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

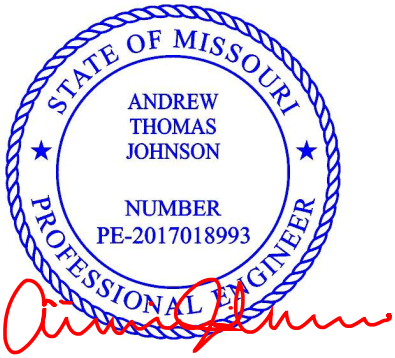
Re: 2731404
Summit/86 Hawthorne

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: I45512743 thru I45512775

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

Missouri COA: Engineering 001193



April 6,2021

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	Summit/86 Hawthorne
2731404	A1	GABLE	1	1	I45512743
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:42 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-3Cg3S6EDqWN1ABPxrbfWpCo5pJxnIJIuiSKCNbzTiCF

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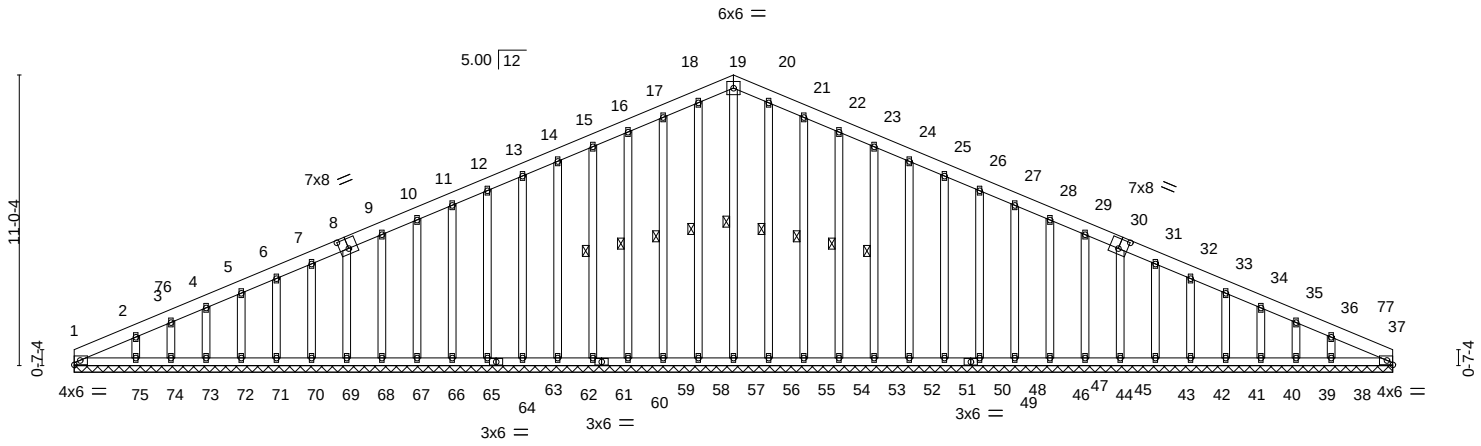
25-0-0
50-0-0
25-0-0

Scale = 1:87.4



50-0-0
50-0-0

Plate Offsets (X,Y)-- [8:0-4-0,0-4-8], [20:0-0-0,0-0-0], [21:0-0-0,0-0-0], [22:0-0-0,0-0-0], [23:0-0-0,0-0-0], [24:0-0-0,0-0-0], [25:0-0-0,0-0-0], [26:0-0-0,0-0-0], [27:0-0-0,0-0-0], [28:0-0-0,0-0-0], [29:0-0-0,0-0-0], [30:0-4-0,0-4-8], [31:0-0-0,0-0-0], [32:0-0-0,0-0-0], [33:0-0-0,0-0-0], [34:0-0-0,0-0-0], [35:0-0-0,0-0-0], [36:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	37	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 372 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 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 19-56, 18-57, 17-58, 16-59, 15-61, 20-55, 21-54, 22-53, 23-52

REACTIONS. All bearings 50-0-0.
(lb) - Max Horz 1=187(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 1, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 54, 53, 52, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38
Max Grav All reactions 250 lb or less at joint(s) 1, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 55, 54, 53, 52, 37, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-91/257, 14-15=-101/284, 15-16=-111/311, 16-17=-122/341, 17-18=-132/370, 18-19=-133/372, 19-20=-133/372, 20-21=-132/370, 21-22=-122/341, 22-23=-111/311, 23-24=-101/284, 24-25=-91/257

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 25-0-0, Corner(3R) 25-0-0 to 28-0-0, Exterior(2N) 28-0-0 to 50-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
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, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 54, 53, 52, 51, 50, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38.
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.

April 6,2021

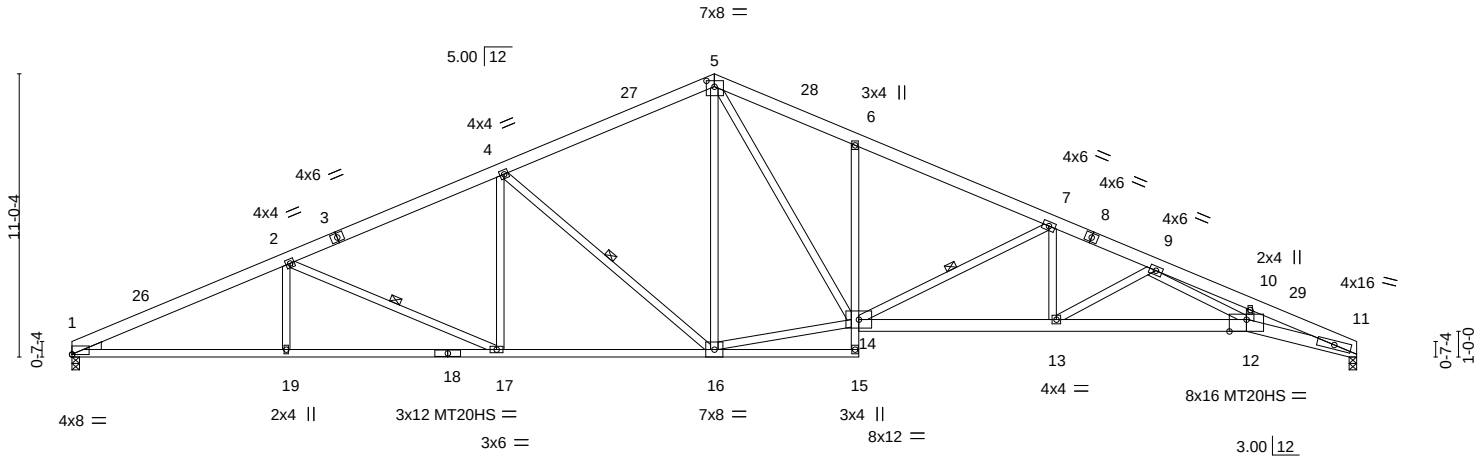
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512744
2731404	A2	ROOF SPECIAL	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:47 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-PATyVqIMe3?JGylue9FhWFVqiKSlzRZdrk2z2ozTiCA

8-4-1	16-8-1	25-0-0	30-7-8	38-2-0	42-0-2	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	5-7-7	7-6-8	3-10-2	3-8-6	4-3-8

Scale = 1:89.7



8-4-1	16-8-1	25-0-0	30-7-8	38-2-0	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	5-7-7	7-6-8	7-6-8	4-3-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.47	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.85	13-14	>705	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.40	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 265 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-3,8-11: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
6-15: 2x4 SPF No.2, 12-14,11-12: 2x6 SPF 2100F 1.8E
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.
WEBS 1 Row at midpt 2-17, 4-16, 7-14

REACTIONS. (size) 1=0-3-8, 11=0-3-8
Max Horz 1=109(LC 12)
Max Uplift 1=-123(LC 12), 11=-123(LC 13)
Max Grav 1=2250(LC 1), 11=2250(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4784/700, 2-4=-3971/644, 4-5=-3032/579, 5-6=-4069/759, 6-7=-4120/675, 7-9=-5579/827, 9-10=-8717/1267, 10-11=-8900/1251
BOT CHORD 1-19=-561/4299, 17-19=-561/4299, 16-17=-410/3576, 6-14=-487/182, 13-14=-620/5100, 12-13=-809/6156, 11-12=-1114/8230
WEBS 2-19=0/312, 2-17=-833/175, 4-17=0/560, 4-16=-1195/241, 5-16=-57/575, 14-16=-199/2514, 5-14=-333/2025, 7-14=-1570/260, 7-13=-55/917, 10-12=-10/528, 9-12=-334/2355, 9-13=-1235/221

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=123, 11=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) 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.

April 6,2021

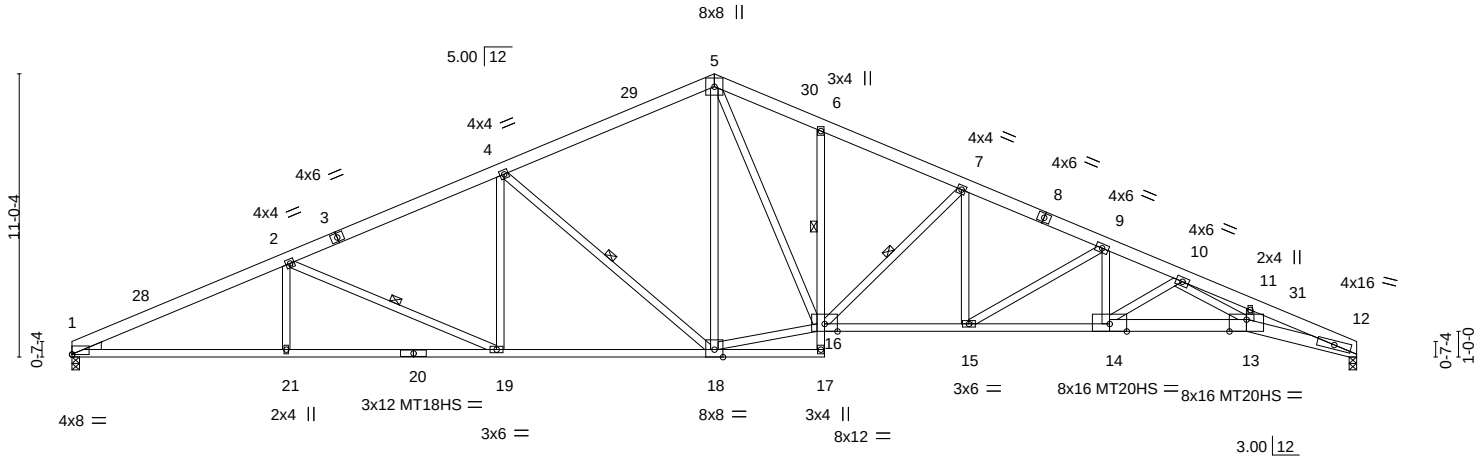
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A3	ROOF SPECIAL	1	1	I45512745
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:48 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-uM1KjAJ_PM7Au6t4Csmw2T2?qkojir4n4OnWaEzTiC9

8-4-1	16-8-1	25-0-0	29-3-7	34-9-2	40-2-13	43-0-9	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	4-3-7	5-5-11	5-5-11	2-9-11	2-7-15	4-3-8

Scale = 1:89.7



8-4-1	16-8-1	25-0-0	29-3-7	34-9-2	40-2-13	45-8-8	50-0-0
8-4-1	8-4-0	8-4-0	4-3-7	5-5-11	5-5-11	5-5-11	4-3-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.49	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.91	15-16	>660	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.43	12	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 266 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
6-17: 2x4 SPF No.2, 12-13,13-14: 2x6 SPF 2100F 1.8E
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 6-16
WEBS 1 Row at midpt 2-19, 4-18, 7-16

REACTIONS. (size) 1=0-3-8, 12=0-3-8
Max Horz 1=109(LC 12)
Max Uplift 1=-123(LC 12), 12=-123(LC 13)
Max Grav 1=2250(LC 1), 12=2250(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4784/699, 2-4=-3972/644, 4-5=-3032/580, 5-6=-3765/713, 6-7=-3843/659, 7-9=-4737/740, 9-10=-5946/874, 10-11=-8656/1257, 11-12=-8864/1253
BOT CHORD 1-21=-560/4300, 19-21=-560/4300, 18-19=-410/3575, 6-16=-302/120, 15-16=-500/4334, 14-15=-678/5389, 13-14=-862/6506, 12-13=-1115/8197
WEBS 2-21=0/310, 2-19=-835/175, 4-19=0/563, 4-18=-1192/240, 5-18=-57/474, 16-18=-207/2636, 5-16=-308/1947, 7-16=-1217/217, 7-15=-58/757, 9-15=-1229/207, 9-14=-86/906, 11-13=-39/646, 10-13=-291/2020, 10-14=-1340/224

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=123, 12=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) 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A4	ROOF SPECIAL	4	1	I45512746
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:50 2021 Page 1
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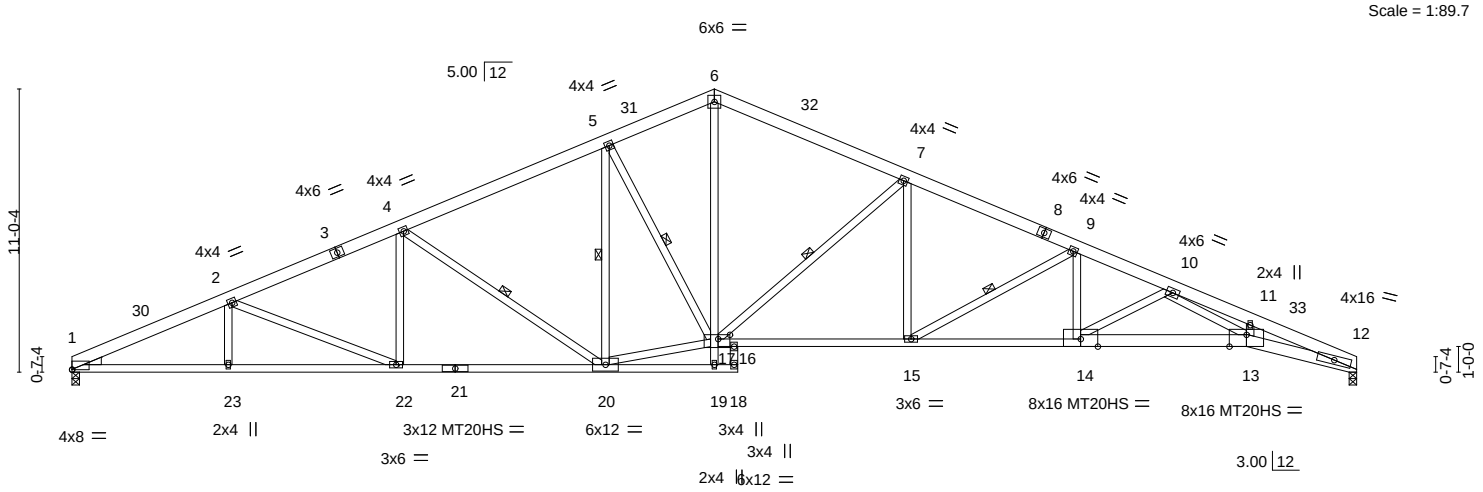
6-1-0	8-4-1	12-7-6	16-8-1	20-9-2	25-0-0	25-10-15	32-6-2	39-1-5	42-7-15	45-8-8	50-0-0
6-1-0	2-3-1	4-3-5	4-0-11	4-1-2	4-2-14	0-10-15	6-7-3	6-7-3	3-6-10	3-0-9	4-3-8

Scale = 1:89.7



6-1-0	8-4-1	12-7-6	16-8-1	20-9-2	25-0-0	25-10-15	32-6-2	39-1-5	45-8-8	50-0-0
6-1-0	2-3-1	4-3-5	4-0-11	4-1-2	4-2-14	0-10-15	6-7-3	6-7-3	6-7-3	4-3-8

Plate Offsets (X,Y)-- [1:0-0-0,0-0-2], [13:0-8-0,Edge], [17:0-5-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.50	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.94	15-16	>636	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.44	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 267 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
16-18,18-21: 2x4 SPF No.2, 12-13,13-14: 2x6 SPF 2100F 1.8E
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.
WEBS 1 Row at midpt 7-17, 9-15, 5-20, 5-17, 4-20

REACTIONS. (size) 1=0-3-8, 12=0-3-8
Max Horz 1=109(LC 12)
Max Uplift 1=-123(LC 12), 12=-123(LC 13)
Max Grav 1=2250(LC 1), 12=2250(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4814/701, 2-4=-4332/675, 4-5=-3498/611, 5-6=-3228/614, 6-7=-3316/606, 7-9=-4387/704, 9-10=-5668/838, 10-11=-8691/1260, 11-12=-8892/1251
BOT CHORD 1-23=-576/4332, 22-23=-576/4332, 20-22=-483/3959, 16-17=-392/3982, 15-16=-442/3998, 14-15=-636/5141, 13-14=-838/6324, 12-13=-1114/8222
WEBS 7-17=-1381/266, 7-15=-52/796, 9-15=-1314/223, 9-14=-68/857, 11-13=-30/609, 17-19=0/255, 6-17=-322/2053, 5-17=-582/156, 17-20=-280/3125, 4-20=-1028/203, 4-22=0/423, 2-22=-466/110, 10-13=-311/2218, 10-14=-1359/236

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=123, 12=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) 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.

