RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
Development Services
LEE'S SUMMIT, MISSOURI

RE: 3008833
C&H/158 Cobey Creek

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

Site Information:

Customer: Project Name: 3008833
Lot/Block: Model:
Address: Subdivision:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7-16 Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 26 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I49242007	A1	12/14/2021	21	I49242027	V1	12/14/2021
2	I49242008	A2	12/14/2021	22	I49242028	V2	12/14/2021
3	I49242009	A3	12/14/2021	23	I49242029	V3	12/14/2021
4	I49242010	A3A	12/14/2021	24	I49242030	V4	12/14/2021
5	I49242011	A4	12/14/2021	25	I49242031	V5	12/14/2021
6	I49242012	A5	12/14/2021	26	I49242032	V6	12/14/2021
7	I49242013	A6	12/14/2021				
8	I49242014	B1	12/14/2021				
9	I49242015	B2	12/14/2021				
10	I49242016	B3	12/14/2021				
11	I49242017	B4	12/14/2021				
12	I49242018	B5	12/14/2021				
13	I49242019	C1	12/14/2021				
14	I49242020	C2	12/14/2021				
15	I49242021	C3	12/14/2021				
16	I49242022	D1	12/14/2021				
17	I49242023	D2	12/14/2021				
18	I49242024	D3	12/14/2021				
19	I49242025	E1	12/14/2021				
20	I49242026	E2	12/14/2021				

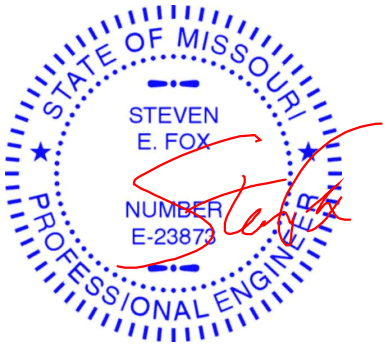
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Truss Design Engineer's Name: Fox, Steve

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.



December 14, 2021

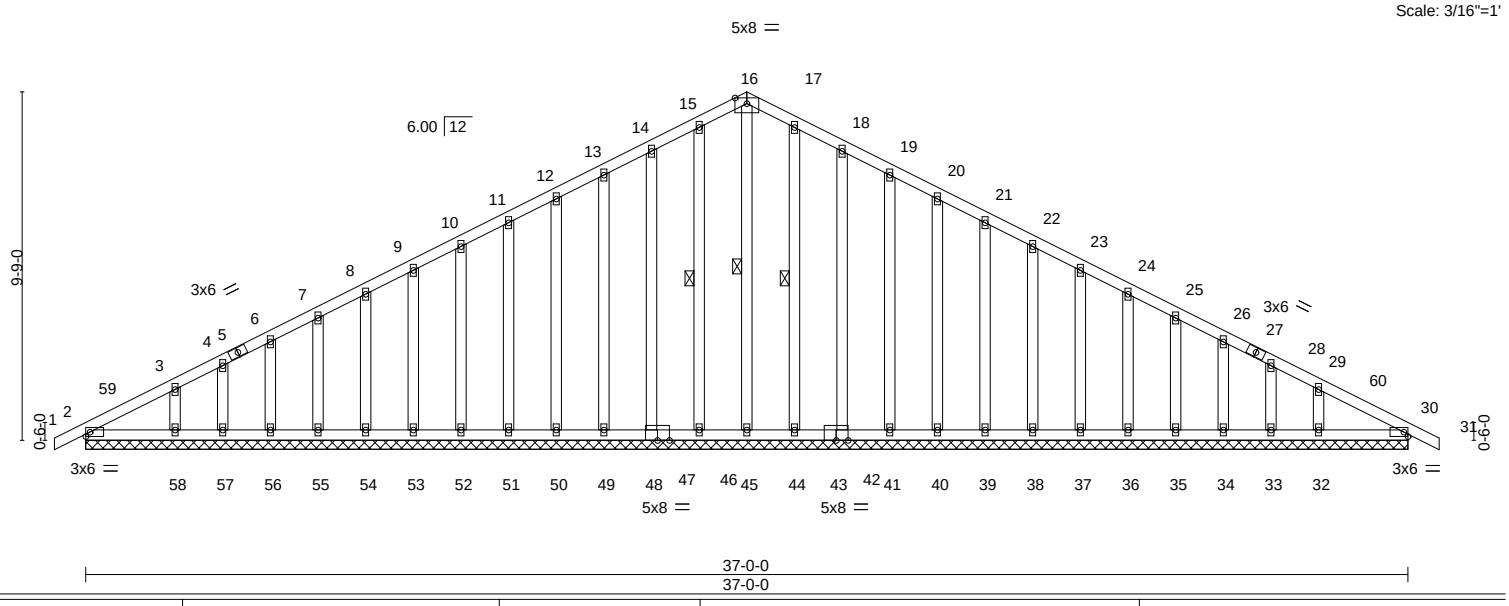
Fox, Steve

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A1	Common Supported Gable	1	1	I49242007
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:24 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-_e6efF6k4BfKMO53VqLZUxAd1JkwEfxovK9Tyvy9Fkb

-0-10-8 18-6-0 37-0-0 37-10-8
0-10-8 18-6-0 18-6-0 0-10-8

Scale: 3/16"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	30	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	30	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	30	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 236 lb	FT = 20%

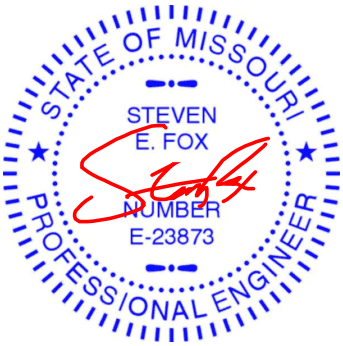
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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 16-45, 15-46, 17-44

REACTIONS. All bearings 37-0-0.
(lb) - Max Horz 2=171(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32
Max Grav All reactions 250 lb or less at joint(s) 2, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 30

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-91/252, 14-15=-105/290, 15-16=-112/310, 16-17=-112/310, 17-18=-105/290, 18-19=-91/252

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 18-6-0, Corner(3R) 18-6-0 to 21-6-0, Exterior(2N) 21-6-0 to 37-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

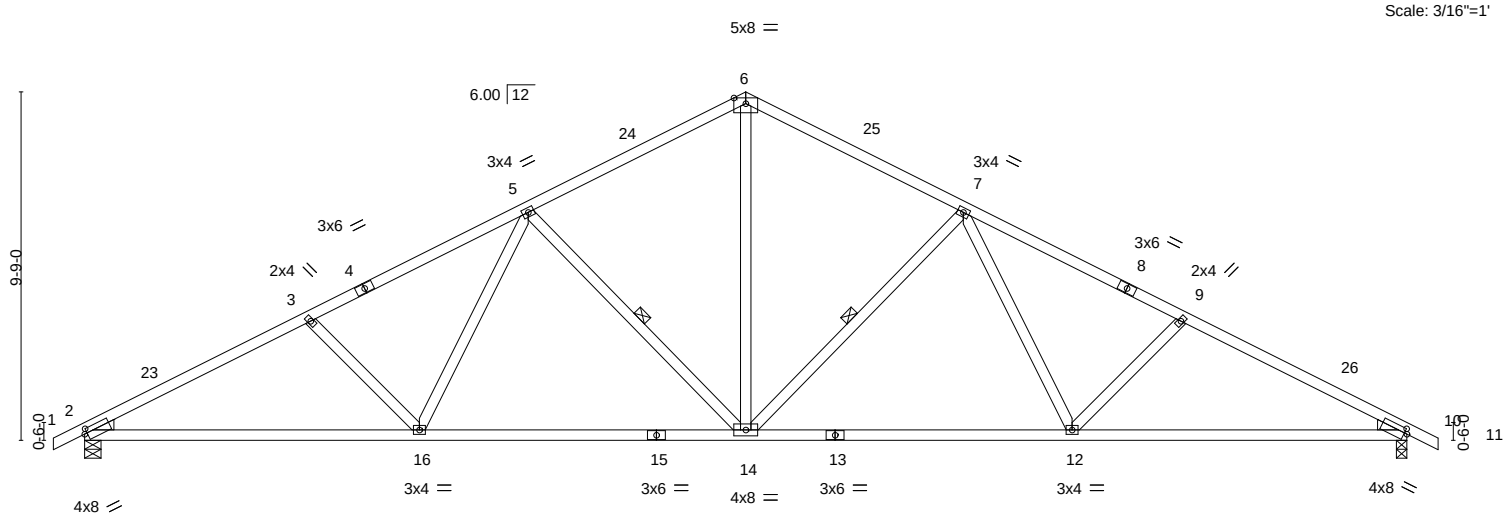
Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A2	Common	7	1	I49242008

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:26 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-w0EO4x8_cpw2bhFSdFO1ZMFtq7DoiU05MeeZ0oy9FkZ

-0-10-8	6-3-14	12-4-15	18-6-0	24-7-1	30-8-2	37-0-0	37-10-8
0-10-8	6-3-14	6-1-1	6-1-1	6-1-1	6-1-1	6-3-14	0-10-8

Scale: 3/16"=1'



9-4-7	18-6-0	27-7-9	37-0-0
9-4-7	9-1-9	9-1-9	9-4-7

Plate Offsets (X,Y)-- [2:0-0-15,0-1-9], [10:0-0-15,0-1-9]

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	0.50	Vert(LL)	-0.20	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.43	14-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.14	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 149 lb	FT = 20%

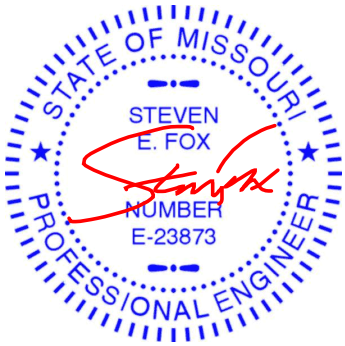
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-14, 5-14

REACTIONS. (size) 2=0-5-8, 10=0-3-8
Max Horz 2=171(LC 12)
Max Uplift 2=-295(LC 12), 10=-295(LC 13)
Max Grav 2=1726(LC 1), 10=1726(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3046/509, 3-5=-2750/479, 5-6=-1958/418, 6-7=-1958/418, 7-9=-2750/479, 9-10=-3046/510
BOT CHORD 2-16=-530/2632, 14-16=-343/2170, 12-14=-220/2170, 10-12=-360/2632
WEBS 6-14=-209/1262, 7-14=-758/297, 7-12=-87/500, 9-12=-380/217, 5-14=-758/296, 5-16=-87/500, 3-16=-380/217

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 18-6-0, Exterior(2R) 18-6-0 to 21-6-0, Interior(1) 21-6-0 to 37-10-8 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=295, 10=295.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A3	Roof Special	6	1	I49242009
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:27 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-ODomHG8cN62vDrqeAyvG5Zo?8XbCRyuEbIO7YEy9FkY

