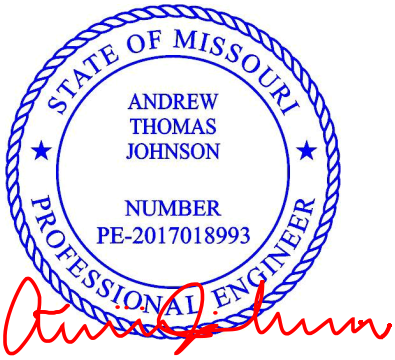
Re: 2523941

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I43385000 thru I43385096

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



October 28,2020

Johnson, Andrew ,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	
2523941	A1	HIP GIRDER	1	3	I43385000

Job Reference (optional)

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:44 2020 Page 1
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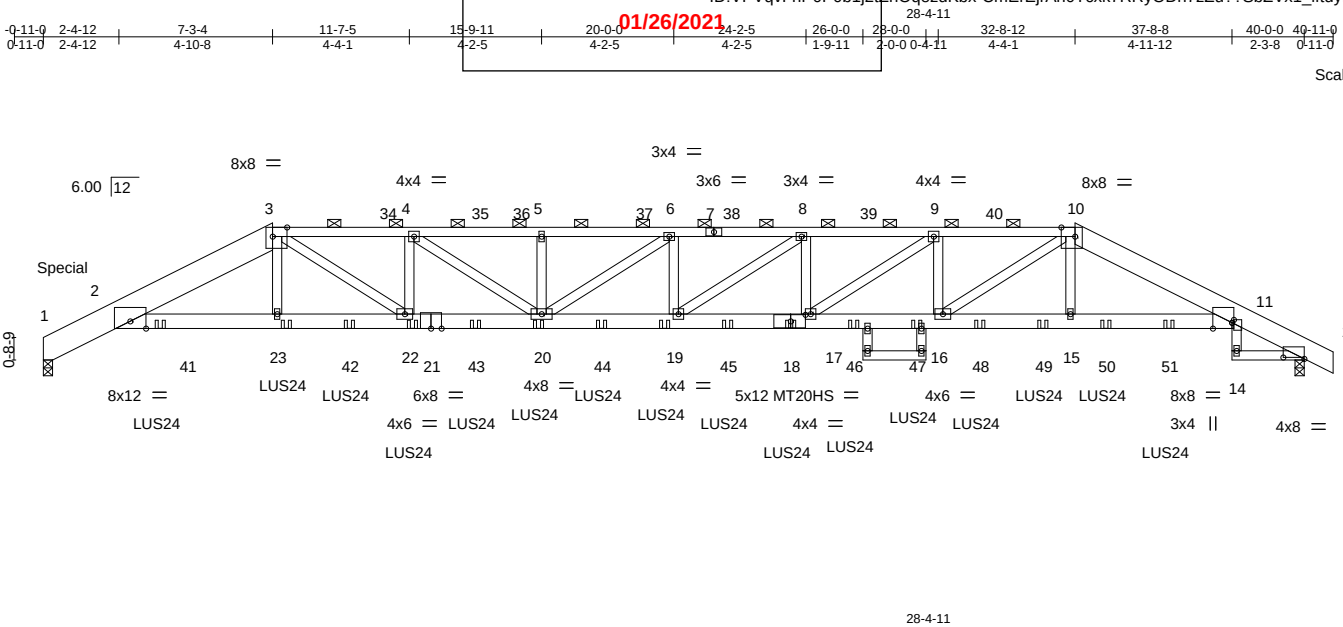

2-4-12 7-3-4 11-7-5 15-9-11 20-0-0 24-2-5 26-0-0 28-0-0 32-8-12 37-8-8 40-0-0
28-4-11
2-4-12 4-10-8 4-4-1 4-2-5 4-2-5 4-2-5 1-9-11 2-0-0 0-4-11 4-4-1 4-11-12 2-3-8

Plate Offsets (X,Y)-- [3:0-5-8,Edge], [10:0-5-4,Edge], [11:0-7-5,Edge], [11:0-1-2,0-0-11], [12:0-8-0,0-0-9], [18:0-5-10,0-2-8]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.70	19	>685	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-1.16	19	>412	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.45	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 641 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SP 2400F 2.0E, 10-13: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-21: 2x6 SPF No.2, 11-18,18-21: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (4-0-12 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 Horz 1=-84(LC 56)
Max Uplift 1=-626(LC 12), 12=-623(LC 12)
Max Grav 1=4846(LC 34), 12=4499(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-2162/317, 2-3=-11198/1343, 3-4=-14664/1758, 4-5=-17123/2041, 5-6=-17123/2041, 6-8=-18065/2158, 8-9=-17329/2077, 9-10=-14750/1789, 10-11=-11712/1459, 11-12=-2272/337
BOT CHORD	2-23=-1168/10488, 22-23=-1173/10545, 20-22=-1637/14664, 19-20=-2036/18065, 17-19=-1955/17329, 16-17=-1667/14750, 15-16=-1286/11027, 11-15=-1276/10944, 11-14=-48/443
WEBS	3-23=-103/1113, 3-22=-554/4920, 4-22=-2015/256, 4-20=-341/2968, 5-20=-350/66, 6-20=-1137/141, 6-19=-118/439, 10-15=-189/1487, 8-17=-869/121, 10-16=-456/4446, 9-16=-2058/255, 9-17=-348/3113, 8-19=-98/888

NOTES-

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
   Webs 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=4.2psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) All plates are MT20 plates unless otherwise indicated.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385000
2523941	A1	HIP GIRDER	1	3	Job Reference (optional)

NOTES-

10) All plates are 2x4 MT20 unless otherwise indicated.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=626, 12=623.
14) 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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 3-8-8 from the left end to 35-8-8 to connect truss(es) to front face of bottom chord.
17) Fill all nail holes where hanger is in contact with lumber.
18) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 594 lb down and 136 lb up at 1-8-8 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 (plf)
   Vert: 1-29=-73, 3-29=-51, 3-10=-61, 10-11=-51, 11-13=-51, 11-28=-20, 14-31=-20
   Concentrated Loads (lb)
   Vert: 18=-334(F) 23=-338(F) 22=-334(F) 20=-334(F) 19=-334(F) 28=-594(F) 41=-292(F) 42=-338(F) 43=-334(F) 44=-334(F) 45=-334(F) 46=-339(F) 47=-339(F) 48=-339(F) 49=-300(F) 50=-298(F) 51=-404(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type		Qty	Ply	
2523941	A2	Hip		1	1	I43385001

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Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:52 2020 Page 1
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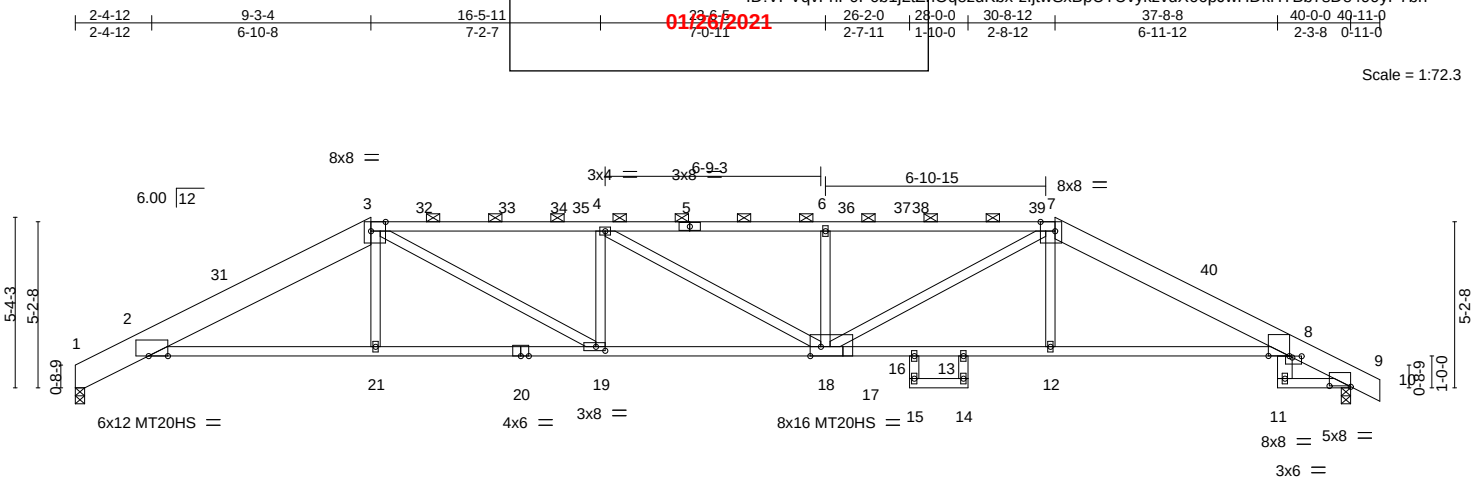

Plate Offsets (X,Y)-- [2:0-7-4,Edge], [3:0-5-8,Edge], [7:0-5-8,Edge], [8:0-7-14,0-0-1], [8:0-3-8,0-0-8], [9:0-8-0,0-0-5], [17:0-0-0,0-1-12], [17:0-4-0,Edge], [18:0-1-12,0-0-0], [19:0-3-8,0-1-8]

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	0.87	Vert(LL)	-0.51	18-19	>938	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.95	18-19	>504	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.48	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 194 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 1-3: 2x10 SP 2400F 2.0E, 7-10: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 8-11: 2x6 SPF No.2, 8-17,17-20: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-7.
BOT CHORD	Rigid ceiling directly applied. Except: 2-2-0 oc bracing: 2-21

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-96(LC 14)
Max Uplift 1=-138(LC 16), 9=-170(LC 16)
Max Grav 1=1810(LC 2), 9=1866(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/122, 2-3=-3639/410, 3-4=-4754/534, 4-6=-4754/528, 6-7=-4754/528, 7-8=-3706/411, 8-9=-765/131
BOT CHORD	2-21=-259/3330, 19-21=-257/3336, 18-19=-376/4754, 16-18=-262/3381, 13-16=-274/3326, 12-13=-262/3381, 8-12=-264/3373
WEBS	3-21=0/294, 7-12=0/323, 3-19=-136/1613, 4-19=-633/126, 6-18=-623/127, 7-18=-131/1564

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 9-3-4, Exterior(2R) 9-3-4 to 13-6-3, Interior(1) 13-6-3 to 30-8-12, Exterior(2R) 30-8-12 to 34-11-11, Interior(1) 34-11-11 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 2x4 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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 9=170.

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385001
2523941	A2	Hip	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type		Ply	
2523941	A3	Hip	1	1	I43385002

Job Reference (optional)

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Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:54 2020 Page 1
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2-4-12	6-10-0	11-3-4	16-8-13	22-2-3	28-8-12	33-2-10	37-8-8	40-0-0	40-11-0
2-4-12	4-5-4	4-5-4	5-5-9	5-6-6	5-5-9	4-5-14	4-5-14	2-3-8	0-11-0

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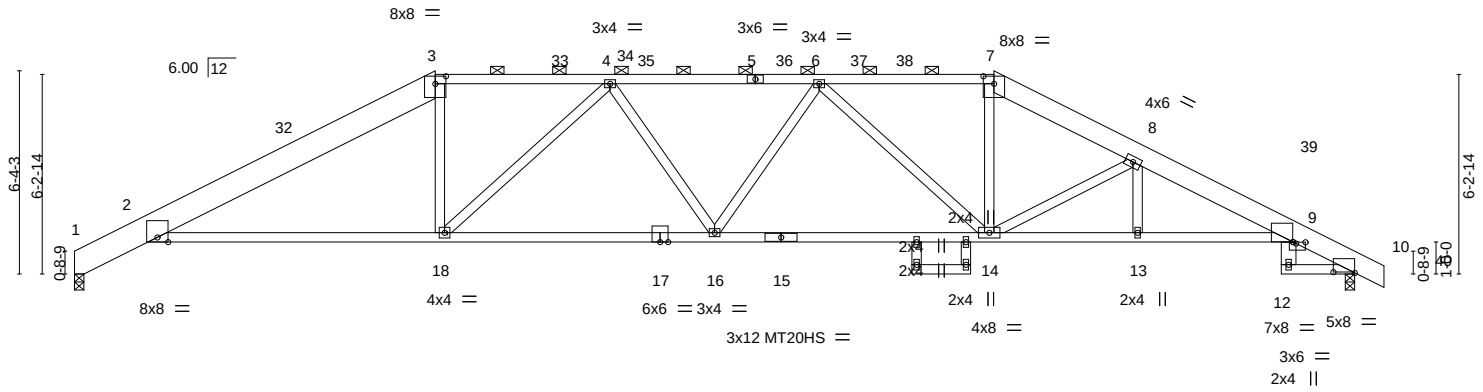

2-4-12	11-3-4	20-0-0	23-3-3	26-2-0	28-8-12	28-0-0	33-2-10	37-8-8	40-0-0
2-4-12	8-10-8	8-8-12	3-3-3	2-10-13	1-10-0	0-8-12	4-5-14	4-5-14	2-3-8

Plate Offsets (X,Y)-- [3:0-4-0,0-2-13], [7:0-4-0,0-2-13], [9:0-0-2,Edge], [9:0-3-8,0-0-8], [10:0-8-0,0-0-5]

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	0.77	Vert(LL)	-0.38	14-16	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.76	14-16	>628	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.45	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 209 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SP 2400F 2.0E, 7-11: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-17,9-15: 2x4 SPF 1650F 1.5E, 9-12: 2x6 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-7.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-116(LC 14)
Max Uplift 1=-138(LC 16), 10=-170(LC 16)
Max Grav 1=1810(LC 2), 10=1866(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/123, 2-3=-3330/373, 3-4=-3003/392, 4-6=-3603/445, 6-7=-2990/396, 7-8=-3417/414, 8-9=-4263/485, 9-10=-765/131
BOT CHORD	2-18=-204/2982, 16-18=-282/3545, 14-16=-281/3552, 13-14=-370/3977, 9-13=-370/3977
WEBS	3-18=-5/816, 7-14=-100/1243, 4-18=-914/107, 6-14=-931/109, 8-14=-1245/190

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 11-3-4, Exterior(2R) 11-3-4 to 15-6-3, Interior(1) 15-6-3 to 28-8-12, Exterior(2R) 28-8-12 to 33-2-10, Interior(1) 33-2-10 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 10=170.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A3	Hip	1	1	I43385002

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2523941	A4	Hip	1	1	I43385003

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:55 2020 Page 1
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2-4-12	13-3-4	20-1-12	26-2-0	26-8-12	33-2-10	40-0-0	40-11-0
2-4-12	10-10-8	6-10-8	6-0-4	0-6-12	6-5-14	6-9-6	0-11-0

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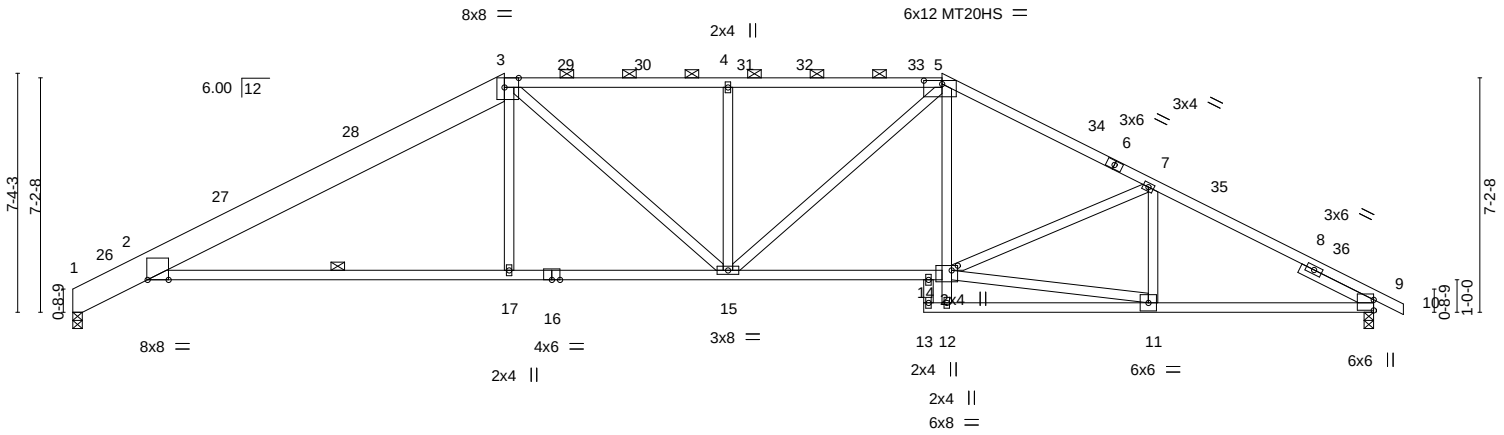

13-3-4	20-1-12	26-2-0	26-8-12	33-2-10	40-0-0
13-3-4	6-10-8	6-0-4	0-6-12	6-5-14	6-9-6

Plate Offsets (X,Y)-- [2:0-7-12,Edge], [3:0-5-4,Edge], [5:0-6-12,0-1-4], [14:0-2-4,0-1-12]

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	0.89	Vert(LL)	-0.36	17-21	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.83	17-21	>578	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.33	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 199 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-16: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 2-17

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-133(LC 14)
Max Uplift 1=-136(LC 16), 9=-170(LC 16)
Max Grav 1=1814(LC 2), 9=1867(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-802/117, 2-3=-3102/362, 3-4=-3085/422, 4-5=-3087/423, 5-7=-3097/393, 7-9=-3102/362
BOT CHORD	2-17=-176/2759, 15-17=-174/2764, 14-15=-179/2708, 9-11=-246/2692
WEBS	3-17=0/372, 3-15=-51/611, 4-15=-650/127, 5-15=-54/686, 7-11=-315/100, 5-14=-18/599, 11-14=-246/2646, 7-14=-227/253

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 13-3-4, Exterior(2R) 13-3-4 to 17-6-3, Interior(1) 17-6-3 to 26-8-12, Exterior(2R) 26-8-12 to 30-11-11, Interior(1) 30-11-11 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=136, 9=170.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A4	Hip	1	1	I43385003

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type		Ply	
2523941	A5	Hip	1	1	I43385004

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:58 2020 Page 1
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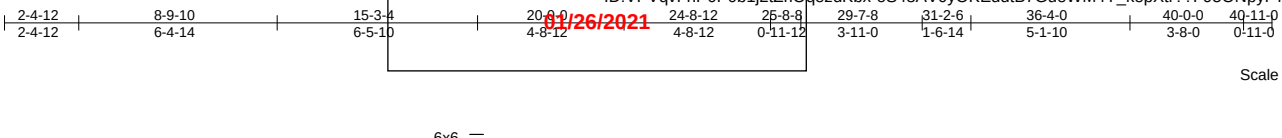

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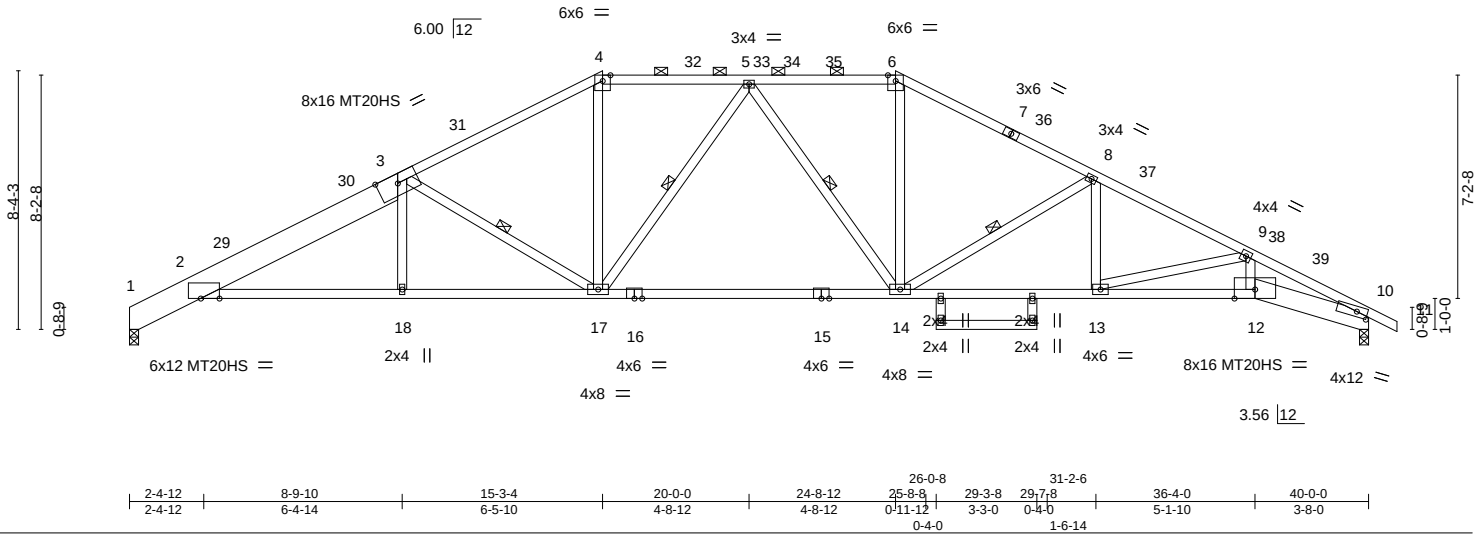

Plate Offsets (X,Y)-- [2:0-7-4,Edge], [10:0-4-3,0-2-0]

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	0.68	Vert(LL)	-0.31	14-17	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.74	14-17	>650	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.35	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 201 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF 1650F 1.5E *Except* 10-12: 2x8 SP 2400F 2.0E, 15-16: 2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-10 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-17, 5-17, 5-14, 8-14

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-153(LC 14)
Max Uplift 1=-138(LC 16), 10=-173(LC 16)
Max Grav 1=1810(LC 2), 10=1859(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/118, 2-3=-3637/427, 3-4=-2860/385, 4-5=-2450/375, 5-6=-2456/379, 6-8=-2860/385, 8-9=-3727/445, 9-10=-5269/553
BOT CHORD	2-18=-286/3322, 17-18=-285/3327, 14-17=-167/2584, 13-14=-291/3301, 12-13=-438/4547, 10-12=-450/4707
WEBS	3-17=-1134/182, 4-17=-61/862, 5-17=-426/62, 5-14=-420/61, 6-14=-57/856, 9-13=-1291/151, 9-12=-39/851, 8-13=-0/468, 8-14=-1101/176

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 15-3-4, Exterior(2R) 15-3-4 to 19-6-3, Interior(1) 19-6-3 to 24-8-12, Exterior(2R) 24-8-12 to 28-11-11, Interior(1) 28-11-11 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 10=173.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A5	Hip	1	1	I43385004

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A6	Hip	1	1	I43385005

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:00 2020 Page 1
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2-4-12	9-8-6	17-3-4	22-8-12	25-8-8	29-6-6	29-7-8	36-4-0	40-0-0	40-11-0
2-4-12	7-3-10	7-6-14	5-5-8	2-11-12	3-9-14	0-1-2	6-8-8	3-8-0	0-11-0

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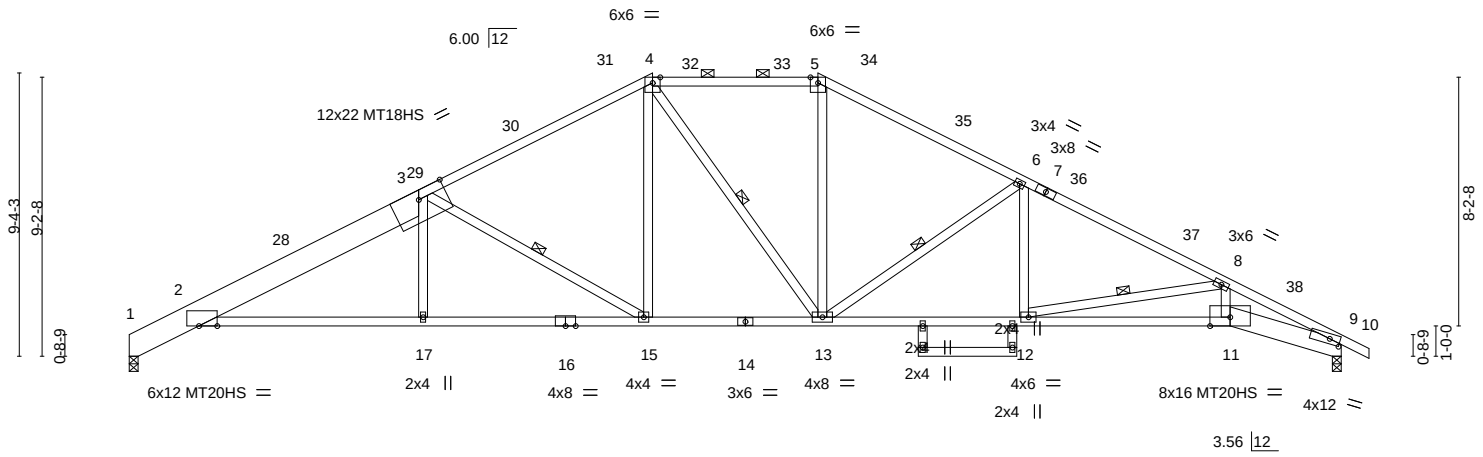

2-4-12	9-8-6	17-3-4	22-8-12	25-8-8	29-6-6	29-7-8	36-4-0	40-0-0
2-4-12	7-3-10	7-6-14	5-5-8	2-11-12	3-9-14	0-1-2	6-8-8	3-8-0

Plate Offsets (X,Y)-- [2:0-7-4,Edge], [9:0-4-3,0-2-0]

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	0.89	Vert(LL)	-0.32	11-12	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.61	11-12	>790	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.37	9	n/a	n/a	MT18HS	197/144
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 204 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 9-11: 2x8 SP 2400F 2.0E, 11-14: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-7-1 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-15, 4-13, 6-13, 8-12

REACTIONS. (size) 9=0-3-8, 1=0-3-8
Max Horz 1=-172(LC 14)
Max Uplift 9=-173(LC 16), 1=-138(LC 16)
Max Grav 9=1859(LC 2), 1=1810(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/118, 2-3=-3691/417, 3-4=-2685/380, 4-5=-2239/380, 5-6=-2660/383, 6-8=-3643/423, 8-9=-5416/564
BOT CHORD	2-17=-269/3361, 15-17=-267/3367, 13-15=-103/2241, 12-13=-254/3202, 11-12=-454/4702, 9-11=-463/4864
WEBS	3-17=0/312, 3-15=-1270/192, 4-15=-37/744, 5-13=-53/777, 6-13=-1156/174, 8-12=-1577/203, 8-11=-28/883, 6-12=0/511

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 17-3-4, Exterior(2R) 17-3-4 to 21-6-3, Interior(1) 21-6-3 to 22-8-12, Exterior(2R) 22-8-12 to 26-11-11, Interior(1) 26-11-11 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 9, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=173, 1=138.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385005
2523941	A6	Hip	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A7	HIP	1	1	I43385006

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:03 2020 Page 1
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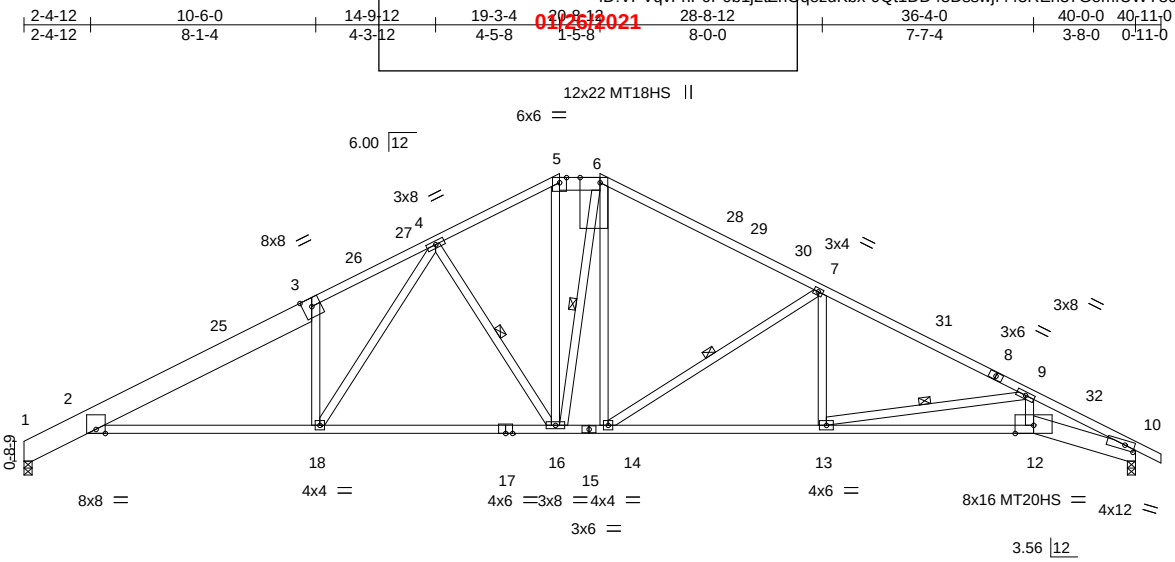

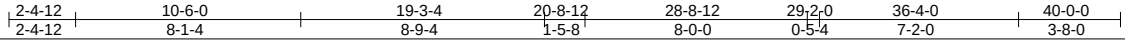

Plate Offsets (X,Y)-- [6:0-2-4,Edge], [10:0-4-3,0-2-0]

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	0.85	Vert(LL)	-0.36	12-13	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.67	12-13	>709	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.39	10	n/a	n/a	MT18HS	197/144
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 215 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2, 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 10-12: 2x8 SP 2400F 2.0E, 12-15: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-14 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-16, 7-14, 9-13, 6-16

REACTIONS. (size) 10=0-3-8, 1=0-3-8
Max Horz 1=-191(LC 14)
Max Uplift 10=-173(LC 16), 1=-138(LC 16)
Max Grav 10=1873(LC 39), 1=1845(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-818/115, 2-3=-3666/366, 3-4=-3771/466, 4-5=-2541/365, 5-6=-2195/349, 6-7=-2642/356, 7-9=-3704/393, 9-10=-5560/538
BOT CHORD	2-18=-207/3312, 16-18=-134/2685, 14-16=-60/2209, 13-14=-220/3266, 12-13=-435/4823, 10-12=-442/4992
WEBS	3-18=-761/175, 4-18=-126/1127, 4-16=-886/168, 5-16=-146/957, 6-14=-68/724, 7-14=-1241/189, 7-13=0/550, 9-13=-1692/218, 9-12=-19/919, 6-16=-317/275

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 19-3-4, Exterior(2E) 19-3-4 to 20-8-12, Exterior(2R) 20-8-12 to 24-11-11, Interior(1) 24-11-11 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 10, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=173, 1=138.
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.

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A7	HIP	1	1	I43385006

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	I43385007
2523941	A8	ROOF SPECIAL	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:04 2020 Page 1
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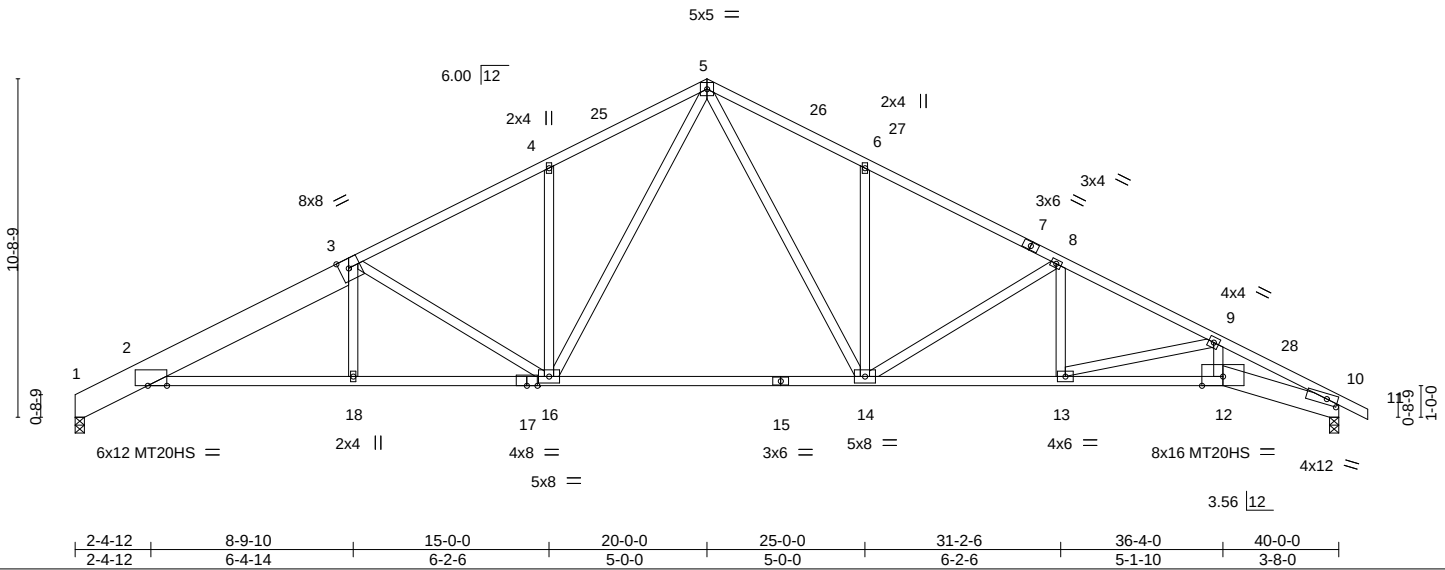
2-4-12	8-9-10	15-0-0	20-0-0	25-0-0	31-2-6	36-4-0	40-0-0	40-11-0
2-4-12	6-4-14	6-2-6	5-0-0	5-0-0	6-2-6	5-1-10	3-8-0	0-11-0

Scale = 1:72.9



2-4-12	8-9-10	15-0-0	20-0-0	25-0-0	31-2-6	36-4-0	40-0-0
2-4-12	6-4-14	6-2-6	5-0-0	5-0-0	6-2-6	5-1-10	3-8-0

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

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	0.58	Vert(LL)	-0.33	14-16	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.78	14-16	>613	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.34	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 201 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	10-12: 2x8 SP 2400F 2.0E, 12-15: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 10=0-3-8, 1=0-3-8
Max Horz 1=-199(LC 14)
Max Uplift 10=-173(LC 16), 1=-138(LC 16)
Max Grav 10=1859(LC 2), 1=1810(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/121, 2-3=-3626/409, 3-4=-2864/376, 4-5=-2840/462, 5-6=-2850/461, 6-8=-2867/373, 8-9=-3727/423, 9-10=-5269/525
BOT CHORD	2-18=-262/3309, 16-18=-260/3314, 14-16=-45/1900, 13-14=-261/3301, 12-13=-413/4546, 10-12=-424/4707
WEBS	3-16=-985/162, 4-16=-404/154, 5-16=-178/1205, 5-14=-180/1224, 6-14=-410/155, 8-14=-970/156, 8-13=-4/464, 9-13=-1287/157, 9-12=-33/853

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 10, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=173, 1=138.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

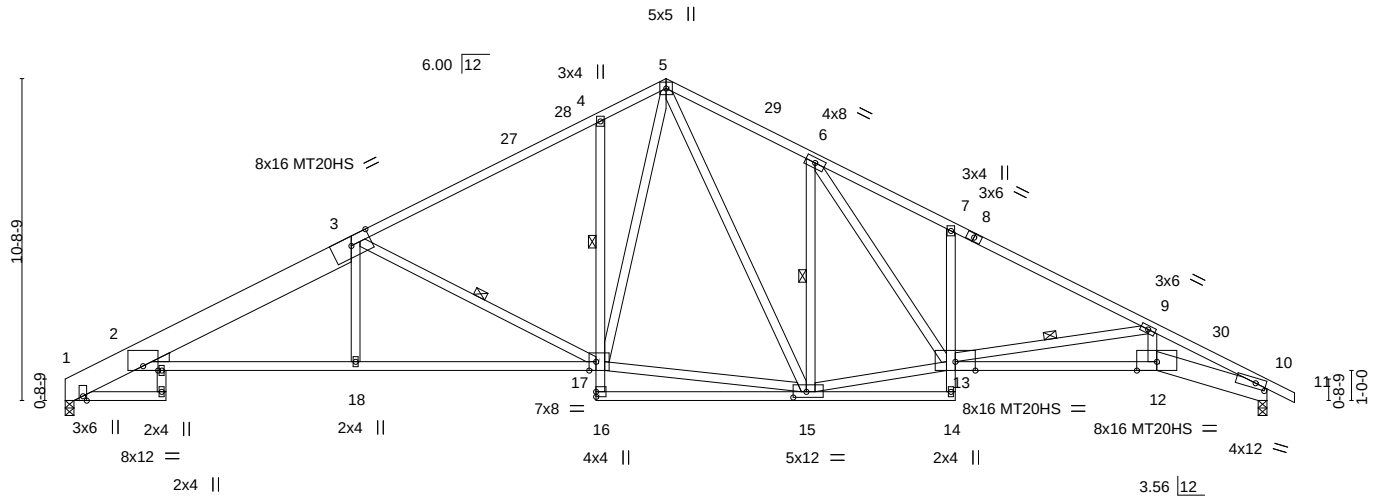
Job	Truss	Truss Type	Qty	Ply	I43385008
2523941	A9	Roof Special	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:06 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-Z?Z9sE6zWnEVa6ofkZnOhmuLysW_lVMB4P1pfLyP7bZ