April 6,2021

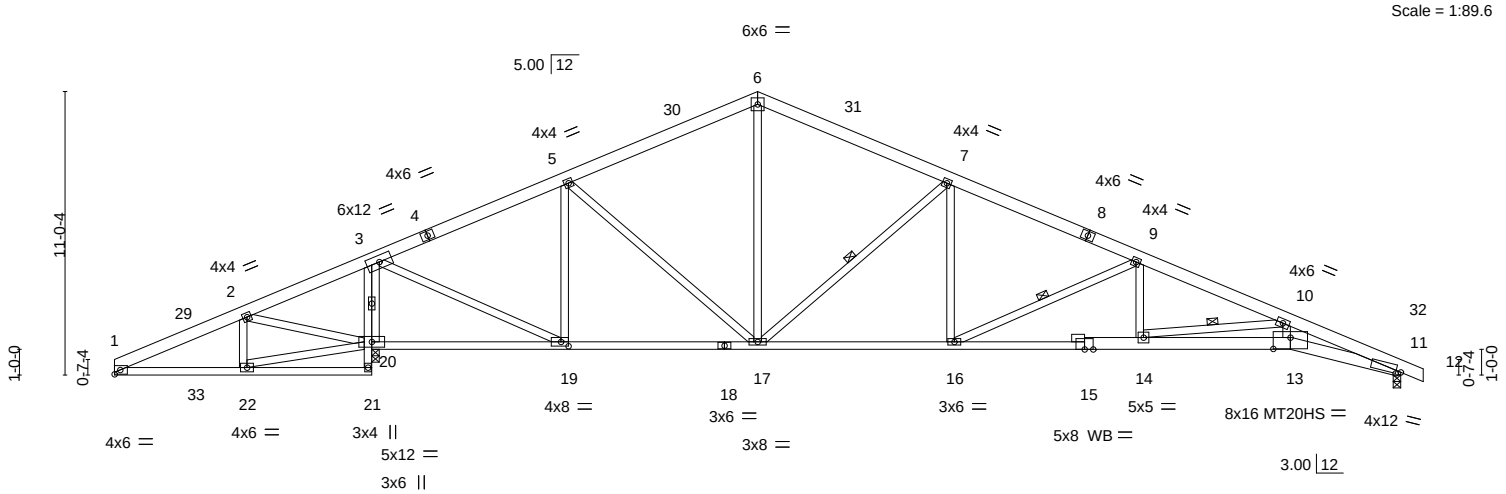
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512747
2731404	A5	ROOF SPECIAL	2	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:51 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-IxjTLBLtiHWllZbft_Jdg5gWaxmrvAUDmM0ABZzTiC6

5-0-1	10-0-0	17-6-0	25-0-0	31-10-14	32-6-0	40-0-0	45-8-8	50-0-0	50-10-8
5-0-1	4-11-15	7-6-0	7-6-0	6-10-13	0-7-3	7-6-0	5-8-8	4-3-8	0-10-8

Scale = 1:89.6



5-0-1	10-0-0	17-6-0	25-0-0	27-10-4	32-6-0	36-9-6	40-0-0	45-8-8	50-0-0
5-0-1	4-11-15	7-6-0	7-6-0	2-10-4	4-7-12	4-3-6	3-2-10	5-8-8	4-3-8

Plate Offsets (X,Y)-- [11:0-2-4,0-1-2], [13:0-8-0,0-5-4], [19:0-3-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.33	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.59	13-14	>815	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.21	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 260 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	11-13,13-15: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-17, 9-16, 10-14

REACTIONS. (size) 11=0-3-8, 20=0-3-8 (req. 0-4-6)
Max Horz 20=-117(LC 17)
Max Uplift 11=-131(LC 13), 20=-229(LC 8)
Max Grav 11=1760(LC 1), 20=2802(LC 1)

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

TOP CHORD	1-2=-389/498, 2-3=-1182/1413, 3-5=-1441/133, 5-6=-1753/196, 6-7=-1754/190, 7-9=-2809/268, 9-10=-4154/370, 10-11=-6677/593
BOT CHORD	1-22=-380/372, 3-20=-2536/880, 19-20=-1100/1170, 17-19=0/1232, 16-17=-25/2501, 14-16=-210/3825, 13-14=-461/5871, 11-13=-483/6203
WEBS	10-13=-65/1316, 6-17=-54/755, 5-17=-249/401, 5-19=-889/430, 3-19=-886/2529, 2-22=-366/263, 2-20=-888/845, 20-22=-325/400, 7-16=-27/730, 7-17=-1301/242, 9-14=0/584, 9-16=-1460/210, 10-14=-2076/256

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
6) Bearing at joint(s) 11 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) except (jt=lb) 11=131, 20=229.
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.

April 6,2021

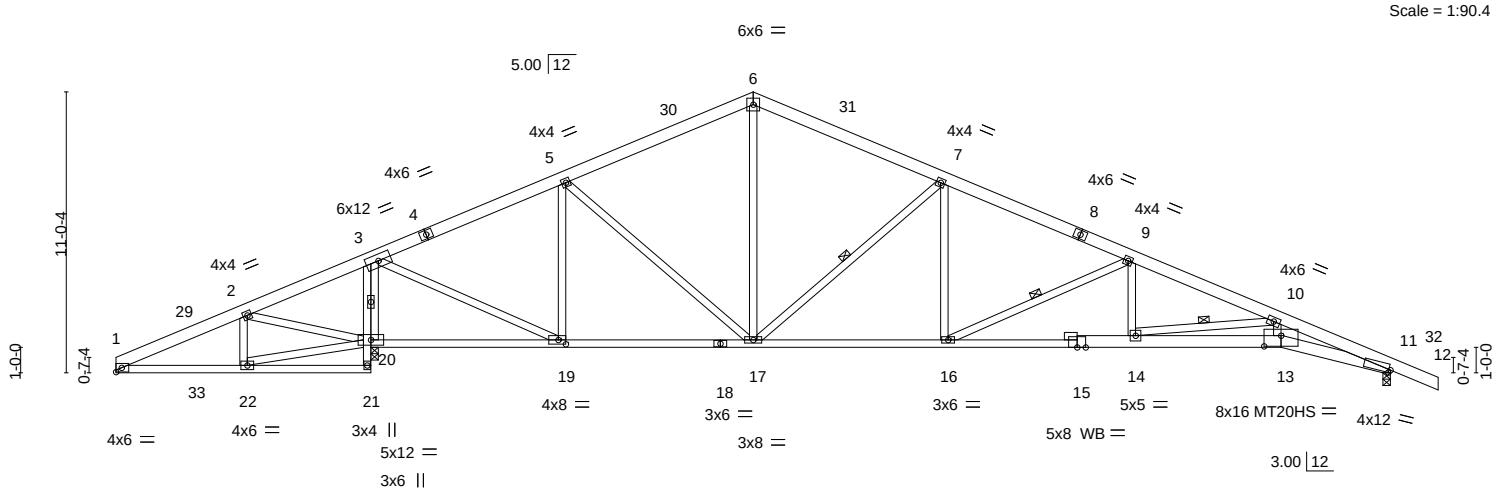
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne	I45512748
2731404	A5A	ROOF SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:52 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-m7HrYXMVTbecMjAsRiqsDJDhTL6AedmM??lkj?zTiC5

5-0-1	10-0-0	17-6-0	25-0-0	31-10-14	32-6-0	40-0-0	45-8-8	50-0-0	51-10-8
5-0-1	4-11-15	7-6-0	7-6-0	6-10-13	0-7-3	7-6-0	5-8-8	4-3-8	1-10-8

Scale = 1:90.4



5-0-1	10-0-0	17-6-0	25-0-0	27-10-4	32-6-0	36-9-6	40-0-0	45-8-8	50-0-0
5-0-1	4-11-15	7-6-0	7-6-0	2-10-4	4-7-12	4-3-6	3-2-10	5-8-8	4-3-8

Plate Offsets (X,Y)-- [11:0-0-12,0-1-6], [13:0-8-0,0-5-0], [19:0-3-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.32	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.58	13-14	>824	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.21	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 262 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	11-13,13-15: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-17, 9-16, 10-14

REACTIONS. (size) 11=0-3-8, 20=0-3-8 (req. 0-4-6)
Max Horz 20=-126(LC 17)
Max Uplift 11=-142(LC 13), 20=-228(LC 8)
Max Grav 11=1832(LC 1), 20=2799(LC 1)

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

TOP CHORD	1-2=-389/498, 2-3=-1182/1413, 3-5=-1438/132, 5-6=-1749/194, 6-7=-1750/185, 7-9=-2800/257, 9-10=-4131/341, 10-11=-6582/520
BOT CHORD	1-22=-380/372, 3-20=-2534/879, 19-20=-1100/1181, 17-19=0/1229, 16-17=-13/2493, 14-16=-176/3804, 13-14=-406/5787, 11-13=-424/6108
WEBS	10-13=-49/1282, 6-17=-53/752, 5-17=-249/400, 5-19=-887/429, 3-19=-885/2526, 2-22=-366/263, 2-20=-888/845, 20-22=-325/400, 7-16=-22/724, 7-17=-1295/240, 9-14=0/581, 9-16=-1446/199, 10-14=-2012/233

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 51-10-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
6) Bearing at joint(s) 11 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) except (jt=lb) 11=142, 20=228.
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.

April 6,2021

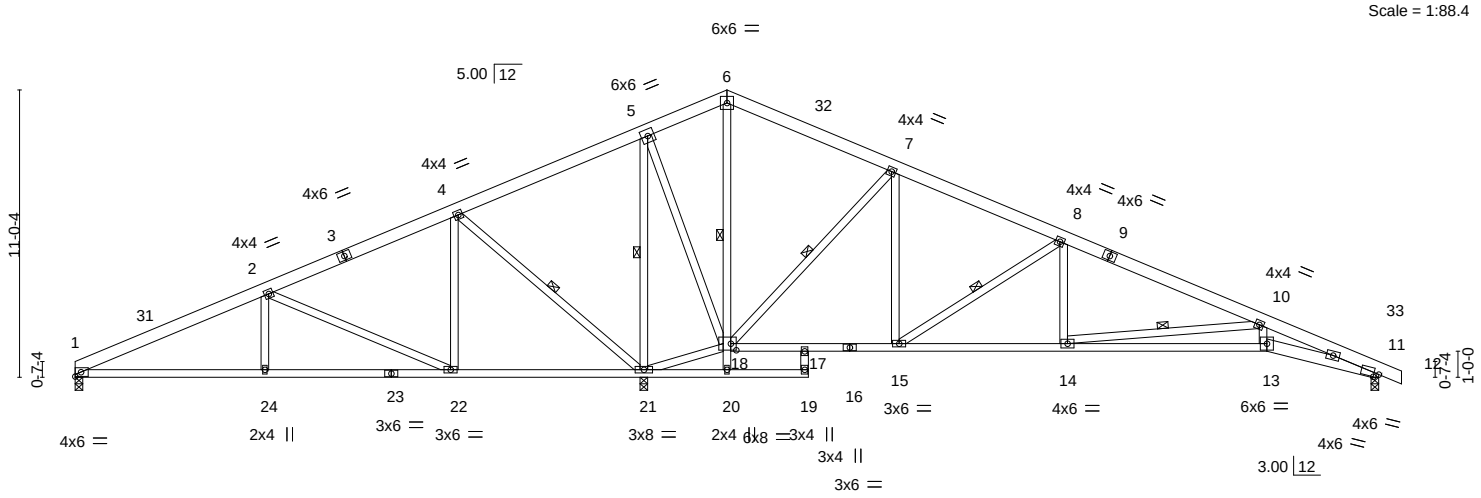
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512749
2731404	A6	ROOF SPECIAL	2	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:53 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-EKrDmtM7EvmT_tl2_PL5lWlt1lW4N3vWEfVHGSzTiC4

7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0	50-10-8
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8	0-10-8

Scale = 1:88.4



7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.19	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.38	13-14	>887	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-21, 5-21, 6-20, 10-14, 7-18, 8-15

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 21=0-3-8 (req. 0-5-6)
Max Horz 1=-117(LC 17)
Max Uplift 1=-132(LC 26), 11=-91(LC 13), 21=-106(LC 12)
Max Grav 1=592(LC 25), 11=882(LC 26), 21=3422(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-836/628, 2-4=-46/1056, 4-5=-105/1732, 5-6=0/1010, 6-7=-6/1084, 7-8=-101/289, 8-10=-1035/165, 10-11=-2817/350
BOT CHORD 1-24=-538/719, 22-24=-538/719, 21-22=-952/213, 14-15=-16/902, 13-14=-272/2472, 11-13=-276/2625
WEBS 2-24=0/294, 2-22=-920/186, 4-22=-10/546, 4-21=-1056/206, 5-21=-2153/277, 6-18=-1006/90, 8-14=0/448, 10-14=-1585/265, 10-13=0/652, 5-18=-126/1589, 18-21=-1550/354, 7-18=-1147/224, 7-15=-49/710, 8-15=-1072/189

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
5) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=132, 21=106.
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.