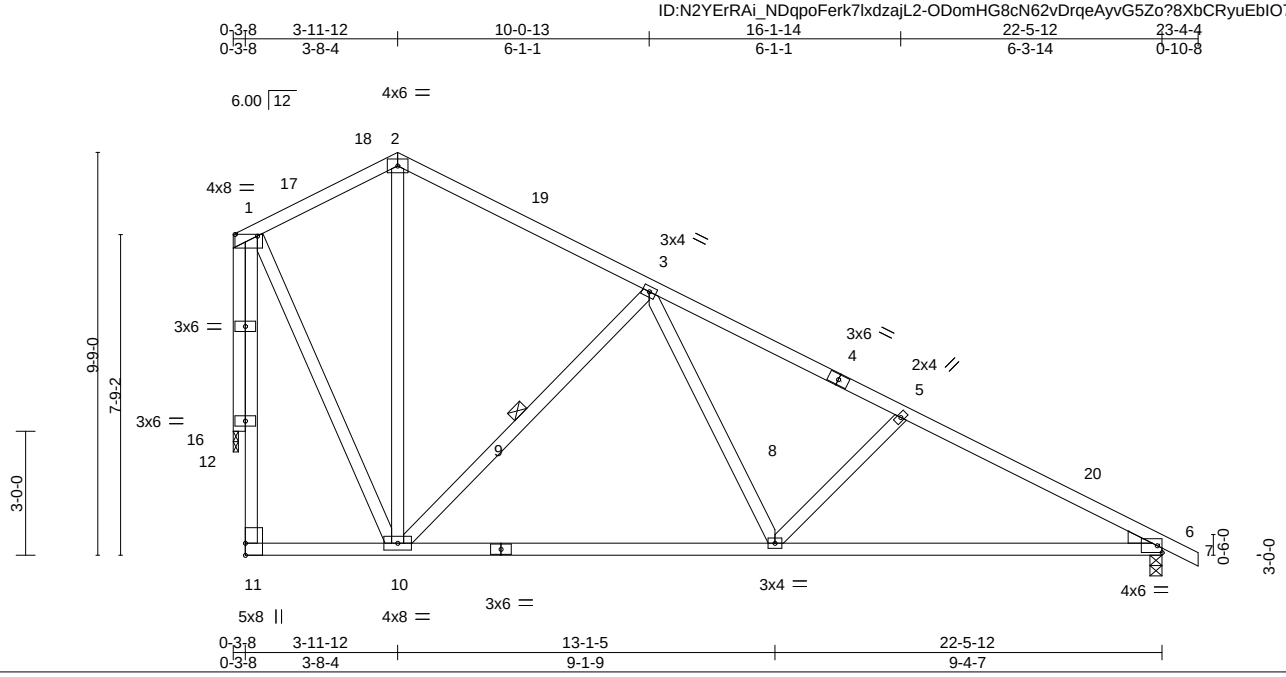


Plate Offsets (X,Y)-- [1:0-6-8,0-0-8]

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	0.66	Vert(LL)	-0.12	8-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.26	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.29	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 112 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
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-10

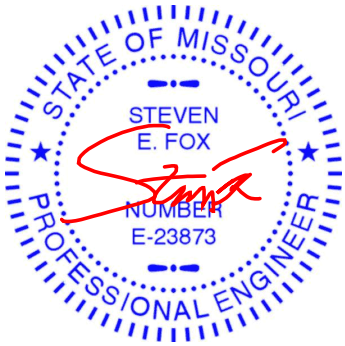
REACTIONS. (size) 6=0-3-8, 16=0-1-8
Max Horz 16=-295(LC 13)
Max Uplift 6=-219(LC 13), 16=-189(LC 13)
Max Grav 6=1071(LC 1), 16=974(LC 1)

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

TOP CHORD	1-2=-438/256, 2-3=-515/220, 3-5=-1362/315, 5-6=-1669/347
BOT CHORD	8-10=-54/901, 6-8=-216/1414
WEBS	1-10=-125/749, 3-10=-778/299, 3-8=-84/546, 5-8=-406/221, 1-16=-977/217

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) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 3-11-12, Exterior(2R) 3-11-12 to 6-11-12 , Interior(1) 6-11-12 to 23-4-4 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) 16 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 at joint(s) 16.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=219, 16=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.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A3A	Roof Special	1	1	I49242010
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:28 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-sPM9Vc9E8QAmr?PqkgQVenLBLwy2AFaNqy7g5gy9FkX

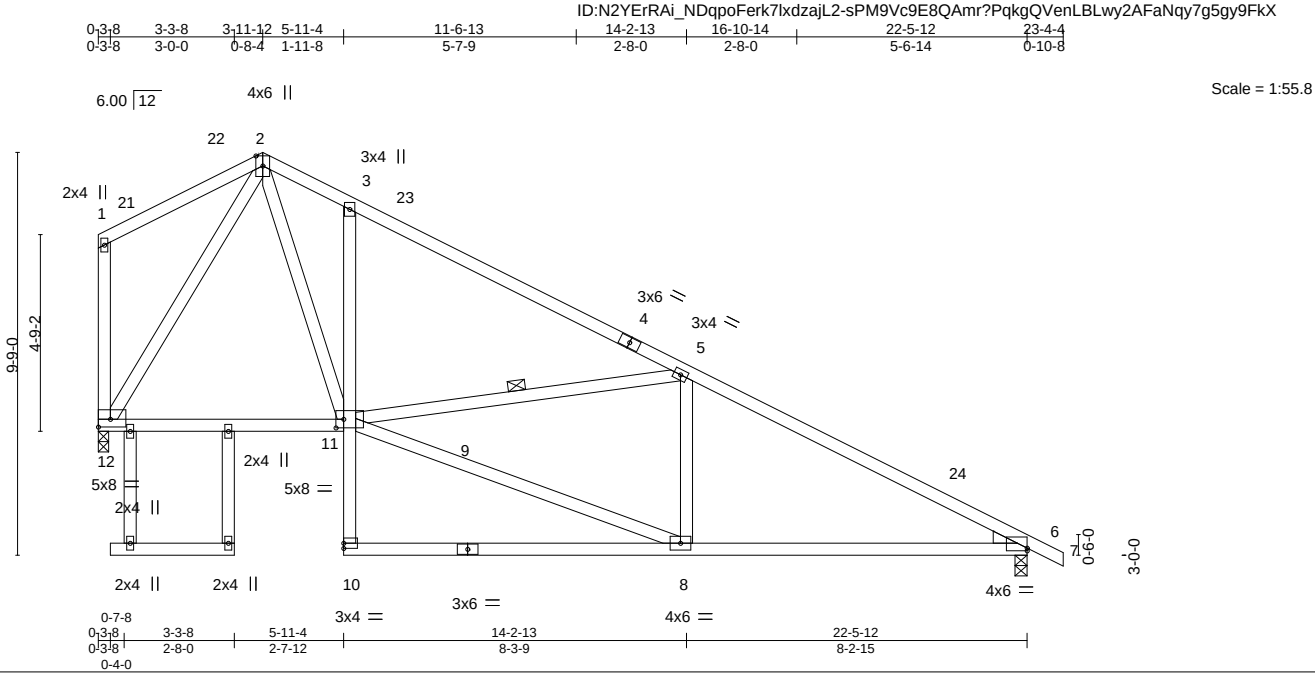


Plate Offsets (X,Y)-- [6:0-0-0,0-0-13], [11:0-2-4,0-2-8], [12:Edge,0-2-4]

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	0.63	Vert(LL)	-0.11	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.23	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 119 lb	FT = 20%

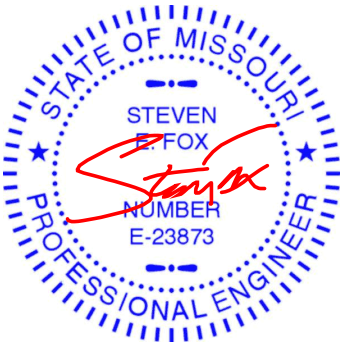
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-11

REACTIONS. (size) 12=0-3-0, 6=0-3-8
Max Horz 12=-291(LC 8)
Max Uplift 12=-174(LC 13), 6=-234(LC 13)
Max Grav 12=1004(LC 1), 6=1067(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1013/335, 3-5=-1103/252, 5-6=-1613/350
BOT CHORD 11-12=0/500, 3-11=-422/231, 6-8=-198/1341
WEBS 5-8=-297/139, 8-11=-223/1410, 5-11=-500/308, 2-12=-917/238, 2-11=-315/1159

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 3-1-12, Interior(1) 3-1-12 to 3-11-12, Exterior(2R) 3-11-12 to 6-11-12, Interior(1) 6-11-12 to 23-4-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=174, 6=234.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A4	ROOF SPECIAL GIRDER	1	2	I49242011
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:31 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-H_1H7eB7RLYKiT8PPozCGPzg78xrNd?qWwMKh?y9FkU

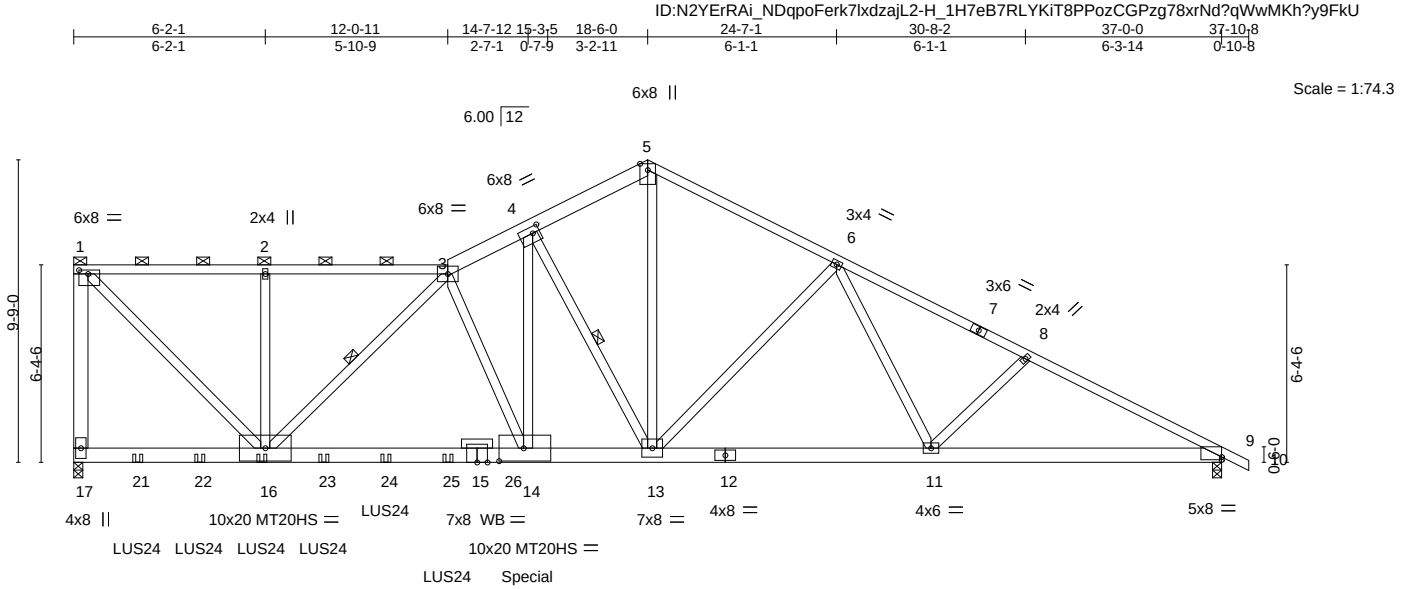


Plate Offsets (X,Y)-- [1:0-3-8,0-1-8], [4:0-2-12,0-2-8], [9:0-0-0,0-1-1], [14:0-9-8,0-5-0]

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	0.72	Vert(LL)	-0.34	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.61	14-16	>719	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 434 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 3-5: 2x6 SPF No.2
BOT CHORD	2x6 SPF No.2 *Except* 15-17: 2x6 SP 2400F 2.0E, 12-15: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2 *Except* 1-17: 2x6 SPF No.2, 1-16: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-11 max.): 1-3.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-13, 3-16

REACTIONS. (size) 17=0-3-8, 9=0-3-8
Max Horz 17=-300(LC 6)
Max Uplift 17=-1598(LC 8), 9=-808(LC 9)
Max Grav 17=7173(LC 1), 9=4066(LC 1)

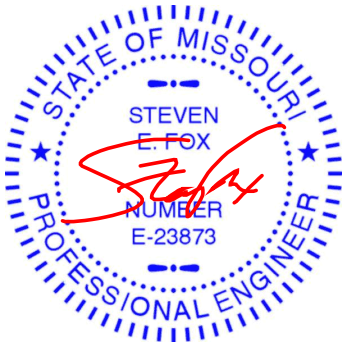
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-17=-6723/1503, 1-2=-6542/1396, 2-3=-6542/1396, 3-4=-10479/2175, 4-5=-7037/1508, 5-6=-7156/1493, 6-8=-7854/1590, 8-9=-8137/1621
BOT CHORD	16-17=-70/277, 14-16=-1959/9950, 13-14=-1772/9238, 11-13=-1178/6775, 9-11=-1350/7188
WEBS	1-16=-2012/9202, 2-16=-466/200, 4-13=-6332/1441, 5-13=-1236/6007, 6-13=-687/336, 6-11=-148/478, 8-11=-350/240, 4-14=-1503/6983, 3-14=-1795/471, 3-16=-4864/955

NOTES-

1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-2-0 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) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=1598, 9=808.
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.