3-9-12	9-8-0	17-8-0	20-0-0	24-9-12	29-7-8	36-4-0	40-0-0	40-11-0
3-9-12	5-10-4	8-0-0	2-4-0	4-9-12	4-9-12	6-8-8	3-8-0	0-11-0

Scale = 1:76.7



3-4-4	3-9-12	9-8-0	17-8-0	24-9-12	29-7-8	36-4-0	40-0-0
3-4-4	0-5-8	5-10-4	8-0-0	7-1-12	4-9-12	6-8-8	3-8-0

Plate Offsets (X,Y)-- [10:0-4-3,0-2-0], [15:0-5-4,0-2-4], [17:0-2-12,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	0.73	Vert(LL)	-0.33	12-13	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.64	12-13	>746	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.36	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 233 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	12-13: 2x4 SPF 1650F 1.5E, 10-12: 2x8 SP 2400F 2.0E
WEBS	2x4 SPF No.2
WEDGE	
Left: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied.	
BOT CHORD	Rigid ceiling directly applied. Except:	
	1 Row at midpt	4-17
WEBS	1 Row at midpt	3-17, 6-15, 9-13

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-199(LC 14)
Max Uplift 1=-138(LC 16), 10=-173(LC 16)
Max Grav 1=1810(LC 2), 10=1859(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/121, 2-3=-3561/403, 3-4=-2558/366, 4-5=-2443/434, 5-6=-2444/441, 6-7=-3423/482, 7-9=-3481/403, 9-10=-5368/536
BOT CHORD	2-18=-250/3234, 17-18=-248/3241, 4-17=-401/165, 7-13=-417/140, 12-13=-431/4645, 10-12=-438/4811
WEBS	3-18=0/340, 3-17=-1207/188, 15-17=-21/1735, 5-17=-196/1336, 5-15=-169/771, 6-15=-1176/231, 13-15=-81/2051, 6-13=-184/1540, 9-13=-1620/210, 9-12=-18/897

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 10=173.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A9	Roof Special	1	1	I43385008

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

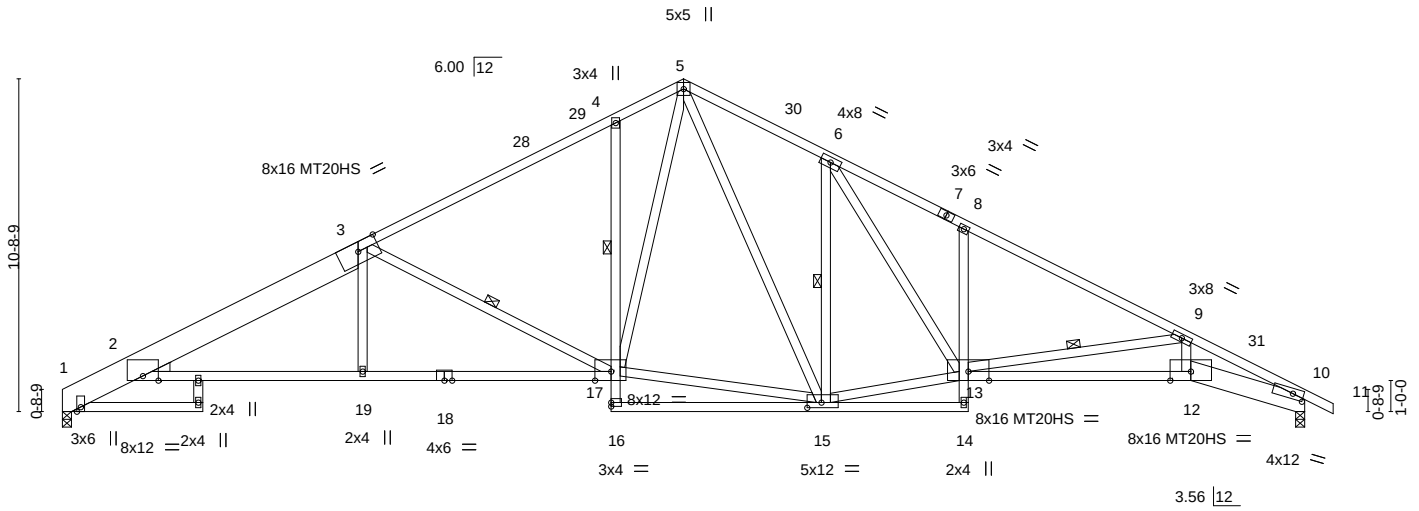
Job	Truss	Truss Type	Qty	Ply	
2523941	A10	ROOF SPECIAL	1	1	I43385009

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:46 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-99MbfPtQDejKB1HpZMQhtY3wRoh33SREUIBmxWyP7bt

4-6-4	9-8-0	17-8-0	20-0-9	24-7-0	29-2-0	33-5-14	36-4-0	40-0-0	40-11-0
4-6-4	5-1-12	8-0-0	2-4-0	4-7-0	4-7-0	4-3-14	2-10-1	3-8-0	0-11-0

Scale = 1:74.2



4-6-4	9-8-0	17-8-0	24-7-0	29-2-0	36-4-0	40-0-0
4-6-4	5-1-12	8-0-0	6-11-0	4-7-0	7-2-0	3-8-0

Plate Offsets (X,Y)-- [10:0-4-3,0-2-0], [15:0-5-8,0-2-0], [17:0-6-4,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	0.76	Vert(LL)	-0.34	12-13	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.67	12-13	>712	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.36	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 235 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	12-13: 2x4 SPF 1650F 1.5E, 10-12: 2x8 SP 2400F 2.0E
WEBS	2x4 SPF No.2
WEDGE	
Left: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied.	
BOT CHORD	Rigid ceiling directly applied. Except:	
	1 Row at midpt	4-17
WEBS	1 Row at midpt	3-17, 6-15, 9-13

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-199(LC 14)
Max Uplift 1=-138(LC 16), 10=-173(LC 16)
Max Grav 1=1810(LC 2), 10=1859(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/121, 2-3=-3561/403, 3-4=-2558/366, 4-5=-2444/434, 5-6=-2415/437, 6-8=-3360/479, 8-9=-3424/399, 9-10=-5394/539
BOT CHORD	2-19=-250/3234, 17-19=-248/3241, 4-17=-402/166, 8-13=-432/145, 12-13=-436/4672, 10-12=-442/4839
WEBS	3-19=0/339, 3-17=-1207/188, 15-17=-19/1739, 5-17=-197/1346, 5-15=-168/753, 6-15=-1197/228, 13-15=-72/2049, 6-13=-184/1547, 9-13=-1702/223, 9-12=-13/904

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 10=173.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A10	ROOF SPECIAL	1	1	I43385009

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2523941	A11	ROOF SPECIAL	1	1	I43385010

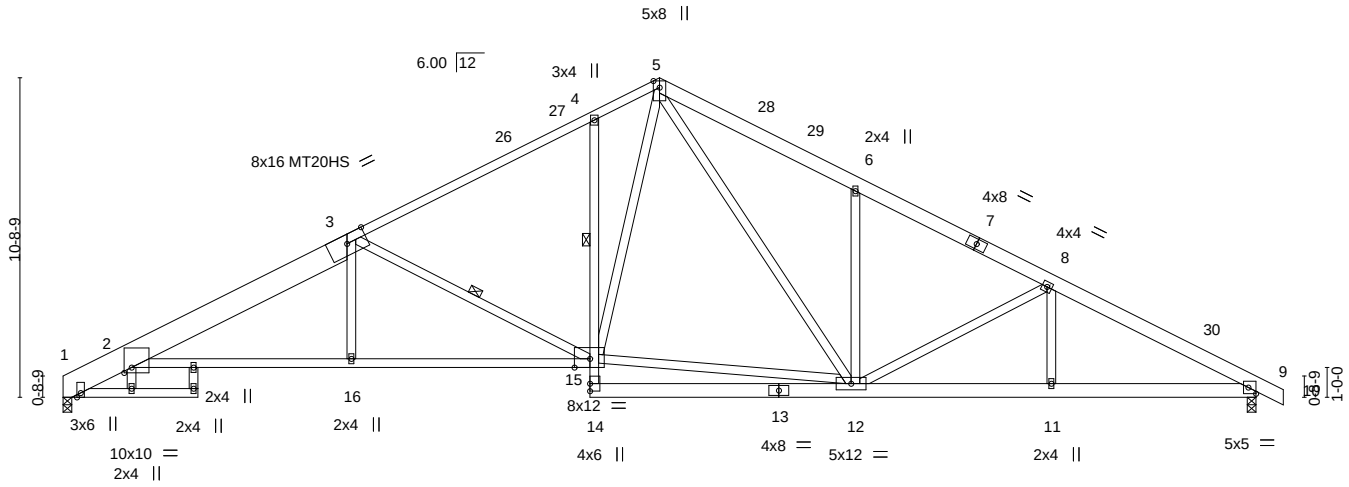
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:48 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-5XTM44uglFz2QLQCgnTAyz8GVcNmXLUXxbgs0OyP7br

4-6-4	9-8-0	17-8-0	20-0-0	26-6-13	33-1-11	40-0-0	40-11-0
4-6-4	5-1-12	8-0-0	2-4-0	6-6-13	6-6-13	6-10-5	0-11-0

Scale = 1:77.3



2-3-9	4-6-4	9-8-0	17-8-0	26-6-13	33-1-11	40-0-0
2-3-9	2-2-11	5-1-12	8-0-0	8-10-13	6-6-13	6-10-5

Plate Offsets (X,Y)-- [2:0-3-0,0-2-3], [9:Edge,0-2-8], [15:0-6-4,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	0.73	Vert(LL)	-0.24	15-16	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.52	15-16	>921	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.24	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 240 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x6 SPF No.2 *Except*
	3-5: 2x4 SPF No.2, 1-3: 2x10 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	17-18: 2x4 SP 2400F 2.0E, 13-14,9-13: 2x6 SPF No.2
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied. Except:
	1 Row at midpt 4-15
WEBS	1 Row at midpt 3-15

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=-200(LC 14)
Max Uplift 1=-138(LC 16), 9=-173(LC 16)
Max Grav 1=1810(LC 2), 9=1859(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-801/124, 2-3=-3562/403, 3-4=-2557/366, 4-5=-2437/433, 5-6=-2757/477, 6-8=-2721/362, 8-9=-3249/368
BOT CHORD	2-16=-247/3235, 15-16=-244/3241, 4-15=-398/164, 11-12=-240/2806, 9-11=-240/2806
WEBS	3-16=0/341, 3-15=-1209/188, 12-15=-21/1629, 5-15=-187/1270, 5-12=-198/990, 6-12=-538/189, 8-12=-554/112

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-10-9, Interior(1) 2-10-9 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 9=173.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	A12	Roof Special	2	1	I43385011

Job Reference (optional)

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

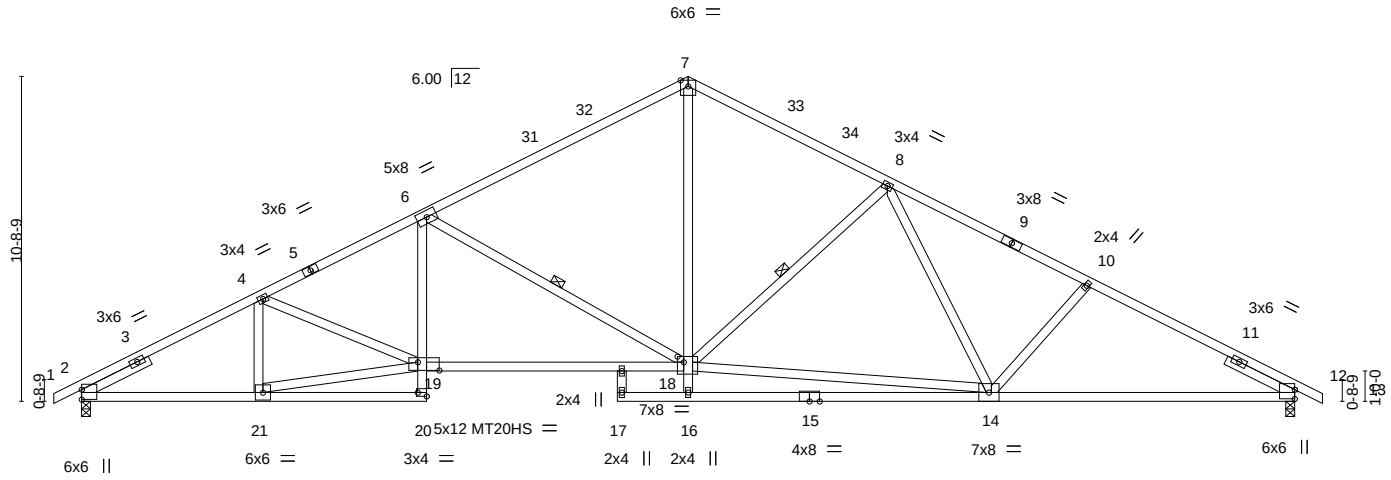
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:38:49 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Zk1kHQvlWZ5v2V?OEV_PUAhPB0idGn2hAFPQYqyP7bq

01/26/2021

-0-11-0	5-10-0	11-4-8	17-8-0	20-0-0	26-6-13	33-1-11	40-0-0	40-11-0
0-11-0	5-10-0	5-6-8	6-3-8	2-4-0	6-6-13	6-6-13	6-10-5	0-11-0

Scale = 1:76.0



5-10-0	11-4-8	17-8-0	20-0-0	26-6-13	30-0-0	33-1-11	40-0-0
5-10-0	5-6-8	6-3-8	2-4-0	6-6-13	3-5-3	3-1-11	6-10-5

Plate Offsets (X,Y)-- [18:0-2-8,0-2-4], [19:0-8-8,0-3-4], [20:Edge,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	0.86	Vert(LL)	-0.34	14-16	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.79	14-16	>608	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.21	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 188 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	5-7: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2 *Except*
	2-20: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-18, 8-18

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=-200(LC 14)
Max Uplift 2=-164(LC 16), 12=-165(LC 16)
Max Grav 2=1887(LC 2), 12=1885(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-3118/332, 4-6=-3405/376, 6-7=-2381/339, 7-8=-2306/344, 8-10=-2904/358, 10-12=-3130/356
BOT CHORD	2-21=-208/2705, 6-19=0/587, 18-19=-193/3062, 12-14=-225/2717
WEBS	4-21=-463/79, 19-21=-152/2603, 4-19=0/334, 6-18=-1232/197, 16-18=0/275, 7-18=-131/1475, 10-14=-330/134, 14-18=-149/2362, 8-18=-690/161, 8-14=0/345

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=164, 12=165.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	B1	Monopitch	2	1	I43385012

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:07 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-1B7Y3a7bH5MLCGNsIHIdDzQa0G?dU?uKJ3nNBoyP7bY

-0-11-0 5-10-0 11-4-8 17-11-8
0-11-0 5-10-0 5-6-8 6-7-0

Scale = 1:52.9

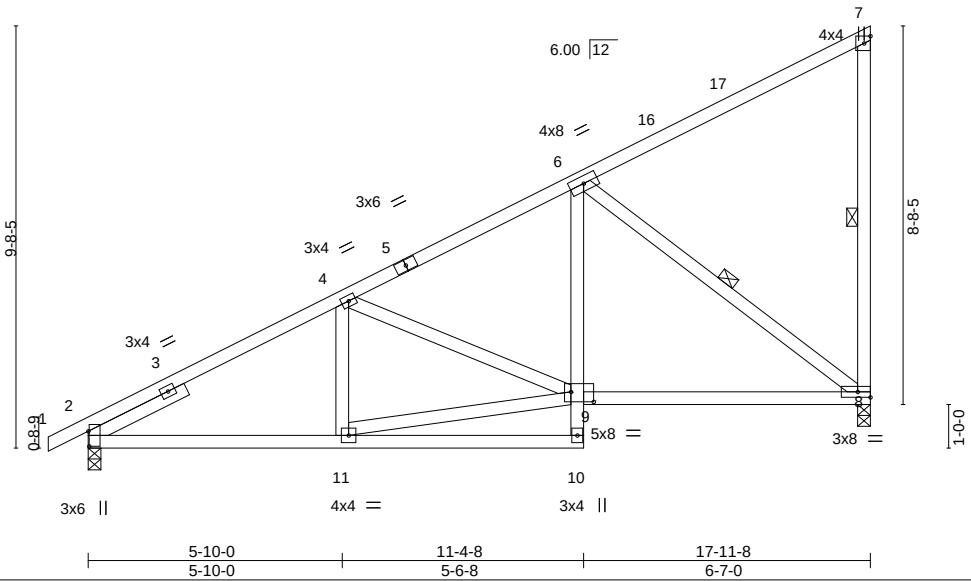


Plate Offsets (X,Y)-- [2:0-4-2,0-0-4], [9:0-6-4,0-2-12]

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	0.45	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 88 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-8, 6-8

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=309(LC 13)
Max Uplift 8=-83(LC 13), 2=-81(LC 16)
Max Grav 8=800(LC 2), 2=867(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1107/214, 4-6=-866/196
BOT CHORD 2-11=-394/990, 6-9=-51/453, 8-9=-307/729
WEBS 9-11=-345/948, 4-9=-307/125, 6-8=-897/282

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) 8, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	B2	Half Hip	1	1	I43385013

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:08 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-VNhwHw8D2OUCqQy2r_qsmBzn9gKhDKkUYjWwjEyP7bX

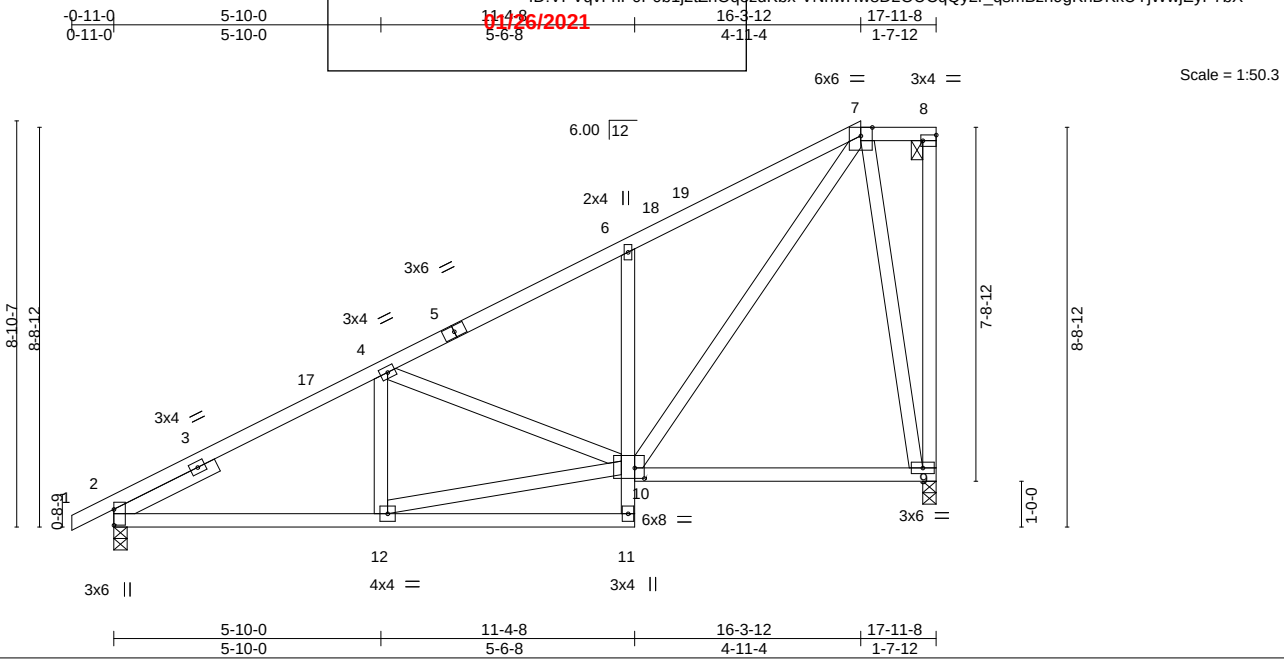


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [8:Edge,0-1-8], [10:0-2-8,0-2-12]

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	0.36	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.14	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 96 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=278(LC 13)
Max Uplift 9=-82(LC 13), 2=-83(LC 16)
Max Grav 9=851(LC 36), 2=867(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1255/154, 4-6=-994/149, 6-7=-1004/231
BOT CHORD 2-12=-297/1087, 6-10=-493/154
WEBS 10-12=-266/1054, 4-10=-322/91, 7-10=-201/1128, 7-9=-832/321

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 16-3-12, Exterior(2E) 16-3-12 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	B3	Half Hip	1	1	I43385014

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:10 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-Smoghc9UZ0lw3j6RzPsKrb28nU1dhGMm?0?1o7yP7bV

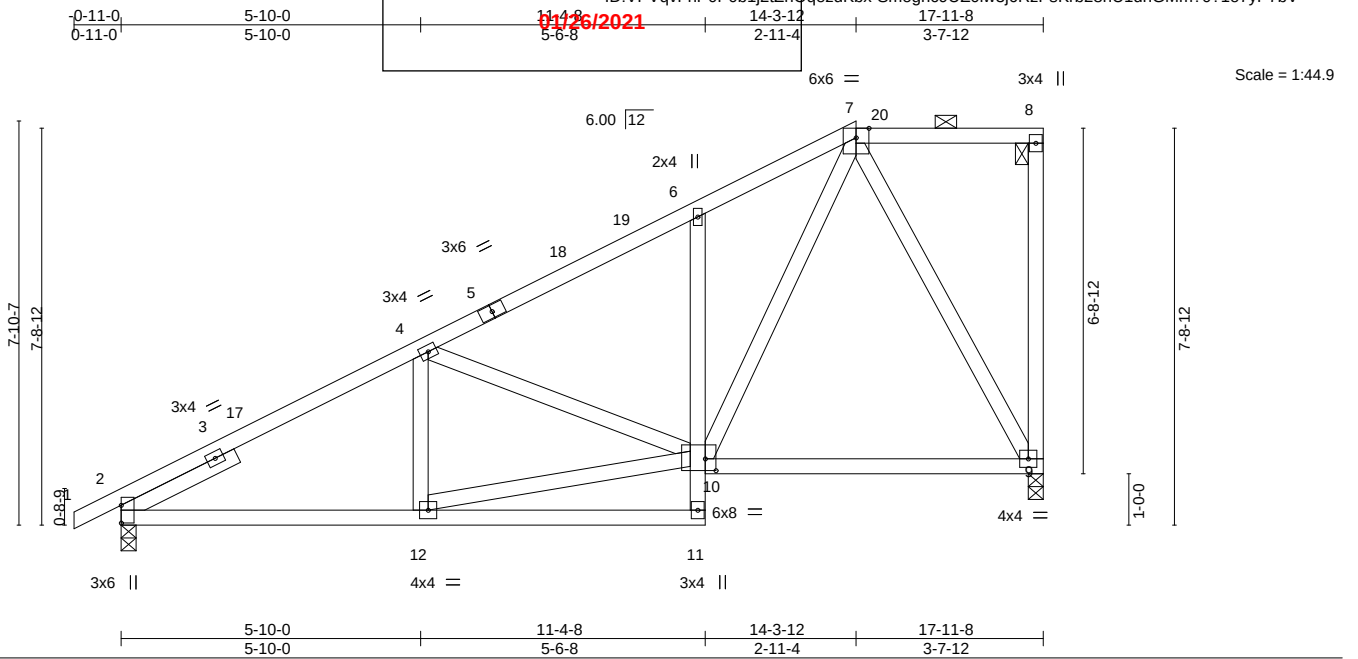


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [10:0-2-8,0-2-12]

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	0.29	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.13	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 92 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=243(LC 13)
Max Uplift 9=-83(LC 13), 2=-85(LC 16)
Max Grav 9=800(LC 2), 2=898(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1312/158, 4-6=-972/152, 6-7=-927/208
BOT CHORD 2-12=-303/1127, 6-10=-384/131, 9-10=-172/360
WEBS 10-12=-280/1110, 4-10=-382/94, 7-10=-163/953, 7-9=-739/240

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 14-3-12, Exterior(2E) 14-3-12 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	B4	Half Hip	1	1	I43385015

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:11 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-wyM2vyA6KJtnhthdX6NZOpbFytN1QhgwEglaKZyP7bU

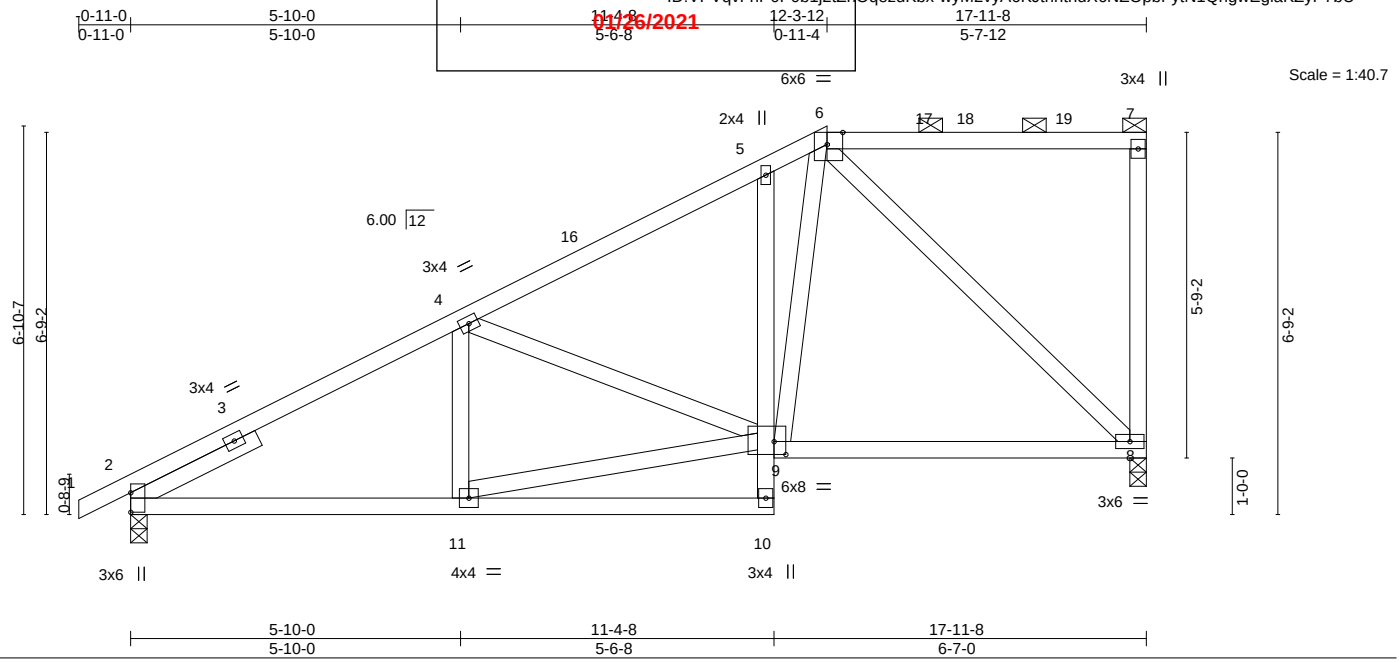


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:0-3-5,Edge], [9:0-2-8,0-2-12]

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	0.45	Vert(LL)	-0.06	8-9	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.13	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 90 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=209(LC 13)
Max Uplift 8=-85(LC 13), 2=-87(LC 16)
Max Grav 8=800(LC 2), 2=939(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1164/166, 4-5=-908/161, 5-6=-817/183
BOT CHORD 2-11=-302/1110, 5-9=-285/97, 8-9=-209/573
WEBS 9-11=-284/1099, 4-9=-429/93, 6-9=-121/789, 6-8=-774/219

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 12-3-12, Exterior(2R) 12-3-12 to 16-6-11, Interior(1) 16-6-11 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385016
2523941	B5	Half Hip	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:12 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-O9wR6IBk5d?eI1Gp4quow08LYHg29Gx3TKU8s?yP7bT

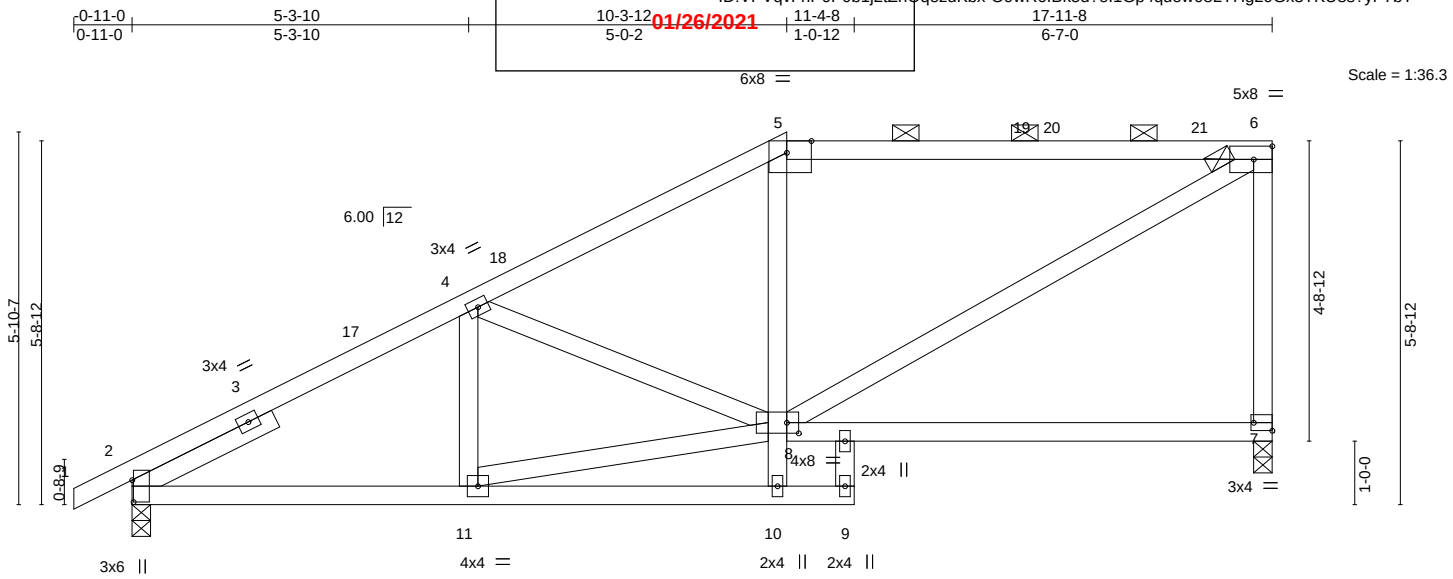


Plate Offsets (X,Y)-- [2:0-4-2,0-0-4], [5:0-4-10,Edge], [7:Edge,0-1-8], [8:0-2-4,0-2-0]

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	0.78	Vert(LL)	-0.14	7-8	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.28	7-8	>755	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 83 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-0-8 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=173(LC 13)
Max Uplift 7=-64(LC 16), 2=-85(LC 16)
Max Grav 7=813(LC 2), 2=956(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1200/165, 4-5=-997/177, 5-6=-846/184, 6-7=-725/205
BOT CHORD 2-11=-294/1073
WEBS 6-8=-228/905, 8-11=-297/1059, 4-8=-343/64

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-3-12, Exterior(2R) 10-3-12 to 14-6-11, Interior(1) 14-6-11 to 17-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	C1	Common	3	1	I43385017

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:14 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-KX2BXzC_dEFMYLQCCFwG?RDoy5PVdELMwezFxuyP7bR

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 5-11-0 11-10-0
0-11-0 5-11-0 5-11-0

Scale: 1/2"=1'

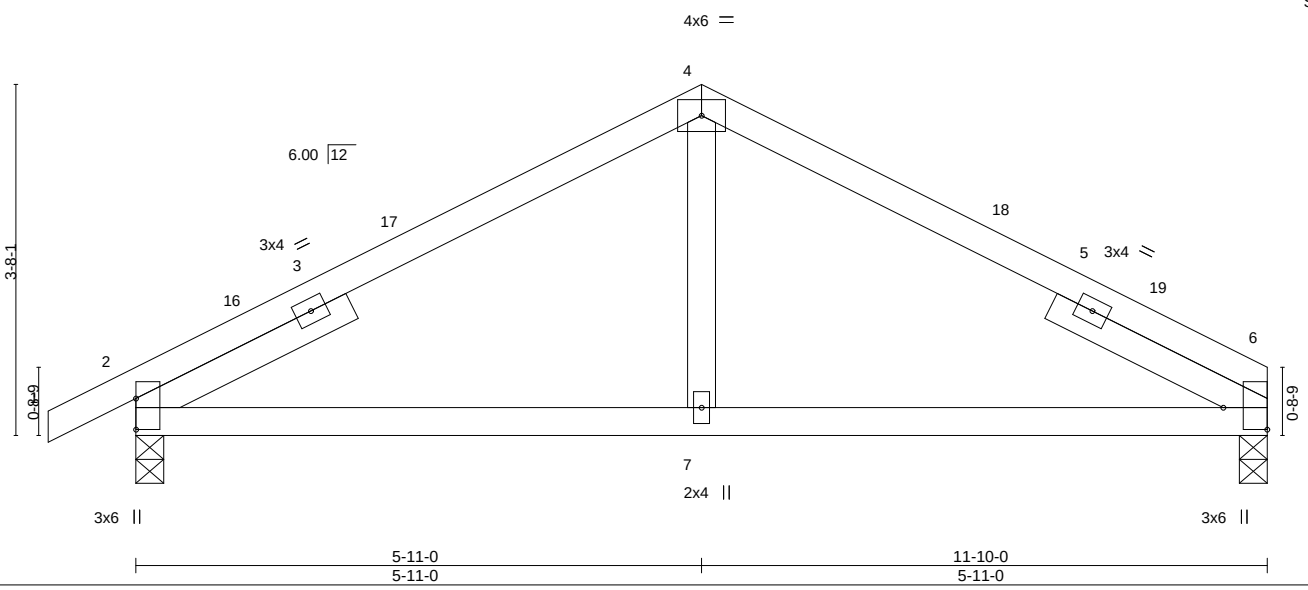


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:Edge,0-5-8]

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	0.34	Vert(LL)	-0.04	7-10	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 39 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

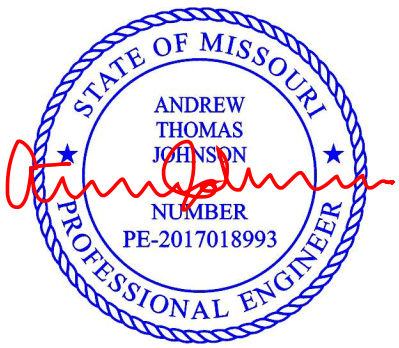
TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=63(LC 15)
Max Uplift 6=-42(LC 16), 2=-72(LC 16)
Max Grav 6=530(LC 2), 2=599(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-608/236, 4-6=-607/240
BOT CHORD 2-7=-128/535, 6-7=-128/535

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-11-0, Exterior(2R) 5-11-0 to 8-11-0, Interior(1) 8-11-0 to 11-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385018
2523941	C2	Hip Girder	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:15 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-okcZlJDcOYND9V_OmySVYflwmVdeMfFV9IjoTKyP7bQ

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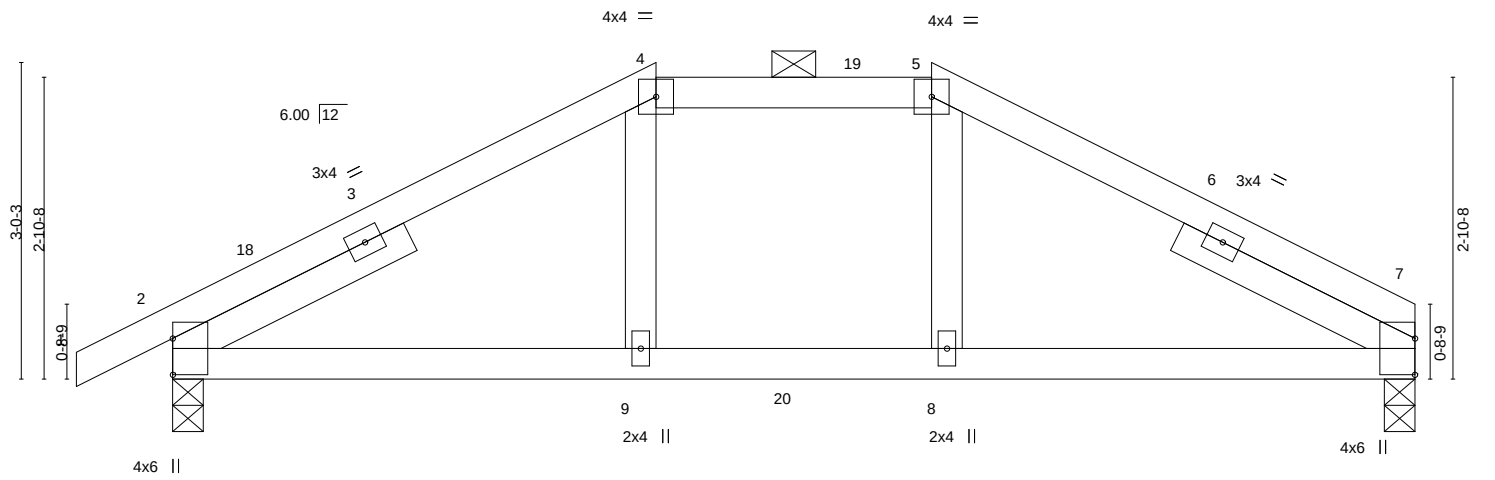
0-11-0 4-7-4 2-7-8 4-7-4

