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

03/03/2021

RE: 2648535
Summit/66 Woodside

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

Site Information:

Customer: SUMMIT CUSTOM HOMES Project Name: 2648535
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 8.2
Wind Code: N/A Wind Speed: 115 mph
Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 83 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I41762447	A01	2/12/2021	21	I41762467	D04	2/12/2021
2	I41762448	A02	2/12/2021	22	I41762468	D05	2/12/2021
3	I41762449	A03	2/12/2021	23	I41762469	D06	2/12/2021
4	I41762450	A04	2/12/2021	24	I41762470	D07	2/12/2021
5	I41762451	A05	2/12/2021	25	I41762471	D08	2/12/2021
6	I41762452	B01	2/12/2021	26	I41762472	D09	2/12/2021
7	I41762453	B02	2/12/2021	27	I41762473	D10	2/12/2021
8	I41762454	B03	2/12/2021	28	I41762474	D11	2/12/2021
9	I41762455	C01	2/12/2021	29	I41762475	D12	2/12/2021
10	I41762456	C02	2/12/2021	30	I41762476	D13	2/12/2021
11	I41762457	C03	2/12/2021	31	I41762477	D15	2/12/2021
12	I41762458	C04	2/12/2021	32	I41762478	D16	2/12/2021
13	I41762459	C05	2/12/2021	33	I41762479	E01	2/12/2021
14	I41762460	C06	2/12/2021	34	I41762480	E02	2/12/2021
15	I41762461	C07	2/12/2021	35	I41762481	E03	2/12/2021
16	I41762462	C08	2/12/2021	36	I41762482	E04	2/12/2021
17	I41762463	C09	2/12/2021	37	I41762483	J01	2/12/2021
18	I41762464	D01	2/12/2021	38	I41762484	J02	2/12/2021
19	I41762465	D02	2/12/2021	39	I41762485	J03	2/12/2021
20	I41762466	D03	2/12/2021	40	I41762486	J04	2/12/2021

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: Sevier, Scott

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

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.

February 12, 2021

Sevier, Scott

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

RE: 2648535 - Summit/66 Woodside

Site Information:

Project Customer: SUMMIT CUSTOM HOMES Project Name: 2648535
Lot/Block: Subdivision:
Address:
City, County: State:

No.	Seal#	Truss Name	Date
41	I41762487	J05	2/12/2021
42	I41762488	J06	2/12/2021
43	I41762489	J07	2/12/2021
44	I41762490	J08	2/12/2021
45	I41762491	J09	2/12/2021
46	I41762492	J10	2/12/2021
47	I41762493	J11	2/12/2021
48	I41762494	J12	2/12/2021
49	I41762495	J13	2/12/2021
50	I41762496	J14	2/12/2021
51	I41762497	J15	2/12/2021
52	I41762498	J16	2/12/2021
53	I41762499	J17	2/12/2021
54	I41762500	J18	2/12/2021
55	I41762501	J19	2/12/2021
56	I41762502	J20	2/12/2021
57	I41762503	J21	2/12/2021
58	I41762504	J22	2/12/2021
59	I41762505	J23	2/12/2021
60	I41762506	J24	2/12/2021
61	I41762507	J25	2/12/2021
62	I41762508	J26	2/12/2021
63	I41762509	J27	2/12/2021
64	I41762510	J28	2/12/2021
65	I41762511	J29	2/12/2021
66	I41762512	J30	2/12/2021
67	I41762513	J31	2/12/2021
68	I41762514	JD01	2/12/2021
69	I41762515	JD02	2/12/2021
70	I41762516	JD03	2/12/2021
71	I41762517	LG1	2/12/2021
72	I41762518	LG2	2/12/2021
73	I41762519	LG3	2/12/2021
74	I41762520	LG4	2/12/2021
75	I41762521	LG5	2/12/2021
76	I41762522	LG6	2/12/2021
77	I41762523	LG7	2/12/2021
78	I41762524	R1	2/12/2021
79	I41762525	V01	2/12/2021
80	I41762526	V02	2/12/2021
81	I41762527	V03	2/12/2021
82	I41762528	V04	2/12/2021
83	I41762529	V05	2/12/2021

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A01	HIP GIRDER	1	3	Job Reference (optional)

I41762447

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:37:38 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-aaUimbrKxy_xZgfzhcBYEy4sqFLR598LPNbT4Oz3Qtx

-0-10-8	3-9-11	7-3-14	13-0-12	18-9-10	24-6-8	29-3-1	33-11-9	38-8-2	42-8-8	46-0-0
0-10-8	3-9-11	3-6-3	5-8-14	5-8-14	5-8-14	4-8-9	4-8-9	4-8-9	4-0-6	3-3-8

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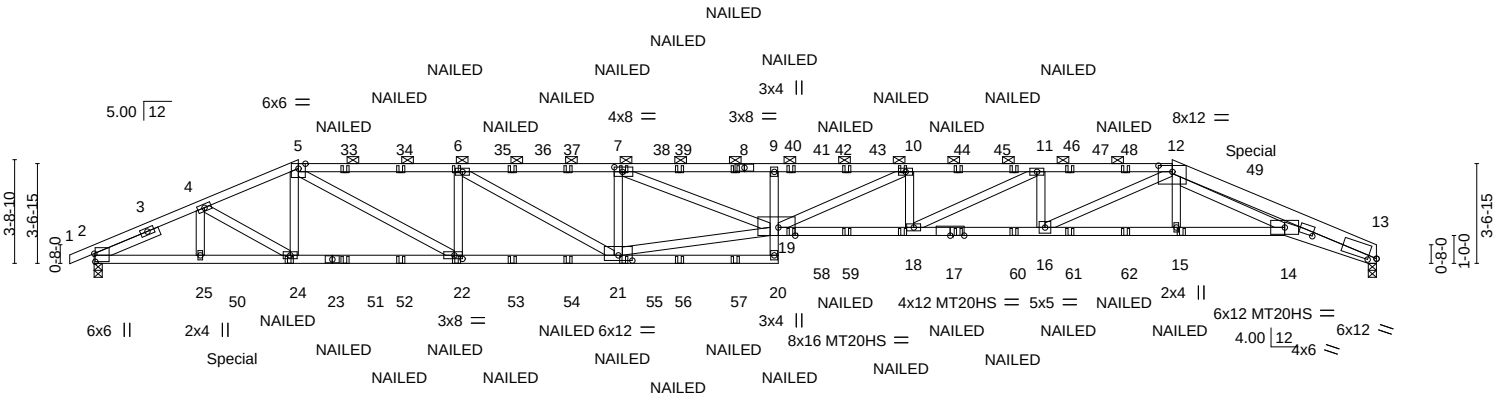


3-9-11	7-3-14	13-0-12	18-9-10	24-6-8	29-3-1	33-11-9	38-8-2	42-8-8	46-0-0
3-9-11	3-6-3	5-8-14	5-8-14	5-8-14	4-8-9	4-8-9	4-8-9	4-0-6	3-3-8

Plate Offsets (X,Y)-- [2:0-3-7,0-0-7], [7:0-3-8,0-2-0], [12:0-6-0,0-2-11], [13:0-3-9,0-1-9], [13:2-5-5,0-0-7], [19:0-7-4,Edge], [21:0-6-0,0-2-4], [22:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-1.09	18-19	>506	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-1.89	18-19	>292	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.45	13	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 587 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
1-5: 2x4 SPF No.2, 12-13: 2x6 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
9-20: 2x4 SPF No.2, 17-19: 2x4 SP 2400F 2.0E
13-14: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2 *Except*
19-21: 2x4 SPF 1650F 1.5E
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except 2-0-0 oc purlins (4-9-2 max.): 5-12.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 13=0-3-8, 2=0-3-8
Max Horz 2=35(LC 14)
Max Uplift 13=-534(LC 8), 2=-339(LC 8)
Max Grav 13=3565(LC 34), 2=3834(LC 2)

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

TOP CHORD 2-4=-7592/694, 4-5=-8149/762, 5-6=-11897/1199, 6-7=-14068/1479, 7-9=-20110/2253, 9-10=-20544/2293, 10-11=-19208/2253, 11-12=-15799/1978, 12-13=-15765/2497
BOT CHORD 2-25=-597/6815, 24-25=-597/6815, 22-24=-667/7615, 21-22=-1141/11892, 20-21=-130/1452, 9-19=-598/143, 18-19=-2197/19208, 16-18=-1921/15799, 15-16=-1464/10737, 14-15=-1466/10765, 13-14=-2297/14842
WEBS 4-24=-90/928, 5-24=-18/284, 5-22=-550/4951, 6-22=-2264/376, 6-21=-328/2525, 7-21=-3286/500, 19-21=-1336/12960, 7-19=-811/6364, 10-19=-44/1488, 10-18=-1251/141, 11-18=-306/3789, 11-16=-2261/250, 12-16=-509/5627, 12-15=-27/434, 12-14=-894/4633

NOTES-

1) 3-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-5-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected with USP WS45 screws as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.

Continued on page 2

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A01	HIP GIRDER	1	3	Job Reference (optional)

J41762447

NOTES-

9) All plates are MT20 plates unless otherwise indicated.
10) All plates are 3x6 MT20 unless otherwise indicated.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=534, 2=339.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 285 lb down and 270 lb up at 41-0-0 on top chord, and 488 lb down and 62 lb up at 5-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-51, 5-12=-61, 12-13=-51, 20-29=-20, 14-19=-20, 14-26=-20
   Concentrated Loads (lb)
   Vert: 17=-79(F) 24=-51(F) 22=-51(F) 6=-146(F) 7=-146(F) 10=-118(F) 18=-79(F) 15=-8(F) 33=-146(F) 34=-146(F) 36=-146(F) 37=-146(F) 39=-146(F) 40=-146(F) 41=-118(F) 43=-118(F) 44=-118(F) 46=-118(F) 47=-118(F) 48=-118(F) 49=-254(F) 50=-488(F) 51=-51(F) 52=-51(F) 53=-51(F) 54=-51(F) 55=-51(F) 56=-51(F) 57=-51(F) 58=-79(F) 59=-79(F) 60=-79(F) 61=-79(F) 62=-79(F)

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A02	Hip	1	1	Job Reference (optional)

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

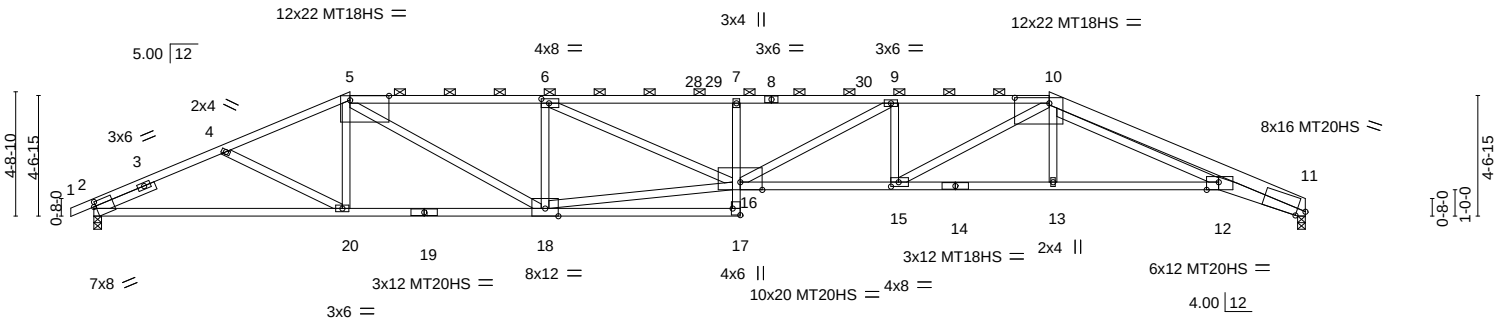
J41762448

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:14 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-WybTBHtaTaEfp_pMp1D0JN9AS21PZ1veth4Z8Hz3Qtv

03/03/2021

-0-10-8	5-0-2	9-8-11	17-1-10	24-6-8	30-4-14	36-3-5	42-8-8	46-0-0
0-10-8	5-0-2	4-8-10	7-4-14	7-4-14	5-10-6	5-10-6	6-5-3	3-3-8

Scale = 1:87.5



9-8-11	17-1-10	24-6-8	30-4-14	36-3-5	42-8-8	46-0-0
9-8-11	7-4-14	7-4-14	5-10-6	5-10-6	6-5-3	3-3-8

Plate Offsets (X,Y)-- [2:0-0-14,0-2-1], [5:1-5-12,0-2-0], [6:0-3-8,0-2-0], [10:1-3-12,0-2-8], [11:0-3-13,Edge], [12:0-5-8,Edge], [15:0-3-8,0-2-0], [17:Edge,0-3-8]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.84	15-16	>659	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.51	15-16	>365	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.49	11	n/a	n/a	MT18HS	197/144
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 211 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except*
	1-5: 2x4 SPF No.2, 10-11: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except*
	2-19: 2x4 SPF 1650F 1.5E, 14-16,12-14: 2x4 SP 2400F 2.0E
	11-12: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2 *Except*
	16-18: 2x4 SPF 1650F 1.5E
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=44(LC 14)
Max Uplift 11=-53(LC 8), 2=-67(LC 8)
Max Grav 11=2069(LC 2), 2=2132(LC 2)

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

TOP CHORD	2-4=-4098/162, 4-5=-4028/172, 5-6=-5435/266, 6-7=-7430/349, 7-9=-7524/348,
	9-10=-6733/304, 10-11=-8286/270
BOT CHORD	2-20=-112/3688, 18-20=-97/3709, 17-18=-3/528, 7-16=-523/88, 15-16=-228/6733,
	13-15=-135/4963, 12-13=-133/4974, 11-12=-196/7783
WEBS	4-20=-220/281, 5-20=0/278, 5-18=-110/2063, 6-18=-1593/145, 16-18=-194/5006,
	6-16=-88/2131, 9-16=-51/907, 9-15=-908/105, 10-15=-108/2114, 10-13=0/324,
	10-12=-62/3015

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and reference standard ANSI/TPI 1.

Continued on page 2

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A02	Hip	1	1	Job Reference (optional)

J41762448

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A03	Hip	1	1	J41762449

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:17:42 2020 Page 1

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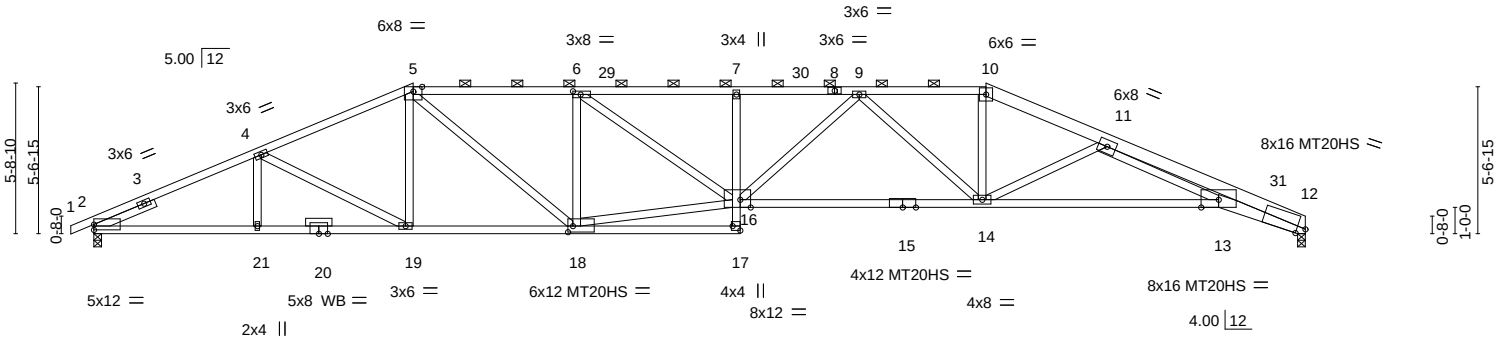
-0-10-8	6-2-8	12-1-8	18-4-0	24-6-8	29-0-12	33-10-8	38-3-8	42-8-8	46-0-0
0-10-8	6-2-8	5-11-0	6-2-8	6-2-8	4-6-4	4-9-12	4-5-0	4-5-0	3-3-8

Scale = 1:87.5



6-2-8	12-1-8	18-4-0	24-6-8	33-10-8	42-8-8	46-0-0
6-2-8	5-11-0	6-2-8	6-2-8	9-4-0	8-10-0	3-3-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-7], [6:0-3-8,0-1-8], [12:0-3-13,Edge], [16:0-4-12,Edge], [17:Edge,0-3-8], [18:0-2-4,0-2-12]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.65	14-16	>843	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-1.27	14-16	>435	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.44	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 212 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	10-12: 2x6 SPF 2100F 1.8E, 8-10: 2x4 SPF No.2
BOT CHORD	2x4 SP 2400F 2.0E *Except*
	7-17,17-20: 2x4 SPF No.2, 15-16: 2x4 SPF 1650F 1.5E
	12-13: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2 *Except*
	16-18: 2x4 SPF 1650F 1.5E
OTHERS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS. (size) 12=0-3-8, 2=0-3-8
Max Horz 2=54(LC 14)
Max Uplift 12=-37(LC 8), 2=-51(LC 8)
Max Grav 12=2069(LC 2), 2=2132(LC 2)

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

TOP CHORD	2-4=-4127/115, 4-5=-3840/156, 5-6=-4351/204, 6-7=-5522/237, 7-9=-5565/234, 9-10=-4414/158, 10-11=-4784/161, 11-12=-8667/164
BOT CHORD	2-21=-67/3731, 19-21=-67/3731, 18-19=-62/3505, 17-18=-20/269, 7-16=-438/70, 14-16=-137/5166, 13-14=-114/5407, 12-13=-106/8157
WEBS	4-19=-475/95, 5-19=0/367, 5-18=-66/1311, 6-18=-1418/114, 16-18=-93/4162, 6-16=-41/1423, 9-16=-5/661, 9-14=-1206/102, 10-14=-10/1484, 11-14=-1217/107, 11-13=0/3015

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 2.