Continued on page 2



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

11) 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 2-0-12 from the left end to 12-0-12 to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 588 lb down and 169 lb up at 14-0-12, and 3749 lb down and 725 lb up at 14-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

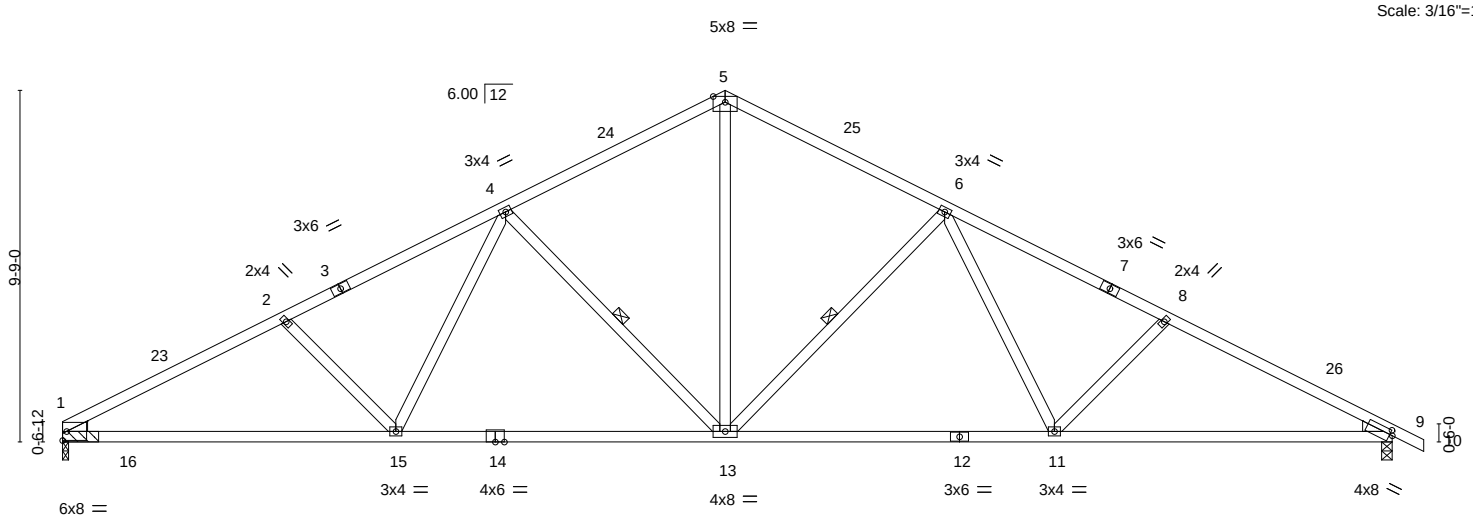
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-70, 3-5=-70, 5-10=-70, 17-18=-20
   Concentrated Loads (lb)
   Vert: 14=-3749(F) 16=-588(F) 21=-588(F) 22=-588(F) 23=-588(F) 24=-588(F) 25=-588(F) 26=-588(F)

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A5	Common	3	1	I49242012
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:32 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-lAbfK_ClCfgBJcjczVURodVvLYGE6CVzlZ5uESy9FkT

6-2-6	12-3-7	18-4-8	24-5-9	30-6-10	36-10-8	37-9-0
6-2-6	6-1-1	6-1-1	6-1-1	6-1-1	6-3-14	0-10-8

Scale: 3/16"=1'



9-2-15	18-4-8	27-6-1	36-10-8
9-2-15	9-1-9	9-1-9	9-4-7

Plate Offsets (X,Y)-- [9:0-0-15,0-1-9]

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	0.50	Vert(LL)	-0.20	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.44	13-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 148 lb	FT = 20%

LUMBER-

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

Left: 2x4 SPF No.2 , Right: 2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-13, 4-13

REACTIONS. (size) 1=(0-2-0 + bearing block) (req. 0-2-10), 9=0-3-8
Max Horz 1=-180(LC 13)
Max Uplift 1=-273(LC 12), 9=-294(LC 13)
Max Grav 1=1659(LC 1), 9=1721(LC 1)

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

TOP CHORD	1-2=-2981/502, 2-4=-2711/474, 4-5=-1948/419, 5-6=-1948/417, 6-8=-2739/478, 8-9=-3035/509
BOT CHORD	1-15=-521/2581, 13-15=-341/2151, 11-13=-220/2160, 9-11=-359/2623
WEBS	5-13=-209/1254, 6-13=-758/297, 6-11=-87/500, 8-11=-380/217, 4-13=-747/296, 4-15=-83/476, 2-15=-357/208

NOTES-

1) 2x4 SPF No.2 bearing block 12" long at jt. 1 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
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 and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-4-8, Exterior(2R) 18-4-8 to 21-4-8, Interior(1) 21-4-8 to 37-9-0 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
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) 1=273, 9=294.
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.

December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	A6	Common Supported Gable	1	1	I49242013
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:35 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-9lHoz?FdUa2mA4RBee28QF7WFlUTJdfPRXKYqmy9FkQ

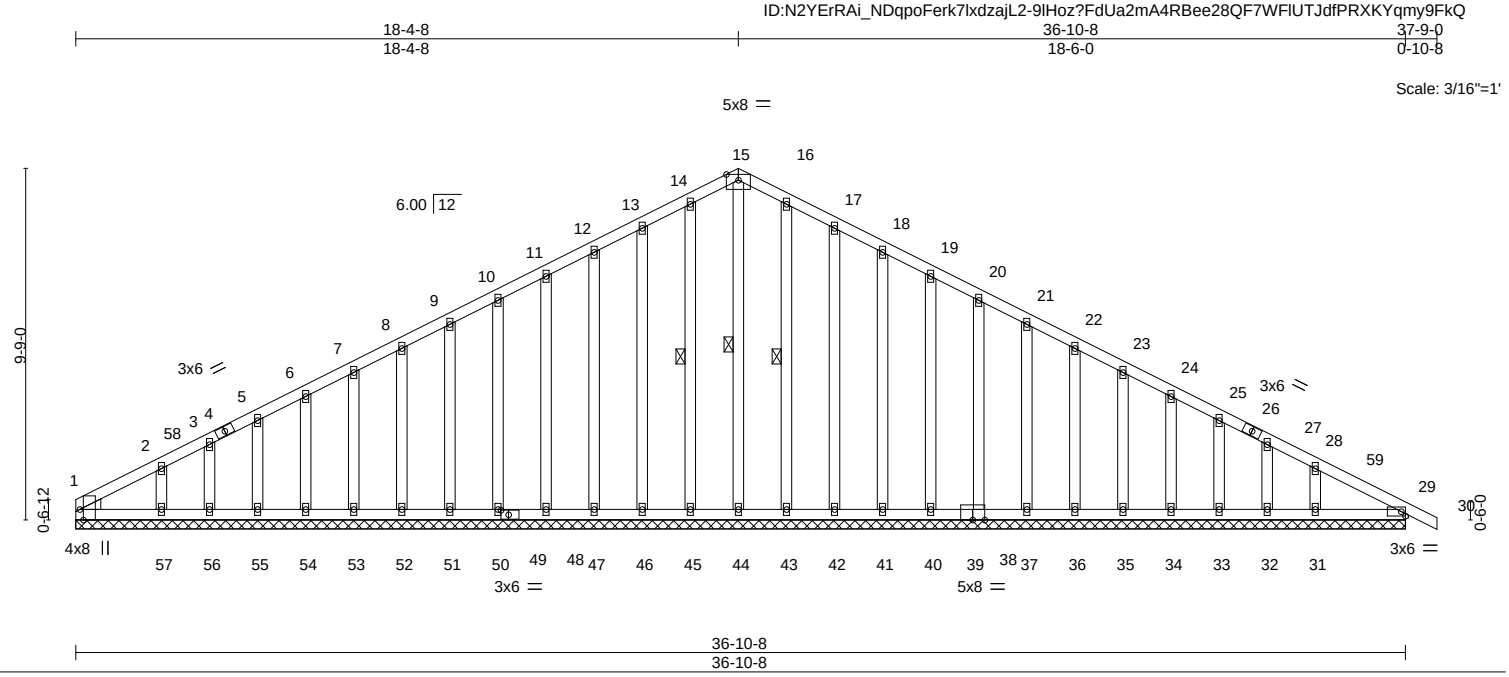


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [49:0-2-8,0-1-8]

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	0.08	Vert(LL)	0.00	29	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	29	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	29	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 235 lb	FT = 20%

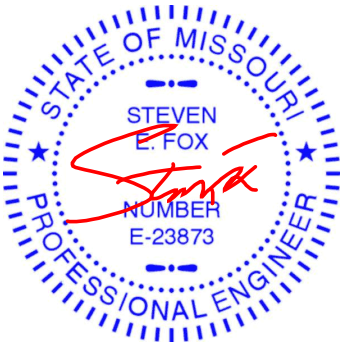
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

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 15-44, 14-45, 16-43

REACTIONS. All bearings 36-10-8.
(lb) - Max Horz 1=-175(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 1, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31
Max Grav All reactions 250 lb or less at joint(s) 1, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 29

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-91/252, 13-14=-105/290, 14-15=-112/310, 15-16=-112/310, 16-17=-105/290, 17-18=-91/252

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 18-4-8, Corner(3R) 18-4-8 to 21-4-8, Exterior(2N) 21-4-8 to 37-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	B1	GABLE	1	1	I49242014
					Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Dec 14 14:05:30 2021 Page 1

ID:N2YErRAi_NDqpoFerk7lxdzajL2-Zr5LYy8MwXUmlHvytOYCo1_QvYA3Z2Nft3HBkJy917p

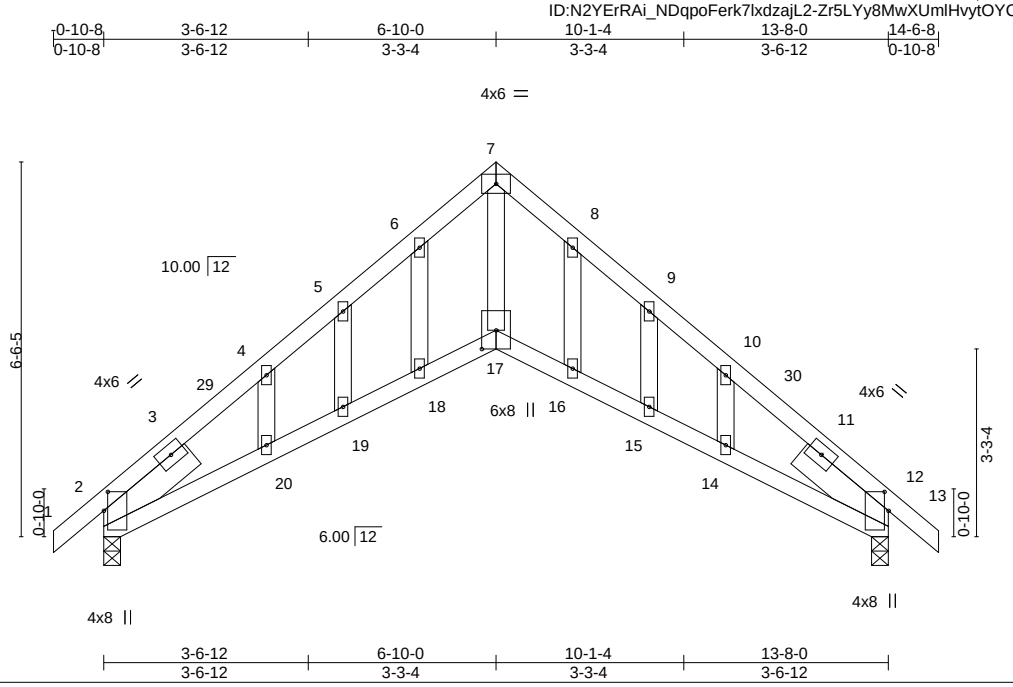


Plate Offsets (X,Y)-- [2:0-3-15,0-0-13], [12:0-3-15,0-0-13], [17:0-3-15,0-3-0]

