RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/15/2022 12:16:23

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

Re: 3292676
SUMMIT/HAWTHORN RIDGE #177/MO

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: I54112185 thru I54112249

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193

September 12,2022

Sevier, Scott ,Engineer

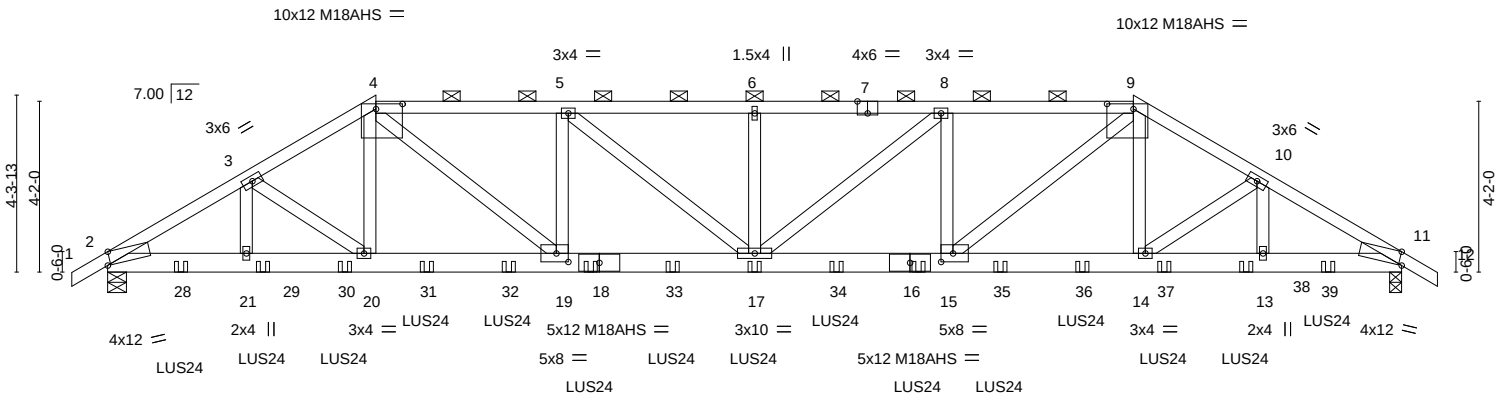
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32526	A1	Hip Girder	1	1		I54112185
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)	

8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:38 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-Kw6RRfbSO0_CCBVqfCt6Guyy7hPC4GtXsuG4jmyfP87

-0-10-8	3-4-10	6-6-9	11-1-3	15-9-8	20-5-13	25-0-7	28-2-6	31-7-0	32-5-8
0-10-8	3-4-10	3-1-15	4-6-9	4-8-5	4-8-5	4-6-9	3-1-15	3-4-10	0-10-8

Scale = 1:56.2



3-4-10	6-6-9	11-1-3	15-9-8	20-5-13	25-0-7	28-2-6	31-7-0
3-4-10	3-1-15	4-6-9	4-8-5	4-8-5	4-6-9	3-1-15	3-4-10

Plate Offsets (X,Y)-- [2:0-0-15,Edge], [4:0-7-12,0-1-8], [7:0-3-0,Edge], [9:0-7-12,0-1-8], [11:0-0-15,Edge], [15:0-3-8,0-2-8], [19:0-3-8,0-2-8]

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	0.86	Vert(LL)	-0.35	17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.62	17	>615	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.58	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 167 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 4-7,7-9: 2x4 SPF 1650F 1.5E
BOT CHORD	2x6 SP 2400F 2.0E *Except* 16-18: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 2=0-5-8, 11=0-3-8
Max Horz 2=111(LC 7)
Max Uplift 2=-918(LC 8), 11=-918(LC 9)
Max Grav 2=3164(LC 1), 11=3164(LC 1)

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

TOP CHORD	2-3=-5258/1542, 3-4=-5066/1543, 4-5=-6130/1896, 5-6=-6704/2063, 6-8=-6704/2063, 8-9=-6130/1896, 9-10=-5066/1543, 10-11=-5258/1543
BOT CHORD	2-21=-1333/4489, 20-21=-1333/4489, 19-20=-1326/4363, 17-19=-1902/6127, 15-17=-1844/6127, 14-15=-1225/4363, 13-14=-1260/4489, 11-13=-1260/4489
WEBS	4-20=-226/758, 4-19=-830/2364, 5-19=-910/348, 5-17=-313/794, 6-17=-319/130, 8-17=-313/794, 8-15=-910/348, 9-15=-830/2364, 9-14=-226/758

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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=918, 11=918.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-9-8 from the left end to 13-9-8 to connect truss(es) to front face of bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 15-9-8 from the left end to 29-9-8 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

September 12,2022

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO I54112185
329560	J1	Hip Girder	1	1	Job Reference (optional)

LOAD CASE(S) Standard

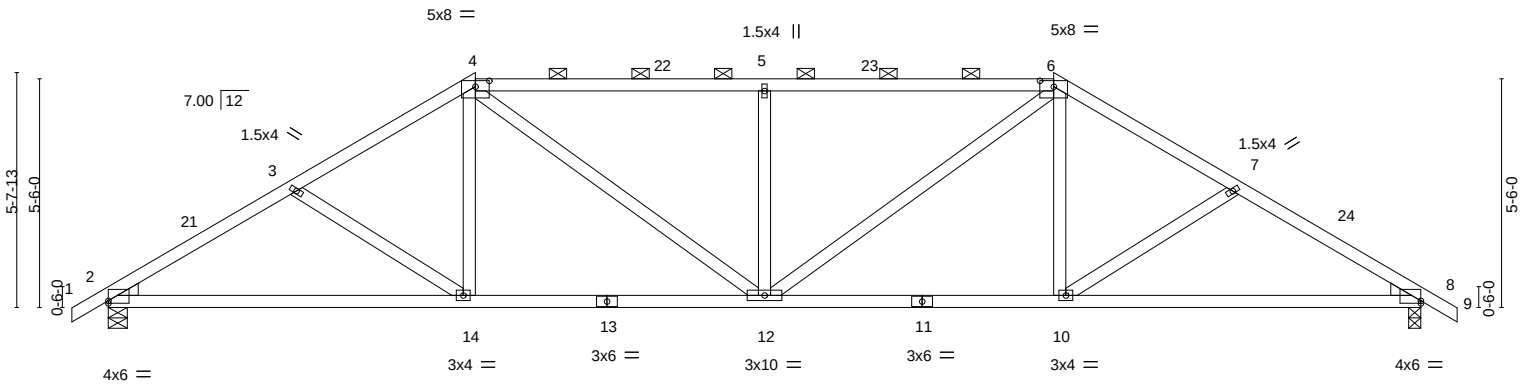
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-70, 4-9=-70, 9-12=-70, 22-25=-20
   Concentrated Loads (lb)
   Vert: 18=-226(F) 17=-226(F) 16=-226(F) 28=-222(F) 29=-221(F) 30=-221(F) 31=-226(F) 32=-226(F) 33=-226(F) 34=-226(F) 35=-226(F) 36=-226(F) 37=-221(F) 38=-221(F) 39=-222(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32526	A1	Hip	1	1		I54112186
					Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:57 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-HamcQ8qMwsNW_6SUHhjZXuEFPLtU1x0KELMbt9yfP7q

-0-10-8	4-6-5	8-10-0	15-9-8	22-9-0	27-0-11	31-7-0	32-5-8
0-10-8	4-6-5	4-3-11	6-11-8	6-11-8	4-3-11	4-6-5	0-10-8

Scale = 1:55.4



8-10-0	15-9-8	22-9-0	31-7-0
8-10-0	6-11-8	6-11-8	8-10-0

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

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	0.66	Vert(LL)	-0.14	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.26	12-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 127 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. (size) 2=0-5-8, 8=0-3-8
Max Horz 2=146(LC 11)
Max Uplift 2=-265(LC 12), 8=-265(LC 13)
Max Grav 2=1483(LC 1), 8=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2336/425, 3-4=-2093/379, 4-5=-2227/373, 5-6=-2227/373, 6-7=-2093/379, 7-8=-2336/425
BOT CHORD 2-14=-376/1941, 12-14=-258/1758, 10-12=-148/1758, 8-10=-279/1941
WEBS 3-14=-271/155, 4-14=-14/359, 4-12=-222/692, 5-12=-572/232, 6-12=-222/692, 6-10=-14/359, 7-10=-271/155

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-3-6, Interior(1) 2-3-6 to 8-10-0, Exterior(2R) 8-10-0 to 13-3-10, Interior(1) 13-3-10 to 22-9-0, Exterior(2R) 22-9-0 to 27-2-6, Interior(1) 27-2-6 to 32-5-8 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) 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=265, 8=265.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

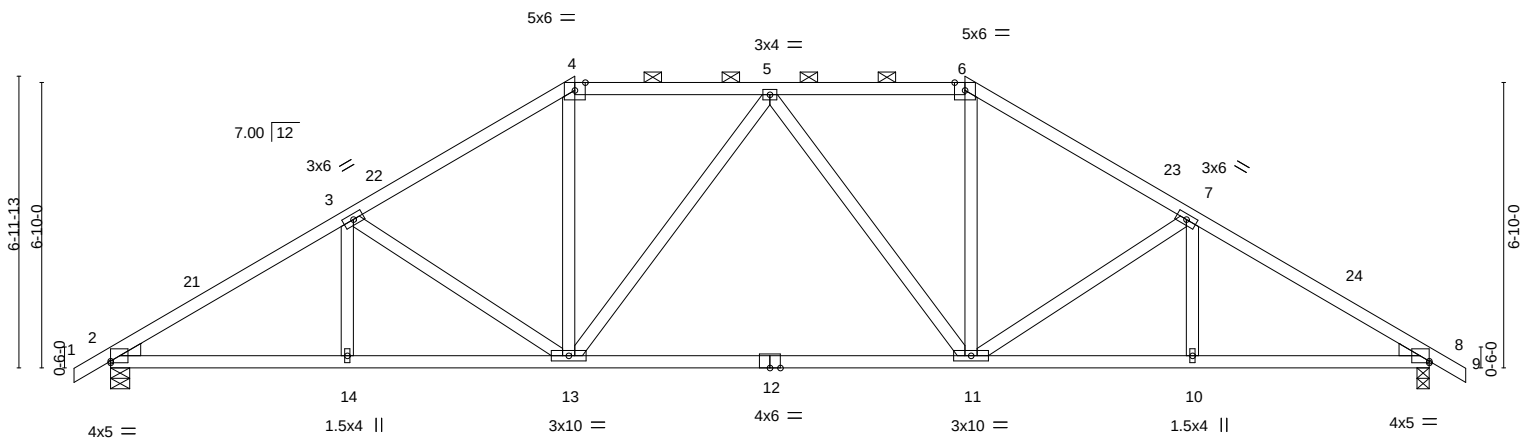
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112187
32-5-8	A1	Hip	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:59 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-DytNrqsdSTdEDPcsO6l1cJJgV9YDVpechfrhy2yfP7o

-0-10-8 5-8-1 11-1-7 15-9-8 20-5-9 25-10-15 31-7-0 32-5-8
0-10-8 5-8-1 5-5-6 4-8-1 4-8-1 5-5-6 5-8-1 0-10-8

Scale = 1:55.2



5-8-1 11-1-7 20-5-9 25-10-15 31-7-0
5-8-1 5-5-6 9-4-2 5-5-6 5-8-1

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

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)	-0.22	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.47	11-13	>802	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 134 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-6-1 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-5-8, 8=0-3-8
Max Horz 2=181(LC 11)
Max Uplift 2=-261(LC 12), 8=-261(LC 13)
Max Grav 2=1483(LC 1), 8=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2330/396, 3-4=-1930/352, 4-5=-1581/349, 5-6=-1581/349, 6-7=-1930/352, 7-8=-2330/397
BOT CHORD 2-14=-364/1925, 13-14=-364/1925, 11-13=-180/1713, 10-11=-244/1925, 8-10=-244/1925
WEBS 3-13=-445/206, 4-13=-79/578, 5-13=-358/187, 5-11=-358/186, 6-11=-79/578, 7-11=-446/207

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 2-3-6, Interior(1) 2-3-6 to 11-1-7, Exterior(2R) 11-1-7 to 15-9-8, Interior(1) 15-9-8 to 20-5-9, Exterior(2R) 20-5-9 to 24-11-3, Interior(1) 24-11-3 to 32-5-8 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) 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=261, 8=261.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32526	J4	Hip	1	1		I54112188
					Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:00 2022 Page 1
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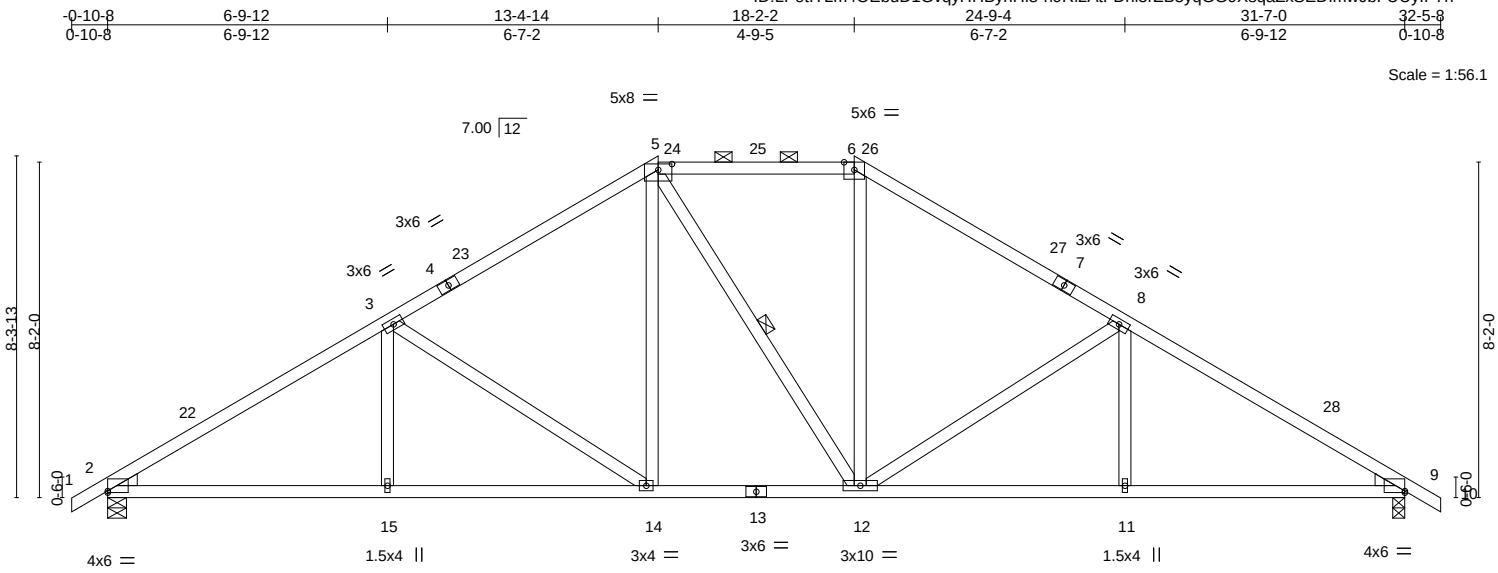

Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [5:0-4-0,0-1-11], [9:0-0-0,0-0-8]

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	0.41	Vert(LL)	-0.10	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.21	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 134 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-9-10 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-12

REACTIONS. (size) 2=0-5-8, 9=0-3-8
Max Horz 2=-216(LC 10)
Max Uplift 2=-255(LC 12), 9=-255(LC 13)
Max Grav 2=1483(LC 1), 9=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2307/377, 3-5=-1750/325, 5-6=-1403/334, 6-8=-1751/325, 8-9=-2307/377
BOT CHORD 2-15=-358/1894, 14-15=-358/1894, 12-14=-145/1403, 11-12=-213/1893, 9-11=-213/1893
WEBS 3-15=0/267, 3-14=-615/252, 5-14=-87/445, 6-12=-77/430, 8-12=-615/252, 8-11=0/266

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 2-3-6, Interior(1) 2-3-6 to 13-4-14, Exterior(2R) 13-4-14 to 17-10-7, Interior(1) 17-10-7 to 18-2-2, Exterior(2R) 18-2-2 to 22-7-12, Interior(1) 22-7-12 to 32-5-8 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) 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=255, 9=255.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112189
32-5-8	J1	HIP	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:02 2022 Page 1
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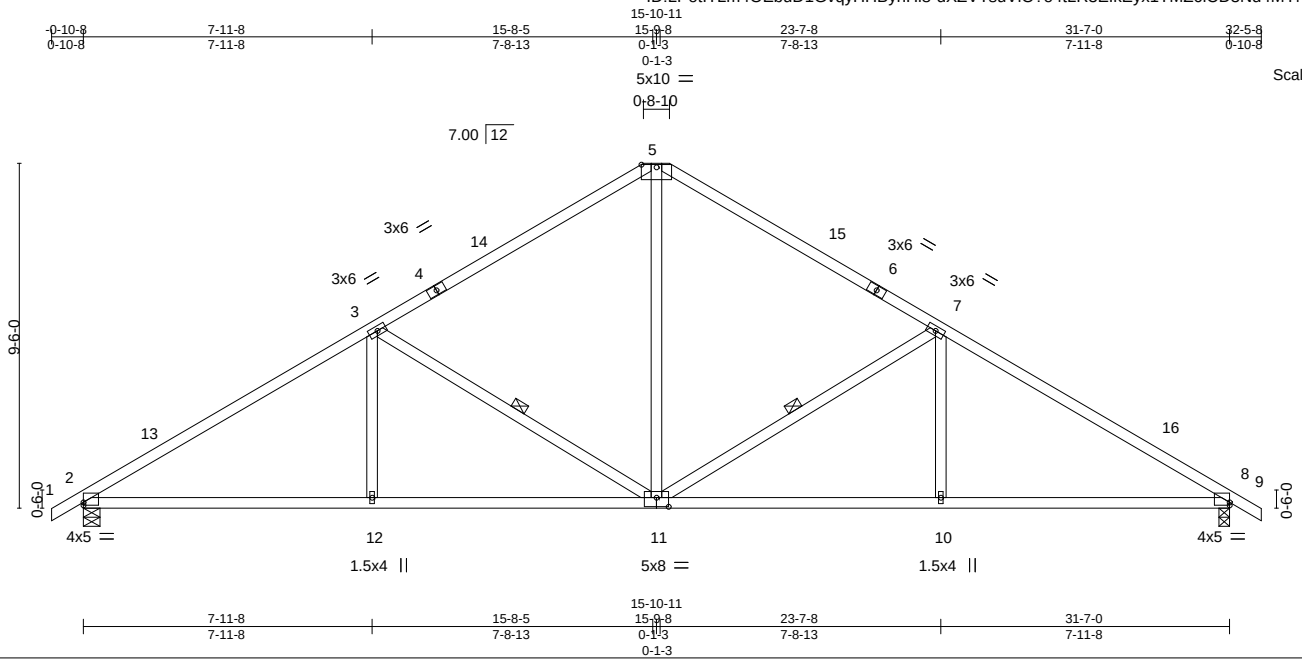

Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [8:0-0-0,0-1-0], [11:0-4-0,0-3-0]

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	0.96	Vert(LL)	-0.11	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.27	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 121 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied or 9-10-4 oc bracing.
WEBS	1 Row at midpt 3-11, 7-11

REACTIONS. (size) 2=0-5-8, 8=0-3-8
Max Horz 2=-253(LC 10)
Max Uplift 2=-250(LC 12), 8=-250(LC 13)
Max Grav 2=1482(LC 1), 8=1476(LC 1)

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

TOP CHORD	2-3=-2245/343, 3-5=-1533/316, 5-7=-1537/314, 7-8=-2256/349
BOT CHORD	2-12=-342/1801, 11-12=-342/1801, 10-11=-176/1816, 8-10=-176/1816
WEBS	3-12=0/344, 3-11=-753/309, 7-11=-763/312, 7-10=0/346, 5-11=-141/900

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 2-3-6, Interior(1) 2-3-6 to 15-8-12, Exterior(2R) 15-8-12 to 20-2-5, Interior(1) 20-2-5 to 32-5-8 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) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
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=250, 8=250.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32-2-0	J4R	Roof Special	2	1		I54112190
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:03 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-6k7tgCv7Wi8fi1wedyqzm9UHemvcRXoCcHpv5pyfP7k

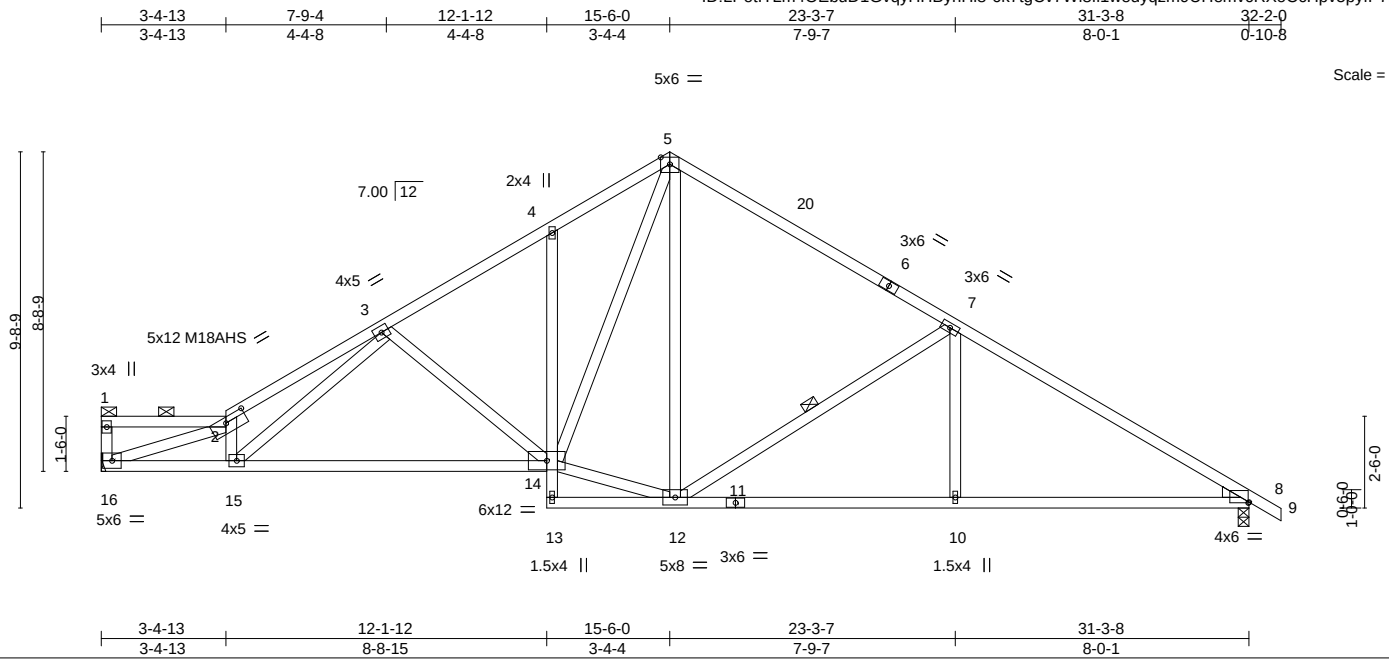

Plate Offsets (X,Y)-- [2:0-6-12,0-1-12], [8:0-0-4,0-0-4]

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	0.61	Vert(LL)	-0.20	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.49	14-15	>771	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 145 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-12

REACTIONS. (size) 16=Mechanical, 8=0-3-8
Max Horz 16=-261(LC 8)
Max Uplift 16=-228(LC 12), 8=-252(LC 13)
Max Grav 16=1401(LC 1), 8=1464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3671/580, 3-4=-1964/345, 4-5=-1883/422, 5-7=-1534/326, 7-8=-2232/363
BOT CHORD 15-16=-534/3212, 14-15=-359/2097, 10-12=-186/1818, 8-10=-186/1818
WEBS 2-16=-3310/471, 2-15=-848/218, 3-15=-205/1390, 3-14=-622/235, 12-14=-24/1282, 5-14=-293/1139, 5-12=-141/254, 7-12=-771/309, 7-10=0/325

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) 0-1-12 to 3-4-13, Interior(1) 3-4-13 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-9 , Interior(1) 18-7-9 to 32-2-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=228, 8=252.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112191
329250	J1	Roof Special	2	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:04 2022 Page 1
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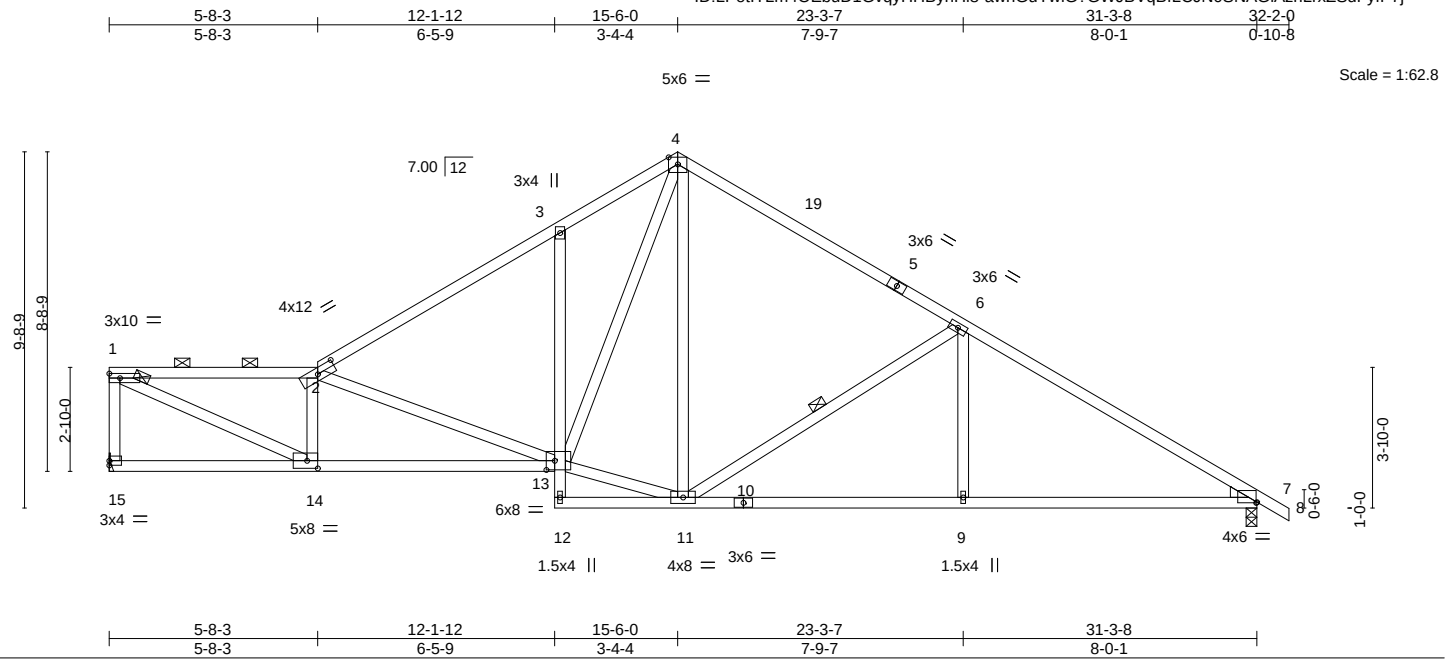