Continued on page 2

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A03	Hip	1	1	J41762449

Job Reference (optional)

NOTES-

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A04	Hip	1	1	J41762450

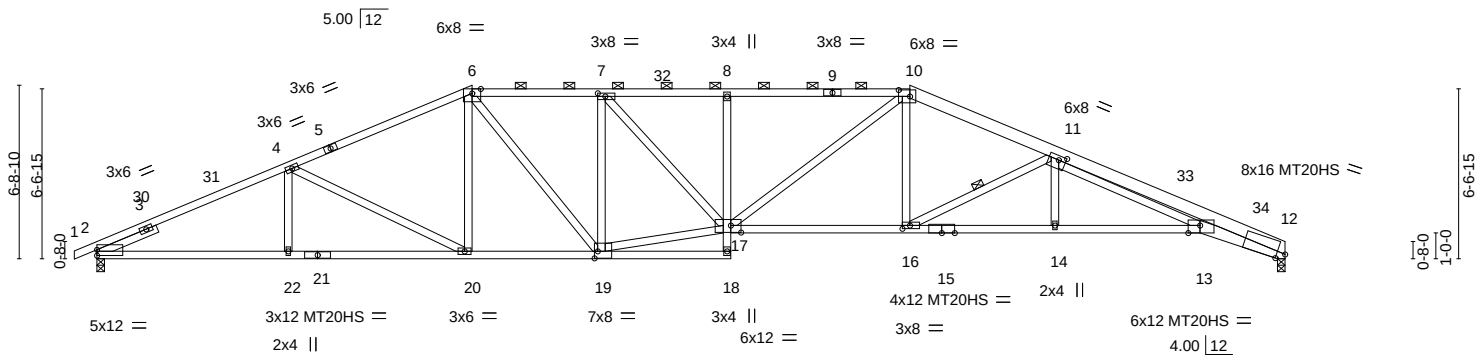
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:21:14 2020 Page 1

ID:tjnOHGeVPJTyi41JASwyTKzhfUX-twPME_xjI6sxvlhJbapB0Rs3x3jaEH8N1yoKqUz3Qtq

-0-10-8	7-4-14	14-6-5	19-6-6	24-6-8	31-5-11	37-1-2	42-8-8	46-0-0
0-10-8	7-4-14	7-1-6	5-0-2	5-0-2	6-11-3	5-7-6	5-7-6	3-3-8

Scale = 1:89.2



7-4-14	14-6-5	19-6-6	24-6-8	31-5-11	37-1-2	42-8-8	46-0-0
7-4-14	7-1-6	5-0-2	5-0-2	6-11-3	5-7-6	5-7-6	3-3-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-11], [7:0-3-8,0-1-8], [10:0-5-4,0-3-0], [11:0-3-6,0-2-0], [12:0-3-13,Edge], [13:0-5-8,Edge], [16:0-3-8,0-1-8], [17:0-4-12,0-3-4], [19:0-1-8,0-3-4]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.56	16-17	>988	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-1.05	16-17	>526	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.43	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 215 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 10-12: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF 1650F 1.5E *Except* 8-18,18-21: 2x4 SPF No.2, 12-13: 2x6 SPF 2100F 1.8E 13-15: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-4-0 max.): 6-10.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 11-16

REACTIONS. (size) 12=0-3-8, 2=0-3-8
Max Horz 2=63(LC 14)
Max Uplift 12=-21(LC 8), 2=-35(LC 8)
Max Grav 12=2069(LC 2), 2=2132(LC 2)

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

TOP CHORD	2-4=-4145/87, 4-6=-3645/131, 6-7=-3710/158, 7-8=-4493/172, 8-10=-4534/174, 10-11=-4324/138, 11-12=-8289/127
BOT CHORD	2-22=-34/3743, 20-22=-34/3743, 19-20=-20/3284, 8-17=-532/86, 16-17=-23/3943, 14-16=-42/5140, 13-14=-42/5140, 12-13=-65/7773
WEBS	4-20=-701/109, 6-20=0/460, 6-19=-42/858, 7-19=-1224/81, 17-19=-30/3573, 7-17=-23/1154, 10-17=-49/932, 10-16=0/813, 11-16=-1486/95, 11-14=0/286, 11-13=-43/2847

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 2.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A04	Hip	1	1	J41762450

Job Reference (optional)

NOTES-

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

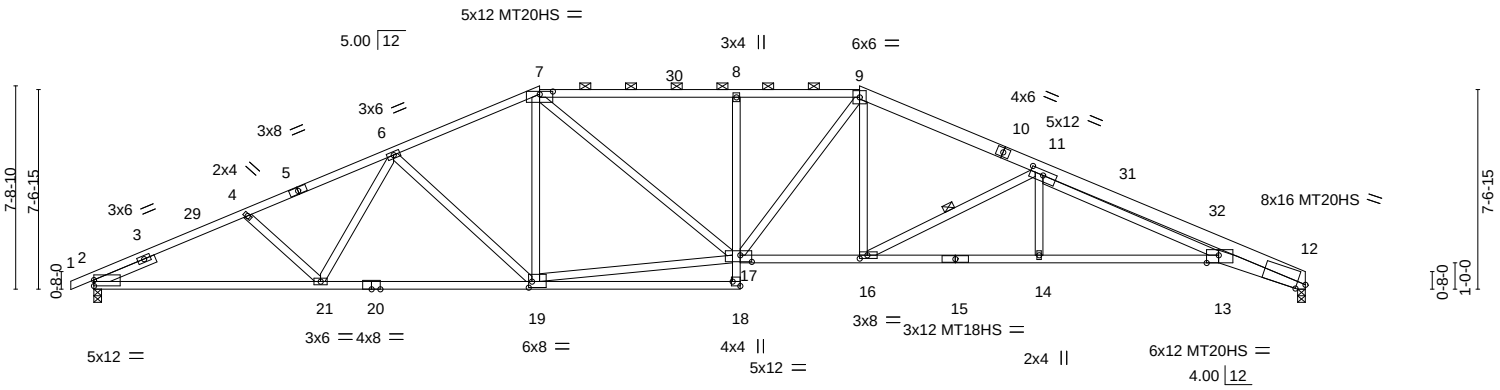
Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A05	Hip	1	1	J41762451

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:14 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-pIW6fgyzqj6f82rij?rf5syPttQqiDogUGHRuNz3Qto

-0-10-8	5-10-1	11-4-9	16-11-2	24-6-8	29-0-14	35-10-11	42-8-8	46-0-0
0-10-8	5-10-1	5-6-9	5-6-9	7-7-6	4-6-6	6-9-13	6-9-13	3-3-8

Scale = 1:87.5



8-7-5	16-11-2	24-6-8	29-0-14	35-10-11	42-8-8	46-0-0
8-7-5	8-3-13	7-7-6	4-6-6	6-9-13	6-9-13	3-3-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-11], [7:0-6-0,0-1-5], [11:0-5-14,0-2-4], [12:0-3-13,Edge], [13:0-5-8,Edge], [16:0-3-8,0-1-8], [17:0-5-4,0-3-0], [18:Edge,0-3-8], [19:0-1-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.52	16-17	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.97	13-14	>571	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.43	12	n/a	n/a	MT18HS	197/144
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 220 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except*
	5-7: 2x4 SPF No.2, 9-10: 2x6 SPF No.2, 10-12: 2x6 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except*
	2-20,15-17: 2x4 SPF 1650F 1.5E, 12-13: 2x6 SPF 2100F 1.8E
	13-15: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except
	2-0-0 oc purlins (2-2-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 11-16

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=72(LC 14)
Max Uplift 2=-33(LC 12), 12=-26(LC 13)
Max Grav 2=2132(LC 2), 12=2069(LC 2)

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

TOP CHORD	2-4=-4140/67, 4-6=-3963/62, 6-7=-3388/106, 7-8=-3800/130, 8-9=-3801/125,
	9-11=-3964/101, 11-12=-8199/106
BOT CHORD	2-21=-81/3734, 19-21=-14/3494, 8-17=-623/94, 16-17=0/3536, 14-16=0/4888,
	13-14=0/4888, 12-13=-30/7691
WEBS	6-21=0/330, 6-19=-728/107, 7-19=-10/353, 17-19=-2/2858, 7-17=-30/1087,
	9-17=-38/645, 9-16=-2/869, 11-16=-1615/116, 11-14=0/342, 11-13=-71/3011

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	A05	Hip	1	1	J41762451

Job Reference (optional)

NOTES-

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	B01	Hip	1	1	J41762452

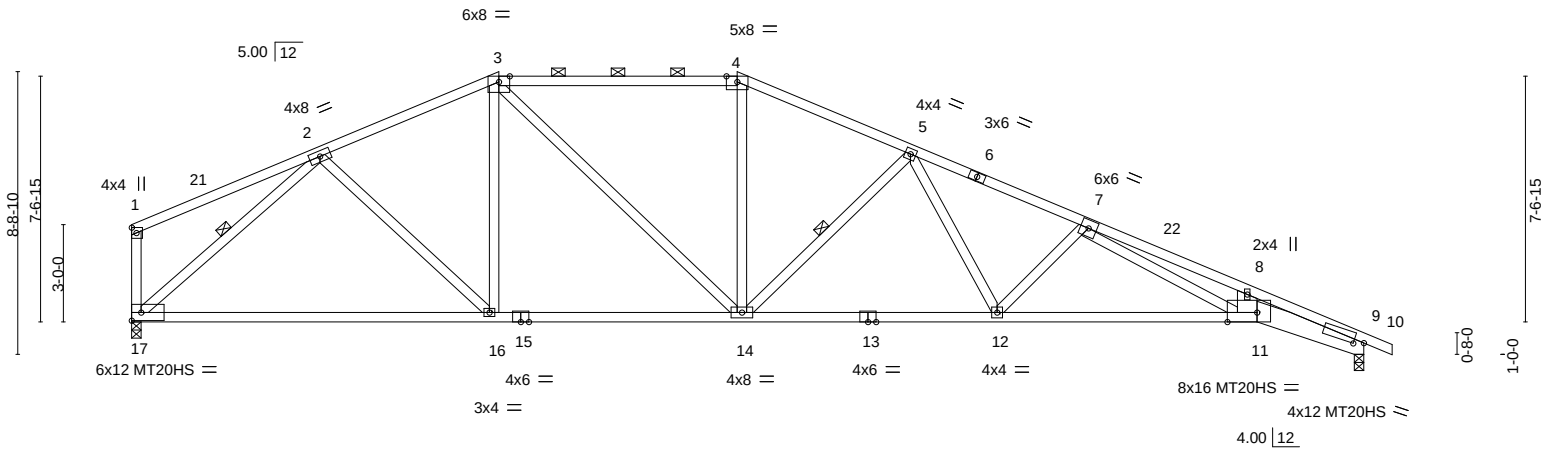
Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:47:49 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-lhet4M_DLLNNOM?4qQt7AH1ISh7lA8DzxamYzGz3Qtm

5-9-11	11-3-14	18-8-2	24-0-4	29-4-6	34-8-8	38-0-0	39-10-8
5-9-11	5-6-3	7-4-3	5-4-2	5-4-2	5-4-2	3-3-8	0-10-8

Scale = 1:71.1



5-9-11	11-3-14	18-8-2	26-8-5	34-8-8	38-0-0
5-9-11	5-6-3	7-4-3	8-0-3	8-0-3	3-3-8

Plate Offsets (X,Y)-- [9:0-3-11,0-1-6], [11:0-11-0,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.38	11-12	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.75	11-12	>606	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.24	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 177 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x4 SPF 1650F 1.5E, 6-10: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
9-11: 2x8 SP 2400F 2.0E, 13-15: 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
8-11: 2x8 SP 2400F 2.0E

BRACING-

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

REACTIONS. (size) 17=0-3-8, 9=0-3-8
Max Horz 17=-102(LC 8)
Max Uplift 17=-5(LC 12), 9=-55(LC 13)
Max Grav 17=1709(LC 35), 9=1765(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2093/69, 3-4=-2236/87, 4-5=-2483/77, 5-7=-3696/102, 7-8=-6864/206, 8-9=-7112/130, 1-17=-260/32
BOT CHORD 16-17=0/1608, 14-16=0/1877, 12-14=0/2910, 11-12=-30/3917, 9-11=-84/6601
WEBS 2-16=0/504, 3-14=-61/628, 4-14=0/533, 5-14=-1064/107, 5-12=-10/925, 7-12=-855/109, 7-11=-91/2763, 8-11=0/359, 2-17=-2037/53

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 9.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	B02	Hip	1	1	J41762453

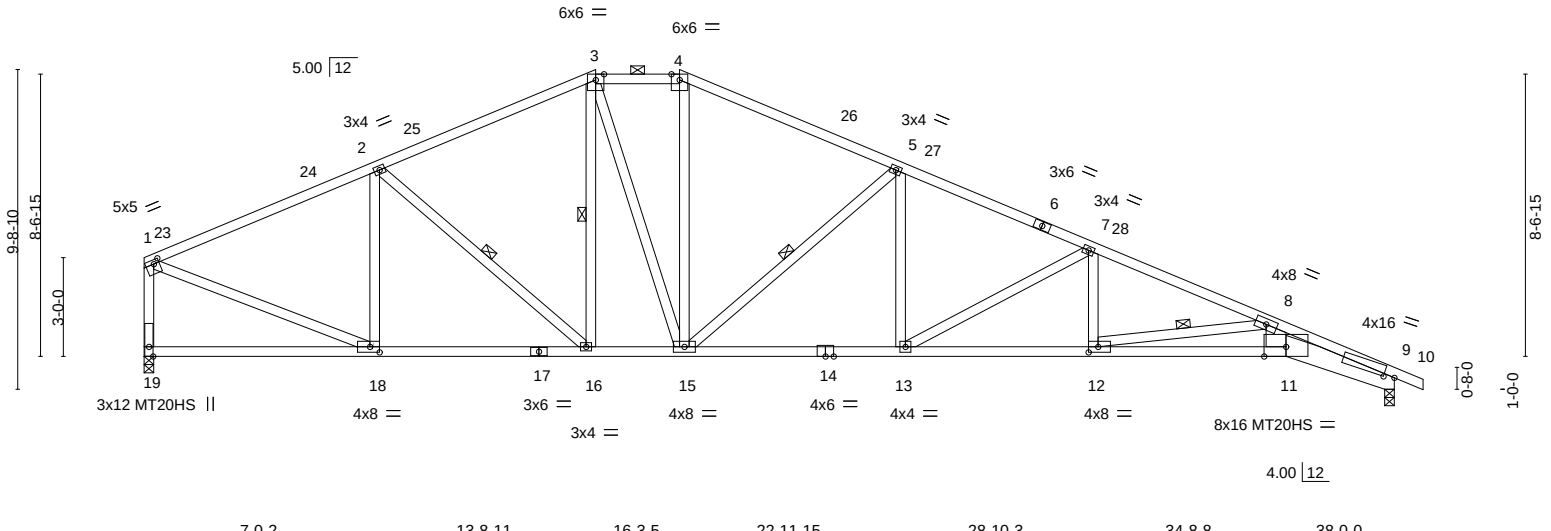
Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:51:15 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-h4mdV1?Utyd5dg9TyrwbFi65nUqBe_WFPuFf18z3Qtk

7-0-2	13-8-11	16-3-5	22-11-15	28-10-3	34-8-8	38-0-0	38-10-8
7-0-2	6-8-10	2-6-10	6-8-10	5-10-5	5-10-5	3-3-8	0-10-8

Scale = 1:70.0



7-0-2	13-8-11	16-3-5	22-11-15	28-10-3	34-8-8	38-0-0
7-0-2	6-8-10	2-6-10	6-8-10	5-10-5	5-10-5	3-3-8

Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [9:0-3-15,0-0-12], [12:0-3-8,0-2-0], [18:0-3-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.33	11-12	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.62	11-12	>734	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.22	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 192 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 9-11: 2x8 SP 2400F 2.0E, 11-14: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2 *Except* 8-11: 2x8 SP 2400F 2.0E

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-11 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 2-16, 3-16, 5-15, 8-12

REACTIONS. (size) 19=0-3-8, 9=0-3-8
Max Horz 19=-108(LC 13)
Max Uplift 19=-18(LC 12), 9=-63(LC 13)
Max Grav 19=1830(LC 35), 9=1765(LC 2)

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

TOP CHORD	1-2=-2158/37, 2-3=-2156/89, 3-4=-2008/109, 4-5=-2293/96, 5-7=-3292/111, 7-8=-4276/129, 8-9=-7139/196, 1-19=-1762/43
BOT CHORD	16-18=0/1909, 15-16=0/1883, 13-15=0/2958, 12-13=-33/3928, 11-12=-156/6064, 9-11=-150/6682
WEBS	2-18=-595/60, 3-15=-61/562, 4-15=-1/514, 5-15=-1237/110, 5-13=0/667, 7-13=-1154/88, 7-12=0/526, 8-12=-2279/124, 8-11=0/1459, 1-18=0/1967

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 9.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	B03	Roof Special	2	1	Job Reference (optional)

I41762454

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 11:53:31 2020 Page 1
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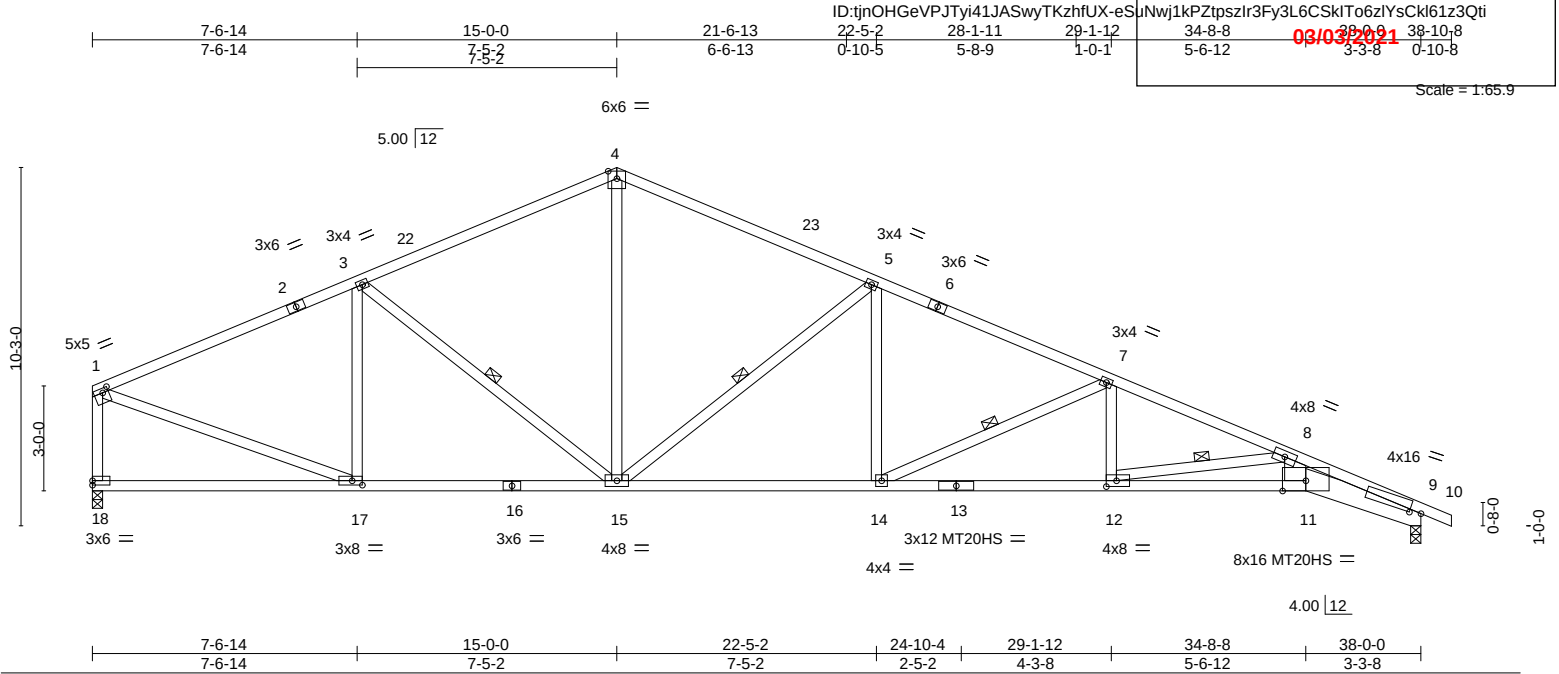

Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [9:0-3-15,0-0-12], [12:0-3-8,0-2-0], [17:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.34	11-12	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.62	11-12	>736	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.23	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 176 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
9-11: 2x8 SP 2400F 2.0E, 11-13: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
8-11: 2x8 SP 2400F 2.0E

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-15, 5-15, 7-14, 8-12

REACTIONS. (size) 18=0-3-8, 9=0-3-8
Max Horz 18=-114(LC 13)
Max Uplift 18=-24(LC 12), 9=-67(LC 13)
Max Grav 18=1703(LC 2), 9=1765(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2055/51, 3-4=-2007/114, 1-18=-1629/51, 4-5=-2004/101, 5-7=-3043/120, 7-8=-4240/142, 8-9=-7115/214
BOT CHORD 15-17=0/1814, 14-15=0/2729, 12-14=-48/3885, 11-12=-165/6031, 9-11=-165/6653
WEBS 3-17=-493/65, 3-15=-269/163, 4-15=-9/971, 8-11=0/1463, 1-17=0/1837, 5-14=0/658, 5-15=-1242/125, 7-12=0/534, 7-14=-1269/96, 8-12=-2174/119

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 9 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) 18, 9.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C01	Roof Special	1	1	Job Reference (optional)

J41762455

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:11:15 2020 Page 1
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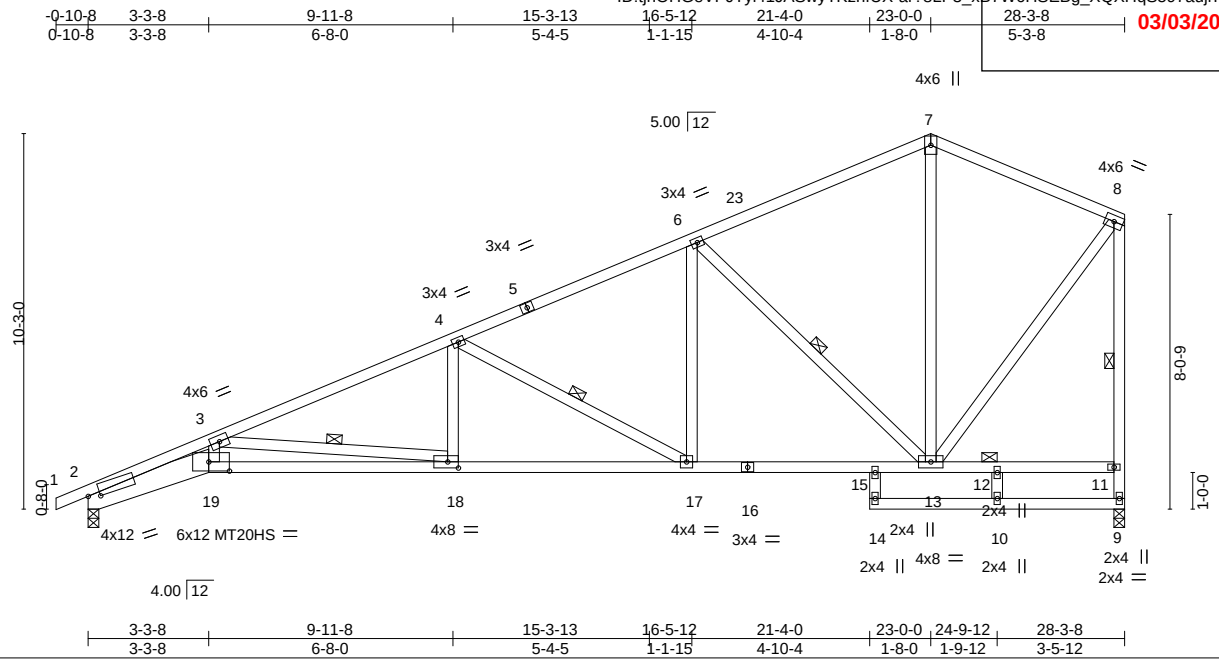

Plate Offsets (X,Y)-- [2:0-3-15,0-1-2], [18:0-3-8,0-2-0], [19:0-6-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.28	18-19	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.53	18-19	>634	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.24	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 149 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-19: 2x8 SP 2400F 2.0E, 16-19: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-9, 6-13, 4-17, 3-18
JOINTS 1 Brace at Jt(s): 12

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=217(LC 12)
Max Uplift 2=-41(LC 12), 9=-61(LC 12)
Max Grav 2=1329(LC 2), 9=1266(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5190/365, 3-4=-2687/121, 4-6=-1646/80, 6-7=-766/58, 7-8=-734/69, 9-11=-1236/73, 8-11=-1220/78
BOT CHORD 2-19=-534/4864, 18-19=-514/4567, 17-18=-239/2433, 15-17=-129/1436, 13-15=-128/1448
WEBS 3-19=-61/1074, 8-13=-63/1006, 6-13=-1134/127, 6-17=-3/656, 4-17=-1133/124, 4-18=0/472, 3-18=-2150/277

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2 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) 2, 9.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C02	HIP	1	1	J41762456

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:15 2020 Page 1
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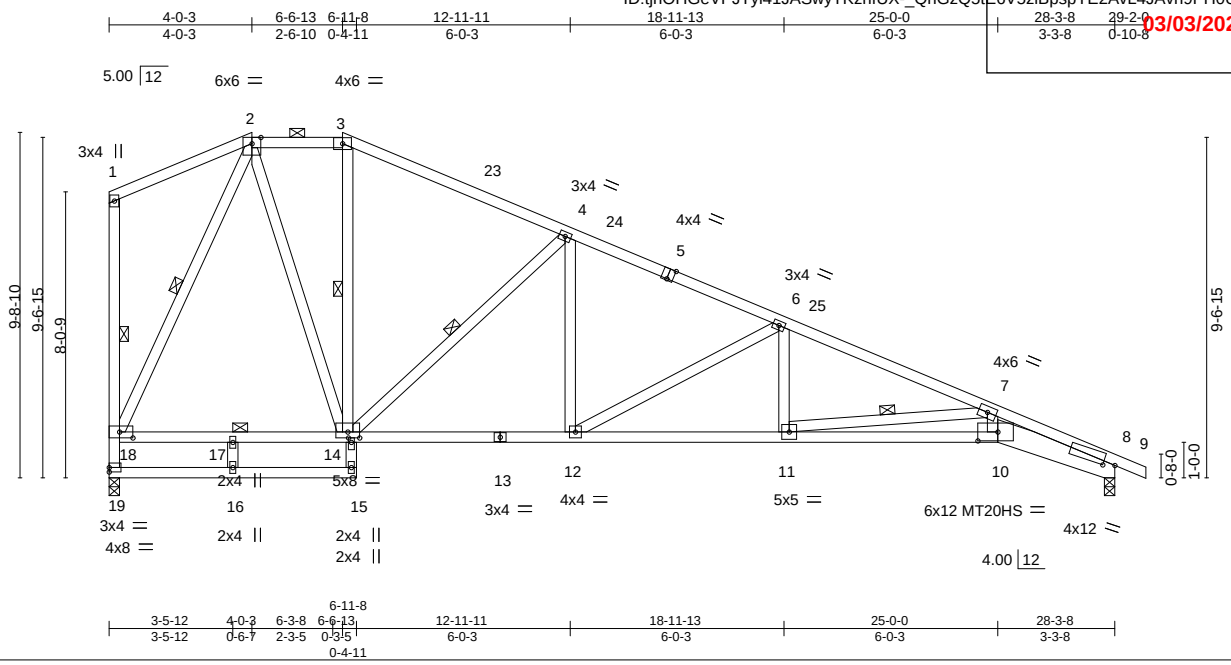

Plate Offsets (X,Y)-- [5:0-2-0,Edge], [8:0-3-15,0-1-2], [10:0-6-12,0-3-0], [14:0-1-8,0-1-0], [14:0-4-0,0-2-0], [18:0-4-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.44	15	>768	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.92	15	>368	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.22	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 156 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E, 10-13: 2x4 SPF 1650F 1.5E
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.): 2-3.
BOT CHORD	Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 14-17
WEBS	1 Row at midpt 4-14, 7-11, 1-19, 2-18, 3-14
JOINTS	1 Brace at Jt(s): 17

REACTIONS. (size) 19=0-3-8, 8=0-3-8
Max Horz 19=-237(LC 10)
Max Uplift 19=-11(LC 13), 8=-50(LC 13)
Max Grav 19=1363(LC 35), 8=1341(LC 2)

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

TOP CHORD	2-3=-848/69, 3-4=-1027/54, 4-6=-1935/75, 6-7=-2852/86, 7-8=-5210/146, 18-19=-1365/1
BOT CHORD	17-18=0/538, 14-17=0/538, 12-14=0/1701, 11-12=0/2610, 10-11=-113/4573, 8-10=-106/4875
WEBS	4-14=-1157/118, 4-12=0/608, 6-12=-1085/84, 6-11=0/470, 7-11=-2020/121, 7-10=0/1083, 2-18=-1224/22, 2-14=-27/1008, 16-17=0/282

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C03	Hip	1	1	J41762457

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:02:20 2020 Page 1
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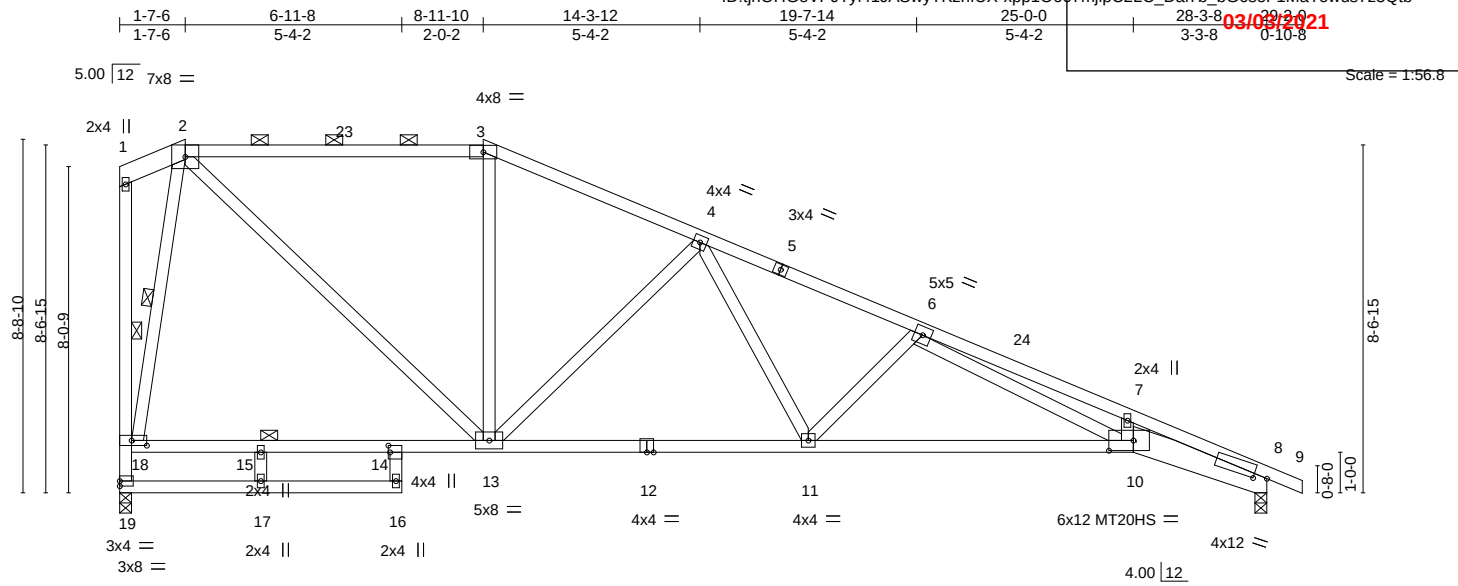

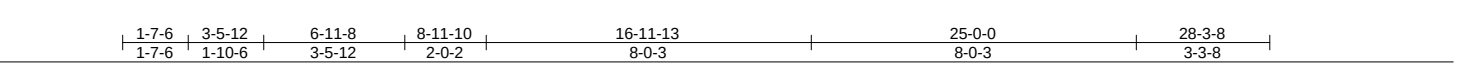

Plate Offsets (X,Y)-- [8:0-3-15,0-1-2], [10:0-7-4,0-3-0], [14:0-2-0,0-0-8], [18:0-4-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.30	10-11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.62	10-11	>545	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.18	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 148 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 1-2: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 8-10: 2x8 SP 2400F 2.0E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-12 max.): 2-3.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 1-19, 2-18
JOINTS	1 Brace at Jt(s): 15

REACTIONS. (size) 19=0-3-8, 8=0-3-8
Max Horz 19=-201(LC 13)
Max Uplift 19=-39(LC 8), 8=-38(LC 13)
Max Grav 19=1266(LC 2), 8=1329(LC 2)

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

TOP CHORD	2-3=-1100/40, 3-4=-1248/26, 4-6=-2411/52, 6-7=-5013/126, 7-8=-5123/56, 18-19=-1210/54
BOT CHORD	13-14=0/296, 11-13=0/1757, 10-11=0/2662, 8-10=-18/4757
WEBS	4-13=-1027/108, 4-11=-10/837, 6-11=-758/104, 6-10=-63/2261, 2-18=-1316/92, 2-13=-33/1163

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762458
2648535	C04	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:20 2020 Page 1
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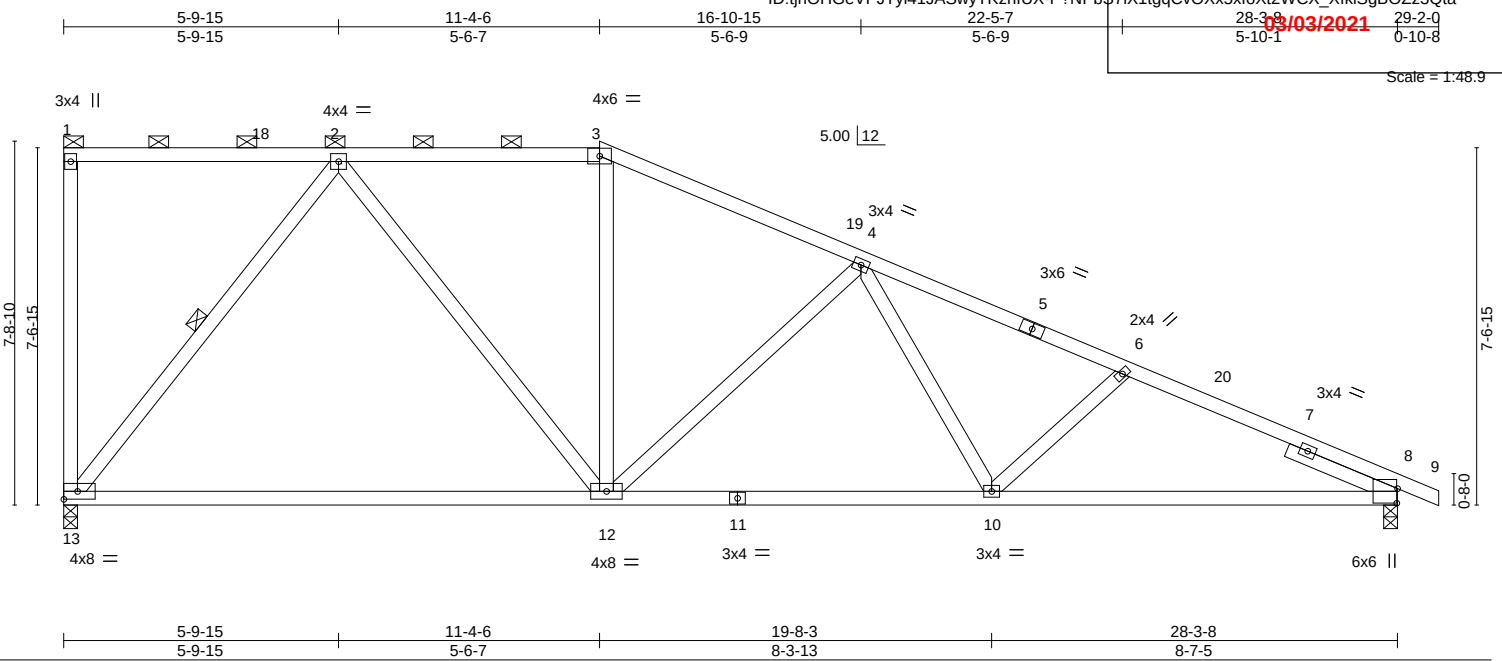

Plate Offsets (X,Y)-- [8:0-3-11,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.43	12-13	>780	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.88	12-13	>385	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.06	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 125 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 13=0-3-8, 8=0-3-8
Max Horz 13=-221(LC 10)
Max Uplift 13=-67(LC 8), 8=-47(LC 13)
Max Grav 13=1266(LC 2), 8=1329(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1217/78, 3-4=-1393/68, 4-6=-2115/90, 6-8=-2329/100
BOT CHORD 12-13=0/796, 10-12=0/1712, 8-10=-40/2100
WEBS 2-13=-1249/107, 2-12=-16/764, 4-12=-801/111, 4-10=-1/389, 6-10=-315/91

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 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) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C05	Half Hip	1	1	I41762459 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:04 2020 Page 1

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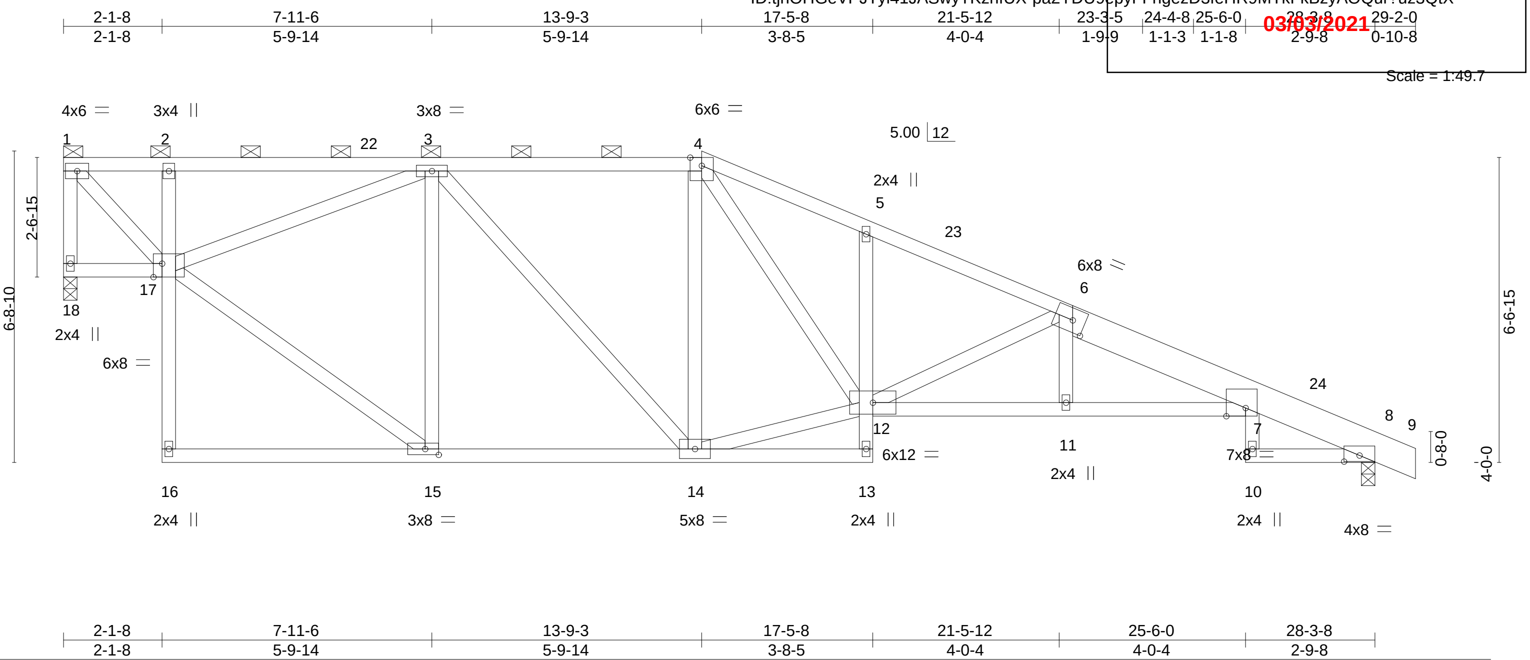