April 6,2021

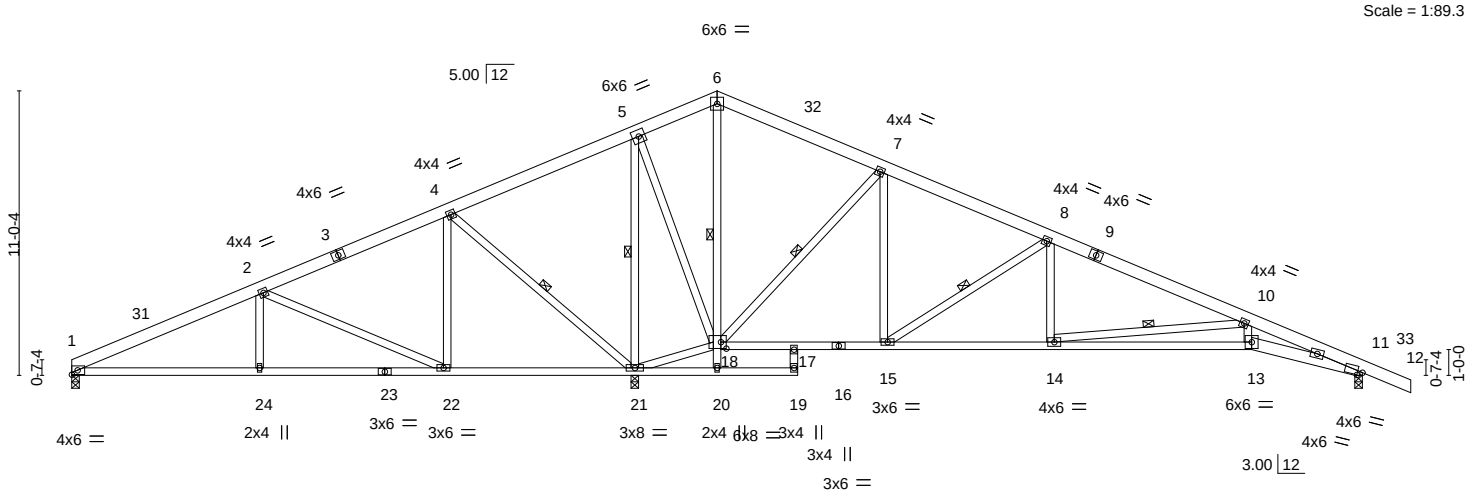
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512750
2731404	A6A	ROOF SPECIAL	2	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:55 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-Aiy_BZONmW0BDBvR6qOZqxrDaYCirzPphz_OKKzTiC2

7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0	51-10-8
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8	1-10-8

Scale = 1:89.3



7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	31-5-8	37-11-0	45-8-8	50-0-0
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	3-4-0	6-5-8	7-9-8	4-3-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.18	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.38	13-14	>898	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.09	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 270 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
11-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-21, 5-21, 6-20, 10-14, 7-18, 8-15

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 21=0-3-8 (req. 0-5-5)
Max Horz 1=-126(LC 17)
Max Uplift 1=-124(LC 26), 11=-106(LC 13), 21=-103(LC 12)
Max Grav 1=594(LC 25), 11=961(LC 26), 21=3405(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-841/610, 2-4=-22/1037, 4-5=-84/1713, 5-6=0/995, 6-7=0/1070, 7-8=-113/286, 8-10=-1038/179, 10-11=-2768/332
BOT CHORD 1-24=-522/724, 22-24=-522/724, 21-22=-935/213, 14-15=-11/905, 13-14=-249/2420, 11-13=-251/2567
WEBS 2-24=0/294, 2-22=-919/186, 4-22=-10/546, 4-21=-1056/206, 5-21=-2141/264, 6-18=-995/84, 8-14=0/446, 10-14=-1530/248, 10-13=0/628, 5-18=-118/1579, 18-21=-1533/353, 7-18=-1142/223, 7-15=-46/705, 8-15=-1063/183

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 51-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 21 greater than input bearing size.
5) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=124, 11=106, 21=103.
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.

April 6,2021

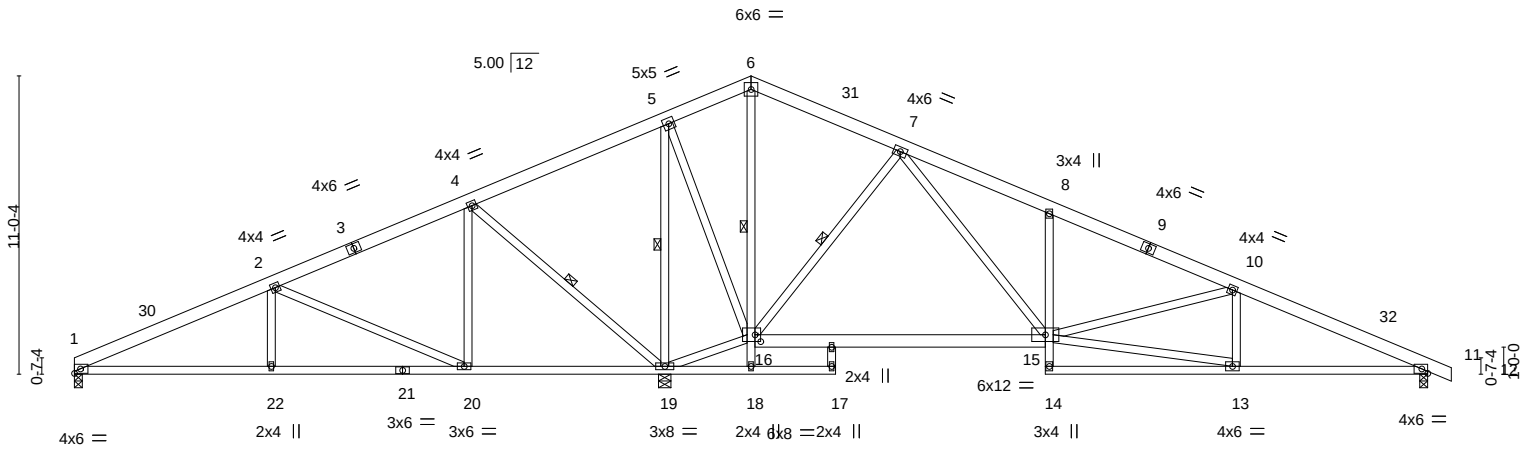
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512751
2731404	A7	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:56 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-fvWMOvP?Xq82rKUdgYvoN9NPKycHaQBywdjxsnzTiC1

6-3-1	7-3-5	12-6-1	14-6-9	18-9-1	21-9-12	25-0-0	28-1-8	30-6-2	35-10-8	42-11-3	50-0-0	50-10-8
6-3-1	1-0-4	5-2-12	2-0-8	4-2-8	3-0-12	3-2-4	3-1-8	2-4-10	5-4-6	7-0-11	7-0-13	0-10-8

Scale = 1:85.1



7-3-5	14-6-9	21-9-12	25-0-0	28-1-8	35-10-8	42-11-3	50-0-0
7-3-5	7-3-4	7-3-4	3-2-4	3-1-8	7-9-0	7-0-11	7-0-13

Plate Offsets (X,Y)-- [16:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.17	15-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.36	15-16	>938	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 277 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
15-16: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-18, 5-19, 7-16, 4-19

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 19=0-5-8
Max Horz 1=-117(LC 17)
Max Uplift 1=-55(LC 12), 11=-103(LC 13), 19=-99(LC 12)
Max Grav 1=654(LC 25), 11=1052(LC 26), 19=3139(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-984/136, 2-4=-168/537, 4-5=-42/1258, 5-6=0/590, 6-7=0/631, 7-8=-1235/254, 8-10=-1251/179, 10-11=-1814/243
BOT CHORD 1-22=-142/855, 20-22=-142/855, 19-20=-472/165, 15-16=-182/300, 8-15=-422/149, 11-13=-144/1596
WEBS 13-15=-105/1589, 10-15=-603/160, 6-16=-636/39, 5-19=-1995/216, 5-16=-64/1439, 16-19=-1152/291, 7-16=-1069/243, 7-15=-165/1277, 4-19=-1056/204, 4-20=-8/544, 2-20=-888/182, 2-22=0/290

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 19 except (jt=lb) 11=103.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A8	Roof Special	4	1	I45512752
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:57 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCfy84v9-754kcFQeI7GvTU3pDFQ1wMwR0MsIJwc59HTVPDzTiC0

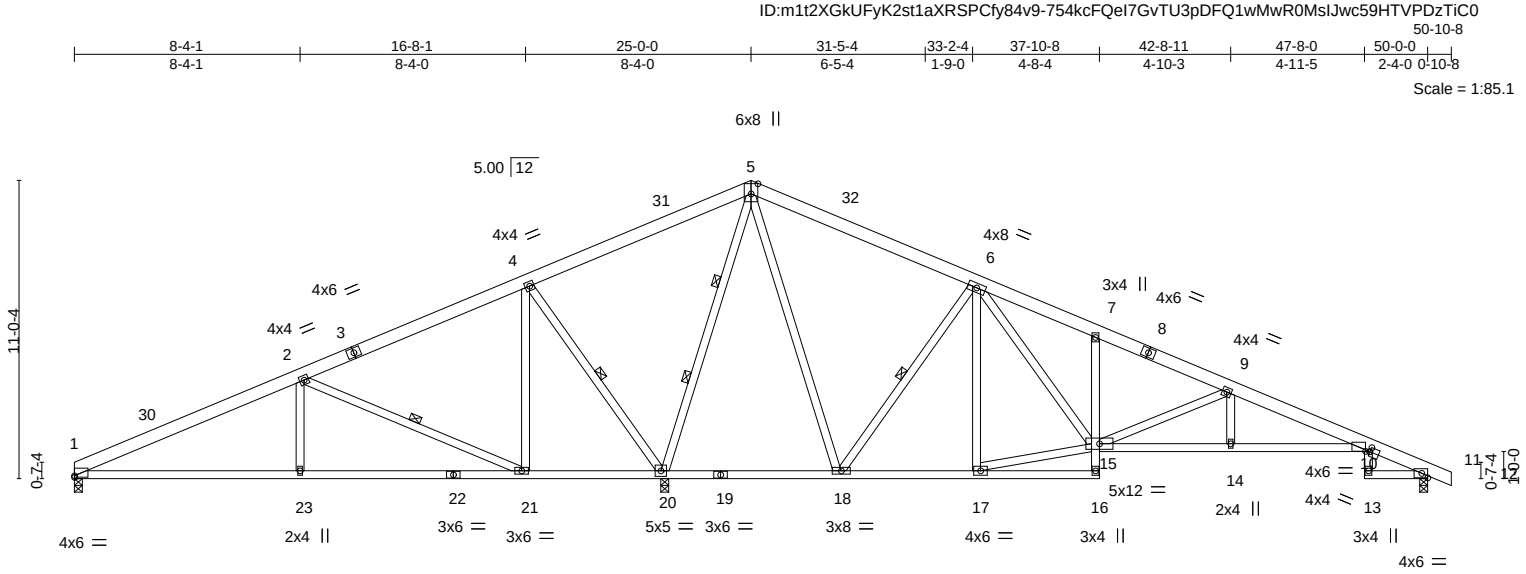


Plate Offsets (X,Y)-- [1:0-0-0,0-0-10], [5:0-4-8,0-3-0], [10:0-1-14,0-0-2], [10:0-0-3,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.26	10-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.44	10-14	>761	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.12	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 257 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except* 5-20,5-18: 2x4 SPF 1650F 1.5E

BRACING-

TOP CHORD	Structural wood sheathing directly applied.	
BOT CHORD	Rigid ceiling directly applied.	
WEBS	1 Row at midpt	2-21, 4-20, 6-18
	2 Rows at 1/3 pts	5-20

REACTIONS. (size) 1=0-3-8, 11=0-3-8, 20=0-3-8 (req. 0-5-14)
Max Horz 1=-117(LC 13)
Max Uplift 1=-340(LC 26), 11=-79(LC 13), 20=-123(LC 13)
Max Grav 1=528(LC 25), 11=725(LC 26), 20=3752(LC 1)

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

TOP CHORD	1-2=-609/1180, 2-4=-114/1698, 4-5=-136/2277, 5-6=0/1061, 6-7=-343/170, 7-9=-436/119, 9-10=-1365/201, 10-11=-346/89
BOT CHORD	1-23=-1038/506, 21-23=-1038/506, 20-21=-1544/277, 18-20=-1174/298, 17-18=-260/128, 14-15=-103/1291, 10-14=-104/1291
WEBS	2-23=0/357, 2-21=-1097/213, 4-21=-26/565, 9-15=-1071/177, 4-20=-1104/235, 6-18=-1077/236, 5-20=-2861/378, 5-18=-145/1035, 15-17=-281/131, 6-15=-105/774

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 20 greater than input bearing size.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=340, 20=123.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

April 6,2021

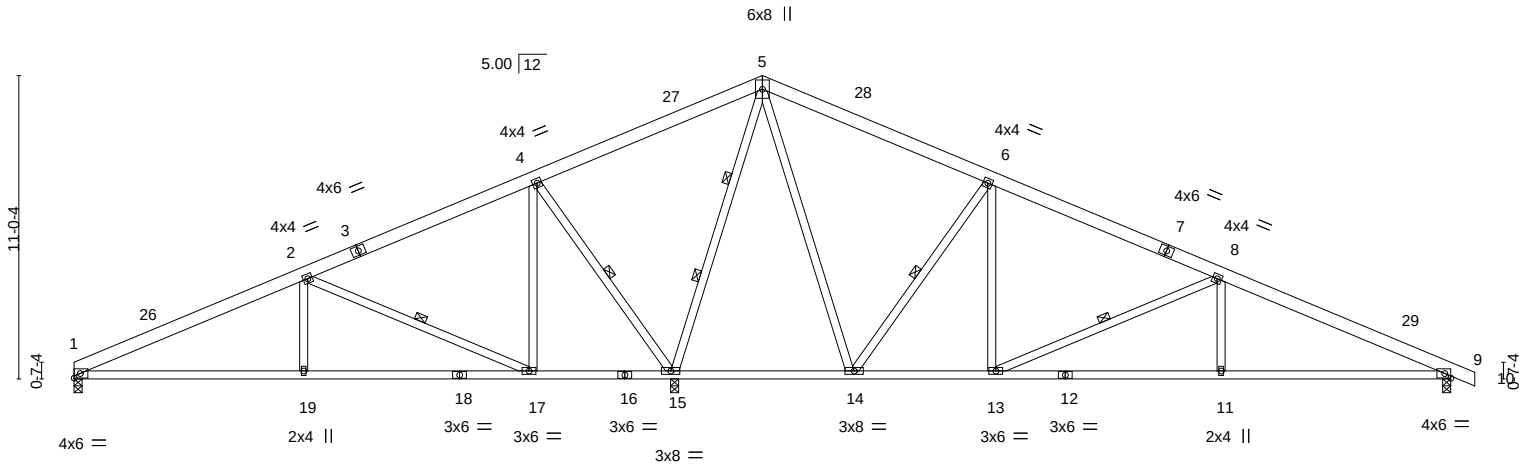
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512753
2731404	A9	Common	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:59 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-3UCU0wRuqlWcioCCLgSV?n?vXAb2npCOcbybT5zTiC_

8-4-1	16-8-1	25-0-0	33-4-0	41-7-15	50-0-0	50-10-8
8-4-1	8-4-0	8-4-0	8-4-0	8-4-0	8-4-1	0-10-8

Scale = 1:83.7



8-4-1	16-8-1	21-8-0	25-0-0	28-4-0	33-4-0	41-7-15	50-0-0
8-4-1	8-4-0	5-0-0	3-4-0	3-4-0	5-0-0	8-4-0	8-4-1

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.11	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.25	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 243 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-13, 2-17, 4-15, 6-14
2 Rows at 1/3 pts 5-15

REACTIONS. (size) 1=0-3-8, 9=0-3-8, 15=0-3-8 (req. 0-4-11)
Max Horz 1=-117(LC 13)
Max Uplift 1=-57(LC 12), 9=-112(LC 13), 15=-116(LC 12)
Max Grav 1=680(LC 25), 9=1078(LC 26), 15=3004(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-976/148, 2-4=0/547, 4-5=0/1205, 5-6=-186/269, 6-8=-857/200, 8-9=-1800/266
BOT CHORD 1-19=-134/841, 17-19=-134/841, 15-17=-478/152, 14-15=-410/200, 13-14=0/692, 11-13=-153/1573, 9-11=-153/1573
WEBS 6-13=-19/544, 8-13=-980/190, 8-11=0/344, 4-17=-23/550, 2-17=-1037/205, 2-19=0/351, 5-15=-2087/276, 5-14=-150/1039, 4-15=-1100/235, 6-14=-1094/234

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=112, 15=116.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.