Plate Offsets (X,Y)-- [2:0-6-0,0-1-15], [7:0-0-4,0-0-4], [13:0-2-12,0-3-0], [14:0-3-8,0-2-8]

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	0.61	Vert(LL)	-0.15	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.30	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.08	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 145 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-11

REACTIONS. (size) 15=Mechanical, 7=0-3-8
Max Horz 15=-280(LC 8)
Max Uplift 15=-232(LC 12), 7=-252(LC 13)
Max Grav 15=1401(LC 1), 7=1464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-1342/246, 1-2=-2468/374, 2-3=-2011/335, 3-4=-1906/430, 4-6=-1534/326, 6-7=-2232/363
BOT CHORD 13-14=-395/2523, 3-13=-353/224, 9-11=-186/1819, 7-9=-186/1819
WEBS 1-14=-408/2649, 2-14=-1018/237, 2-13=-958/230, 11-13=-18/1204, 4-13=-305/1157, 4-11=-139/269, 6-11=-772/310, 6-9=0/325

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) 0-1-12 to 3-3-5, Interior(1) 3-3-5 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-9, Interior(1) 18-7-9 to 32-2-0 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=232, 7=252.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112192
32-2-0	A1	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:06 2022 Page 1
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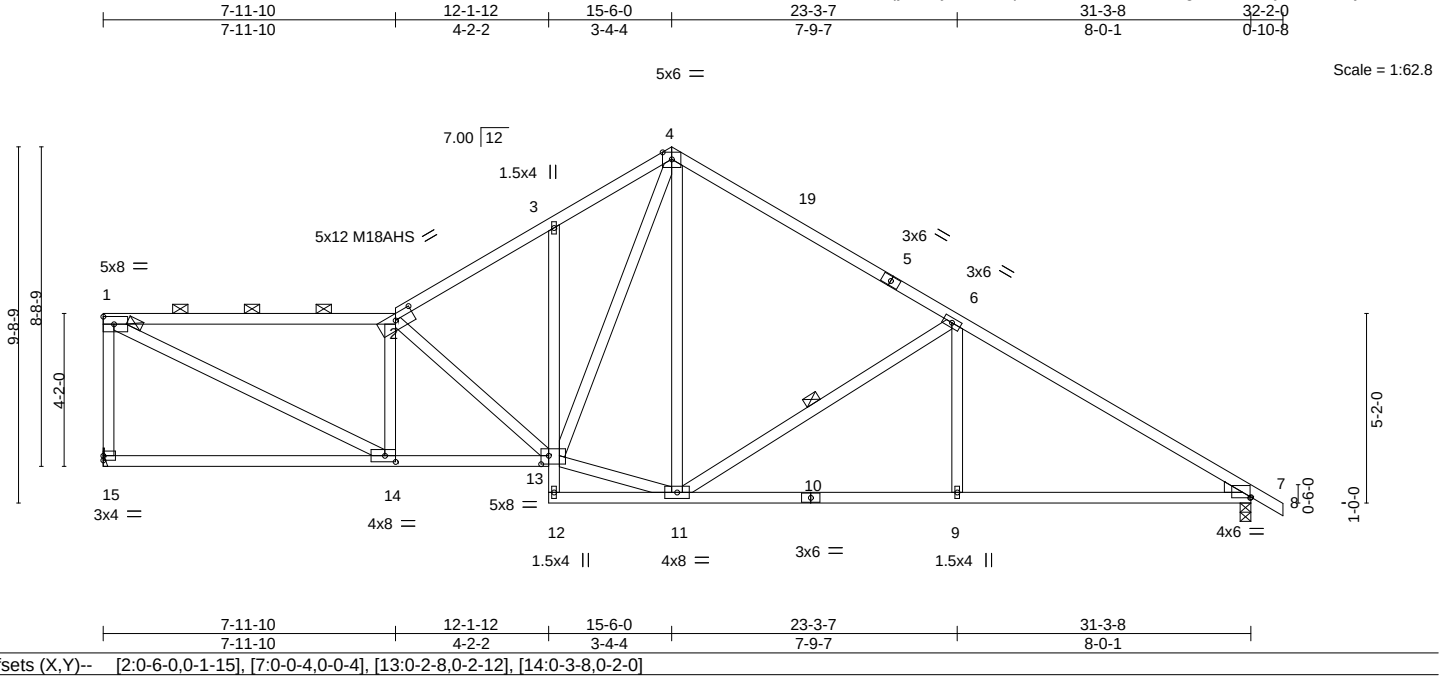

Plate Offsets (X,Y)-- [2:0-6-0,0-1-15], [7:0-0-4,0-0-4], [13:0-2-8,0-2-12], [14:0-3-8,0-2-0]

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	0.87	Vert(LL)	-0.13	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.25	9-11	>999	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 149 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 1-2: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 1-2.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-11

REACTIONS. (size) 15=Mechanical, 7=0-3-8
Max Horz 15=-298(LC 8)
Max Uplift 15=-240(LC 12), 7=-252(LC 13)
Max Grav 15=1401(LC 1), 7=1464(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-15=-1319/266, 1-2=-2125/348, 2-3=-1957/351, 3-4=-1848/418, 4-6=-1534/326, 6-7=-2232/362
BOT CHORD 13-14=-269/2157, 9-11=-185/1818, 7-9=-185/1818
WEBS 1-14=-343/2284, 2-14=-896/223, 2-13=-764/166, 11-13=-39/1174, 4-13=-260/1091, 4-11=-132/286, 6-11=-771/309, 6-9=0/326

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) 0-1-12 to 3-3-5, Interior(1) 3-3-5 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-9, Interior(1) 18-7-9 to 32-2-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 2 = 4%
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=240, 7=252.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112193
32-5-8	J1	Common	1	1	Job Reference (optional)	

Builders FirstSource, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:07 2022 Page 1
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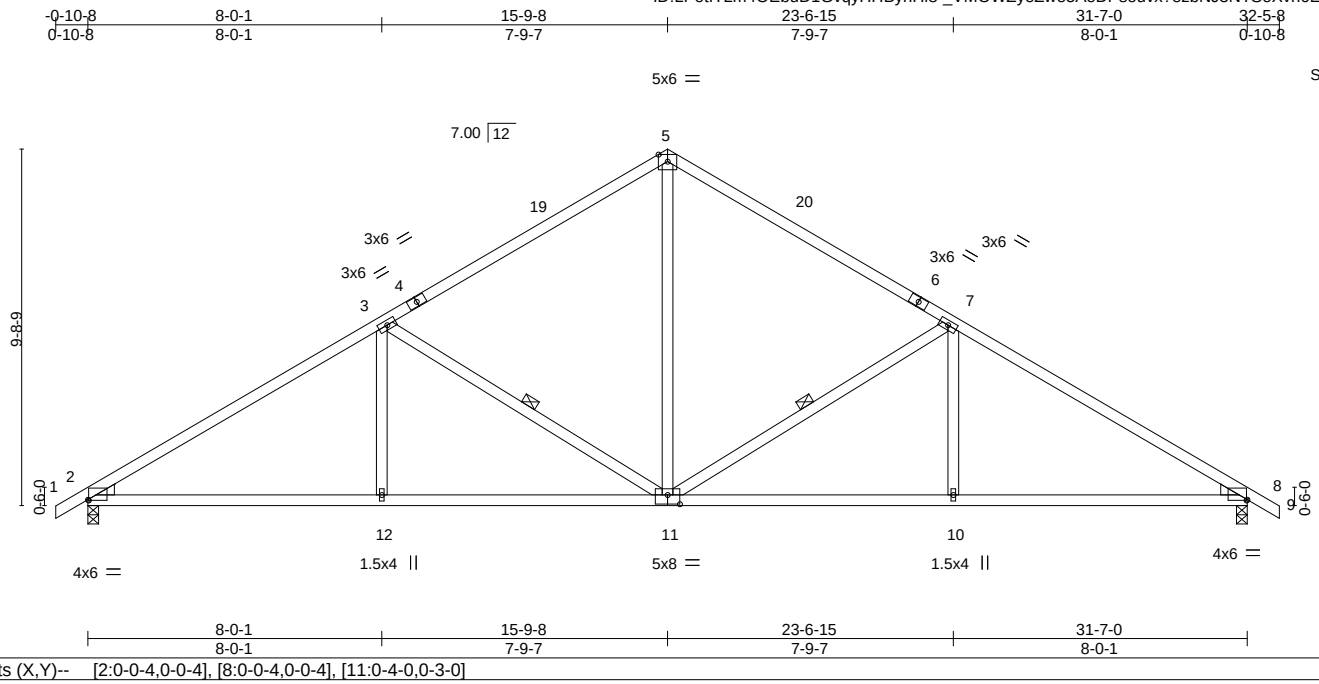

Plate Offsets (X,Y)-- [2:0-0-4,0-0-4], [8:0-0-4,0-0-4], [11:0-4-0,0-3-0]

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	0.62	Vert(LL)	-0.10	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.22	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 123 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11, 3-11

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=254(LC 11)
Max Uplift 2=-248(LC 12), 8=-248(LC 13)
Max Grav 2=1483(LC 1), 8=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2264/355, 3-5=-1567/326, 5-7=-1567/326, 7-8=-2264/356
BOT CHORD 2-12=-350/1845, 11-12=-350/1845, 10-11=-183/1845, 8-10=-183/1845
WEBS 5-11=-142/926, 7-11=-766/311, 7-10=0/319, 3-11=-766/311, 3-12=0/319

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 2-3-6, Interior(1) 2-3-6 to 15-9-8, Exterior(2R) 15-9-8 to 18-11-6, Interior(1) 18-11-6 to 32-5-8 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=248, 8=248.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112194
32-2560	A4	Hip	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:40 2022 Page 1
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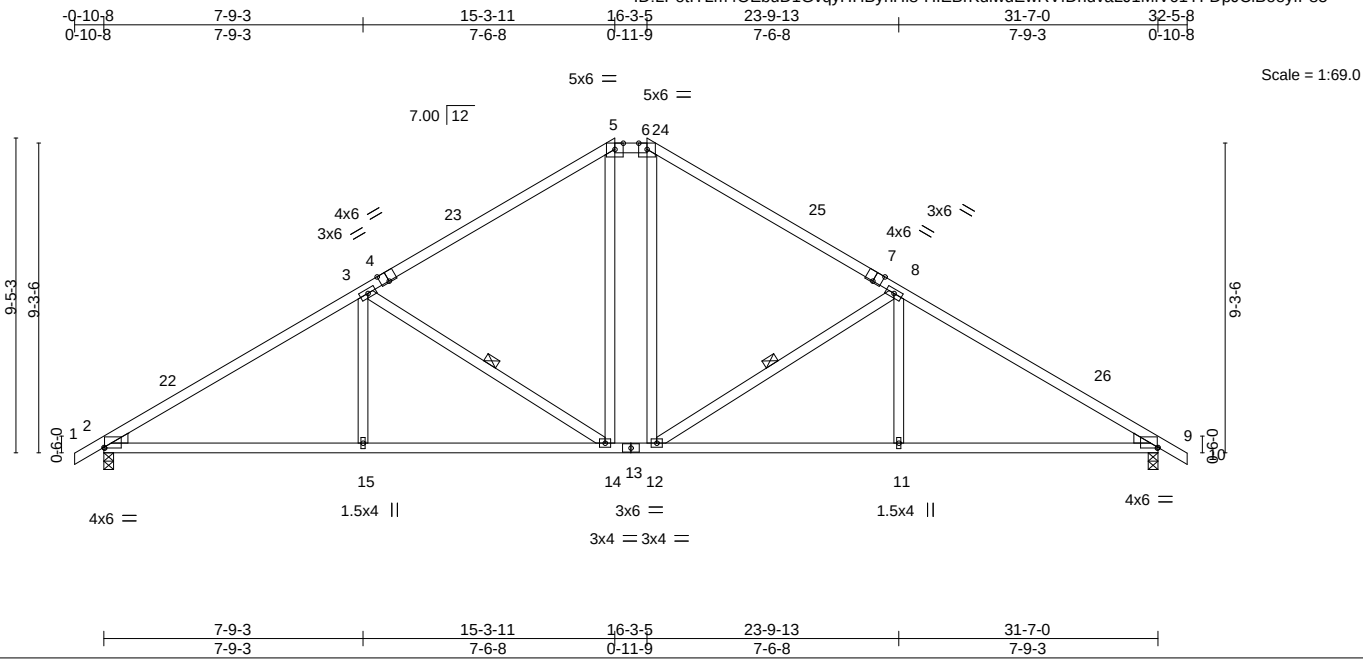

Plate Offsets (X,Y)-- [2:0-0-4,0-0-4], [4:0-3-0,Edge], [7:0-3-0,Edge], [9:0-0-4,0-0-4]

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	0.59	Vert(LL)	-0.13	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.25	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 131 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-10 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-14, 8-12

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=245(LC 11)
Max Uplift 2=-250(LC 12), 9=-250(LC 13)
Max Grav 2=1483(LC 1), 9=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2275/364, 3-5=-1612/322, 5-6=-1265/309, 6-8=-1612/322, 8-9=-2275/364
BOT CHORD 2-15=-354/1857, 14-15=-354/1857, 12-14=-95/1265, 11-12=-190/1857, 9-11=-190/1857
WEBS 3-15=0/313, 3-14=-742/307, 5-14=-79/456, 6-12=-78/456, 8-12=-743/308, 8-11=0/313

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 2-3-6, Interior(1) 2-3-6 to 15-3-11, Exterior(2E) 15-3-11 to 16-3-5, Exterior(2R) 16-3-5 to 20-8-14, Interior(1) 20-8-14 to 32-5-8 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) 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=250, 9=250.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112195
32-5-8	A4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:41 2022 Page 1
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-0-10-8 | 6-7-8 | 13-0-5 | 15-0-5 | 16-9-8 | 24-0-15 | 31-7-0 | 32-5-8
0-10-8 | 6-7-8 | 6-4-13 | 2-0-0 | 1-9-3 | 7-3-7 | 7-6-1 | 0-10-8

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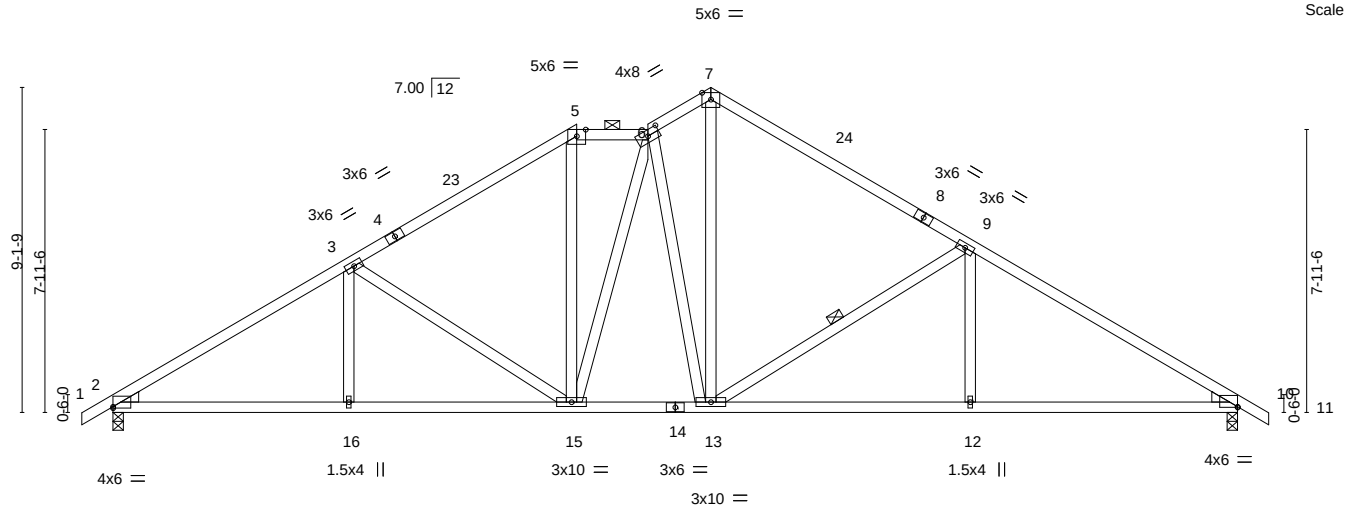


6-7-8 | 13-0-5 | 16-9-8 | 24-0-15 | 31-7-0
6-7-8 | 6-4-13 | 3-9-3 | 7-3-7 | 7-6-1

Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [6:0-4-0,0-1-15], [10:0-0-0,0-0-4]

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	0.52	Vert(LL)	-0.11	15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.24	12-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-7-11 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-239(LC 10)
Max Uplift 2=-260(LC 12), 10=-242(LC 13)
Max Grav 2=1483(LC 1), 10=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2313/386, 3-5=-1777/340, 5-6=-1430/345, 6-7=-1476/349, 7-9=-1636/340, 9-10=-2285/350
BOT CHORD 2-16=-383/1900, 15-16=-383/1900, 13-15=-157/1440, 12-13=-191/1868, 10-12=-191/1868
WEBS 3-16=0/262, 3-15=-585/240, 5-15=-61/429, 6-13=-695/242, 7-13=-233/1112, 9-13=-710/286, 9-12=0/307

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 2-3-6, Interior(1) 2-3-6 to 13-0-5, Exterior(2E) 13-0-5 to 15-0-5, Interior(1) 15-0-5 to 16-9-8, Exterior(2R) 16-9-8 to 19-11-6, Interior(1) 19-11-6 to 32-5-8 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) 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=260, 10=242.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

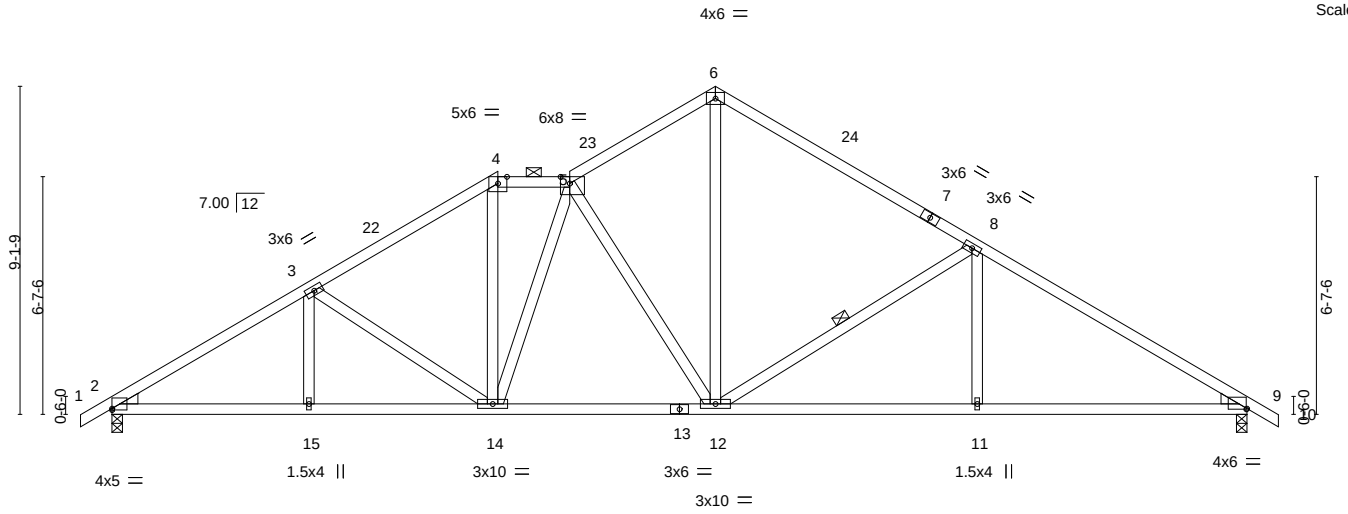
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112196
325560	A4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:43 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-htwKUMfaDYcVIyOoSlTHzxfuxi6GlVbG0AzrOzyfP82

-0-10-8 5-5-12 10-8-14 12-8-14 16-9-8 24-0-15 31-7-0 32-5-8
0-10-8 5-5-12 5-3-2 2-0-0 4-0-10 7-3-7 7-6-1 0-10-8

Scale: 3/16"=1'



5-5-12 10-8-14 16-9-8 24-0-15 31-7-0
5-5-12 5-3-2 6-0-10 7-3-7 7-6-1

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

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	0.53	Vert(LL)	-0.11	12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.24	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 138 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=239(LC 11)
Max Uplift 2=-260(LC 12), 9=-242(LC 13)
Max Grav 2=1483(LC 1), 9=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2340/393, 3-4=-1943/358, 4-5=-1593/352, 5-6=-1546/350, 6-8=-1637/346, 8-9=-2285/357
BOT CHORD 2-15=-404/1935, 14-15=-404/1935, 12-14=-244/1686, 11-12=-194/1868, 9-11=-194/1868
WEBS 3-14=-428/191, 4-14=-78/614, 5-14=-305/97, 5-12=-733/262, 6-12=-208/1116, 8-12=-712/290, 8-11=0/299

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 2-3-6, Interior(1) 2-3-6 to 10-8-14, Exterior(2E) 10-8-14 to 12-8-14, Interior(1) 12-8-14 to 16-9-8, Exterior(2R) 16-9-8 to 19-11-6, Interior(1) 19-11-6 to 32-5-8 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) 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=260, 9=242.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112197
32526	A13	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:44 2022 Page 1
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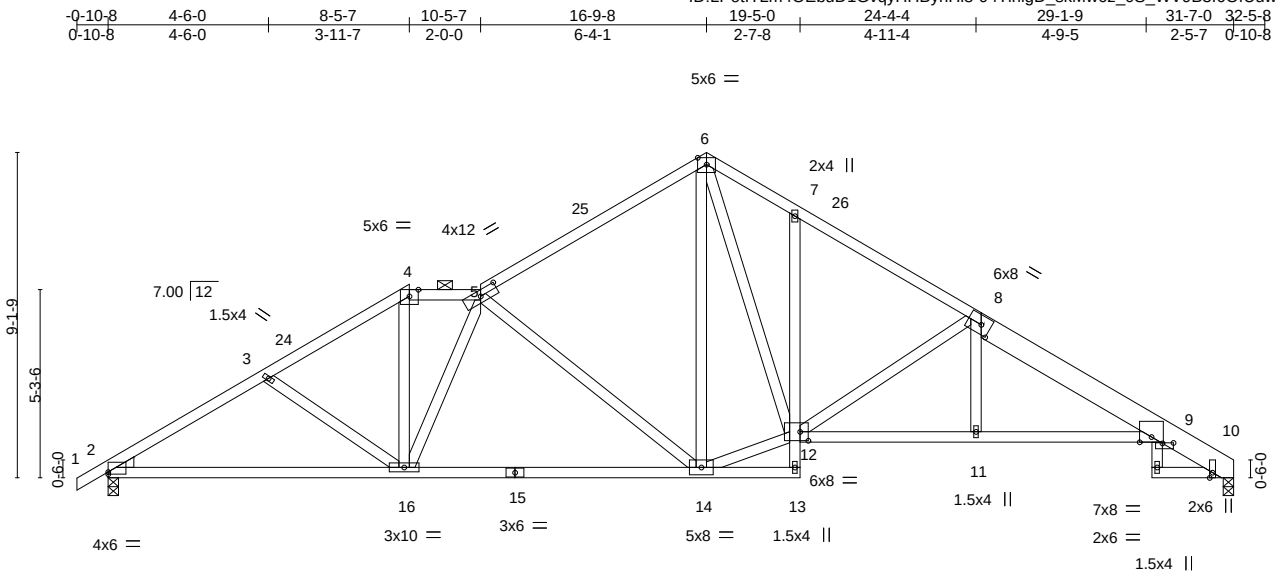

Plate Offsets (X,Y)-- [2:0-0-0,0-0-12], [5:0-6-0,0-1-15], [8:0-3-4,0-3-0], [9:0-3-11,0-0-3], [12:0-2-12,0-3-0]

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	0.56	Vert(LL)	-0.19	11-23	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.37	14-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.22	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 162 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=236(LC 11)
Max Uplift 2=-259(LC 12), 10=-217(LC 13)
Max Grav 2=1477(LC 1), 10=1420(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2335/412, 3-4=-2099/366, 4-5=-1743/349, 5-6=-1617/334, 6-7=-1924/424, 7-8=-2038/372, 8-9=-2675/405, 9-10=-706/130
BOT CHORD 2-16=-437/1940, 14-16=-345/1972, 11-12=-273/2409, 9-11=-274/2402
WEBS 4-16=-124/815, 5-16=-584/151, 5-14=-873/298, 6-14=-96/318, 12-14=-88/1320, 6-12=-243/1183, 8-12=-881/252, 8-11=0/250