Scale = 1:21.9



4-7-4 7-2-12 11-10-0
4-7-4 2-7-8 4-7-4

Plate Offsets (X,Y)-- [2:Edge,0-0-0], [7:Edge,0-0-0]

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	0.53	Vert(LL)	-0.07	8-9	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.10	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.04	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 41 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-0-1 oc purlins, except 2-0-0 oc purlins (4-10-11 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 2=0-3-8
Max Horz 2=49(LC 57)
Max Uplift 7=-139(LC 12), 2=-168(LC 12)
Max Grav 7=1048(LC 35), 2=1135(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1627/263, 4-5=-1381/245, 5-7=-1625/261
BOT CHORD 2-9=-187/1412, 8-9=-183/1381, 7-8=-187/1412
WEBS 4-9=-72/578, 5-8=-72/575

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=139, 2=168.
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) 344 lb down and 84 lb up at 4-7-4, and 297 lb down and 68 lb up at 5-11-0, and 344 lb down and 84 lb up at 7-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	C2	Hip Girder	1	1	I43385018

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-51, 4-5=-61, 5-7=-51, 10-14=-20
   Concentrated Loads (lb)
   Vert: 9=-344 8=-344 20=-297

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

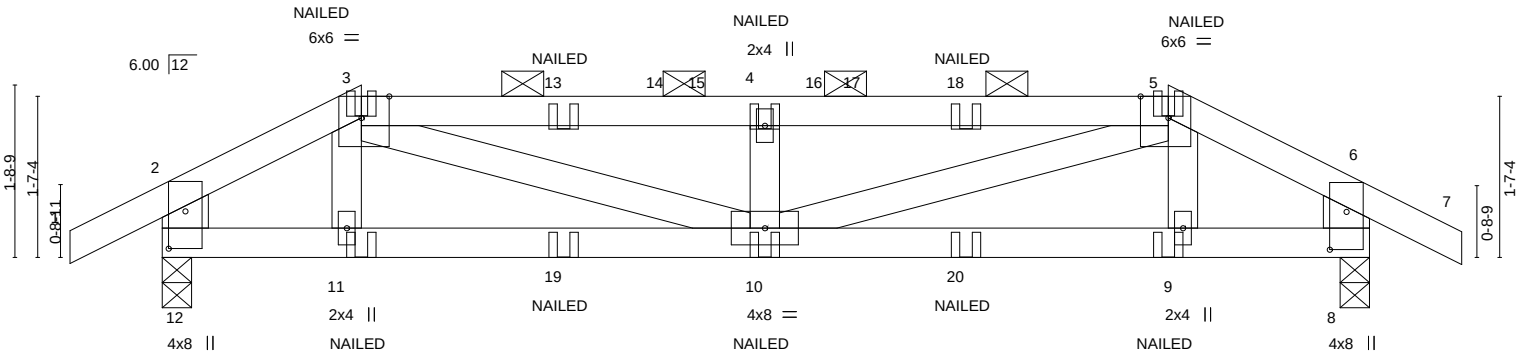
Job	Truss	Truss Type	Qty	Ply	I43385019
2523941	D1	Hip Girder	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:17 2020 Page 1
ID:VPVqvFnP0P0b1j2ZrlOqezdKbx-k6jJ9?Ftw9dxPo8ntNUzd4rIAIPqqXhoccCvYDyP7bO

-0-11-0	1-11-12	5-11-14	10-0-0	12-0-0	12-11-0
0-11-0	1-11-12	4-0-2	4-0-2	2-0-0	0-11-0

Scale = 1:22.9



1-11-12	5-11-14	10-0-0	12-0-0
1-11-12	4-0-2	4-0-2	2-0-0

Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge], [8:0-4-8,0-2-0], [12:0-4-7,0-2-0]

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	0.41	Vert(LL)	-0.06	10	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.09	10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 45 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-12,6-8: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-15 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=-44(LC 10)
Max Uplift 12=-80(LC 12), 8=-80(LC 12)
Max Grav 12=601(LC 2), 8=601(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-701/54, 3-4=-1404/116, 4-5=-1404/116, 5-6=-708/54, 2-12=-487/75, 6-8=-489/75
BOT CHORD 11-12=-30/588, 10-11=-34/594, 9-10=-27/600, 8-9=-23/594
WEBS 3-10=-73/853, 4-10=-437/82, 5-10=-73/846

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 8.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-2=-51, 2-3=-51, 3-5=-61, 5-6=-51, 6-7=-51, 8-12=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	D1	Hip Girder	1	1	I43385019

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 11=-5(F) 10=0(F) 9=-5(F) 19=0(F) 20=0(F)

Job	Truss	Truss Type		Qty	Ply	
2523941	D2	Hip		1	1	I43385020

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/28/2021

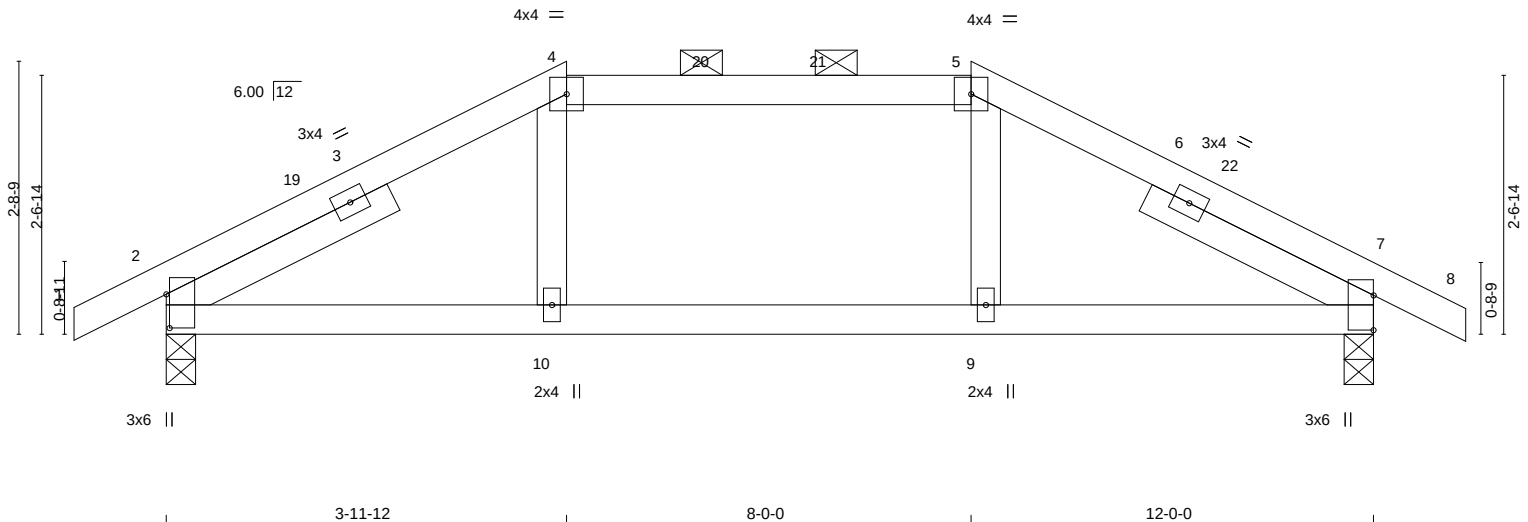
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:19 2020 Page 1
ID:VPVqvFnP0P0b1j2tZdOqezdKbx-hVr4ahG7Sntfe6I9?oWRiVwgK67OIUv54wh?c5yP7bM

-0-11-0 / 0-11-0 | 3-11-12 / 3-11-12 | 8-0-0 / 4-0-4 | 12-0-0 / 4-0-0 | 12-11-0 / 0-11-0

Scale = 1:22.9



3-11-12 / 3-11-12 | 8-0-0 / 4-0-4 | 12-0-0 / 4-0-0

Plate Offsets (X,Y)-- [2:0-4-0,0-0-6], [7:Edge,0-0-0]

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	0.30	Vert(LL)	-0.04	9	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.06	9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 42 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-45(LC 14)
Max Uplift 2=-72(LC 16), 7=-72(LC 16)
Max Grav 2=608(LC 39), 7=608(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-673/232, 4-5=-628/231, 5-7=-672/231
BOT CHORD 2-10=-123/633, 9-10=-124/628, 7-9=-122/632

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-12, Exterior(2E) 3-11-12 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-0, Interior(1) 12-0-0 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	D3	Common	3	1	I43385021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:20 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-9hPSo1HlD4?VGGtMYV1gFiTqNWSz1xqFIaQZ8XyP7bL

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0-11-0 5-11-14 6-0-2 0-11-0

Scale = 1:24.9

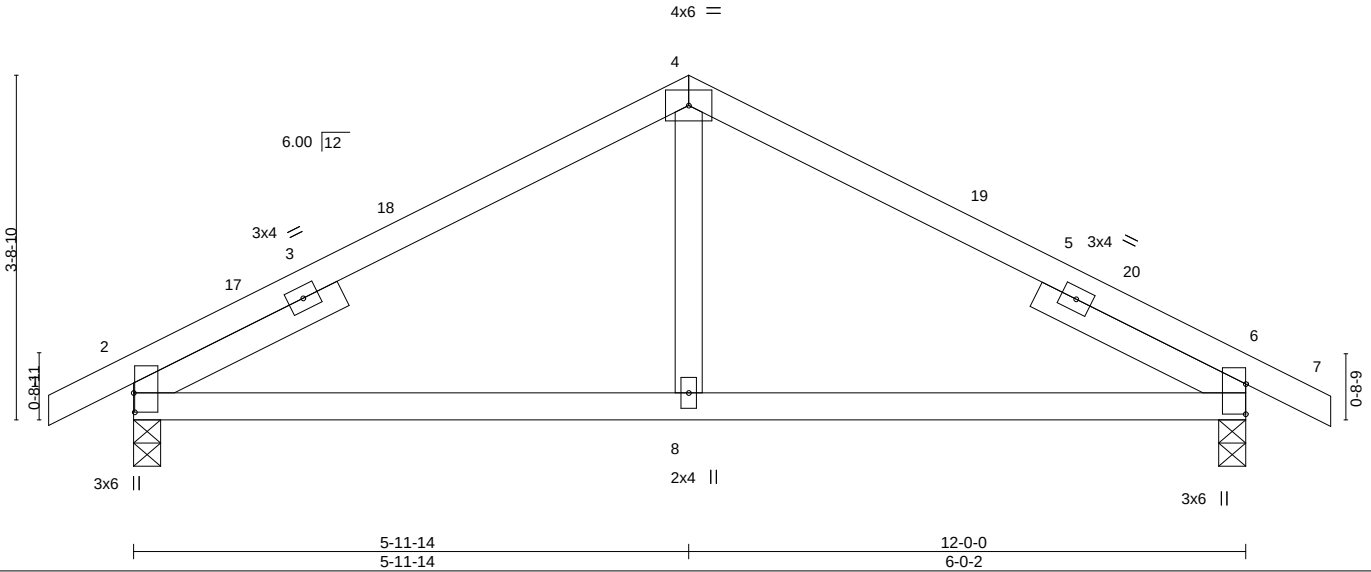


Plate Offsets (X,Y)-- [2:0-2-8,0-0-2], [6:Edge,0-0-0]

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	0.35	Vert(LL)	-0.04	8-15	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.06	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 41 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-66(LC 14)
Max Uplift 2=-72(LC 16), 6=-72(LC 16)
Max Grav 2=604(LC 2), 6=604(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-609/235, 4-6=-608/235
BOT CHORD 2-8=-93/536, 6-8=-93/536

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-11-14, Exterior(2R) 5-11-14 to 8-11-14, Interior(1) 8-11-14 to 12-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

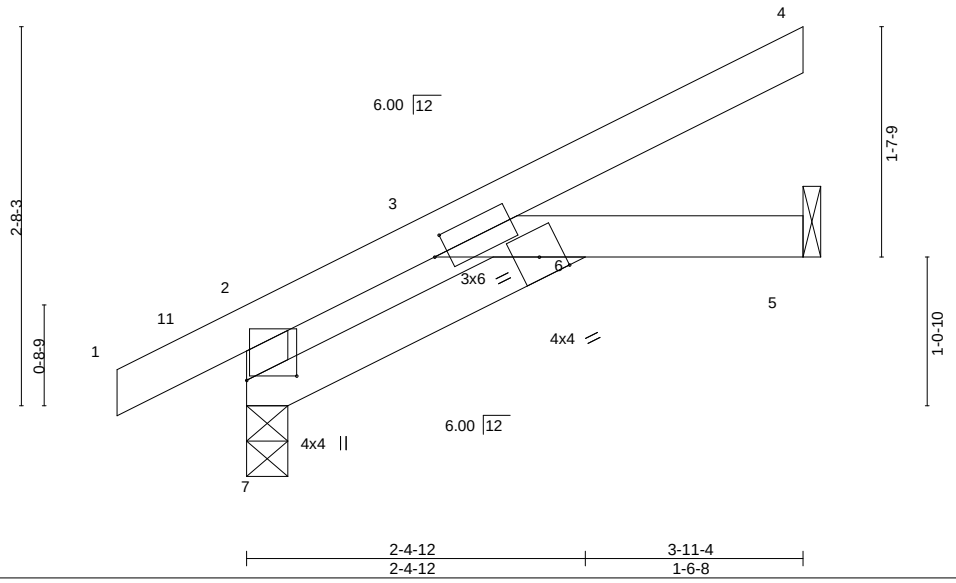
Job	Truss	Truss Type	Qty	Ply	I43385022
2523941	JA1	Jack-Closed	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:21 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-duzq?MIN_O7MtQSY6DZvnw?0ivkZmOROXEA6h_yP7bK

Job Reference (optional)

-0-11-0 / 0-11-0 | 2-4-12 / 2-4-12 | 3-11-4 / 1-6-8

Scale = 1:16.3



2-4-12 / 2-4-12 | 3-11-4 / 1-6-8

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-1-3,0-1-8], [7:0-0-14,0-1-12], [7:0-0-6,0-4-4]

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	0.31	Vert(LL)	0.04	6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.06	6	>794	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.03	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 5=Mechanical
Max Horz 7=90(LC 16)
Max Uplift 7=-23(LC 16), 5=-58(LC 16)
Max Grav 7=264(LC 2), 5=171(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 1-10-15, Interior(1) 1-10-15 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA2	Jack-Closed	1	1	I43385023

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:29 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-OQSsh6OO5r8Ere34auin6cLPT8XHe0TZNU6XzWyP7bC

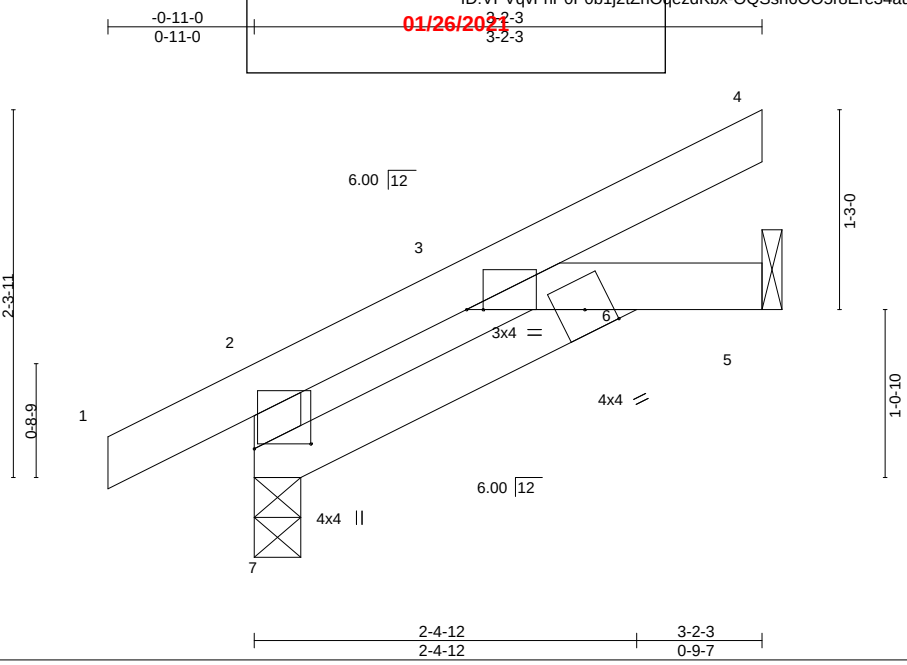


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [3:0-1-4,Edge], [7:0-0-14,0-1-12], [7:0-0-6,0-4-4]

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	0.13	Vert(LL)	-0.01	10	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.02	10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 7=0-3-8, 5=Mechanical
Max Horz 7=74(LC 16)
Max Uplift 7=-23(LC 16), 5=-42(LC 16)
Max Grav 7=249(LC 21), 5=146(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 1-10-15, Interior(1) 1-10-15 to 3-2-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA3	Diagonal Hip Girder	1	1	I43385024

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:30 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-sc0EuRP0s9G5ToeH8cD0fptWsYqYNTAjc8r5VyyP7bB

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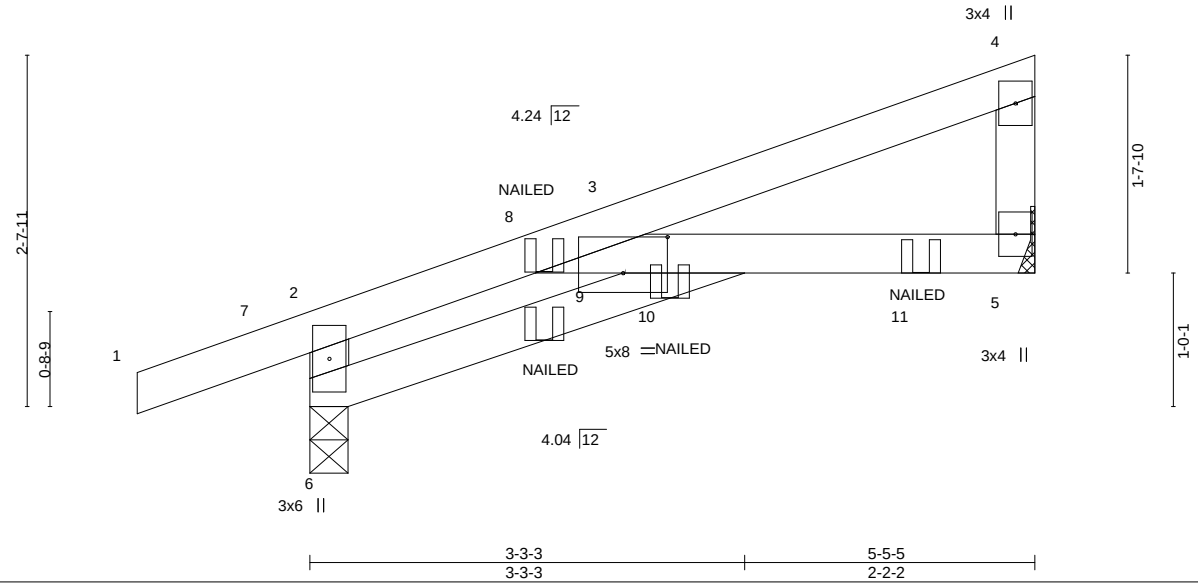
1-3-9 3-3-3 2-2-2

Scale = 1:17.3



3-3-3 5-5-5
3-3-3 2-2-2

Plate Offsets (X,Y)-- [3:0-4-0,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	3-5	>922	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.11	3-5	>570	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.07	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 18 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 6=0-3-7, 5=Mechanical
Max Horz 6=72(LC 9)
Max Uplift 6=-87(LC 12), 5=-78(LC 12)
Max Grav 6=381(LC 2), 5=361(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-360/100, 2-3=-264/64

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 5.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) 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 (plf)
Vert: 1-2=-51, 2-3=-51, 3-4=-51, 3-6=-20, 3-5=-20
Concentrated Loads (lb)
Vert: 9=1(B) 10=-39(F) 11=-125(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA4	Monopitch	1	1	I43385025

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:31 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Kpac5nPfdSOy4yDTiJkFB1QnZxGo6wQsqobe1PyP7bA

1-10-3
1-10-3

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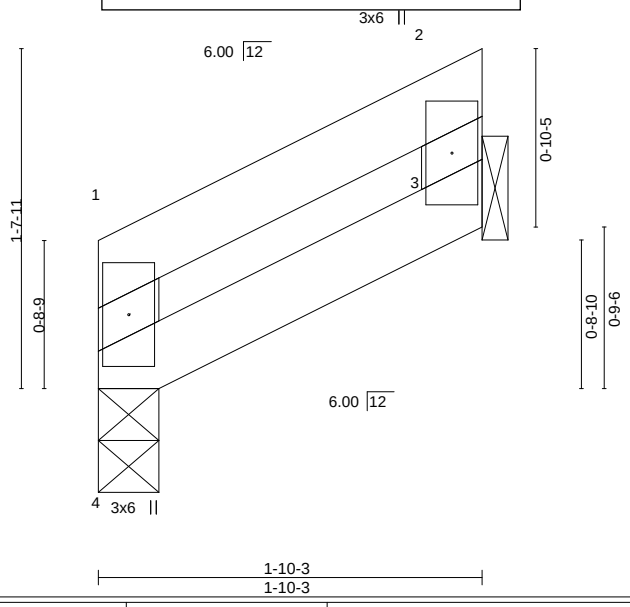

1-10-3
1-10-3

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	0.03	Vert(LL)	-0.00	4	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 3=Mechanical
Max Horz 4=33(LC 13)
Max Uplift 3=-16(LC 13)
Max Grav 4=70(LC 2), 3=73(LC 27)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; 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) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA5	Half Hip Girder	1	1	I43385026

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:32 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-o?7_J7QHOmWoi6ofF1FUkEznFLPZrKt03SKBZryP7b9

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

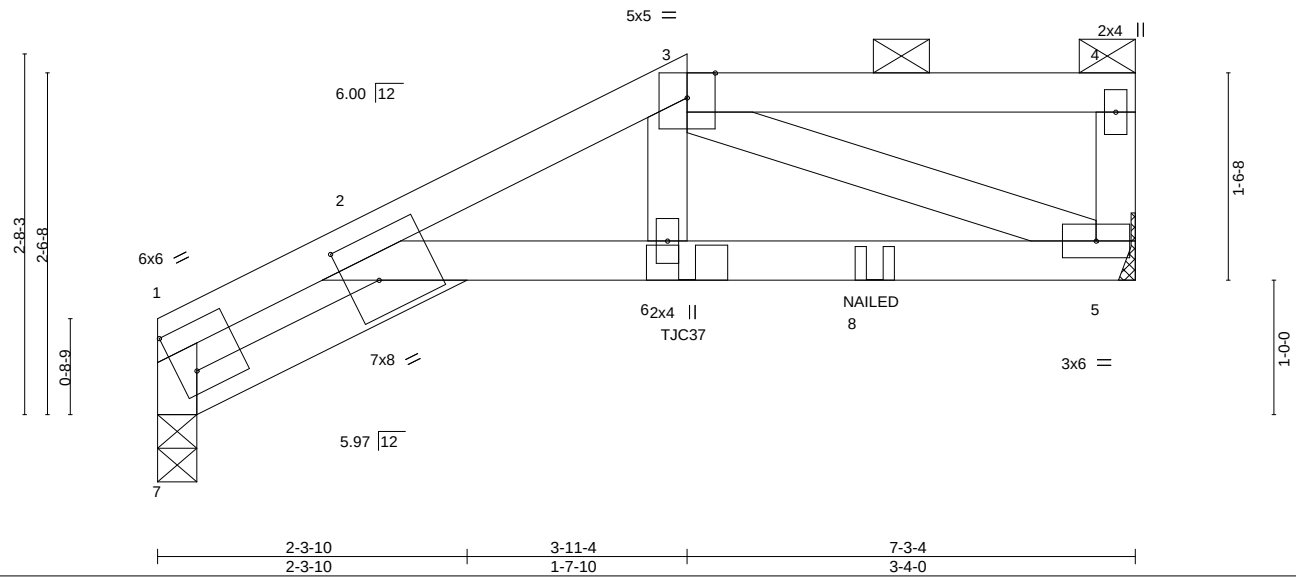

Plate Offsets (X,Y)-- [1:0-1-15,0-0-0], [1:0-1-11,0-4-1], [2:0-2-14,0-4-0], [7:0-0-14,0-1-12]

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	0.74	Vert(LL)	-0.09	2-6	>971	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.14	2-6	>588	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.12	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 25 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-5: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-5 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 Horz 7=63(LC 9)
Max Uplift 5=-132(LC 9), 7=-82(LC 12)
Max Grav 5=598(LC 30), 7=529(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-7=-484/100, 1-2=-456/102, 2-3=-1180/264
BOT CHORD 2-6=-257/1074, 5-6=-245/1025
WEBS 3-6=-134/618, 3-5=-1041/238

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5=132.
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) Use Simpson Strong-Tie TJC37 (6 nail 90-150) or equivalent at 3-11-4 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

October 28,2020

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA5	Half Hip Girder	1	1	I43385026

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-51, 2-3=-51, 3-4=-61, 2-7=-20, 2-5=-20
   Concentrated Loads (lb)
   Vert: 6=-333(B) 8=-146(B)

Job	Truss	Truss Type	Qty	Ply	
2523941	JA6	Half Hip Girder	1	1	I43385027

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:33 2020 Page 1
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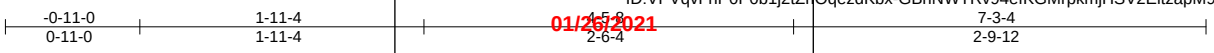

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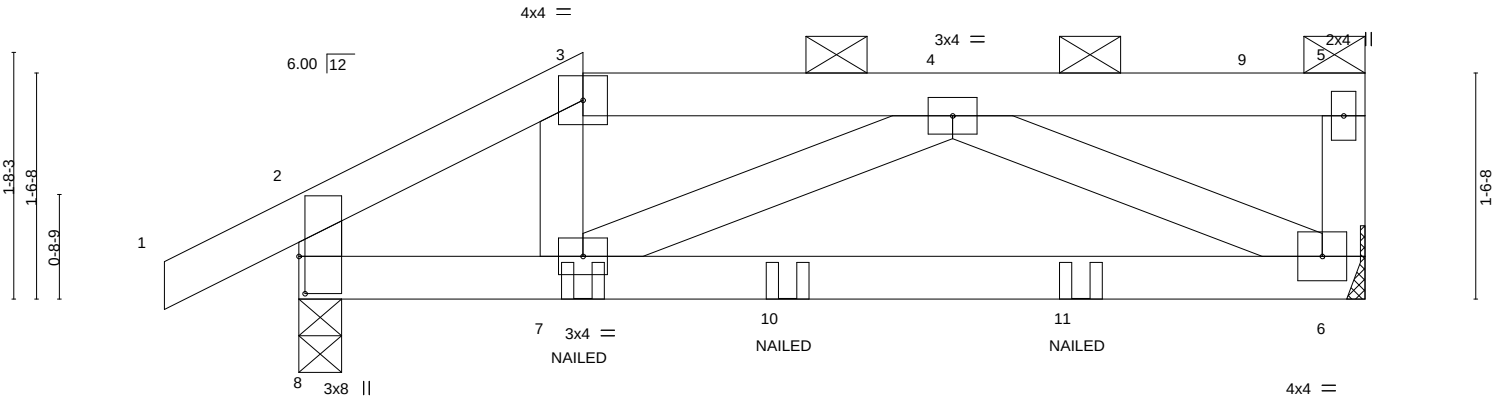

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [8:0-3-1,0-0-8], [8:0-0-0,0-1-12]

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	0.34	Vert(LL)	0.05	6-7	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.07	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 27 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=51(LC 11)
Max Uplift 6=-122(LC 9), 8=-146(LC 12)
Max Grav 6=424(LC 31), 8=474(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-551/200, 3-4=-436/165, 2-8=-432/159
BOT CHORD 7-8=-190/456, 6-7=-172/544
WEBS 4-6=-528/150

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=122, 8=146.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA6	Half Hip Girder	1	1	I43385027

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-51, 2-3=-51, 3-5=-61, 6-8=-20

Concentrated Loads (lb)

Vert: 7=-70(F) 10=-40(F) 11=-40(F)

Job	Truss	Truss Type	Qty	Ply	
2523941	JA7	Jack-Closed	7	1	I43385028

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:34 2020 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 / 0-11-0 | 2-3-10 / 2-3-10 | 7-3-4 / 4-11-10

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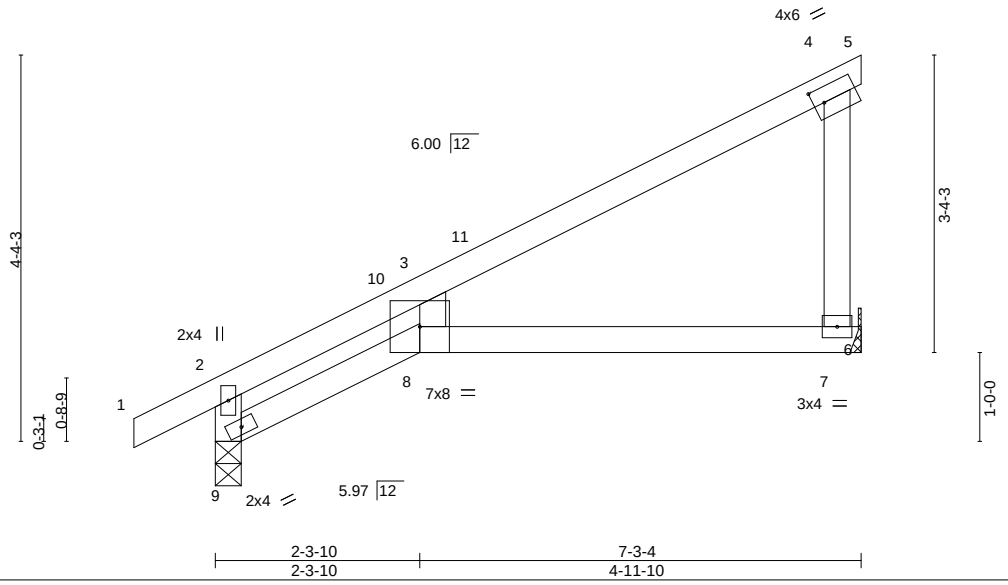

2-3-10 / 2-3-10 | 7-3-4 / 4-11-10

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

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	0.54	Vert(LL)	0.12	8	>684	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.19	7-8	>440	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.09	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 23 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 7=Mechanical, 9=0-3-8
Max Horz 9=131(LC 13)
Max Uplift 7=-38(LC 13), 9=-50(LC 16)
Max Grav 7=354(LC 21), 9=388(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-329/123

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 7-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA8	Half Hip	1	1	I43385029

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:35 2020 Page 1
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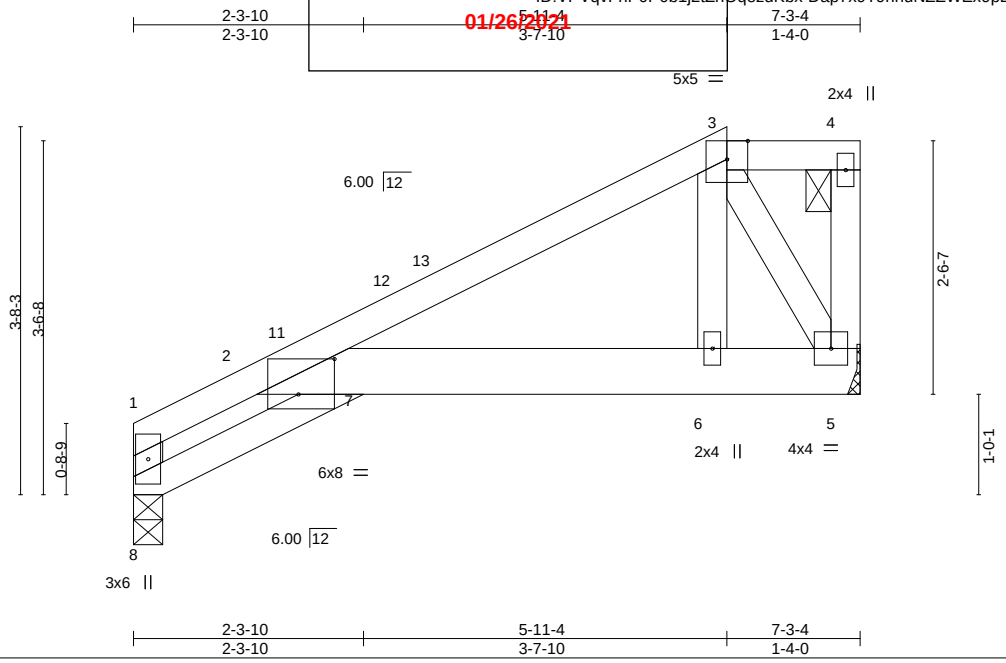


Plate Offsets (X,Y)-- [2:0-5-8,0-2-12], [7:0-4-5,0-4-4], [7:0-3-15,0-0-0]

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	0.57	Vert(LL)	-0.06	7	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.09	7	>899	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.05	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 30 lb	FT = 20%

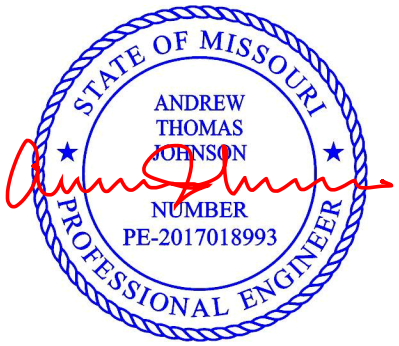
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-5: 2x6 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Horz 8=97(LC 13)
Max Uplift 8=-20(LC 16), 5=-36(LC 13)
Max Grav 8=369(LC 35), 5=314(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-347/170, 2-3=-365/111
BOT CHORD 2-7=0/259, 6-7=-174/259
WEBS 3-5=-495/290, 3-6=-185/392

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-11-4, Exterior(2E) 5-11-4 to 7-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA9	Jack-Closed	3	1	I43385030

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:36 2020 Page 1
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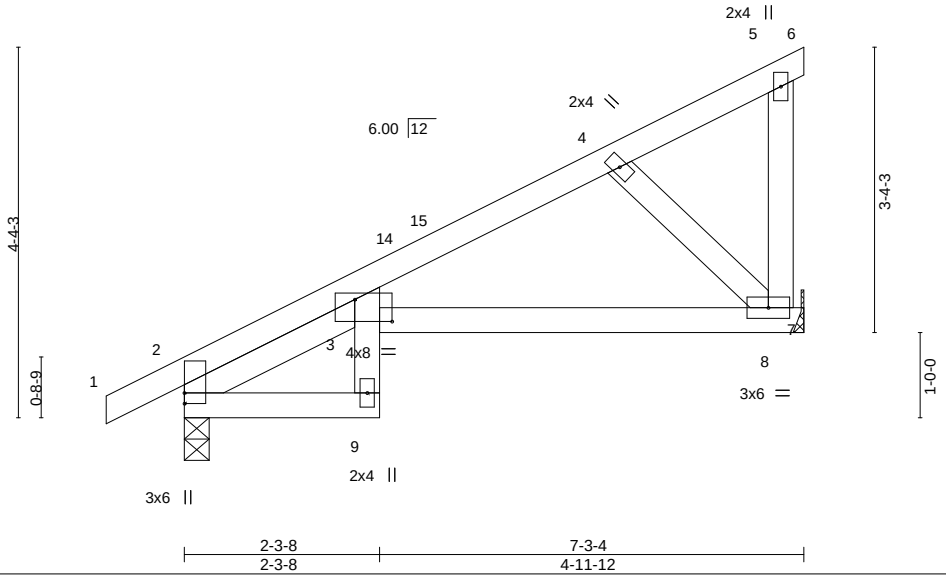

Plate Offsets (X,Y)-- [2:Edge,0-0-0], [3:0-5-4,0-3-1]

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	0.86	Vert(LL)	0.16	9	>536	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.24	9	>348	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.19	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 29 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-3-6

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=122(LC 13)
Max Uplift 8=-36(LC 13), 2=-46(LC 16)
Max Grav 8=359(LC 21), 2=383(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-11=-617/342, 3-4=-331/117
BOT CHORD 3-8=-287/348
WEBS 4-8=-472/346

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-12, Interior(1) 2-1-12 to 7-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA10	Half Hip Girder	1	1	I43385031