April 6,2021

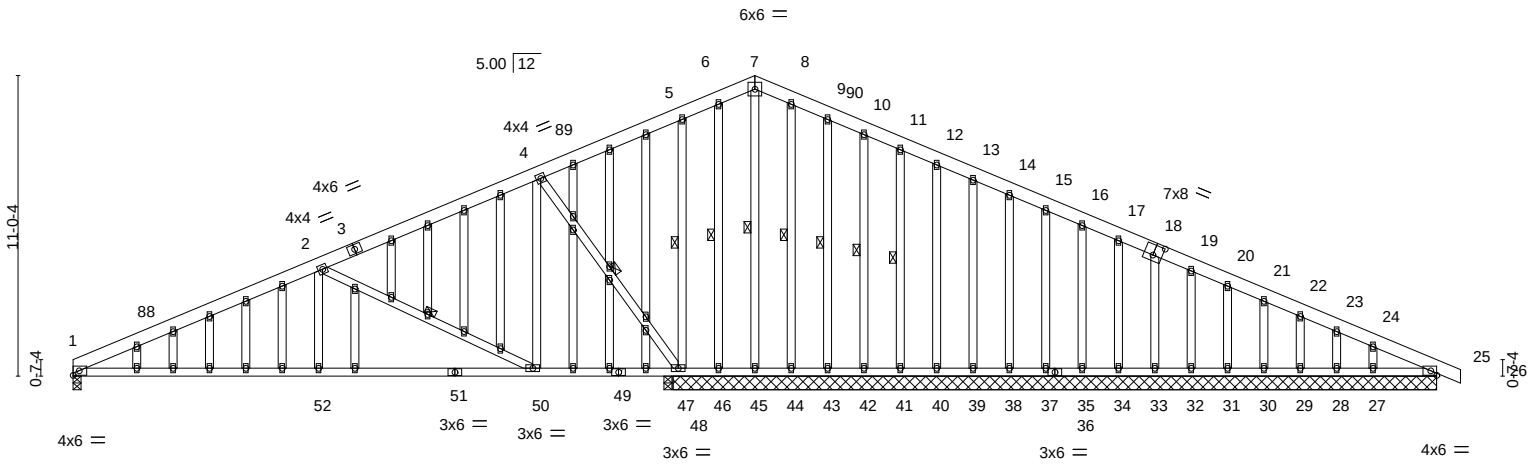
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	A10	GABLE	1	1	I45512754
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:23:45 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-TnMC48G67Rlc1e8WWkCDQqQYTWpwVbbKOQZszvzTiCC

8-4-1	17-0-0	25-0-0	33-4-0	41-7-15	50-0-0	50-10-8
8-4-1	8-7-15	8-0-0	8-4-0	8-4-0	8-4-1	0-10-8

Scale = 1:84.5



8-4-1	17-0-0	21-8-0	25-0-0	28-4-0	33-4-0	41-7-15	50-0-0
8-4-1	8-7-15	4-8-0	3-4-0	3-4-0	5-0-0	8-4-0	8-4-1

Plate Offsets (X,Y)-- [18:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.10	52-84	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.22	52-84	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	47	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 384 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 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.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-50, 7-45, 6-46, 5-47, 8-44, 9-43, 10-42, 11-41, 4-47

REACTIONS. All bearings 28-0-0 except (jt=length) 1=0-3-8, 48=0-3-8.
(lb) - Max Horz 1=-117(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27, 25 except 25=-139(LC 25), 47=-195(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 25, 46, 44, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27, 48 except 1=838(LC 1), 45=284(LC 1), 47=982(LC 25)

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

TOP CHORD	1-2=-1310/258, 2-4=-352/184, 4-5=0/468, 5-6=0/414, 6-7=0/403, 7-8=0/406, 8-9=0/427, 9-10=0/423, 10-11=0/421, 11-12=0/420, 12-13=0/420, 13-14=0/420, 14-15=0/420, 15-16=0/420, 16-17=0/420, 17-18=-13/420, 18-19=-32/420, 19-20=-51/420, 20-21=-70/420, 21-22=-90/420, 22-23=-109/421, 23-24=-125/410, 24-25=-158/446
BOT CHORD	1-52=-137/1142, 50-52=-137/1142, 46-47=-375/168, 45-46=-375/168, 44-45=-375/168, 43-44=-375/168, 42-43=-375/168, 41-42=-375/168, 40-41=-375/168, 39-40=-375/168, 38-39=-375/168, 37-38=-375/168, 35-37=-375/168, 34-35=-375/168, 33-34=-375/168, 32-33=-375/168, 31-32=-375/168, 30-31=-375/168, 29-30=-375/168, 28-29=-375/168, 27-28=-375/168, 25-27=-375/168
WEBS	4-50=-32/583, 2-50=-1034/208, 2-52=0/352, 7-45=-260/0, 5-47=-260/110, 4-47=-994/195

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 25-0-0, Exterior(2R) 25-0-0 to 28-0-0, Interior(1) 28-0-0 to 50-10-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
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, 43, 42, 41, 40, 39, 38, 37, 35, 34, 33, 32, 31, 30, 29, 28, 27 except (jt=lb) 25=139, 47=195, 25=139.
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.

April 6,2021

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

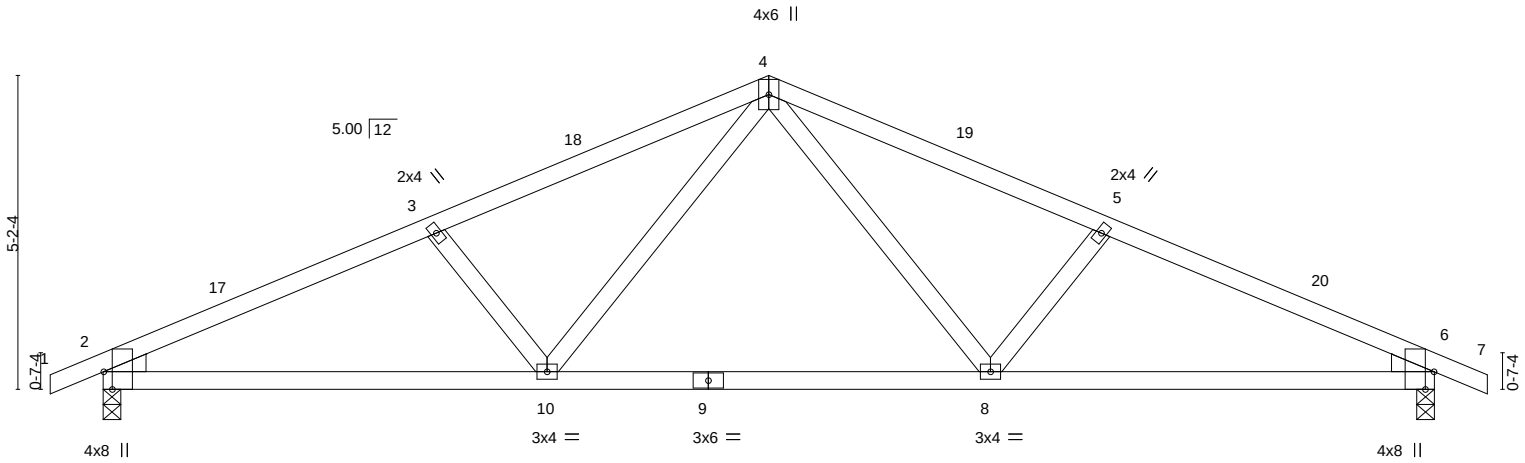
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	B1	Common	4	1	I45512755
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:00 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-XgmtEGSWa2eTKynOvNzkX?Y6wZyDWSKYrFh9_YzTiBz

0-10-8 5-6-1 11-0-0 16-5-15 22-0-0 22-10-8
0-10-8 5-6-1 5-5-15 5-5-15 5-6-1 0-10-8

Scale = 1:38.1



7-4-1 14-8-0 22-0-0
7-4-1 7-3-15 7-4-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.10	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.22	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 76 lb	FT = 20%

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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-87(LC 13)
Max Uplift 2=-187(LC 12), 6=-187(LC 13)
Max Grav 2=1051(LC 1), 6=1051(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1814/398, 3-4=-1608/384, 4-5=-1608/384, 5-6=-1814/398
BOT CHORD 2-10=-303/1610, 8-10=-151/1126, 6-8=-299/1610
WEBS 4-8=-113/521, 5-8=-352/189, 4-10=-113/521, 3-10=-352/188

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=187, 6=187.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	B2	GABLE	1	1	I45512756
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:01 2021 Page 1
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0-10-8 11-0-0 22-0-0 22-10-8
0-10-8 11-0-0 11-0-0 0-10-8

Scale = 1:38.4

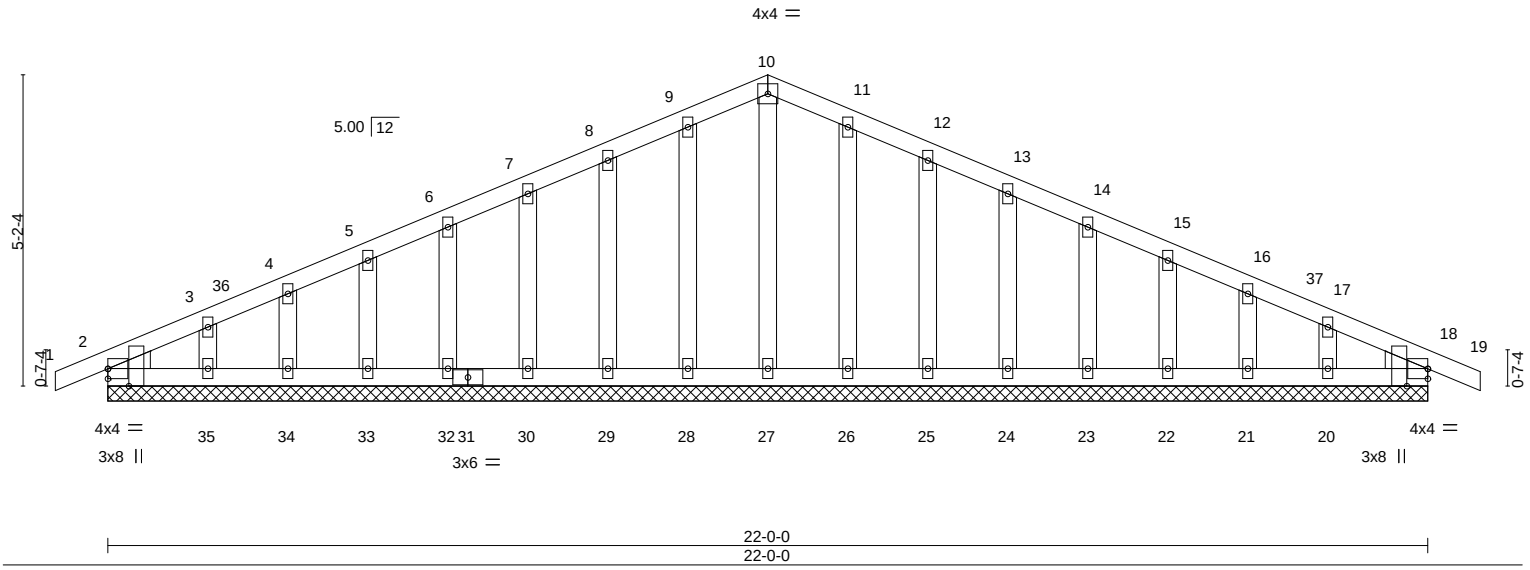

Plate Offsets (X,Y)-- [2:0-3-7,Edge], [18:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	18	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	19	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 100 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 22-0-0.
(lb) - Max Horz 2=-87(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 28, 29, 30, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-0-0, Corner(3R) 11-0-0 to 14-0-0, Exterior(2N) 14-0-0 to 22-10-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
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, 28, 29, 30, 32, 33, 34, 35, 18, 26, 25, 24, 23, 22, 21, 20.
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.

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	C1	GABLE	1	1	I45512757
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:02 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-T3tdfyTm6guBZFxn0o0CdQdX9NmW_NJqIZAG3QzTiBx

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Scale = 1:16.8

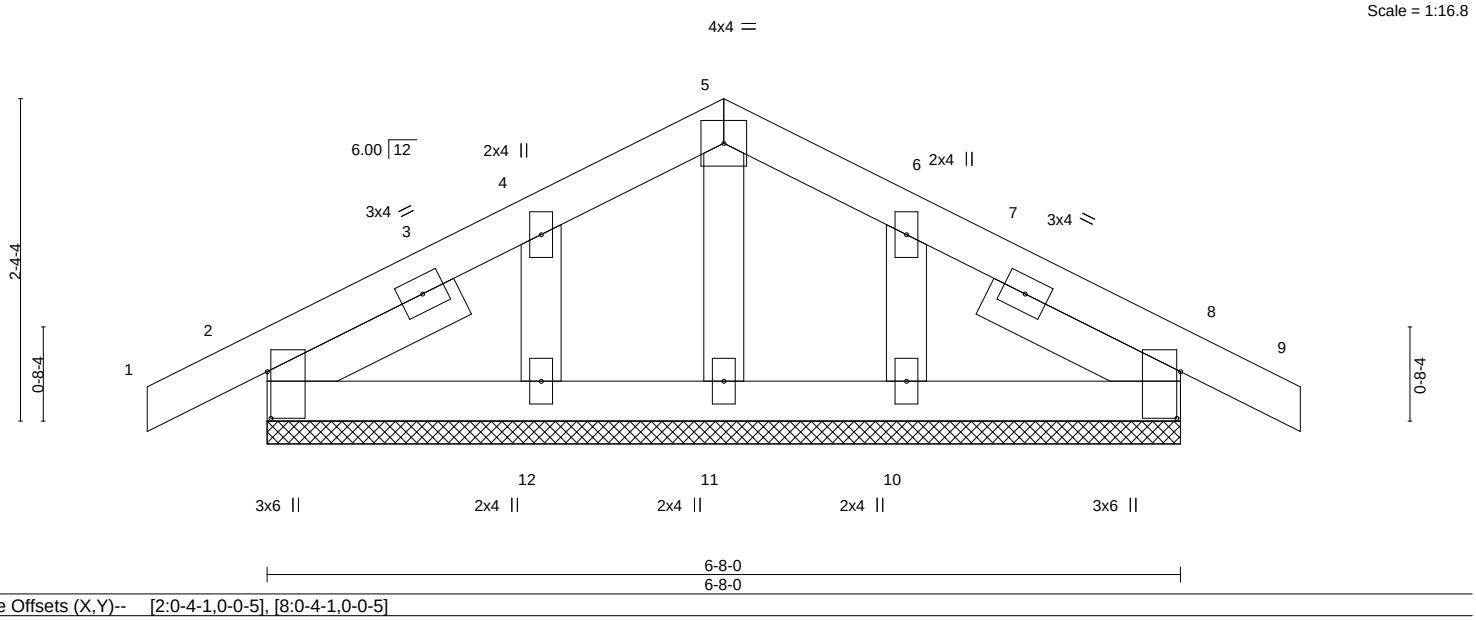

Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [8:0-4-1,0-0-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	8	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 27 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
OTHERS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 -t 1-6-10, Right 2x4 SPF No.2 -t 1-6-10

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 6-8-0.
(lb) - Max Horz 2=37(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 12, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 3-4-0, Corner(3R) 3-4-0 to 6-4-0, Exterior(2N) 6-4-0 to 7-6-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 1-4-0 oc.
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, 8, 12, 10.
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.