Plate Offsets (X,Y)-- [6:0-3-4,0-3-0], [7:0-5-0,Edge], [8:0-4-0,0-1-9], [15:0-3-8,0-1-8], [17:0-2-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.26	7-11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.47	7-11	>721	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.15	8	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 157 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
6-9: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
7-12: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-6-5 max.): 1-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 18=0-3-8, 8=0-3-8
Max Horz 18=-146(LC 8)
Max Uplift 18=-44(LC 8), 8=-55(LC 13)
Max Grav 18=1266(LC 2), 8=1329(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-18=-1200/50, 1-2=-1090/56, 2-3=-1125/64, 3-4=-1422/102, 4-5=-2335/139, 5-6=-2410/98, 6-7=-3210/112, 7-8=-485/44
BOT CHORD 2-17=-337/59, 14-15=0/1180, 5-12=-275/71, 11-12=-41/3147, 7-11=-45/3157
WEBS 1-17=-61/1565, 15-17=0/1421, 3-15=-696/47, 3-14=-19/472, 4-14=-561/38, 12-14=0/1353, 4-12=-65/1352, 6-12=-1164/72

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 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) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762460
2648535	C06	Half Hip	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/23/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:00:22 2020 Page 1
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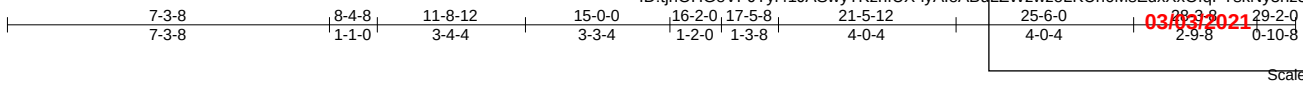

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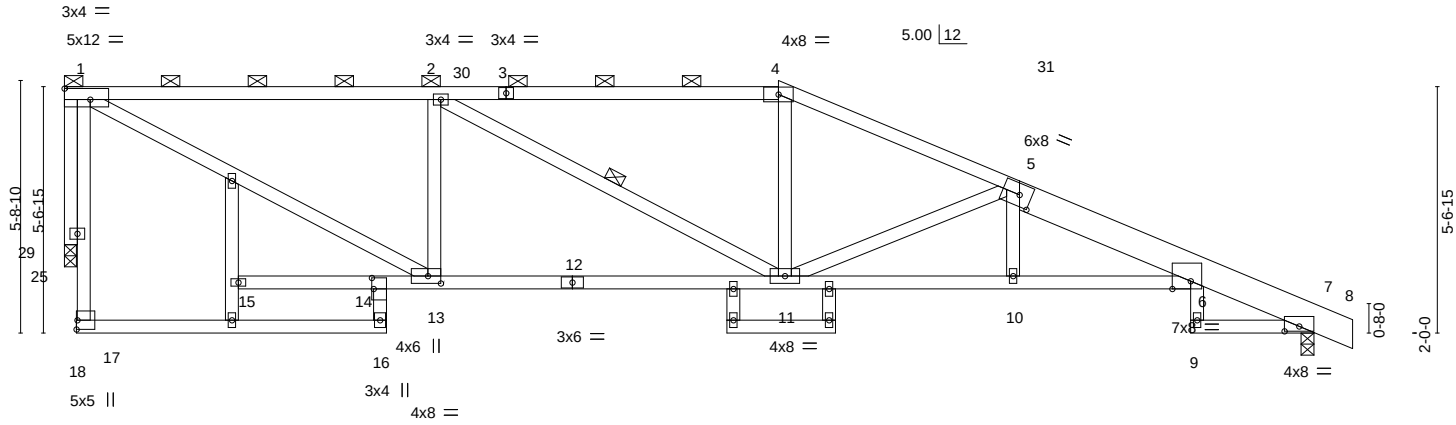

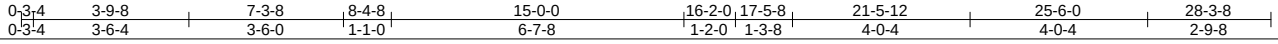

Plate Offsets (X,Y)-- [1:Edge,0-3-0], [5:0-3-4,0-3-0], [6:0-5-0,Edge], [7:0-4-0,0-1-5], [13:0-3-8,0-2-0], [14:0-3-0,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.35	15	>966	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.69	15	>487	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.25	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 144 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	1-3: 2x4 SPF 1650F 1.5E, 5-8: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	6-12: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

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

REACTIONS. (size) 7=0-3-8, 29=0-3-4
Max Horz 29=-122(LC 8)
Max Uplift 7=-27(LC 13), 29=-32(LC 9)
Max Grav 7=1341(LC 2), 29=1347(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1929/76, 2-4=-2104/71, 4-5=-2356/64, 5-6=-3214/37, 6-7=-490/32
BOT CHORD 11-13=0/1929, 10-11=0/3145, 6-10=0/3156
WEBS 4-11=0/476, 5-11=-1250/92, 2-11=-62/407, 2-13=-742/114, 1-13=-41/2024, 1-29=-1356/33

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 29.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C07	Half Hip	1	1	I41762461 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:08 2020 Page 1
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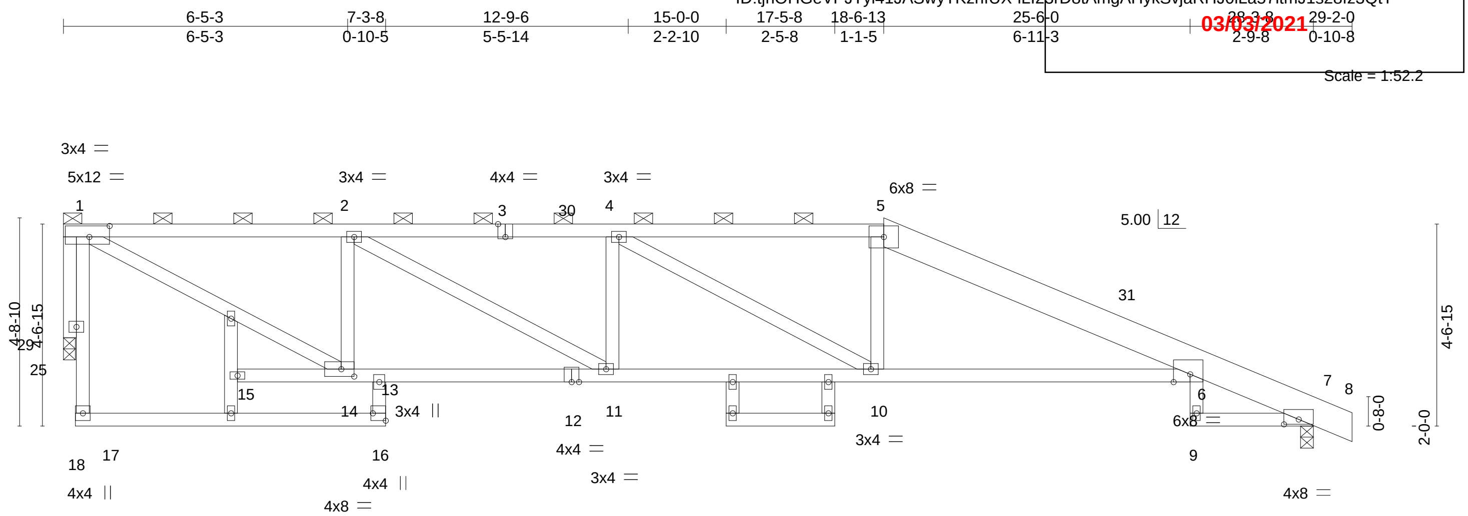

0-3-4	3-9-8	6-5-3	7-3-8	12-9-6	15-0-0	17-5-8	18-6-13	25-6-0	28-3-8
0-3-4	3-6-4	2-7-11	0-10-5	5-5-14	2-2-10	2-5-8	1-1-5	6-11-3	2-9-8

Plate Offsets (X,Y)-- [1:0-5-8,0-3-0], [3:0-2-0,Edge], [6:0-4-8,Edge], [7:0-4-0,0-1-5], [14:0-3-8,0-2-0], [16:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.39	6-10	>871	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.74	6-10	>456	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.32	7	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 141 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-8: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-0-6 max.): 1-5.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 10-11

REACTIONS. (size) 7=0-3-8, 29=0-3-4
Max Horz 29=-103(LC 8)
Max Uplift 7=-28(LC 9), 29=-41(LC 9)
Max Grav 7=1338(LC 2), 29=1388(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2131/100, 2-4=-2873/123, 4-5=-2599/95, 5-6=-2738/89, 6-7=-488/32
BOT CHORD 13-14=-56/1980, 11-13=-17/2131, 10-11=-41/2873, 6-10=-15/2594
WEBS 5-10=0/297, 4-11=-307/69, 4-10=-455/109, 2-14=-945/93, 1-14=-64/2258, 2-11=-27/887, 1-29=-1403/42

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 29.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C08	Half Hip	1	1	I41762462 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:09 2020 Page 1
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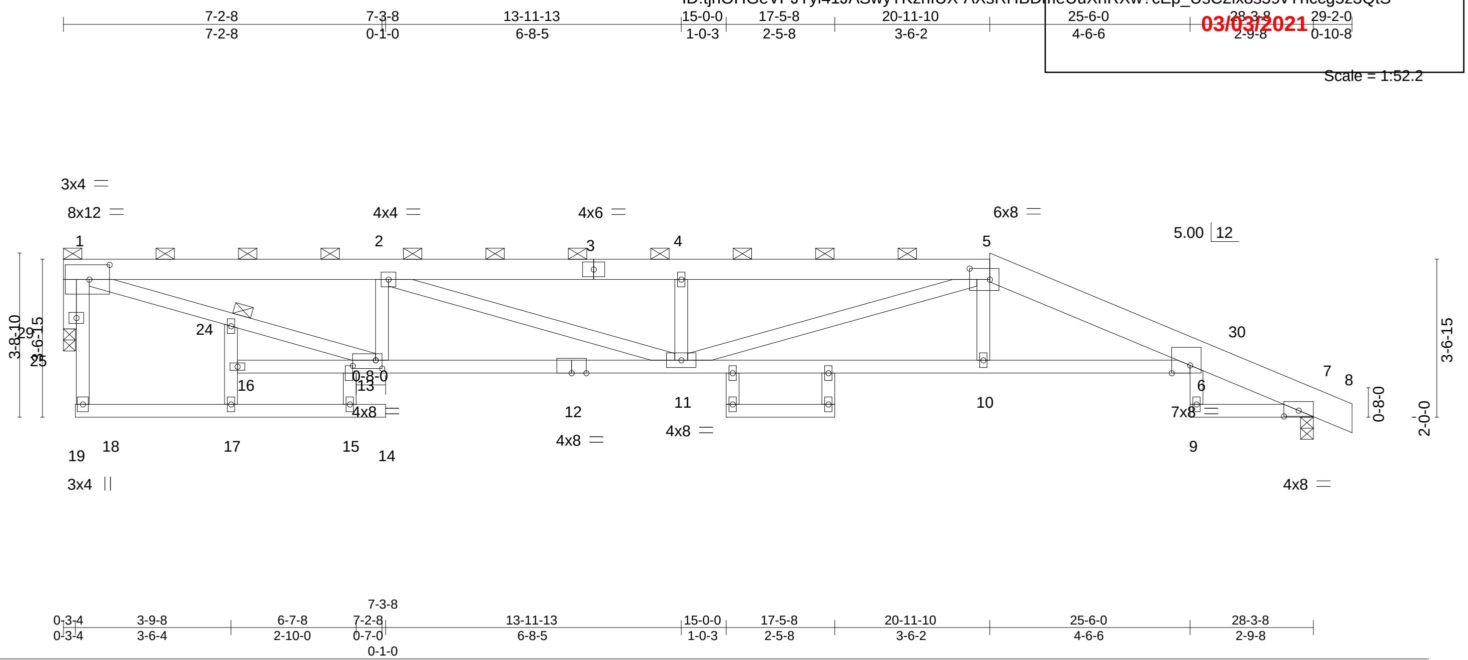

Plate Offsets (X,Y)-- [1:0-5-8,0-4-0], [5:0-5-8,0-3-0], [6:0-5-0,Edge], [7:0-4-0,0-1-9], [13:0-1-8,0-6-4], [13:0-1-12,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.40	11-13	>847	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.71	11-13	>476	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.28	7	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
5-8: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
6-12: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 1-5.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 10-11
JOINTS 1 Brace at Jt(s): 24, 1

REACTIONS. (size) 7=0-3-8, 29=0-3-4
Max Horz 29=-84(LC 13)
Max Uplift 7=-46(LC 9), 29=-62(LC 8)
Max Grav 7=1330(LC 2), 29=1388(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3473/184, 2-4=-4469/214, 4-5=-4469/214, 5-6=-3373/140, 6-7=-485/40
BOT CHORD 13-16=-0/297, 11-13=-122/3473, 10-11=-79/3307, 6-10=-84/3314
WEBS 4-11=-549/94, 5-11=-80/1219, 2-13=-936/104, 1-24=-145/3483, 13-24=-146/3318, 2-11=-32/1048, 1-29=-1434/65

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 29.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762463
2648535	C09	Half Hip Girder	1	2	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/31/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Mar 23 10:07:18 2021 Page 1
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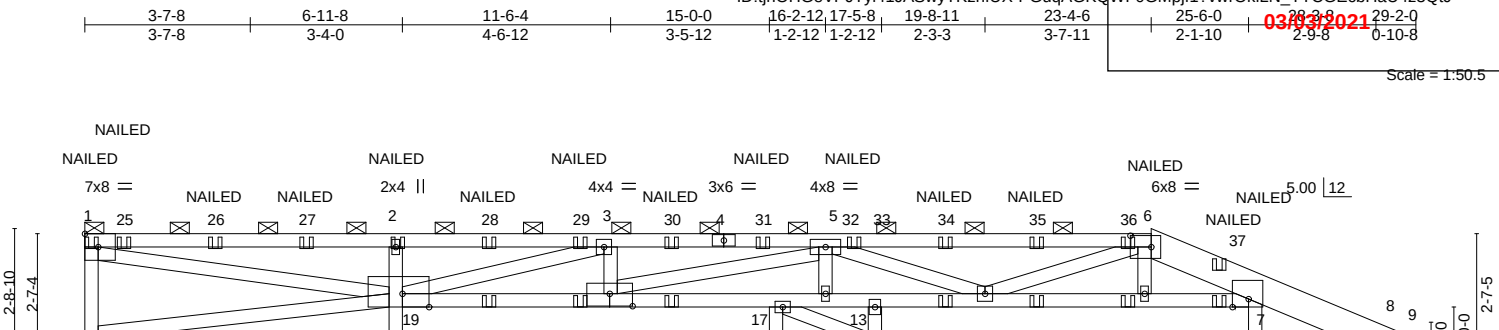

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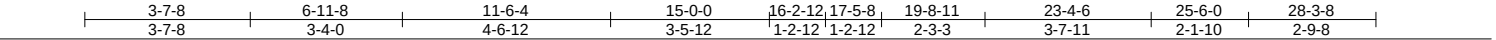

Plate Offsets (X,Y)-- [6:0-5-8,0-3-0], [7:0-4-4,Edge], [8:Edge,0-1-13], [18:0-6-0,0-3-4], [19:0-7-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.66	17-18	>514	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-1.11	17-18	>305	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.37	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 272 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-9: 2x8 SP 2400F 2.0E, 4-6: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
18-19: 2x4 SPF 1650F 1.5E, 7-18: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-4 max.): 1-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17,13-15.