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	0.28	Vert(LL)	0.13	19-20	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.17	19-20	>990	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.10	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 64 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 2x6 SPF No.2 -ä 2-0-0, Right 2x6 SPF No.2 -ä 2-0-0

BRACING-

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

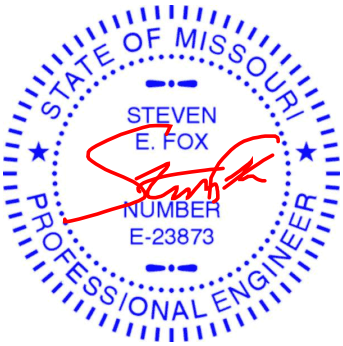
REACTIONS. (lb/size) 2=676/0-3-8, 12=676/0-3-8
Max Horz 2=-168(LC 10)
Max Uplift 2=-104(LC 12), 12=-104(LC 13)

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

TOP CHORD	2-3=-476/316, 3-29=-1119/186, 4-29=-1054/190, 4-5=-1060/251, 5-6=-1034/298, 6-7=-985/343, 7-8=-985/345, 8-9=-1034/300, 9-10=-1060/252, 10-30=-1081/194, 11-30=-1119/190, 11-12=-457/308
BOT CHORD	2-20=-55/883, 19-20=-76/914, 18-19=-91/949, 17-18=-106/968, 16-17=-82/943, 15-16=-78/937, 14-15=-72/909, 12-14=-67/894
WEBS	7-17=-251/996

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 6-10-0, Corner(3R) 6-10-0 to 9-10-0, Exterior(2N) 9-10-0 to 14-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2 and 104 lb uplift at joint 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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	B2	GABLE	1	1	I49242015
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:37 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-68OYOhGt0BIUQObZm34cVgCo9Z5vnV?iurpfvfy9FkO

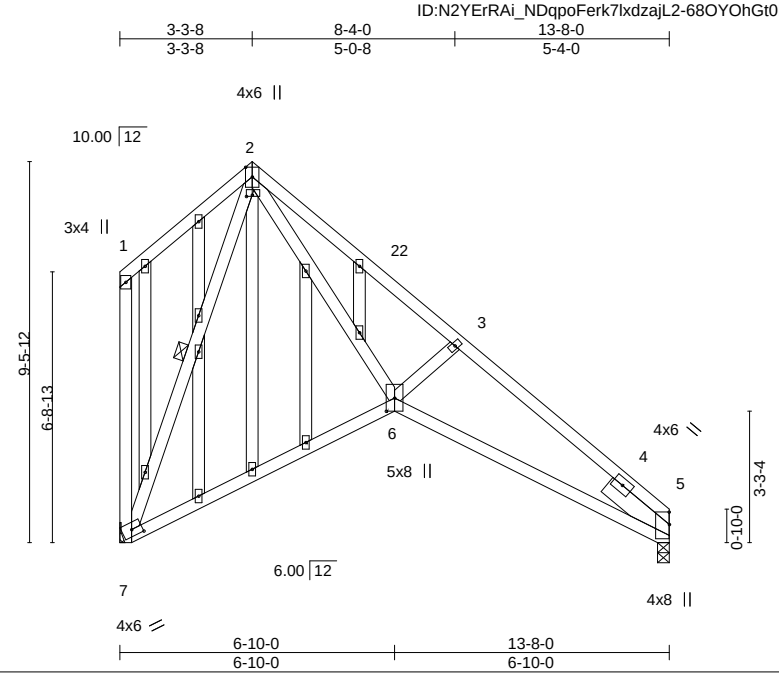


Plate Offsets (X,Y)-- [2:0-1-12,0-0-7], [5:0-3-11,0-0-1], [6:0-3-15,0-2-8], [7:0-3-1,0-2-0]

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	0.31	Vert(LL)	-0.08	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.16	6-7	>991	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.10	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 99 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	Right 2x6 SPF No.2 2-0-0

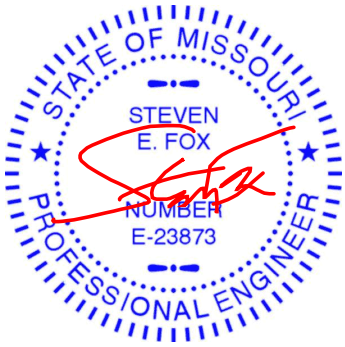
BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-7

REACTIONS. (size) 5=0-3-8, 7=Mechanical
Max Horz 7=-324(LC 10)
Max Uplift 5=-72(LC 13), 7=-149(LC 13)
Max Grav 5=608(LC 1), 7=608(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-229/258, 2-3=-1005/269, 3-5=-1211/253
BOT CHORD 6-7=-129/369, 5-6=-119/979
WEBS 2-6=-119/942, 3-6=-292/258, 2-7=-572/154

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 3-3-8, Exterior(2R) 3-3-8 to 6-3-8, Interior(1) 6-3-8 to 13-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=149.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	B3	Scissor	7	1	I49242016
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:38 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-aKyxb1HWnVQL1XAlKmbr2ulzuyR8WyFs7VYCR5y9FkN

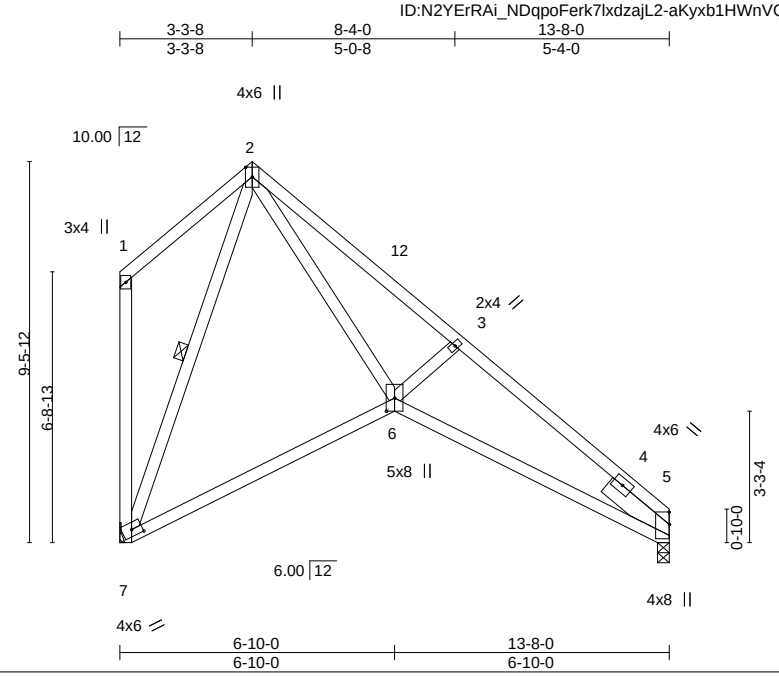


Plate Offsets (X,Y)-- [5:0-3-11,0-0-1], [6:0-3-15,0-2-8], [7:0-3-1,0-2-0]

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	0.31	Vert(LL)	-0.08	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.16	6-7	>991	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.10	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 70 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Right 2x6 SPF No.2 2-0-0

BRACING-

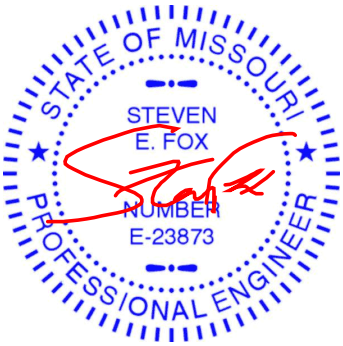
TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-7

REACTIONS. (size) 5=0-3-8, 7=Mechanical
Max Horz 7=-324(LC 10)
Max Uplift 5=-72(LC 13), 7=-149(LC 13)
Max Grav 5=608(LC 1), 7=608(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-229/258, 2-3=-1005/269, 3-5=-1211/253
BOT CHORD 6-7=-129/369, 5-6=-119/979
WEBS 2-6=-119/942, 3-6=-292/258, 2-7=-572/154

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 3-3-8, Exterior(2R) 3-3-8 to 6-3-8, Interior(1) 6-3-8 to 13-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) 5 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) 5 except (jt=lb) 7=149.
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.



December 14,2021

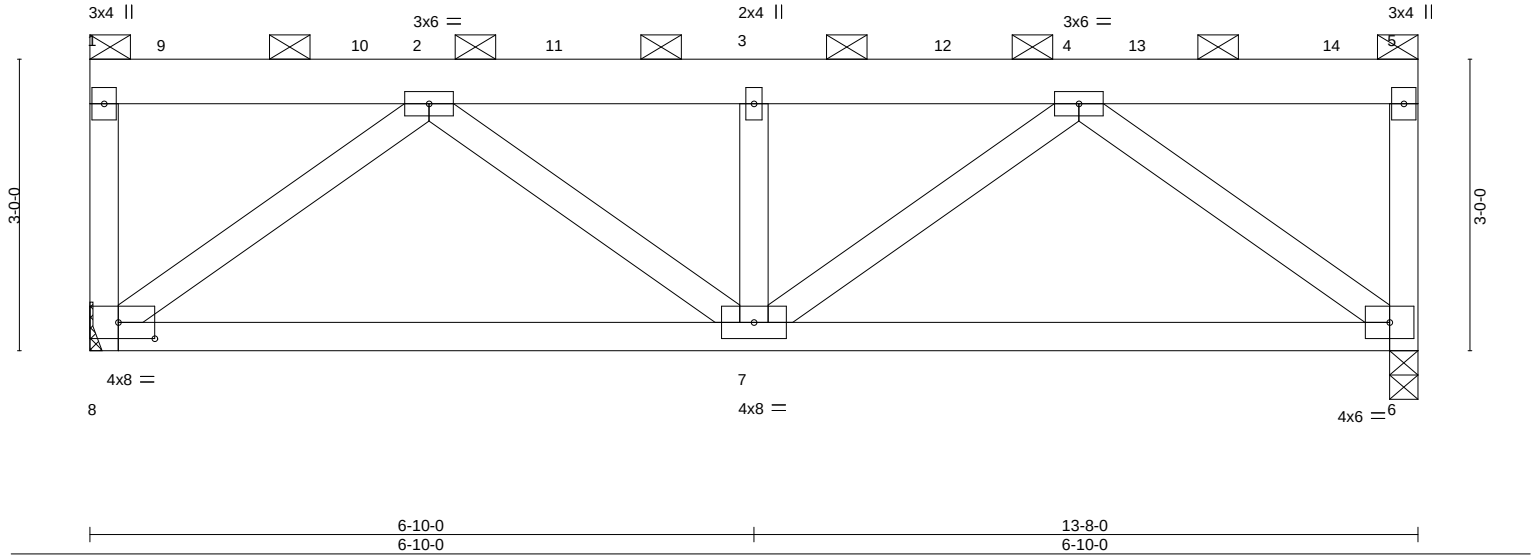
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	B4	FLAT	1	2	I49242017
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:39 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-2XWJoNI8YoYCfhlytT64a5I9cMm3FM8?M9II_Yy9FkM

3-5-14 | 6-10-0 | 10-2-2 | 13-8-0
3-5-14 | 3-4-2 | 3-4-2 | 3-5-14

Scale = 1:23.7



6-10-0 | 13-8-0
6-10-0 | 6-10-0

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

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	0.24	Vert(LL)	-0.04	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.08	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 131 lb	FT = 20%

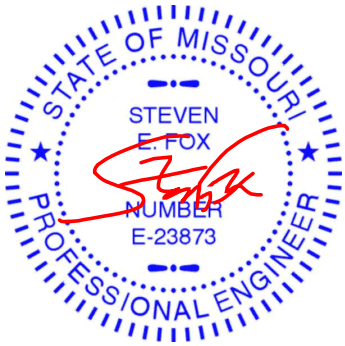
LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 8=Mechanical, 6=0-3-8
Max Horz 8=-100(LC 29)
Max Uplift 8=-705(LC 8), 6=-698(LC 9)
Max Grav 8=3770(LC 1), 6=3814(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-909/217, 2-3=-4771/1057, 3-4=-4771/1057, 5-6=-955/213
BOT CHORD 7-8=-913/3642, 6-7=-876/3641
WEBS 3-7=-1652/416, 2-8=-4514/1074, 2-7=-297/1435, 4-7=-304/1436, 4-6=-4511/1068

NOTES-
1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=705, 6=698.
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.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 914 lb down and 217 lb up at 0-10-4, 904 lb down and 222 lb up at 2-10-4, 904 lb down and 222 lb up at 4-10-4, 904 lb down and 222 lb up at 6-10-4, 904 lb down and 222 lb up at 8-10-4, and 904 lb down and 222 lb up at 10-10-4, and 945 lb down and 202 lb up at 12-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.