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 2-3-6, Interior(1) 2-3-6 to 8-5-7, Exterior(2E) 8-5-7 to 10-5-7, Interior(1) 10-5-7 to 16-9-8, Exterior(2R) 16-9-8 to 19-11-6, Interior(1) 19-11-6 to 31-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) Bearing at joint(s) 10 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) 2=259, 10=217.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112198
32-5-8	A4	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:46 2022 Page 1
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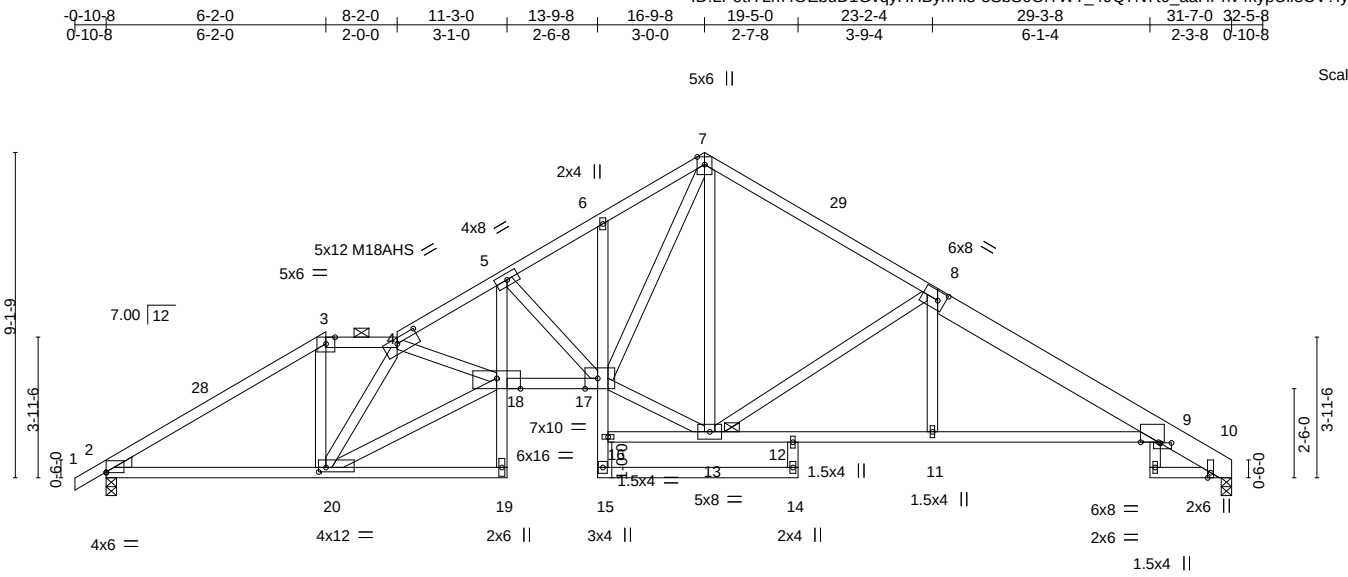

Plate Offsets (X,Y)-- [2:0-0-0,0-0-4], [4:0-7-4,0-1-12], [8:0-2-8,0-3-0], [9:0-3-11,0-0-3], [9:0-6-0,0-0-0], [17:0-4-4,Edge], [18:0-8-0,Edge], [20:0-2-8,0-1-8]

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	0.56	Vert(LL)	-0.29	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.53	17-18	>714	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.37	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 175 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-0-6 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=236(LC 11)
Max Uplift 2=-259(LC 12), 10=-217(LC 13)
Max Grav 2=1477(LC 1), 10=1420(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2323/380, 3-4=-1940/383, 4-5=-4030/694, 5-6=-2788/485, 6-7=-2721/551, 7-8=-1802/353, 8-9=-2533/383, 9-10=-706/130
BOT CHORD 2-20=-389/1919, 5-18=-285/1602, 17-18=-560/3438, 12-13=-239/2235, 11-12=-238/2252, 9-11=-240/2246
WEBS 3-20=-59/760, 4-20=-2550/415, 18-20=-645/3422, 4-18=0/351, 5-17=-1563/363, 13-17=-126/1535, 7-17=-438/2169, 8-13=-957/302, 8-11=0/305

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 and C-C Exterior(2E) -0-10-8 to 2-3-6, Interior(1) 2-3-6 to 6-2-0, Exterior(2E) 6-2-0 to 8-2-0, Interior(1) 8-2-0 to 16-9-8, Exterior(2R) 16-9-8 to 19-11-6, Interior(1) 19-11-6 to 31-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 10 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) 2=259, 10=217.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32526	A6	Roof Special Girder	1	1		I54112199
					Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:48 2022 Page 1
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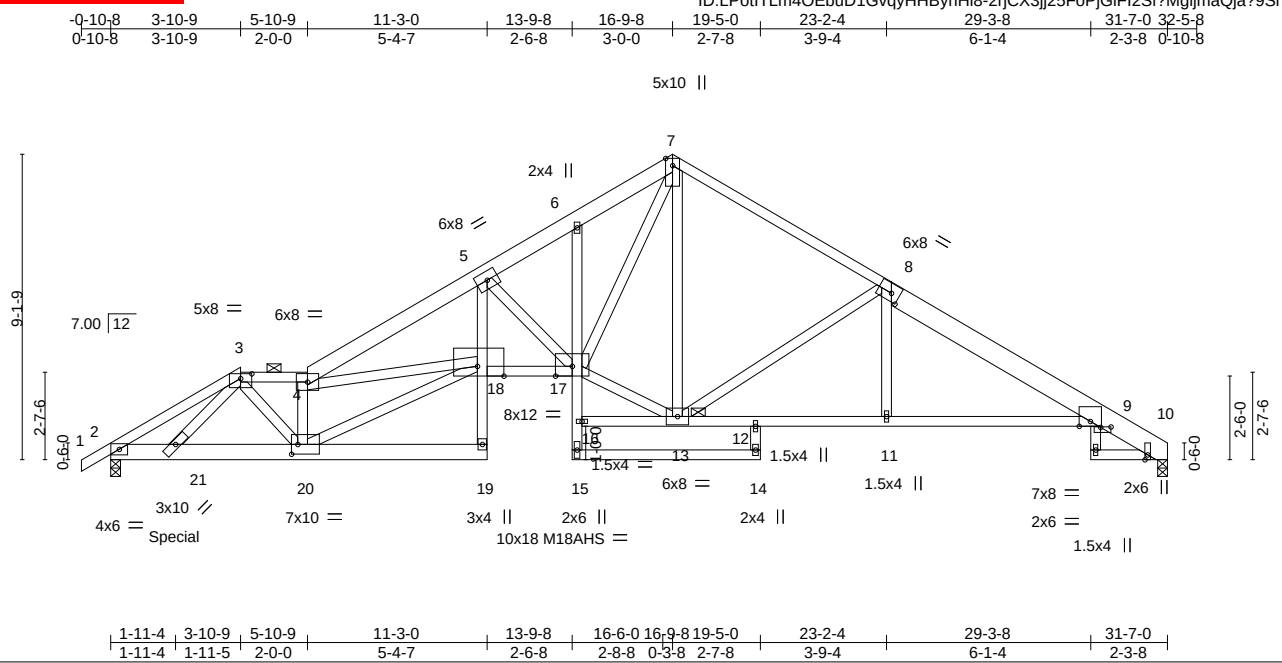

Plate Offsets (X,Y)-- [3:0-4-0,0-1-11], [8:0-3-0,0-2-12], [9:0-3-11,0-0-3], [18:0-9-8,Edge], [20:0-2-4,0-3-8]

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	0.79	Vert(LL)	-0.33	17-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.59	17-18	>639	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.40	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 192 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-7: 2x6 SPF No.2, 8-10: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-19: 2x6 SPF No.2, 17-18,9-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except
2-0-0 oc purlins (3-1-3 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-4-6 oc bracing: 2-21
8-6-10 oc bracing: 17-18.
JOINTS 1 Brace at Jt(s): 13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=236(LC 7)
Max Uplift 2=-393(LC 8), 10=-226(LC 9)
Max Grav 2=2132(LC 1), 10=1458(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3324/609, 3-4=-3356/579, 4-5=-4921/839, 5-6=-2998/527, 6-7=-2962/592, 7-8=-1885/366, 8-9=-2624/379, 9-10=-726/135
BOT CHORD 2-21=-620/2863, 20-21=-529/2490, 5-18=-388/2353, 17-18=-716/4221, 12-13=-232/2322, 11-12=-228/2332, 9-11=-230/2325
WEBS 3-20=-175/1375, 4-20=-2707/522, 18-20=-742/3871, 4-18=-153/843, 5-17=-2360/526, 13-17=-143/1618, 7-17=-483/2433, 8-13=-967/304, 8-11=0/312, 3-21=-208/602

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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 10 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) 2=393, 10=226.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 694 lb down and 153 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

September 12,2022

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	J18	Roof Special Girder	1	1	I54112199
					Job Reference (optional)

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, 4-7=-70, 7-9=-70, 9-10=-93, 19-23=-20, 17-18=-20, 14-15=-20, 12-26=-20
   Concentrated Loads (lb)
   Vert: 21=-694(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112200
329256	A6	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:50 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHI8-_ErzyllzZiVVe1Q8Mj5wlQR44XS1ujFIdmAj73yfP7x

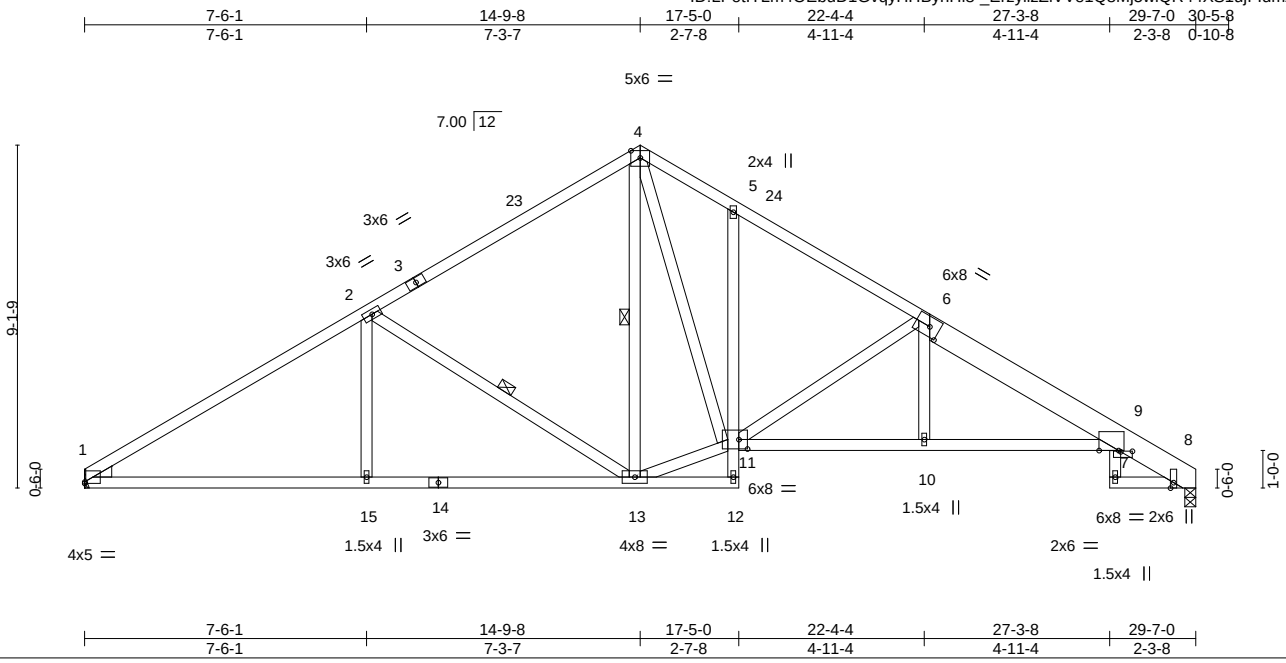

Plate Offsets (X,Y)-- [1:0-0-0,0-0-8], [6:0-3-4,0-3-0], [7:0-3-11,0-0-3], [9:0-6-4,0-0-0], [11:0-2-12,0-3-0]

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	0.54	Vert(LL)	-0.17	10-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.31	10-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.20	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 145 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
6-8: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
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 2-13, 4-13

REACTIONS. (size) 1=Mechanical, 8=0-3-8
Max Horz 1=-228(LC 8)
Max Uplift 1=-213(LC 12), 8=-208(LC 13)
Max Grav 1=1325(LC 1), 8=1332(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2111/332, 2-4=-1461/307, 4-5=-1729/386, 5-6=-1841/331, 6-9=-2467/362, 8-9=-662/126
BOT CHORD 1-15=-334/1721, 13-15=-334/1721, 10-11=-233/2222, 9-10=-235/2215
WEBS 2-15=0/303, 2-13=-719/290, 11-13=-65/1152, 4-11=-234/1127, 6-11=-860/250

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-9-8, Exterior(2R) 14-9-8 to 17-9-8, Interior(1) 17-9-8 to 29-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=213, 8=208.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112201
329256	A1	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:52 2022 Page 1
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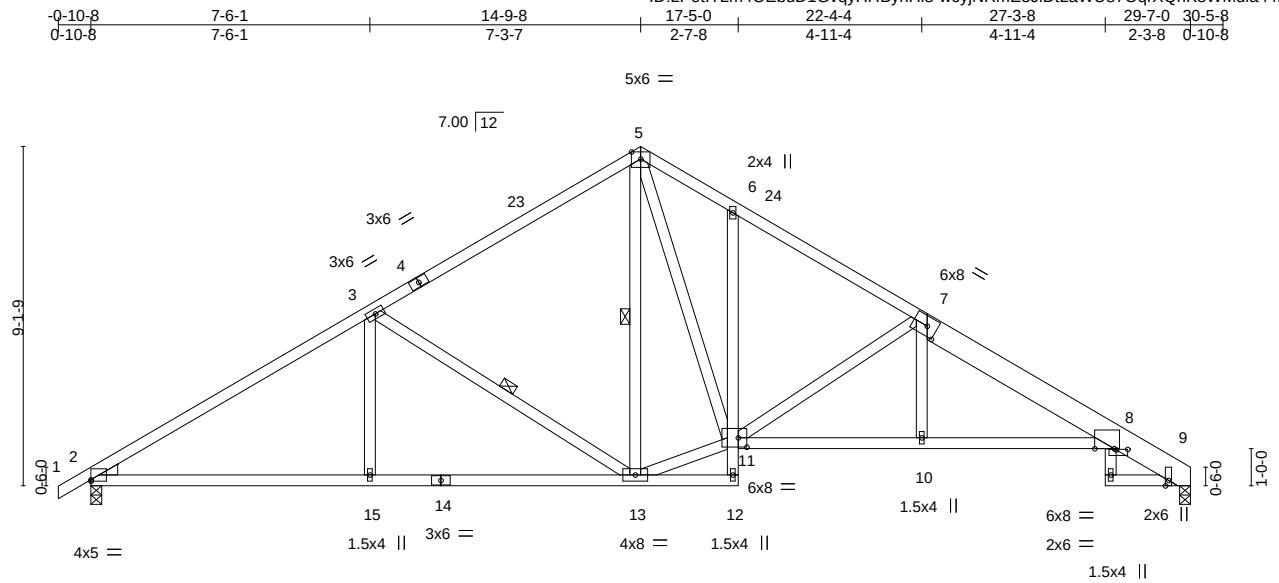


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [7:0-3-4,0-3-0], [8:0-3-11,0-0-3], [8:0-6-4,Edge], [11:0-2-12,0-3-0]

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	0.53	Vert(LL)	-0.17	10-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.31	10-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.20	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 7-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
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 3-13, 5-13

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=236(LC 11)
Max Uplift 2=-233(LC 12), 9=-209(LC 13)
Max Grav 2=1387(LC 1), 9=1330(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2105/330, 3-5=-1459/306, 5-6=-1726/385, 6-7=-1838/331, 7-8=-2464/362, 8-9=-661/126
BOT CHORD 2-15=-332/1715, 13-15=-332/1715, 10-11=-233/2219, 8-10=-235/2212
WEBS 3-15=0/302, 3-13=-714/288, 11-13=-64/1151, 5-11=-234/1125, 7-11=-859/250

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 14-9-8, Exterior(2R) 14-9-8 to 17-9-8, Interior(1) 17-9-8 to 29-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=233, 9=209.
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.

September 12,2022

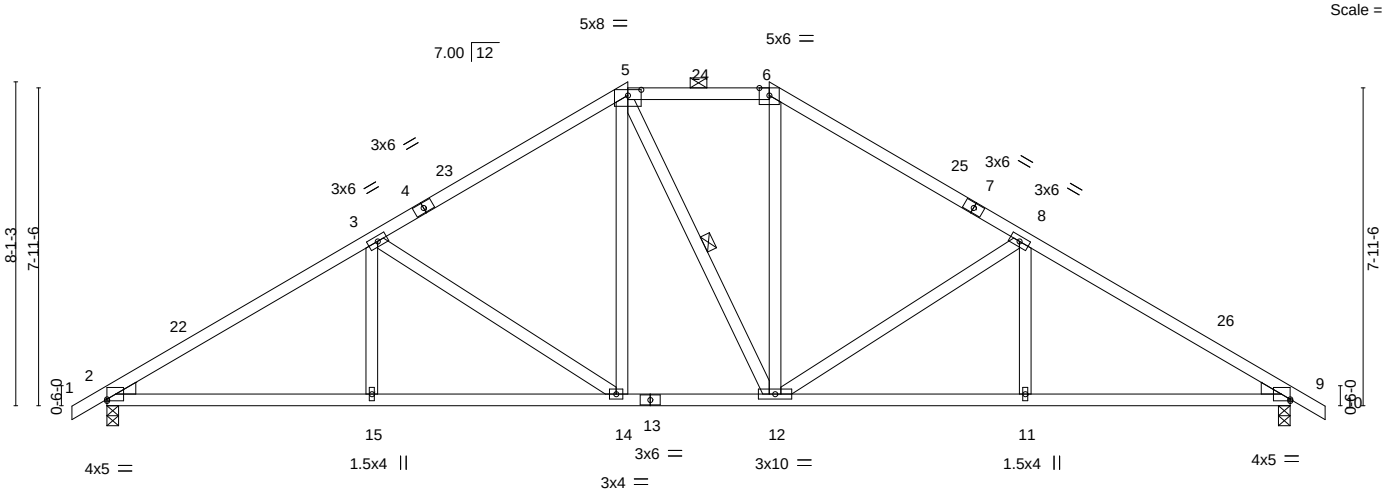
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329560	J18	Hip	1	1		I54112202
					Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:54 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-s?4Uo7oUdx?x7ekvbZ9svGcoJ8veqWztXO8wGqyfP7t

0-10-8	6-7-8	13-0-5	16-6-11	22-11-8	29-7-0	30-5-8
0-10-8	6-7-8	6-4-13	3-6-7	6-4-13	6-7-8	0-10-8

Scale = 1:57.6



6-7-8	13-0-5	16-6-11	22-11-8	29-7-0
6-7-8	6-4-13	3-6-7	6-4-13	6-7-8

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

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	0.40	Vert(LL)	-0.09	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.19	14-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 128 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=210(LC 11)
Max Uplift 2=-239(LC 12), 9=-239(LC 13)
Max Grav 2=1393(LC 1), 9=1393(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2145/348, 3-5=-1601/298, 5-6=-1277/309, 6-8=-1602/298, 8-9=-2145/348
BOT CHORD 2-15=-331/1757, 14-15=-331/1757, 12-14=-124/1275, 11-12=-190/1757, 9-11=-190/1757
WEBS 3-15=0/262, 3-14=-600/245, 5-14=-90/421, 6-12=-84/406, 8-12=-599/245, 8-11=0/261

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 13-0-5, Exterior(2E) 13-0-5 to 16-6-11, Exterior(2R) 16-6-11 to 20-9-10, Interior(1) 20-9-10 to 30-5-8 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) 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=239, 9=239.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

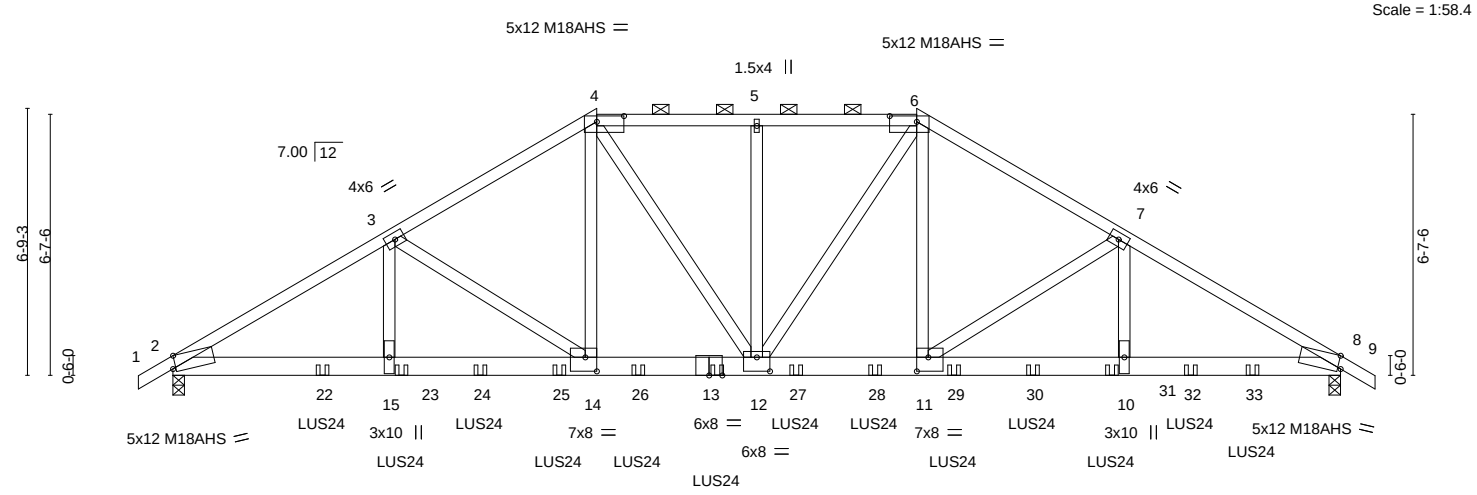
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112203
325560	A10	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:36:56 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-pNCECopk9YFfMyulj_CK_hh1LxZtILqA?id1LjyfP7r

-0-10-8	5-5-12	10-8-14	14-9-8	18-10-2	24-1-4	29-7-0	30-5-8
0-10-8	5-5-12	5-3-2	4-0-10	4-0-10	5-3-2	5-5-12	0-10-8

Scale = 1:58.4



5-5-12	10-8-14	14-9-8	18-10-2	24-1-4	29-7-0
5-5-12	5-3-2	4-0-10	4-0-10	5-3-2	5-5-12

Plate Offsets (X,Y)-- [2:0-0-15,Edge], [4:0-8-4,0-1-12], [6:0-8-4,0-1-12], [8:0-0-15,Edge], [11:0-3-8,0-4-4], [12:0-4-0,0-4-4], [14:0-3-8,0-4-4]

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	0.87	Vert(LL)	-0.20	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.35	12-14	>999	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 175 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E *Except* 4-6: 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins, except 2-0-0 oc purlins (2-2-8 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 8-6-4 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-175(LC 27)
Max Uplift 2=-969(LC 8), 8=-1016(LC 9)
Max Grav 2=3882(LC 1), 8=4093(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6752/1687, 3-4=-5480/1400, 4-5=-5028/1298, 5-6=-5028/1298, 6-7=-5476/1396, 7-8=-6829/1692
BOT CHORD 2-15=-1475/5756, 14-15=-1475/5756, 12-14=-1095/4639, 11-12=-1013/4634, 10-11=-1364/5829, 8-10=-1364/5829
WEBS 3-15=-235/1031, 3-14=-1289/438, 4-14=-491/1809, 4-12=-277/835, 5-12=-414/160, 6-12=-284/845, 6-11=-484/1803, 7-11=-1382/450, 7-10=-243/1108

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) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=969, 8=1016.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 3-9-8 from the left end to 27-4-4 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

September 12,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	J10	Hip Girder	1	1	I54112203
Builders FirstSource,Valley Center,	Valley Center, KS - 67147,				Job Reference (optional)

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-70, 4-6=-70, 6-9=-70, 16-19=-20

Concentrated Loads (lb)

Vert: 13=-393(F) 22=-530(F) 23=-388(F) 24=-388(F) 25=-388(F) 26=-393(F) 27=-393(F) 28=-393(F) 29=-388(F) 30=-388(F) 31=-377(F) 32=-377(F) 33=-396(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112204
32256	B1	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:09 2022 Page 1
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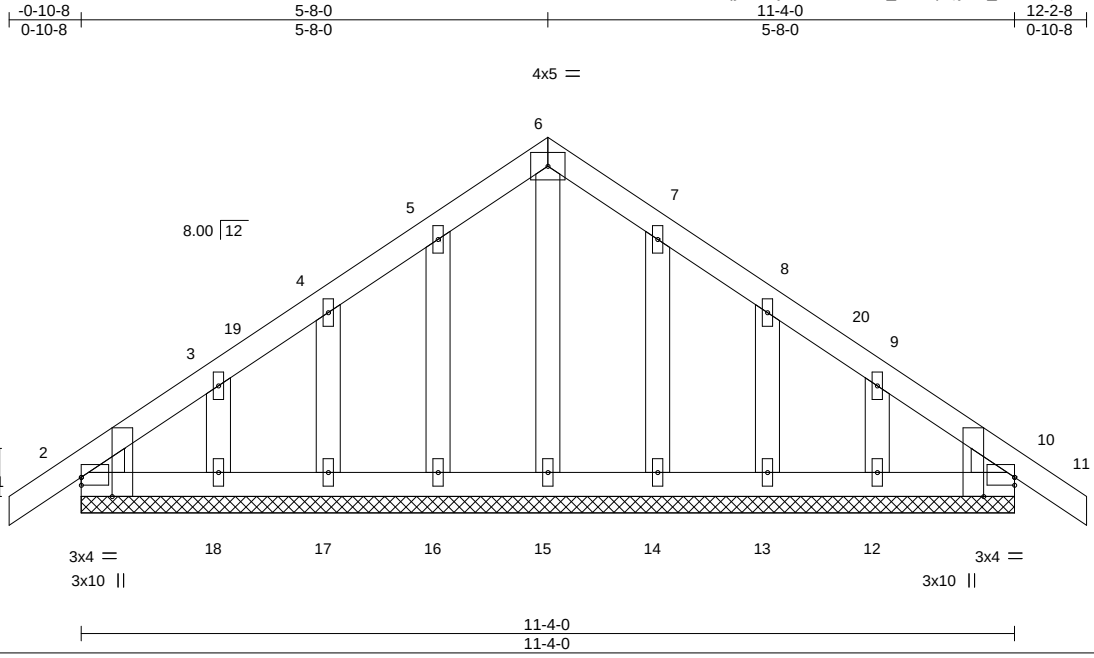

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [2:0-2-13,Edge], [10:Edge,0-1-2], [10:0-2-13,Edge]

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	11	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 50 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 11-4-0.
(lb) - Max Horz 2=-114(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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 5-8-0, Corner(3R) 5-8-0 to 8-8-0, Exterior(2N) 8-8-0 to 12-2-8 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 1.5x4 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, 10, 16, 17, 18, 14, 13, 12.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112205
32-2560	B1	Common Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:10 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-O42X8b_Wsr0g16y_XwScZeGatbIqap0EDt0nqvyfP7d