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	CJ1	Diagonal Hip Girder	2	1	I45512758
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:03 2021 Page 1
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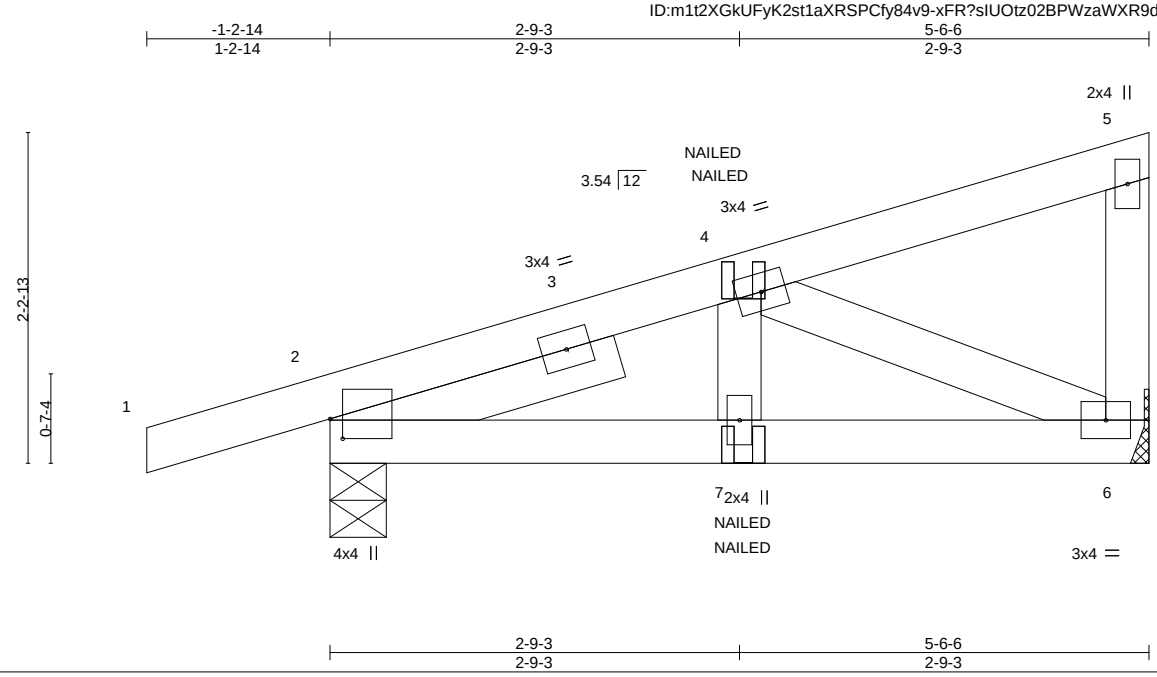


Plate Offsets (X,Y)-- [2:0-1-10,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							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 -t 2-0-0

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) 2=0-4-9, 6=Mechanical
Max Horz 2=86(LC 7)
Max Uplift 2=-118(LC 4), 6=-70(LC 8)
Max Grav 2=346(LC 1), 6=240(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-311/93
BOT CHORD 2-7=-92/313, 6-7=-92/313
WEBS 4-6=-341/121

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=118.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 6-8=-20
Concentrated Loads (lb)
Vert: 7=-14(F=-7, B=-7)

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

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	D1	Hip Girder	1	1	I45512759

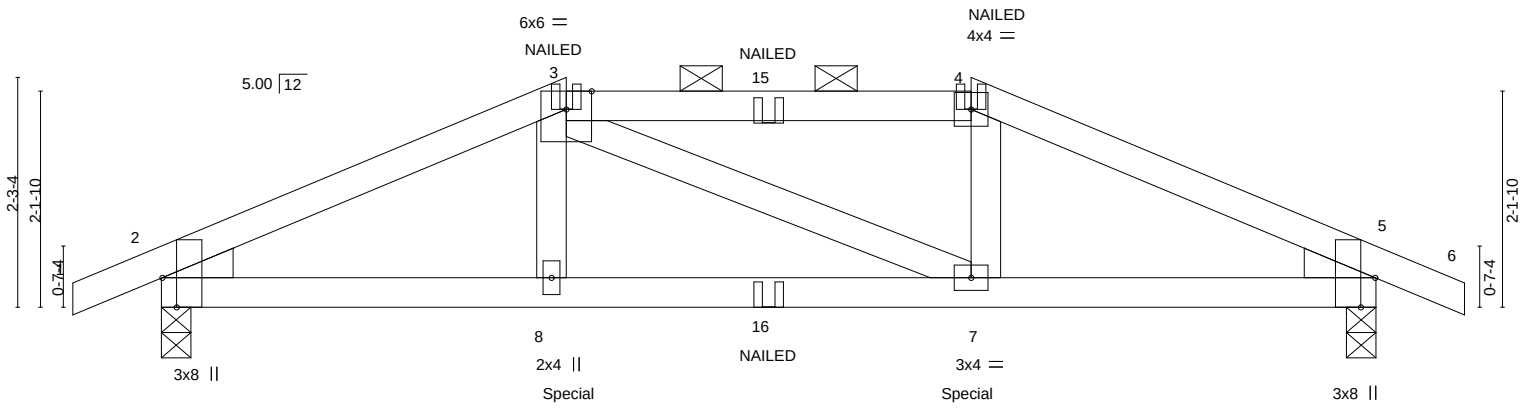
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:04 2021 Page 1

ID:m1t2XGkUFyK2st1aXRSPCfy84v9-QR?N4eV1eH8voZ598D2girimsBG7SG87mtfM7JzTiBv

-0-10-8 0-10-8 | 4-0-0 4-0-0 | 8-0-0 4-0-0 | 12-0-0 4-0-0 | 12-10-8 0-10-8

Scale = 1:22.8



4-0-0 4-0-0 | 8-0-0 4-0-0 | 12-0-0 4-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.11	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 41 lb	FT = 20%

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 4-4-0 oc purlins, except 2-0-0 oc purlins (4-3-13 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-2-1 oc bracing.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=35(LC 33)
Max Uplift 2=-262(LC 8), 5=-262(LC 9)
Max Grav 2=933(LC 1), 5=933(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1618/472, 3-4=-1430/452, 4-5=-1619/472
BOT CHORD 2-8=-412/1451, 7-8=-408/1429, 5-7=-384/1452
WEBS 3-8=-54/298, 4-7=-60/305

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=262, 5=262.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 246 lb down and 117 lb up at 4-0-0, and 246 lb down and 117 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20

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Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 4=-46(B) 8=-246(B) 7=-246(B) 3=-46(B) 15=-46(B) 16=-34(B)

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	D2	Common	3	1	I45512760
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:05 2021 Page 1
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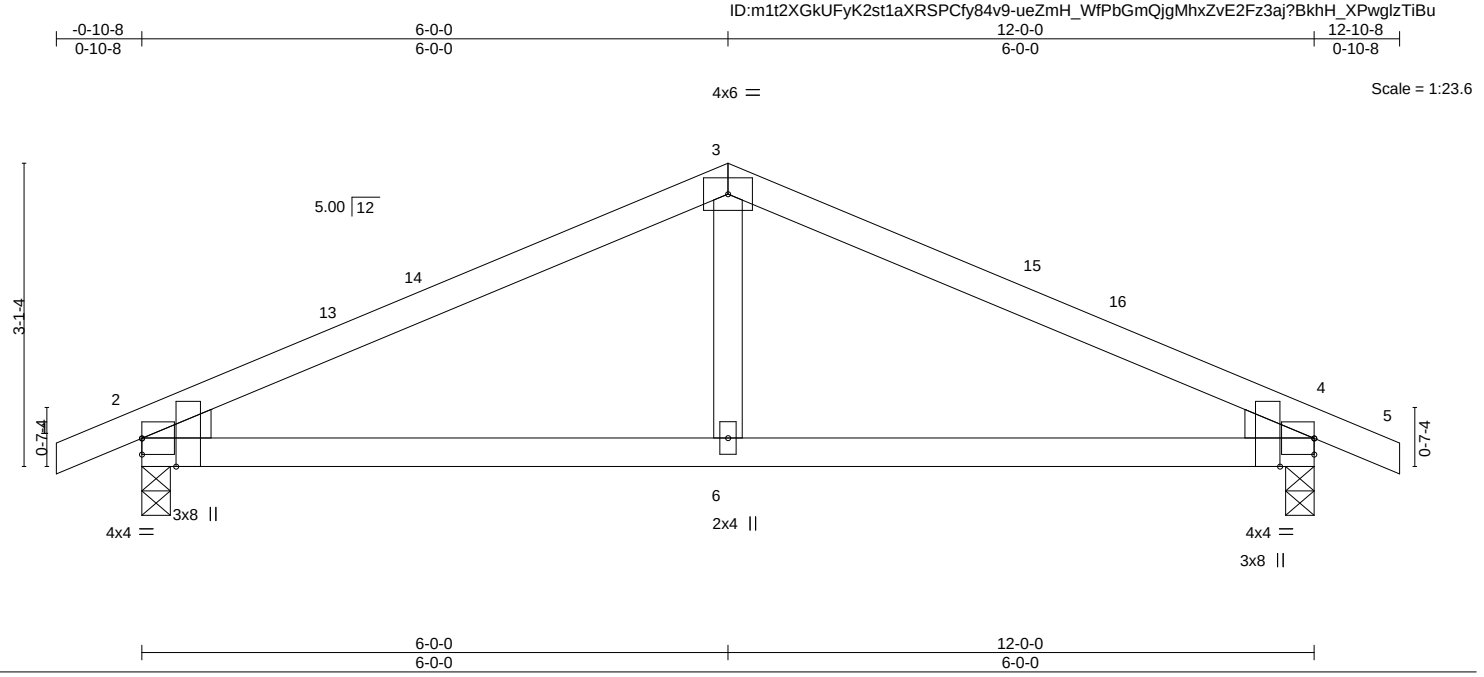

Plate Offsets (X,Y)-- [2:0-3-7,Edge], [4:0-3-7,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.04	6-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	6-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 35 lb	FT = 20%

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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=50(LC 16)
Max Uplift 2=-111(LC 12), 4=-111(LC 13)
Max Grav 2=601(LC 1), 4=601(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-775/303, 3-4=-775/303
BOT CHORD 2-6=-172/653, 4-6=-172/653

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-10-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=111, 4=111.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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.

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MiTek
16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512761
2731404	J1	Jack-Open	3	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:05 2021 Page 1
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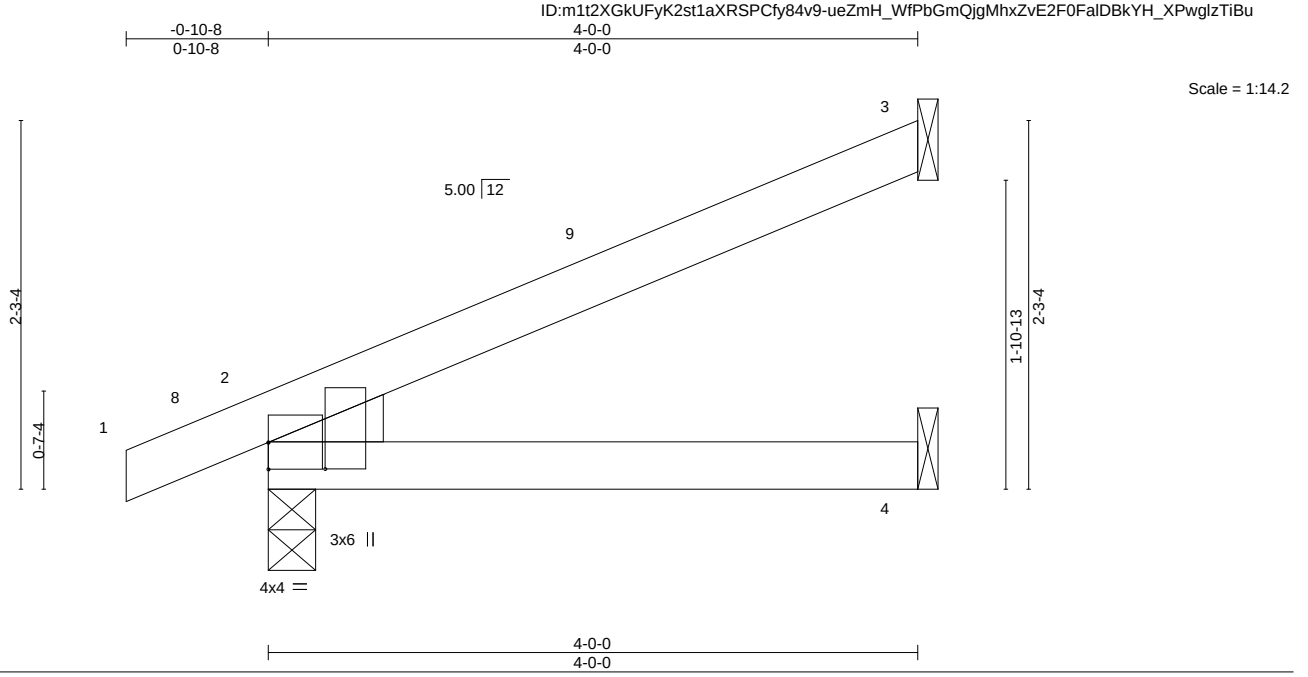

Plate Offsets (X,Y)-- [2:0-1-15,0-4-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=80(LC 12)
Max Uplift 3=-56(LC 12), 2=-43(LC 12), 4=-1(LC 12)
Max Grav 3=116(LC 1), 2=245(LC 1), 4=71(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) 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.

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	J2	Jack-Open	4	1	I45512762
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:06 2021 Page 1
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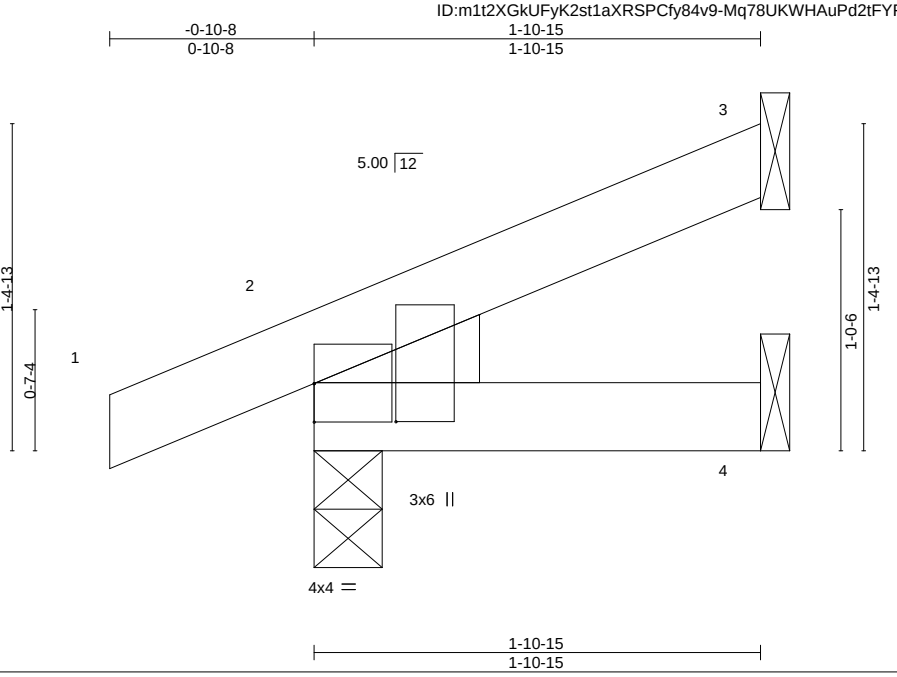


Plate Offsets (X,Y)-- [2:0-1-15,0-4-3]

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

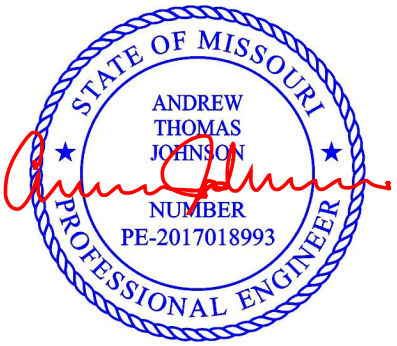
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=45(LC 12)
Max Uplift 3=-24(LC 12), 2=-32(LC 8), 4=-4(LC 12)
Max Grav 3=47(LC 1), 2=161(LC 1), 4=32(LC 3)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V1	GABLE	1	1	I45512763
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:07 2021 Page 1
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10-3-13 / 10-3-13 | 20-7-10 / 10-3-13