December 14,2021

Continued on page 2

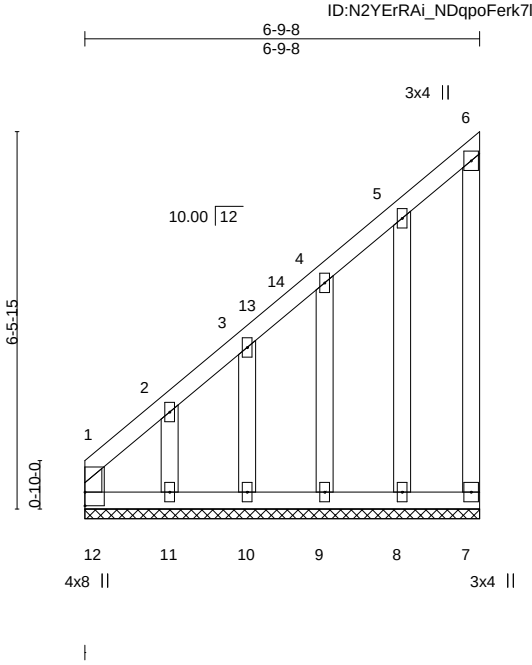
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-70, 6-8=-20
   Concentrated Loads (lb)
   Vert: 3=-904 9=-914 10=-904 11=-904 12=-904 13=-904 14=-945

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	B5	Monopitch Supported Gable	1	1	I49242018
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:40 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-Wj4h0jImJ6g3HrK8RBeJ7JqJym8p_uT8ap1JW_y9FkL



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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 40 lb	FT = 20%

LUMBER-

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

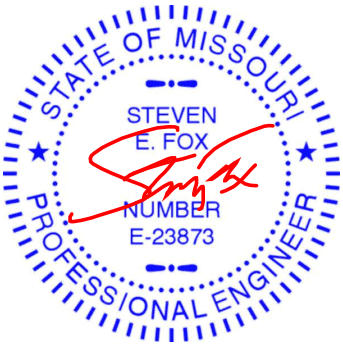
BRACING-

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

REACTIONS. All bearings 6-9-8.
(lb) - Max Horz 12=239(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 10 except 12=-125(LC 10), 11=-185(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 12, 7, 8, 9, 10, 11

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-461/276, 1-2=-657/416, 2-3=-458/303, 3-4=-382/269, 4-5=-267/224
WEBS 2-11=-203/296

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(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 6-7-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 7, 8, 9, 10 except (jt=lb) 12=125, 11=185.
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.



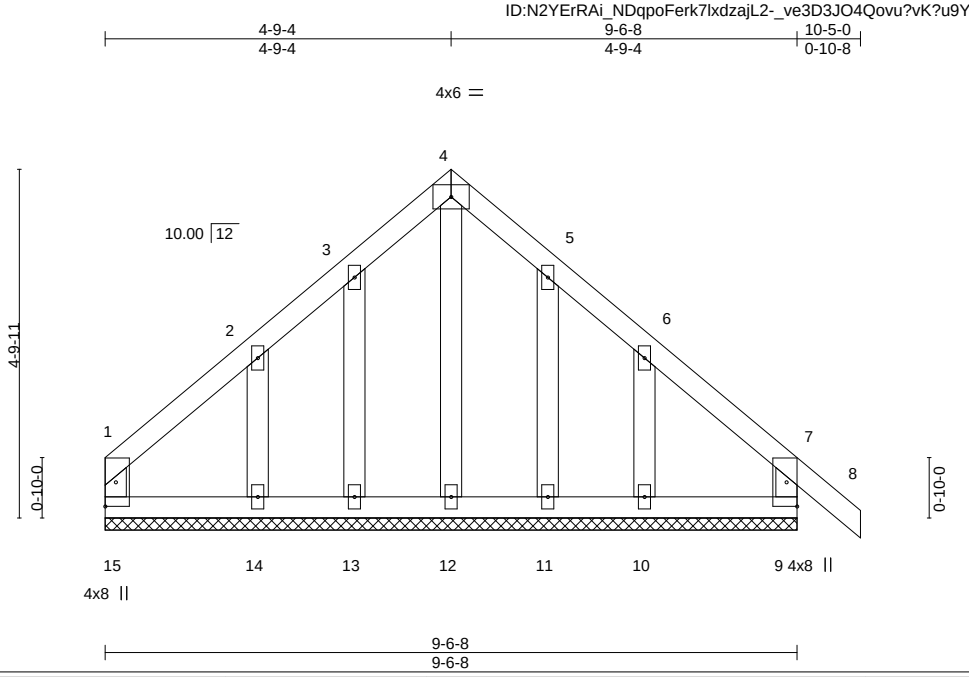
December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	C1	Common Supported Gable	1	1	I49242019

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:41 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-_ve3D3JO4Qovu?vK?u9YgWNXSAXriLaIpTns2Qy9FkK



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	8	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	8	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 44 lb	FT = 20%

LUMBER-

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

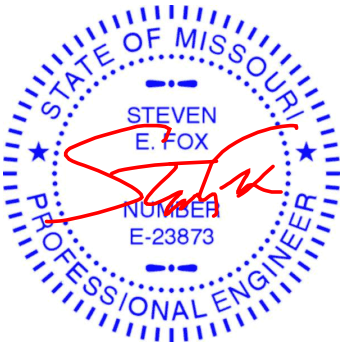
BRACING-

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

REACTIONS. All bearings 9-6-8.
(lb) - Max Horz 15=-139(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 15, 9, 13, 11 except 14=-124(LC 12), 10=-118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 15, 9, 12, 13, 14, 11, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-129/253, 4-5=-129/253

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-5-4, Exterior(2N) 3-5-4 to 4-9-4, Corner(3R) 4-9-4 to 7-9-4, Exterior(2N) 7-9-4 to 10-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 9, 13, 11 except (jt=lb) 14=124, 10=118.
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.



December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	C2	Common	1	1	I49242020
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:42 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-S5CRRPK0rjxmW9UXZcgnCkwggarqRpPR27WQaty9FkJ

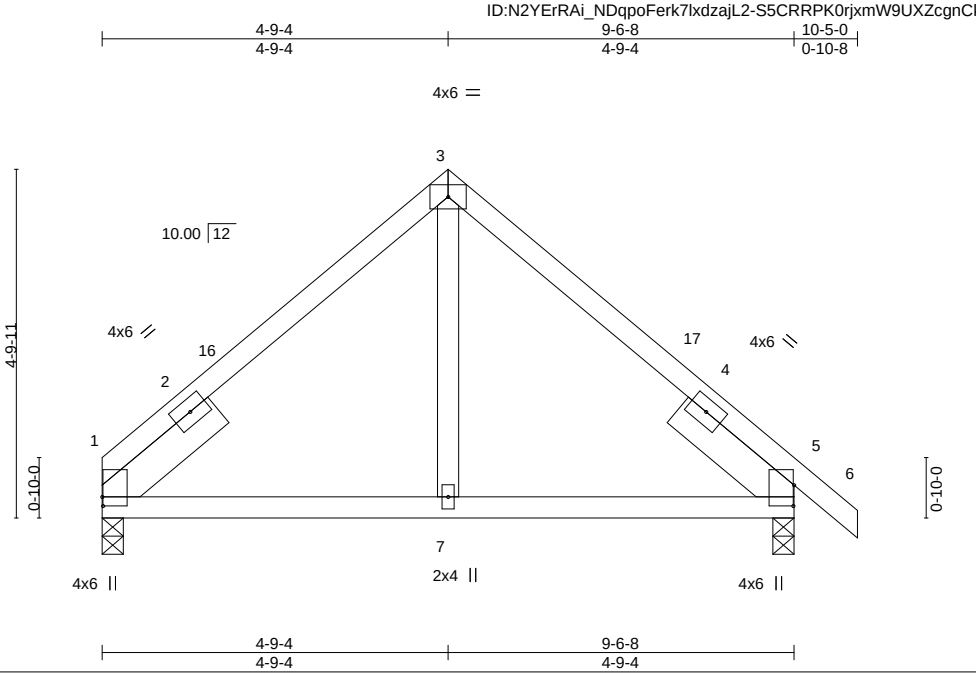


Plate Offsets (X,Y)-- [1:0-1-8,0-0-2], [5:0-3-7,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.02	7-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	7-10	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.01	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 39 lb	FT = 20%

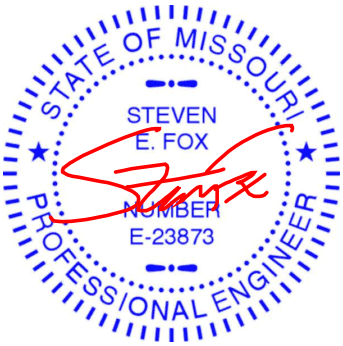
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=-116(LC 10)
Max Uplift 1=-58(LC 12), 5=-79(LC 13)
Max Grav 1=427(LC 1), 5=493(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-378/190, 3-5=-380/190
BOT CHORD 1-7=-14/277, 5-7=-14/277

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 4-9-4, Exterior(2R) 4-9-4 to 7-9-4, Interior(1) 7-9-4 to 10-5-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.
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.

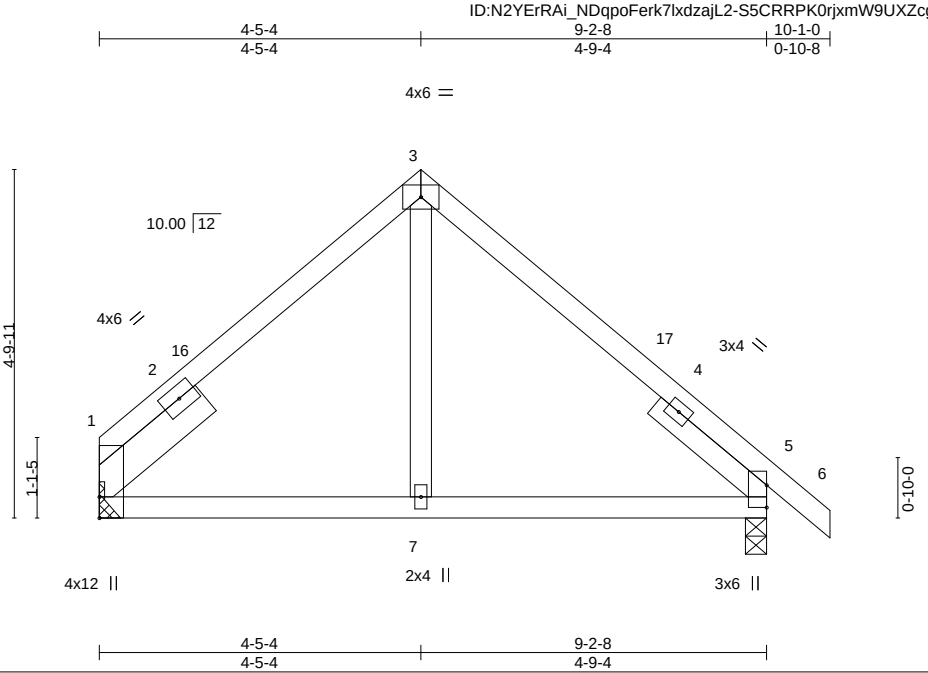


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	C3	Common	1	1	I49242021
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:42 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-S5CRRPK0rjxmW9UXZcgnCkwgXar6RpRR27WQaty9FkJ



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	0.20	Vert(LL)	-0.02	7-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	7-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 37 lb	FT = 20%

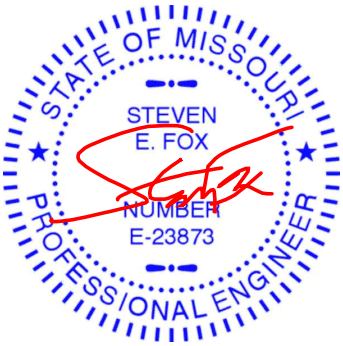
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

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

REACTIONS. (size) 1=Mechanical, 5=0-3-8
Max Horz 5=-116(LC 8)
Max Uplift 1=-54(LC 12), 5=-76(LC 13)
Max Grav 1=411(LC 1), 5=479(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-375/186, 3-5=-350/180

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 4-5-4, Exterior(2R) 4-5-4 to 7-5-4, Interior(1) 7-5-4 to 10-1-0 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) 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) 1, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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.