-0-10-8	2-10-8	5-8-0	8-5-8	11-4-0	12-2-8
0-10-8	2-10-8	2-9-8	2-9-8	2-10-8	0-10-8

Scale = 1:28.2

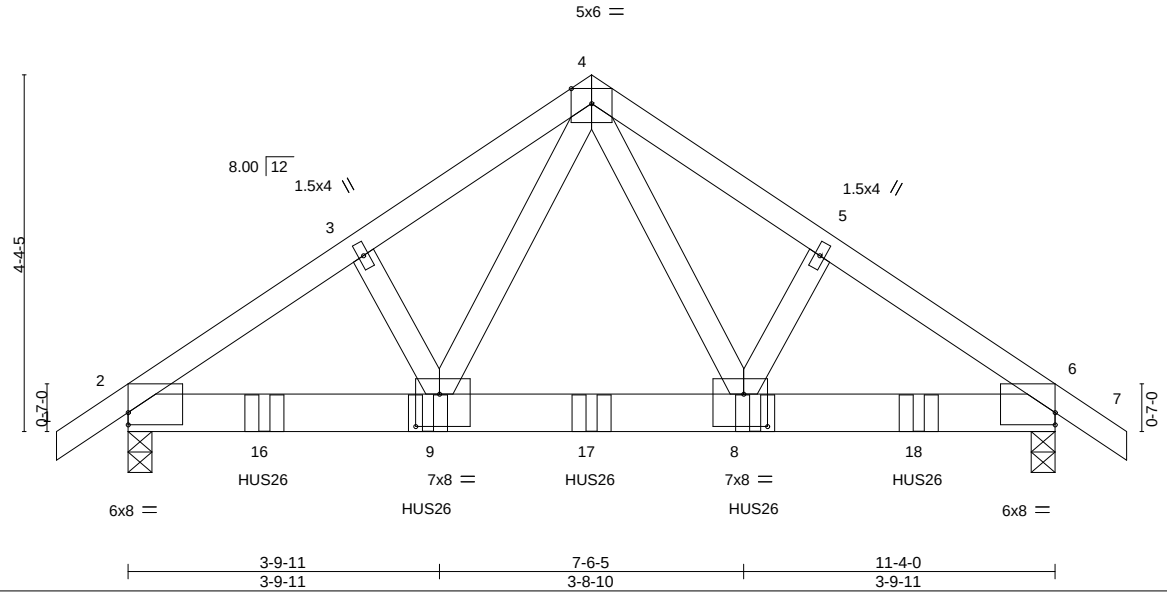

Plate Offsets (X,Y)-- [2:0-0-0,0-1-13], [6:Edge,0-1-13], [8:0-3-8,0-4-12], [9:0-3-8,0-4-12]

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	0.23	Vert(LL)	-0.05	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.10	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 105 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-114(LC 27)
Max Uplift 2=-700(LC 8), 6=-700(LC 9)
Max Grav 2=4023(LC 1), 6=4023(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5340/925, 3-4=-5244/957, 4-5=-5244/958, 5-6=-5340/925
BOT CHORD 2-9=-776/4385, 8-9=-487/3052, 6-8=-717/4385
WEBS 4-8=-574/3052, 4-9=-574/3052

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=700, 6=700.
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) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 1-8-0 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 3-8-0 from the left end to 9-8-0 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

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

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Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-70, 4-7=-70, 10-13=-20

Concentrated Loads (lb)

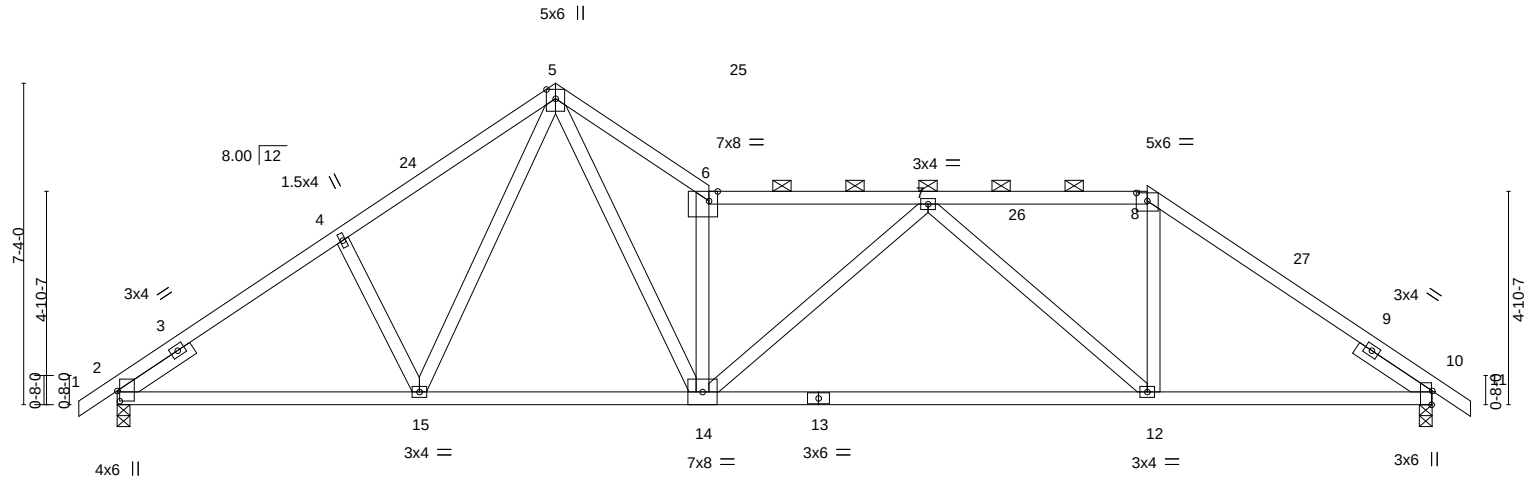
Vert: 8=-1381(F) 9=-1381(F) 16=-1381(F) 17=-1381(F) 18=-1381(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112206
32526	CR	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:12 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-LSAHZH0nOTGOHP6MfLU4e3MstOyC2dcXgBVtvoyfP7b

-0-10-8	5-1-12	10-0-0	13-6-0	18-6-0	23-6-0	30-0-0	30-10-8
0-10-8	5-1-12	4-10-4	3-6-0	5-0-0	5-0-0	6-6-0	0-10-8

Scale = 1:52.6



6-10-12	13-6-0	23-6-0	30-0-0
6-10-12	6-7-4	10-0-0	6-6-0

Plate Offsets (X,Y)-- [2:0-2-13,0-0-11], [6:0-2-6,Edge], [8:0-3-0,0-2-3], [10:0-3-13,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	0.45	Vert(LL)	-0.29	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.63	12-14	>573	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 127 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-7-8 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-189(LC 10)
Max Uplift 2=-194(LC 12), 10=-283(LC 13)
Max Grav 2=1411(LC 1), 10=1411(LC 1)

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

TOP CHORD	2-4=-1918/318, 4-5=-1809/369, 5-6=-2665/564, 6-7=-2206/420, 7-8=-1514/375, 8-10=-1938/375
BOT CHORD	2-15=-240/1532, 14-15=-96/1292, 12-14=-287/2096, 10-12=-182/1535
WEBS	4-15=-273/204, 5-15=-156/383, 5-14=-443/1989, 6-14=-1707/426, 7-12=-781/195, 8-12=-37/695

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 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 23-6-0, Exterior(2R) 23-6-0 to 26-6-0, Interior(1) 26-6-0 to 30-10-8 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) 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=194, 10=283.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

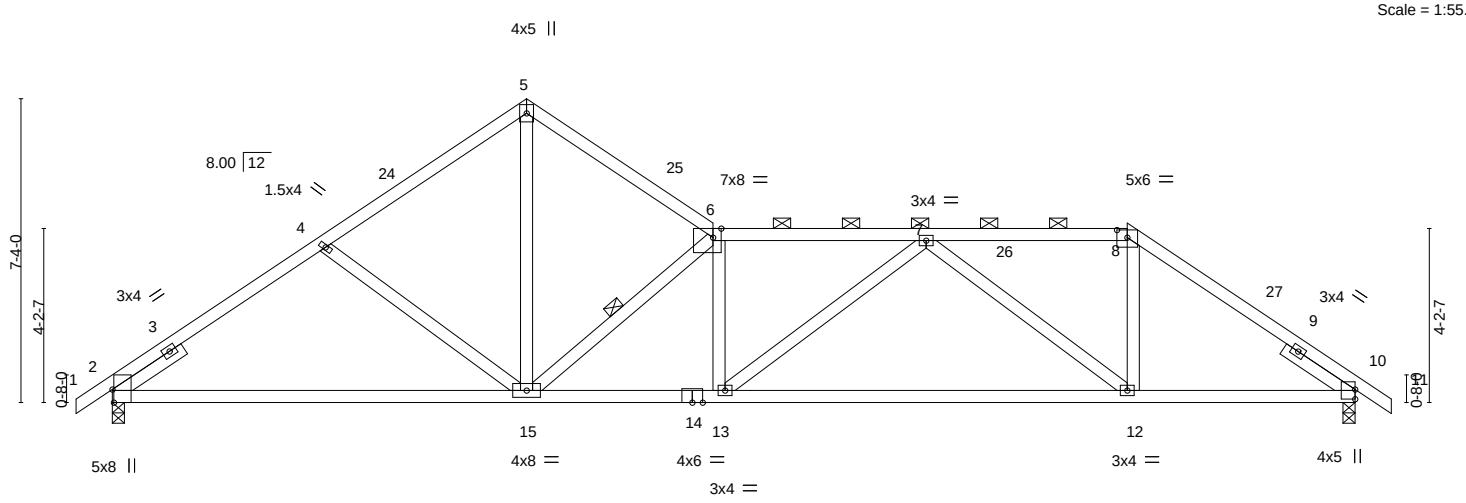
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112207
329250	CR	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:13 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-pfkfnd1P9mOFvZhZD2?KAGu1foIAn3LgvrERREyfP7a

-0-10-8	5-1-12	10-0-0	14-6-0	19-7-12	24-6-0	30-0-0	30-10-8
0-10-8	5-1-12	4-10-4	4-6-0	5-1-12	4-10-4	5-6-0	0-10-8

Scale = 1:55.6



7-4-12	10-0-0	14-6-0	24-6-0	30-0-0
7-4-12	2-7-4	4-6-0	10-0-0	5-6-0

Plate Offsets (X,Y)-- [2:0-3-13,Edge], [6:0-2-6,Edge], [8:0-3-0,0-2-3]

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	0.45	Vert(LL)	-0.28	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.62	12-13	>578	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 124 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-189(LC 10)
Max Uplift 2=-194(LC 12), 10=-283(LC 13)
Max Grav 2=1411(LC 1), 10=1411(LC 1)

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

TOP CHORD	2-4=-1894/328, 4-5=-1666/338, 5-6=-1666/325, 6-7=-2602/486, 7-8=-1547/365, 8-10=-1971/377
BOT CHORD	2-15=-246/1522, 13-15=-321/2603, 12-13=-354/2343, 10-12=-200/1574
WEBS	4-15=-312/204, 7-13=-40/344, 7-12=-1014/199, 8-12=-59/779, 5-15=-248/1417, 6-15=-1722/403

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 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 24-6-0, Exterior(2R) 24-6-0 to 27-6-0, Interior(1) 27-6-0 to 30-10-8 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) 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=194, 10=283.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

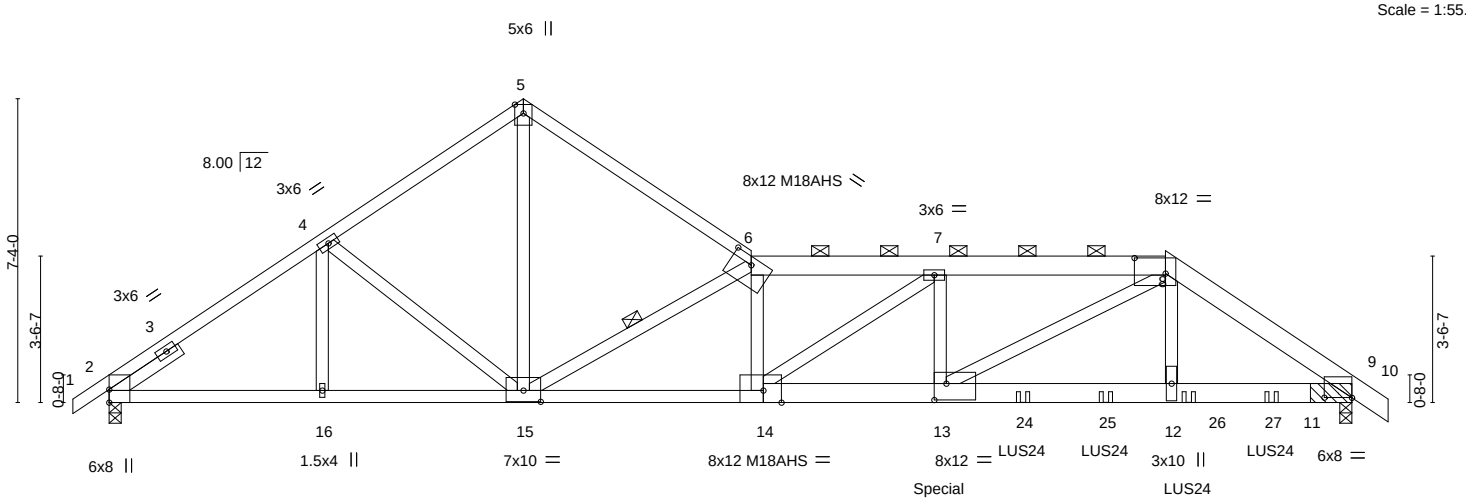
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112208
32526	CR	Roof Special Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:15 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-I1rQCI2fhOey8tqxKT1oGh_I5c_WFv4zM9jYW6yfP7Y

-0-10-8	5-1-12	10-0-0	15-6-0	20-0-12	25-6-0	30-0-0	30-10-8
0-10-8	5-1-12	4-10-4	5-6-0	4-6-12	5-5-4	4-6-0	0-10-8

Scale = 1:55.6



5-1-12	10-0-0	15-6-0	20-0-12	25-6-0	30-0-0
5-1-12	4-10-4	5-6-0	4-6-12	5-5-4	4-6-0

Plate Offsets (X,Y)-- [6:0-6-0,0-2-3], [8:0-9-0,0-4-8], [9:0-8-0,0-0-1], [13:0-3-8,0-4-12], [14:0-5-4,Edge], [15:0-5-0,0-3-4]

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	0.78	Vert(LL)	-0.36	14	>987	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.65	14	>554	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 161 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	6-8: 2x6 SPF 2100F 1.8E, 8-10: 2x6 SPF No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except*
	2-14: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2 *Except*
	6-15,8-13: 2x4 SPF 1650F 1.5E
SLIDER	Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-5-14 oc purlins, except
	2-0-0 oc purlins (2-9-12 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 6-10-13 oc bracing.
WEBS	1 Row at midpt 6-15

REACTIONS. (size) 2=0-3-8, 9=(0-3-8 + bearing block) (req. 0-3-9)
Max Horz 2=-190(LC 27)
Max Uplift 2=-413(LC 8), 9=-973(LC 9)
Max Grav 2=2419(LC 1), 9=4296(LC 1)

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

TOP CHORD	2-4=-3552/657, 4-5=-3366/719, 5-6=-3424/685, 6-7=-7928/1626, 7-8=-9457/2006, 8-9=-6803/1509
BOT CHORD	2-16=-520/2865, 15-16=-520/2865, 14-15=-1467/7835, 13-14=-1868/9460, 12-13=-1151/5567, 9-12=-1164/5621
WEBS	4-15=-356/260, 5-15=-652/3299, 6-15=-5920/1324, 6-14=-280/1072, 7-14=-2020/693, 7-13=-602/907, 8-13=-824/4477, 8-12=-277/1158

NOTES- Continued on page 2

1) 2x6 SP 2400F 2.0E bearing block 12" long at jt. 9 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. Bearing is assumed to be SP 2400F 2.0E.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=413, 9=973.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 22-0-12 from the left end to 28-0-12 to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2198 lb down and 430 lb up at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	G8	Roof Special Girder	1	1	I54112208
					Job Reference (optional)

NOTES-

13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-70, 5-6=-70, 6-8=-70, 8-10=-70, 17-21=-20
   Concentrated Loads (lb)
   Vert: 13=-2198(F) 24=-426(F) 25=-426(F) 26=-421(F) 27=-421(F)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112209
32256	CR	Common	5	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:16 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-DEPoPe3HShmpm1P8uBZ1ovWbp?MK_Yq7bpT52ZyfP7X

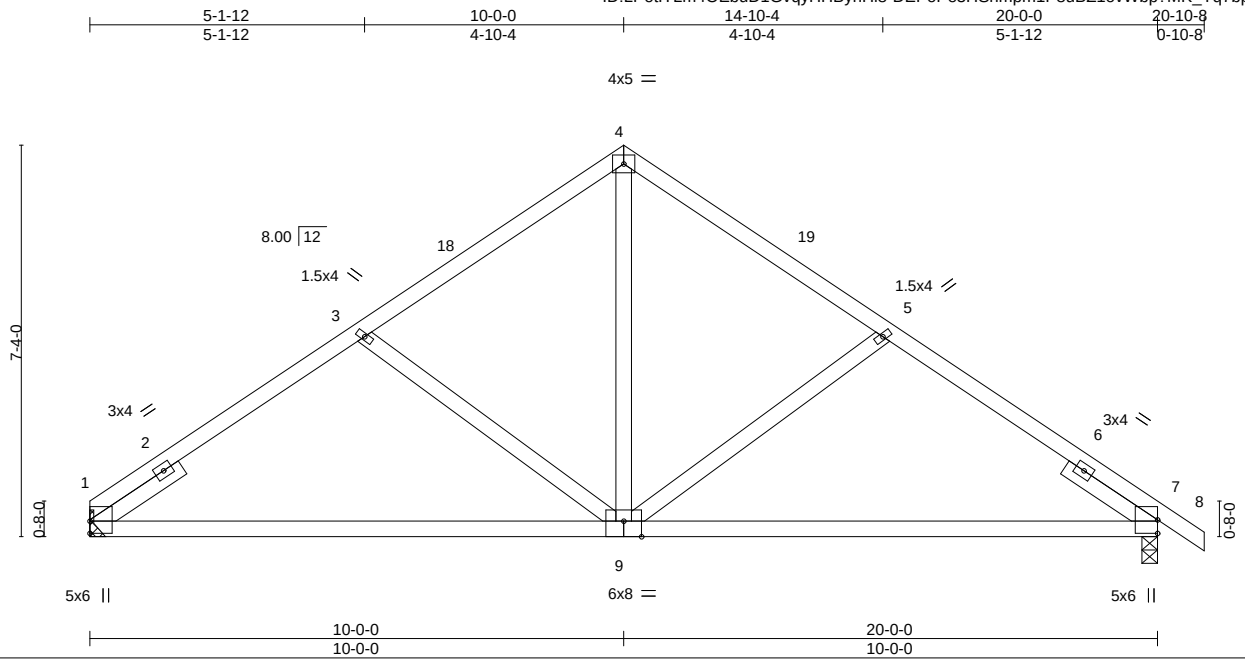


Plate Offsets (X,Y)-- [9:0-4-0,Edge]

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	0.26	Vert(LL)	-0.13	9-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.27	9-12	>877	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 77 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=Mechanical, 7=0-3-8
Max Horz 1=-184(LC 8)
Max Uplift 1=-138(LC 12), 7=-159(LC 13)
Max Grav 1=899(LC 1), 7=963(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1040/221, 3-4=-916/206, 4-5=-916/205, 5-7=-1037/219
BOT CHORD 1-9=-199/943, 7-9=-91/925
WEBS 4-9=-93/570, 5-9=-341/212, 3-9=-345/213

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=138, 7=159.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112210
329560	GR	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:18 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-9cXYqK4YzJ1X?KZW?bbVtKc?cpC6SV1P37yC7RyfP7V

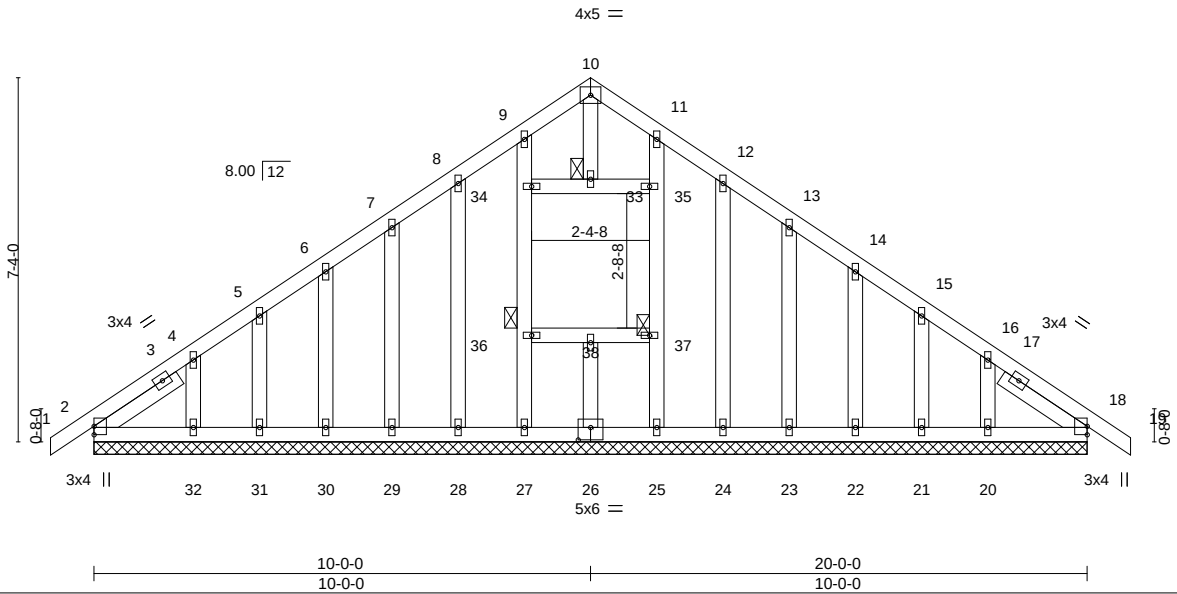


Plate Offsets (X,Y)-- [26:0-3-0,0-3-0]

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	0.05	Vert(LL)	-0.00	18	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	18	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 33, 36, 37

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 2=189(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 18 except 32=-104(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 2, 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21, 20, 18, 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 Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 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 1.5x4 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, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 18 except (jt=lb) 32=104.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112211
329560	CR1	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:19 2022 Page 1
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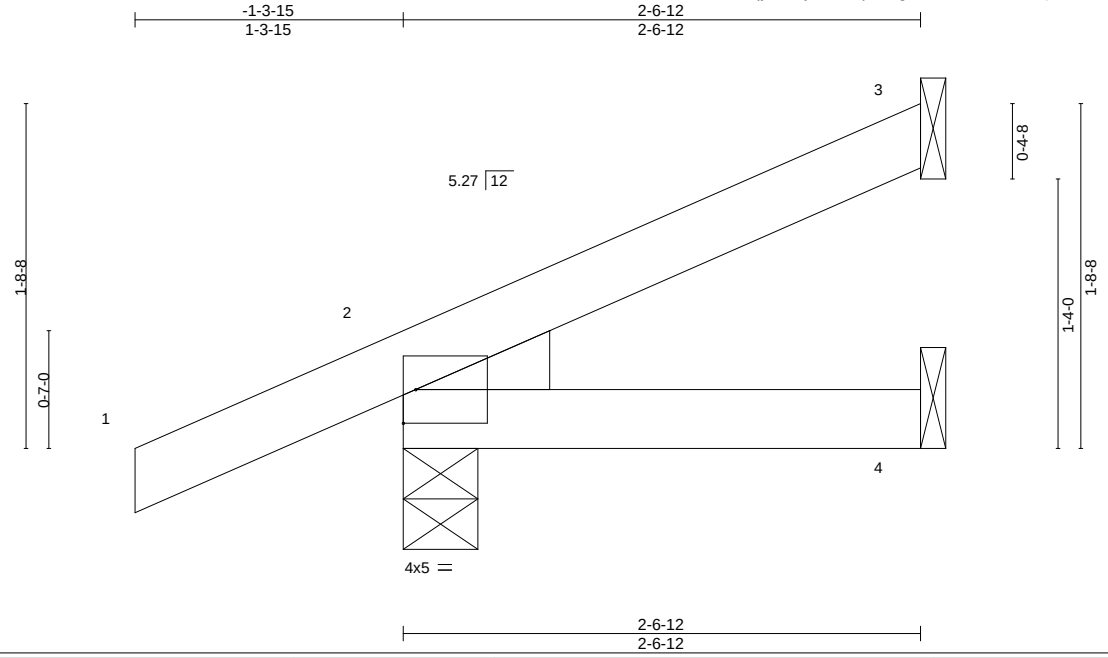

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 9 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 2-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-7, 4=Mechanical
Max Horz 2=65(LC 12)
Max Uplift 3=-31(LC 12), 2=-49(LC 12), 4=-1(LC 12)
Max Grav 3=61(LC 1), 2=230(LC 1), 4=41(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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112212
329560	CR1	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:20 2022 Page 1
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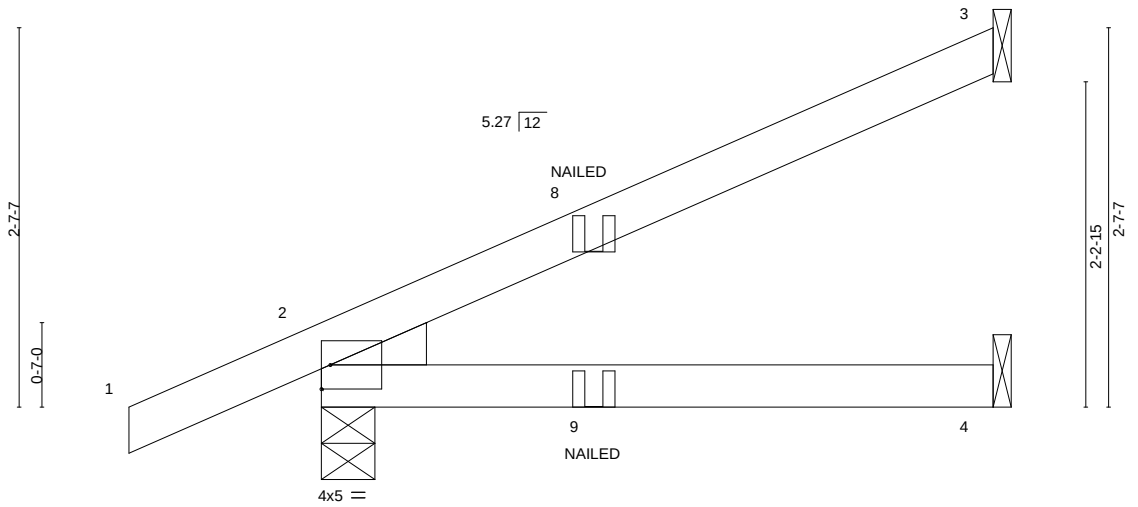
-1-3-15 4-7-11
1-3-15 4-7-11