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:22 2020 Page 1
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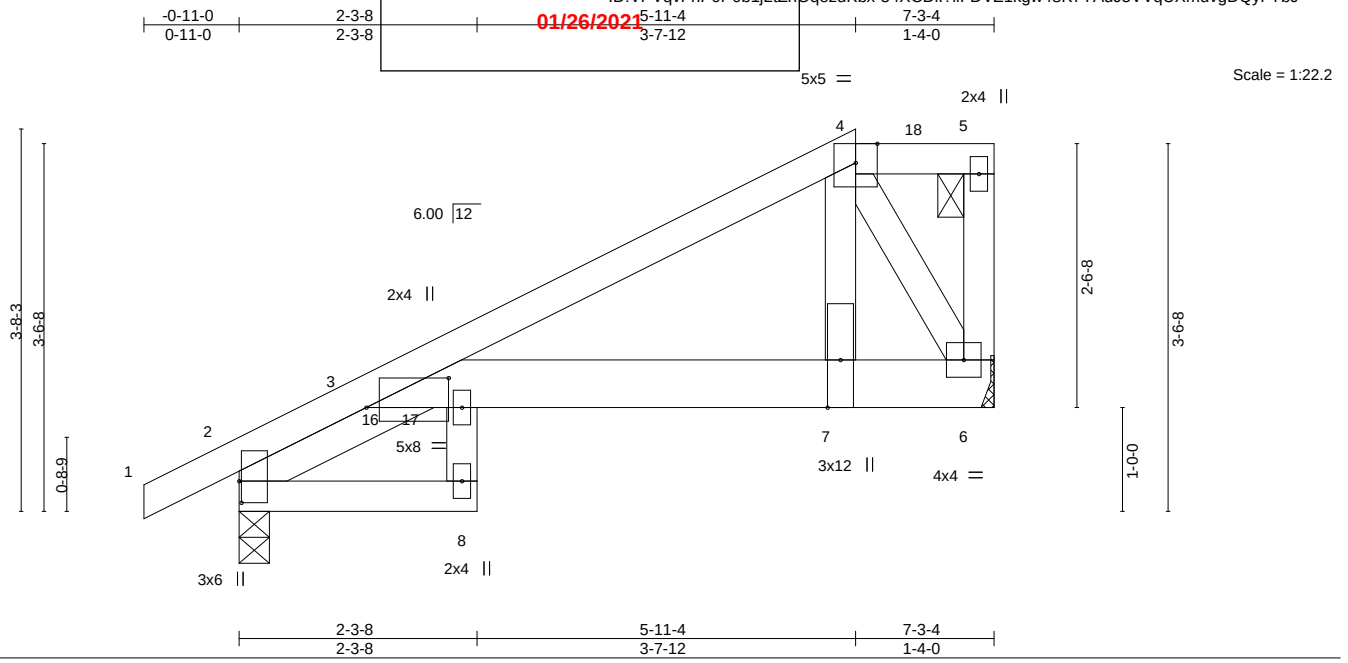


Plate Offsets (X,Y)-- [2:0-2-8,0-0-4], [3:0-9-8,0-3-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.05	8	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.10	8	>856	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 34 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 3-6: 2x6 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 1-11-15

BRACING-

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=96(LC 13)
Max Uplift 6=-32(LC 13), 2=-43(LC 16)
Max Grav 6=322(LC 2), 2=478(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-10=-866/335, 3-4=-356/105
BOT CHORD 3-7=-174/278
WEBS 4-7=-198/445, 4-6=-528/290

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 5-11-4, Exterior(2E) 5-11-4 to 7-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA11	Half Hip Girder	1	1	I43385032

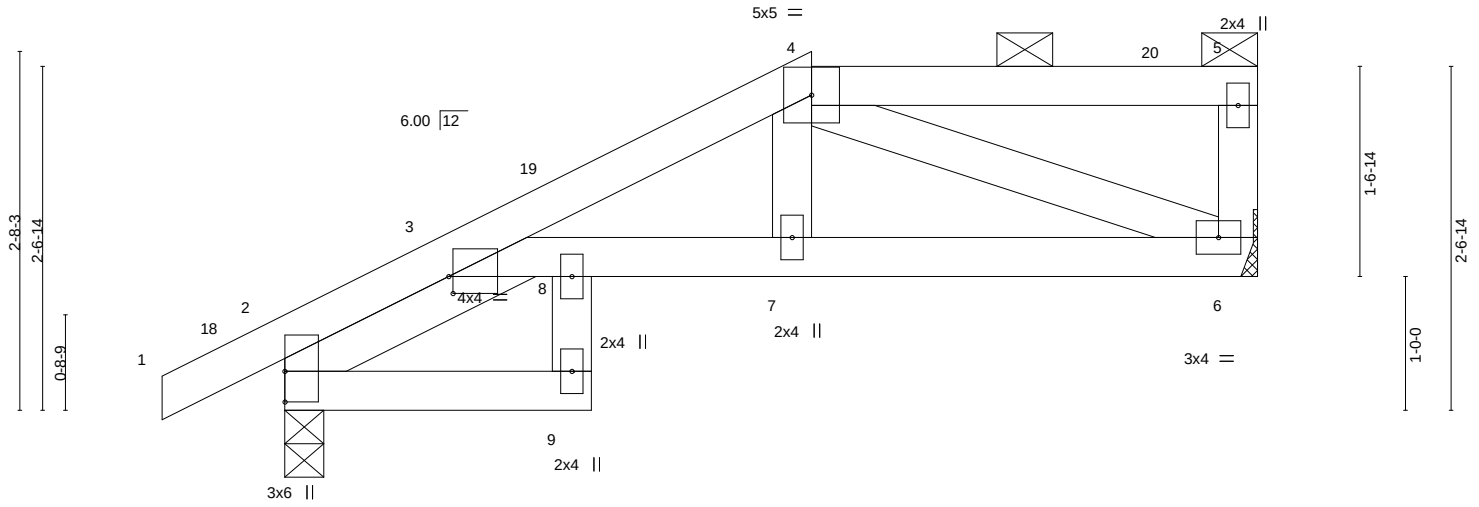
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:23 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ZG5bQ2JdV?N47jcwEebNtL5MdjTqEHfh?YfDlsyP7bI

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 / 0-11-0 | 2-3-8 / 2-3-8 | 3-11-4 / 1-7-12 | 7-3-4 / 3-4-0

Scale = 1:17.2



2-3-8 / 2-3-8 | 3-11-4 / 1-7-12 | 7-3-4 / 3-4-0

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

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	0.28	Vert(LL)	-0.03	16	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	16	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-11-15

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=63(LC 13)
Max Uplift 6=-35(LC 13), 2=-52(LC 16)
Max Grav 6=318(LC 35), 2=427(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-11=-638/375, 3-4=-504/233
BOT CHORD 3-8=-468/278, 7-8=-278/468, 6-7=-273/451
WEBS 4-6=-488/280

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-4, Exterior(2E) 3-11-4 to 7-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA12	Diagonal Hip Girder	1	1	I43385033

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:24 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-1SezdOKGGJVxltA7nL6cPYdYi7pBzlhqDCOmHJyP7bH

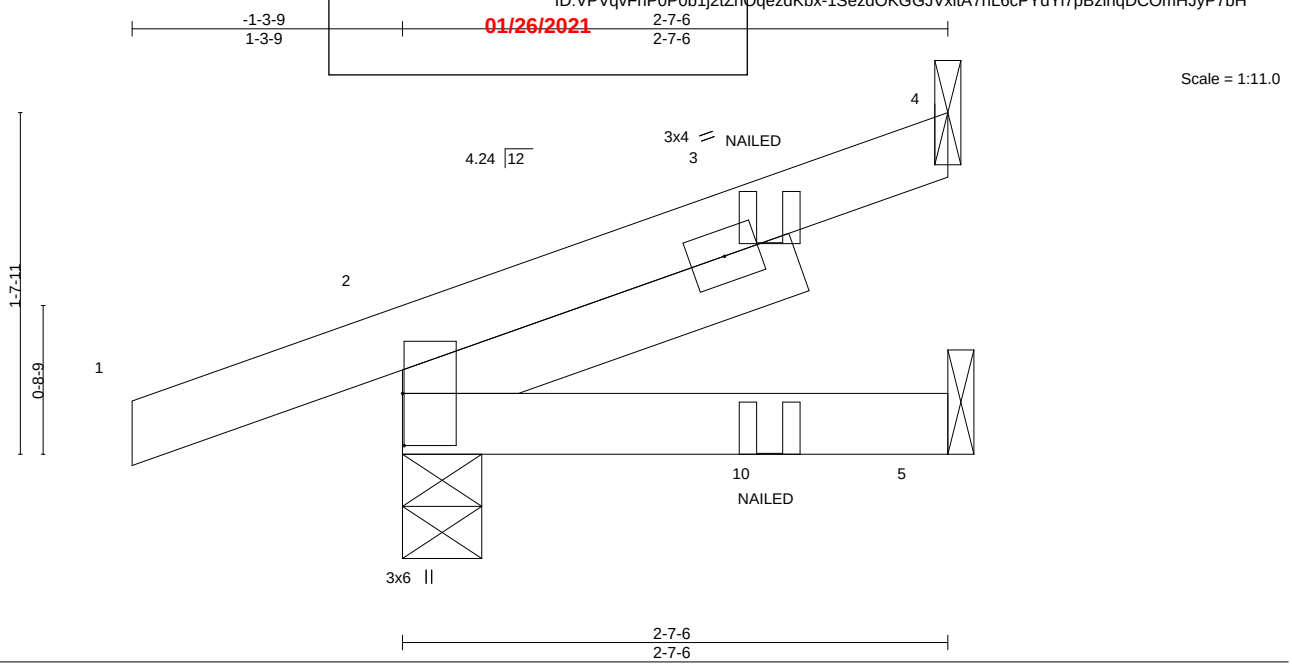


Plate Offsets (X,Y)-- [2:0-3-0,0-0-1]

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	0.20	Vert(LL)	-0.01	5-8	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.02	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-9, 5=Mechanical
Max Horz 2=56(LC 12)
Max Uplift 2=-58(LC 12), 5=-38(LC 12)
Max Grav 2=235(LC 17), 5=98(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-198/338

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-4=-51, 5-6=-20
Concentrated Loads (lb)
Vert: 10=1(F)

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA13	Jack-Open	1	1	I43385034

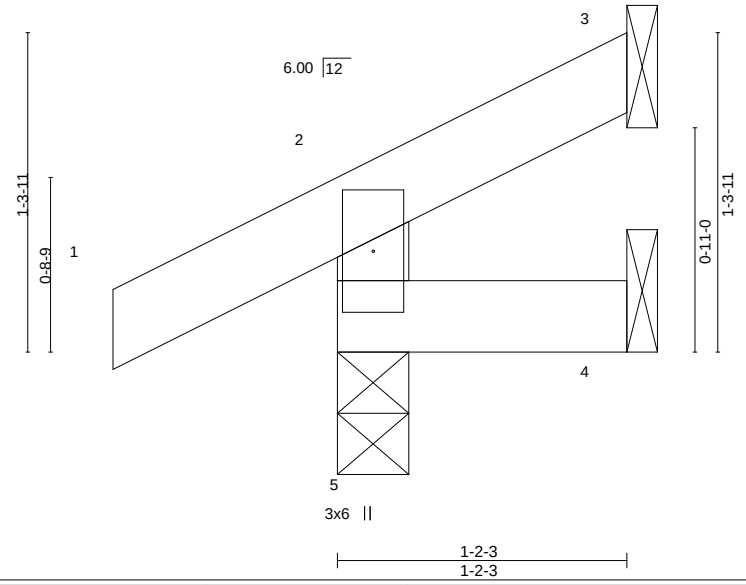
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:25 2020 Page 1
ID:VPVqvFnP0P0b1j2rZrlOqezdKbx-VfCLrkLu1deoM1lJL3drymAlJXDMiCx_Ss8KqlyP7bG

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 1-2-3
0-11-0 1-2-3

Scale = 1:9.4



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	0.08	Vert(LL)	0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 4 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-2-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 16)
Max Uplift 5=-35(LC 16), 3=-9(LC 20), 4=-1(LC 13)
Max Grav 5=159(LC 2), 3=11(LC 28), 4=16(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA14	Jack-Closed	1	1	I43385035

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:26 2020 Page 1
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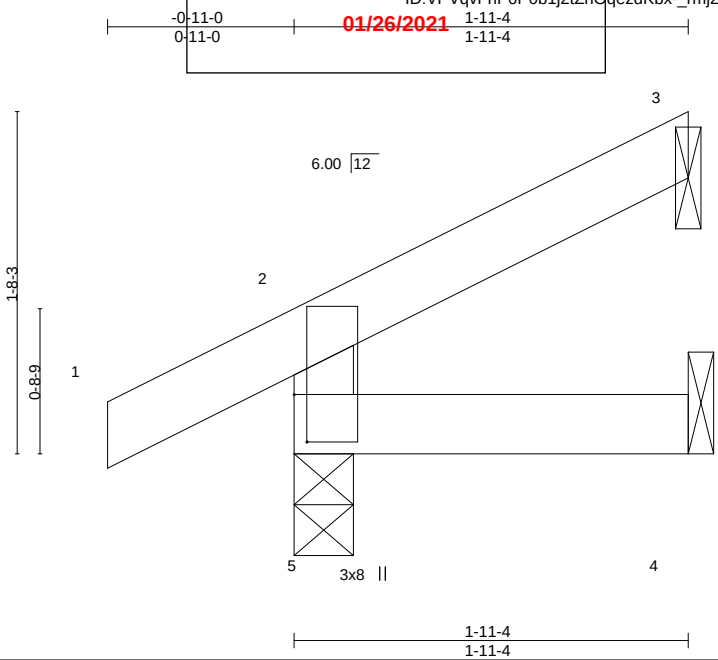

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [5:0-2-13,0-0-12], [5:0-0-0,0-1-12]

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	0.22	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	0.0/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 1-11-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=78(LC 16)
Max Uplift 5=-75(LC 16), 4=-53(LC 16)
Max Grav 5=182(LC 21), 4=60(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=0.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385036
2523941	JA15	Jack-Closed	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:27 2020 Page 1
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0-11-0 1-11-4

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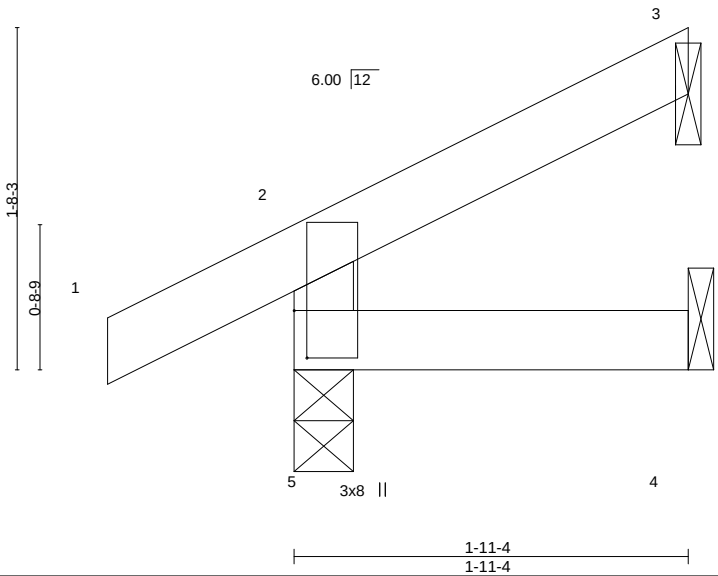


Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [5:0-2-13,0-0-12], [5:0-0-0,0-1-12]

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	0.22	Vert(LL)	0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	0.0/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 1-11-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=78(LC 16)
Max Uplift 5=-75(LC 16), 4=-53(LC 16)
Max Grav 5=182(LC 21), 4=60(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=0.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA16	Jack-Closed	3	1	I43385037

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:27 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-S1K5GQM8ZEuWcLviTUfJ1BFzQKoxA64HvAdRudyP7bE

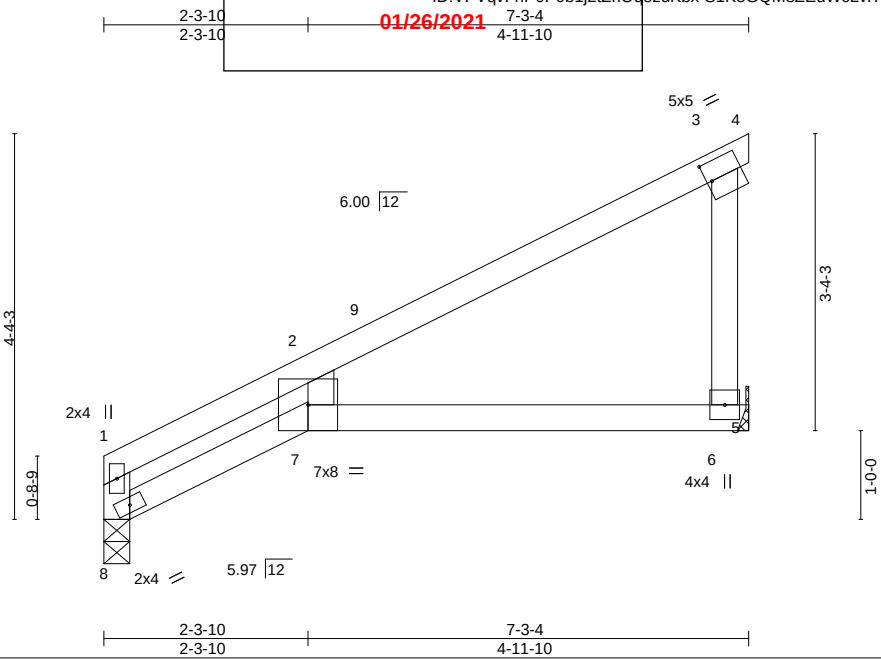


Plate Offsets (X,Y)-- [2:0-1-12,0-0-14], [3:0-0-11,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	0.12	7	>675	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.19	6-7	>423	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.09	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 22 lb	FT = 20%

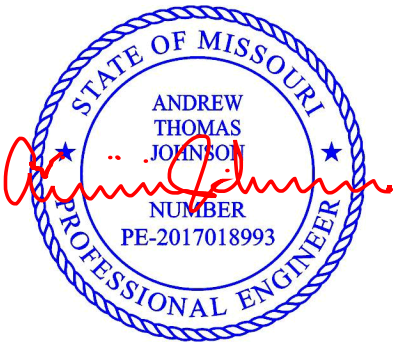
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 8=0-3-8
Max Horz 8=123(LC 13)
Max Uplift 6=-38(LC 13), 8=-16(LC 16)
Max Grav 6=358(LC 20), 8=308(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; 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) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JA17	Jack-Open	1	1	I43385038

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:28 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-wEuUTmNmKX0NDVUu0BBYaOoFZkF4vZgQ8qM_Q4yP7bD

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0-11-0 1-2-3

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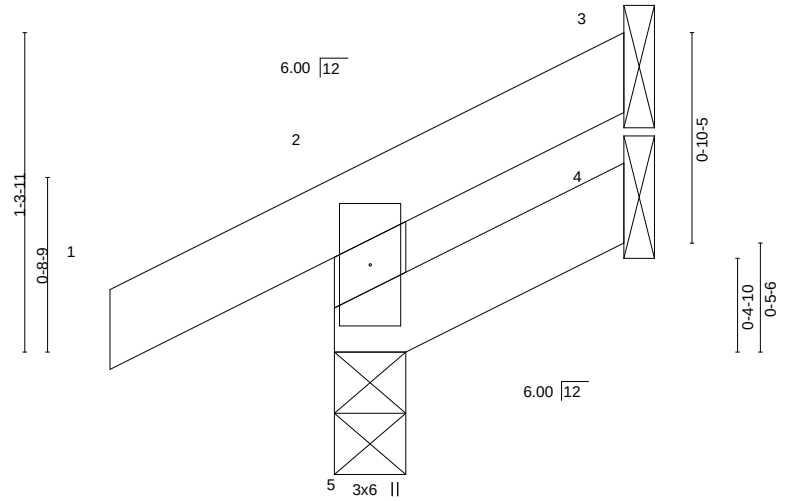

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 5 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-2-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=49(LC 16)
Max Uplift 5=-33(LC 16), 3=-9(LC 20), 4=-2(LC 13)
Max Grav 5=159(LC 2), 3=11(LC 28), 4=16(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JC1	Jack-Open	2	1	I43385039

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:37 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-9zxtMrUPCI85otgd2arfRIgoDMJhWdvlDj2yF2yP7b4

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 / 0-11-0 — 2-6-3 / 2-6-3

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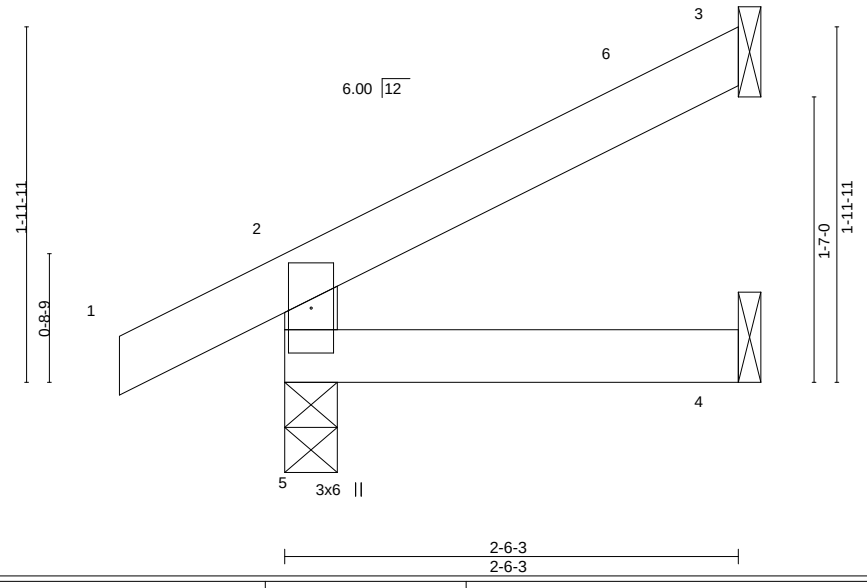


2-6-3 / 2-6-3

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	0.08	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 8 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=65(LC 16)
Max Uplift 5=-30(LC 16), 3=-23(LC 16)
Max Grav 5=206(LC 21), 3=69(LC 21), 4=42(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 2-5-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JC2	Diagonal Hip Girder	2	1	I43385040

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:38 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-d9VGZAV2zcGyQ1FpcHMu_VCrvmZXF4VuRNnWnVyP7b3

Job Reference (optional)

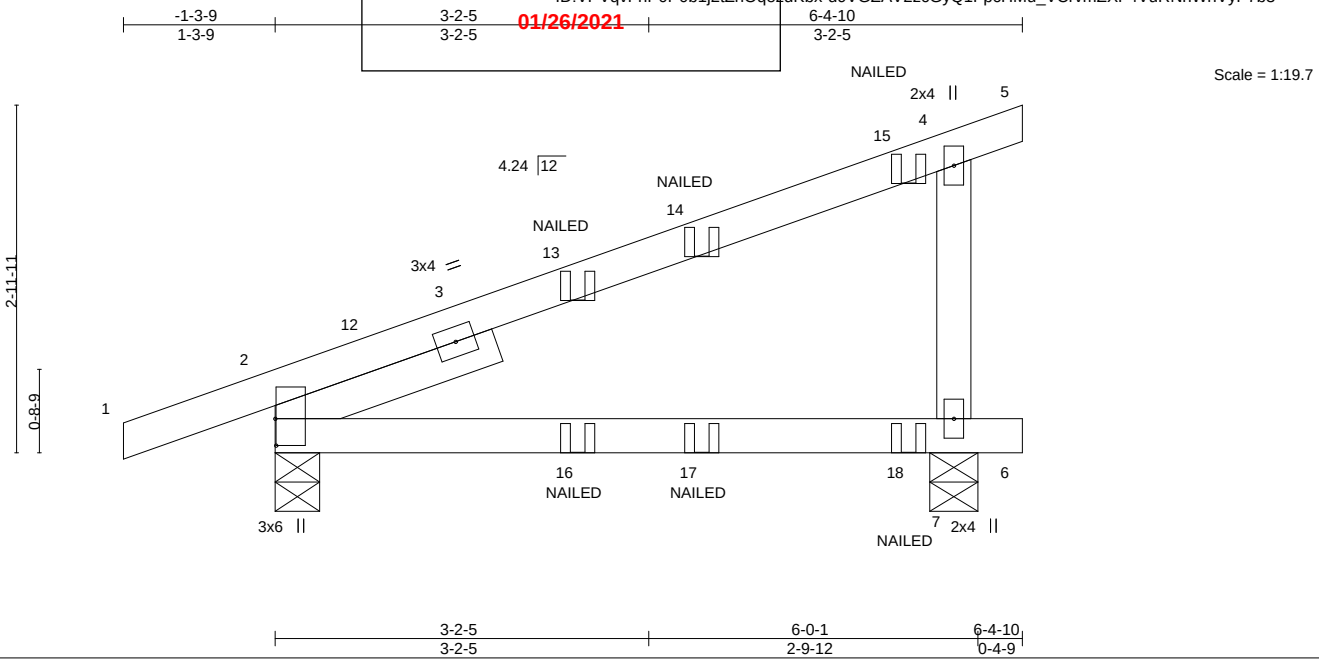


Plate Offsets (X,Y)-- [2:0-2-12,0-0-1]

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	0.60	Vert(LL)	-0.07	7-10	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.13	7-10	>544	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-4-9, 7=0-4-15
Max Horz 2=85(LC 12)
Max Uplift 2=-46(LC 12), 7=-56(LC 12)
Max Grav 2=361(LC 2), 7=372(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-273/63
WEBS 4-7=-263/77

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) 2, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) 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 (plf)
Vert: 1-5=-51, 6-8=-20
Concentrated Loads (lb)
Vert: 14=-5(B) 15=-60(F) 16=0(F) 17=-1(B) 18=-18(F)

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

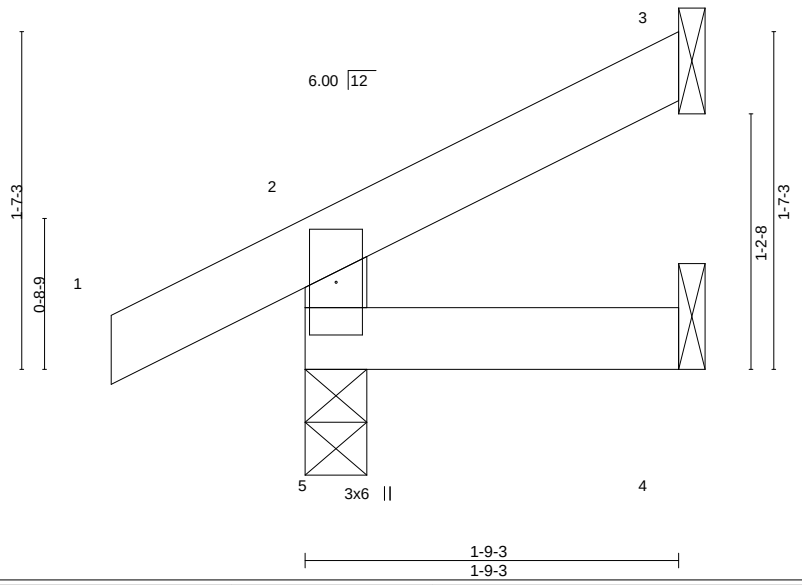
Job	Truss	Truss Type	Qty	Ply	
2523941	JC3	Jack-Open	2	1	I43385041

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:39 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-5L2enWWgkwOp2Bq?A?t7Wjl8lA?Y_XO2g1X3JxyP7b2

-0-11-0 1-9-3
0-11-0 1-9-3

Scale = 1:10.9



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	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=56(LC 16)
Max Uplift 5=-32(LC 16), 3=-14(LC 16)
Max Grav 5=175(LC 21), 3=38(LC 21), 4=28(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

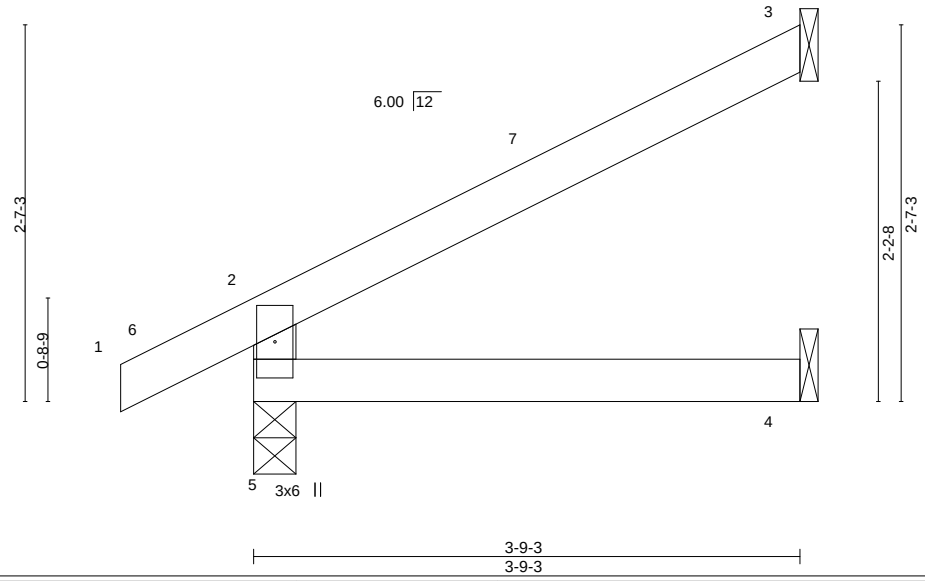
Job	Truss	Truss Type	Qty	Ply	
2523941	JC4	Jack-Open	2	1	I43385042

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:40 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrl0qezdKbx-ZXc0_sWIVDWgfLPCjiOM3wIHhaKHj_eBvhGdsNyP7b1

-0-11-0 3-9-3
0-11-0 3-9-3

Scale: 3/4"=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	0.19	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=83(LC 16)
Max Uplift 5=-29(LC 16), 3=-36(LC 16)
Max Grav 5=271(LC 21), 3=121(LC 21), 4=67(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-8-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JC5	Diagonal Hip Girder	1	1	I43385043

Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.240 s Apr 4 2020 MiTek Industries, Inc. Wed Oct 28 09:31:57 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-hx5m?2ChUYFY0TpXFUJxkI8IYfNN15hMjUT2PoyOwWW

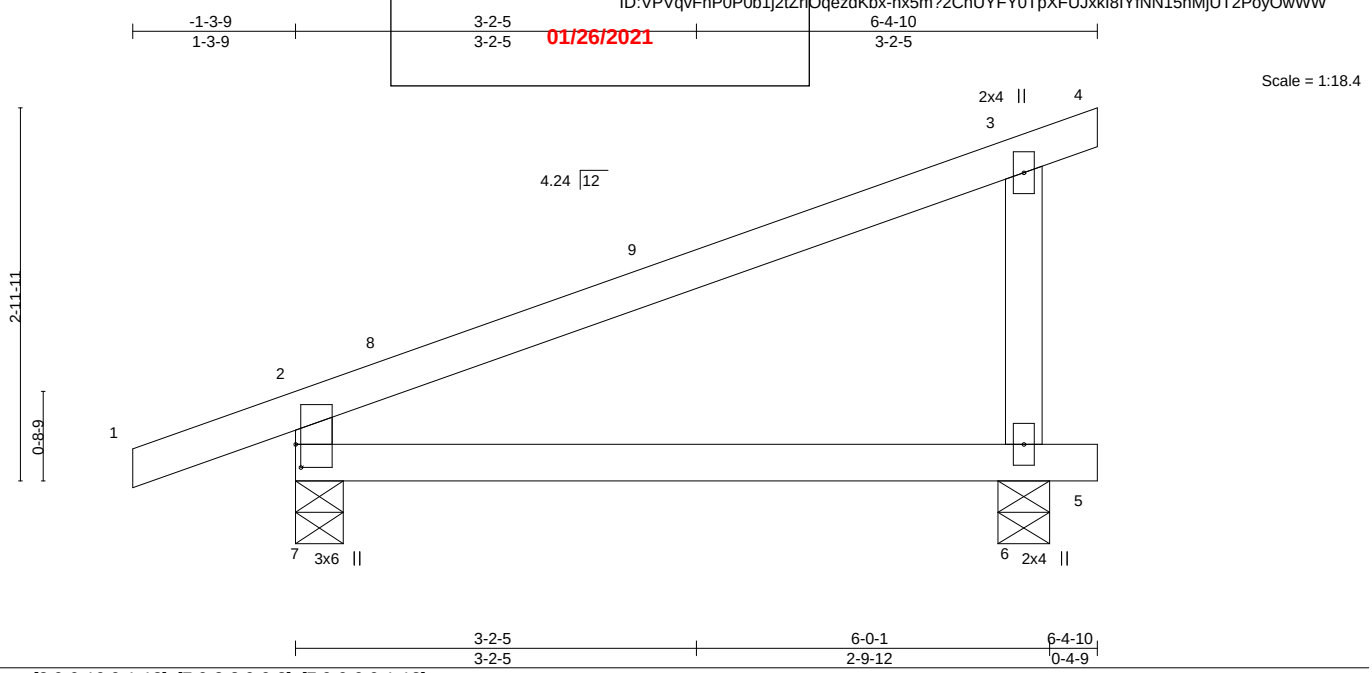


Plate Offsets (X,Y)-- [2:0-0-10,0-1-12], [7:0-2-3,0-0-8], [7:0-0-0,0-1-12]

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	0.54	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.10	6-7	>679	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 19 lb	FT = 20%
BCDL	10.0											

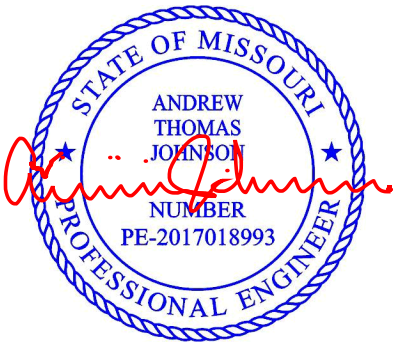
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 7=281/0-4-9, 6=234/0-4-15
Max Horz 7=96(LC 16)
Max Uplift 7=-50(LC 16), 6=-48(LC 16)
Max Grav 7=366(LC 2), 6=317(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-316/235

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) -1-3-9 to 2-11-6, Exterior(2R) 2-11-6 to 6-4-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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 50 lb uplift at joint 7 and 48 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JD1	Jack-Open	2	1	I43385044

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:41 2020 Page 1
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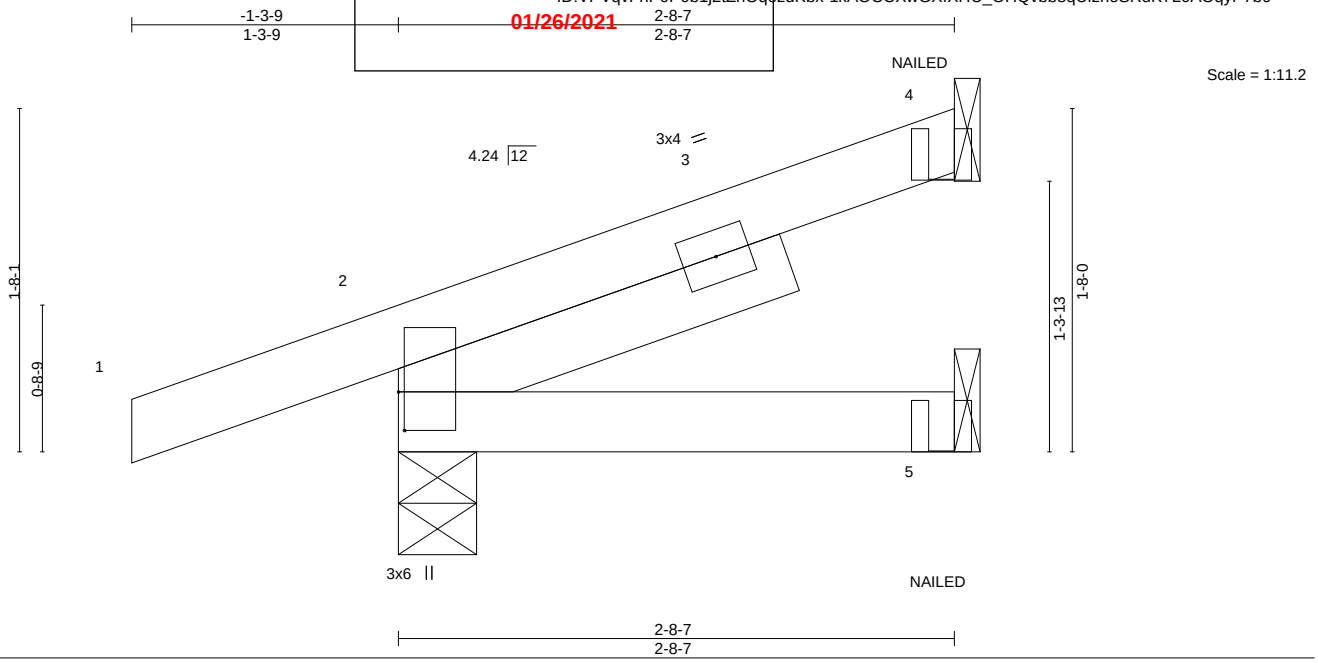

Scale = 1:11.2

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

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	0.11	Vert(LL)	-0.00	8	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 10 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=45(LC 16)
Max Uplift 4=-20(LC 16), 2=-49(LC 16)
Max Grav 4=72(LC 21), 2=239(LC 21), 5=45(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-4=-51, 5-6=-20
Concentrated Loads (lb)
Vert: 4=-9(B) 5=-1(B)

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JD2	Jack-Open	2	1	I43385045

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:42 2020 Page 1
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0-11-0 1-10-5

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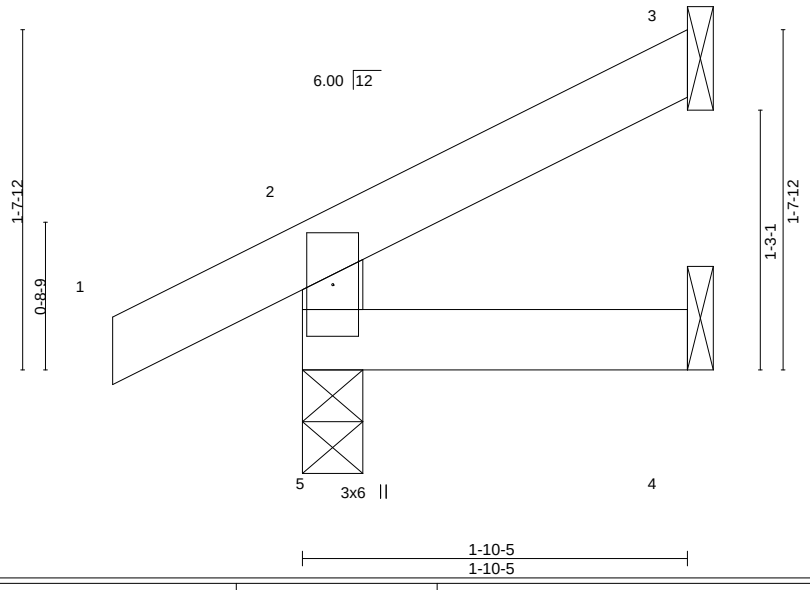