REACTIONS. (size) 21=0-3-8, 8=0-3-8
Max Horz 21=-73(LC 10)
Max Uplift 21=-208(LC 8), 8=-182(LC 9)
Max Grav 21=2081(LC 31), 8=1794(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-21=-1836/249, 1-2=-7190/775, 2-3=-7691/799, 3-5=-10021/1049, 5-6=-8465/867, 6-7=-6078/624, 7-8=-704/97
BOT CHORD 20-21=-34/730, 2-19=-626/140, 18-19=-999/10026, 17-18=-1027/10197, 14-17=-997/9906, 13-14=-1002/9884, 12-13=-1031/10175, 11-12=-592/6171, 7-11=-599/6236
WEBS 19-21=-579/77, 1-19=-760/7168, 3-19=-2424/270, 3-18=-13/323, 5-18=-275/40, 5-12=-1845/232, 6-11=-312/43, 6-12=-245/2438

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, 2x8 - 2 rows staggered 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=208, 8=182.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	C09	Half Hip Girder	1	2	J41762463

Job Reference (optional)

NOTES-

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-6=-61, 6-9=-51, 20-21=-20, 17-19=-20, 7-13=-20, 15-16=-20, 10-22=-20
   Concentrated Loads (lb)
   Vert: 21=-35(B) 1=-88(B) 20=-27(B) 2=-64(B) 17=-53(B) 25=-72(B) 26=-64(B) 27=-64(B) 28=-40(B) 29=-40(B) 30=-40(B) 31=-40(B) 33=-68(B) 34=-36(B) 35=-36(B) 36=-38(B) 37=-75(B) 38=-30(B) 39=-27(B) 40=-27(B) 41=-53(B) 42=-53(B) 43=-53(B) 44=-25(B) 45=-57(B) 46=-57(B) 47=-57(B) 48=-107(B)

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D01	GABLE	1	1	I41762464 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:23 2020 Page 1
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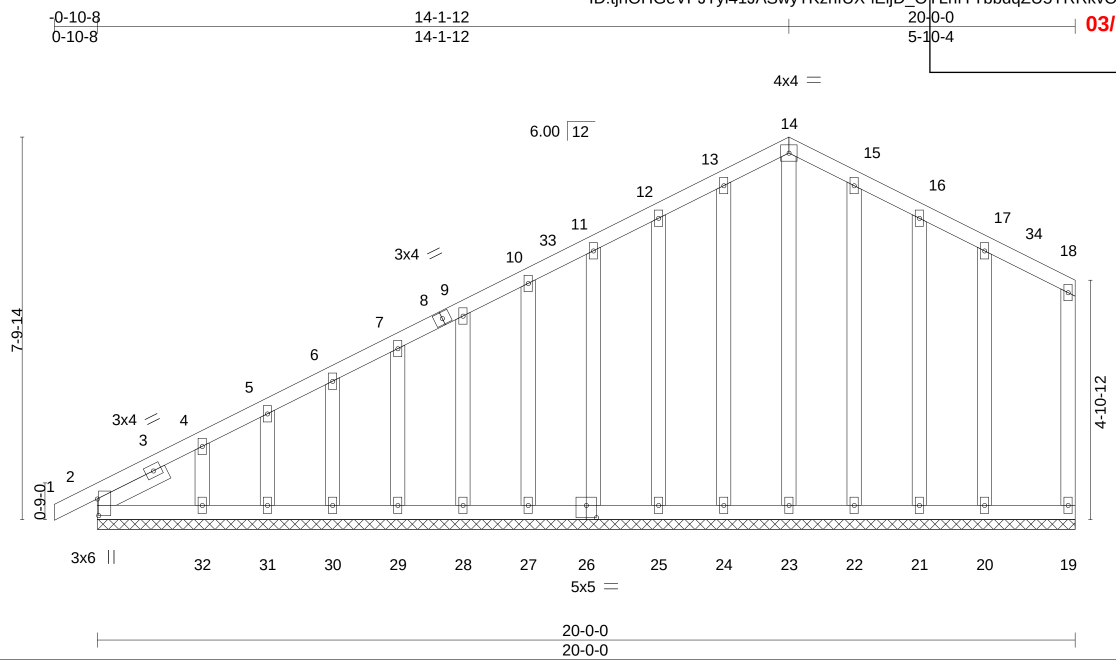

Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [26:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.00	19	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S							Weight: 126 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-7-3

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

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 2=167(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 22, 21, 20
Max Grav All reactions 250 lb or less at joint(s) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 22, 21, 20

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 2, 26, 23, 24, 25, 27, 28, 29, 30, 31, 32, 22, 21, 20.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D02	COMMON GIRDER	1	1	Job Reference (optional) I41762465

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:02:24 2020 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

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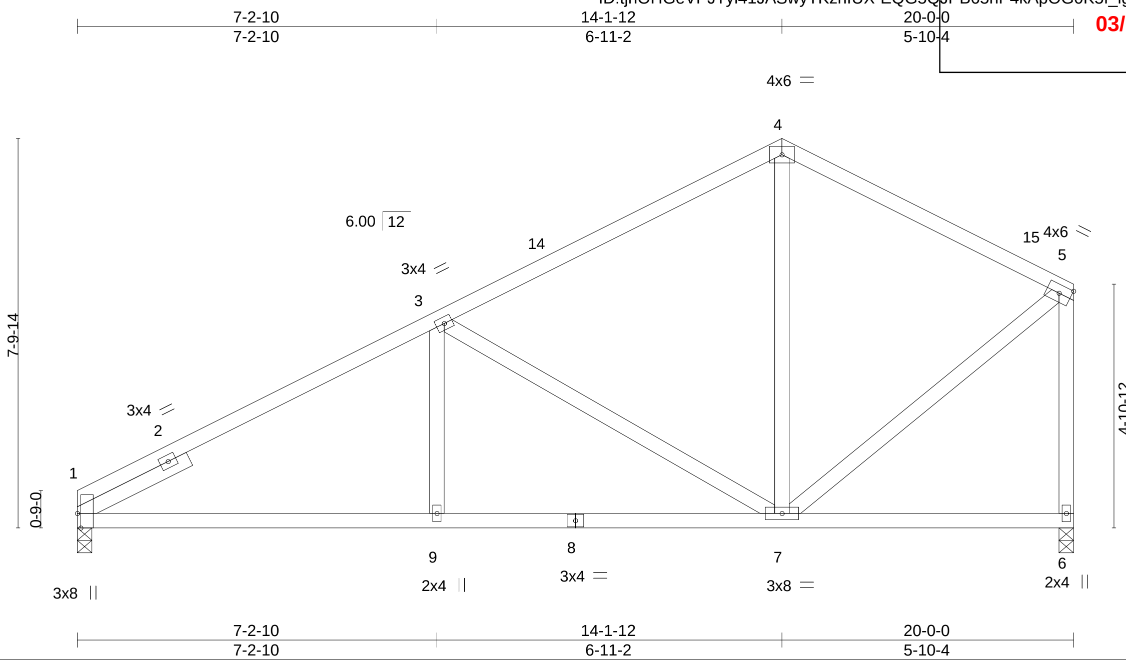

Plate Offsets (X,Y)-- [1:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.04	7-9	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.10	7-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 86 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 6=0-3-8
Max Horz 1=163(LC 11)
Max Uplift 1=-28(LC 12), 6=-19(LC 12)
Max Grav 1=893(LC 2), 6=893(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1152/64, 3-4=-691/64, 4-5=-657/78, 5-6=-844/40
BOT CHORD 1-9=-66/1105, 7-9=-66/1105
WEBS 3-9=0/278, 3-7=-703/110, 5-7=-3/635

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for 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, 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.

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

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D03	Common	2	1	Job Reference (optional)

I41762466

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 14:22:22 2020 Page 1
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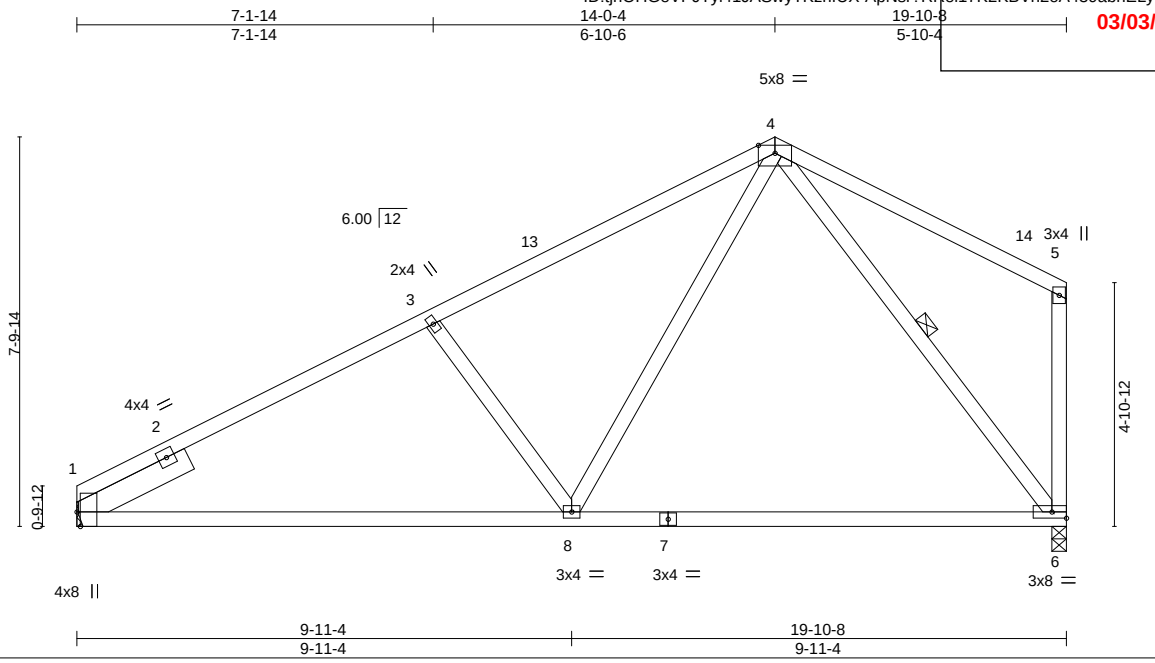

Plate Offsets (X,Y)-- [1:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.20	6-8	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.40	6-8	>597	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 83 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-6-0

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

REACTIONS. (size) 1=Mechanical, 6=0-3-8
Max Horz 1=163(LC 11)
Max Uplift 1=-28(LC 12), 6=-19(LC 12)
Max Grav 1=888(LC 2), 6=888(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1100/73, 3-4=-1012/90
BOT CHORD 1-8=-72/1059, 6-8=-32/492
WEBS 3-8=-461/133, 4-8=-28/668, 4-6=-748/33

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for 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) 1, 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762467
2648535	D04	Roof Special Girder	1	2	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:22 2020 Page 1
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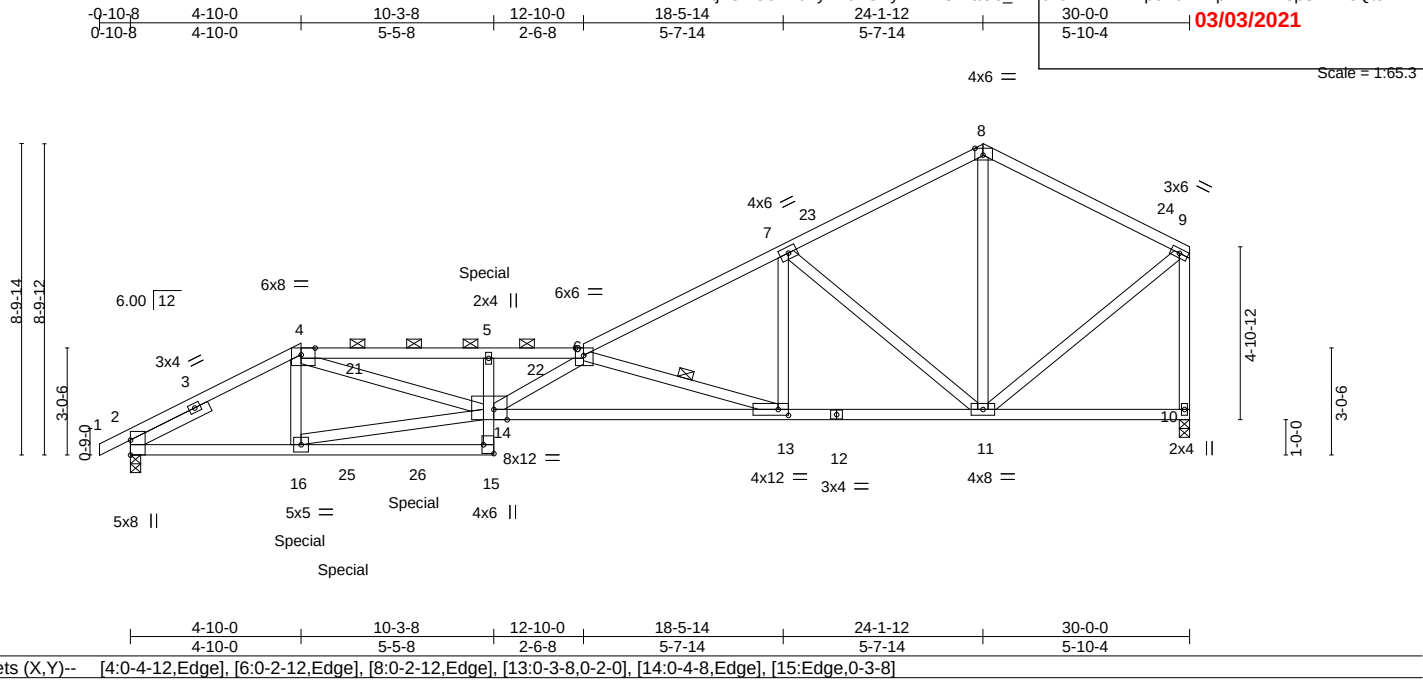

Plate Offsets (X,Y)-- [4:0-4-12,Edge], [6:0-2-12,Edge], [8:0-2-12,Edge], [13:0-3-8,0-2-0], [14:0-4-8,Edge], [15:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.44	13-14	>816	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.81	13-14	>443	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.16	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 282 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 6-8,8-9: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 2-15: 2x4 SPF 1650F 1.5E, 12-14: 2x4 SP 2400F 2.0E
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins (3-5-2 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=183(LC 59)
Max Uplift 2=-196(LC 12), 10=-82(LC 12)
Max Grav 2=2813(LC 2), 10=1884(LC 2)

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

TOP CHORD	2-4=-4964/369, 4-5=-10887/705, 5-6=-11235/713, 6-7=-3890/226, 7-8=-1508/123, 8-9=-1493/133, 9-10=-1828/105
BOT CHORD	2-16=-377/4349, 15-16=-86/986, 14-15=-16/349, 5-14=-1652/119, 13-14=-706/10564, 11-13=-191/3419
WEBS	4-16=-264/209, 14-16=-296/3422, 4-14=-384/6893, 6-14=-496/1124, 6-13=-7490/540, 7-13=-99/2430, 7-11=-2801/224, 8-11=-57/936, 9-11=-65/1593

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 0-3-0 oc.
   Bottom chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
   Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=196.

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D04	Roof Special Girder	1	2	Job Reference (optional)

J41762467

NOTES-

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1125 lb down and 71 lb up at 10-0-12 on top chord, and 420 lb down and 65 lb up at 4-10-0, and 280 lb down and 51 lb up at 6-0-12, and 280 lb down and 51 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-51, 4-6=-61, 6-8=-51, 8-9=-51, 15-17=-20, 10-14=-20
   Concentrated Loads (lb)
   Vert: 5=-929(F) 16=-420(F) 25=-280(F) 26=-280(F)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D05	Roof Special	1	1	I41762468 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:31 2020 Page 1

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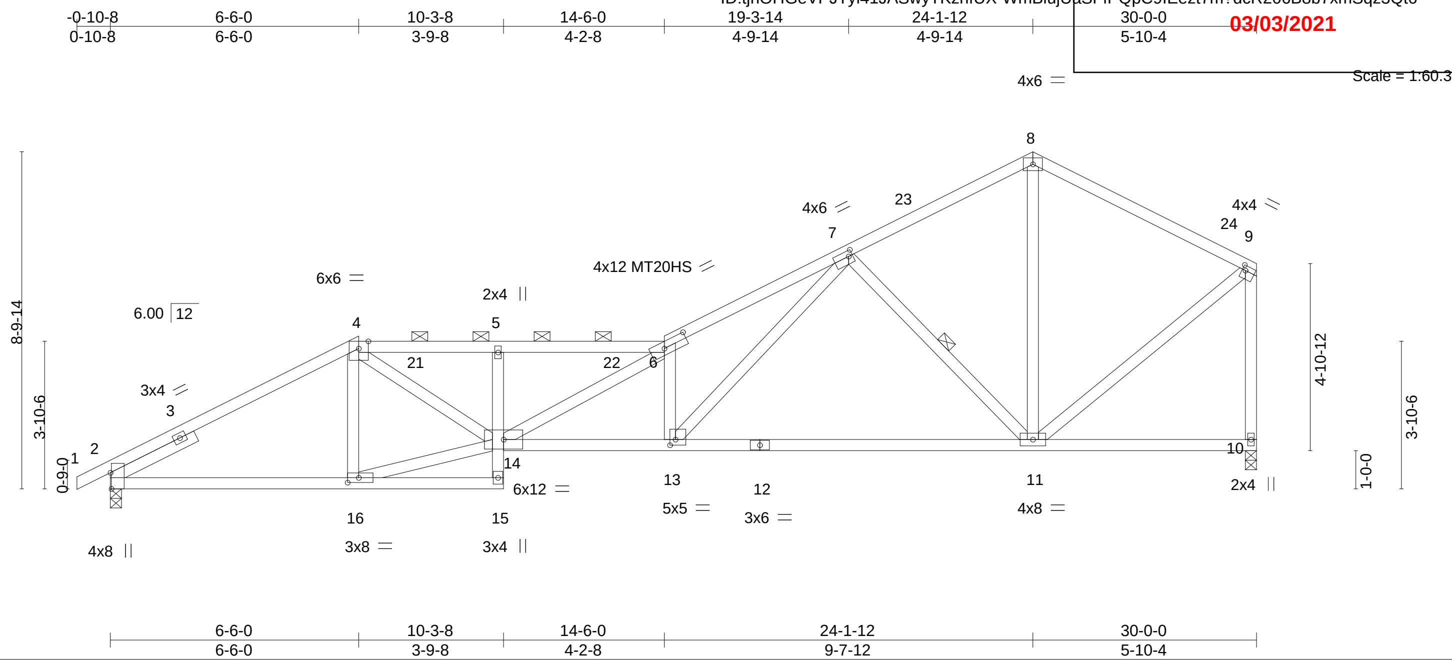

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [6:0-7-8,0-2-0], [7:0-1-4,0-1-12], [9:0-1-0,0-1-8], [13:0-1-12,0-1-12], [16:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.29	13-14	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.60	11-13	>599	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.12	10	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 137 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-10 max.): 4-6.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 10=-41(LC 12)
Max Grav 2=1406(LC 2), 10=1343(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2179/116, 4-5=-3453/196, 5-6=-3516/203, 6-7=-4279/231, 7-8=-1040/85, 8-9=-1048/94, 9-10=-1304/57
BOT CHORD 2-16=-140/1886, 5-14=-494/62, 13-14=-188/3856, 11-13=-86/1803
WEBS 4-16=-400/73, 14-16=-143/1740, 4-14=-83/1908, 6-14=-544/0, 6-13=-1958/174, 7-13=-138/2879, 7-11=-1371/150, 8-11=-27/554, 9-11=-17/1079

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D06	Roof Special	1	1	Job Reference (optional)

J41762469

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:23:34 2020 Page 1
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-0-10-8	4-2-12	8-2-0	10-3-8	16-2-0	24-1-12	30-0-0
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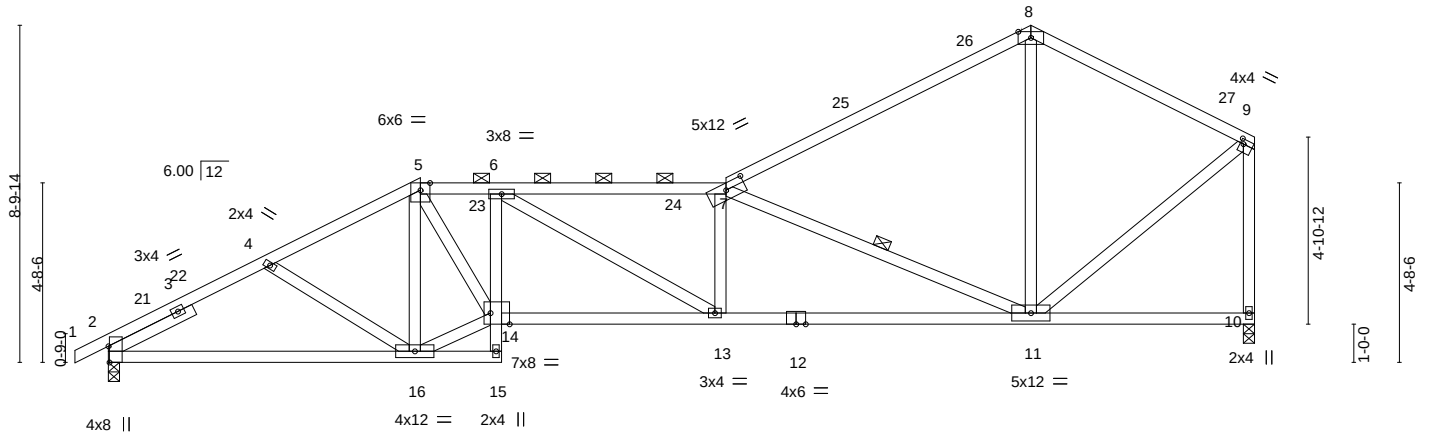