Scale: 3/4"=1'



4-7-11
4-7-11

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)	0.03	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 14 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 4-7-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-7, 4=Mechanical
Max Horz 2=102(LC 8)
Max Uplift 3=-65(LC 8), 2=-59(LC 8)
Max Grav 3=132(LC 1), 2=312(LC 1), 4=83(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; 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) 3, 2.
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 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: 1-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 9=0(F)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112213
329560	C8	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:21 2022 Page 1
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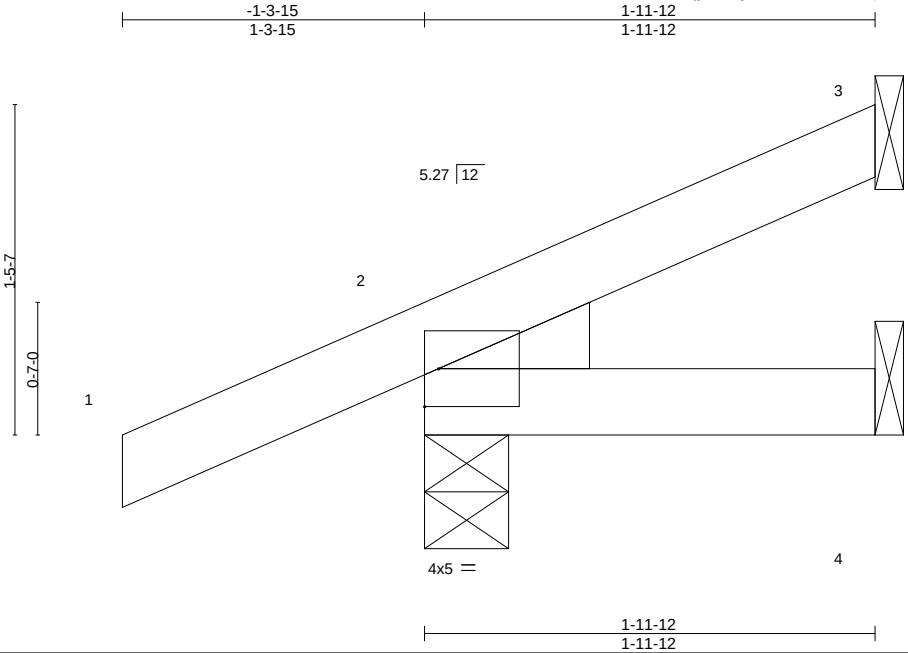

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		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 1-11-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-7, 4=Mechanical
Max Horz 2=56(LC 12)
Max Uplift 3=-22(LC 12), 2=-48(LC 12)
Max Grav 3=41(LC 1), 2=213(LC 1), 4=30(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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112214
3325/0	CP4	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:22 2022 Page 1
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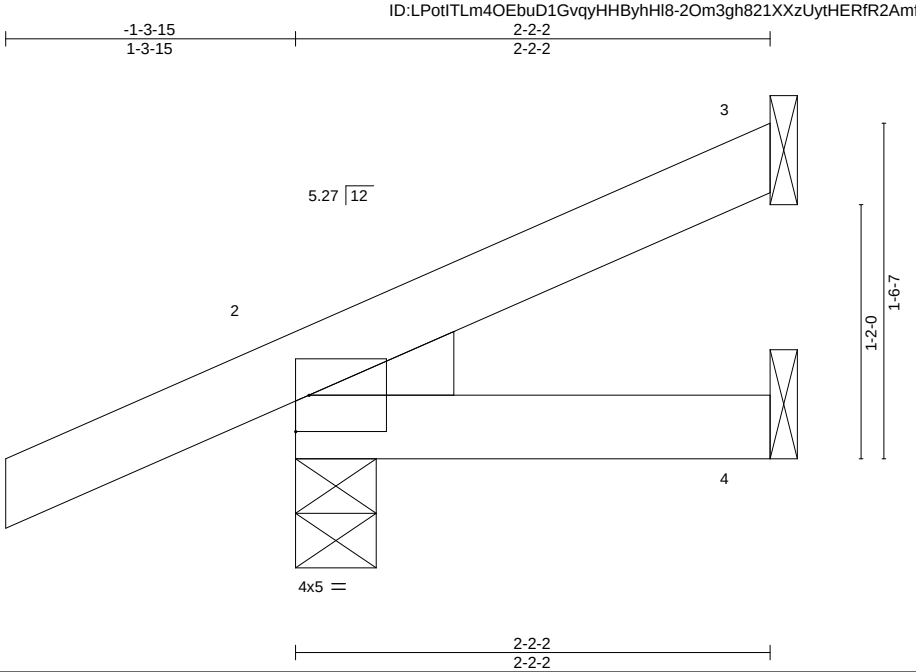

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 8 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 2-2-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-4-7, 4=Mechanical
Max Horz 2=58(LC 12)
Max Uplift 3=-25(LC 12), 2=-48(LC 12)
Max Grav 3=46(LC 1), 2=217(LC 1), 4=33(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 Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329250	CR6	Diagonal Hip Girder	2	1		I54112215
Builders FirstSource,Valley Center,	Valley Center, KS - 67147,				Job Reference (optional)	

8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:23 2022 Page 1
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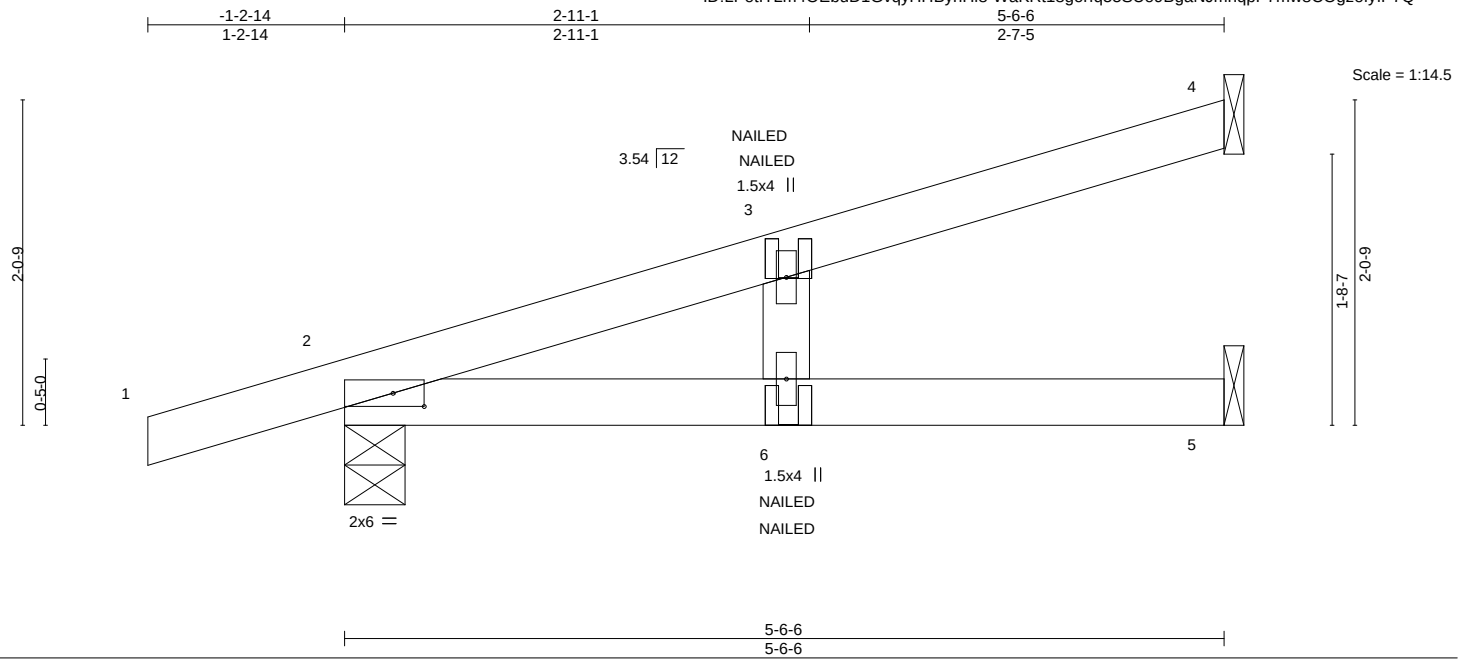

Plate Offsets (X,Y)-- [2:0-2-6,0-1-0]

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	0.35	Vert(LL)	-0.06	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.12	6	>570	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 15 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=86(LC 4)
Max Uplift 4=-53(LC 8), 2=-103(LC 4), 5=-10(LC 8)
Max Grav 4=146(LC 1), 2=347(LC 1), 5=95(LC 1)

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; 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) 4, 5 except (jt=lb) 2=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) "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: 1-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-10(F=-5, B=-5)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112216
32526	C6	Jack-Open Girder	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:24 2022 Page 1
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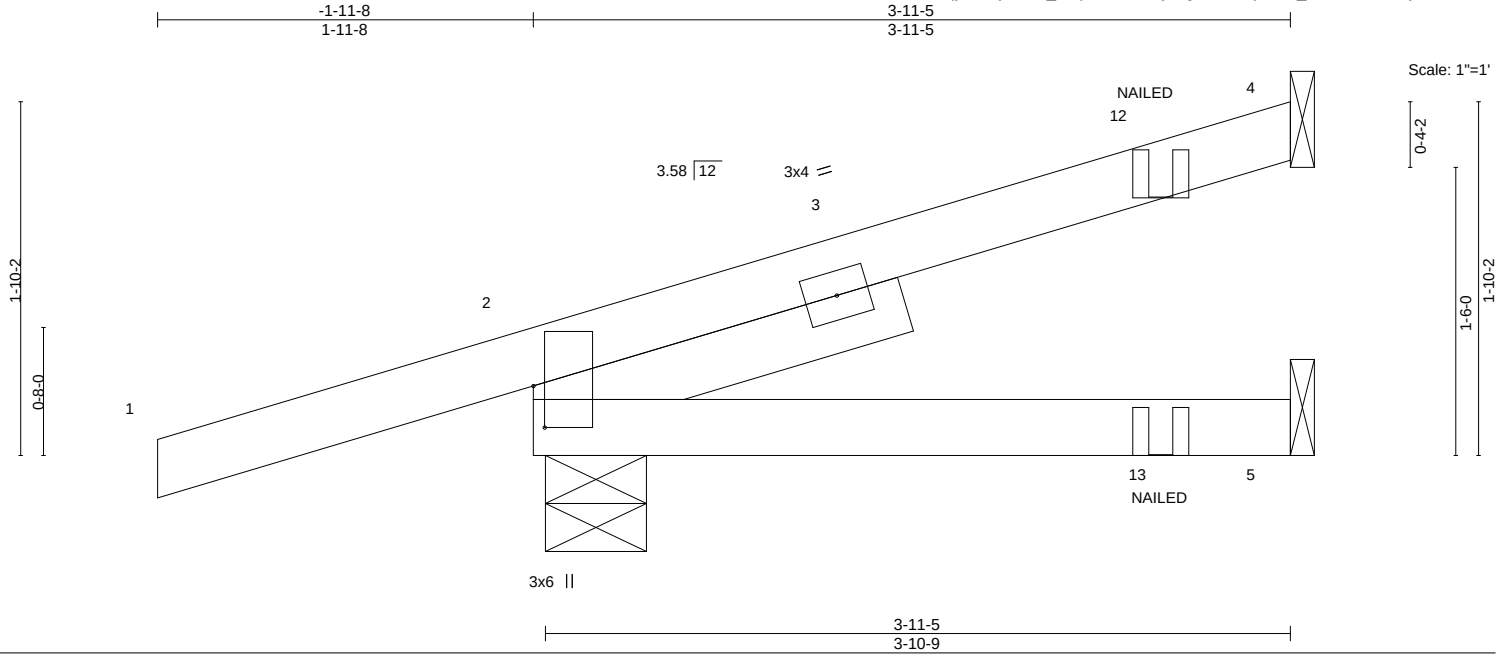

Plate Offsets (X,Y)-- [2:0-2-10,0-0-11]

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)	-0.01	5-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.01	5-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 2=0-6-5
Max Horz 2=79(LC 4)
Max Uplift 4=-41(LC 8), 2=-144(LC 4)
Max Grav 4=79(LC 1), 5=57(LC 3), 2=377(LC 1)

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; 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) 4 except (jt=lb) 2=144.
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: 1-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 13=4(B)

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112217
32526	J1	Jack-Closed Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:26 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-w90aV3BZ5m1OyZA3THkNC0xDm1puKzqbuMudP_yfP7N

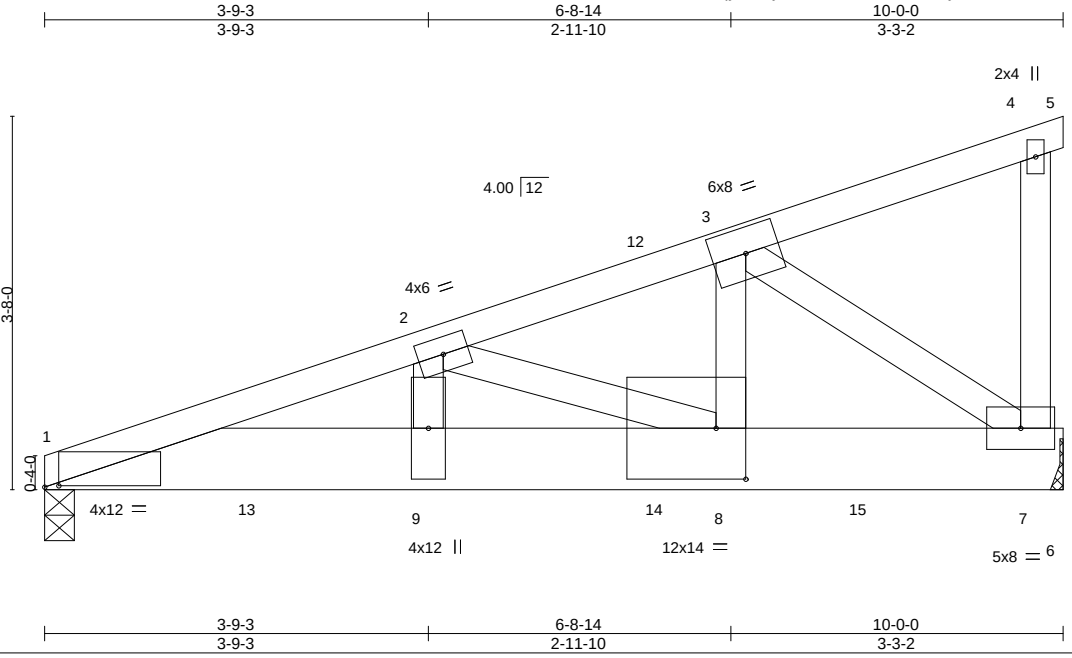

Plate Offsets (X,Y)-- [1:0-1-11,0-0-3], [8:0-3-8,0-6-0]

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	0.62	Vert(LL)	-0.08	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.13	9	>864	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=0-3-8, 7=Mechanical
Max Horz 1=143(LC 5)
Max Uplift 1=-377(LC 4), 7=-410(LC 4)
Max Grav 1=2169(LC 1), 7=2219(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4731/819, 2-3=-2630/459
BOT CHORD 1-9=-805/4472, 8-9=-805/4472, 7-8=-429/2479
WEBS 2-9=-187/1276, 2-8=-2133/405, 3-8=-372/2315, 3-7=-3006/561

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) except (jt=lb) 1=377, 7=410.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 879 lb down and 158 lb up at 2-0-12, 879 lb down and 158 lb up at 4-0-12, and 879 lb down and 158 lb up at 6-0-12, and 879 lb down and 158 lb up at 8-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-5=-20, 1-6=-20
Concentrated Loads (lb)
Vert: 9=-879 13=-879 14=-879 15=-879

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112218
32256	J01	Jack-Closed	2	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:27 2022 Page 1
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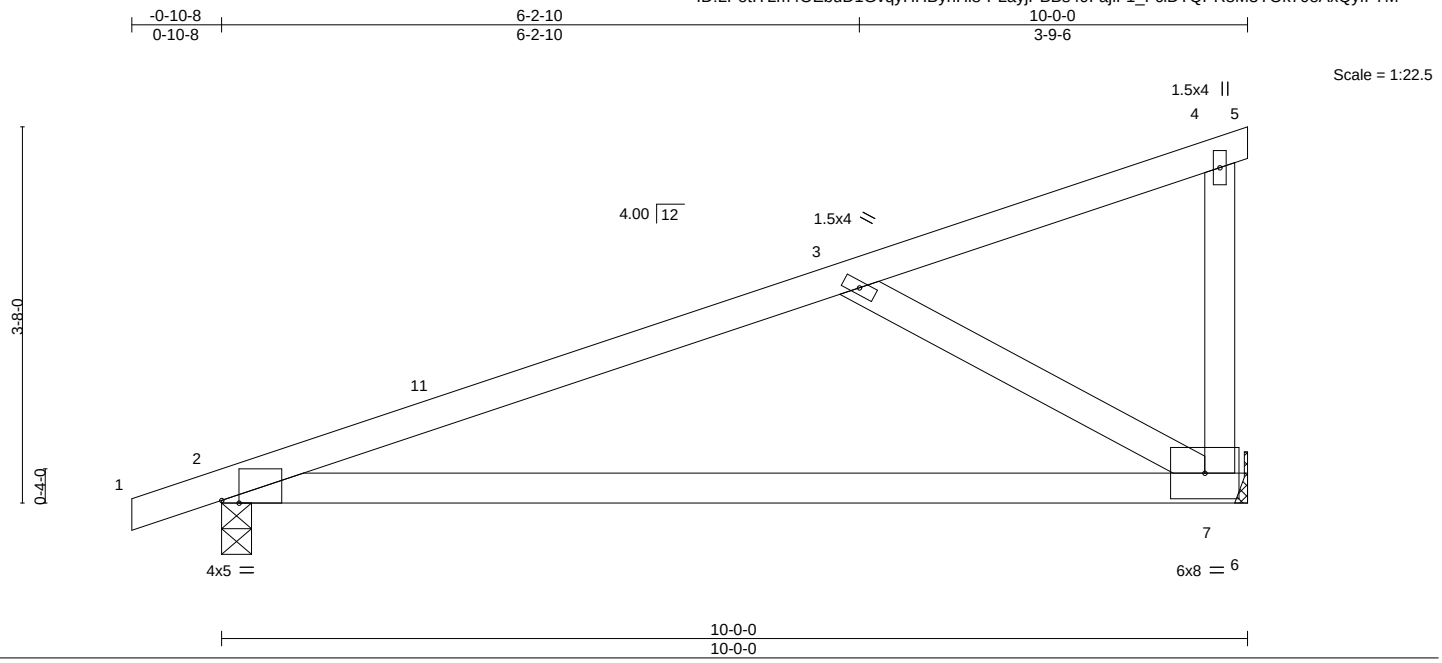

Plate Offsets (X,Y)-- [2:0-2-1,Edge]

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	0.50	Vert(LL)	-0.17	7-10	>678	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.37	7-10	>316	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 33 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=154(LC 11)
Max Uplift 2=-126(LC 8), 7=-113(LC 8)
Max Grav 2=502(LC 1), 7=446(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-595/214
BOT CHORD 2-7=-332/540
WEBS 3-7=-556/338

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 10-0-0 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
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) except (jt=lb) 2=126, 7=113.
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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Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112219
32526	J1	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:28 2022 Page 1
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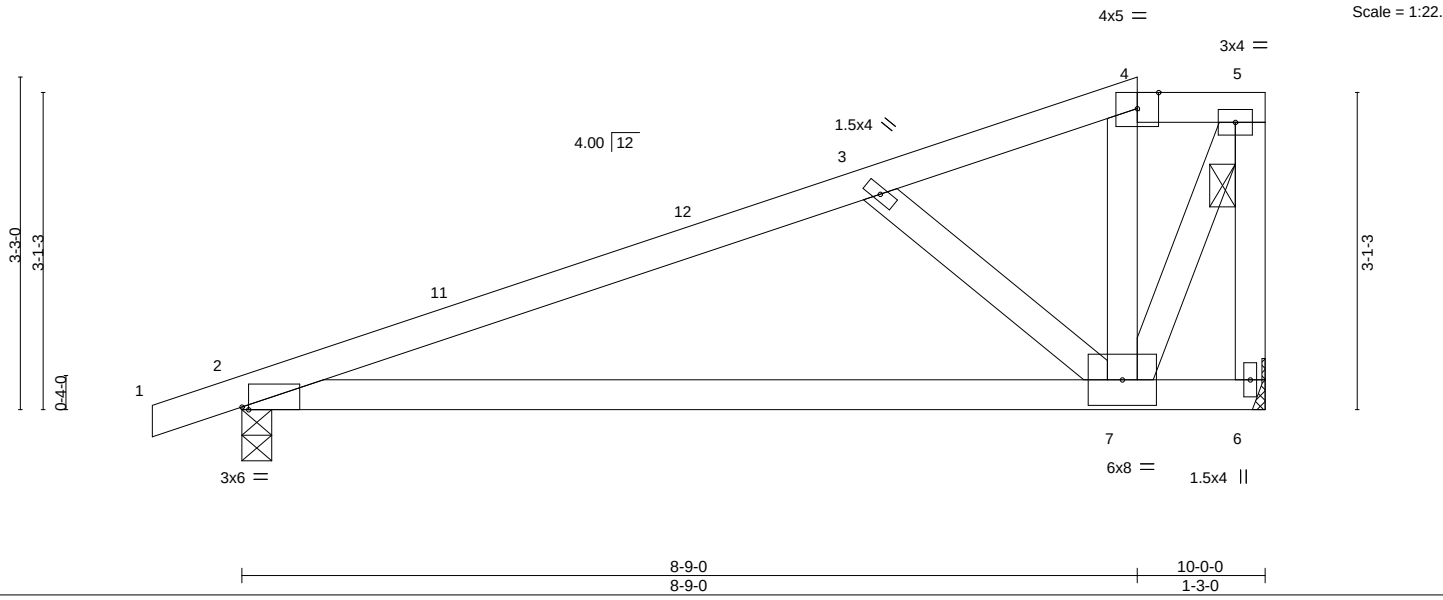

Plate Offsets (X,Y)-- [2:0-0-13,Edge]

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	0.39	Vert(LL)	-0.09	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.21	7-10	>563	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 37 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=130(LC 11)
Max Uplift 6=-106(LC 8), 2=-132(LC 8)
Max Grav 6=441(LC 25), 2=507(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-636/220, 3-4=-278/103, 5-6=-553/216
BOT CHORD 2-7=-362/575
WEBS 3-7=-469/313, 5-7=-208/513

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 8-9-0, Exterior(2E) 8-9-0 to 9-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=106, 2=132.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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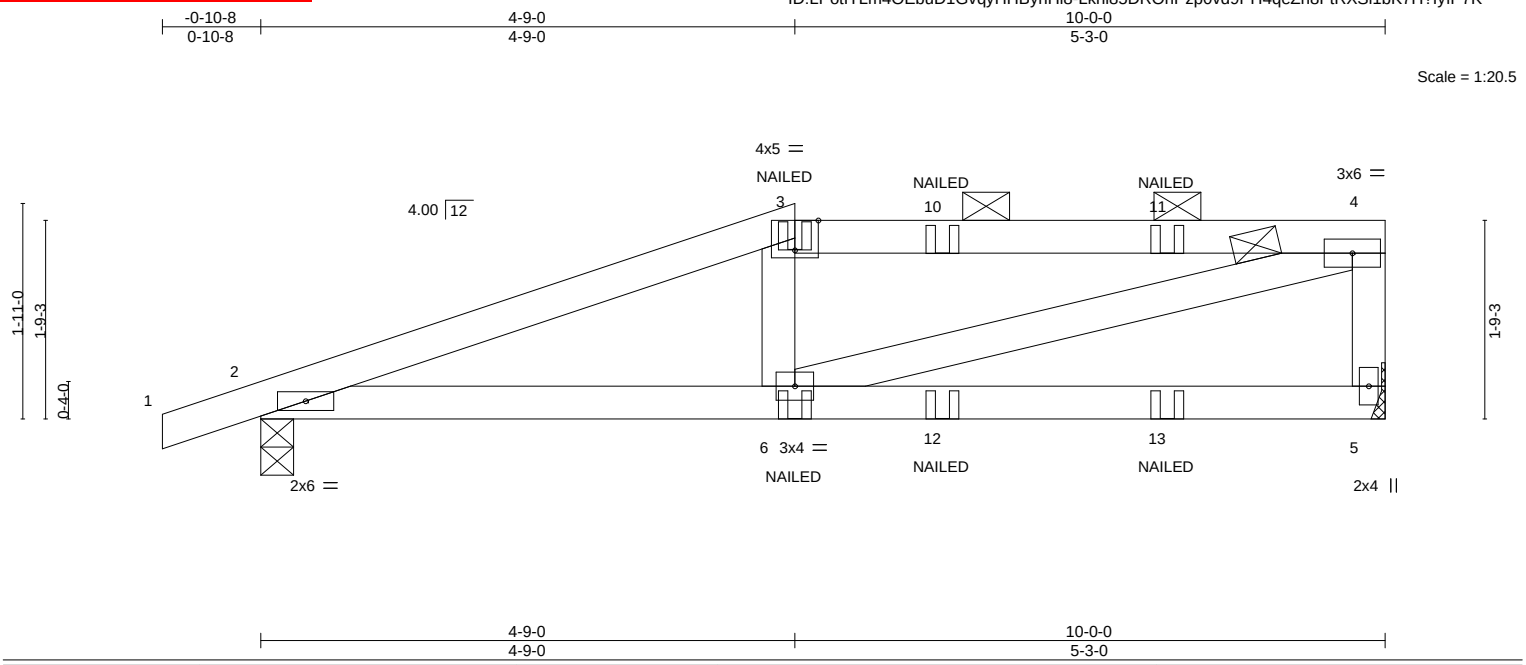
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112220
323560	J01	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:29 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-Lkhi85DROhPzp0vd9PH4qeZn8FtRXSi1bK7H?lyfP7K



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	0.42	Vert(LL)	-0.03	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.05	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 33 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (5-10-4 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-3-8
Max Horz 2=71(LC 7)
Max Uplift 5=-125(LC 4), 2=-152(LC 4)
Max Grav 5=441(LC 1), 2=509(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-859/229, 3-4=-803/244, 4-5=-392/137
BOT CHORD 2-6=-204/793
WEBS 4-6=-209/747