December 14,2021

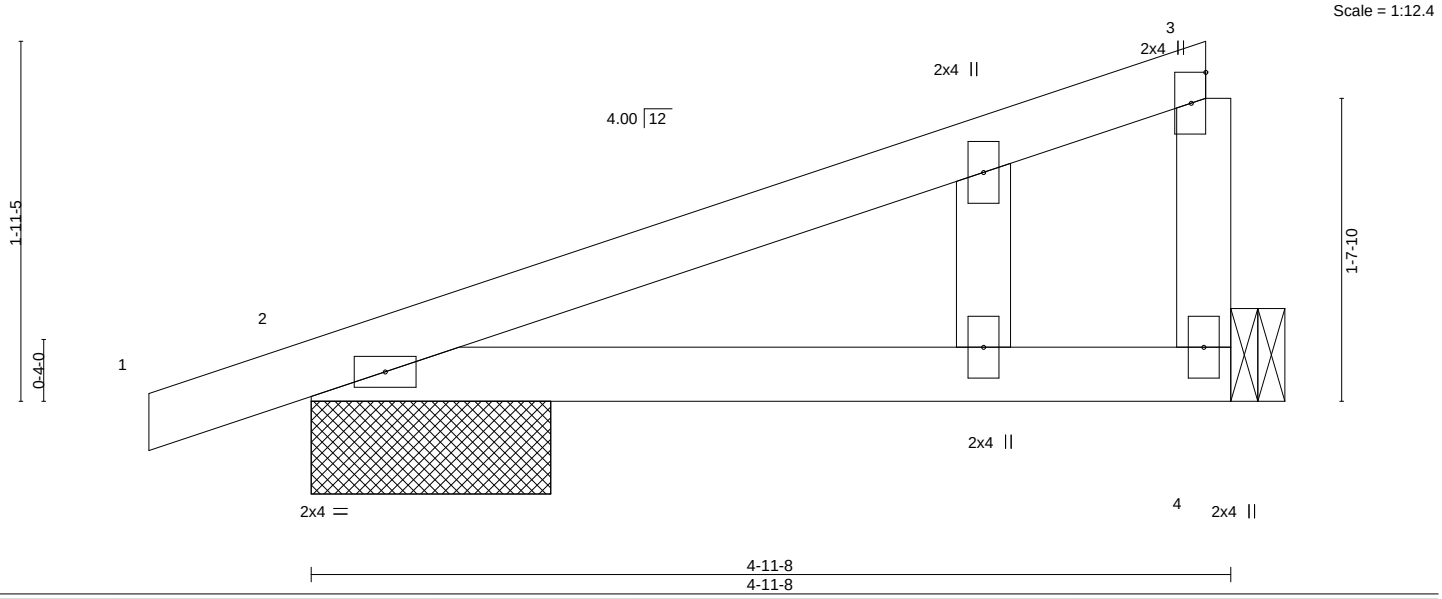
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	D1	GABLE	1	1	I49242022
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:43 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-wImqelLec13d8J2j6JB0lxSoazAEAGLbHnGz7Jy9Fkl

-0-10-8 4-11-8
0-10-8 4-11-8

Scale = 1:12.4



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	0.44	Vert(LL)	-0.03	2-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	2-4	>898	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 15 lb	FT = 20%

LUMBER-

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

BRACING-

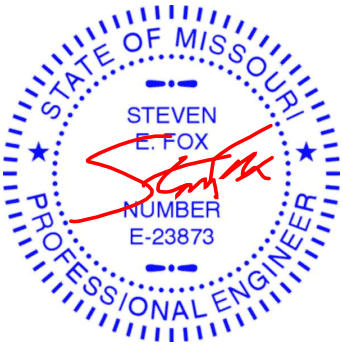
TOP CHORD	Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=1-3-8
Max Horz 2=78(LC 9)
Max Uplift 4=-52(LC 12), 2=-85(LC 8)
Max Grav 4=209(LC 1), 2=283(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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-9-5 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) 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.
3) Gable studs spaced at 1-4-0 oc.
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) 4, 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.

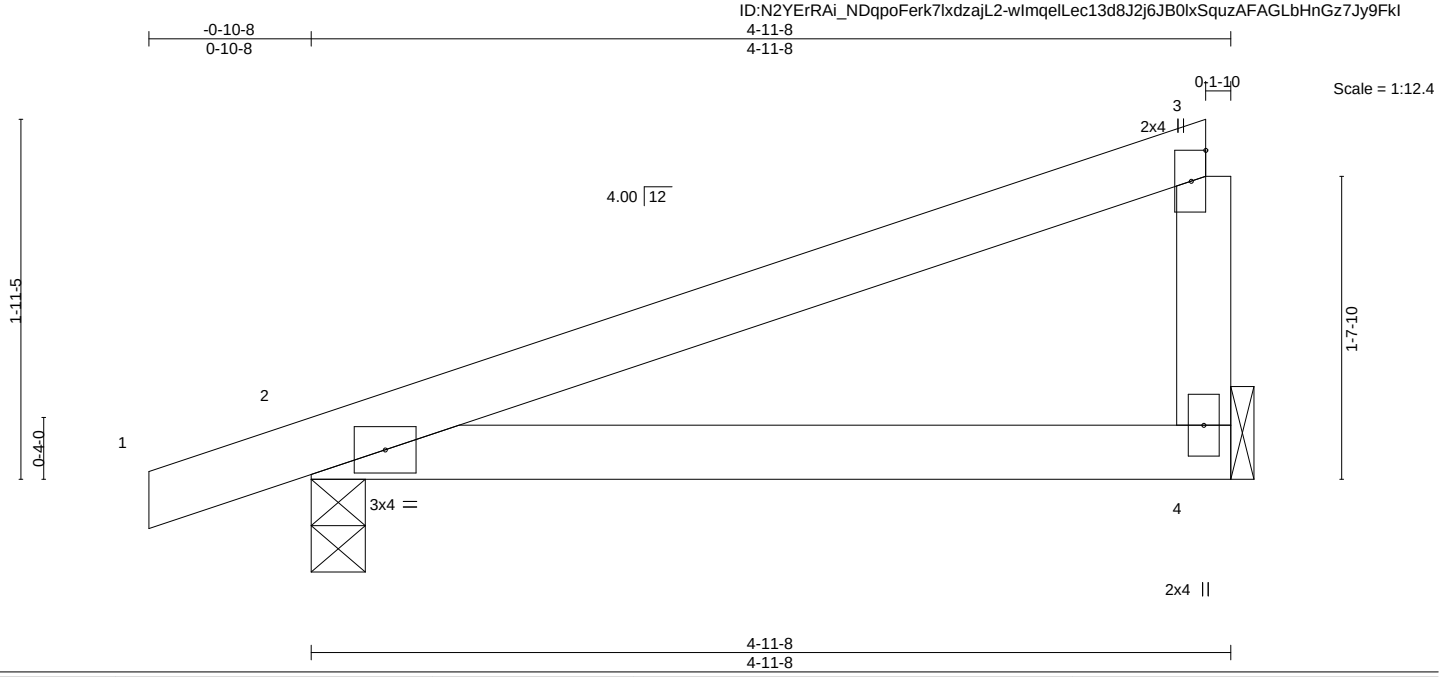


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	D2	Monopitch	3	1	I49242023
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:43 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-wImqelLec13d8J2j6JB0lxSquzAFAGLbHnGz7Jy9FkI



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	0.29	Vert(LL)	-0.03	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	4-7	>990	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-AS							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=79(LC 11)
Max Uplift 4=-53(LC 12), 2=-85(LC 8)
Max Grav 4=211(LC 1), 2=283(LC 1)

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

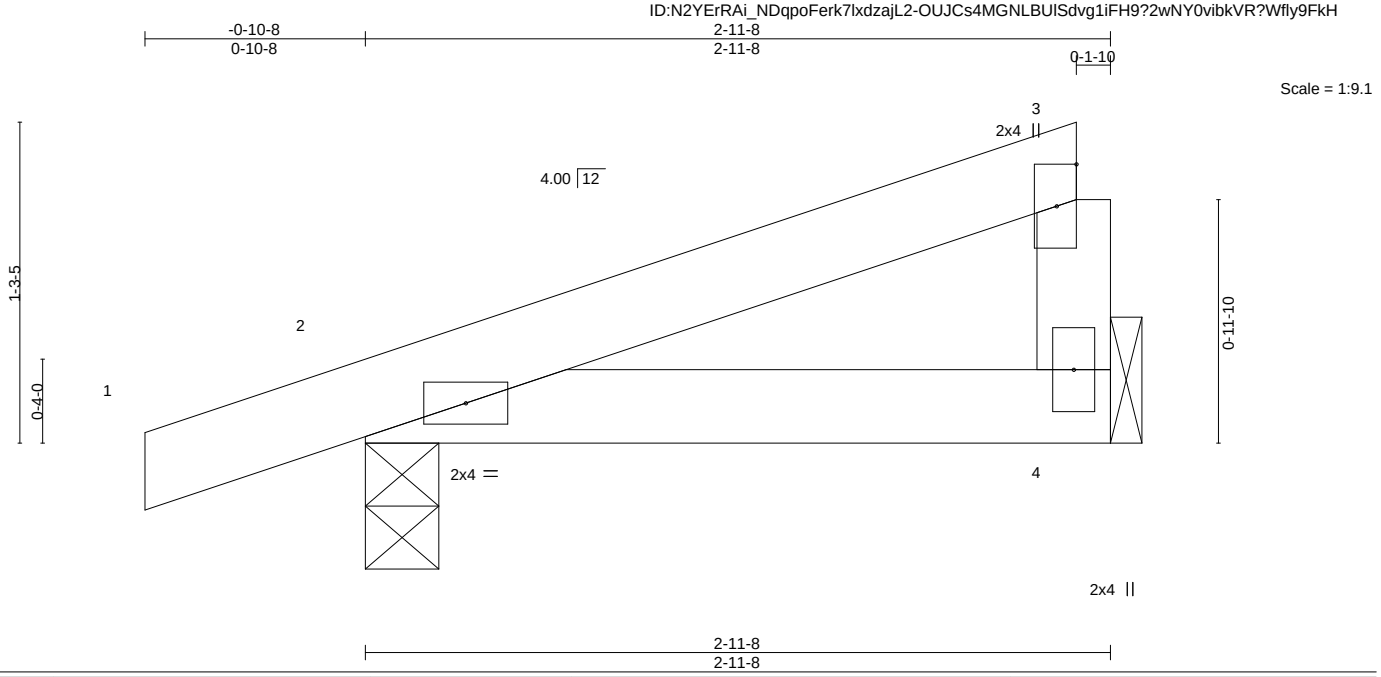
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) This truss 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.