8-2-0	10-3-8	16-2-0	24-1-12	30-0-0
8-2-0	2-1-8	5-10-8	7-11-12	5-10-4

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [7:0-6-0,0-2-1], [9:0-1-0,0-1-8], [14:0-6-0,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.20	13-14	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.38	11-13	>953	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.12	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 139 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 7-8: 2x4 SPF 1650F 1.5E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-11-0 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-11

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 10=-41(LC 12)
Max Grav 2=1406(LC 2), 10=1343(LC 2)

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

TOP CHORD	2-4=-2164/129, 4-5=-2051/116, 5-6=-2669/168, 6-7=-2960/155, 7-8=-1103/76, 8-9=-1049/98, 9-10=-1298/61
BOT CHORD	2-16=-169/1868, 6-14=-520/58, 13-14=-167/2724, 11-13=-151/2958
WEBS	5-16=-739/73, 14-16=-100/1920, 5-14=-92/1650, 6-13=0/394, 7-11=-2274/176, 8-11=0/443, 9-11=-29/1098

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D07	ROOF SPECIAL	1	1	I41762470 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

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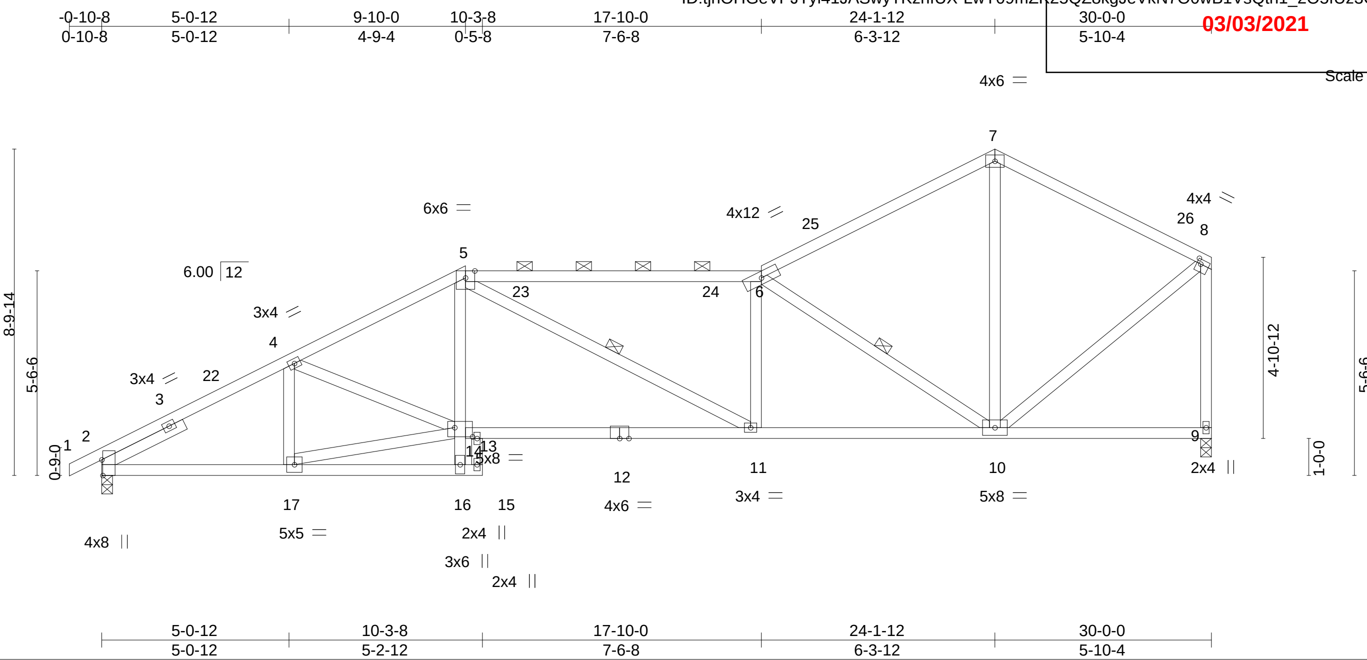

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [8:0-1-4,0-1-8], [14:0-5-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.14	11-13	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.31	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.09	9	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 143 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-11, 6-10

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 9=-41(LC 12)
Max Grav 2=1406(LC 2), 9=1343(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2170/116, 4-5=-2405/144, 5-6=-2310/131, 6-7=-1061/82, 7-8=-1036/98, 8-9=-1291/62
BOT CHORD 2-17=-153/1877, 13-14=-83/2064, 11-13=-120/2122, 10-11=-105/2308, 13-15=-298/0
WEBS 14-16=0/433, 5-14=0/504, 4-17=-385/61, 4-14=-3/375, 5-11=-25/294, 6-10=-1761/142, 7-10=-12/491, 8-10=-26/1071, 14-17=-115/1820

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D08	ROOF SPECIAL	1	1	J41762471

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:23:33 2020 Page 1
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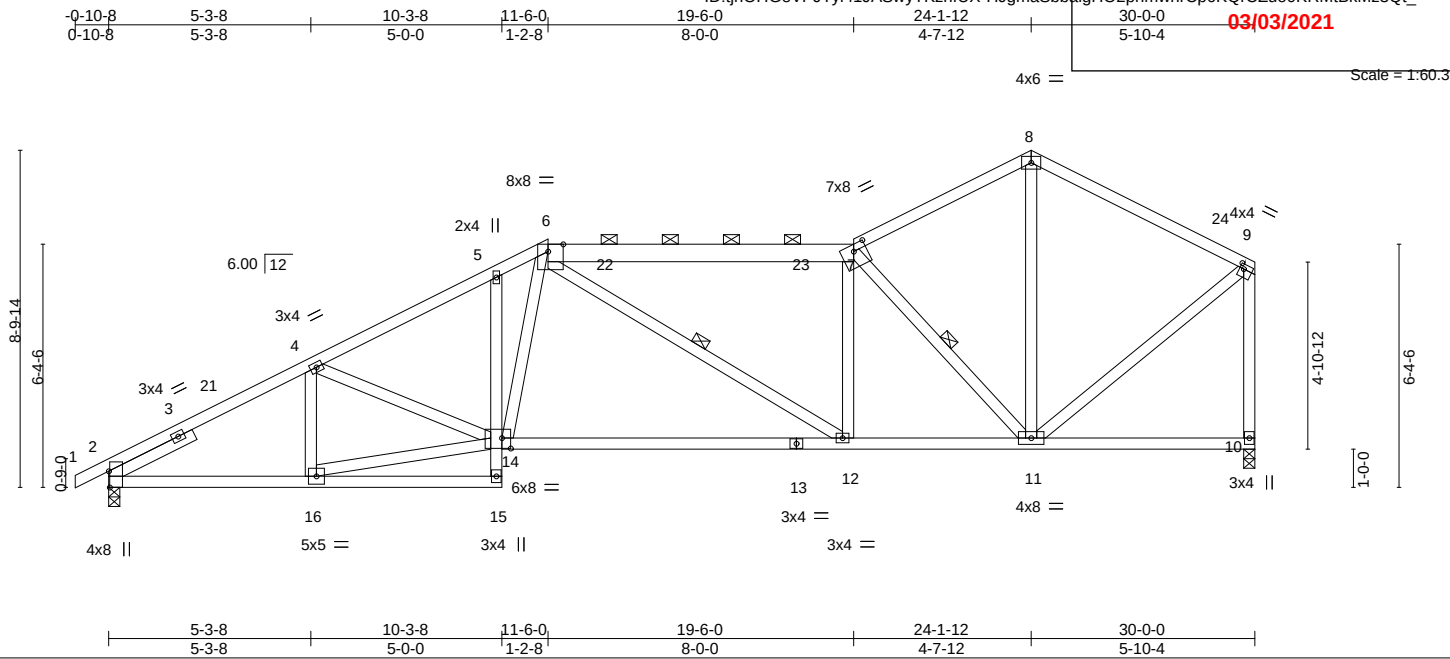


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [6:0-4-12,Edge], [7:0-4-0,0-2-1], [9:0-1-4,0-1-8], [14:0-2-12,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.23	12-14	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.51	12-14	>707	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 151 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-3-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-8 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS	1 Row at midpt 6-12, 7-11

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 10=-41(LC 12)
Max Grav 2=1406(LC 2), 10=1343(LC 2)

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

TOP CHORD	2-4=-2178/115, 4-5=-2310/148, 5-6=-2218/169, 6-7=-1823/111, 7-8=-1024/90, 8-9=-1030/99, 9-10=-1284/65
BOT CHORD	2-16=-151/1886, 12-14=-106/1874, 11-12=-63/1817
WEBS	4-16=-349/69, 14-16=-131/1875, 7-12=0/324, 7-11=-1450/112, 8-11=-32/551, 9-11=-26/1056, 6-14=-28/787

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

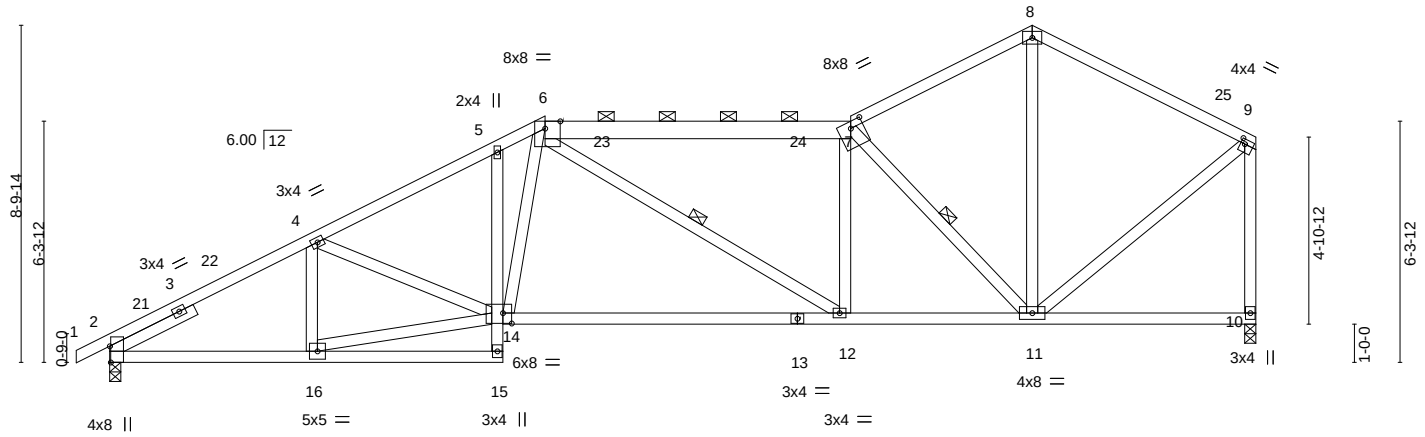
Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D09	ROOF SPECIAL	1	1	J41762472

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:24:41 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-EhnX_7cr6Jw?dMz4tLpJHEBgyeu1MiWcvgMInFz3Qsy

-0-10-8 5-3-8 10-3-8 11-4-12 19-4-12 24-1-12 30-0-0
0-10-8 5-3-8 5-0-0 1-1-4 8-0-0 4-9-0 5-10-4

Scale = 1:60.3



5-3-8 10-3-8 11-4-12 19-4-12 24-1-12 30-0-0
5-3-8 5-0-0 1-1-4 8-0-0 4-9-0 5-10-4

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [6:0-4-12,Edge], [7:0-4-0,0-2-1], [9:0-1-4,0-1-8], [14:0-2-12,0-3-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.22	12-14	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.49	12-14	>729	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 151 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-4 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS	1 Row at midpt 6-12, 7-11

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 10=-41(LC 12)
Max Grav 2=1406(LC 2), 10=1343(LC 2)

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

TOP CHORD	2-4=-2178/115, 4-5=-2309/148, 5-6=-2212/168, 6-7=-1850/112, 7-8=-1026/90, 8-9=-1030/99, 9-10=-1284/65
BOT CHORD	2-16=-151/1885, 12-14=-107/1889, 11-12=-65/1844
WEBS	4-16=-348/69, 14-16=-132/1873, 7-12=0/318, 7-11=-1464/114, 8-11=-30/546, 9-11=-26/1057, 6-14=-26/774

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D10	ROOF SPECIAL	1	1	Job Reference (optional)

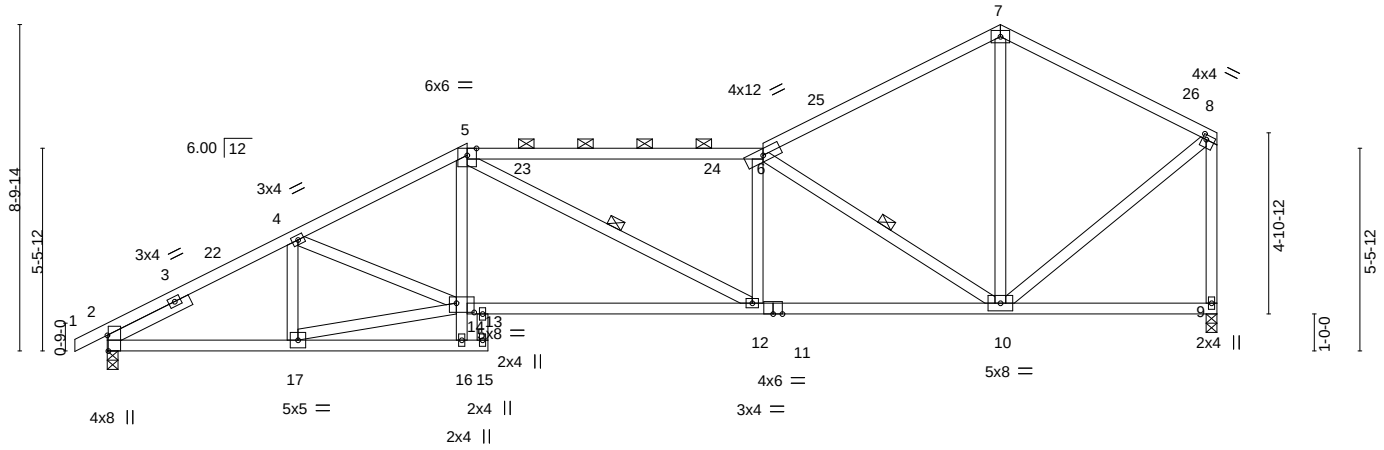
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

J41762473

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:24 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-eGTfd9ejOEIZUpifZTM0vtp6KsuXZ2C3beayOaz3Qsv

-0-10-8 5-0-2 9-8-12 10-3-8 17-8-12 24-1-12 30-0-0
0-10-8 5-0-2 4-8-10 0-6-12 7-5-4 6-5-0 5-10-4

Scale = 1:62.3



5-0-2 10-3-8 17-8-12 24-1-12 30-0-0
5-0-2 5-3-6 7-5-4 6-5-0 5-10-4

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

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.15	12-13	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.32	12-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.10	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 143 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x4 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
SLIDER	Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 9=-41(LC 12)
Max Grav 2=1406(LC 2), 9=1343(LC 2)

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

TOP CHORD	2-4=-2169/115, 4-5=-2421/144, 5-6=-2345/132, 6-7=-1063/82, 7-8=-1037/97, 8-9=-1291/62
BOT CHORD	2-17=-153/1877, 13-14=-82/2085, 12-13=-122/2137, 10-12=-108/2344
WEBS	14-16=0/383, 5-14=0/502, 4-17=-392/61, 5-12=-14/312, 6-10=-1787/144, 7-10=-11/487, 8-10=-26/1072, 14-17=-114/1823, 4-14=-1/388

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D11	Roof Special	1	1	Job Reference (optional)

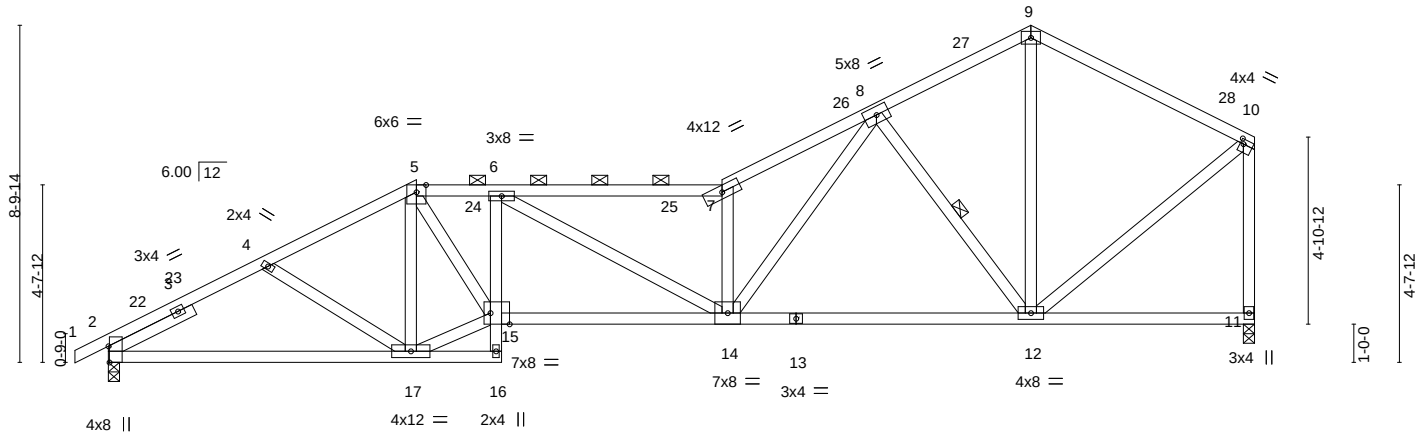
I41762474

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:48 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-X2iATXiESTo?zQ?QoJRy3jzu3TJ8VrueWGYAXLz3Qsr

-0-10-8	4-2-2	8-0-12	10-3-8	16-0-12	20-1-4	24-1-12	30-0-0
0-10-8	4-2-2	3-10-10	2-2-12	5-9-4	4-0-8	4-0-8	5-10-4

Scale = 1:60.3



8-0-12	10-3-8	16-0-12	24-1-12	30-0-0
8-0-12	2-2-12	5-9-4	8-1-0	5-10-4

Plate Offsets (X,Y)-- [2:0-5-1,Edge], [10:0-1-0,0-1-8], [15:0-6-0,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.21	14-15	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.38	14-15	>939	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.11	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 144 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=183(LC 9)
Max Uplift 2=-66(LC 12), 11=-41(LC 12)
Max Grav 2=1406(LC 2), 11=1343(LC 2)

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

TOP CHORD	2-4=-2163/129, 4-5=-2056/116, 5-6=-2718/172, 6-7=-2975/147, 7-8=-3324/199, 8-9=-1014/89, 9-10=-1042/96, 10-11=-1296/61
BOT CHORD	2-17=-169/1867, 6-15=-517/55, 14-15=-173/2782, 12-14=-64/1607
WEBS	5-17=-703/68, 15-17=-97/1901, 5-15=-95/1657, 6-14=0/336, 7-14=-1801/149, 8-14=-124/2228, 8-12=-1271/134, 9-12=-34/566, 10-12=-20/1068