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=125, 2=152.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-5(B) 12=1(B) 13=1(B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

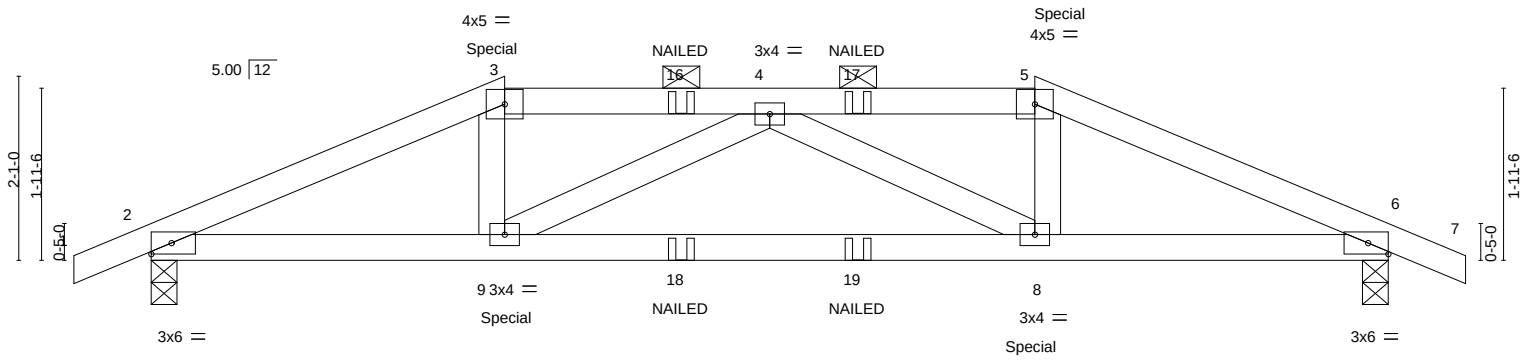
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
32526	B1	Hip Girder	1	1	I54112221
					Job Reference (optional)

Builders FirstSource,Valley Center, Valley Center - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:31 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-H6pTZmFhwlfh3K30GqKYv3e9S2Sx?MLK2ecO4ByfP7I

-0-10-8 0-10-8 | 4-0-0 4-0-0 | 7-0-0 3-0-0 | 10-0-0 3-0-0 | 14-0-0 4-0-0 | 14-10-8 0-10-8

Scale = 1:26.1



4-0-0 4-0-0 | 7-0-0 3-0-0 | 10-0-0 3-0-0 | 14-0-0 4-0-0

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	0.30	Vert(LL)	-0.10	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.21	8-9	>811	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-15 oc purlins, except
2-0-0 oc purlins (4-4-6 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 8-0-9 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=34(LC 29)
Max Uplift 2=-253(LC 8), 6=-253(LC 9)
Max Grav 2=966(LC 1), 6=966(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1922/496, 3-4=-1698/473, 4-5=-1698/473, 5-6=-1922/496
BOT CHORD 2-9=-435/1733, 8-9=-541/2024, 6-8=-415/1733
WEBS 3-9=-81/447, 5-8=-81/447, 4-9=-415/150, 4-8=-415/150

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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=253, 6=253.
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) 140 lb down and 120 lb up at 4-0-0, and 140 lb down and 120 lb up at 10-0-0 on top chord, and 113 lb down and 63 lb up at 4-0-0, and 113 lb down and 63 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 10-13=-20
Concentrated Loads (lb)
Vert: 3=-82(B) 5=-82(B) 9=-113(B) 8=-113(B) 16=-34(B) 17=-34(B) 18=-46(B) 19=-46(B)

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
32256	B1	Hip	1	1		I54112222
					Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:32 2022 Page 1
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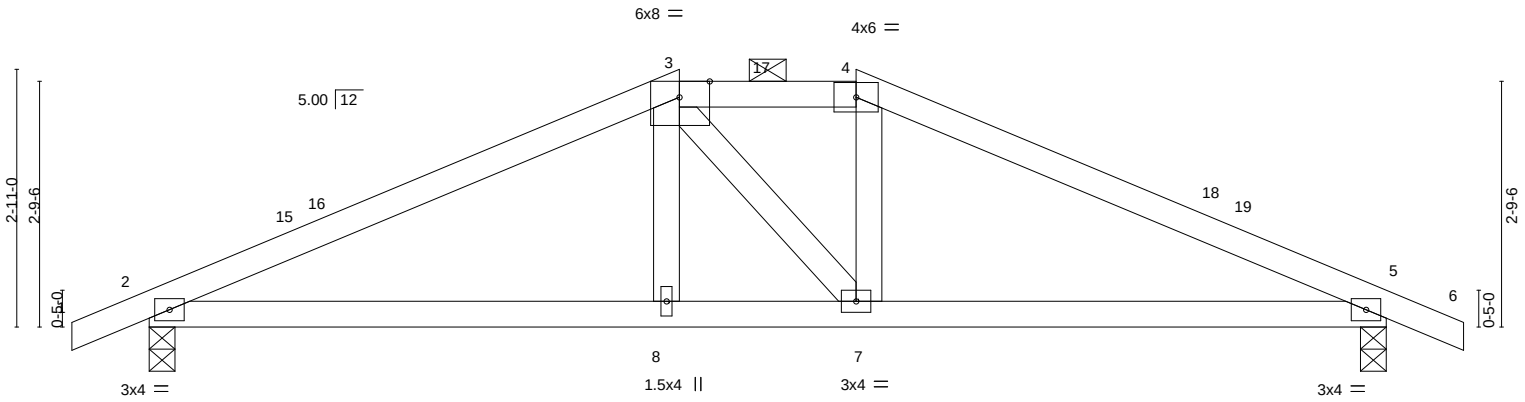
-0-10-8	6-0-0	8-0-0	14-0-0	14-10-8
0-10-8	6-0-0	2-0-0	6-0-0	0-10-8

Scale = 1:26.1



6-0-0	8-0-0	14-0-0
6-0-0	2-0-0	6-0-0

Plate Offsets (X,Y)-- [3:0-4-2,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	0.37	Vert(LL)	-0.04	8-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.08	8-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 44 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=-49(LC 13)
Max Uplift 2=-128(LC 12), 5=-128(LC 13)
Max Grav 2=691(LC 1), 5=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1053/298, 3-4=-905/323, 4-5=-1053/298
BOT CHORD 2-8=-195/910, 7-8=-196/904, 5-7=-197/910

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(2E) 6-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 14-10-8 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) 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=128, 5=128.
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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

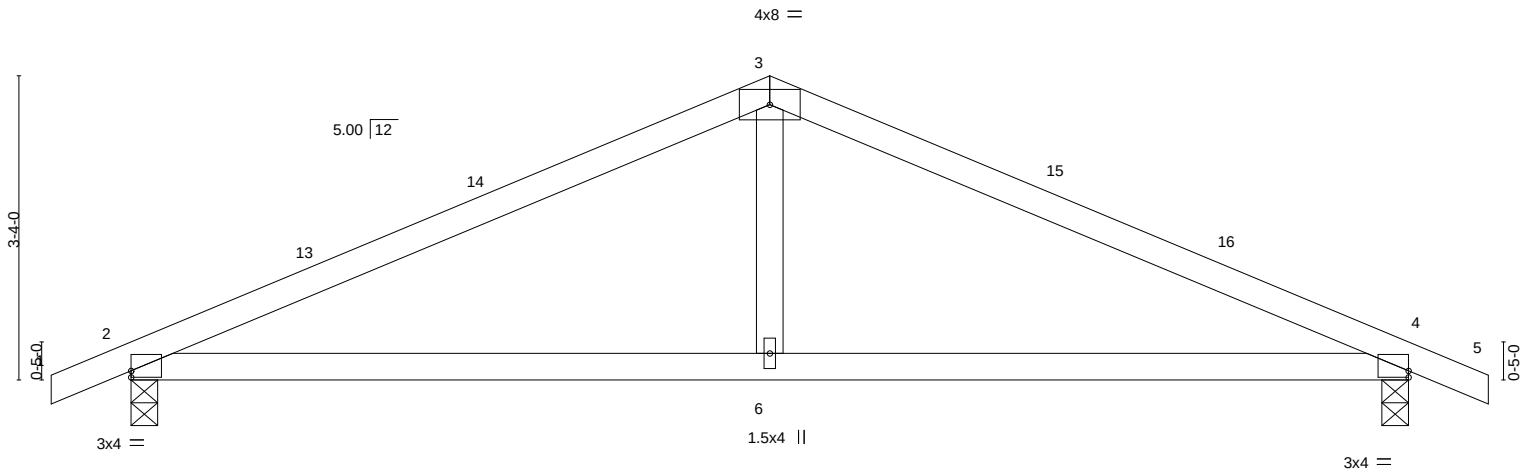
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112223
32256	B1	Common	3	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:34 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHl8-hhVbBoHaCD2GwonbxztFXiGcFGYACjimkcq2hWyfP7F

-0-10-8 0-10-8 | 7-0-0 7-0-0 | 14-0-0 7-0-0 | 14-10-8 0-10-8

Scale = 1:25.3



7-0-0 7-0-0 | 14-0-0 7-0-0

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

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	0.52	Vert(LL)	-0.08	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.14	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 39 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=-58(LC 17)
Max Uplift 2=-127(LC 12), 4=-127(LC 13)
Max Grav 2=691(LC 1), 4=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-997/328, 3-4=-997/328
BOT CHORD 2-6=-192/846, 4-6=-192/846
WEBS 3-6=0/312

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 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-10-8 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=127, 4=127.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112224
32256	GR	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:35 2022 Page 1
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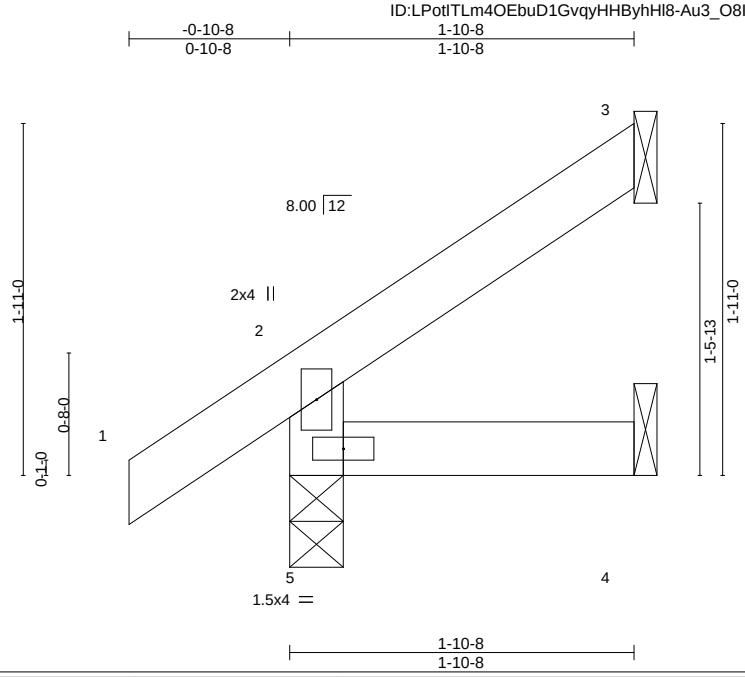

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 6 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=64(LC 12)
Max Uplift 3=-37(LC 12), 4=-2(LC 12), 5=-20(LC 12)
Max Grav 3=49(LC 19), 4=31(LC 3), 5=170(LC 1)

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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112225
329560	GR	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:36 2022 Page 1
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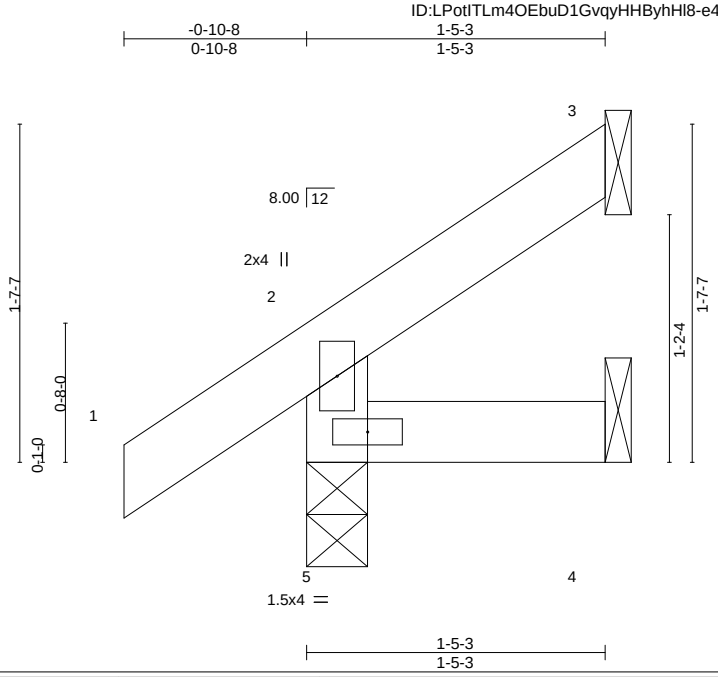


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014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

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=52(LC 12)
Max Uplift 3=-26(LC 12), 4=-2(LC 12), 5=-21(LC 12)
Max Grav 3=29(LC 19), 4=22(LC 3), 5=157(LC 1)

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) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

September 12,2022

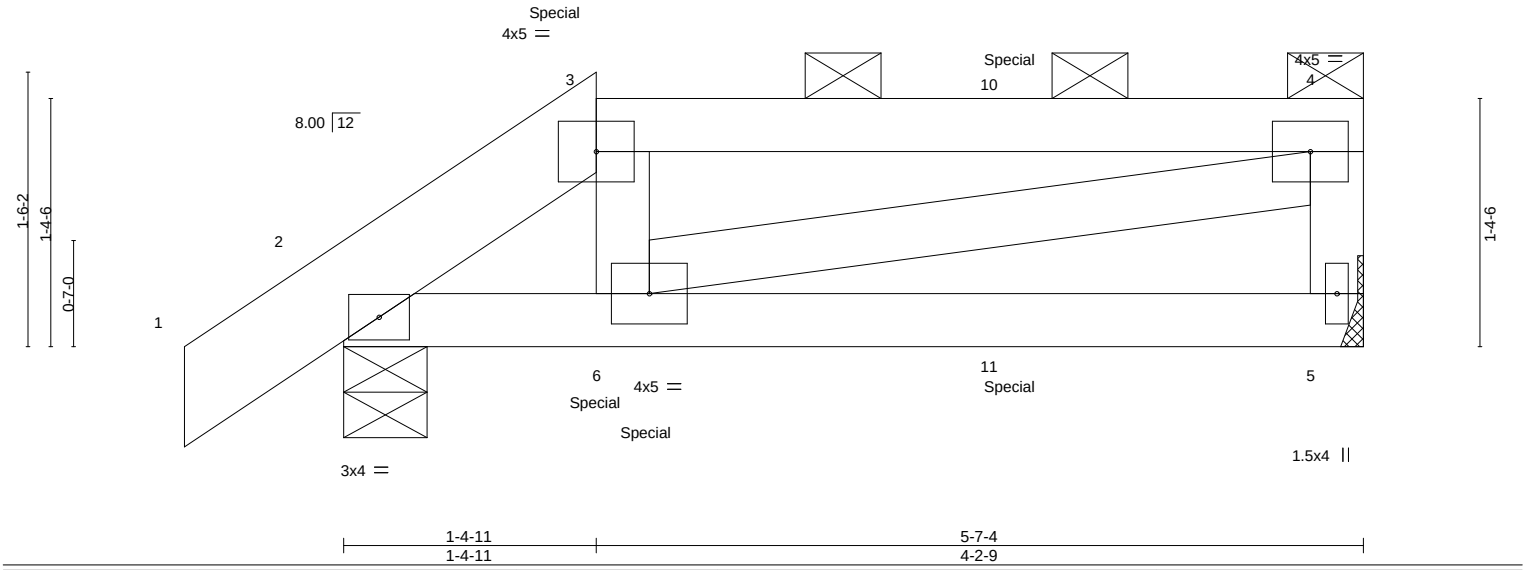
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329560	J1	Half Hip Girder	2	1		I54112226
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:37 2022 Page 1
ID:LPotITLm4OEbuD1GvqyHHByhHI8-6GAkpqJSV8QrnFWAd5Ry9Ku9_Tf_P5bCQa3iHryfP7C

-0-10-8 / 0-10-8 | 1-4-11 / 1-4-11 | 3-5-15 / 2-1-5 | 5-7-4 / 2-1-5

Scale = 1:12.7



1-4-11 / 1-4-11 | 5-7-4 / 4-2-9

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	0.36	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 23 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 3-4: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 5=Mechanical, 2=0-5-8
Max Horz 2=51(LC 7)
Max Uplift 5=-59(LC 5), 2=-78(LC 8)
Max Grav 5=242(LC 1), 2=314(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-319/53

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 60 lb up at 1-4-10, and 59 lb down and 31 lb up at 3-8-0 on top chord, and 9 lb down and 7 lb up at 1-4-10, and 12 lb down at 1-8-0, and 12 lb down at 3-8-0 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, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-3(B) 11=-2(B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112227
329560	J4	Half Hip	2	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:38 2022 Page 1
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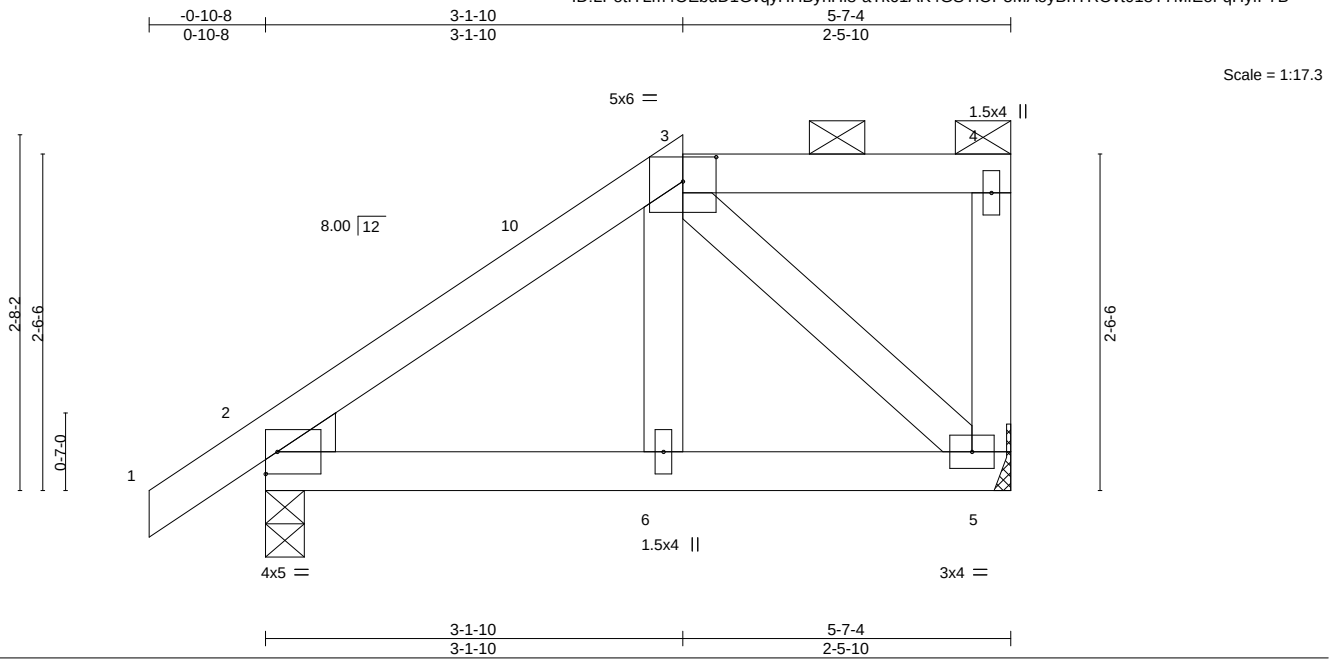

Plate Offsets (X,Y)-- [3:0-3-0,0-2-3]

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	0.10	Vert(LL)	-0.00	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 23 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

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=96(LC 11)
Max Uplift 2=-59(LC 12), 5=-57(LC 9)
Max Grav 2=312(LC 1), 5=241(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) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-1-10, Exterior(2E) 3-1-10 to 5-5-8 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112228
329250	J3	Half Hip	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:39 2022 Page 1
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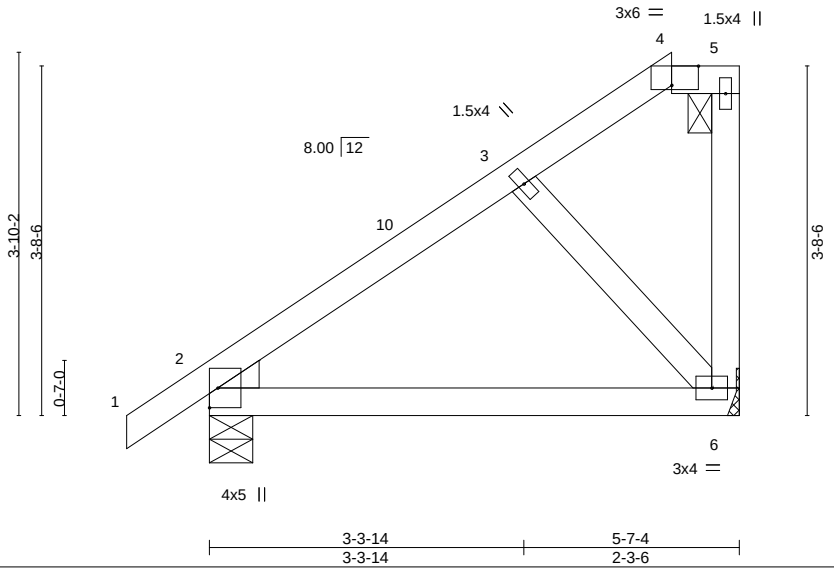
-0-10-8 | 3-3-14 | 4-10-11 | 5-7-4
0-10-8 | 3-3-14 | 1-6-12 | 0-8-9

Scale = 1:24.4



3-3-14 | 5-7-4
3-3-14 | 2-3-6

Plate Offsets (X,Y)-- [4:0-3-6,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	0.24	Vert(LL)	-0.03	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 23 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

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

REACTIONS. (size) 2=0-5-8, 6=Mechanical
Max Horz 2=142(LC 11)
Max Uplift 2=-55(LC 12), 6=-67(LC 12)
Max Grav 2=312(LC 1), 6=241(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-256/262

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=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 4-10-11, Exterior(2E) 4-10-11 to 5-5-8 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112229
329560	J4	Jack-Closed	9	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:40 2022 Page 1
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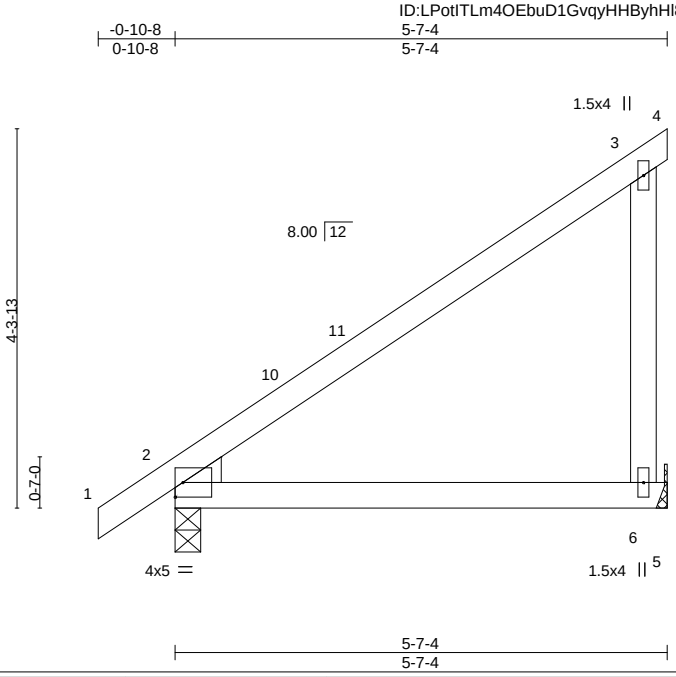

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.06	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.09	6-9	>732	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=162(LC 11)
Max Uplift 6=-90(LC 12), 2=-43(LC 12)
Max Grav 6=270(LC 19), 2=306(LC 1)

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 5-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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, 2.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112230
329560	J3	Jack-Open	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:42 2022 Page 1
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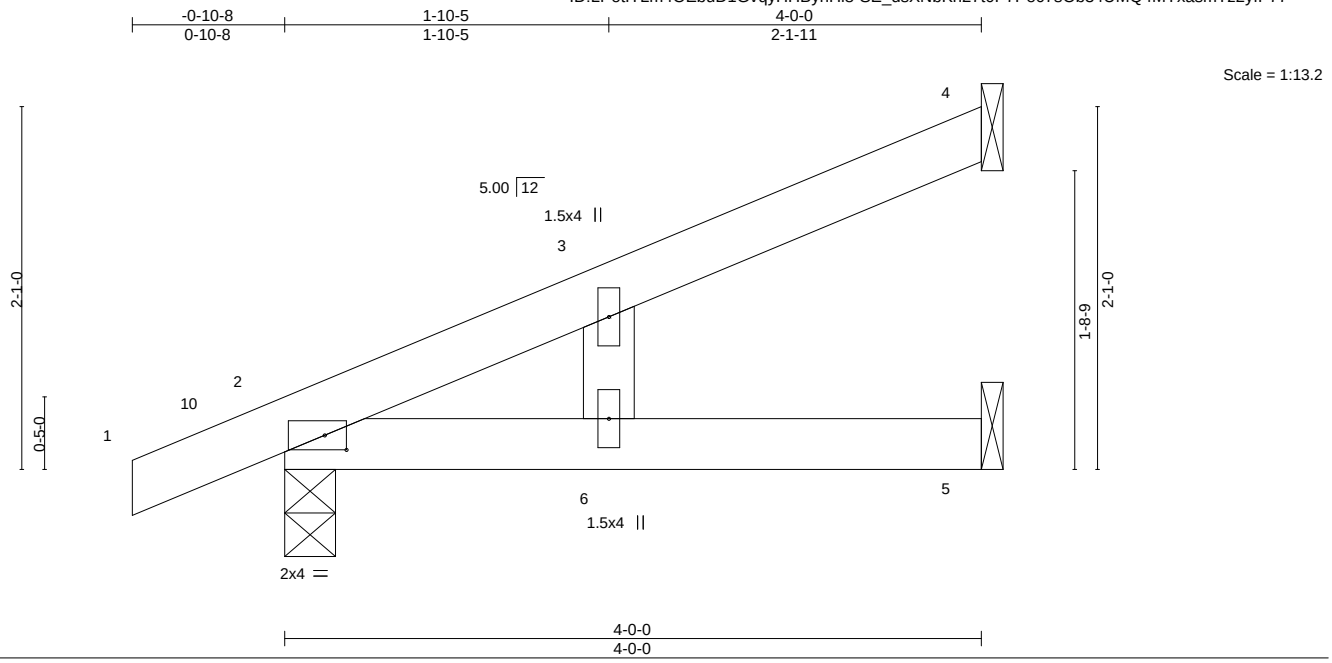