December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	D3	Monopitch	7	1	I49242024
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:44 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-OUJCs4MGNLBUlSdvg1iFH9?2wNY0vibkVR?Wfly9FkH



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	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	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: 9 lb	FT = 20%

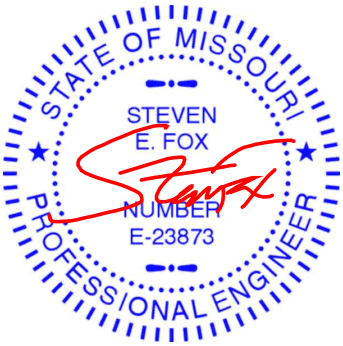
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=49(LC 11)
Max Uplift 4=-29(LC 12), 2=-69(LC 8)
Max Grav 4=117(LC 1), 2=197(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 2-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14,2021

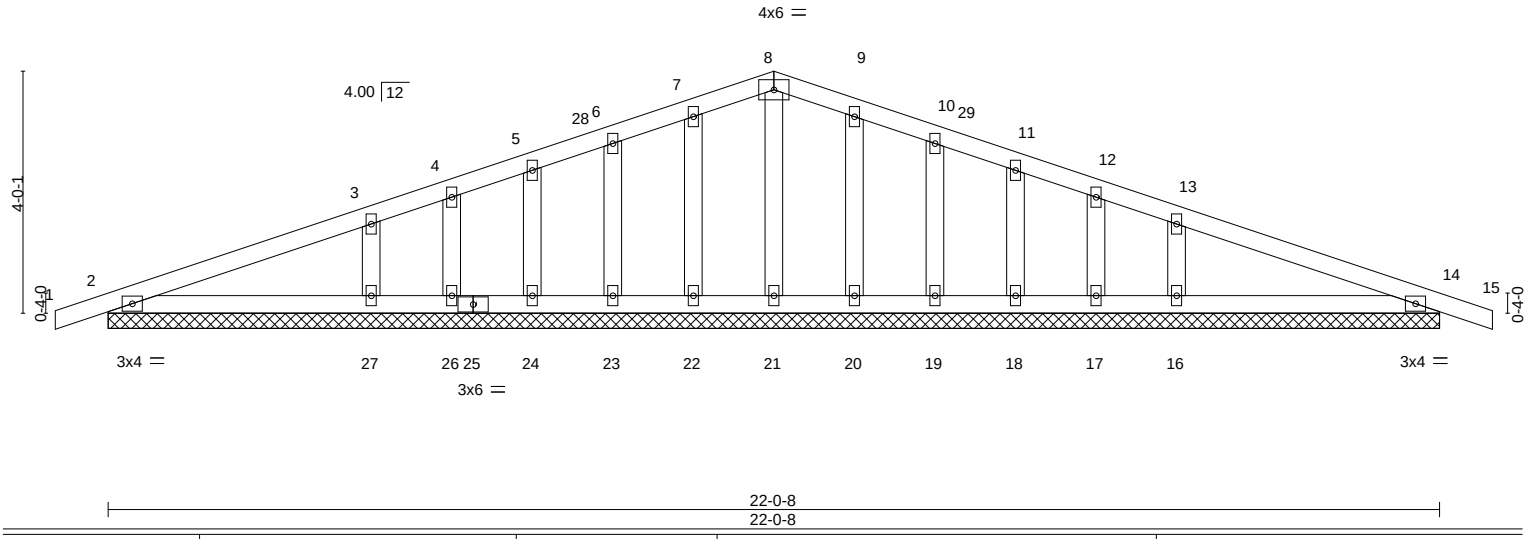
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	E1	Common Supported Gable	1	1	I49242025
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:45 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-tgta3QMv8eJLNcC6EkDUqMYBgnuce9Duk5l4BBy9FkG

0-10-8 11-0-4 22-0-8 22-11-0
0-10-8 11-0-4 11-0-4 0-10-8

Scale = 1:38.1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	0.01	15	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	15	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 82 lb	FT = 20%

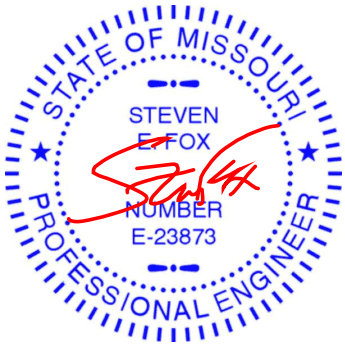
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2

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

REACTIONS. All bearings 22-0-8.
(lb) - Max Horz 2=70(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=-114(LC 12), 16=-114(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=420(LC 25), 16=420(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-27=-305/171, 13-16=-305/171

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-0-4, Corner(3R) 11-0-4 to 14-0-4, Exterior(2N) 14-0-4 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except (jt=lb) 27=114, 16=114.
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.



December 14,2021

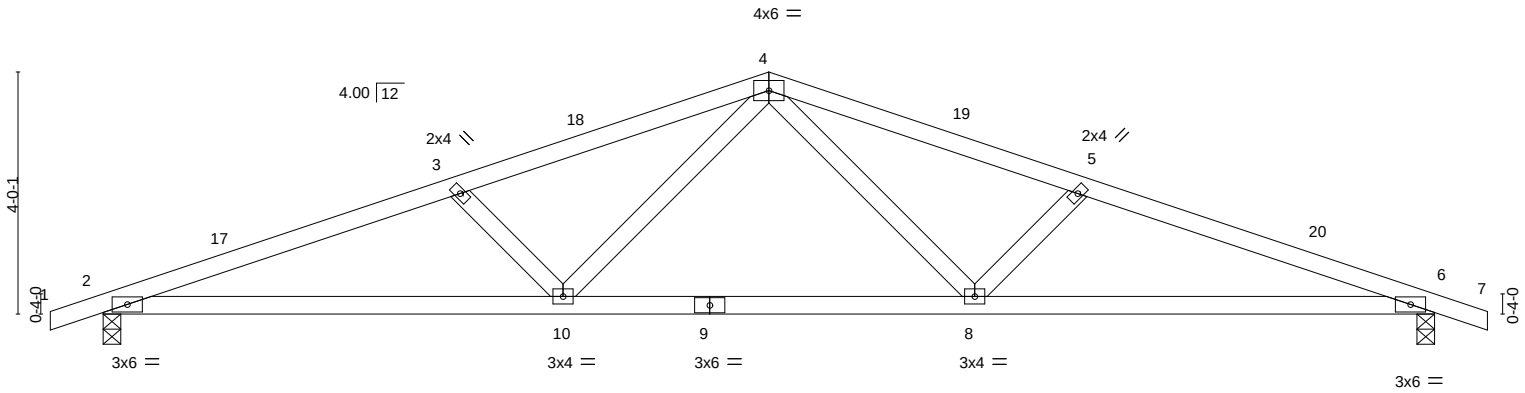
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	E2	Common	4	1	I49242026
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:46 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-LtRyGmNXvyRC?mnIoSljNa4KmB5yNaZ1zlUdjey9FkF

0-10-8	5-10-15	11-0-4	16-1-9	22-0-8	22-11-0
0-10-8	5-10-15	5-1-5	5-1-5	5-10-15	0-10-8

Scale = 1:38.1



7-7-6	14-5-2	22-0-8
7-7-6	6-9-13	7-7-6

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)	-0.12	10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.25	10-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 71 lb	FT = 20%

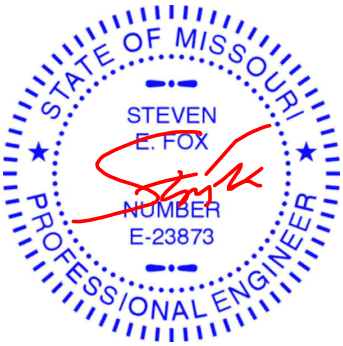
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=70(LC 12)
Max Uplift 2=-223(LC 8), 6=-223(LC 9)
Max Grav 2=1053(LC 1), 6=1053(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2363/569, 3-4=-2086/510, 4-5=-2086/510, 5-6=-2363/569
BOT CHORD 2-10=-478/2213, 8-10=-276/1486, 6-8=-482/2213
WEBS 4-8=-125/661, 5-8=-449/198, 4-10=-125/661, 3-10=-449/198

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 11-0-4, Exterior(2R) 11-0-4 to 14-0-4, Interior(1) 14-0-4 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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=223, 6=223.
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.



December 14,2021

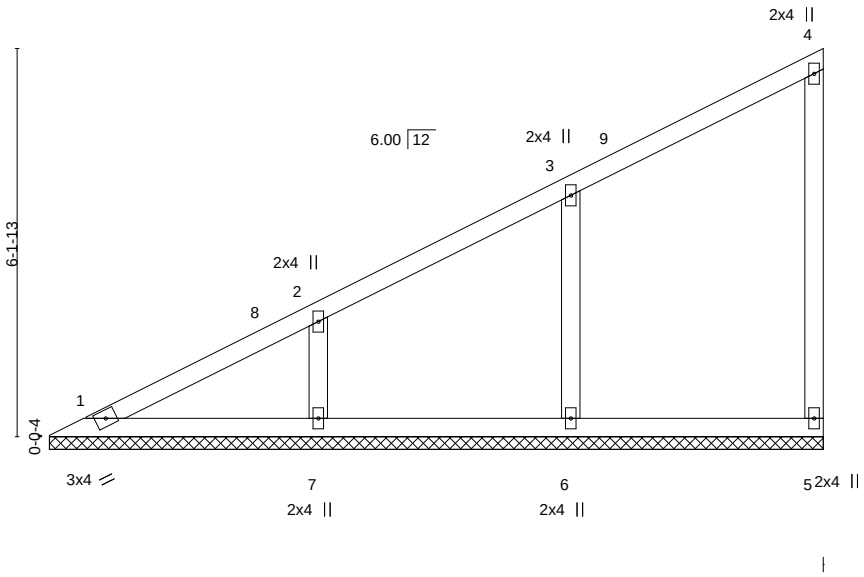
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V1	Valley	1	1	I49242027
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:47 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-p3?KU6O9gGZ3cwMUL9GyvndXJbZM624ABPEAG4y9FkE

12-3-10
12-3-10

Scale = 1:36.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%

LUMBER-

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

BRACING-

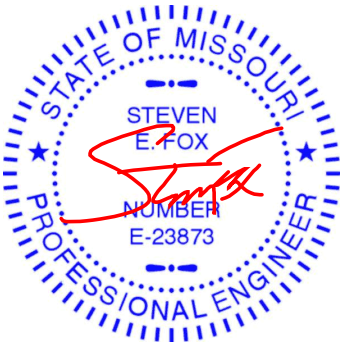
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-3-2.
(lb) - Max Horz 1=240(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=-129(LC 12), 7=-130(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=380(LC 1), 7=381(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-351/208
WEBS 3-6=-298/224, 2-7=-289/209

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 12-1-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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) 5 except (jt=lb) 6=129, 7=130.
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.

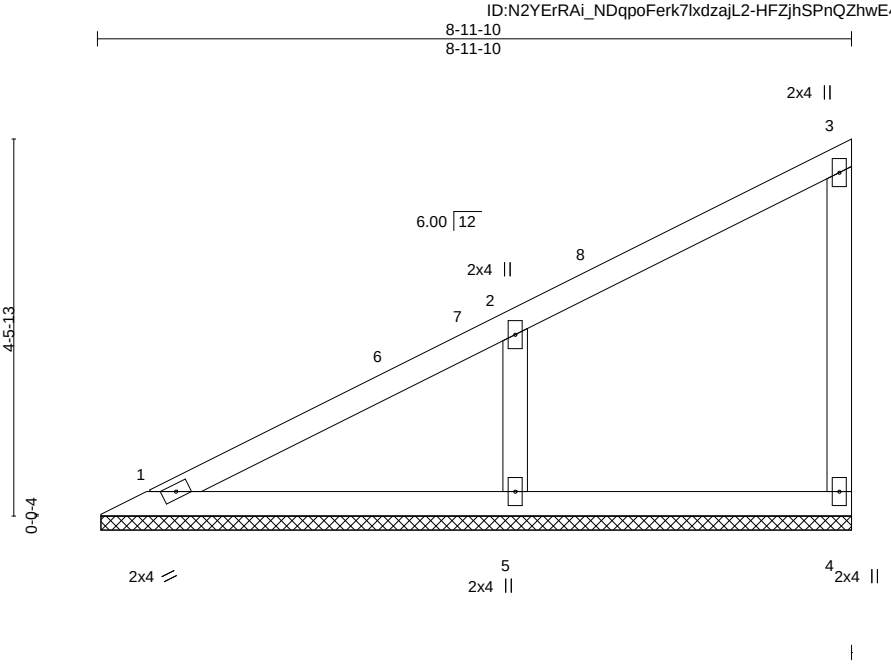


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V2	Valley	1	1	I49242028
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:48 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-HFZjhSPnQZhwE4xgvsnBS?Ahs_uyrWmKQ3zkoWy9FkD



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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	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
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

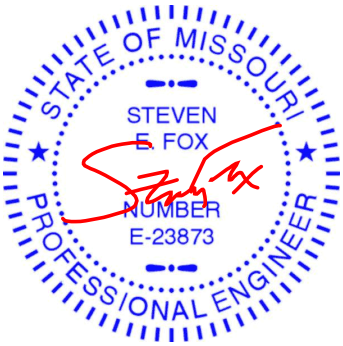
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=8-11-2, 4=8-11-2, 5=8-11-2
Max Horz 1=171(LC 9)
Max Uplift 4=-32(LC 9), 5=-136(LC 12)
Max Grav 1=152(LC 20), 4=124(LC 1), 5=462(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-263/172
WEBS 2-5=-359/275

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-9-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
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) 4 except (jt=lb) 5=136.
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.