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762475
2648535	D12	Hip Girder	1	1	Job Reference (optional)	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:25 2020 Page 1
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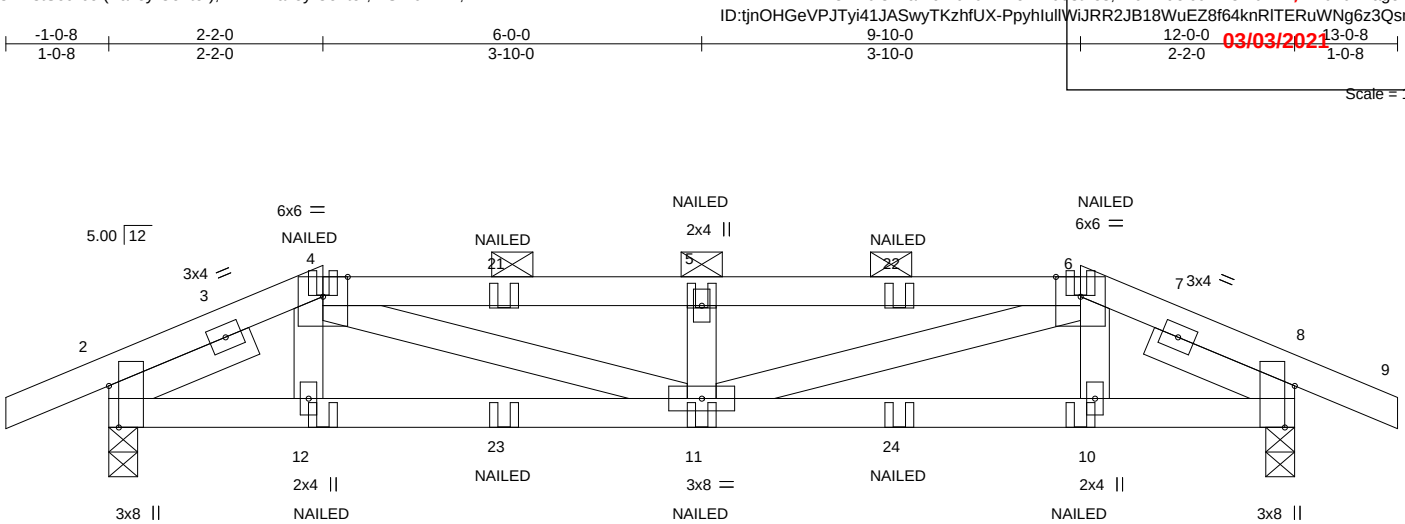


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [8:0-5-1,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.05	11	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.09	11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-7-0, Right 2x4 SPF No.2 1-7-0

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-12(LC 61)
Max Uplift 2=-39(LC 8), 8=-39(LC 9)
Max Grav 2=606(LC 2), 8=606(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-837/41, 4-5=-1493/81, 5-6=-1493/81, 6-8=-837/41
BOT CHORD 2-12=-15/755, 11-12=-18/757, 10-11=-23/757, 8-10=-20/755
WEBS 4-11=-44/774, 5-11=-405/63, 6-11=-44/774

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0 Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-51, 4-6=-61, 6-9=-51, 13-17=-20

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D12	Hip Girder	1	1	J41762475

Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 12=1(F) 11=0(F) 10=1(F) 23=0(F) 24=0(F)

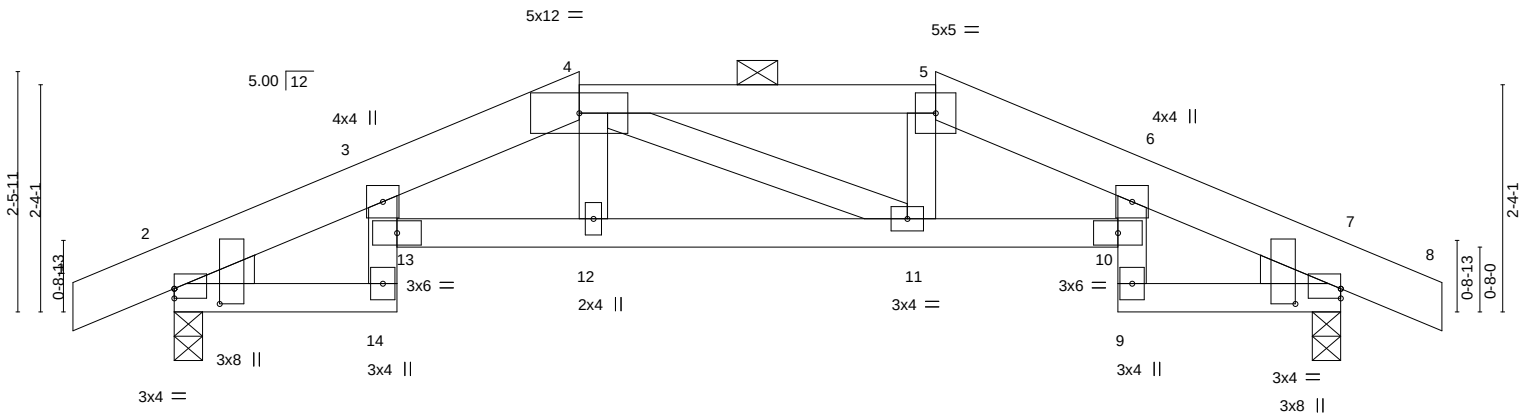
Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D13	Hip	1	1	J41762476

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:12:25 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-IaBC8GoFawpswfdyG_aqOPJKUh41NbuqLVUbptz3Qsj

-1-0-8 1-0-8 | 2-3-8 2-3-8 | 4-2-0 1-10-8 | 7-10-0 3-8-0 | 9-8-8 1-10-8 | 12-0-0 2-3-8 | 13-0-8 1-0-8

Scale = 1:23.7



2-3-8 2-3-8 | 4-2-0 1-10-8 | 7-10-0 3-8-0 | 9-8-8 1-10-8 | 12-0-0 2-3-8

Plate Offsets (X,Y)-- [2:0-0-0,0-1-3], [2:0-1-14,0-5-10], [7:0-0-0,0-1-3], [7:0-1-14,0-5-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	12	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.07	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.05	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 49 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-20(LC 13)
Max Uplift 2=-23(LC 8), 7=-23(LC 9)
Max Grav 2=613(LC 2), 7=613(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-696/18, 3-4=-1147/24, 4-5=-1098/27, 5-6=-1148/26, 6-7=-696/17
BOT CHORD 2-14=-0/522, 12-13=0/1087, 11-12=0/1097, 10-11=0/1088, 7-9=0/522

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762477
2648535	D15	Roof Special	2	1	Job Reference (optional)	

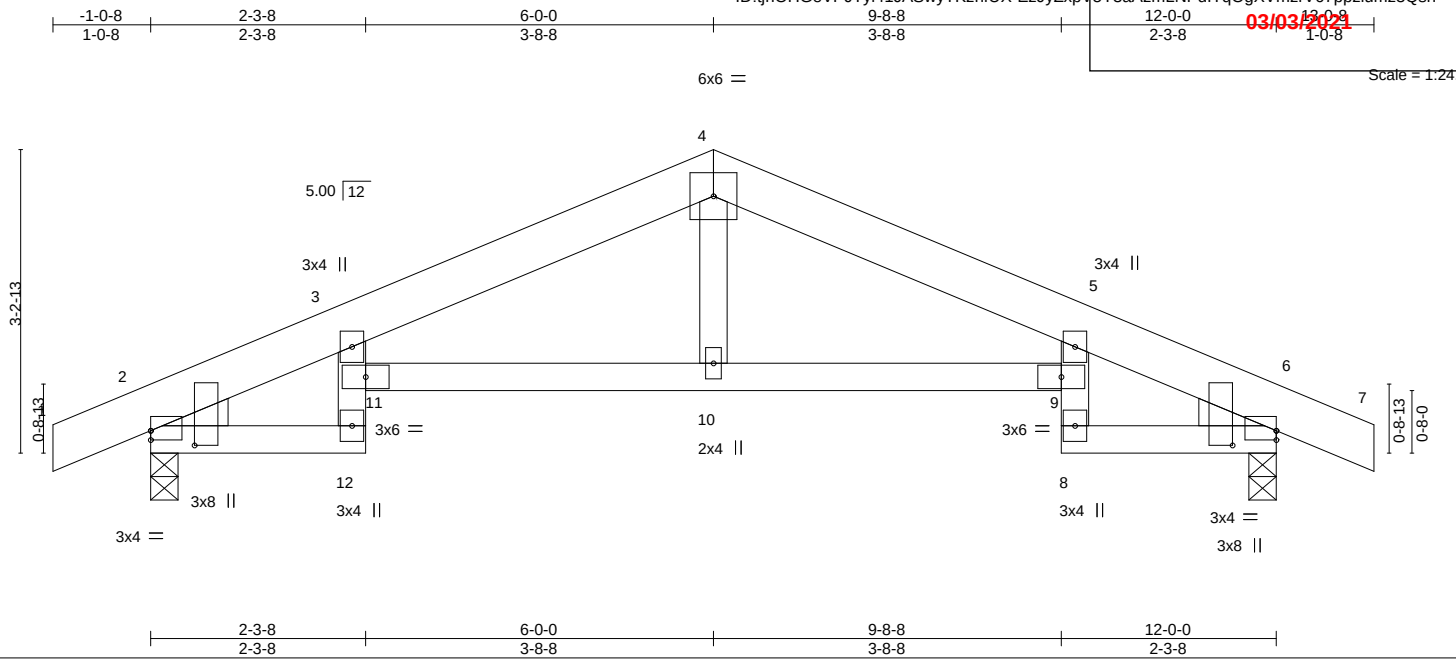


Plate Offsets (X,Y)-- [2:0-0-0,0-1-3], [2:0-1-14,0-5-10], [6:0-0-0,0-1-3], [6:0-1-14,0-5-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.05	10-11	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.09	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.06	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 47 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=28(LC 12)
Max Uplift 2=-22(LC 12), 6=-22(LC 13)
Max Grav 2=613(LC 2), 6=613(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-673/20, 3-4=-953/19, 4-5=-953/29, 5-6=-673/25
BOT CHORD 2-12=-18/495, 10-11=0/882, 9-10=0/882, 6-8=0/495

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	D16	Common	1	1	J41762478

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:22:25 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-i9tKmHq8srBRn7LXx78X01xqru9EayJG2TjFQCz3Qsg

-1-0-8 | 6-0-0 | 12-0-0 | 13-0-8
1-0-8 | 6-0-0 | 6-0-0 | 1-0-8

Scale = 1:22.7

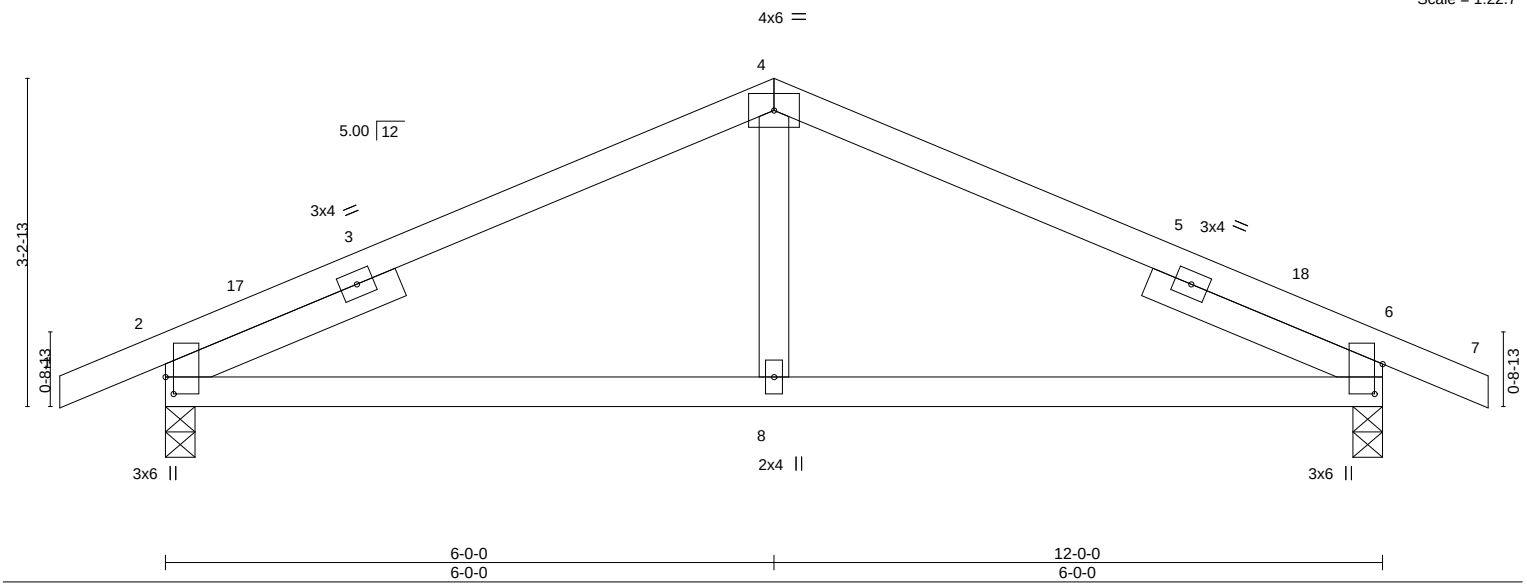


Plate Offsets (X,Y)-- [2:0-2-0,0-0-15], [6:0-3-9,0-0-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.04	8-15	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 40 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=-28(LC 13)
Max Uplift 2=-22(LC 12), 6=-22(LC 13)
Max Grav 2=613(LC 2), 6=613(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-664/33, 4-6=-664/33
BOT CHORD 2-8=0/613, 6-8=0/613

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	E01	Roof Special Girder	1	1	J41762479

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:13:30 2020 Page 1
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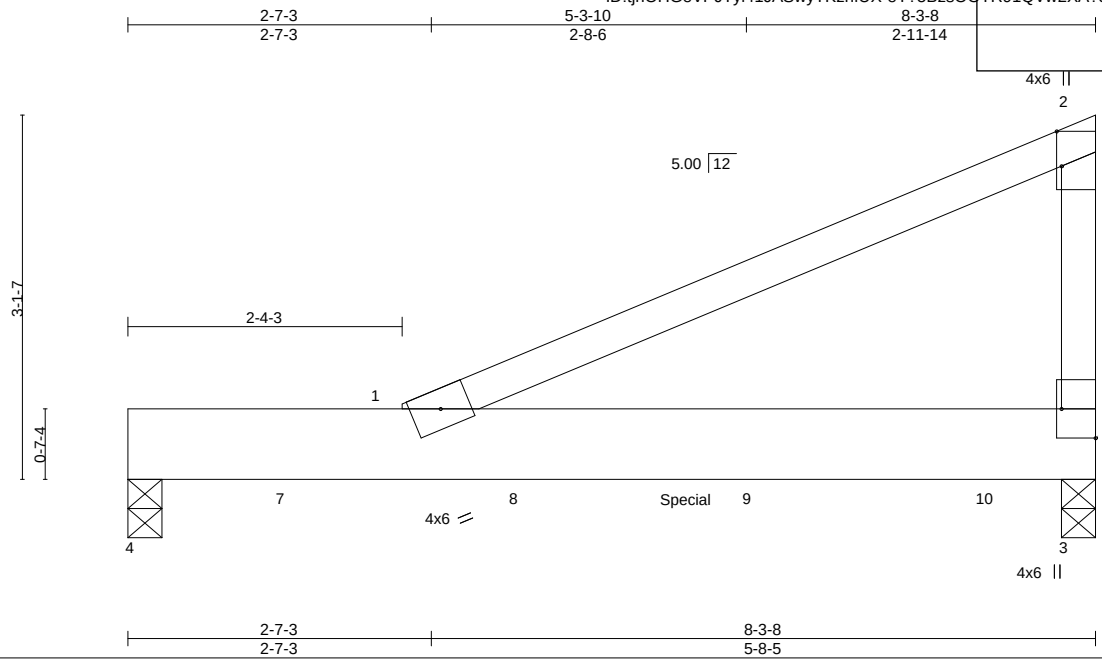


Plate Offsets (X,Y)-- [2:0-3-9,Edge], [3:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.07	3-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.12	3-5	>801	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 35 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) 3=0-3-8, 4=0-3-8
Max Horz 4=78(LC 9)
Max Grav 3=810(LC 16), 4=573(LC 16)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) 113 lb down at 1-5-3, 132 lb down at 3-5-3, 132 lb down at 5-5-3, and 137 lb down at 7-5-3, and 147 lb down at 8-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
7) Special hanger(s) or other connection device(s) shall be provided at 4-9-8 from the left end sufficient to connect truss(es) to back face of bottom chord. The design/selection of such special connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 1-4=-81, 1-3=-20
Concentrated Loads (lb)
Vert: 3=-147(B) 7=-113(B) 8=-132(B) 9=-132(B) 10=-137(B)

June 24,2020

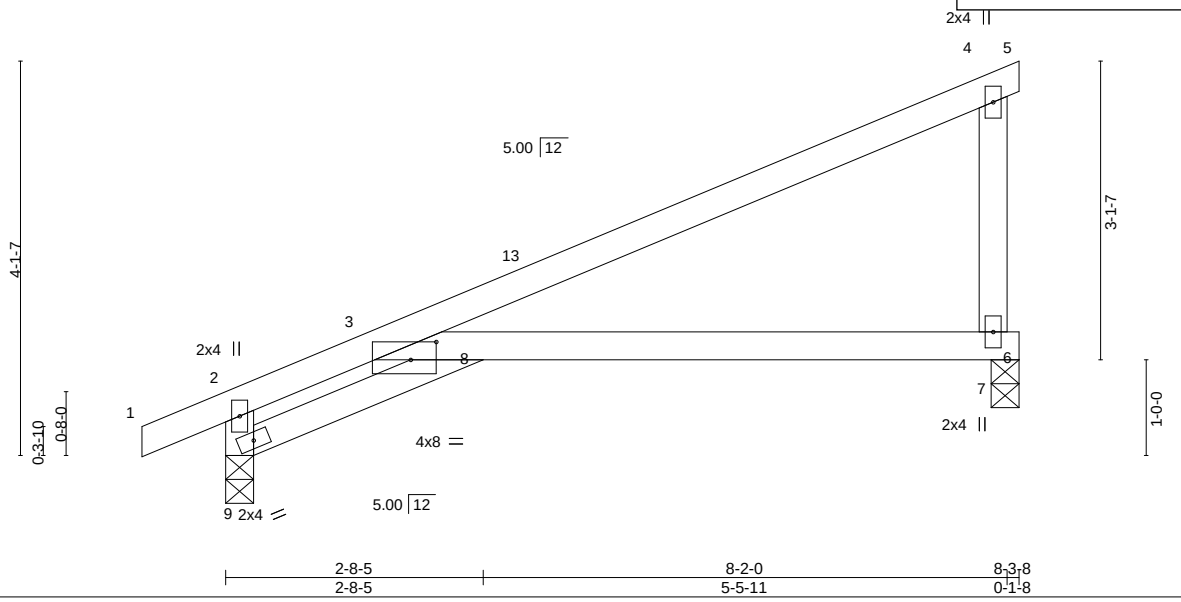
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	E02	Monopitch	1	1	Job Reference (optional)