Plate Offsets (X,Y)-- [2:0-1-8,0-1-0]

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	0.15	Vert(LL)	-0.02	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=80(LC 12)
Max Uplift 4=-45(LC 12), 2=-47(LC 12), 5=-9(LC 12)
Max Grav 4=104(LC 1), 2=245(LC 1), 5=68(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 1-10-5, Interior(1) 1-10-5 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) 4, 2, 5.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112231
329560	J4	Jack-Open	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:43 2022 Page 1
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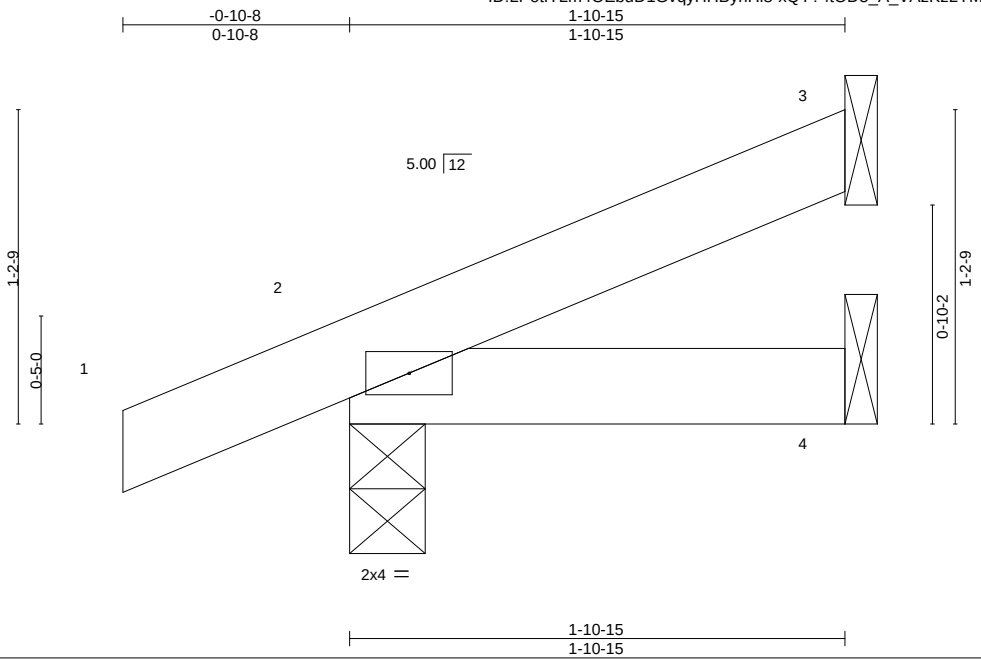

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							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 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=-36(LC 8)
Max Grav 3=49(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.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112232
32526	B1	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:44 2022 Page 1
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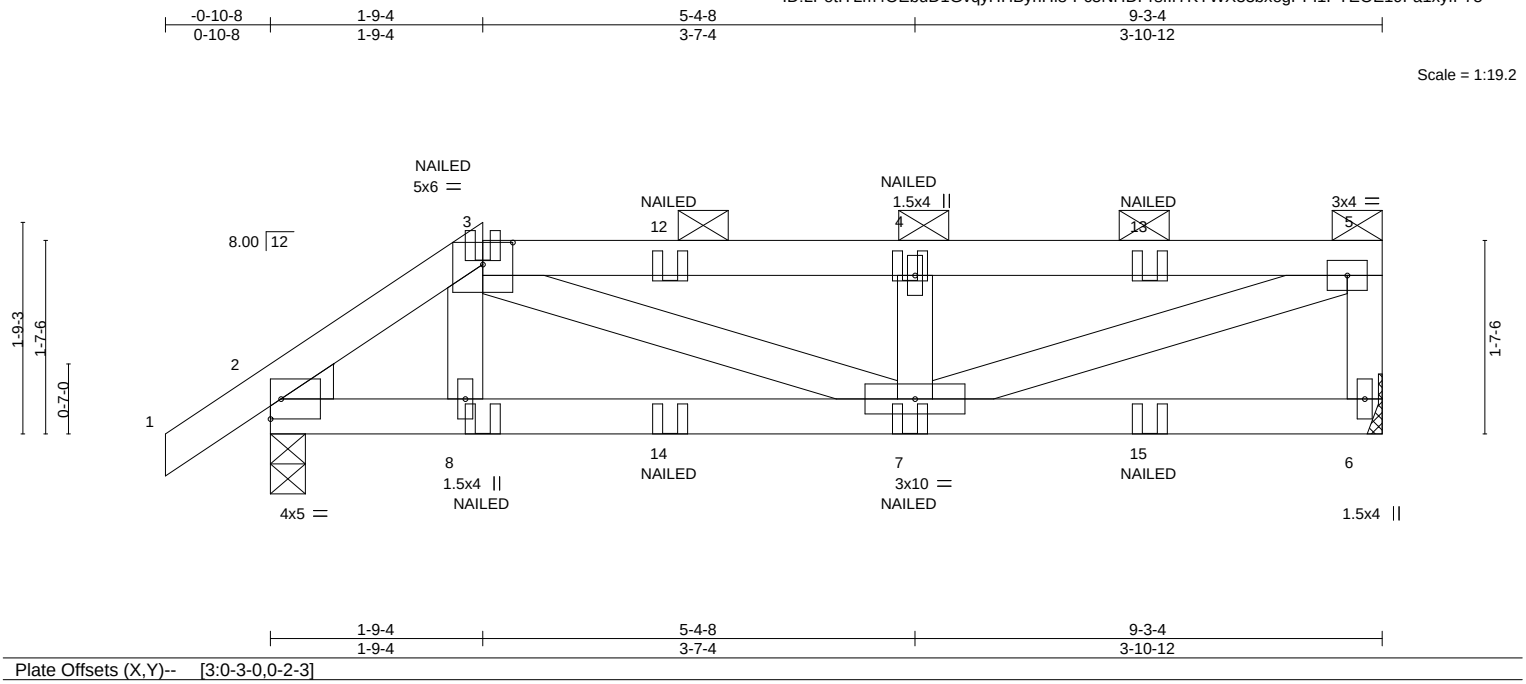

Plate Offsets (X,Y)-- [3:0-3-0,0-2-3]

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	0.17	Vert(LL)	-0.02	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=59(LC 7)
Max Uplift 6=-106(LC 5), 2=-99(LC 8)
Max Grav 6=416(LC 1), 2=484(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-548/121, 3-4=-762/195, 4-5=-760/193, 5-6=-372/116
BOT CHORD 2-8=-132/445, 7-8=-134/444
WEBS 3-7=-103/354, 4-7=-292/134, 5-7=-198/753

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-5(B) 7=-4(B) 14=-4(B) 15=-4(B)

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112233
32526	J01	HALF HIP	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:46 2022 Page 1
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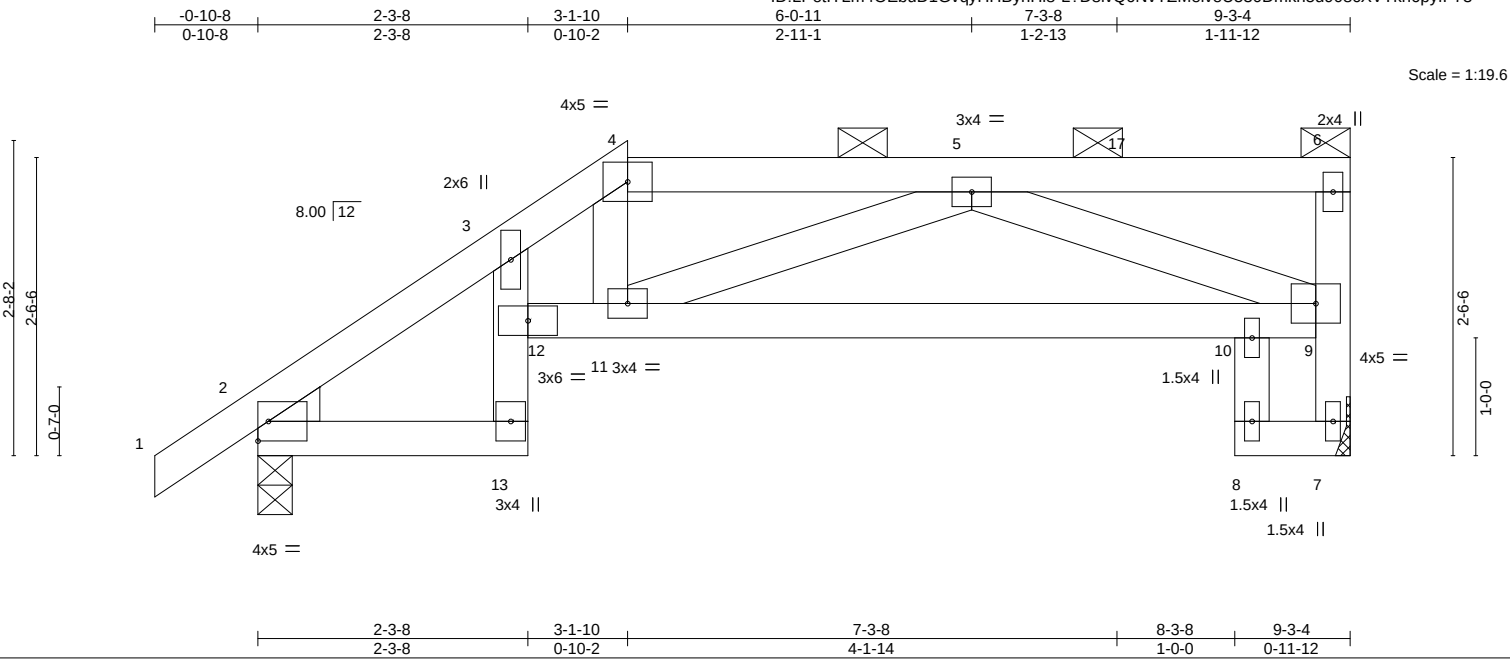

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.06	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 37 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

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=96(LC 11)
Max Uplift 7=-94(LC 9), 2=-74(LC 12)
Max Grav 7=408(LC 1), 2=475(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-529/152, 3-4=-828/254, 4-5=-700/250, 7-9=-384/120
BOT CHORD 2-13=-188/356, 11-12=-307/726, 10-11=-276/670, 9-10=-260/693
WEBS 4-11=-32/282, 5-9=-626/259

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 2-0-12, Interior(1) 2-0-12 to 3-1-10, Exterior(2R) 3-1-10 to 7-4-9, Interior(1) 7-4-9 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112234
329560	J01	HALF HIP	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:47 2022 Page 1
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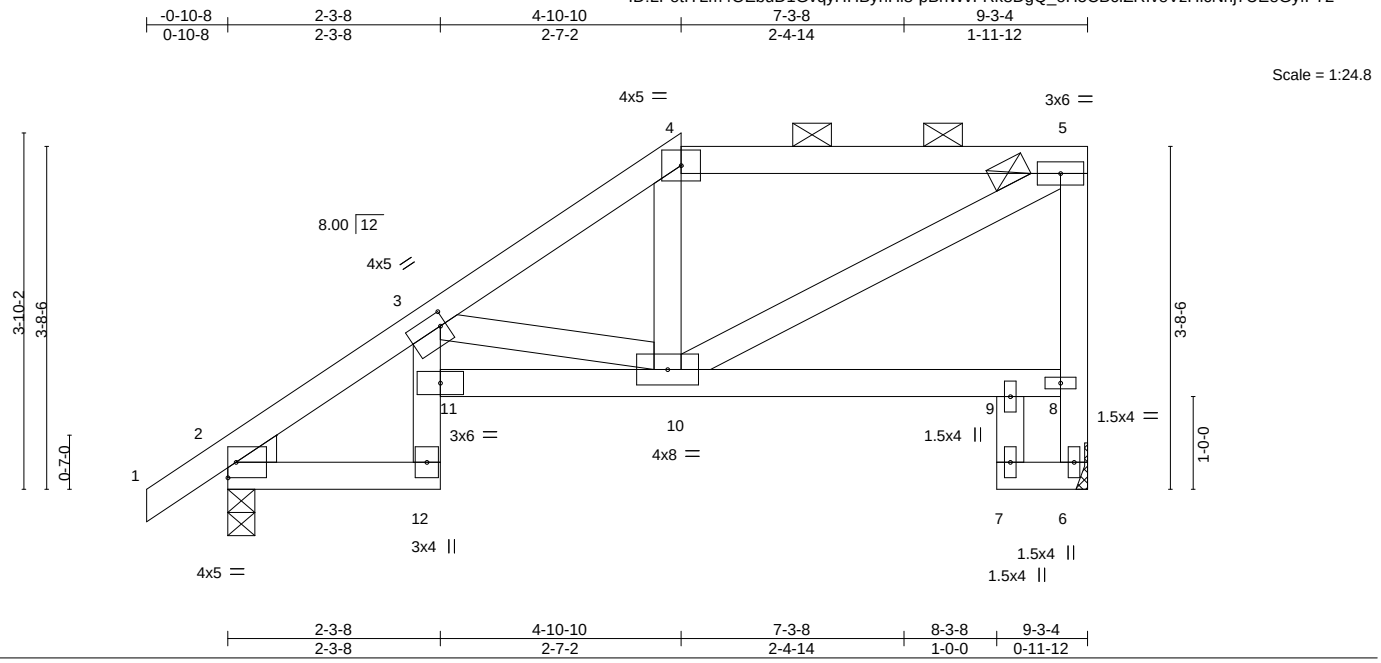

Plate Offsets (X,Y)-- [3:0-0-12,0-1-12]

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	0.22	Vert(LL)	-0.03	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.05	10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=142(LC 11)
Max Uplift 6=-95(LC 9), 2=-83(LC 12)
Max Grav 6=408(LC 1), 2=475(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-535/138, 3-4=-518/154, 4-5=-418/170, 6-8=-387/150, 5-8=-363/162
BOT CHORD 2-12=-257/363, 10-11=-569/835
WEBS 3-10=-473/327, 5-10=-215/430

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 4-10-10, Exterior(2E) 4-10-10 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329560	J3	Half Hip	1	1		I54112235
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:48 2022 Page 1
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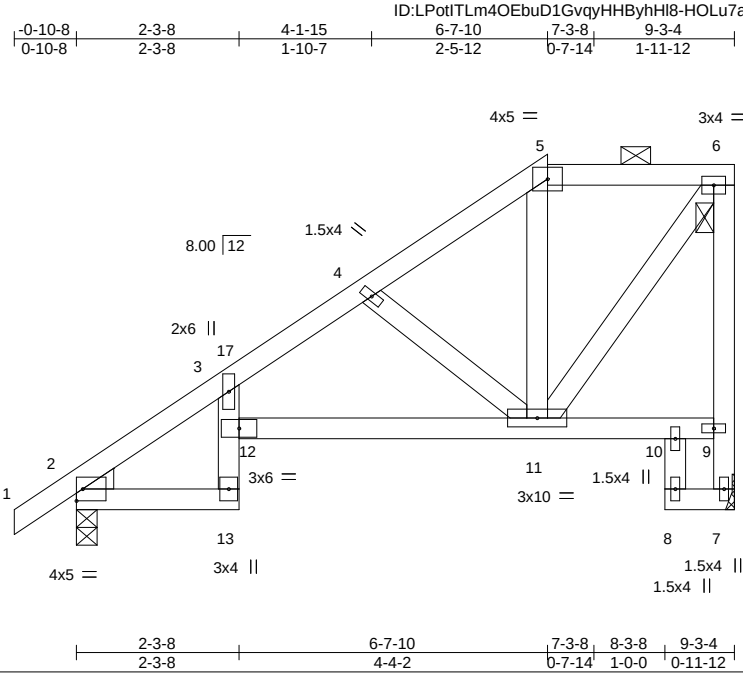

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	0.06	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.10	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 44 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

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=188(LC 11)
Max Uplift 7=-95(LC 9), 2=-84(LC 12)
Max Grav 7=408(LC 25), 2=475(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-514/127, 3-4=-531/139, 4-5=-353/116, 7-9=-393/191, 6-9=-407/200
BOT CHORD 2-13=-261/356, 11-12=-382/524
WEBS 6-11=-212/390, 4-11=-349/236

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) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-12, Interior(1) 2-0-12 to 6-7-10, Exterior(2E) 6-7-10 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112236
329560	J3	Jack-Closed	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:50 2022 Page 1
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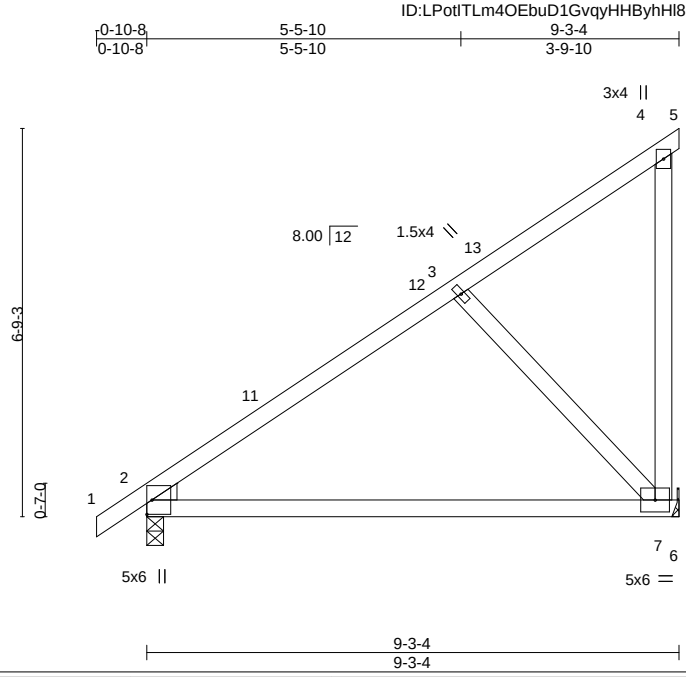

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.15	7-10	>717	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.31	7-10	>345	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 38 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

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=260(LC 11)
Max Uplift 2=-63(LC 12), 7=-104(LC 12)
Max Grav 2=469(LC 1), 7=449(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-358/108
BOT CHORD 2-7=-235/292
WEBS 3-7=-354/237

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 9-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) 2 except (jt=lb) 7=104.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112237
329560	J04	Half Hip	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:51 2022 Page 1
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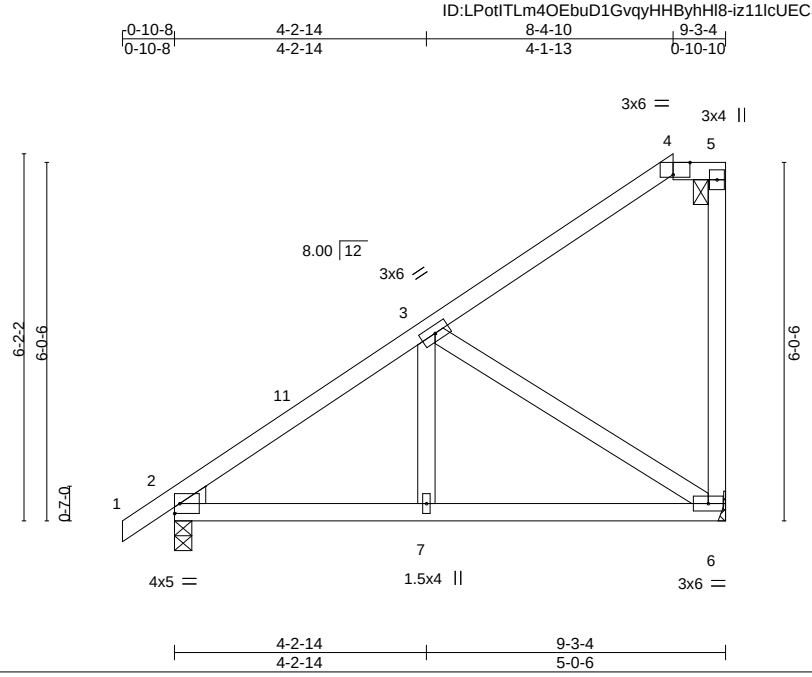

Plate Offsets (X,Y)-- [4:0-3-6,Edge]

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	0.22	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							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

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=235(LC 11)
Max Uplift 2=-76(LC 12), 6=-118(LC 12)
Max Grav 2=475(LC 1), 6=412(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-481/124
BOT CHORD 2-7=-269/394, 6-7=-269/394
WEBS 3-6=-420/221

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) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-4-10, Exterior(2E) 8-4-10 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=118.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329560	J3	Half Hip	1	1		I54112238
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:52 2022 Page 1
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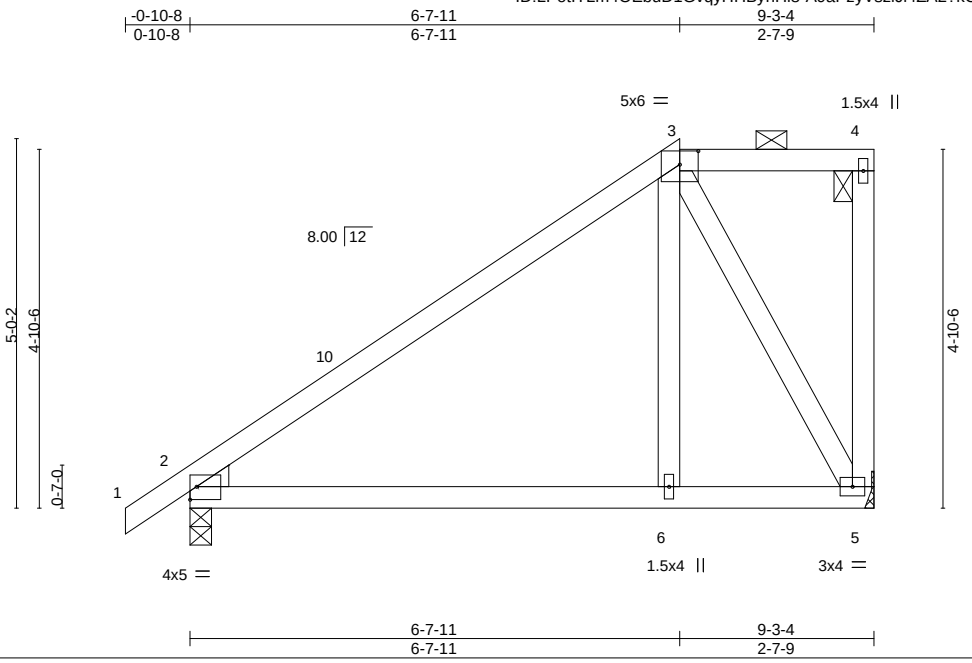

Plate Offsets (X,Y)-- [2:Edge,0-2-2], [3:0-3-0,0-2-3]

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	0.41	Vert(LL)	0.06	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.10	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 40 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

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=188(LC 11)
Max Uplift 2=-84(LC 12), 5=-95(LC 9)
Max Grav 2=475(LC 1), 5=408(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-377/108
BOT CHORD 2-6=-183/258, 5-6=-183/254
WEBS 3-5=-470/278

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 6-7-11, Exterior(2E) 6-7-11 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	
329560	J07	Half Hip	1	1		I54112239
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:54 2022 Page 1
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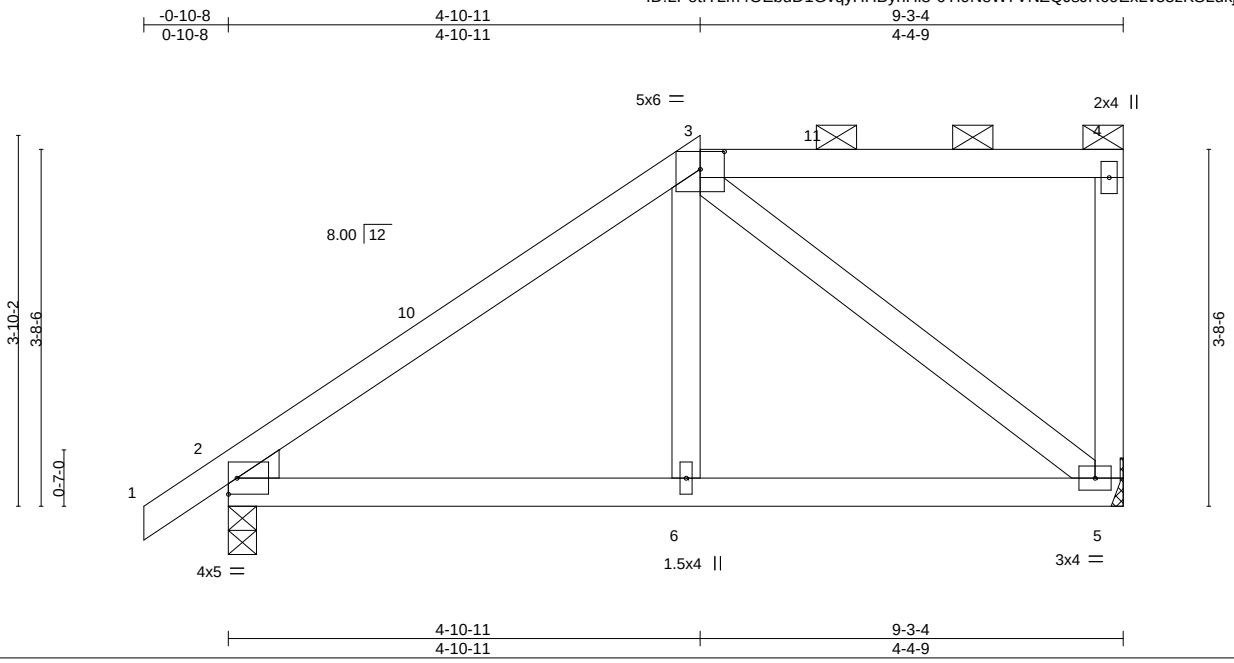

Plate Offsets (X,Y)-- [3:0-3-0,0-2-3]