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 16)
Max Uplift 5=-32(LC 16), 3=-15(LC 16)
Max Grav 5=179(LC 21), 3=42(LC 21), 4=30(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JD3	Jack-Open	3	1	I43385046

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:43 2020 Page 1
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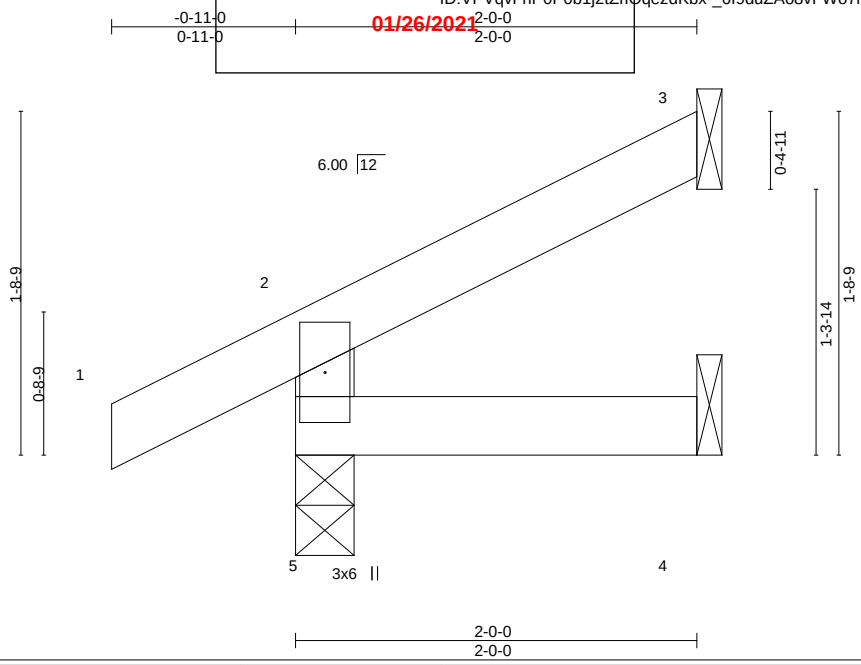


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=59(LC 16)
Max Uplift 5=-31(LC 16), 3=-17(LC 16)
Max Grav 5=185(LC 21), 3=49(LC 21), 4=33(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM1	Jack-Open	2	1	I43385047

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:43 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-_6I9duZAo8vFWo7mPry3hZwpXnNzwLOdbfVHSiyP7b_

Job Reference (optional)

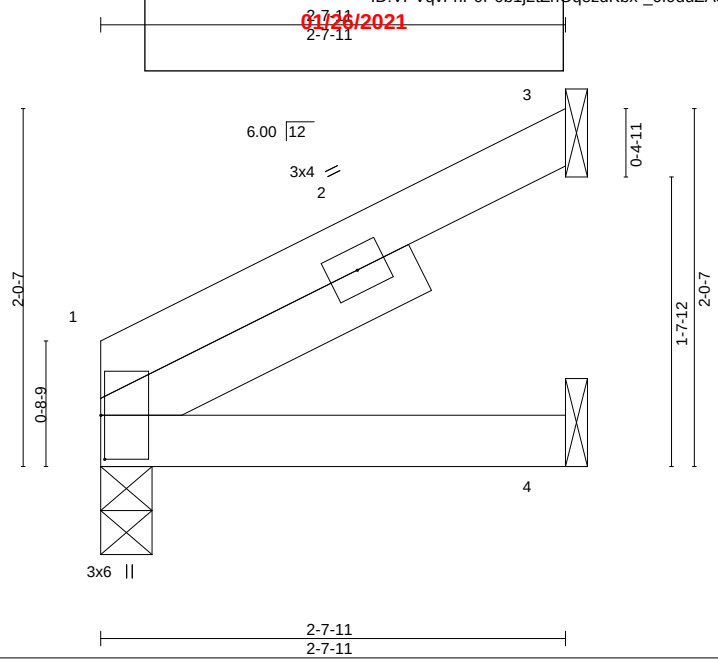


Plate Offsets (X,Y)-- [1:0-3-0,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 9 lb	FT = 20%
BCDL	10.0											

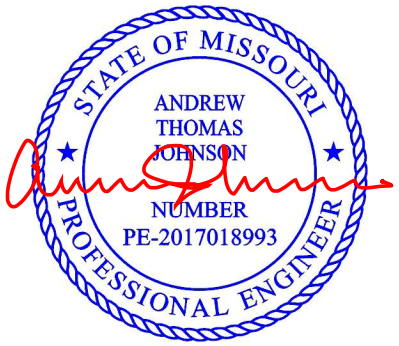
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 1=36(LC 16)
Max Uplift 3=-26(LC 16)
Max Grav 1=118(LC 20), 3=83(LC 20), 4=44(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM2	Diagonal Hip Girder	1	1	I43385048

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:51 2020 Page 1
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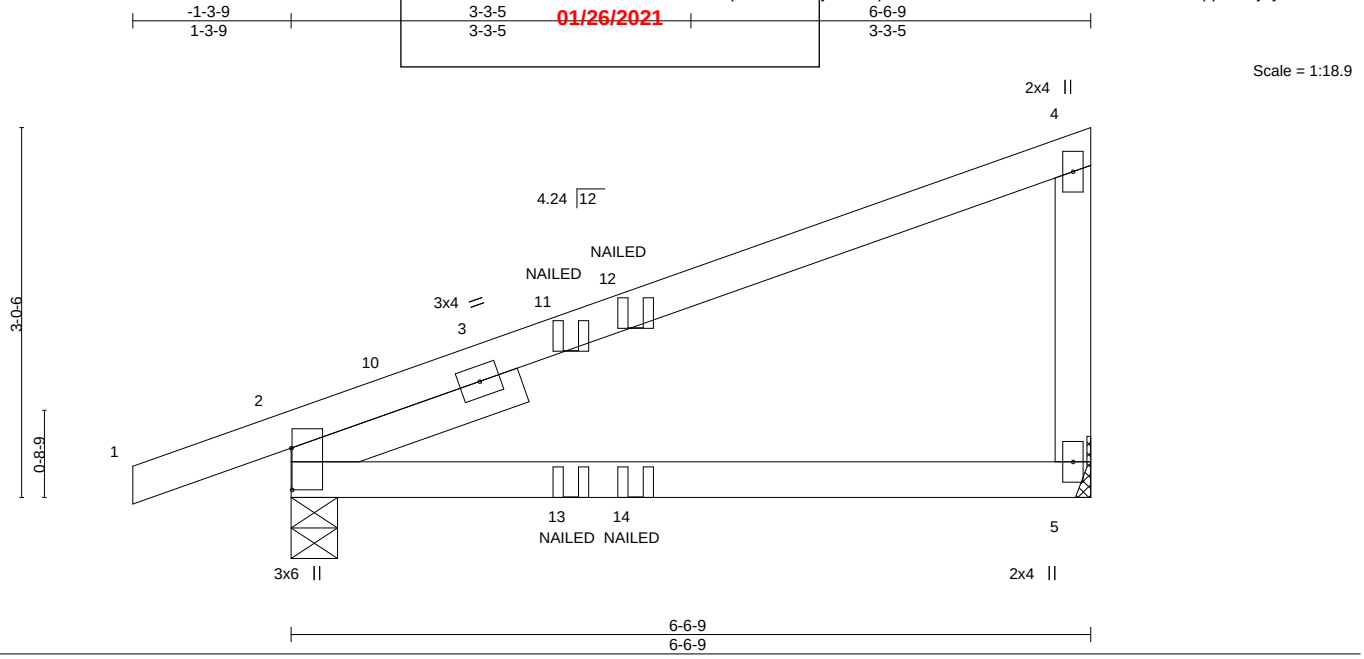

Plate Offsets (X,Y)-- [2:0-4-2,0-0-1]

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	0.76	Vert(LL)	-0.11	5-8	>718	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.20	5-8	>384	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.05	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-4-9, 5=Mechanical
Max Horz 2=82(LC 12)
Max Uplift 2=-54(LC 12), 5=-37(LC 12)
Max Grav 2=396(LC 2), 5=302(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-319/55

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-4=-51, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-12(B) 12=-20(F) 13=-11(B) 14=-4(F)

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM3	Jack-Open	1	1	I43385049

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:52 2020 Page 1
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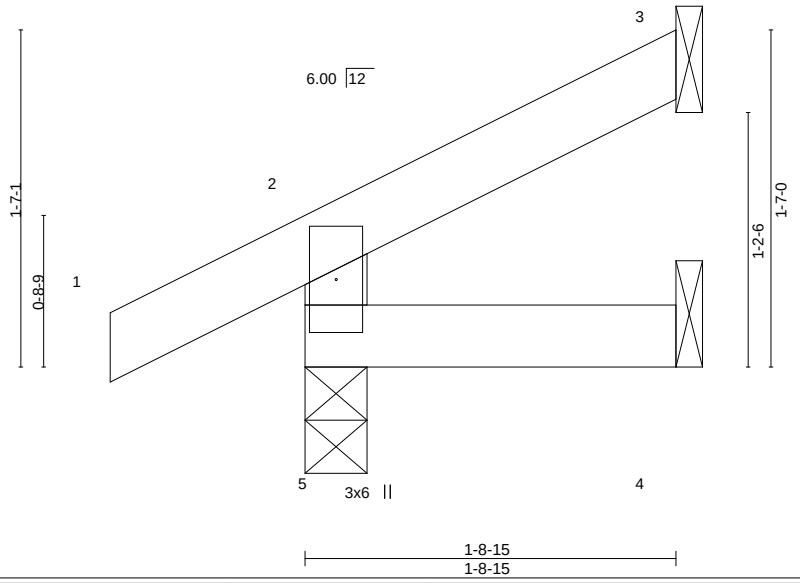


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

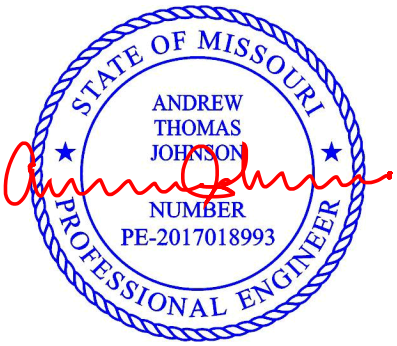
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=55(LC 16)
Max Uplift 5=-32(LC 16), 3=-14(LC 16)
Max Grav 5=175(LC 21), 3=37(LC 28), 4=28(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM4	Jack-Open	4	1	I43385050

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:52 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-DrLYWzgqgv1z5BJVQEcAYSoM2PQqXQcyfZAFGhyP7ar

Job Reference (optional)

-0-11-0 / 0-11-0 | 3-0-3 / 3-0-3

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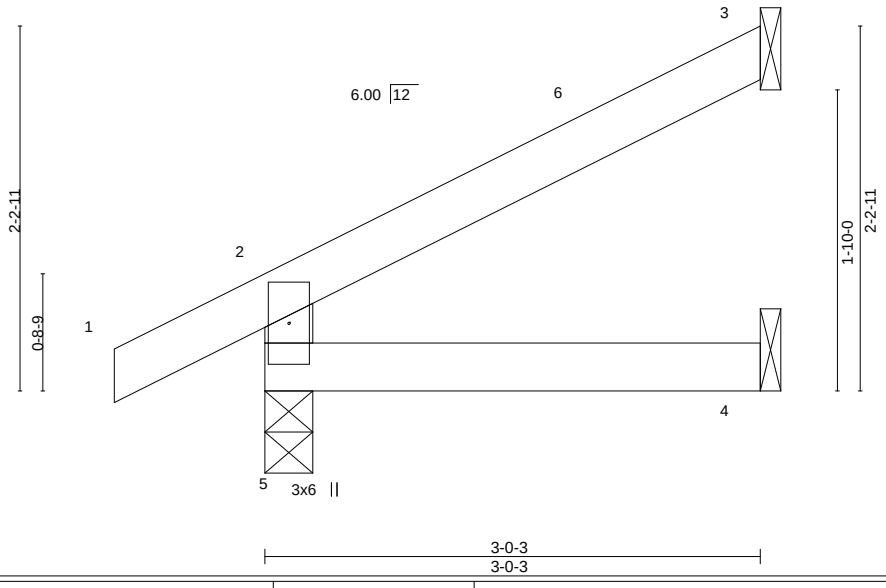

3-0-3 / 3-0-3

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	0.11	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=72(LC 16)
Max Uplift 5=-30(LC 16), 3=-28(LC 16)
Max Grav 5=231(LC 21), 3=89(LC 21), 4=52(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 2-11-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM5	Jack-Open	3	1	I43385051

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:53 2020 Page 1
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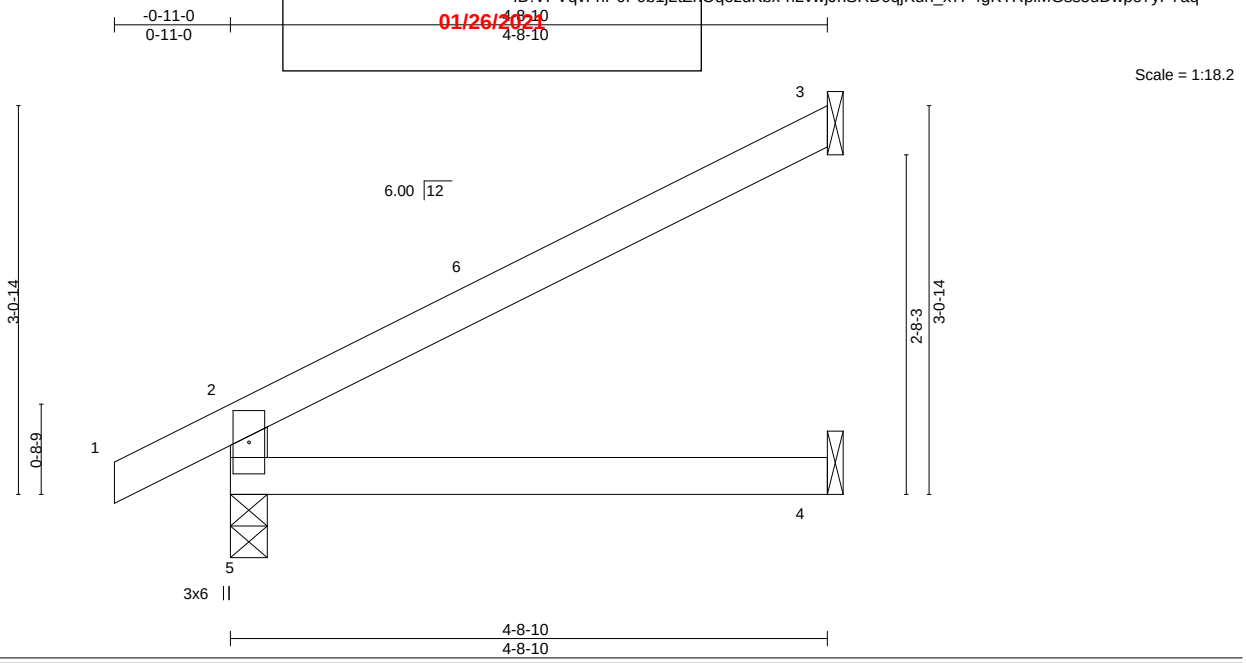

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.04	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=96(LC 16)
Max Uplift 5=-29(LC 16), 3=-45(LC 16)
Max Grav 5=286(LC 2), 3=162(LC 21), 4=84(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-251/154

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-7-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM6	Roof Special	1	1	I43385052

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:54 2020 Page 1
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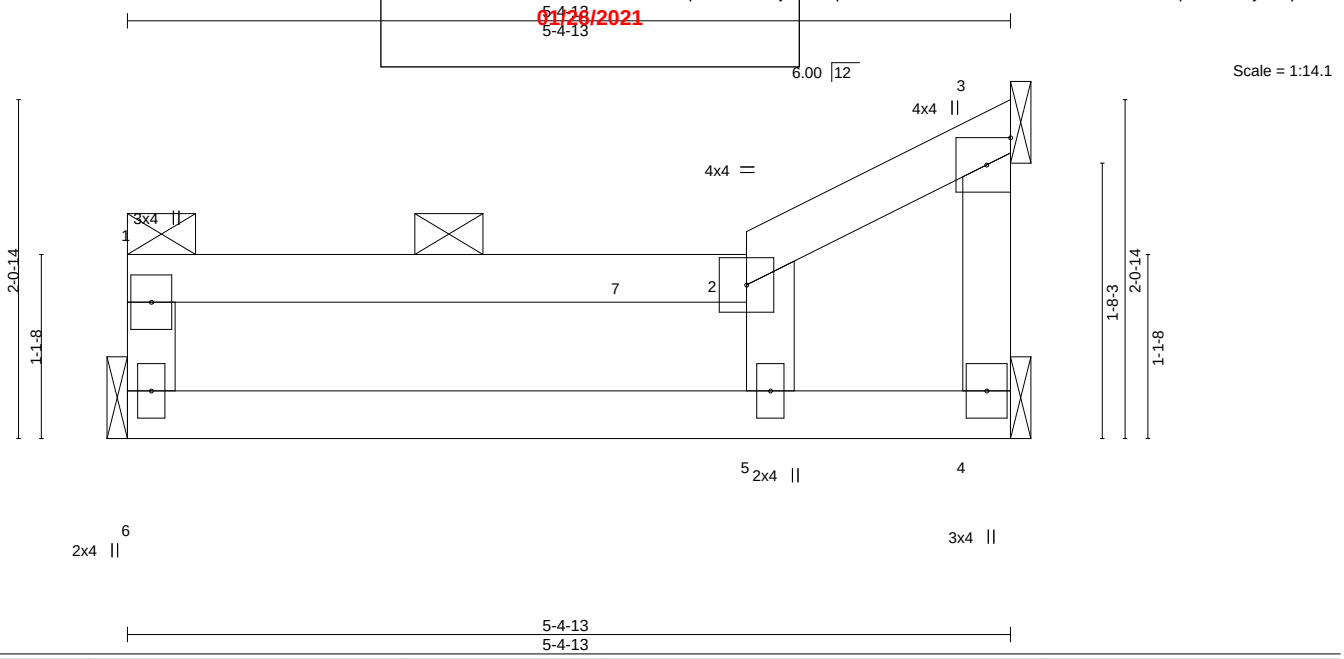
Job Reference (optional)



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.03	5-6	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.05	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 16 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: 1-2.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 6=Mechanical, 4=Mechanical, 3=Mechanical
Max Horz 6=57(LC 13)
Max Uplift 6=-24(LC 12), 4=-16(LC 13), 3=-6(LC 13)
Max Grav 6=262(LC 34), 4=175(LC 34), 3=84(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-3-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4, 3.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM7	Flat	1	1	I43385053

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:55 2020 Page 1
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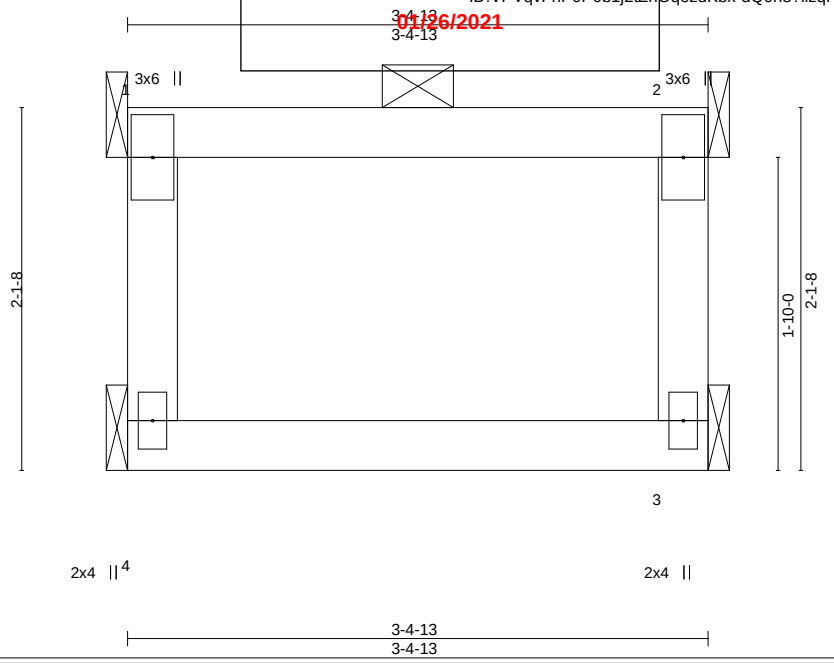

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LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	3-4	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	1	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings Mechanical.
(lb) - Max Horz 4=-59(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 2
Max Grav All reactions 250 lb or less at joint(s) 4, 1, 3, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM8	Flat	1	1	I43385054

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:56 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-5ca3LKjKk8XPaodGf3h6iIy1U0n7TDcYaB8TPSyP7an

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

1-1-13
1-4-13

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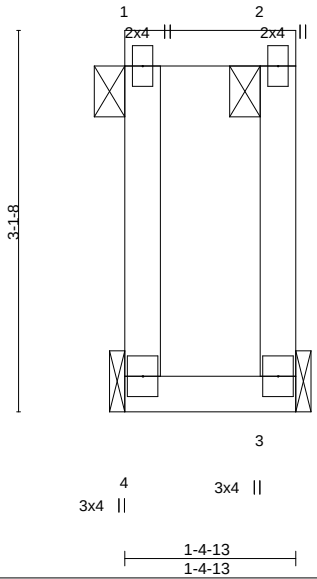

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	4	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 3=Mechanical
Max Horz 4=-92(LC 10)
Max Uplift 4=-123(LC 10), 3=-123(LC 11)
Max Grav 4=140(LC 13), 3=140(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=123, 3=123.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM9	Jack-Open	2	1	I43385055

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:57 2020 Page 1
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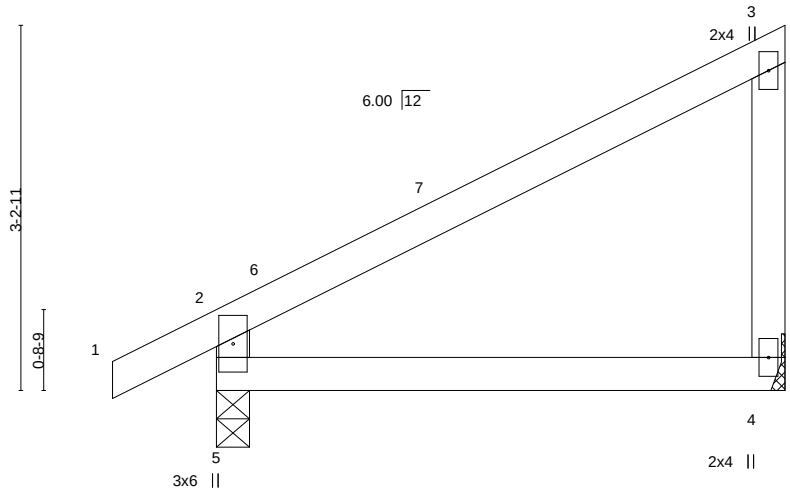

5-0-3
5-0-3

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	0.36	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=99(LC 16)
Max Uplift 5=-29(LC 16), 4=-38(LC 16)
Max Grav 5=296(LC 21), 4=229(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-259/155

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 4-10-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385056
2523941	JM10	Jack-Open	5	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:44 2020 Page 1
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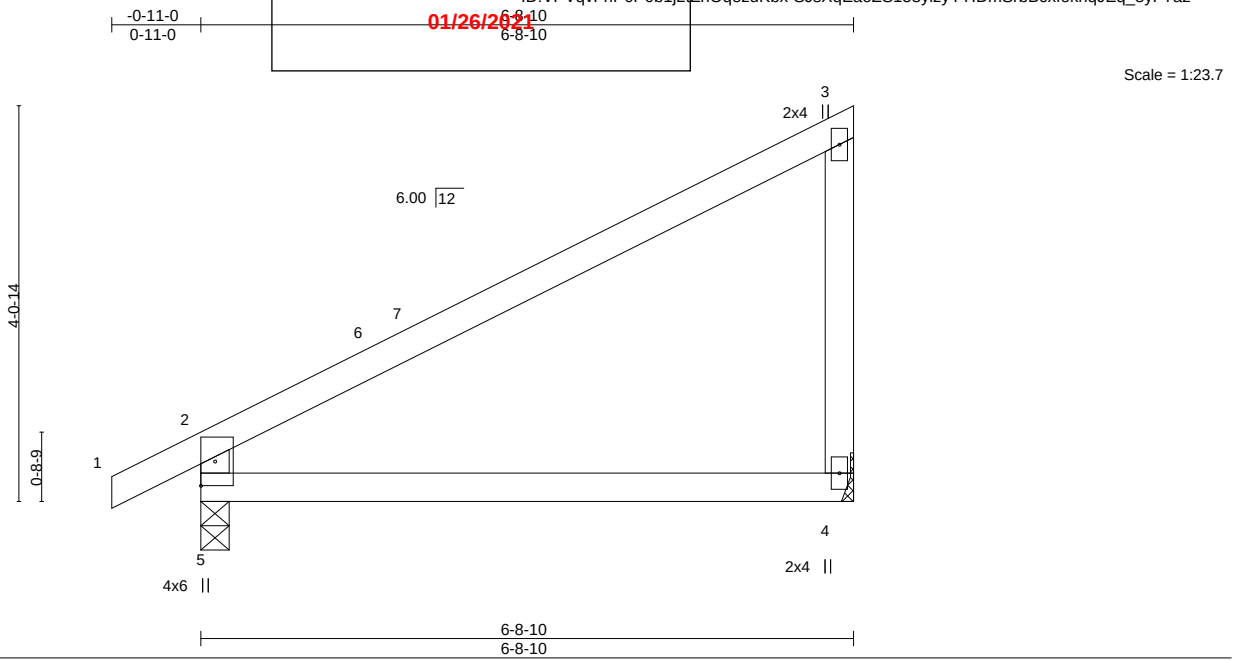

Plate Offsets (X,Y)-- [2:0-0-14,0-1-12], [5:0-0-0,0-1-12]

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	0.65	Vert(LL)	-0.08	4-5	>995	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.17	4-5	>443	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 22 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=122(LC 16)
Max Uplift 5=-28(LC 16), 4=-51(LC 16)
Max Grav 5=370(LC 2), 4=309(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-317/165

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM11	Diagonal Hip Girder	2	1	I43385057

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:45 2020 Page 1
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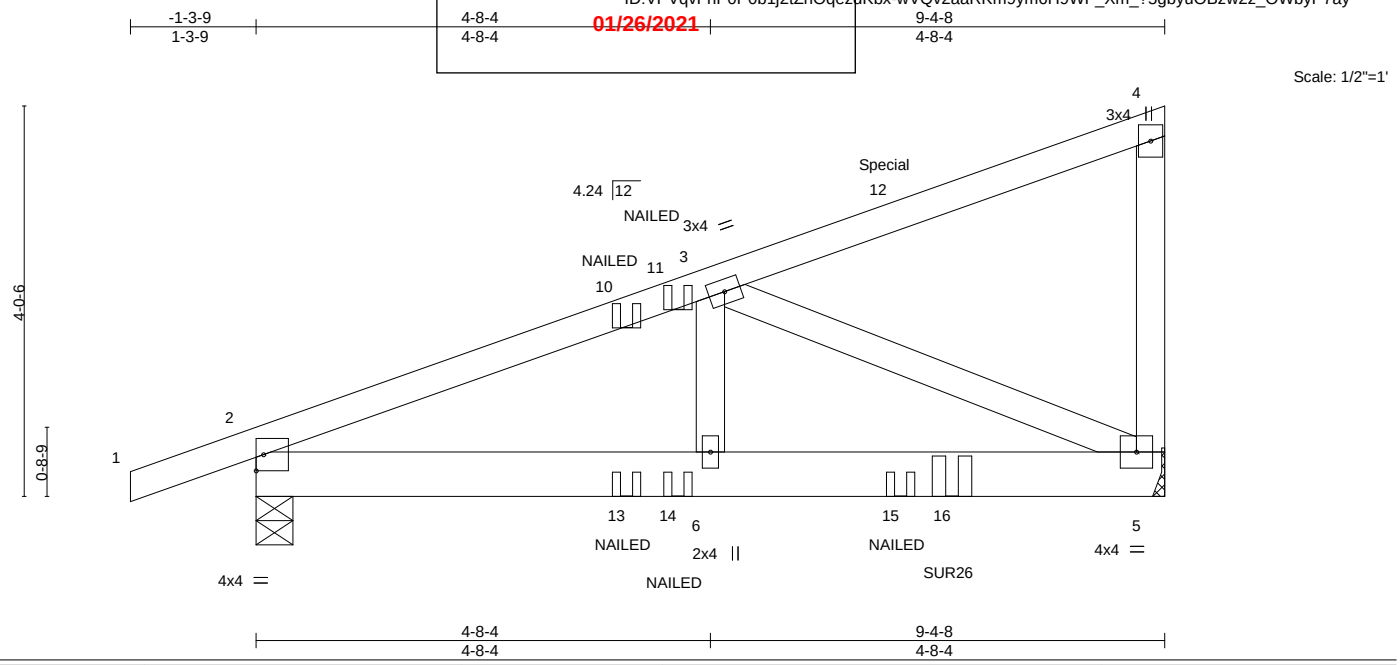
Job Reference (optional)



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	0.37	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.04	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 41 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 2=0-4-9, 5=Mechanical
Max Horz 2=128(LC 11)
Max Uplift 2=-90(LC 12), 5=-91(LC 9)
Max Grav 2=581(LC 2), 5=643(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-807/98
BOT CHORD 2-6=-129/718, 5-6=-129/718
WEBS 3-5=-749/118

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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) Use Simpson Strong-Tie SUR26 (6-10dx1 1/2 Girder, 6-10dx1 1/2 Truss, Single Ply Girder) or equivalent at 7-2-3 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 119 lb down and 76 lb up at 6-7-13 on top 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 (plf)
Vert: 1-4=-51, 5-7=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM11	Diagonal Hip Girder	2	1	I43385057

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 10=-12(F) 11=-20(B) 12=-89(F) 13=-11(F) 14=-4(B) 15=-37(F) 16=-201(B)

Job	Truss	Truss Type	Qty	Ply	
2523941	JM12	Jack-Open	1	1	I43385058

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:46 2020 Page 1
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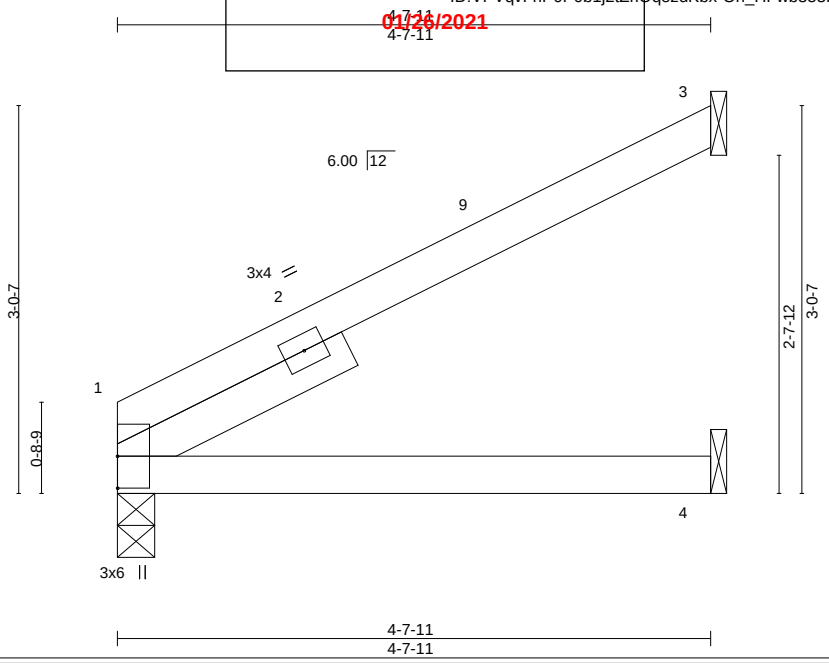

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.03	4-7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.05	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 14 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 1=63(LC 16)
Max Uplift 3=-44(LC 16)
Max Grav 1=225(LC 20), 3=160(LC 20), 4=82(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; 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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM13	Jack-Open	1	1	I43385059

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:47 2020 Page 1
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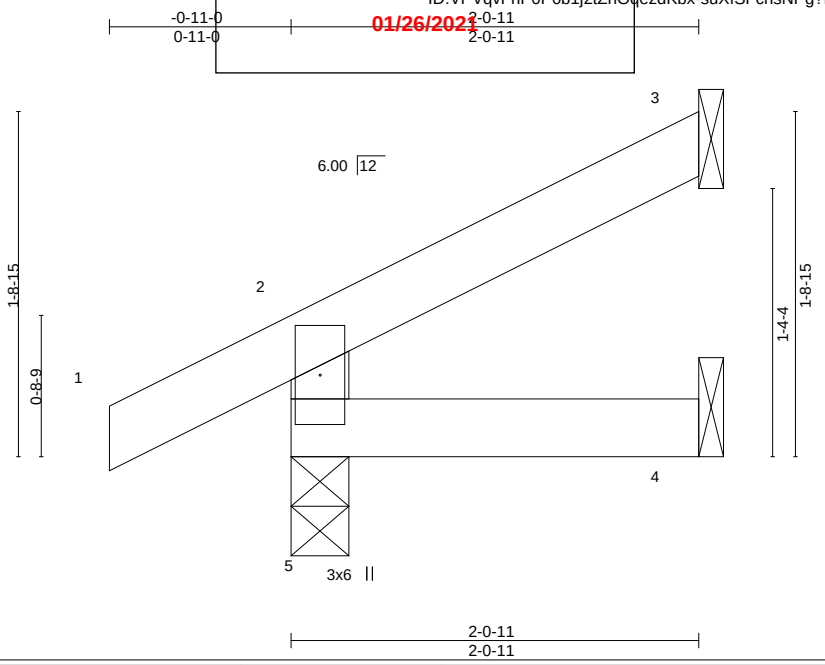

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=59(LC 16)
Max Uplift 5=-31(LC 16), 3=-17(LC 16)
Max Grav 5=185(LC 21), 3=49(LC 21), 4=33(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM14	Diagonal Hip Girder	1	1	I43385060

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:48 2020 Page 1
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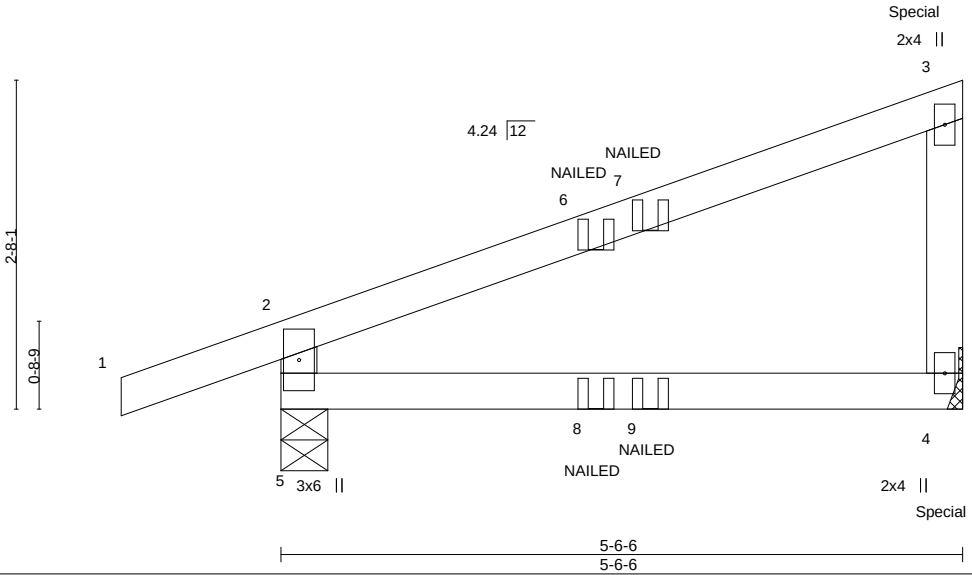
Job Reference (optional)

-1-3-9 2-9-3 5-6-6
1-3-9 2-9-3 2-9-3

Scale = 1:18.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.04	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.08	4-5	>784	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 17 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-4-9, 4=Mechanical
Max Horz 5=83(LC 12)
Max Uplift 5=-54(LC 12), 4=-39(LC 12)
Max Grav 5=349(LC 2), 4=291(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-305/82

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 45 lb up at 5-4-10 on top chord, and 24 lb down at 5-4-10 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 (plf)
Vert: 1-2=-51, 2-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 3=-53(B) 4=-16(B) 8=0(B) 9=0(F)