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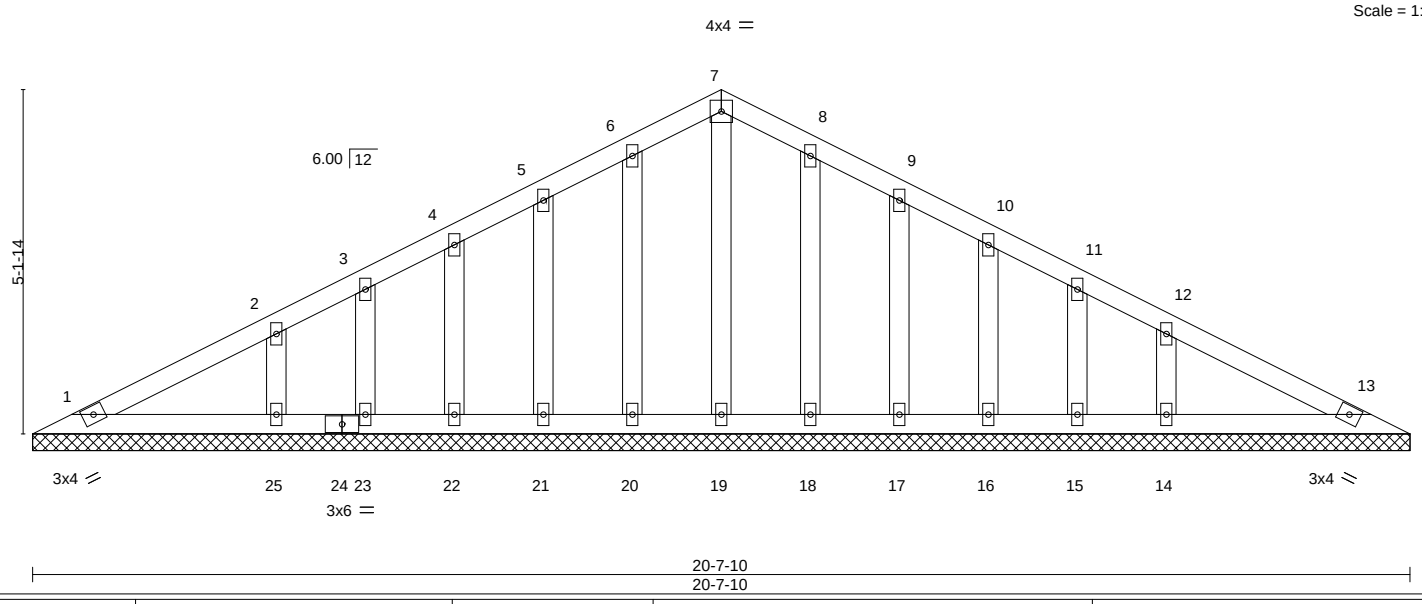

20-7-10 / 20-7-10

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 83 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. All bearings 20-7-10.
(lb) - Max Horz 1=-85(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 20, 21, 22, 23, 25, 18, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 1, 13, 19, 20, 21, 22, 23, 18, 17, 16, 15 except 25=280(LC 1), 14=280(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-7-7 to 3-7-13, Exterior(2N) 3-7-13 to 10-3-13, Corner(3R) 10-3-13 to 13-3-13, Exterior(2N) 13-3-13 to 20-0-3 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
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, 20, 21, 22, 23, 25, 18, 17, 16, 15, 14.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V2	Valley	1	1	I45512764
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:11 2021 Page 1
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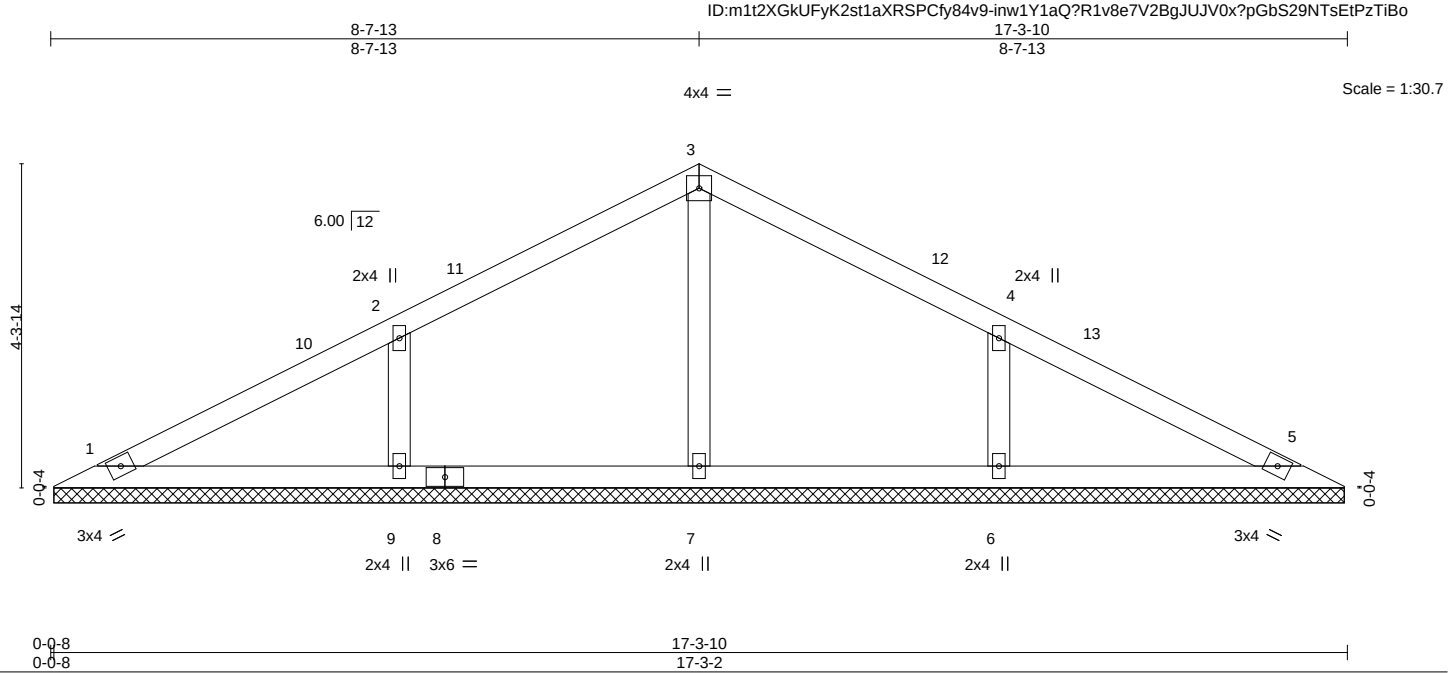

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 48 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. All bearings 17-2-10.
(lb) - Max Horz 1=-71(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-151(LC 12), 6=-151(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=286(LC 1), 9=432(LC 25), 6=432(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-333/201, 4-6=-333/201

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-7-13, Exterior(2R) 8-7-13 to 11-7-13, Interior(1) 11-7-13 to 16-8-1 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
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) 1, 5 except (jt=lb) 9=151, 6=151.
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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V3	Valley	1	1	I45512765
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:12 2021 Page 1
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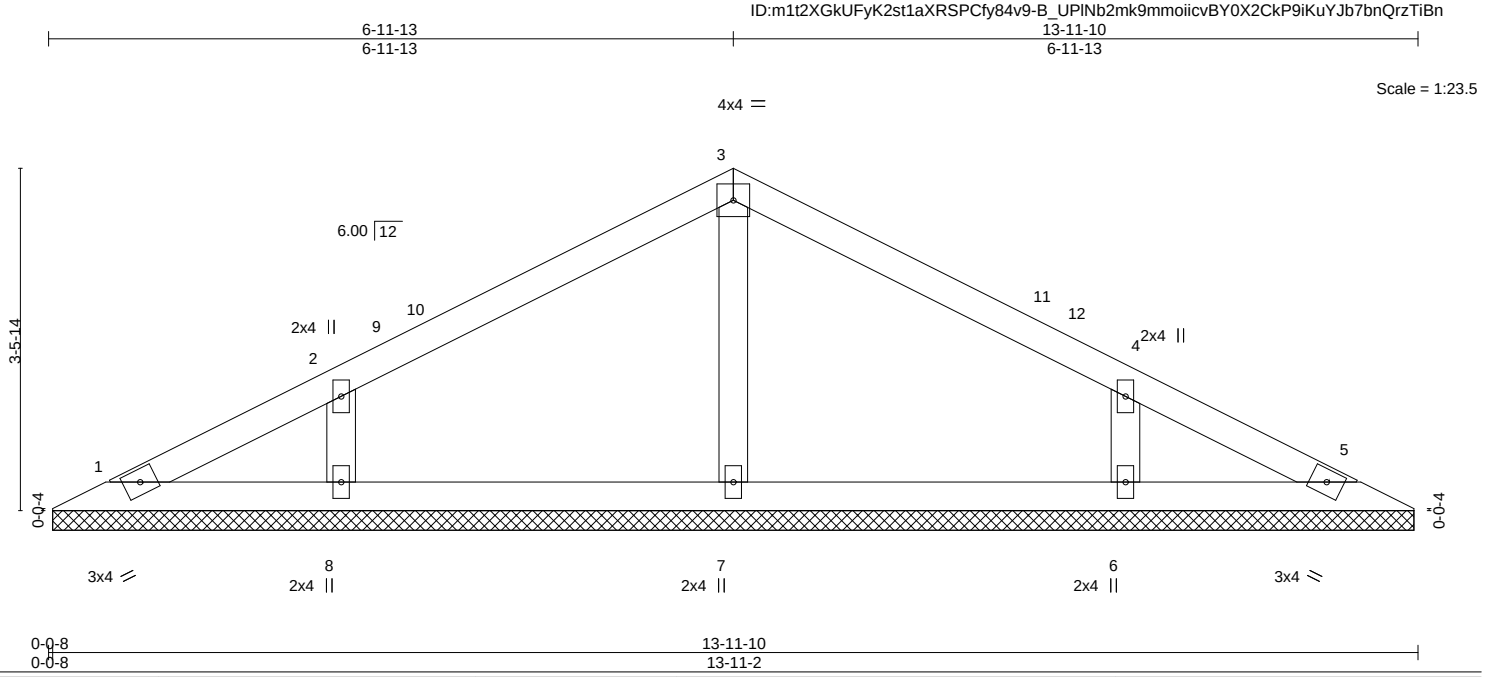

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 37 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. All bearings 13-10-10.
(lb) - Max Horz 1=-56(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-124(LC 12), 6=-124(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=320(LC 1), 8=348(LC 25), 6=348(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-278/197, 4-6=-278/197

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-11-13, Exterior(2R) 6-11-13 to 9-11-13 , Interior(1) 9-11-13 to 13-4-1 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
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) 1, 5, 7 except (jt=lb) 8=124, 6=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.

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V4	Valley	1	1	I45512766
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:12 2021 Page 1
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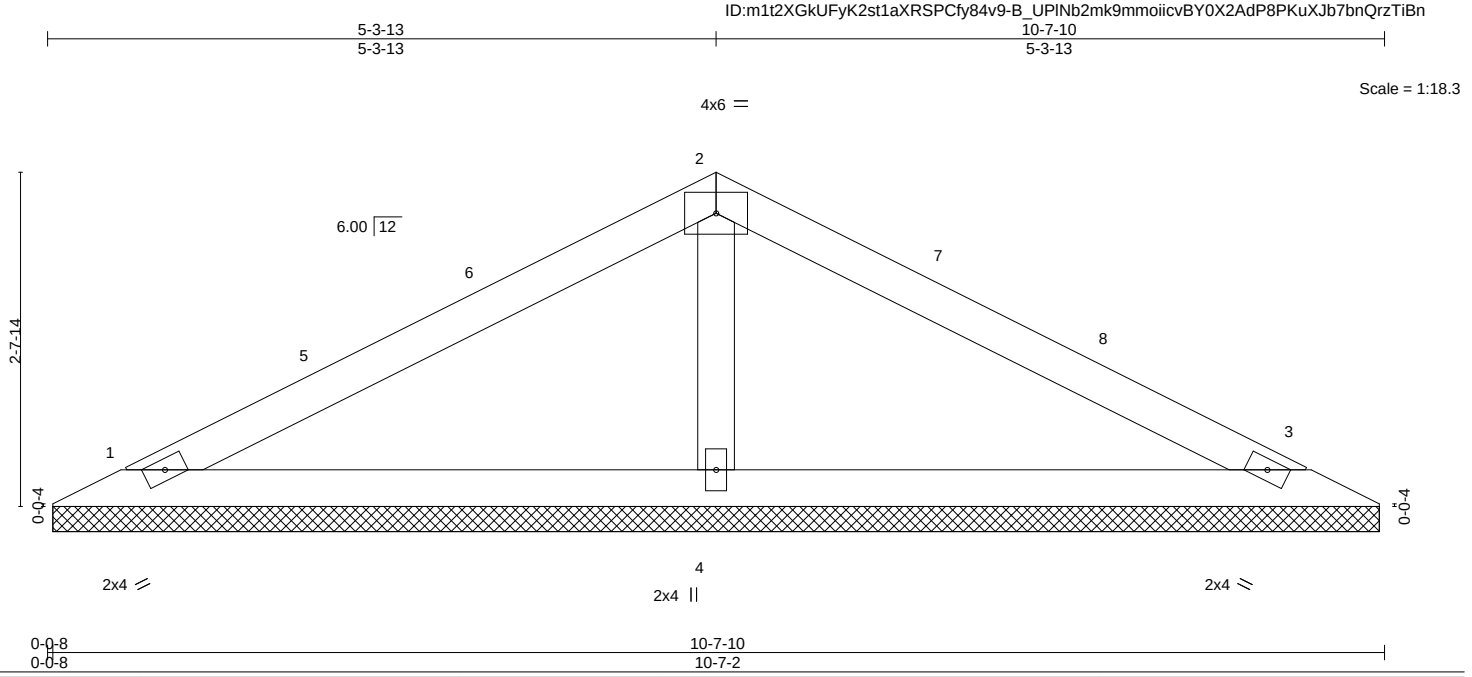

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 26 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=10-6-10, 3=10-6-10, 4=10-6-10
Max Horz 1=41(LC 16)
Max Uplift 1=-45(LC 12), 3=-53(LC 13), 4=-49(LC 12)
Max Grav 1=195(LC 25), 3=195(LC 26), 4=459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-317/189

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-13, Exterior(2R) 5-3-13 to 8-3-13, Interior(1) 8-3-13 to 10-0-1 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
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) 1, 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.