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	0.22	Vert(LL)	0.02	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 37 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

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
Max Horz 2=142(LC 11)
Max Uplift 2=-83(LC 12), 5=-95(LC 9)
Max Grav 2=475(LC 1), 5=408(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-451/125
BOT CHORD 2-6=-196/314, 5-6=-197/309
WEBS 3-5=-372/198

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 4-10-11, Exterior(2E) 4-10-11 to 9-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112240
329560	J01	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:55 2022 Page 1
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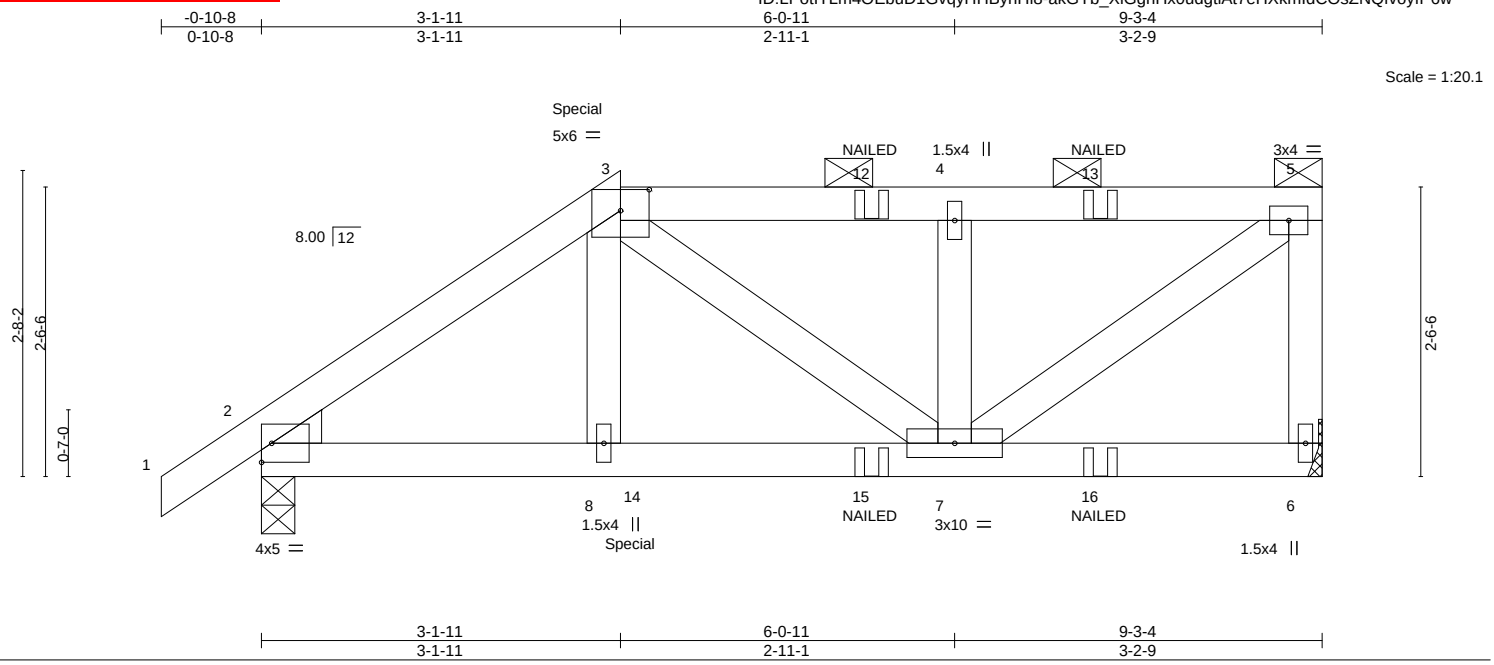

Plate Offsets (X,Y)-- [3:0-3-0,0-2-3]

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	0.16	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.02	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 38 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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=96(LC 7)
Max Uplift 6=-156(LC 5), 2=-147(LC 8)
Max Grav 6=550(LC 1), 2=608(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-718/179, 3-4=-573/164, 4-5=-571/163, 5-6=-511/166
BOT CHORD 2-8=-187/556, 7-8=-189/550
WEBS 4-7=-313/163, 5-7=-200/683

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=156, 2=147.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 181 lb down and 154 lb up at 3-1-10 on top chord, and 41 lb down at 3-1-10, and 35 lb down at 3-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 6-9=-20

September 12,2022

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	J3	Half Hip Girder	1	1	I54112240
Builders FirstSource (Valley Center),	Valley Center, KS - 67147,				Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 8=-34(F) 3=-79(F) 12=-40(F) 13=-40(F) 14=-28(F) 15=-28(F) 16=-28(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112241
329250	J01	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:56 2022 Page 1
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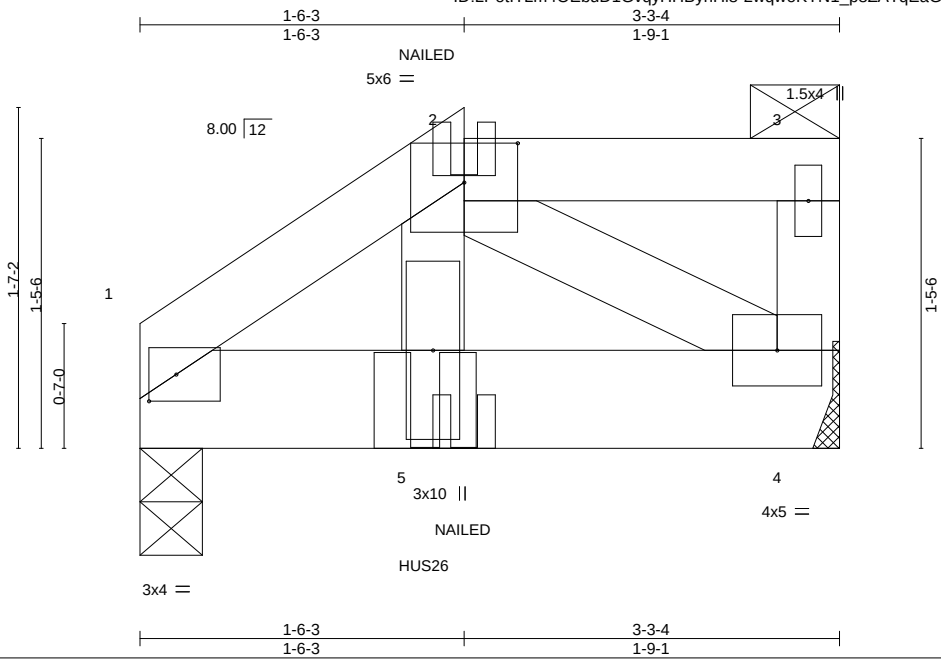

Scale = 1:10.8

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

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	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.01	5	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-3-8, 4=Mechanical
Max Horz 1=40(LC 28)
Max Uplift 1=-149(LC 8), 4=-133(LC 5)
Max Grav 1=875(LC 1), 4=714(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1053/184
BOT CHORD 1-5=-168/889, 4-5=-148/763
WEBS 2-5=-165/973, 2-4=-928/170

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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=149, 4=133.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 1-4-0 from the left end to connect truss(es) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) 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: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 5=-1307(F=-2, B=-1305)

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112242
329256	J3	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:57 2022 Page 1
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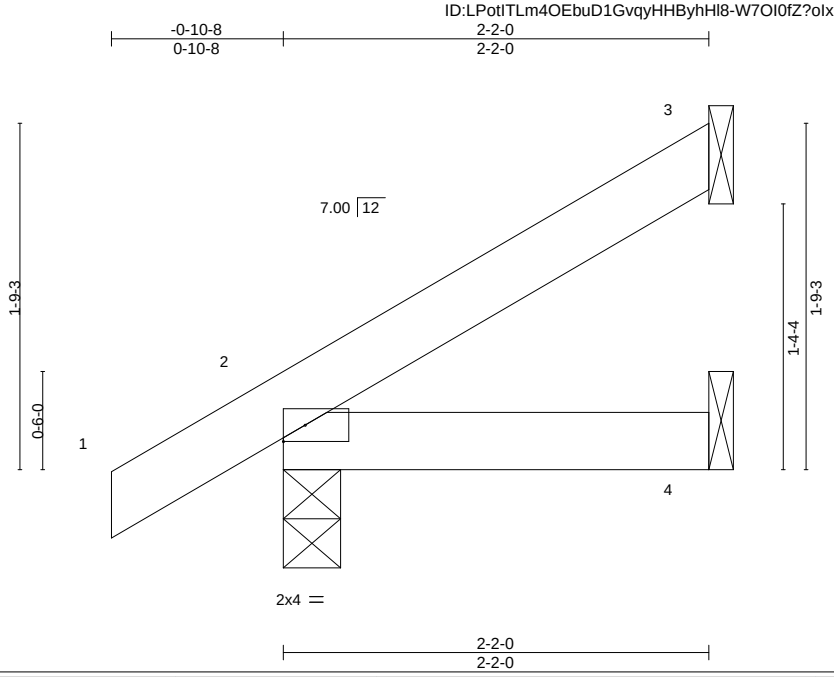

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 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=68(LC 12)
Max Uplift 3=-36(LC 12), 2=-27(LC 12)
Max Grav 3=61(LC 19), 2=169(LC 1), 4=38(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.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112243
329560	J4	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:58 2022 Page 1
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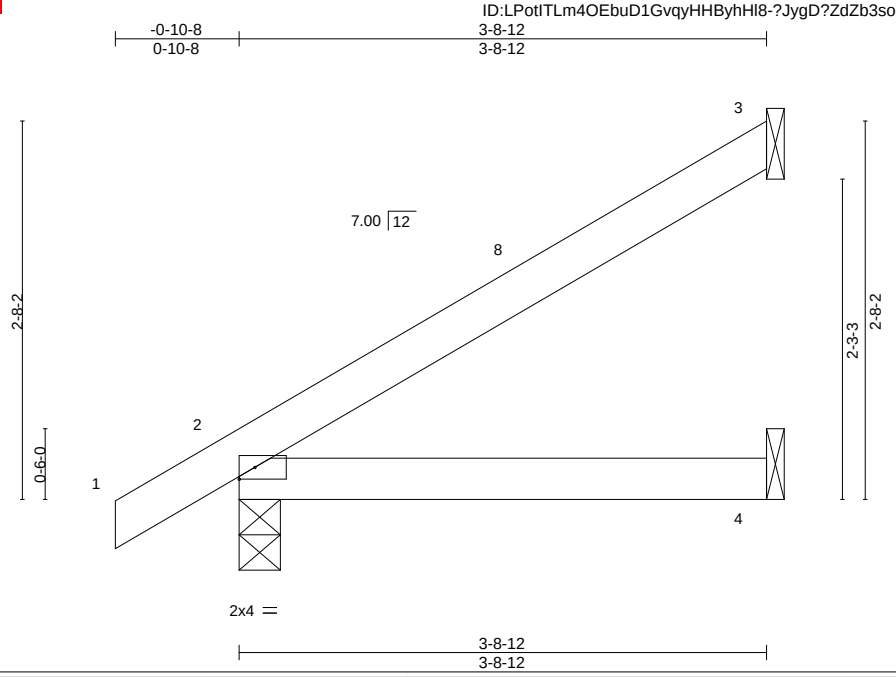

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 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 3-8-12 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=105(LC 12)
Max Uplift 3=-65(LC 12), 2=-30(LC 12)
Max Grav 3=114(LC 19), 2=234(LC 1), 4=68(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 3-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112244
32256	J3	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:37:59 2022 Page 1
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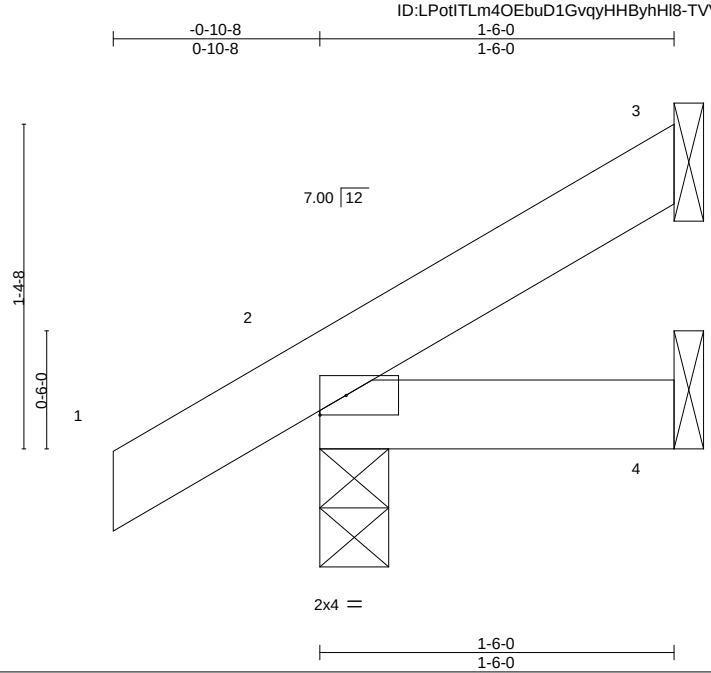

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 5 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 1-6-0 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=53(LC 12)
Max Uplift 3=-24(LC 12), 2=-27(LC 12)
Max Grav 3=39(LC 19), 2=146(LC 1), 4=25(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.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	J4	Jack-Open	4	1	I54112245
Builders FirstSource (Valley Center),	Valley Center, KS - 67147,				Job Reference (optional)

8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:38:00 2022 Page 1
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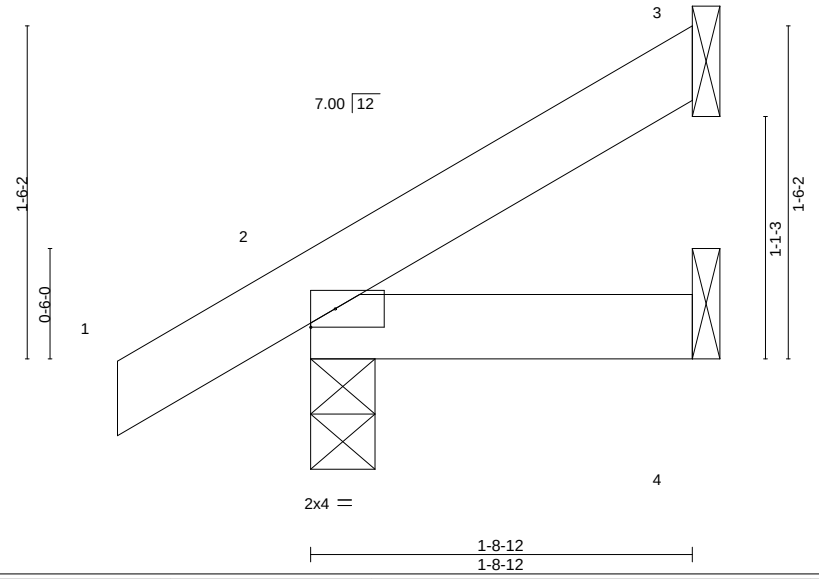
Scale = 1:10.4



1-8-12 / 1-8-12

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	0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
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-MP							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 1-8-12 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=59(LC 12)
Max Uplift 3=-28(LC 12), 2=-27(LC 12)
Max Grav 3=48(LC 19), 2=154(LC 1), 4=30(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.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112246
32526	J1	Lay-In Gable	1	1	Job Reference (optional)	

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:38:01 2022 Page 1
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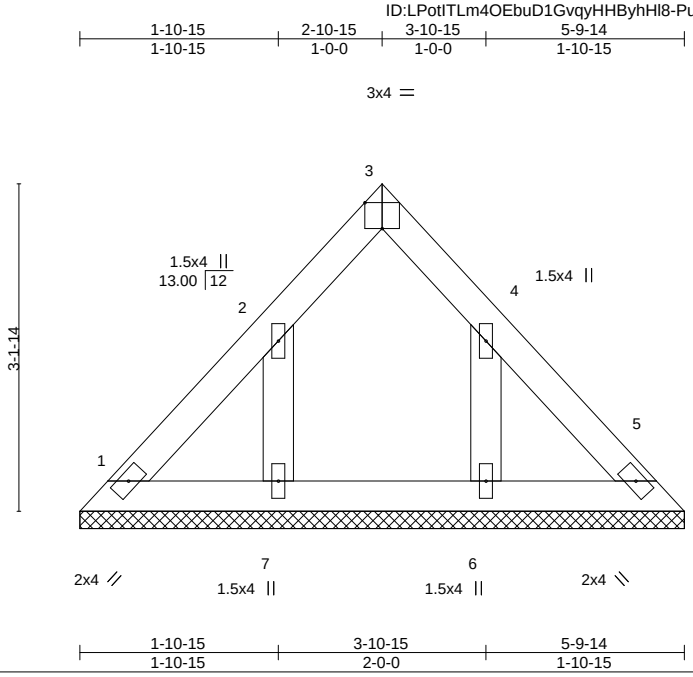

Plate Offsets (X,Y)-- [3:Edge,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 5-9-14.
(lb) - Max Horz 1=-75(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 6=-104(LC 13), 7=-105(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6, 7

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 104 lb uplift at joint 6 and 105 lb uplift at joint 7.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112247
32256	U01	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:38:03 2022 Page 1
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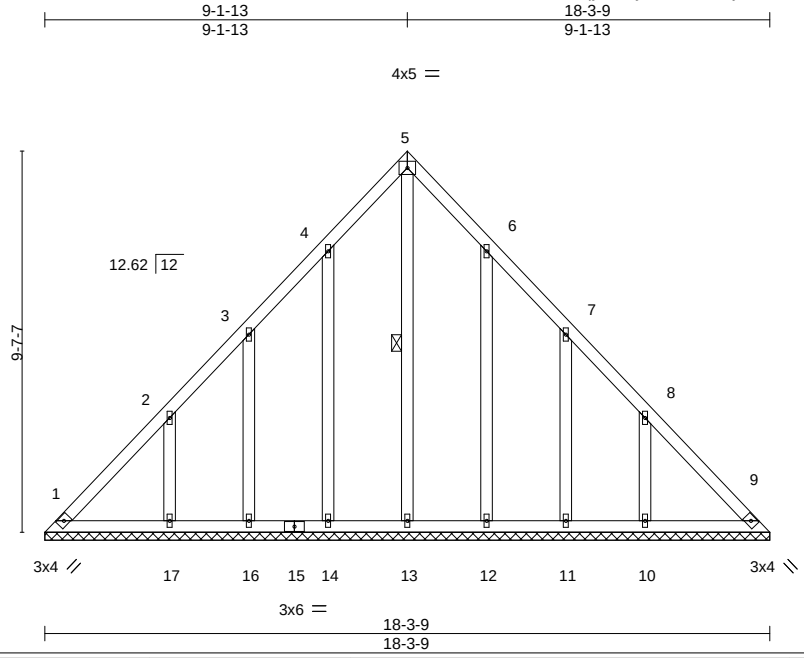

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 94 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.
WEBS 1 Row at midpt 5-13

REACTIONS. All bearings 18-3-9.
(lb) - Max Horz 1=246(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-135(LC 12), 16=-114(LC 12), 17=-190(LC 12), 12=-133(LC 13), 11=-115(LC 13), 10=-189(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 16, 12, 11 except 17=295(LC 19), 10=295(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-300/205, 8-9=-262/181

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) 0-4-1 to 3-1-13, Interior(1) 3-1-13 to 9-1-13, Exterior(2R) 9-1-13 to 12-1-13 , Interior(1) 12-1-13 to 17-11-8 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 1.5x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=135, 16=114, 17=190, 12=133, 11=115, 10=189.
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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO
329560	U24	GABLE	1	1	I54112248
					Job Reference (optional)

Builders FirstSource,Valley Center, Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:38:04 2022 Page 1
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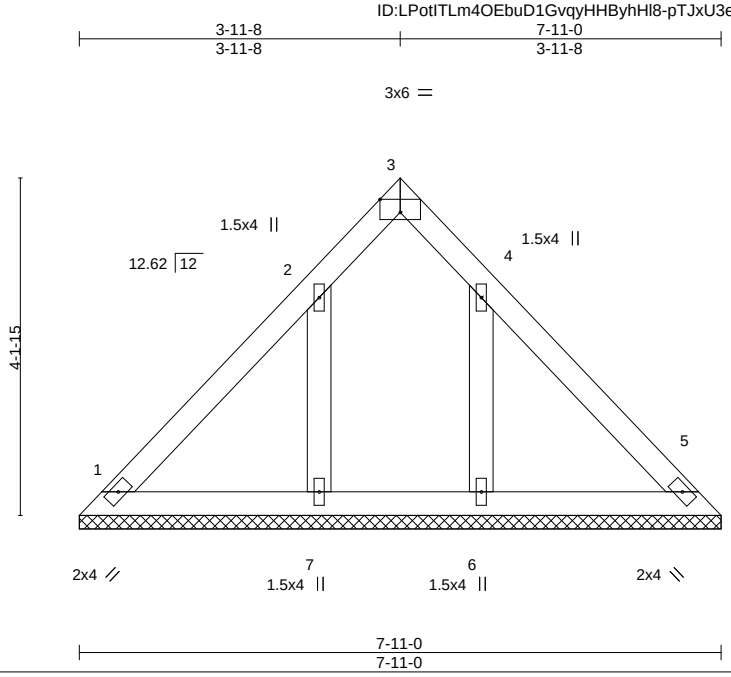

Plate Offsets (X,Y)-- [3:Edge,0-1-15]

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	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	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

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

REACTIONS. All bearings 7-11-0.
(lb) - Max Horz 1=-101(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 7=-169(LC 12), 6=-168(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=266(LC 19), 6=265(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-250/190, 4-6=-250/189

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) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 3-11-8, Exterior(2R) 3-11-8 to 6-11-8, Interior(1) 6-11-8 to 7-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 169 lb uplift at joint 7 and 168 lb uplift at joint 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.

September 12,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #177/MO	I54112249
3325/0	U68	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.530 s Aug 11 2022 MiTek Industries, Inc. Fri Sep 9 09:38:05 2022 Page 1
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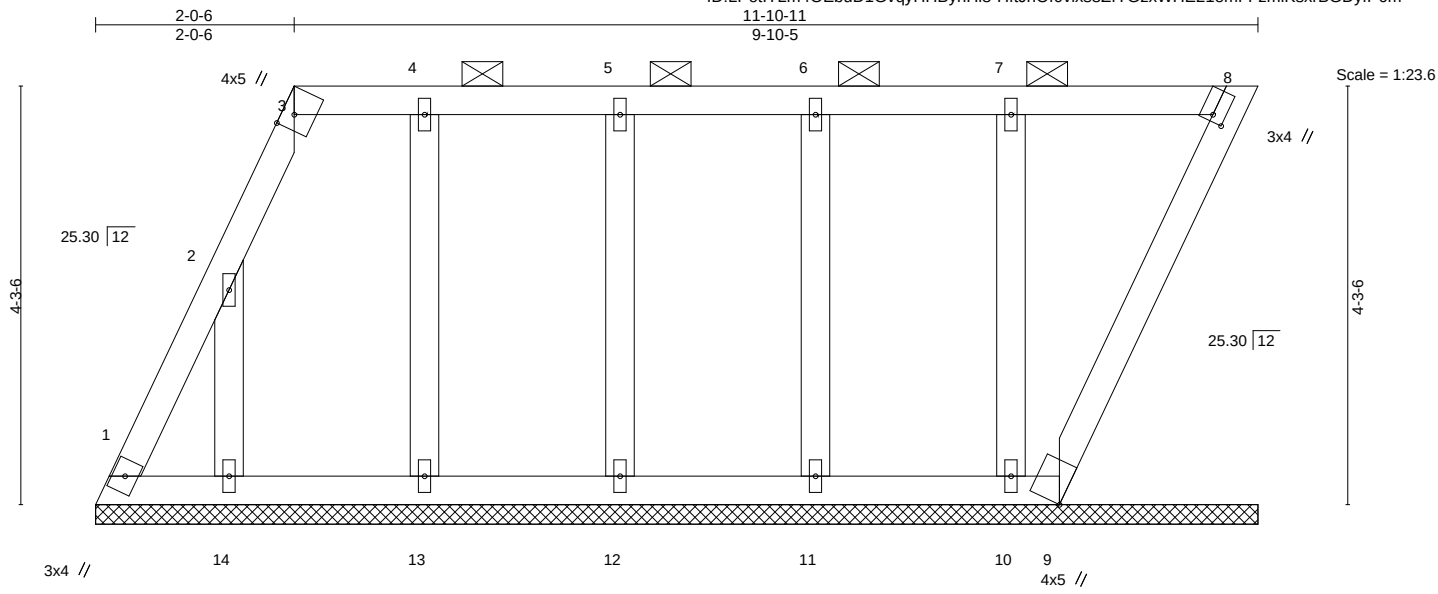


Plate Offsets (X,Y)-- [3:0-1-13,Edge], [8:0-0-13,0-1-8]

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	0.06	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	0.05	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 52 lb	FT = 20%

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

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

REACTIONS. All bearings 11-10-11.
(lb) - Max Horz 1=163(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 9, 13, 12, 11, 10 except 14=-217(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 9, 14, 13, 12, 11, 10

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

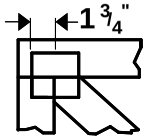
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 9, 13, 12, 11, 10 except (jt=lb) 14=217.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 12,2022

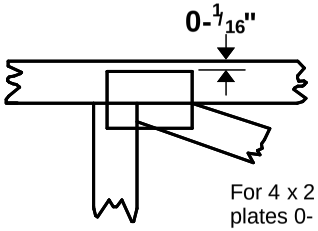
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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.

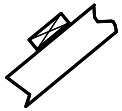
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

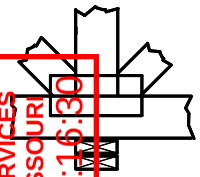
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

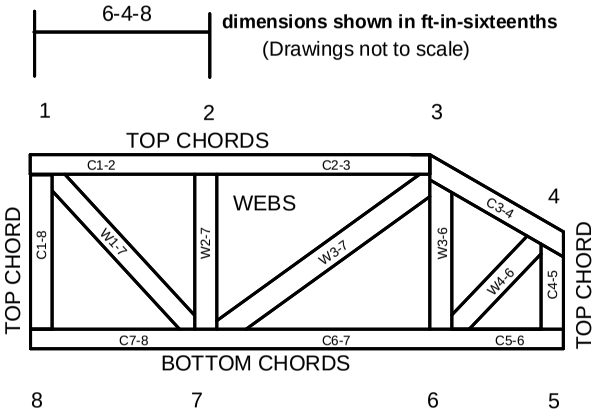


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.