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM15	Jack-Open	2	1	I43385061

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:49 2020 Page 1
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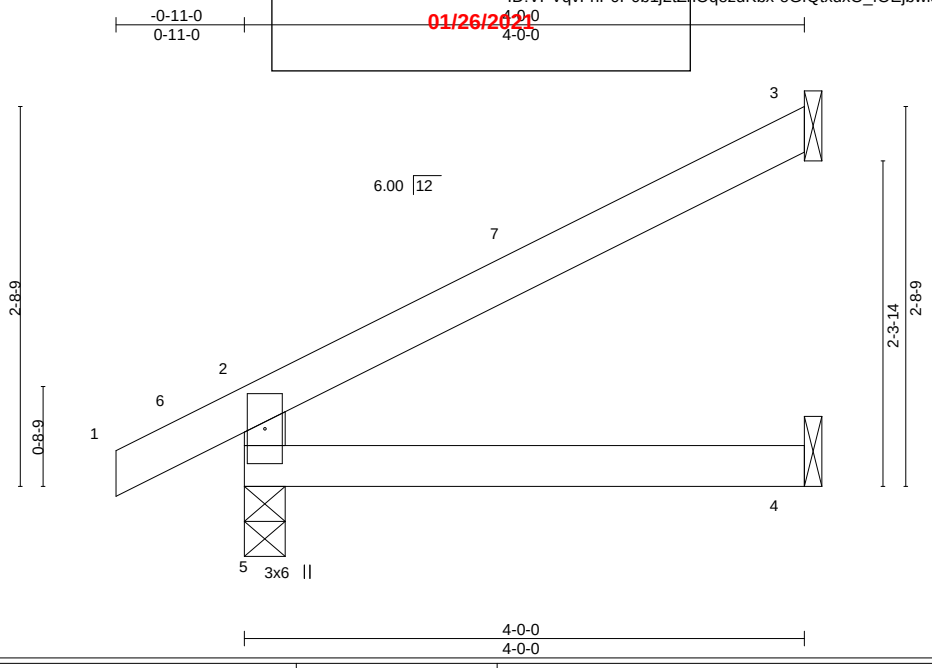

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=86(LC 16)
Max Uplift 5=-29(LC 16), 3=-38(LC 16)
Max Grav 5=284(LC 21), 3=132(LC 21), 4=71(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-253/143

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JM16	Half Hip	4	2	I43385062

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:50 2020 Page 1
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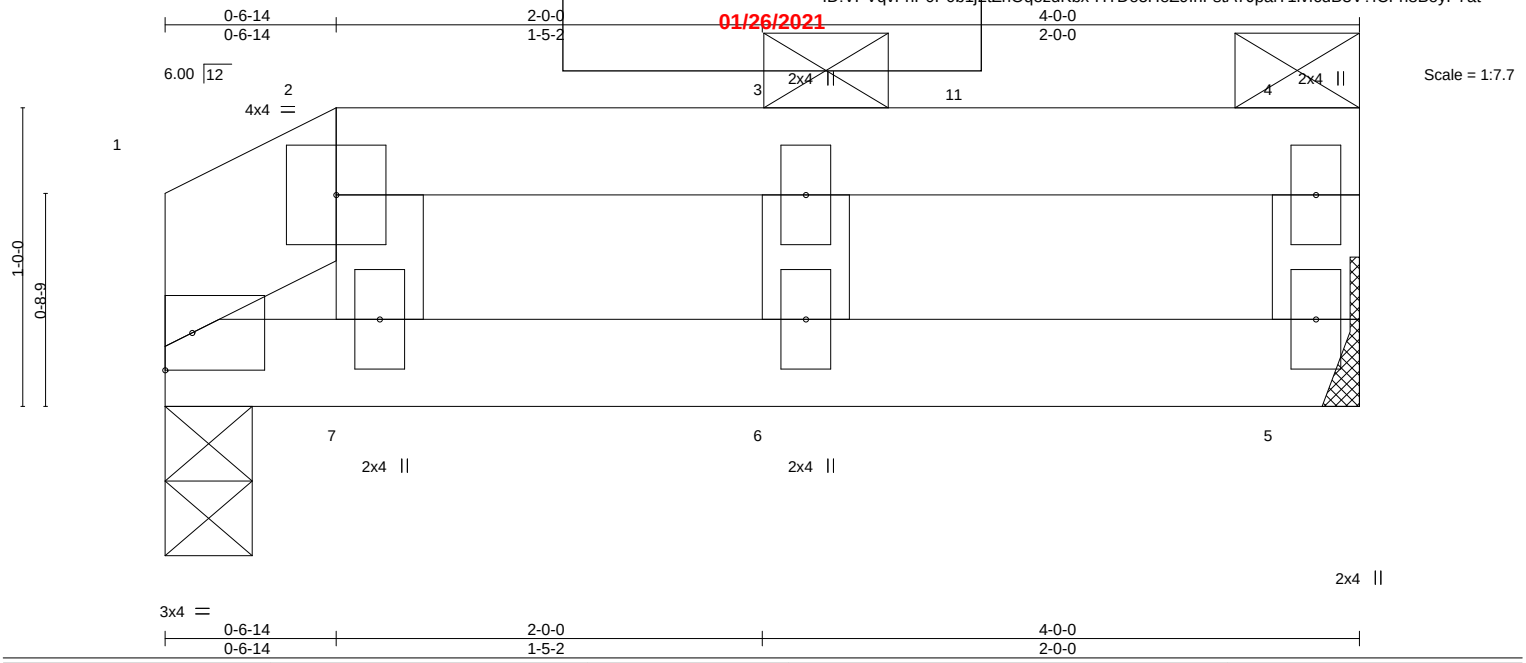

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.05	6	>980	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.08	6-7	>553	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 23 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 2-4: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=0-3-8, 5=Mechanical
Max Horz 1=22(LC 15)
Max Uplift 1=-49(LC 16), 5=-64(LC 13)
Max Grav 1=605(LC 2), 5=727(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-408/92
WEBS 3-6=-55/594, 2-7=-553/149

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs 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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 973 lb down and 90 lb up at 2-2-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385062
2523941	JM16	Half Hip	1	2	Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-51, 2-4=-61, 5-8=-20
   Concentrated Loads (lb)
   Vert: 6=-938

Job	Truss	Truss Type	Qty	Ply	
2523941	JP1	Jack-Open Girder	2	1	I43385063

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:58 2020 Page 1
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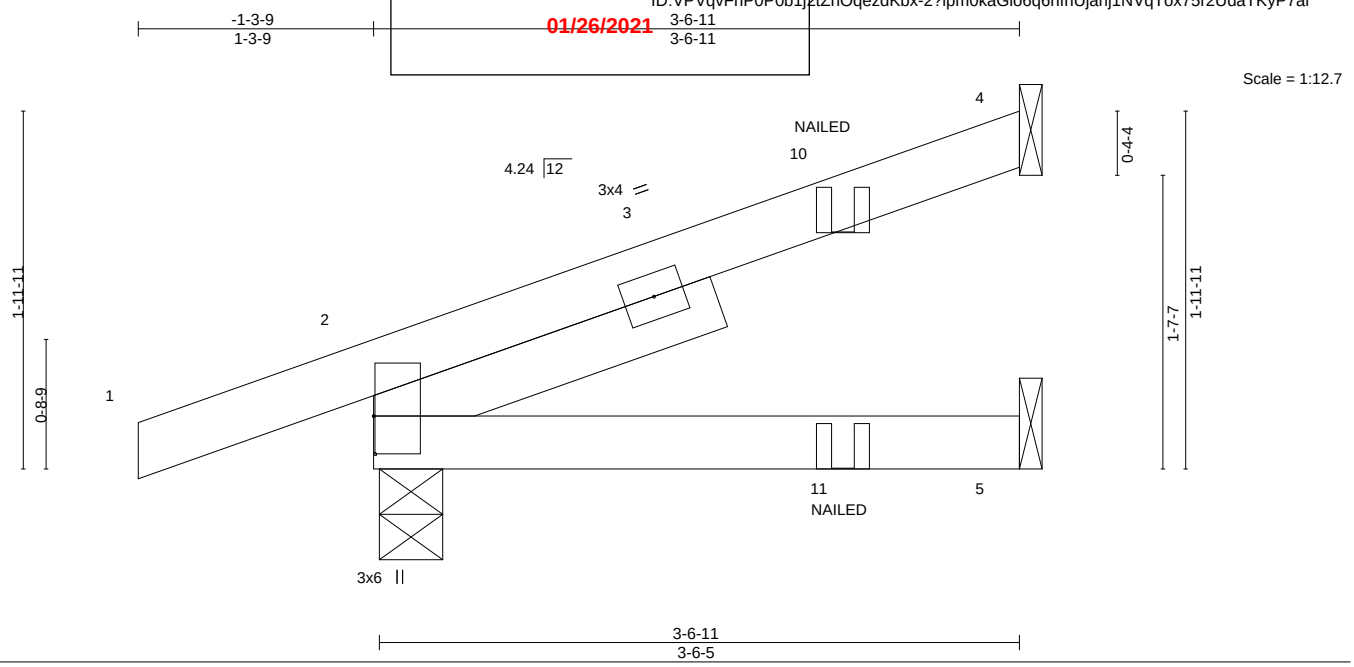

Plate Offsets (X,Y)-- [2:0-2-8,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.01	5-8	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-4-3, 5=Mechanical
Max Horz 2=54(LC 12)
Max Uplift 4=-24(LC 12), 2=-48(LC 12)
Max Grav 4=105(LC 17), 2=280(LC 17), 5=59(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-4=-51, 5-6=-20
Concentrated Loads (lb)
Vert: 11=0(B)

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	JP2	Jack-Open	2	1	I43385064

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:39:59 2020 Page 1
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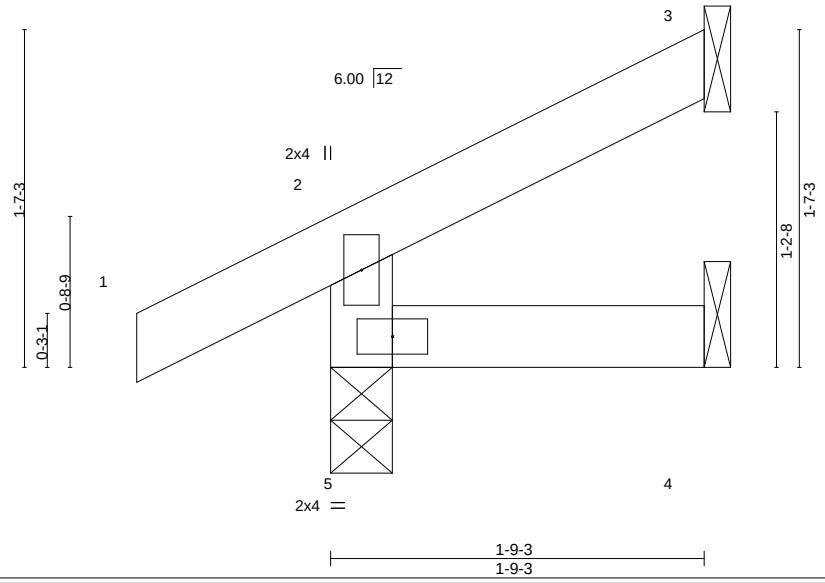

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=56(LC 16)
Max Uplift 3=-14(LC 16), 5=-32(LC 16)
Max Grav 3=38(LC 21), 4=28(LC 7), 5=175(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG1	GABLE	1	1	I43385065

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:01 2020 Page 1
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3-10-9 | 17-4-14 | 25-2-1
3-10-9 | 3-10-9

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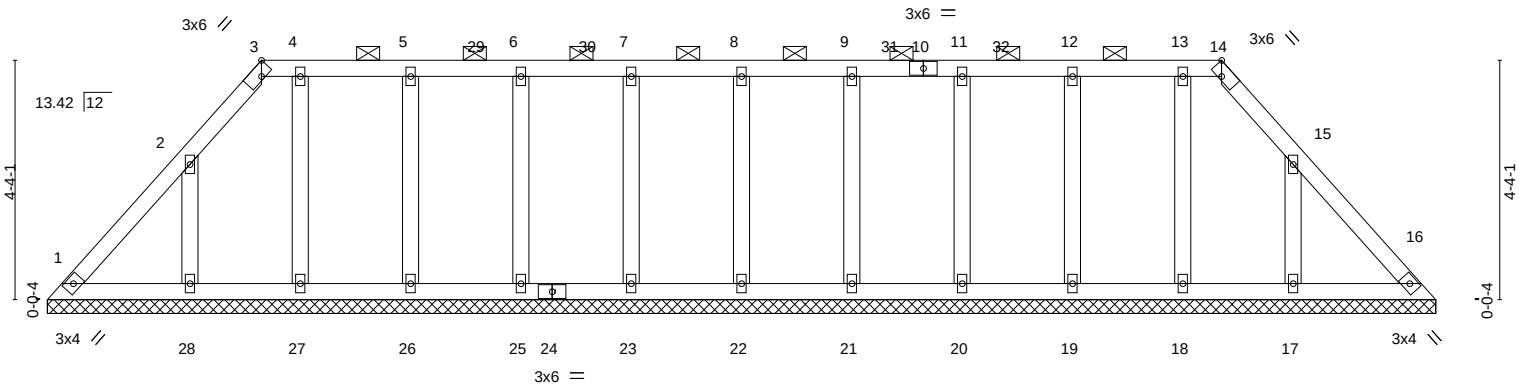

25-2-1
25-2-1

Plate Offsets (X,Y)-- [3:0-2-10,Edge], [14:0-2-10,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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 105 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 25-2-1.
(lb) - Max Horz 1=-104(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 22, 23, 25, 26, 28, 21, 20, 19, 17
Max Grav All reactions 250 lb or less at joint(s) 1, 16, 22, 23, 25, 26, 27, 21, 20, 19, 18, 17 except 28=252(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-9, Exterior(2R) 3-10-9 to 8-1-8, Interior(1) 8-1-8 to 21-3-7, Exterior(2E) 21-3-7 to 24-10-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 22, 23, 25, 26, 28, 21, 20, 19, 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.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type		Qty	Ply	
2523941	LG2	GABLE		1	1	I43385066

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:10 2020 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

8-7-0 / 8-7-0 | 17-2-1 / 8-7-0

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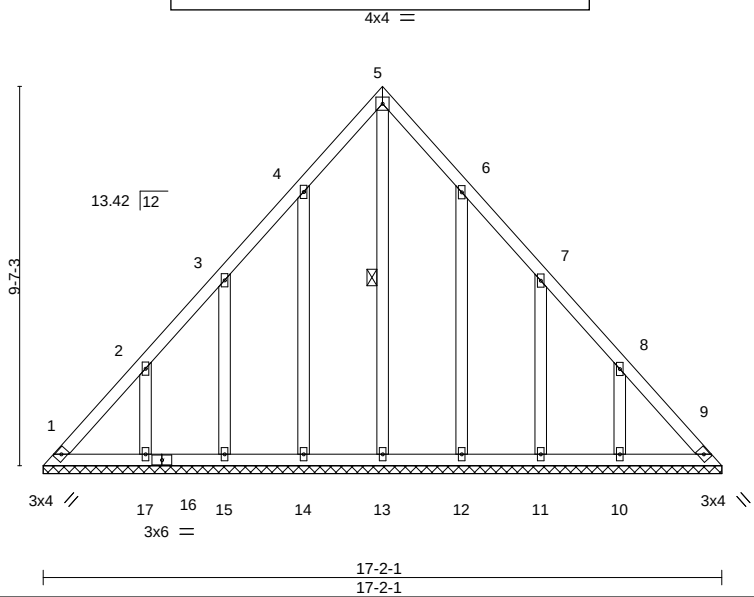

17-2-1 / 17-2-1

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	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS. All bearings 17-2-1.
(lb) - Max Horz 1=-235(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 15, 14, 12, 11 except 17=-102(LC 14), 10=-102(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 15, 14, 13, 12, 11 except 17=256(LC 23), 10=256(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 8-7-0, Exterior(2R) 8-7-0 to 11-7-0, Interior(1) 11-7-0 to 16-10-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 15, 14, 12, 11 except (jt=lb) 17=102, 10=102.
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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG3	GABLE	1	1	I43385067

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:13 2020 Page 1
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4-1-4

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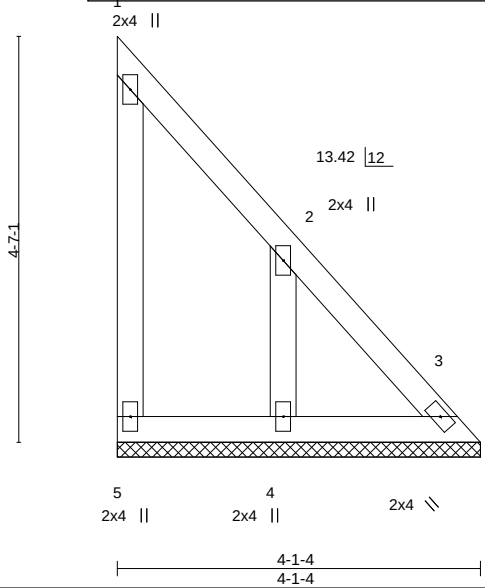

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-1-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=4-1-4, 3=4-1-4, 4=4-1-4
Max Horz 5=-142(LC 10)
Max Uplift 5=-49(LC 10), 3=-32(LC 13), 4=-94(LC 14)
Max Grav 5=78(LC 24), 3=121(LC 23), 4=235(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-260/267

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385068
2523941	LG4	GABLE	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:14 2020 Page 1
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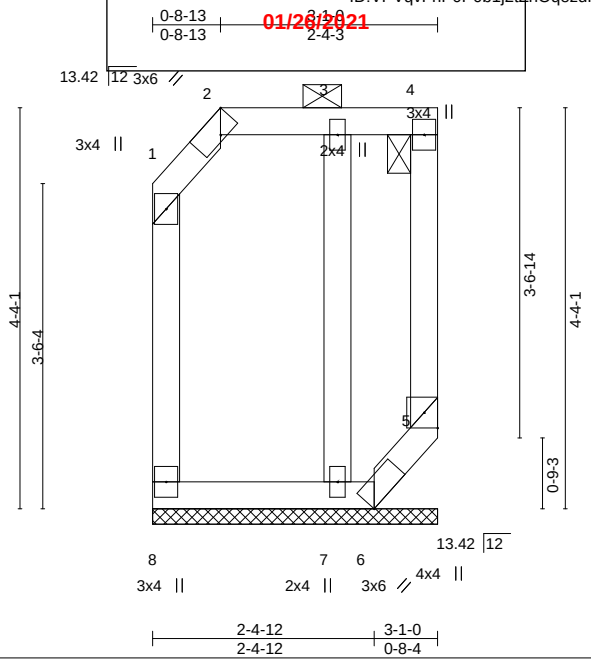

Plate Offsets (X,Y)-- [2:0-2-10,Edge]

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-4.
BOT CHORD	Rigid ceiling directly applied or 8-8-3 oc bracing.

REACTIONS. All bearings 3-1-0.
(lb) - Max Horz 8=123(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 8 except 5=-291(LC 11), 6=-316(LC 12), 7=-137(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 8, 7 except 5=271(LC 12), 6=338(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 5-6=-418/432

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 5=291, 6=316, 7=137.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385069
2523941	LG5	GABLE	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:15 2020 Page 1
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5-1-8
5-1-8

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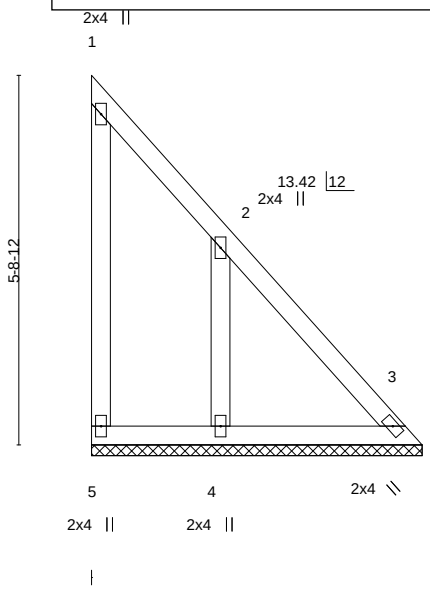

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 23 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-1-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=5-1-8, 3=5-1-8, 4=5-1-8
Max Horz 5=-182(LC 10)
Max Uplift 5=-64(LC 12), 3=-27(LC 13), 4=-124(LC 14)
Max Grav 5=71(LC 24), 3=167(LC 23), 4=312(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-322/334
BOT CHORD 4-5=-250/257, 3-4=-250/257
WEBS 2-4=-292/216

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 4-9-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3 except (jt=lb) 4=124.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG6	GABLE	1	1	I43385070

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:18 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-SrvNzs_7ZvJHDAJVyh4Gbxsm8uF1dAXnecTdBAyP7aR

2-9-8
2-9-8

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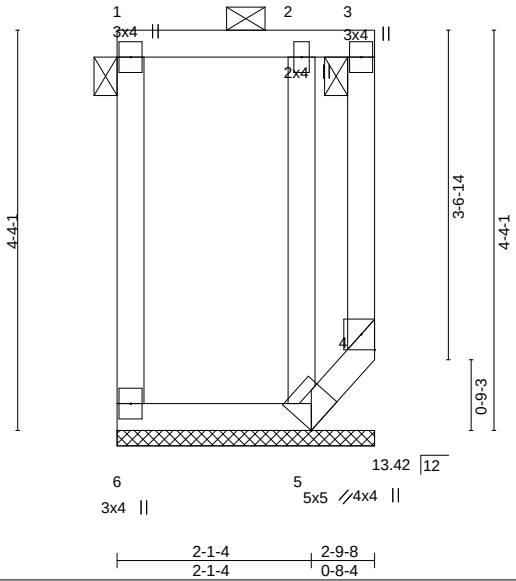

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 19 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	2-0-0 oc purlins: 1-3, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=2-9-8, 4=2-9-8, 5=2-9-8
Max Horz 6=-126(LC 12)
Max Uplift 6=-76(LC 10), 4=-248(LC 13), 5=-190(LC 10)
Max Grav 6=118(LC 24), 4=241(LC 10), 5=265(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 4-5=-405/408

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Provide adequate drainage to prevent water ponding.
4) Gable requires continuous bottom chord bearing.
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) 6 except (jt=lb) 4=248, 5=190.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 4.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG7	GABLE	1	1	I43385071

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:18 2020 Page 1
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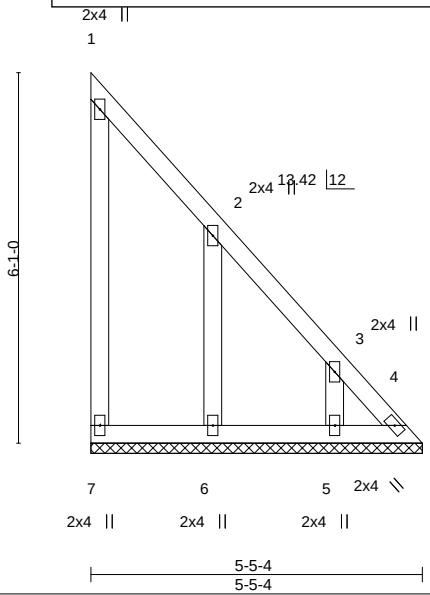

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-5-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-5-4.
(lb) - Max Horz 7=-194(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 7, 4, 6, 5
Max Grav All reactions 250 lb or less at joint(s) 7, 4, 6, 5

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-291/296, 3-4=-391/391
BOT CHORD 6-7=-265/274, 5-6=-265/274, 4-5=-265/274

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 5-1-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 6, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG8	GABLE	1	1	I43385072

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:20 2020 Page 1
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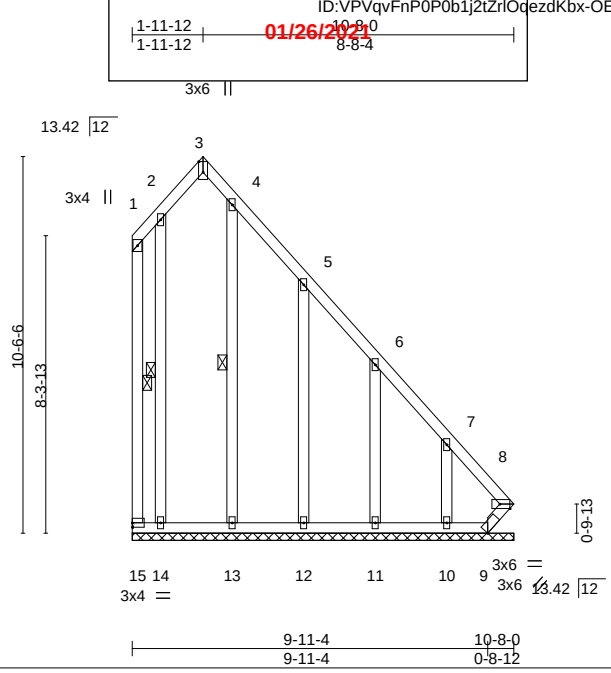


Plate Offsets (X,Y)-- [3:Edge,0-1-8], [8:Edge,0-1-8]

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	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 76 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 9-11-5 oc bracing: 14-15 6-0-0 oc bracing: 8-9.
WEBS	1 Row at midpt 1-15, 2-14, 4-13

REACTIONS. All bearings 10-8-0.
(lb) - Max Horz 15=-329(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 11, 10 except 15=-115(LC 14), 8=-430(LC 13), 9=-291(LC 10), 13=-172(LC 12), 12=-134(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 15, 14, 12, 11, 10 except 8=545(LC 10), 9=264(LC 13), 13=263(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-15=-366/397, 1-2=-356/392, 4-5=-265/255, 5-6=-269/259, 6-7=-364/368, 7-8=-475/471
BOT CHORD	14-15=-329/340, 13-14=-329/340, 12-13=-329/340, 11-12=-329/340, 10-11=-329/340, 9-10=-329/340, 8-9=-539/549
WEBS	2-14=-313/241, 4-13=-253/203

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 1-11-12, Exterior(2R) 1-11-12 to 4-9-8, Interior(1) 4-9-8 to 10-5-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 10 except (jt=lb) 15=115, 8=430, 9=291, 13=172, 12=134.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.
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.

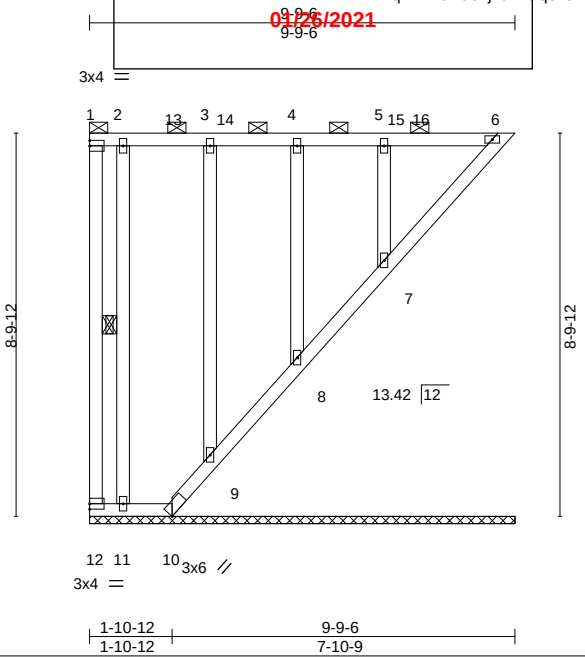
October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385073
2523941	LG9	GABLE	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:21 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-sQbWbt00rqhs4e14dpdzDaUEF5JuqVVDKZiHnVyP7aO



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 62 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	2-0-0 oc purlins (6-0-0 max.): 1-6, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 1-12, 2-11

REACTIONS. All bearings 9-9-6.
(lb) - Max Horz 12=-215(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 12, 9, 8, 7 except 6=-115(LC 14), 10=-135(LC 12), 11=-103(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 12, 6, 10, 11, 9, 8 except 7=251(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner(3) 0-1-12 to 3-1-12, Exterior(2) 3-1-12 to 6-5-7, Corner(3) 6-5-7 to 9-5-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 9, 8, 7 except (jt=lb) 6=115, 10=135, 11=103.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 9, 8, 7.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG10	GABLE	1	1	I43385074

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:03 2020 Page 1
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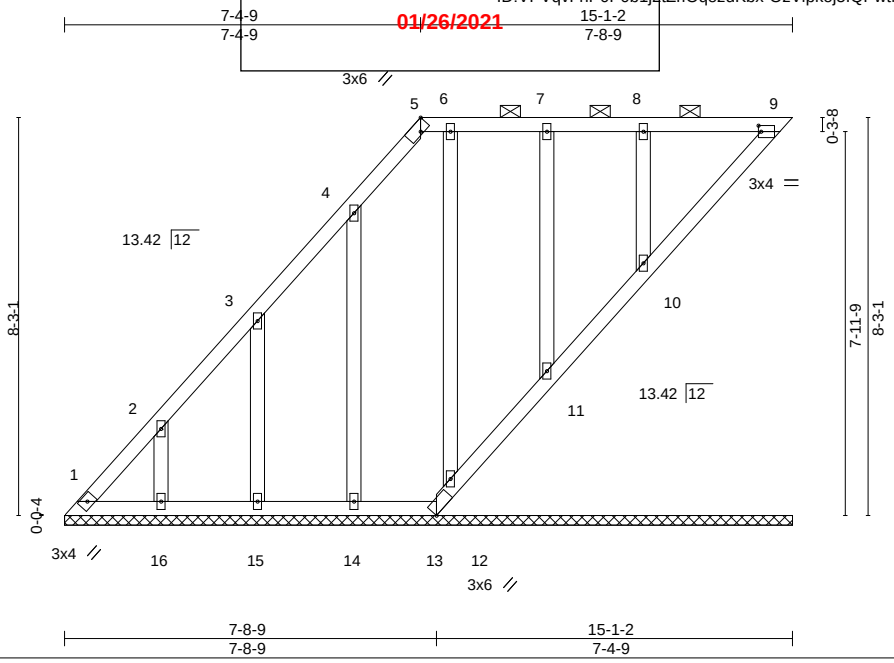


Plate Offsets (X,Y)-- [5:0-2-10,Edge], [9:0-0-10,0-1-8]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 73 lb	FT = 20%

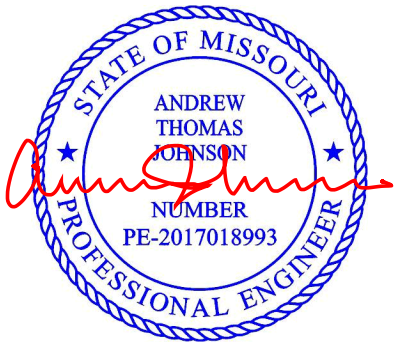
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS. All bearings 15-1-2.
(lb) - Max Horz 1=223(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 16, 15, 14, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 16, 15, 14, 12, 11 except 10=263(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-290/262

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-4-9, Exterior(2R) 7-4-9 to 10-4-9, Interior(1) 10-4-9 to 14-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 13, 16, 15, 14, 12, 11, 10.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 12, 11, 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.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG11	GABLE	1	1	I43385075

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:05 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrl0qezdKbx-KLdTEPqzcvg79Ap?hSLDaCqaGftS4HCsf4qRDRyP7ae

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

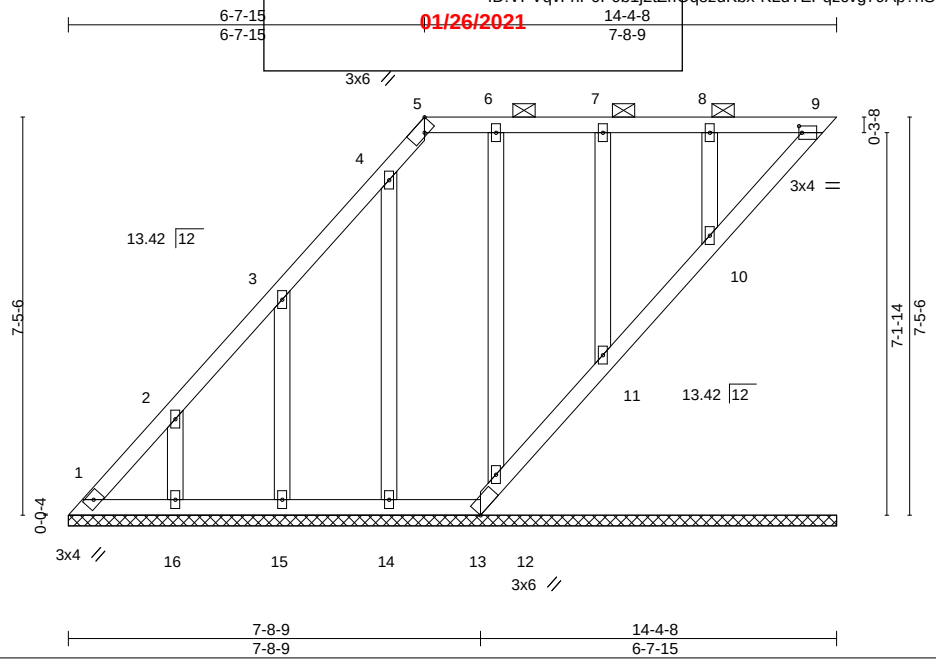


Plate Offsets (X,Y)-- [5:0-2-10,Edge], [9:0-0-10,0-1-8]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 68 lb	FT = 20%

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

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

REACTIONS. All bearings 14-4-8.
(lb) - Max Horz 1=200(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 13, 16, 15, 14, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 16, 15, 14, 12, 11, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-269/243

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 6-7-15, Exterior(2R) 6-7-15 to 9-7-15, Interior(1) 9-7-15 to 14-1-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 13, 16, 15, 14, 12, 11, 10.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 12, 11, 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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG12	GABLE	1	1	I43385076

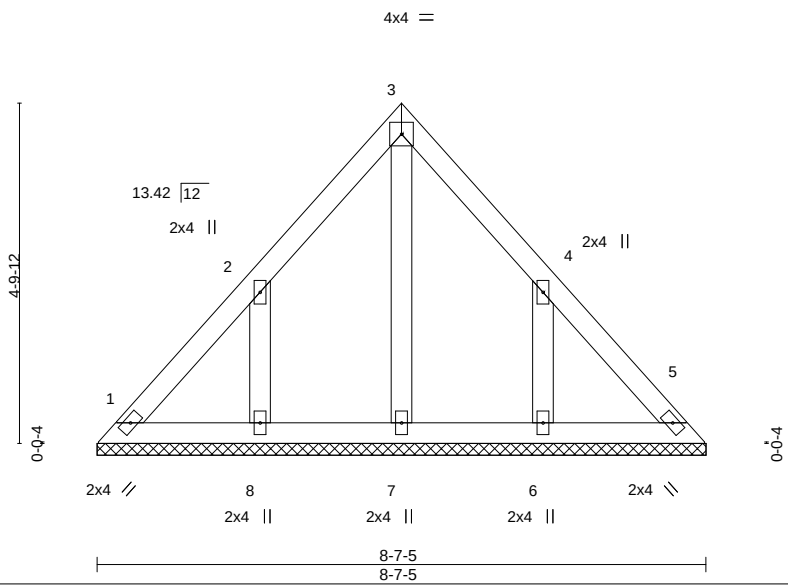
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:07 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-HklDf5rE8WwrPUzOptNhfdvwtSZ1YCt96OJYIJyP7ac

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

4-3-10 8-7-5
4-3-10 4-3-10

Scale = 1:32.6



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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 8-7-5.
(lb) - Max Horz 1=-113(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-104(LC 14), 6=-104(LC 14)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=253(LC 23), 6=253(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 4-3-10, Exterior(2R) 4-3-10 to 7-3-10, Interior(1) 7-3-10 to 8-3-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
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) 1 except (jt=lb) 8=104, 6=104.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	LG14	GABLE	1	1	I43385077

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:09 2020 Page 1
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3-10-6 7-8-13
3-10-6 3-10-6

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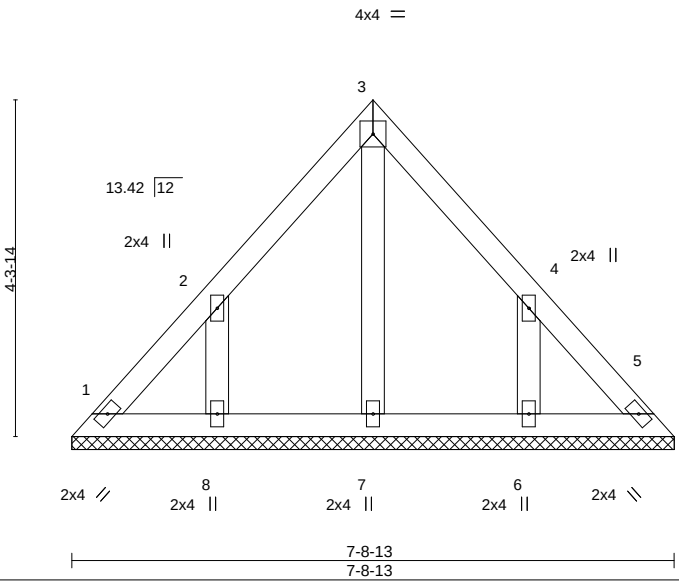

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 7-8-13.
(lb) - Max Horz 1=-101(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-6, Exterior(2R) 3-10-6 to 6-10-6, Interior(1) 6-10-6 to 7-4-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
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) 1, 5, 8, 6.
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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M1	Common Supported Gable	1	1	I43385078