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V5	Valley	1	1	I45512767
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:13 2021 Page 1
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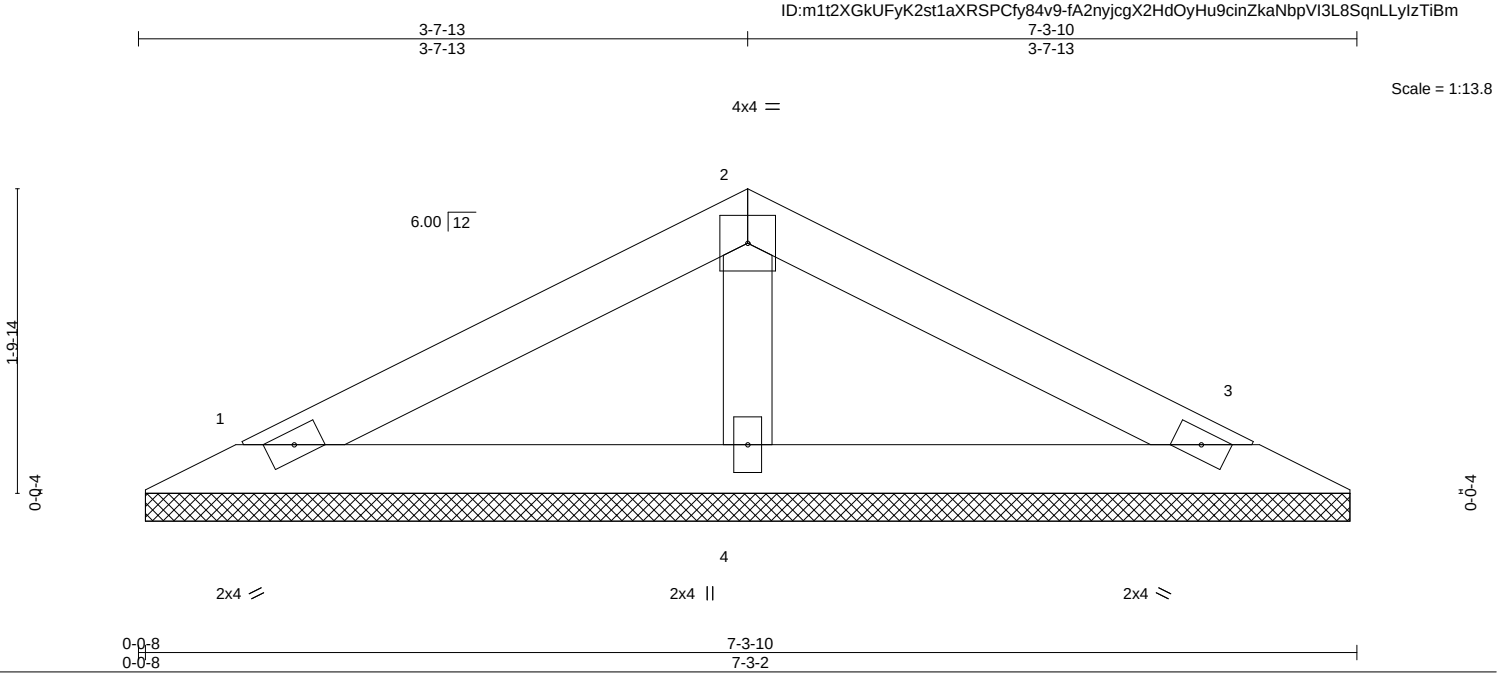

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 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=7-2-10, 3=7-2-10, 4=7-2-10
Max Horz 1=27(LC 16)
Max Uplift 1=-36(LC 12), 3=-41(LC 13), 4=-19(LC 12)
Max Grav 1=138(LC 1), 3=138(LC 1), 4=267(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) 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) 1, 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V6	Valley	1	1	I45512768
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:14 2021 Page 1
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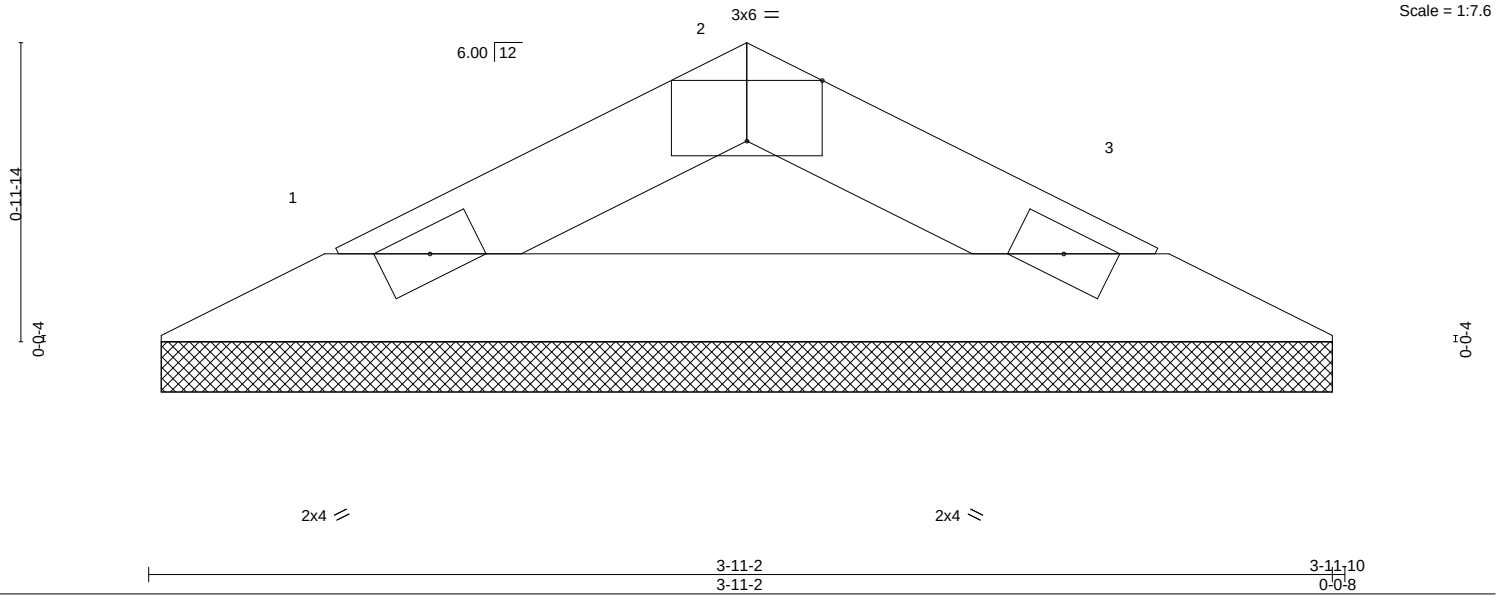

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 8 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 3-11-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-10-10, 3=3-10-10
Max Horz 1=-12(LC 17)
Max Uplift 1=-20(LC 12), 3=-20(LC 13)
Max Grav 1=122(LC 1), 3=122(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) 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) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V7	GABLE	1	1	I45512769
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:14 2021 Page 1
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6-7-13 | 13-3-10
6-7-13 | 6-7-13

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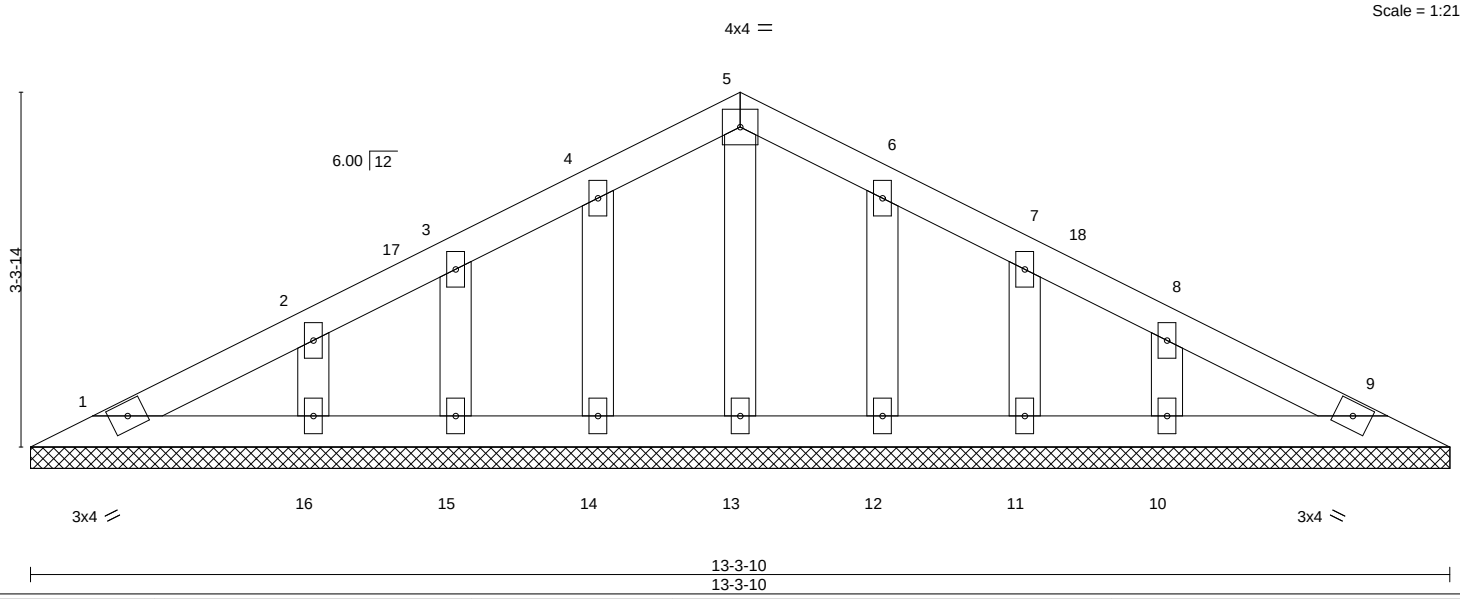

13-3-10
13-3-10

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 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. All bearings 13-3-10.
(lb) - Max Horz 1=53(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 15, 16, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-7-7 to 3-7-7, Exterior(2N) 3-7-7 to 6-7-13, Corner(3R) 6-7-13 to 9-7-13, Exterior(2N) 9-7-13 to 12-8-3 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
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, 14, 15, 16, 12, 11, 10.
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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V8	Valley	1	1	I45512770
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:15 2021 Page 1
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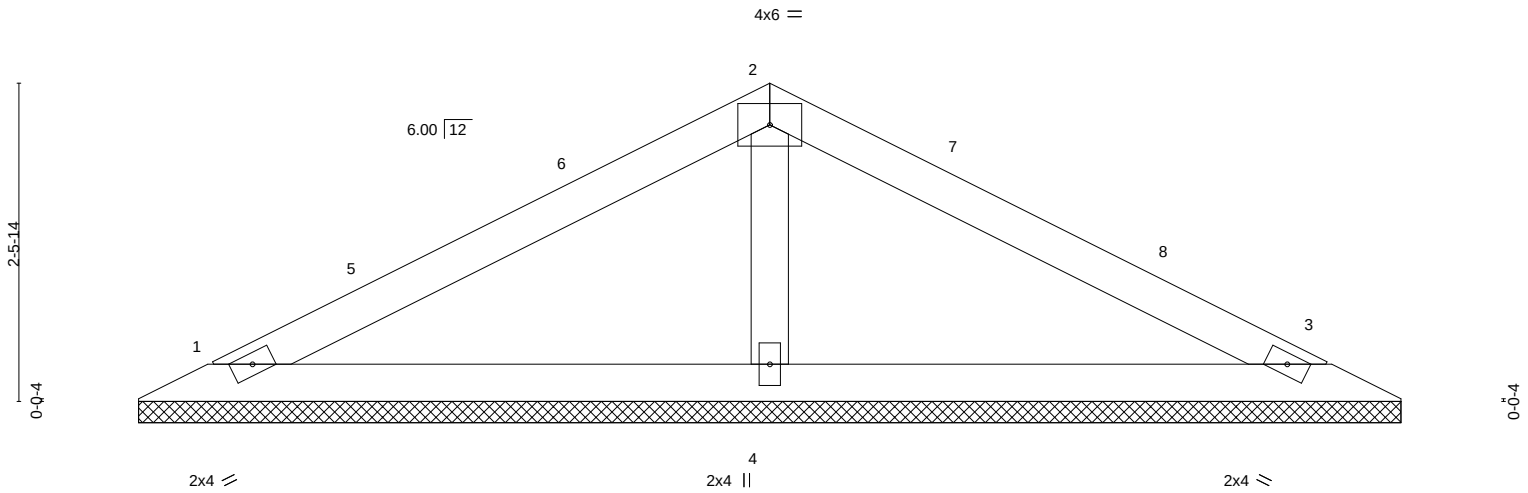
4-11-13 9-11-10
4-11-13 4-11-13

Scale = 1:18.0



0-0-8 9-11-10
0-0-8 9-11-2

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 25 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=9-10-10, 3=9-10-10, 4=9-10-10
Max Horz 1=-38(LC 17)
Max Uplift 1=-42(LC 12), 3=-50(LC 13), 4=-45(LC 12)
Max Grav 1=181(LC 25), 3=181(LC 26), 4=427(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-295/184

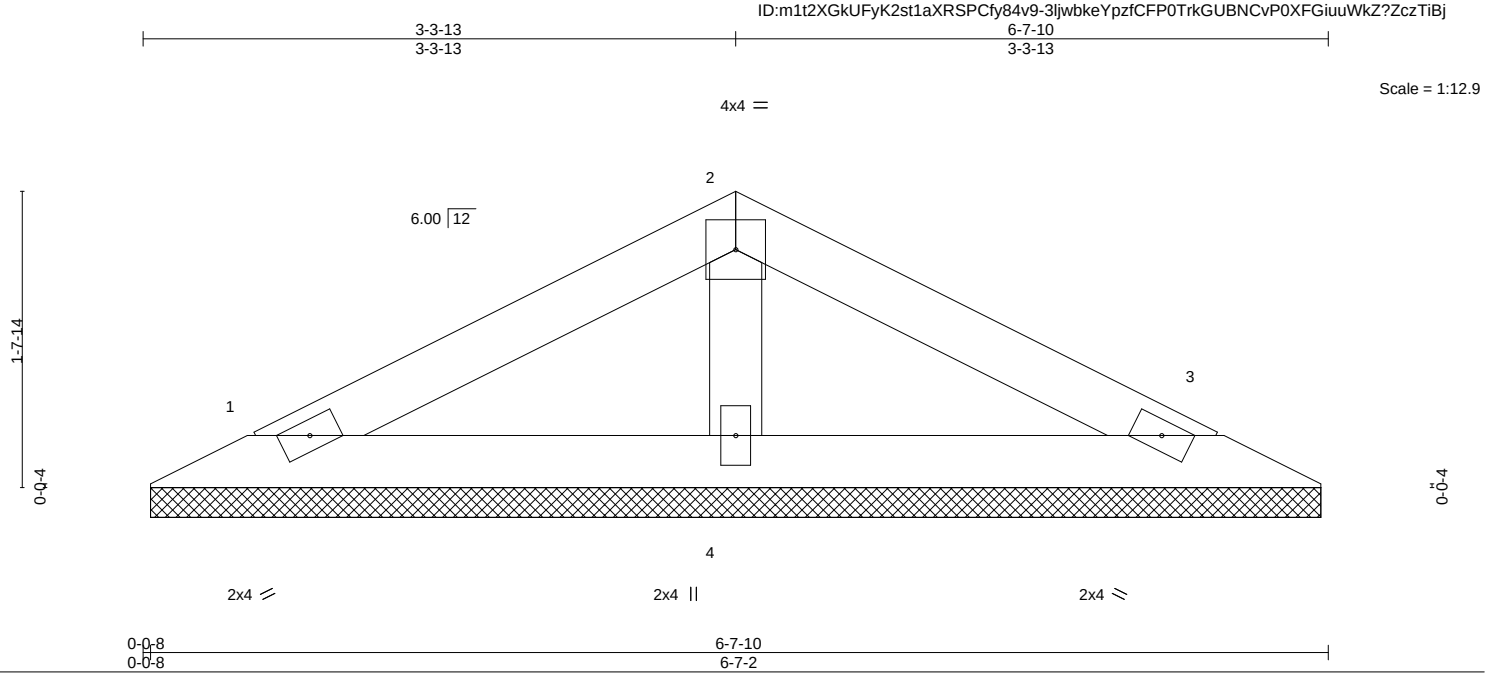
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-11-13, Exterior(2R) 4-11-13 to 7-11-13 , Interior(1) 7-11-13 to 9-4-1 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
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) 1, 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V9	Valley	1	1	I45512771
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:16 2021 Page 1
ID:m1t2XGkUFyK2st1aXRSPCfy84v9-3ljwbkeYpzfCFP0TrkGUBNCvP0XFGiuuWkZ?ZczTiBj