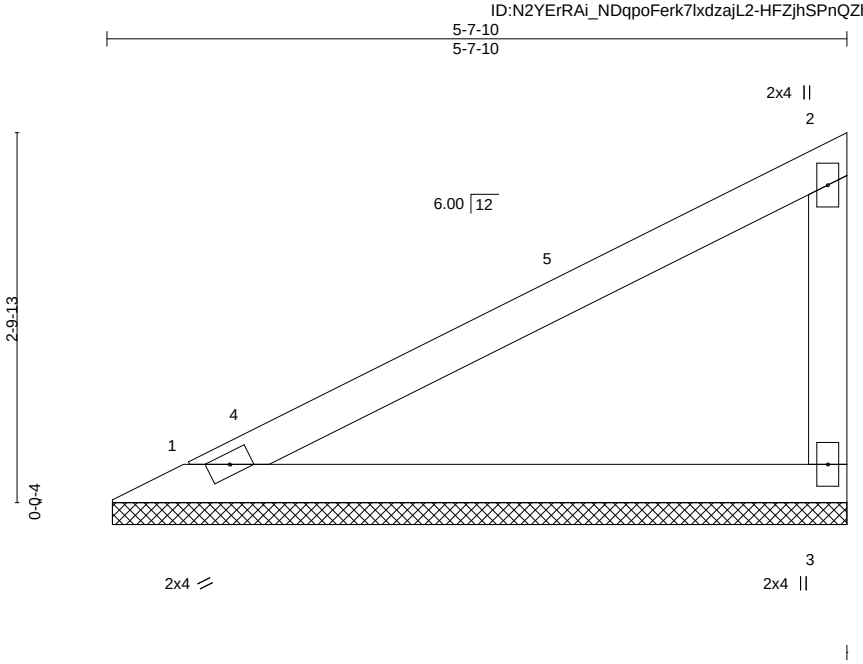


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V3	Valley	1	1	I49242029
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:48 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-HFZjhSPnQZhwE4xgvsnBS?Ae3_tKrWaKQ3zkoWy9FkD



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)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

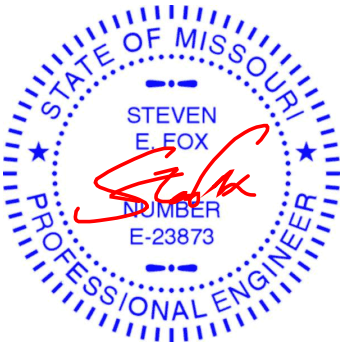
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=5-7-2, 3=5-7-2
Max Horz 1=101(LC 9)
Max Uplift 1=-37(LC 12), 3=-62(LC 12)
Max Grav 1=219(LC 1), 3=219(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-5-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
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.

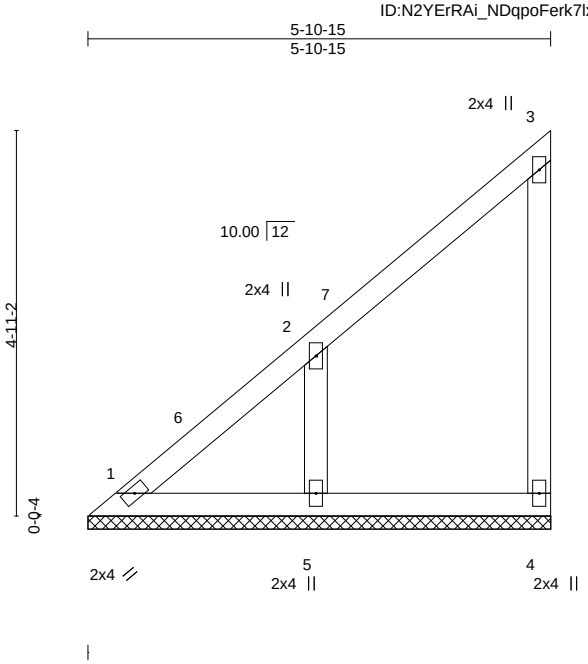


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V4	GABLE	1	1	I49242030
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:49 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-lS75voPPBtpnsEWtTaIQ_Ciu1OGSazvTfjjHKzy9FkC



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)	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	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 22 lb	FT = 20%

LUMBER-

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

BRACING-

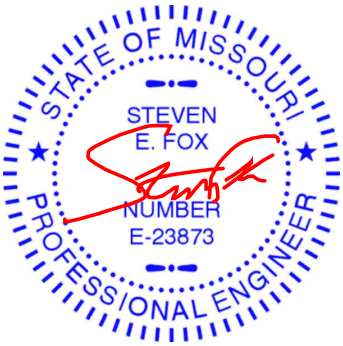
TOP CHORD	Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-10-15, 4=5-10-15, 5=5-10-15
Max Horz 1=178(LC 9)
Max Uplift 1=-28(LC 8), 4=-52(LC 9), 5=-163(LC 12)
Max Grav 1=128(LC 20), 4=120(LC 19), 5=323(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-406/235
WEBS 2-5=-255/336

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) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-9-3 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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=163.
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.

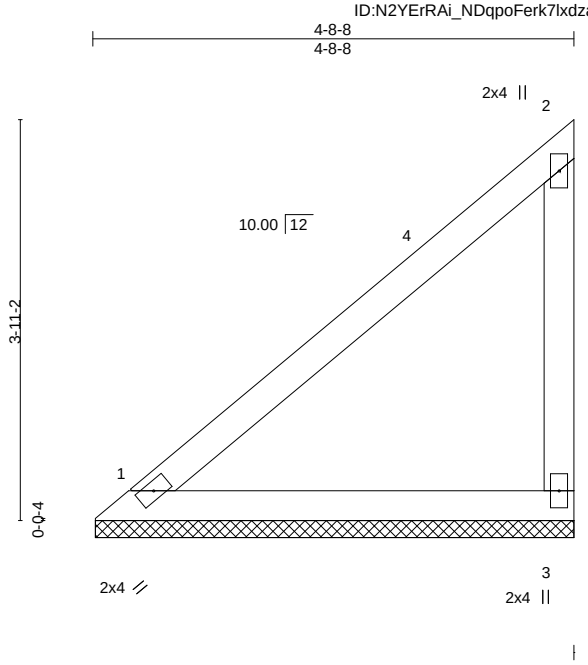


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V5	Valley	1	1	I49242031
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:50 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-DehT68Q1yAxeTN531HpfXQF0ooauJQ4duNSrsPy9FkB



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)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 15 lb	FT = 20%

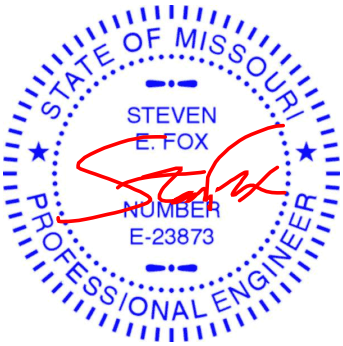
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-8-3, 3=4-8-3
Max Horz 1=138(LC 9)
Max Uplift 1=-12(LC 12), 3=-73(LC 12)
Max Grav 1=187(LC 1), 3=211(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-182/265

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) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
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.

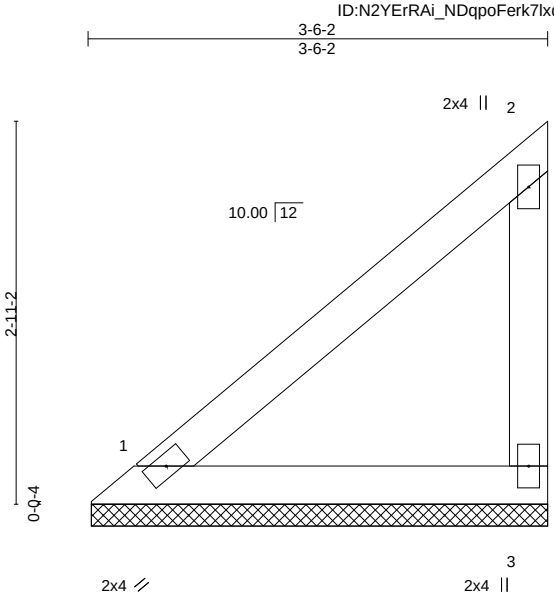


December 14,2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/158 Cobey Creek
3008833	V6	Valley	1	1	I49242032
					Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:50 2021 Page 1
ID:N2YErRAi_NDqpoFerk7lxdzajL2-DehT68Q1yAxeTN531HpfXQF3hobKJQ4duNSrsPy9FkB



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 11 lb	FT = 20%

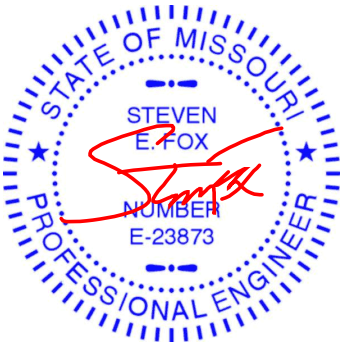
LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

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

REACTIONS. (size) 1=3-5-13, 3=3-5-13
Max Horz 1=98(LC 9)
Max Uplift 1=-9(LC 12), 3=-52(LC 12)
Max Grav 1=133(LC 1), 3=150(LC 19)

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) Gable requires continuous bottom chord bearing.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
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.

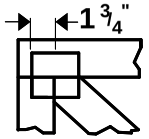


December 14,2021

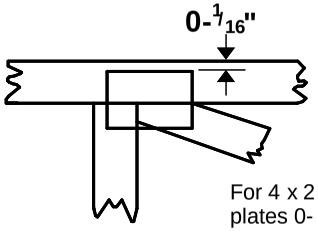
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

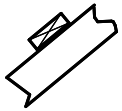
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

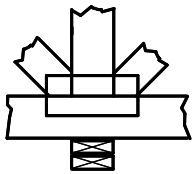
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

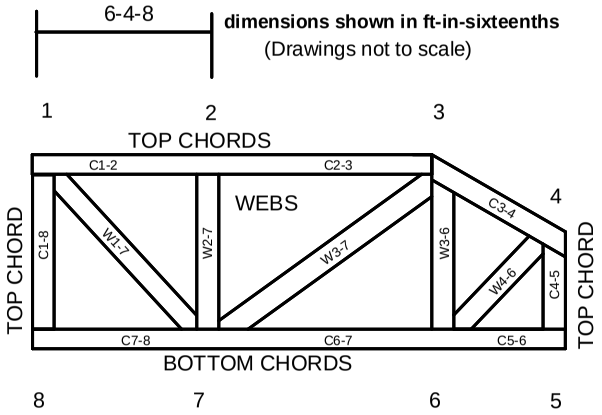


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

21.The design does not take into account any dynamic or other loads other than those expressly stated.