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:22 2020 Page 1
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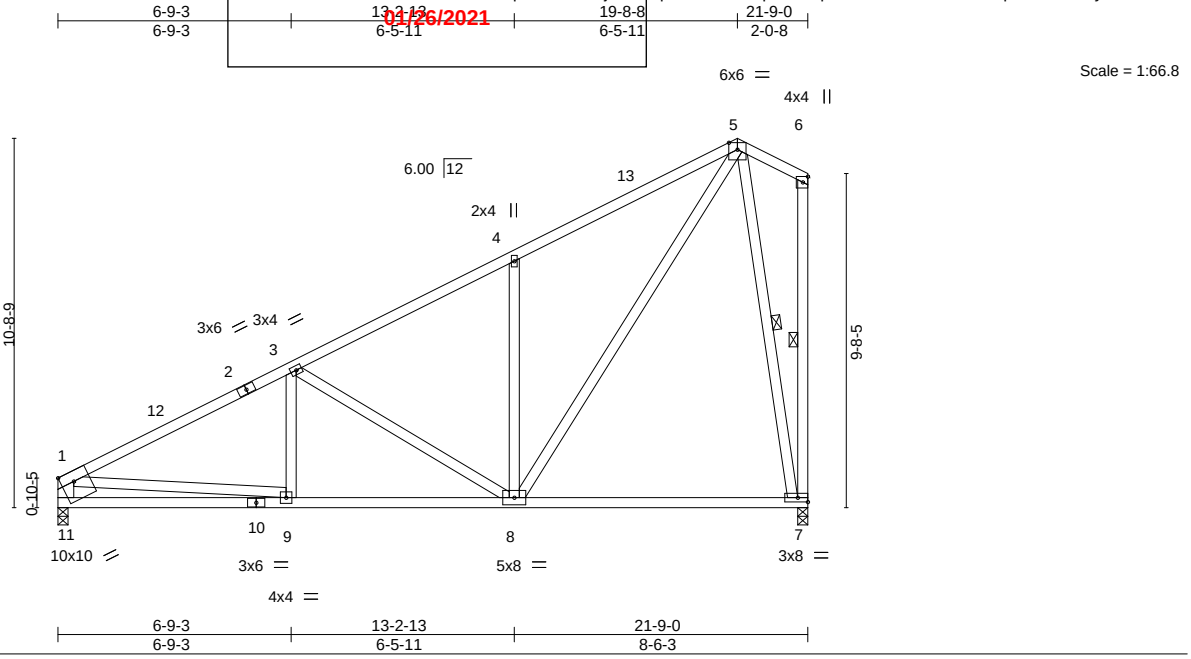

Plate Offsets (X,Y)-- [11:0-2-7,0-1-4], [11:Edge,0-3-8]

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	0.45	Vert(LL)	-0.14	7-8	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.29	7-8	>896	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 117 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 1-11: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-7, 5-7

REACTIONS. (size) 11=0-3-8, 7=0-3-8
Max Horz 11=346(LC 15)
Max Uplift 11=-68(LC 16), 7=-88(LC 16)
Max Grav 11=962(LC 2), 7=962(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1422/227, 3-4=-923/213, 4-5=-933/339, 1-11=-893/172
BOT CHORD 9-11=-506/540, 8-9=-436/1184
WEBS 3-8=-526/177, 4-8=-478/207, 5-8=-277/1080, 5-7=-886/410, 1-9=-48/803

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 19-8-8, Exterior(2E) 19-8-8 to 21-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; 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) 11, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M2	Hip	1	1	I43385079

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:23 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-ppjG0Z2GNRxZKxBSlEgRI?aZ1vsqILBWotBOsOyP7aM

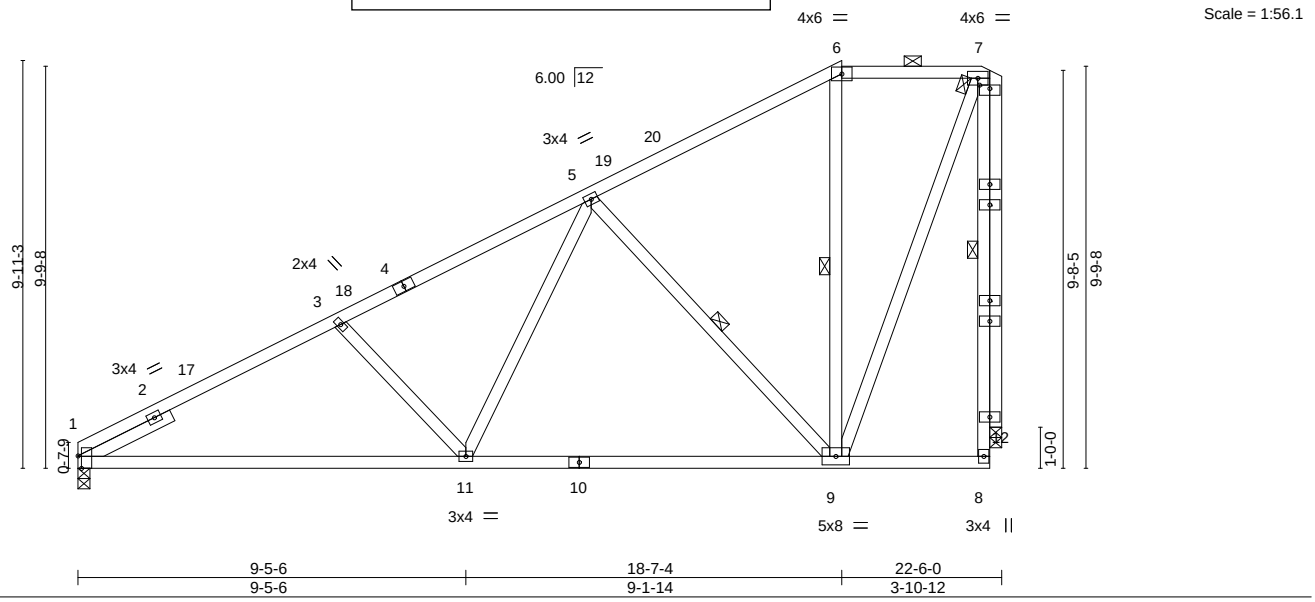

Plate Offsets (X,Y)-- [1:0-3-10,Edge], [7:0-3-0,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.12	9-11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.25	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.03	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 121 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-9, 6-9, 7-8

REACTIONS. (size) 1=0-3-8, 12=0-3-8
Max Horz 1=329(LC 15)
Max Uplift 1=-70(LC 16), 12=-101(LC 13)
Max Grav 1=993(LC 2), 12=993(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1541/209, 3-5=-1373/206, 5-6=-523/174, 6-7=-353/180, 7-12=-980/202
BOT CHORD 1-11=-383/1369, 9-11=-279/933
WEBS 3-11=-384/136, 5-11=-30/528, 5-9=-867/178, 7-9=-217/992

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-7-4, Exterior(2E) 18-7-4 to 22-0-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 3x6 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) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=101.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M3	Roof Special Girder	1	2	I43385080

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:27 2020 Page 1
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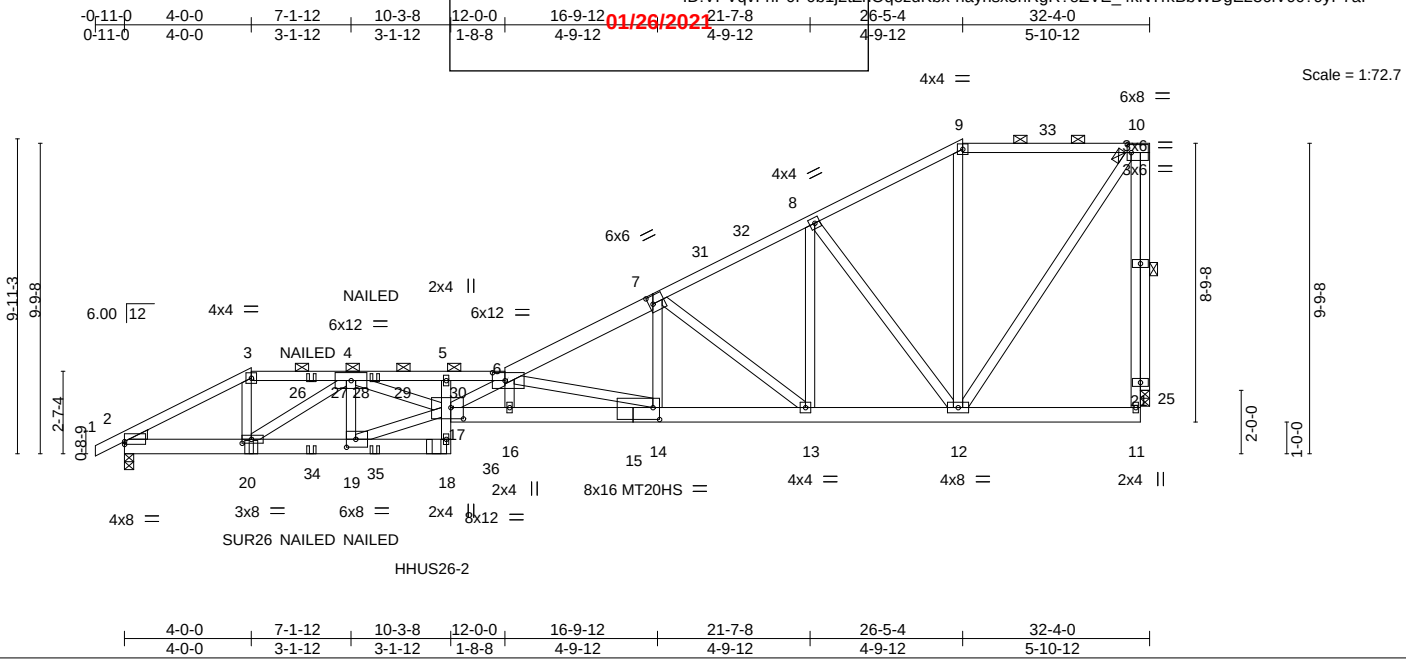

	4-0-0	7-1-12	10-3-8	12-0-0	16-9-12	21-7-8	26-5-4	32-4-0
	4-0-0	3-1-12	3-1-12	1-8-8	4-9-12	4-9-12	4-9-12	5-10-12

Plate Offsets (X,Y)-- [2:0-0-0,0-1-1], [6:0-4-12,0-3-0], [7:0-1-8,0-3-0], [10:0-1-8,0-3-0], [15:0-0-0,0-2-12], [15:0-2-8,0-4-8], [17:0-4-12,0-4-4], [19:0-3-8,0-3-0], [20:0-3-8,0-1-8]

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	0.72	Vert(LL)	-0.49	16	>789	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.87	16	>444	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.12	25	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 383 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 3-6: 2x4 SPF 1650F 1.5E, 6-7: 2x6 SPF No.2
BOT CHORD	2x6 SPF 2100F 1.8E *Except* 2-18: 2x6 SPF No.2
WEBS	2x4 SPF No.2 *Except* 5-18: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF No.2
WEDGE	
Left: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-11-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-15 max.): 3-6, 9-10.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 10-25

REACTIONS. (size) 2=0-3-8, 25=0-3-8
Max Horz 2=254(LC 12)
Max Uplift 2=-228(LC 12), 25=-188(LC 12)
Max Grav 2=2350(LC 38), 25=1692(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-3923/357, 3-4=-3345/327, 4-5=-12315/1113, 5-6=-12863/1166, 6-7=-5099/371, 7-8=-2589/188, 8-9=-1260/112, 9-10=-1038/120
BOT CHORD	2-20=-515/3445, 19-20=-692/5887, 18-19=-76/767, 16-17=-1218/12346, 14-16=-1204/12245, 13-14=-478/4588, 12-13=-236/2228
WEBS	17-18=-64/747, 3-20=-107/1583, 4-20=-3070/222, 4-19=-1291/217, 17-19=-647/5372, 4-17=-647/6900, 6-17=-423/984, 6-16=-853/119, 6-14=-8102/756, 7-14=-181/2485, 7-13=-2931/301, 8-13=-132/1718, 8-12=-1961/223, 10-12=-198/1755, 10-25=-1693/188

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 oc.
   Webs 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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385080
2523941	M3	Roof Special Girder	1	2	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:27 2020 Page 2
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NOTES-

8) Provide adequate drainage to prevent water ponding.
9) All plates are MT20 plates 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) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=228, 25=188.
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.
15) Use Simpson Strong-Tie SUR26 (6-10d Girder, 6-10dx1 1/2 Truss) or equivalent at 4-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
16) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 9-10-2 from the left end to connect truss(es) to back face of bottom chord.
17) Fill all nail holes where hanger is in contact with lumber.
18) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-51, 3-6=-61, 6-9=-51, 9-10=-61, 18-22=-20, 11-17=-20
   Concentrated Loads (lb)
   Vert: 20=-263(B) 27=-71(B) 29=-71(B) 34=-25(B) 35=-25(B) 36=-707(B)

Job	Truss	Truss Type	Qty	Ply	
2523941	M4	Roof Special	1	1	I43385081

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:29 2020 Page 1
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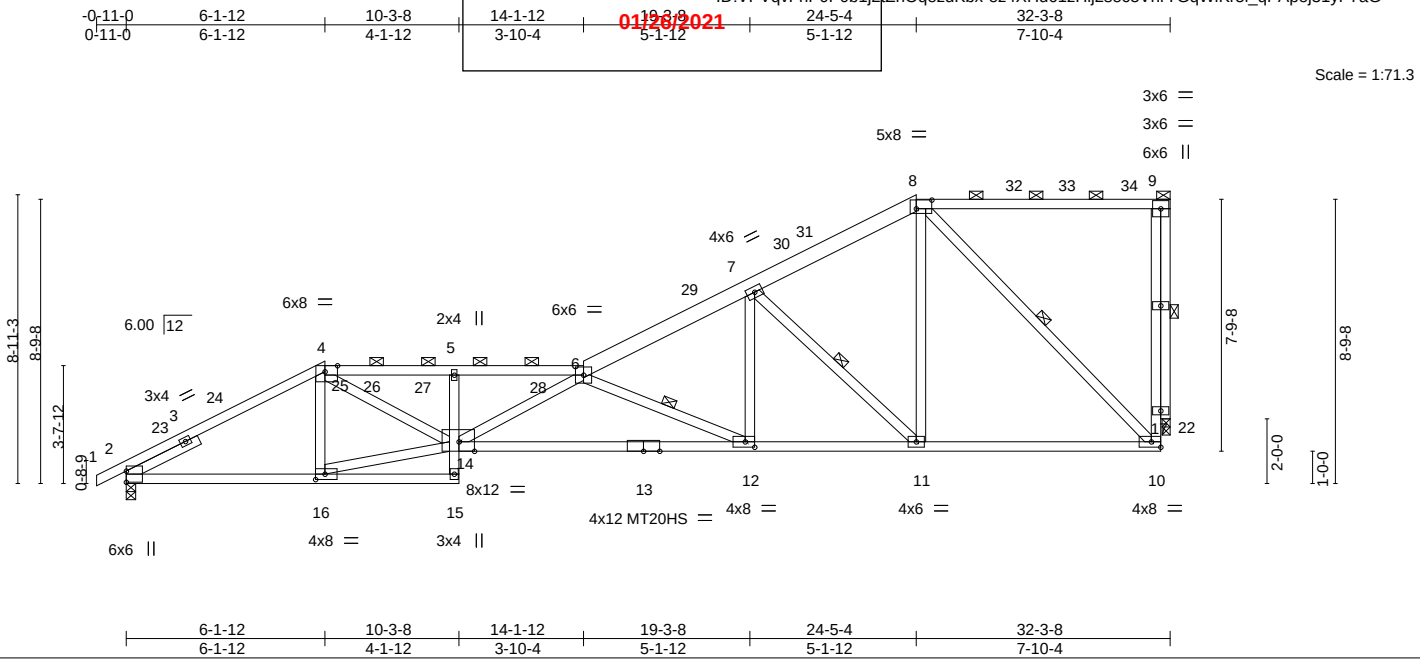

Plate Offsets (X,Y)-- [4:0-4-10,Edge], [8:0-5-12,0-3-4], [12:0-3-8,0-2-0], [14:0-5-12,Edge], [16:0-3-8,0-2-0]

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	0.81	Vert(LL)	-0.35	12-14	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.77	12-14	>500	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.16	22	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 164 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-8: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 13-14,10-13: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-4-13 max.): 4-6, 8-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-12, 7-11, 8-10, 9-22

REACTIONS. (size) 2=0-3-8, 22=0-3-0
Max Horz 2=224(LC 16)
Max Uplift 2=-115(LC 16), 22=-145(LC 16)
Max Grav 2=1512(LC 2), 22=1419(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-2418/256, 4-5=-4228/477, 5-6=-4329/476, 6-7=-2630/247, 7-8=-1353/164, 10-17=-142/1169, 9-17=-142/1169
BOT CHORD	2-16=-431/2104, 5-14=-466/87, 12-14=-681/4805, 11-12=-352/2299, 10-11=-192/1175
WEBS	4-16=-432/128, 14-16=-386/1976, 4-14=-256/2455, 6-14=-669/40, 6-12=-2756/368, 7-12=-91/1308, 7-11=-1572/222, 8-11=-97/1184, 8-10=-1532/237, 9-22=-1421/200

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-1-12, Exterior(2R) 6-1-12 to 9-1-12, Interior(1) 9-1-12 to 24-5-4, Exterior(2R) 24-5-4 to 27-5-4, Interior(1) 27-5-4 to 31-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=115, 22=145.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M4	Roof Special	1	1	I43385081

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385082
2523941	M5	Roof Special	1	1	

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:31 2020 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 4-2-10 8-1-12 10-3-8 16-1-12 22-5-4 27-2-14 32-4-0
0-11-0 4-2-10 3-11-2 2-1-12 5-10-4 6-3-8 4-9-10 5-1-2

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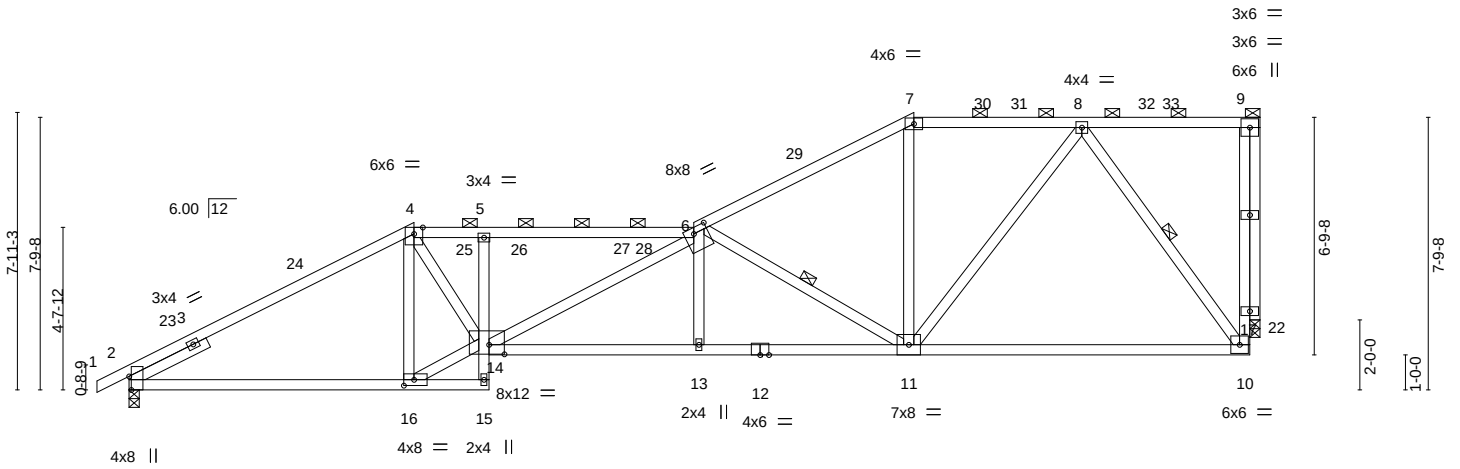

8-1-12 10-3-8 16-1-12 22-5-4 32-4-0
8-1-12 2-1-12 5-10-4 6-3-8 9-10-12

Plate Offsets (X,Y)-- [2:0-4-10,Edge], [6:0-4-12,0-2-0], [14:0-5-4,0-3-4], [16:0-3-8,0-2-0]

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	0.76	Vert(LL)	-0.24	10-11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.52	10-11	>742	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.12	22	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 153 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-6-5 max.): 4-6, 7-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-11, 8-10

REACTIONS. (size) 2=0-3-8, 22=0-3-8
Max Horz 2=197(LC 16)
Max Uplift 2=-122(LC 16), 22=-138(LC 16)
Max Grav 2=1513(LC 2), 22=1421(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2268/272, 4-5=-2986/393, 5-6=-3054/405, 6-7=-1853/219, 7-8=-1562/234, 10-17=-161/1270, 9-17=-161/1270
BOT CHORD 2-16=-403/2037, 5-14=-552/75, 13-14=-528/3465, 11-13=-526/3469, 10-11=-158/935
WEBS 4-16=-803/206, 14-16=-398/2147, 4-14=-220/1869, 6-14=-493/3, 6-11=-2172/321, 7-11=0/456, 8-11=-146/1032, 8-10=-1448/244, 9-22=-1424/193

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 8-1-12, Exterior(2R) 8-1-12 to 11-1-12, Interior(1) 11-1-12 to 22-5-4, Exterior(2R) 22-5-4 to 25-5-4, Interior(1) 25-5-4 to 31-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=122, 22=138.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M5	Roof Special	1	1	I43385082

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2523941	M6	Roof Special	1	1	I43385083

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:34 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-_wtQKKAAnpK?8eXau2M0FJXOyLaLNDU8J5LTlFyP7aB

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0 5-2-10 10-1-12 18-1-12 21-2-0 21-10-12 26-11-10 32-4-0
0-11-0 5-2-10 4-11-2 8-0-0 3-0-4 0-8-12 5-0-14 5-4-6

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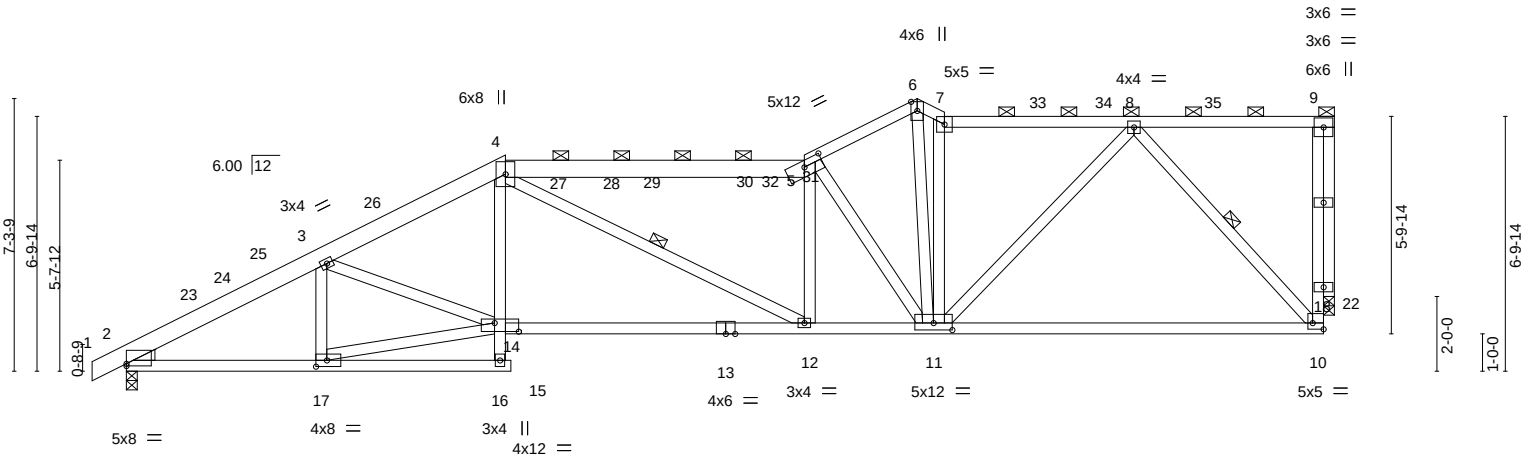

5-2-10 10-3-8 18-1-12 21-10-12 26-11-10 32-4-0
5-2-10 5-0-14 7-10-4 3-9-0 5-0-14 5-4-6

Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [5:0-6-0,0-2-0], [10:Edge,0-2-0], [11:0-6-0,0-2-4], [14:0-7-12,0-2-12], [17:0-3-8,0-2-0]

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	0.65	Vert(LL)	-0.30	10-11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.63	10-11	>610	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.09	22	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 172 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-4,4-5: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2
WEDGE	
Left: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-5-2 max.): 4-5, 7-9.
BOT CHORD	Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 14-16
WEBS	1 Row at midpt 4-12, 8-10

REACTIONS. (size) 2=0-3-8, 22=0-3-8
Max Horz 2=172(LC 16)
Max Uplift 2=-127(LC 16), 22=-132(LC 16)
Max Grav 2=1517(LC 2), 22=1473(LC 43)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-2511/273, 3-4=-2693/366, 4-5=-2645/348, 5-6=-1969/263, 6-7=-2034/293, 7-8=-1881/267, 10-18=-155/1288, 9-18=-155/1288
BOT CHORD	2-17=-420/2131, 4-14=-22/546, 12-14=-434/2421, 11-12=-412/2640, 10-11=-190/1175
WEBS	3-17=-388/130, 14-17=-381/2057, 3-14=-14/439, 4-12=-17/334, 5-11=-1511/251, 6-11=-195/1723, 7-11=-1090/162, 8-11=-129/1038, 8-10=-1588/261, 9-22=-1477/188

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 21-2-0, Exterior(2E) 21-2-0 to 21-10-12, Interior(1) 21-10-12 to 31-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 22 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=127, 22=132.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M6	Roof Special	1	1	I43385083

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

NOTES-

11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	
2523941	M6A	Roof Special	1	1	I43385084

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:37 2020 Page 1
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-0-11-0	5-3-8	10-3-8	10-8-12	18-8-12	21-2-0	23-10-12	27-11-10	32-4-0
0-11-0	5-3-8	5-0-0	0-5-4	8-0-0	2-5-4	2-8-12	4-0-14	4-4-6

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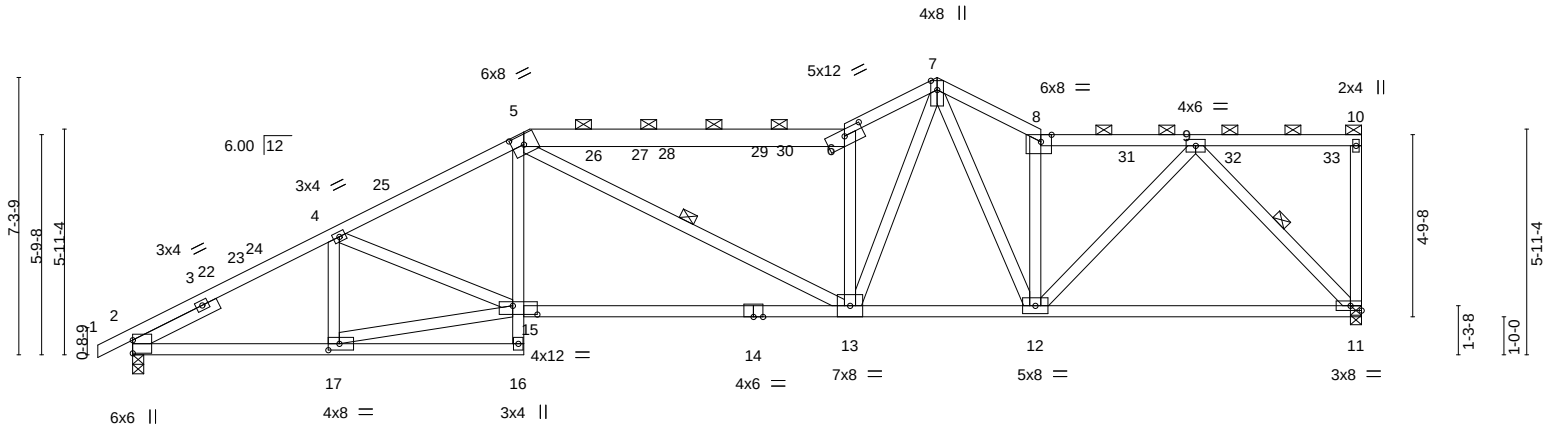

5-3-8	10-3-8	18-8-12	23-10-12	25-4-10	32-4-0
5-3-8	5-0-0	8-5-4	5-2-0	1-5-14	6-11-6

Plate Offsets (X,Y)-- [5:0-3-12,0-3-0], [6:0-6-0,0-2-0], [8:0-3-6,Edge], [15:0-7-12,0-2-12], [17:0-3-8,0-2-0]

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	0.74	Vert(LL)	-0.20	13-15	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.47	13-15	>818	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.11	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 159 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-4 max.): 5-6, 8-10.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 5-13, 9-11

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=197(LC 15)
Max Uplift 2=-143(LC 16), 11=-120(LC 16)
Max Grav 2=1514(LC 2), 11=1448(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-2400/309, 4-5=-2588/364, 5-6=-2462/357, 6-7=-2773/429, 7-8=-2259/355, 8-9=-2006/290
BOT CHORD	2-17=-444/2080, 5-15=-29/544, 13-15=-453/2317, 12-13=-305/1764, 11-12=-221/1186
WEBS	4-17=-385/132, 15-17=-400/2007, 4-15=-6/346, 5-13=-79/251, 6-13=-1613/294, 7-13=-272/1791, 9-12=-142/1197, 9-11=-1691/277, 8-12=-1206/219, 7-12=-90/546

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=4.2psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-3-13, Interior(1) 2-3-13 to 10-1-12, Exterior(2R) 10-1-12 to 13-4-9, Interior(1) 13-4-9 to 21-2-0, Exterior(2E) 21-2-0 to 23-10-12, Interior(1) 23-10-12 to 32-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=143, 11=120.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M7	Roof Special	1	1	I43385085

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:40 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-p4EiaNFxNf49sZ_kEJTQUanNVmffnvU0i1ooyvyP7a5

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0	4-6-2	8-8-12	10-3-8	16-8-12	20-8-12	21-7-4	25-10-12	32-4-0
0-11-0	4-6-2	4-2-10	1-6-12	6-5-4	4-0-0	0-10-8	4-3-8	6-5-4

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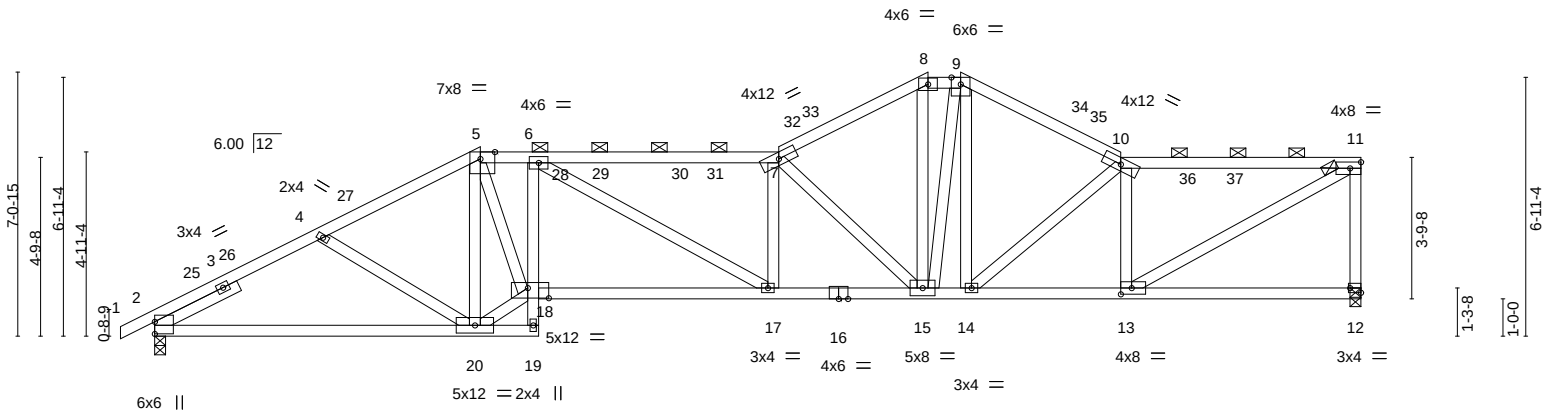


8-8-12	10-3-8	16-8-12	20-8-12	21-7-4	25-10-12	32-4-0
8-8-12	1-6-12	6-5-4	4-0-0	0-10-8	4-3-8	6-5-4

Plate Offsets (X,Y)-- [5:0-4-10,Edge], [12:Edge,0-1-8], [13:0-3-8,0-2-0], [18:0-6-12,0-3-4]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.23	17-18	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.44	17-18	>873	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.14	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 159 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-7, 8-9, 10-11.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=179(LC 15)
Max Uplift 2=-144(LC 16), 12=-119(LC 16)
Max Grav 2=1514(LC 2), 12=1448(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-2396/349, 4-5=-2255/334, 5-6=-2760/426, 6-7=-3185/464, 7-8=-2214/364, 8-9=-1897/339, 9-10=-2114/340, 10-11=-2066/311, 11-12=-1379/229
BOT CHORD	2-20=-450/2077, 6-18=-727/148, 17-18=-508/2827, 15-17=-525/3186, 14-15=-306/1814, 13-14=-332/2107
WEBS	5-20=-1063/243, 18-20=-374/2241, 5-18=-320/2043, 6-17=-37/435, 7-15=-1759/275, 8-15=-137/793, 9-15=-107/576, 9-14=-34/320, 10-14=-420/85, 10-13=-1041/220, 11-13=-328/2302

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=4.2psf; h=15ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-3-13, Interior(1) 2-3-13 to 8-8-12, Exterior(2R) 8-8-12 to 11-11-9, Interior(1) 11-11-9 to 20-8-12, Exterior(2E) 20-8-12 to 21-7-4, Exterior(2R) 21-7-4 to 24-10-1, Interior(1) 24-10-1 to 32-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=144, 12=119.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	I43385086
2523941	M8	Roof Special	1	1	

Job Reference (optional)

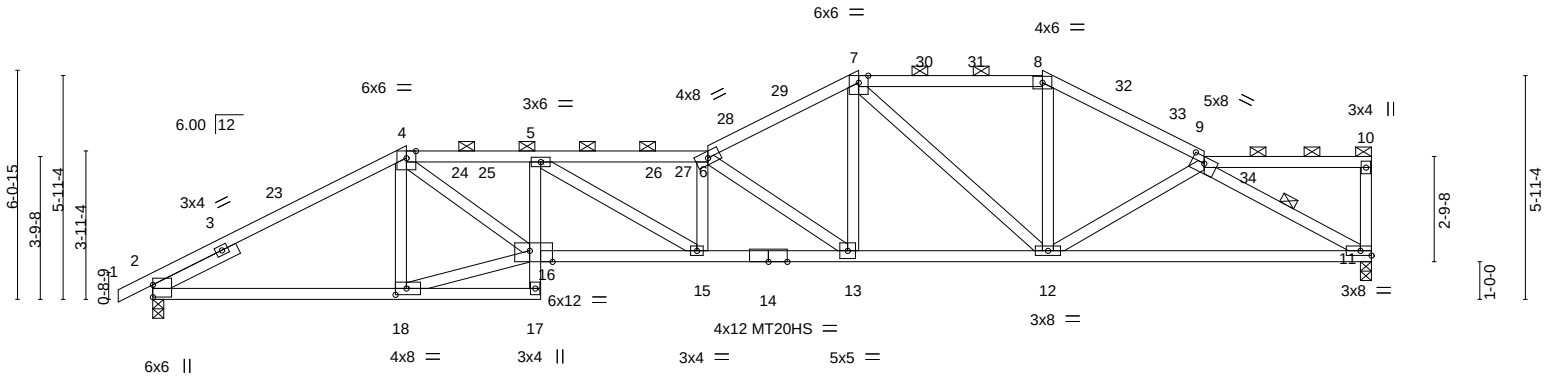
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:42 2020 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-lTMS?3GBvHKt5s86MkWua?sn6ZGbFq3J9LHv1nyP7a3

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0	6-8-12	10-3-8	14-8-12	18-8-12	23-7-4	27-10-12	31-3-8	32-4-0
0-11-0	6-8-12	3-6-12	4-5-4	4-0-0	4-10-8	4-3-8	3-4-12	1-0-8

Scale = 1:61.1



6-8-12	10-3-8	14-8-12	18-8-12	23-7-4	31-3-8	32-4-0
6-8-12	3-6-12	4-5-4	4-0-0	4-10-8	7-8-4	1-0-8

Plate Offsets (X,Y)-- [9:0-4-0,0-2-0], [16:0-7-4,Edge], [18:0-3-8,0-2-0]

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	0.64	Vert(LL)	-0.31	15	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.56	15-16	>688	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.18	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 141 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-4-3 max.): 4-6, 7-8, 9-10.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 9-11

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=144(LC 15)
Max Uplift 11=-118(LC 16), 2=-144(LC 16)
Max Grav 11=1448(LC 2), 2=1514(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-2404/359, 4-5=-3806/573, 5-6=-4286/636, 6-7=-2824/453, 7-8=-1966/358, 8-9=-2282/364
BOT CHORD	2-18=-392/2086, 5-16=-696/129, 15-16=-641/3880, 13-15=-693/4293, 12-13=-405/2434, 11-12=-356/2095
WEBS	4-18=-507/144, 16-18=-376/1985, 4-16=-290/2154, 5-15=-57/484, 6-13=-2219/346, 7-13=-172/1353, 7-12=-734/130, 8-12=-48/659, 9-11=-2359/397