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 16 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=6-6-10, 3=6-6-10, 4=6-6-10
Max Horz 1=24(LC 16)
Max Uplift 1=-32(LC 12), 3=-36(LC 13), 4=-17(LC 12)
Max Grav 1=123(LC 1), 3=123(LC 1), 4=237(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) 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) 1, 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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne I45512772
2731404	V10	Valley	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:08 2021 Page 1
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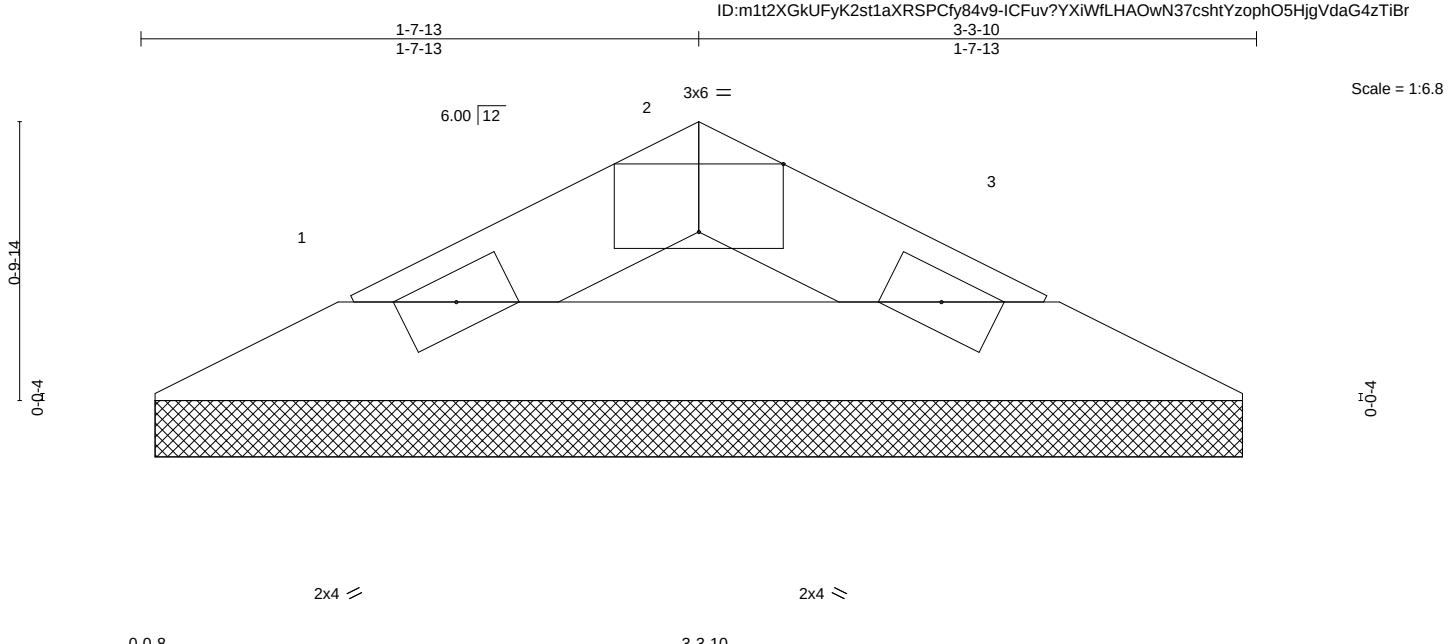

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 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 3-3-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-2-10, 3=3-2-10
Max Horz 1=9(LC 12)
Max Uplift 1=-15(LC 12), 3=-15(LC 13)
Max Grav 1=92(LC 1), 3=92(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) 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) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V11	Valley	1	1	I45512773
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:08 2021 Page 1
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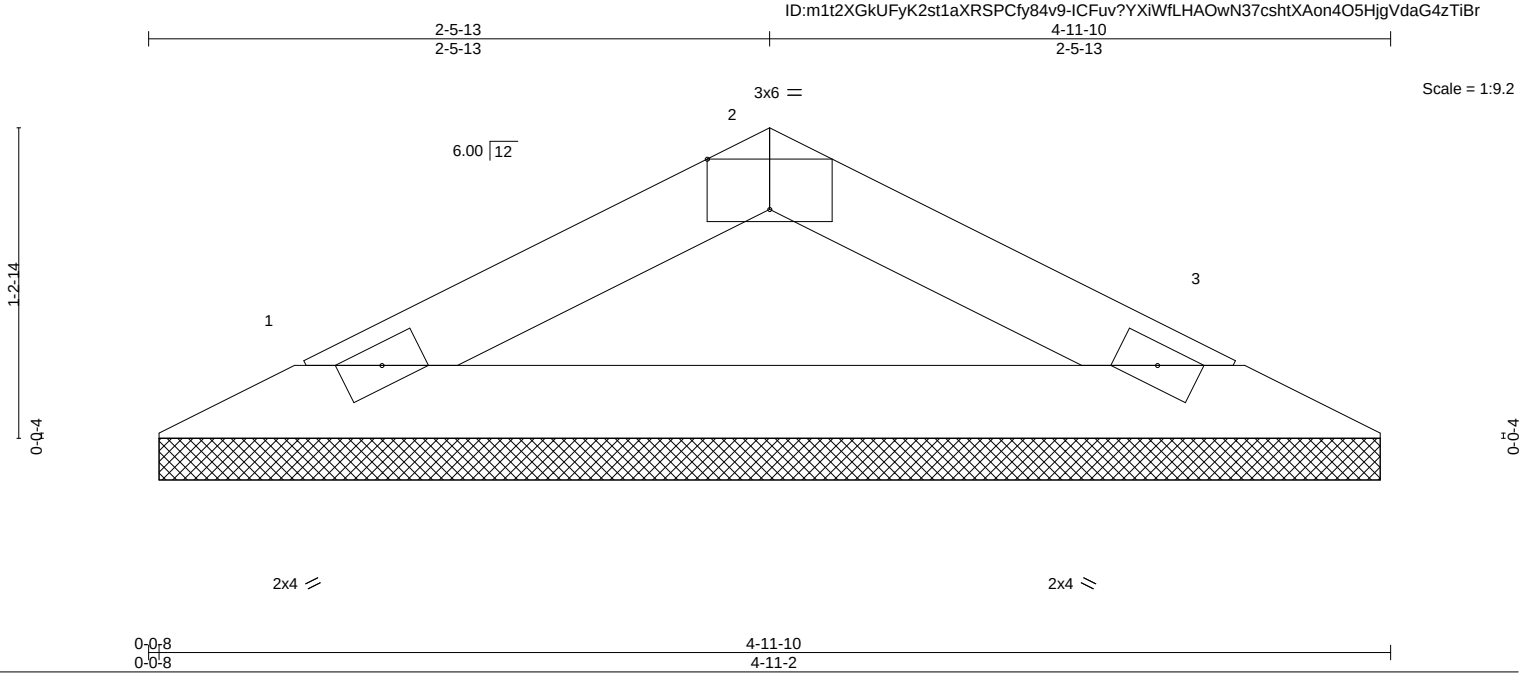

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 10 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 4-11-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-10-10, 3=4-10-10
Max Horz 1=16(LC 12)
Max Uplift 1=-28(LC 12), 3=-28(LC 13)
Max Grav 1=167(LC 1), 3=167(LC 1)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone 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) 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) 1, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V12	GABLE	1	1	I45512774
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:09 2021 Page 1
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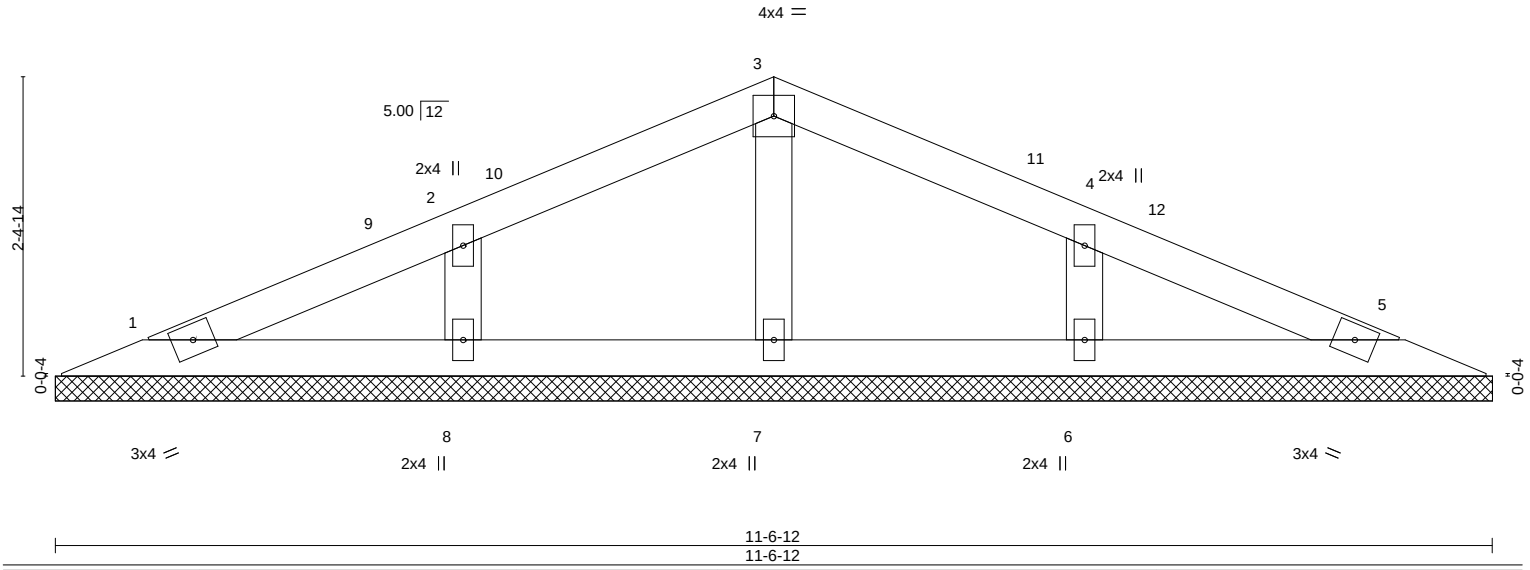
5-9-6
5-9-6
11-6-12
5-9-6

Scale = 1:18.5



11-6-12
11-6-12

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 29 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. All bearings 11-6-12.
(lb) - Max Horz 1=-37(LC 13)
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 except 8=271(LC 25), 6=271(LC 26)

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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-9-1 to 3-9-1, Interior(1) 3-9-1 to 5-9-6, Exterior(2R) 5-9-6 to 8-9-6, Interior(1) 8-9-6 to 10-9-11 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) 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) 1, 5, 8, 6.
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.

April 6,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/86 Hawthorne
2731404	V13	Valley	1	1	I45512775
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 5 17:24:10 2021 Page 1
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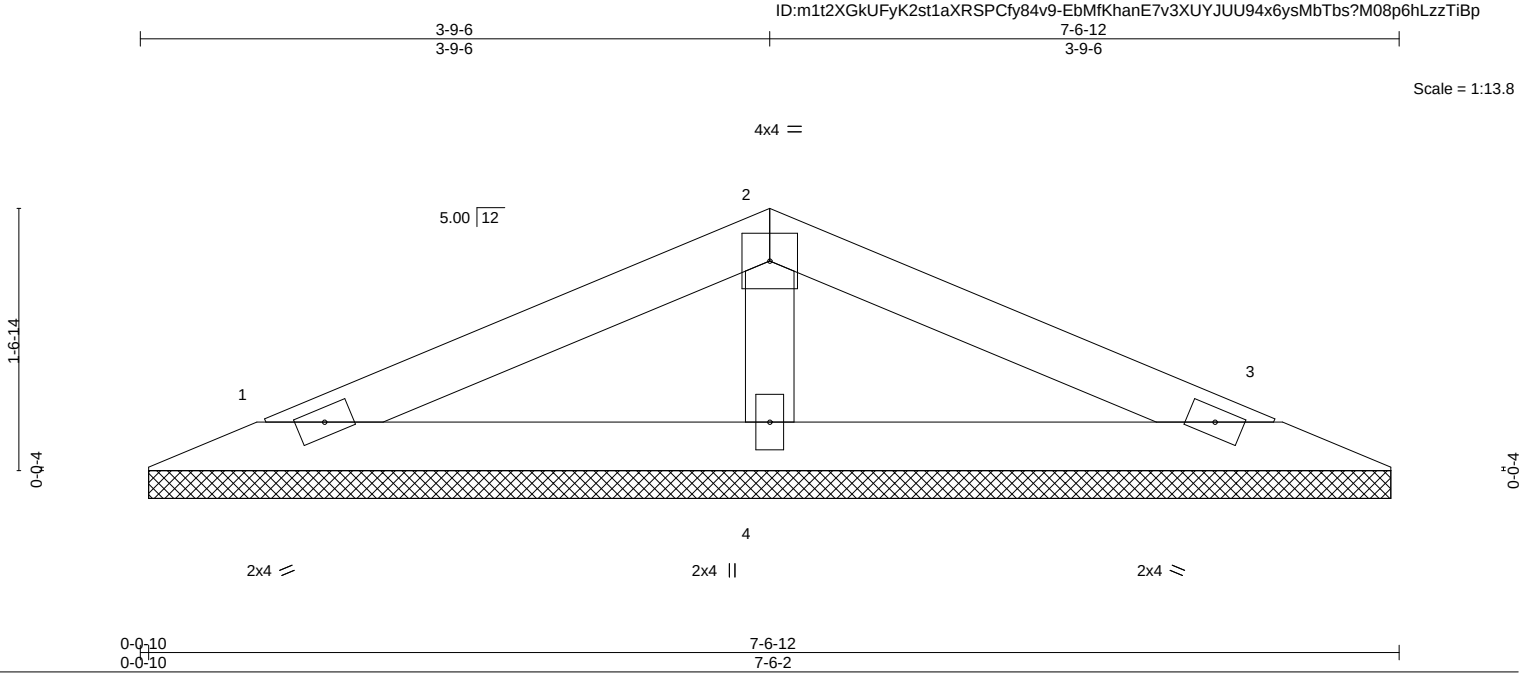


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 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=7-5-8, 3=7-5-8, 4=7-5-8
Max Horz 1=-22(LC 13)
Max Uplift 1=-35(LC 12), 3=-39(LC 13), 4=-22(LC 12)
Max Grav 1=135(LC 1), 3=135(LC 1), 4=275(LC 1)

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

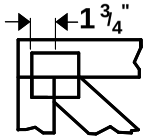
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 1, 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.

April 6,2021

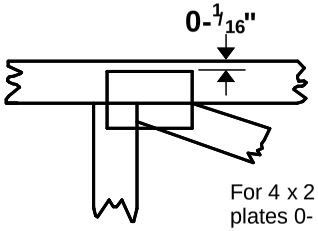
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

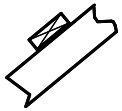
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

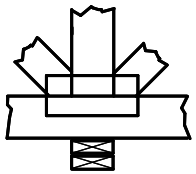
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

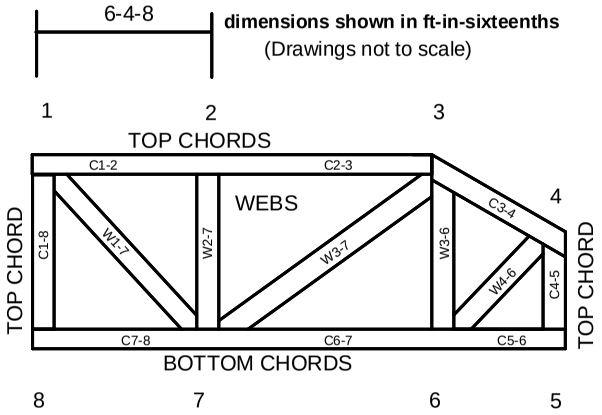


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.