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=4.2psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-11-0 to 2-2-9, Interior(1) 2-2-9 to 6-8-12, Exterior(2R) 6-8-12 to 10-1-12, Interior(1) 10-1-12 to 18-8-12, Exterior(2R) 18-8-12 to 21-10-5, Interior(1) 21-10-5 to 23-7-4, Exterior(2R) 23-7-4 to 26-8-13, Interior(1) 26-8-13 to 32-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=118, 2=144.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	M9	Roof Special Girder	1	2	I43385087

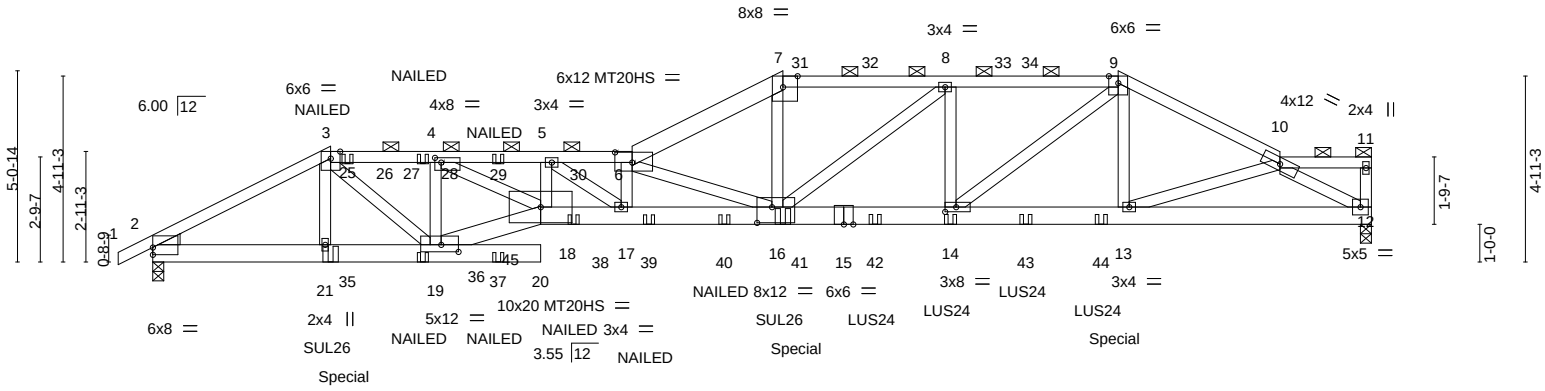
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:47 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-6Q9L2mKKjpz9Ce149H53H3ZY9a_Ew7E2Jc?gi?yP7a_

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-11-0	4-8-10	7-6-1	10-3-8	12-8-10	16-8-10	21-2-0	25-7-6	29-10-14	31-3-8	32-4-0
0-11-0	4-8-10	2-9-7	2-9-7	2-5-2	4-0-0	4-5-6	4-5-6	4-3-8	1-4-10	1-0-8

Scale = 1:61.1



4-8-10	7-6-1	10-3-8	12-8-10	16-8-10	21-2-0	25-7-6	28-3-11	31-3-8	32-4-0
4-8-10	2-9-7	2-9-7	2-5-2	4-0-0	4-5-6	4-5-6	2-8-5	2-11-13	1-0-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-5], [4:0-2-0,0-1-8], [6:0-5-8,0-3-4], [7:0-4-10,Edge], [14:0-3-8,0-1-8], [16:0-4-12,0-5-0], [19:0-5-8,0-2-4]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.56	17	>690	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.95	17	>405	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.19	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 322 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-6: 2x4 SPF 1650F 1.5E, 6-7: 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
2-20,15-18: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2 *Except*
4-18: 2x4 SPF 1650F 1.5E
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except end verticals, and 2-0-0 oc purlins (2-4-13 max.): 3-6, 7-9, 10-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 2=0-3-8
Max Horz 2=106(LC 11)
Max Uplift 12=-530(LC 12), 2=-469(LC 12)
Max Grav 12=3346(LC 41), 2=2982(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5344/829, 3-4=-7551/1170, 4-5=-14754/2361, 5-6=-15968/2675, 6-7=-9621/1681, 7-8=-8450/1499, 8-9=-7789/1341, 9-10=-6300/1058
BOT CHORD 2-21=-723/4756, 19-21=-727/4774, 17-18=-2350/14855, 16-17=-2665/16090, 14-16=-1248/7786, 13-14=-869/5589, 12-13=-817/4958, 18-19=-1194/7963
WEBS 3-21=-316/71, 3-19=-556/3799, 4-19=-4638/792, 7-16=-671/3987, 8-16=-202/955, 8-14=-1019/209, 9-14=-488/2830, 9-13=-105/904, 10-13=-127/746, 10-12=-5815/992, 4-18=-1366/8258, 5-18=-1086/270, 6-17=-1316/279, 6-16=-8064/1326, 5-17=-358/1420

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs 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=4.2psf; h=15ft; B=45ft; L=31ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) All plates are MT20 plates 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=530, 2=469.
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.
14) Use Simpson Strong-Tie SUL26 (6-10d Girder, 6-10dx1 1/2 Truss) or equivalent at 4-8-10 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
15) Use Simpson Strong-Tie SUL26 (6-10d Girder, 6-10dx1 1/2 Truss) or equivalent at 16-8-10 from the left end to connect truss(es) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
16) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 19-2-0 from the left end to 25-2-0 to connect truss(es) to front face of bottom chord.
17) Fill all nail holes where hanger is in contact with lumber.
18) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
19) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 44 lb down at 5-2-0, and 289 lb down and 71 lb up at 17-2-0, and 615 lb down and 119 lb up at 25-7-6 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 (plf)
   Vert: 1-3=-51, 3-6=-61, 6-7=-51, 7-9=-61, 9-10=-51, 10-11=-61, 19-22=-20, 19-20=-20, 12-18=-20, 18-19=-20
   Concentrated Loads (lb)
   Vert: 21=-273(F) 16=-615(F) 14=-289(F) 13=-615(F) 25=-104(F) 28=-101(F) 29=-101(F) 35=-36(F) 36=-36(F) 37=-36(F) 38=-155(F) 39=-11(F) 40=-25(F) 41=-289(F) 42=-289(F) 43=-289(F) 44=-289(F)

Job	Truss	Truss Type	Qty	Ply	
2523941	P1	Hip Girder	1	1	I43385088

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:49 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-2pH5TSMaFQDtRxASGi8YMUf5rOtMOBTLmwUlmtyP7Zy

-0-7-8 | 2-10-12 | 3-6-4 | 6-5-0 | 7-0-8
0-7-8 | 2-10-12 | 0-7-8 | 2-10-12 | 0-7-8

Scale = 1:16.4

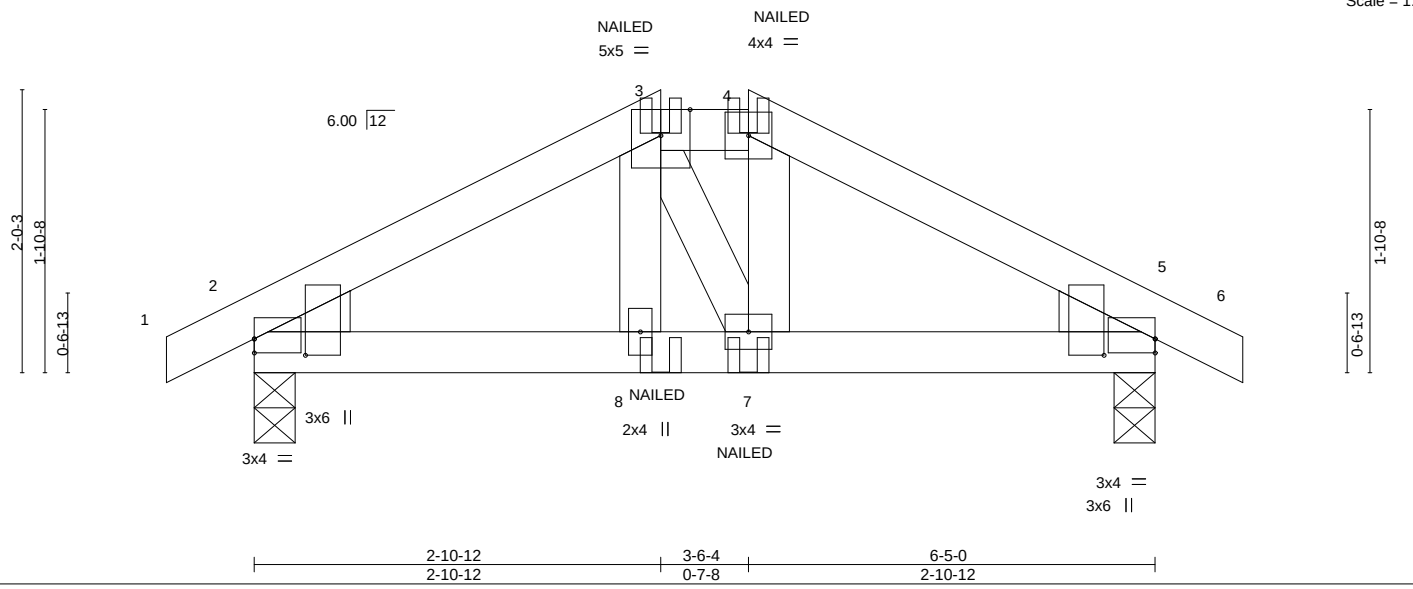


Plate Offsets (X,Y)-- [2:0-0-0,0-1-3], [2:0-1-6,0-4-6], [5:0-0-0,0-1-3], [5:0-1-6,0-4-6]

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	0.09	Vert(LL)	-0.00	8	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 23 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 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) 2=0-3-8, 5=0-3-8
Max Horz 2=32(LC 11)
Max Uplift 2=-42(LC 12), 5=-42(LC 12)
Max Grav 2=400(LC 35), 5=400(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-416/36, 3-4=-331/43, 4-5=-417/36
BOT CHORD 2-8=-2/335, 7-8=-2/330, 5-7=0/336

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional); 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); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 (plf)
Vert: 1-3=-51, 3-4=-61, 4-6=-51, 9-12=-20

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	P1	Hip Girder	1	1	I43385088

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-30(B) 4=-30(B) 7=-14(B) 8=-14(B)

Job	Truss	Truss Type	Qty	Ply	
2523941	P2	Common	3	1	I43385089

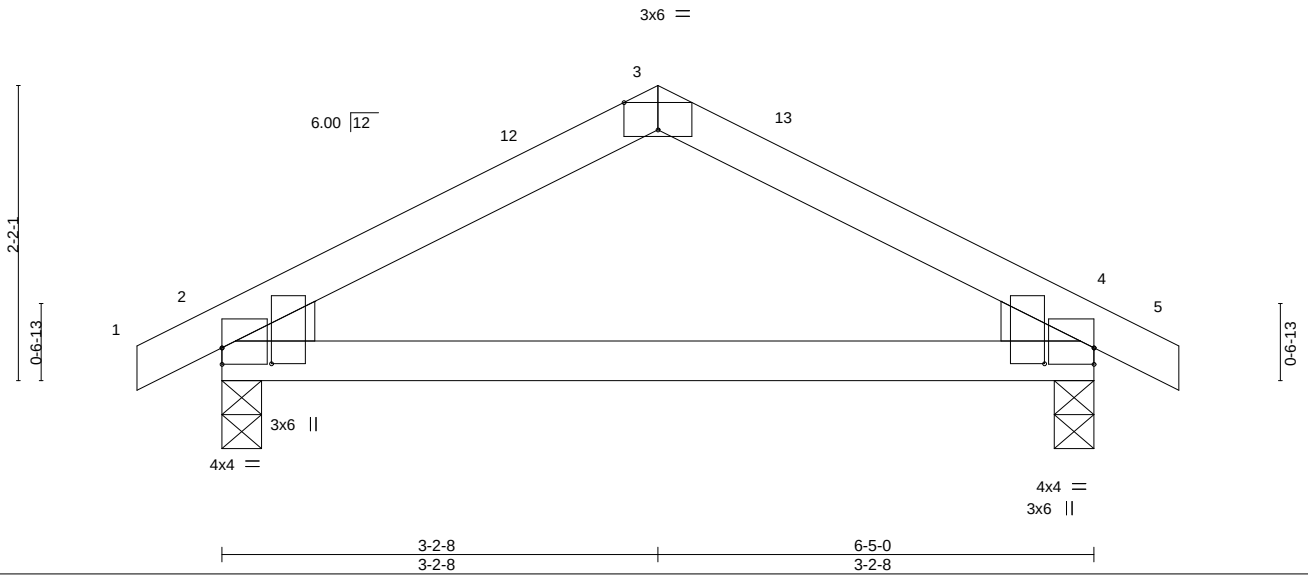
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:50 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-W?rUhoNC0kLk35lfqPfnuhBFVoCo7ezU?aDJIKyP7Zx

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

-0-7-8 / 0-7-8 | 3-2-8 / 3-2-8 | 6-5-0 / 3-2-8 | 7-0-8 / 0-7-8

Scale = 1:17.0



3-2-8 / 3-2-8 | 6-5-0 / 3-2-8

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

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	0.16	Vert(LL)	-0.02	8-11	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.05	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 19 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=37(LC 15)
Max Uplift 2=-42(LC 16), 4=-42(LC 16)
Max Grav 2=333(LC 2), 4=332(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-263/163, 3-4=-263/163

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-7-8 to 2-4-8, Interior(1) 2-4-8 to 3-2-8, Exterior(2R) 3-2-8 to 6-5-0, Interior(1) 6-5-0 to 7-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Job	Truss	Truss Type	Qty	Ply	I43385090
2523941	P3	Roof Special	1	1	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:52 2020 Page 1
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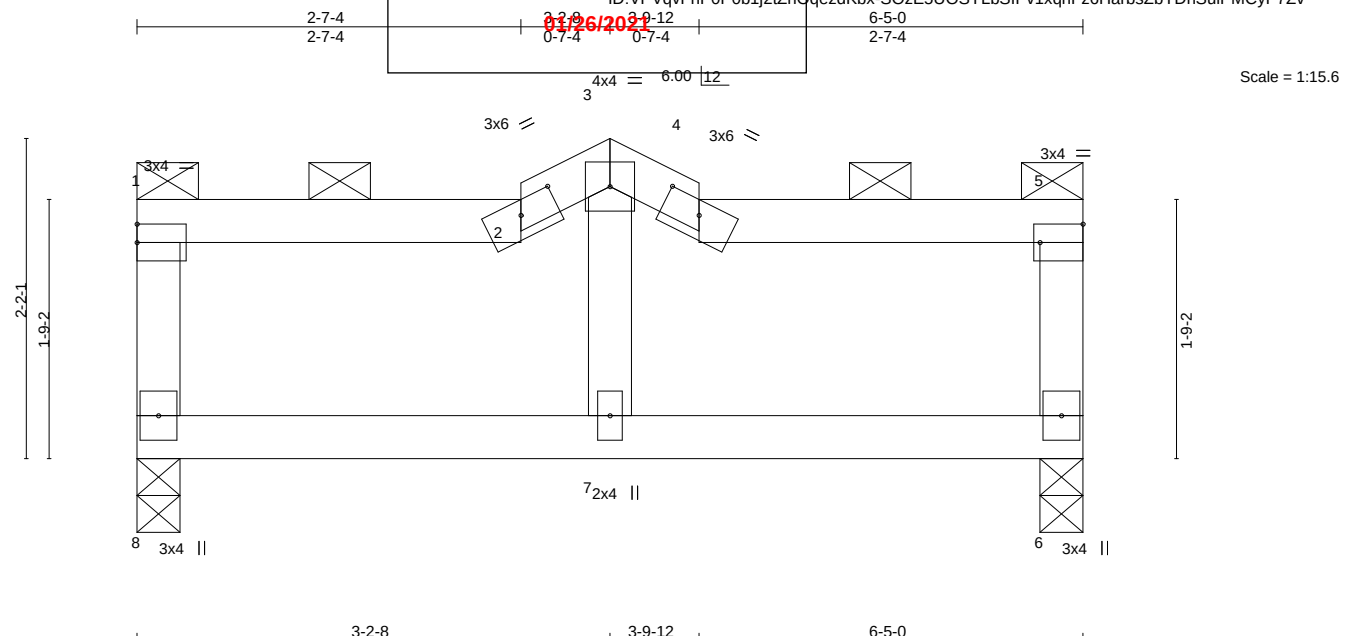


Plate Offsets (X,Y)-- [2:0-3-0,0-1-2], [4:0-3-0,0-1-2], [5:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.04	7	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.07	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 20 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 4-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 8=0-3-8, 6=0-3-8
Max Horz 8=54(LC 15)
Max Uplift 8=-28(LC 12), 6=-28(LC 13)
Max Grav 8=294(LC 40), 6=294(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 2-7-4, Interior(1) 2-7-4 to 3-2-8, Exterior(2E) 3-2-8 to 3-9-12, Interior(1) 3-9-12 to 6-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	V1	Valley	1	1	I43385091

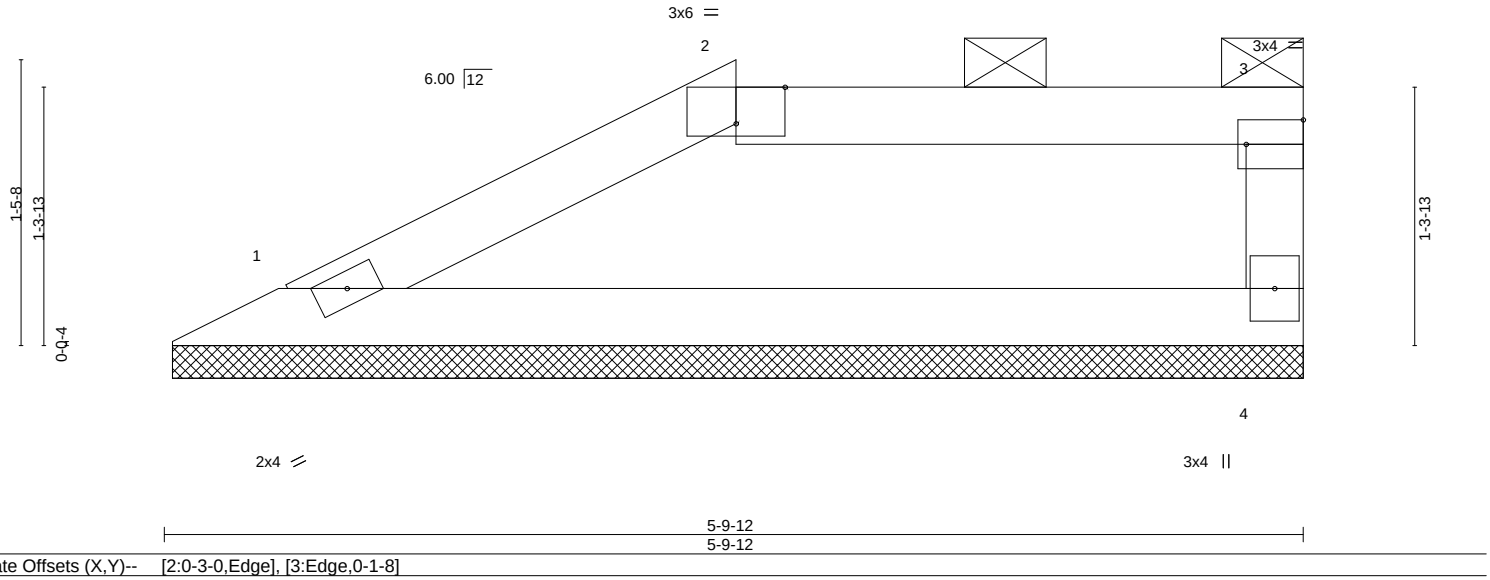
Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:53 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-xaXcJqP4JfjJwZUDVXCUWKplw?DFK?jxhYSzveyP7Zu

2-11-0
2-11-0

5-9-12
2-10-12

Scale = 1:11.8



5-9-12
5-9-12

Plate Offsets (X,Y)-- [2:0-3-0,Edge], [3:Edge,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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-12 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=5-9-4, 4=5-9-4
Max Horz 1=36(LC 15)
Max Uplift 1=-18(LC 16), 4=-23(LC 13)
Max Grav 1=227(LC 35), 4=240(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	V2	Valley	1	1	I43385092

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:54 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-Pn5_WAQj4zrAYi3Q3Fjj3XMngPV?3Sz4wCBWR5yP7Zt

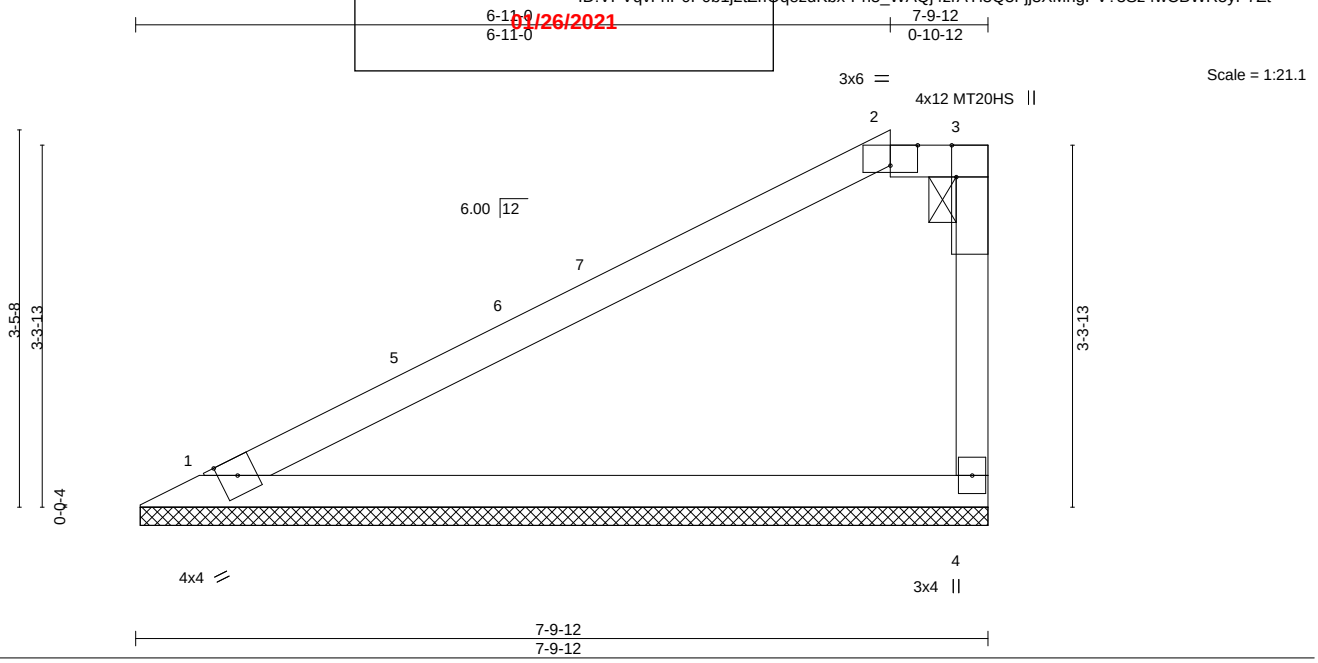


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [3:0-3-8,Edge]

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	0.79	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	n/a	-	n/a	999	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 21 lb	FT = 20%
BCDL	10.0											

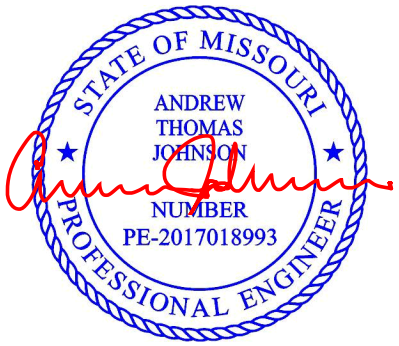
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=7-9-4, 4=7-9-4
Max Horz 1=106(LC 15)
Max Uplift 1=-22(LC 16), 4=-29(LC 13)
Max Grav 1=376(LC 35), 4=337(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-11-0, Exterior(2E) 6-11-0 to 7-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Gable requires continuous bottom chord bearing.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
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.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	
2523941	V3	Valley	1	1	I43385093

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:55 2020 Page 1
ID:VPVqvFnP0P0b1j2tzrlOqezdKbx-tzeNkWRLrGz19secdyEyblv3UpvvovED9sx4zXyP7Zs

9-9-12
9-9-12

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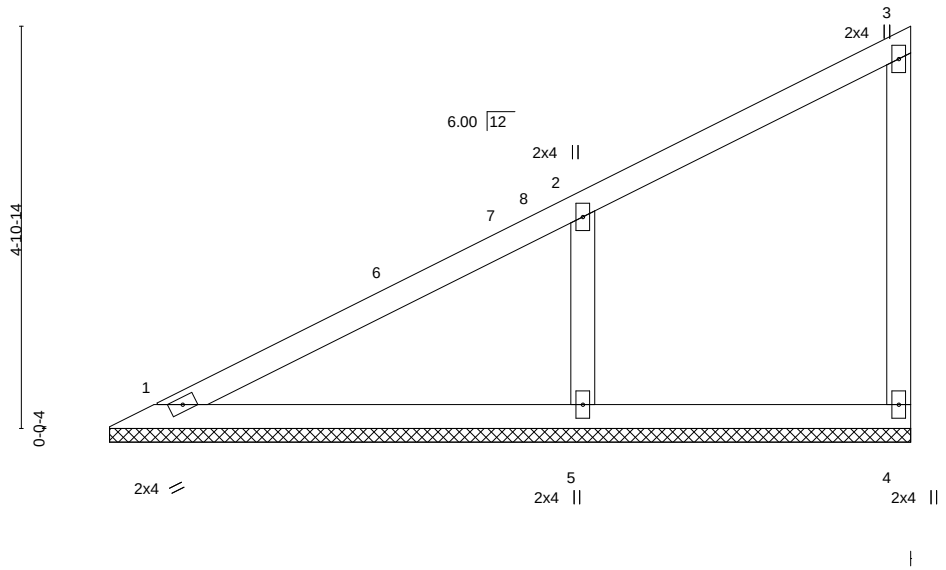


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=9-9-4, 4=9-9-4, 5=9-9-4
Max Horz 1=158(LC 13)
Max Uplift 4=-23(LC 13), 5=-81(LC 16)
Max Grav 1=189(LC 2), 4=141(LC 20), 5=512(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-386/243

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Gable requires continuous bottom chord bearing.
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) 4, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

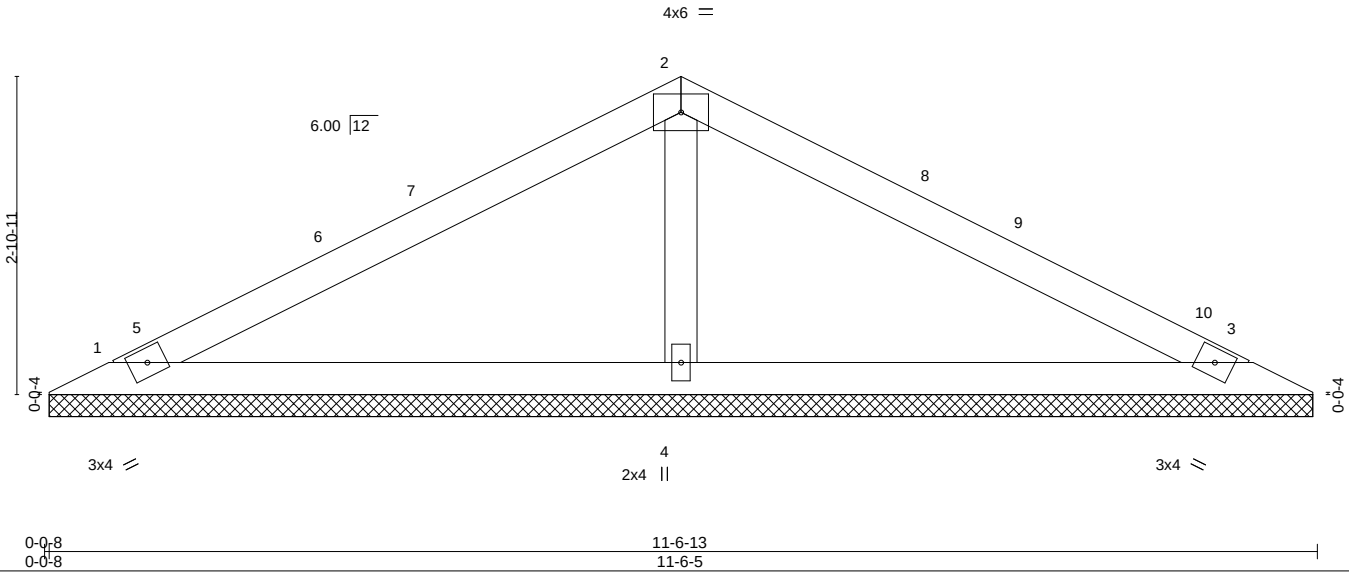
Job	Truss	Truss Type	Qty	Ply	
2523941	V4	Valley	1	1	I43385094

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:55 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOqezdKbx-tzeNkWRLrGz19secdyEyblv2HpuGovKD9sx4zXyP7Zs

5-9-6 11-6-13
5-9-6 5-9-6

Scale = 1:20.9



0-0-8 11-6-13
0-0-8 11-6-5

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	0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 lb	FT = 20%
BCDL	10.0											

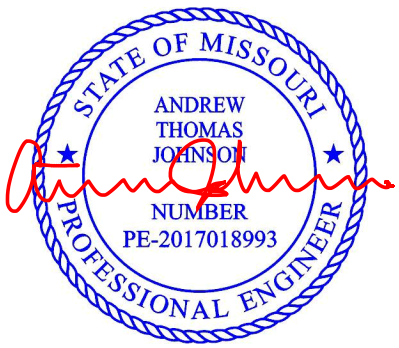
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS. (size) 1=11-5-13, 3=11-5-13, 4=11-5-13
Max Horz 1=-49(LC 14)
Max Uplift 1=-26(LC 16), 3=-26(LC 16), 4=-23(LC 16)
Max Grav 1=224(LC 20), 3=224(LC 21), 4=505(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-349/169

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-9-6, Exterior(2R) 5-9-6 to 8-9-6, Interior(1) 8-9-6 to 10-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
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.



October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

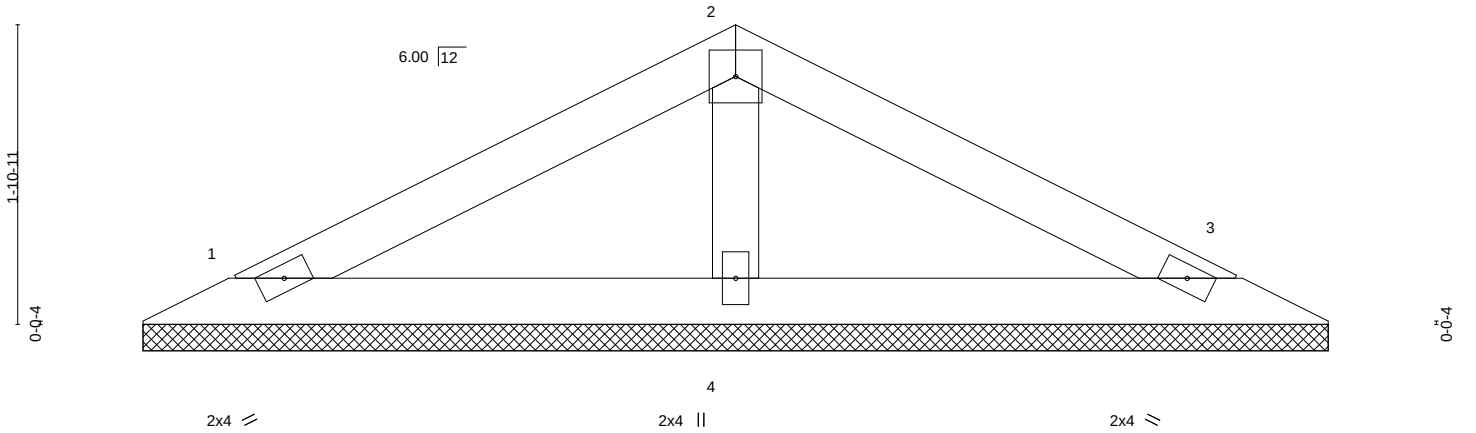
Job	Truss	Truss Type	Qty	Ply	
2523941	V5	Valley	1	1	I43385095

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:56 2020 Page 1
ID:VPVqvFnP0P0b1j2tZrlOdezdKbx-L9ClxrRzca5un0DoAgmB8yRHdCGeXM2NNWgdVzyP7Zr

3-9-6 7-6-13
3-9-6 3-9-6

Scale = 1:14.5



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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 18 lb	FT = 20%

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

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

REACTIONS. (size) 1=7-5-13, 3=7-5-13, 4=7-5-13
Max Horz 1=30(LC 15)
Max Uplift 1=-21(LC 16), 3=-21(LC 16), 4=-3(LC 16)
Max Grav 1=148(LC 20), 3=148(LC 21), 4=279(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
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.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

October 28,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/26/2021

Job	Truss	Truss Type	Qty	Ply	
2523941	V6	Valley	1	1	I43385096

Builders FirstSource (Valley Center), Valley Center, KS - 67147, Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Oct 27 18:40:57 2020 Page 1
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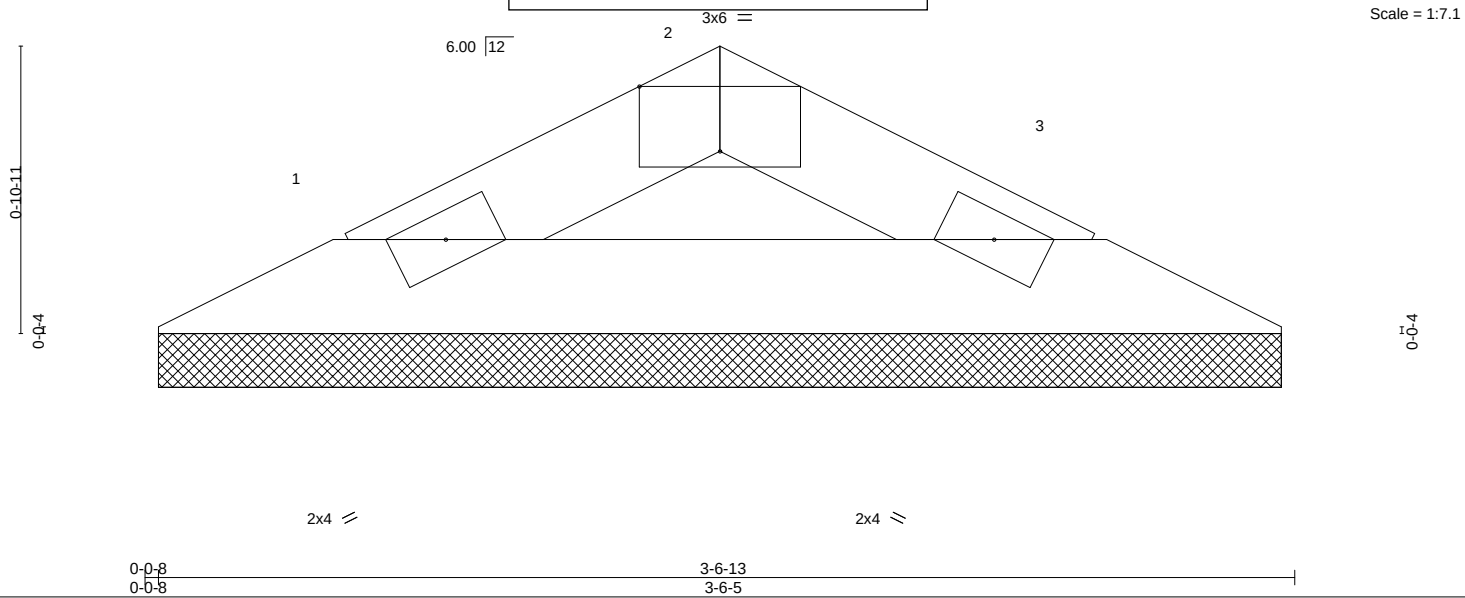


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-5-13, 3=3-5-13
Max Horz 1=11(LC 15)
Max Uplift 1=-8(LC 16), 3=-8(LC 16)
Max Grav 1=104(LC 2), 3=104(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

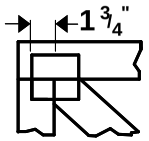
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
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.

October 28,2020

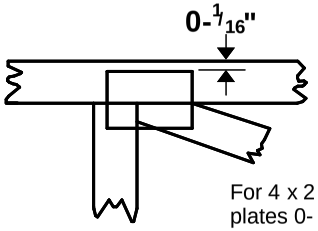
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

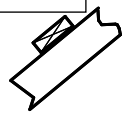
***Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 X 4

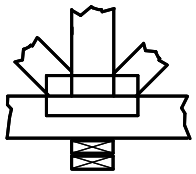
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

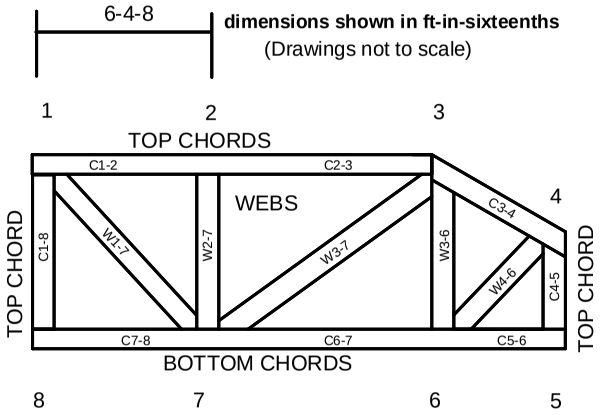


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative 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.