J41762480

-0-10-8 2-8-5 6-2-3 8-2-0 8-3-8
0-10-8 2-8-5 3-5-14 1-11-13 0-1-8

Scale: 1/2"=1'



2-8-5 8-2-0 8-3-8
2-8-5 5-5-11 0-1-8

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.24	7-8	>395	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.45	7-8	>211	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.16	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 25 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 7=0-3-8, 9=0-3-8
Max Horz 9=92(LC 12)
Max Uplift 7=-43(LC 12), 9=-5(LC 12)
Max Grav 7=390(LC 17), 9=430(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-405/55
WEBS 4-7=-270/54

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 9.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	E03	HALF HIP	1	1	J41762481

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:30 2020 Page 1
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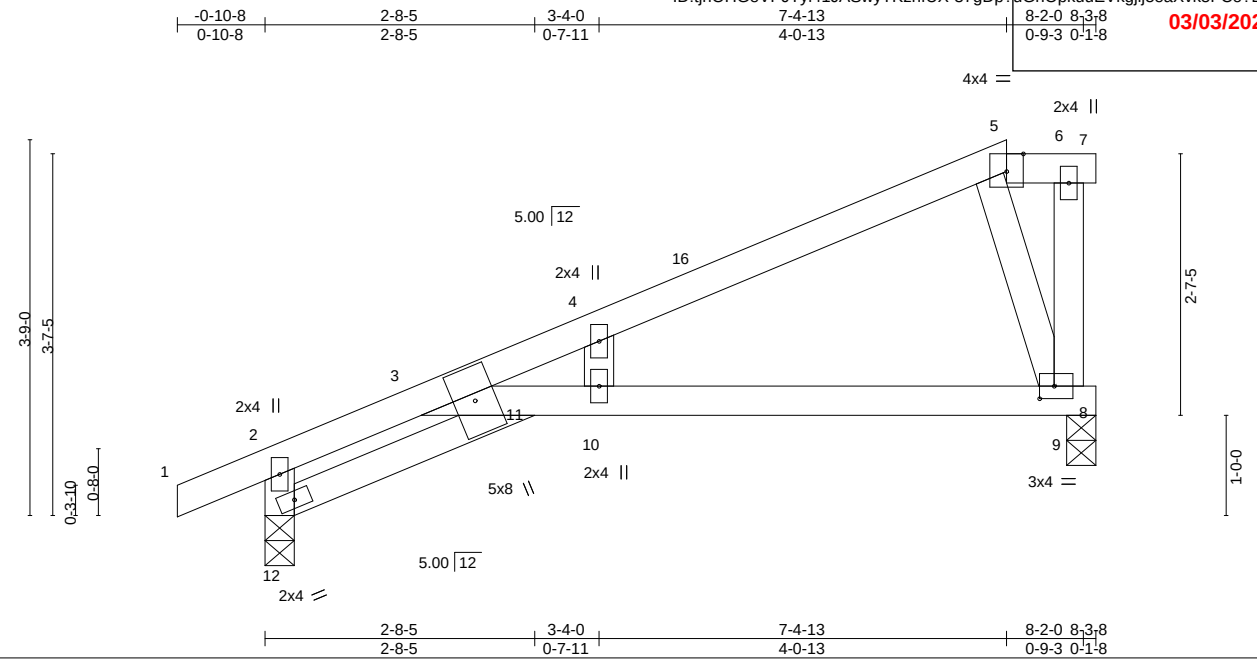

Plate Offsets (X,Y)-- [3:0-0-0,0-4-9], [5:0-2-0,Edge], [9:0-1-12,0-1-8], [11:0-1-12,0-4-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.29	9-10	>328	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.48	9-10	>196	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.17	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 28 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 9=0-3-8, 12=0-3-8
Max Horz 12=80(LC 12)
Max Uplift 9=-30(LC 12), 12=-10(LC 12)
Max Grav 9=386(LC 32), 12=500(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-475/55

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 12.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	E04	HALF HIP GIRDER	1	2	Job Reference (optional)

J41762482

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:30 2020 Page 1
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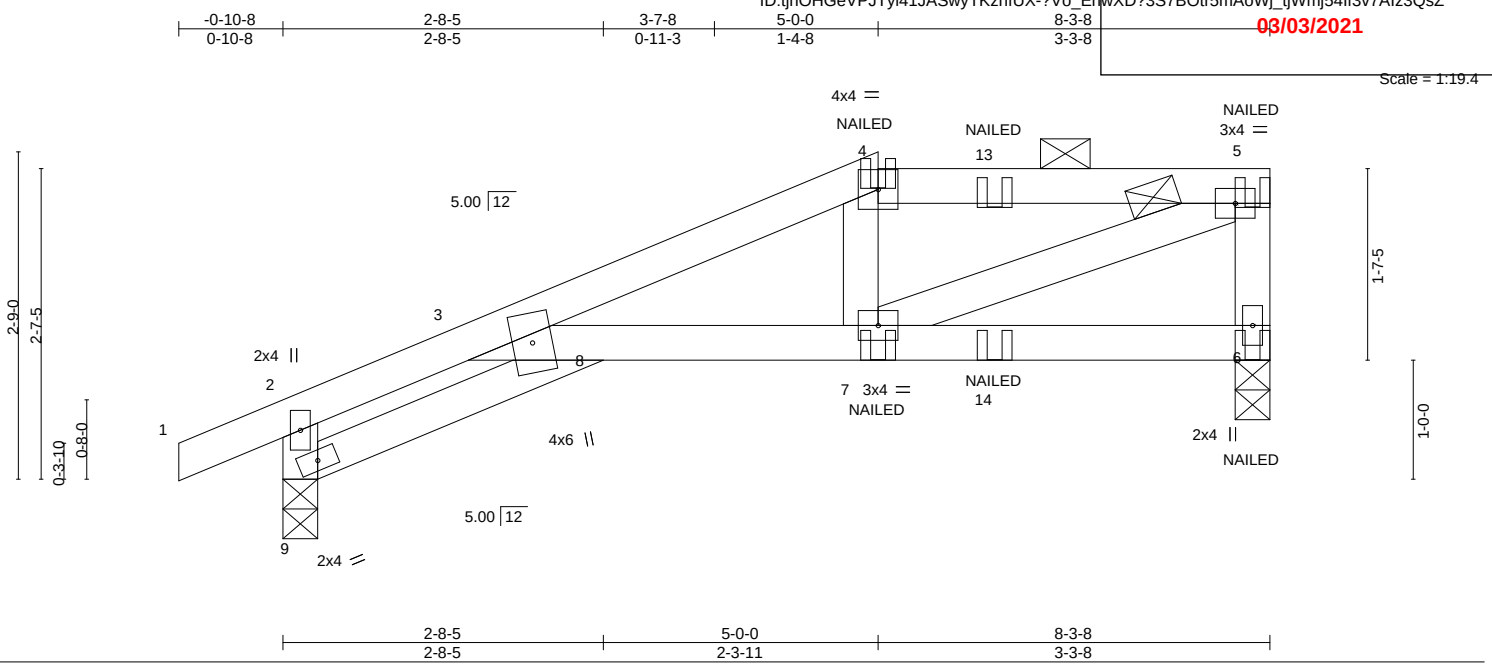

Plate Offsets (X,Y)-- [3:0-0-14,0-4-7], [8:0-0-14,0-4-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.06	8	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.09	8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 57 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 6=0-3-8, 9=0-3-8
Max Horz 9=64(LC 9)
Max Uplift 6=-77(LC 9), 9=-38(LC 12)
Max Grav 6=600(LC 32), 9=568(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-9=-543/64, 3-4=-948/94, 4-5=-873/101, 5-6=-529/77
BOT CHORD 3-8=-42/872, 7-8=-93/872
WEBS 5-7=-98/939

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 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.

June 24,2020

LOAD CASE(S) Standard

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	E04	HALF HIP GIRDER	1	2	J41762482

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 22 10:23:30 2021 Page 2
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-?Vo_EhwXD?3S7BOtr5mAoWj_tjWmj54If3v7AIz3QsZ

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-51, 2-4=-51, 4-5=-61, 8-9=-20, 6-8=-20
   Concentrated Loads (lb)
   Vert: 4=-79(F) 6=-54(F) 7=-70(F) 5=-74(F) 13=-50(F) 14=-46(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J01	DIAGONAL HIP GIRDER	1	1	Job Reference (optional)

J41762483

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:30 2020 Page 1
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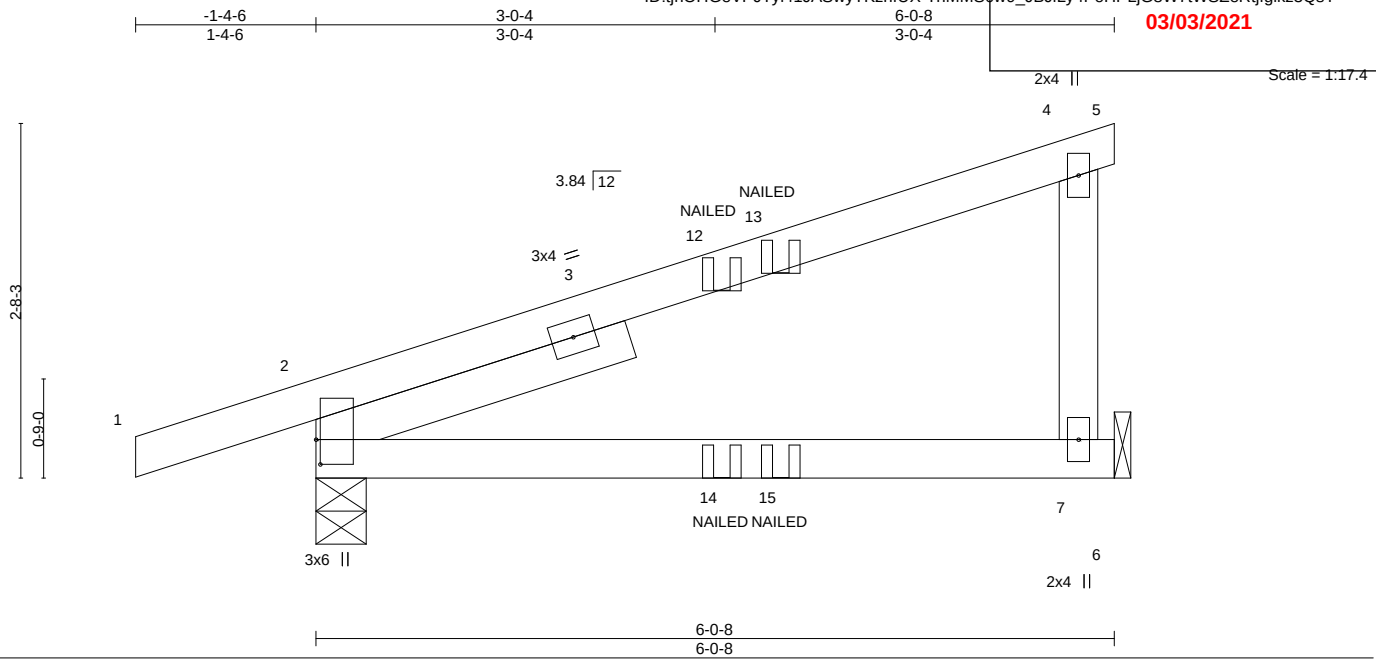

Plate Offsets (X,Y)-- [2:0-2-4,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.06	7-10	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	7-10	>565	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 2=0-4-9, 7=Mechanical
Max Horz 2=65(LC 8)
Max Uplift 2=-41(LC 8), 7=-26(LC 12)
Max Grav 2=370(LC 2), 7=294(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-300/45

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-51, 6-8=-20
Concentrated Loads (lb)
Vert: 14=-9(B) 15=0(F)

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J02	JACK-OPEN	1	1	J41762484

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:30 2020 Page 1
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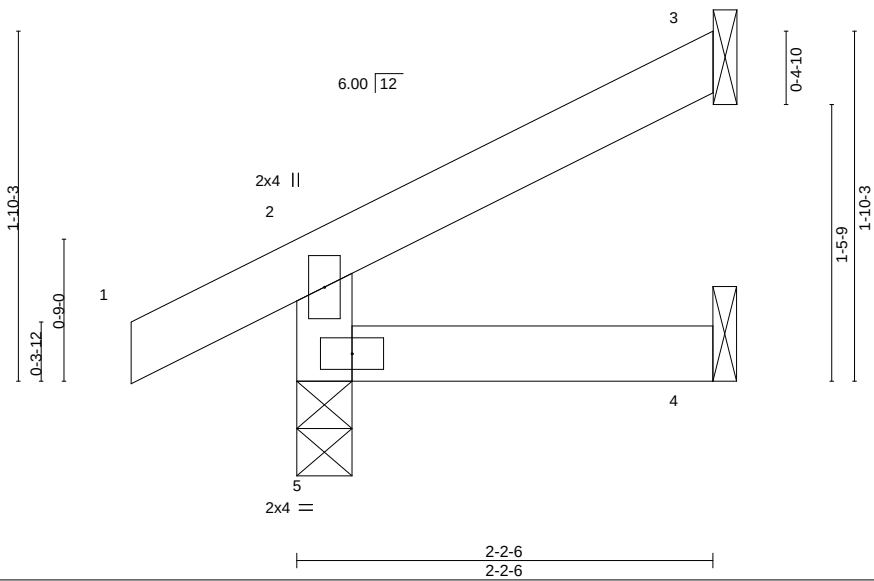

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-6 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=33(LC 9)
Max Uplift 3=-19(LC 12), 5=-2(LC 12)
Max Grav 3=56(LC 17), 4=36(LC 7), 5=187(LC 17)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762485
2648535	J03	JACK-OPEN GIRDER	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:31 2020 Page 1
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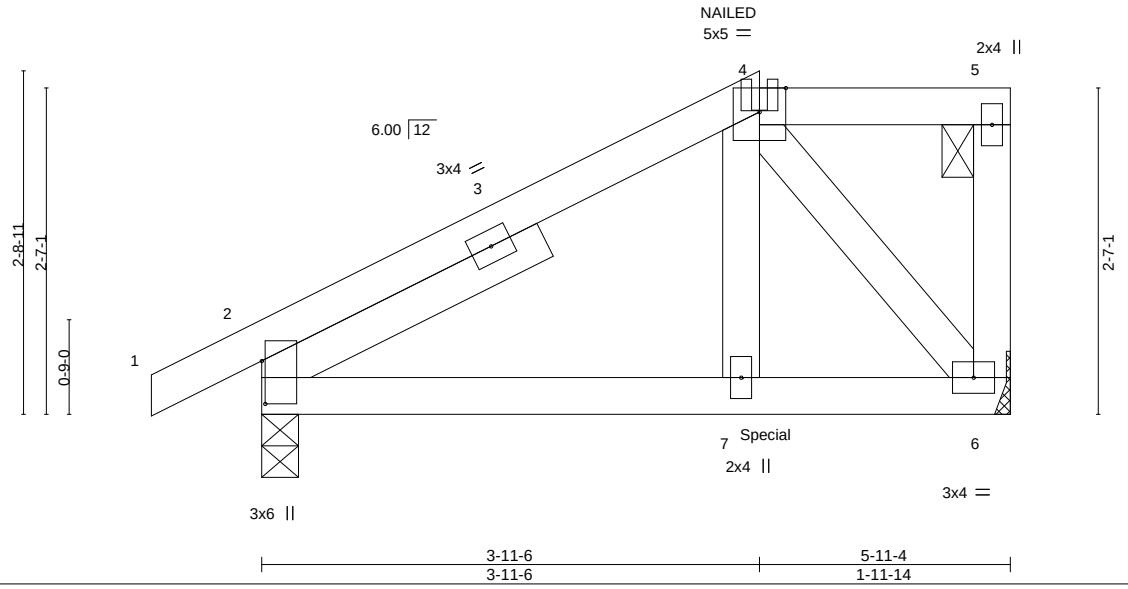

3-11-6 5-11-4
3-11-6 1-11-14

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	7-10	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.01	7-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 26 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 6=Mechanical
Max Horz 2=57(LC 12)
Max Uplift 2=-23(LC 12), 6=-42(LC 9)
Max Grav 2=520(LC 32), 6=508(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-428/28
BOT CHORD 2-7=-37/388, 6-7=-37/362
WEBS 4-7=-6/410, 4-6=-587/60

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 331 lb down and 47 lb up at 3-11-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) 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

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J03	JACK-OPEN GIRDER	1	1	J41762485

Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-51, 4-5=-61, 6-8=-20
   Concentrated Loads (lb)
   Vert: 4=-93(B) 7=-331(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J04	HALF HIP	1	1	J41762486

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:11 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-LTbtHOzf2XikDzGreeLLVZQqpkFcON71oLdurVz3QsU

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

-0-10-8 / 0-10-8 | 5-7-6 / 5-7-6 | 5-11-4 / 0-3-14

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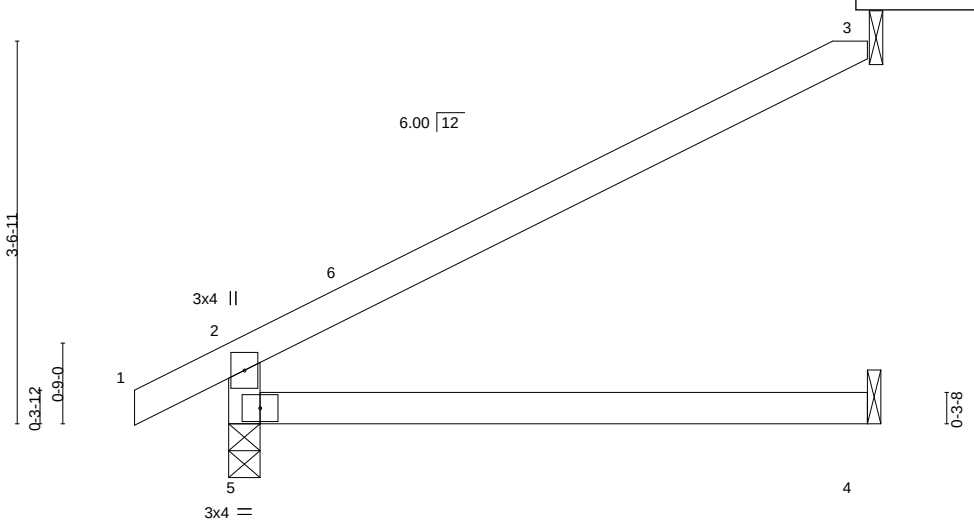

2-11-10 / 2-11-10 | 5-11-4 / 2-11-10

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.11	4-5	>639	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 16 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=83(LC 12)
Max Uplift 3=-51(LC 12)
Max Grav 3=207(LC 17), 4=107(LC 7), 5=336(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-290/34

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J05	JACK-OPEN	8	1	J41762487

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:31 2020 Page 1
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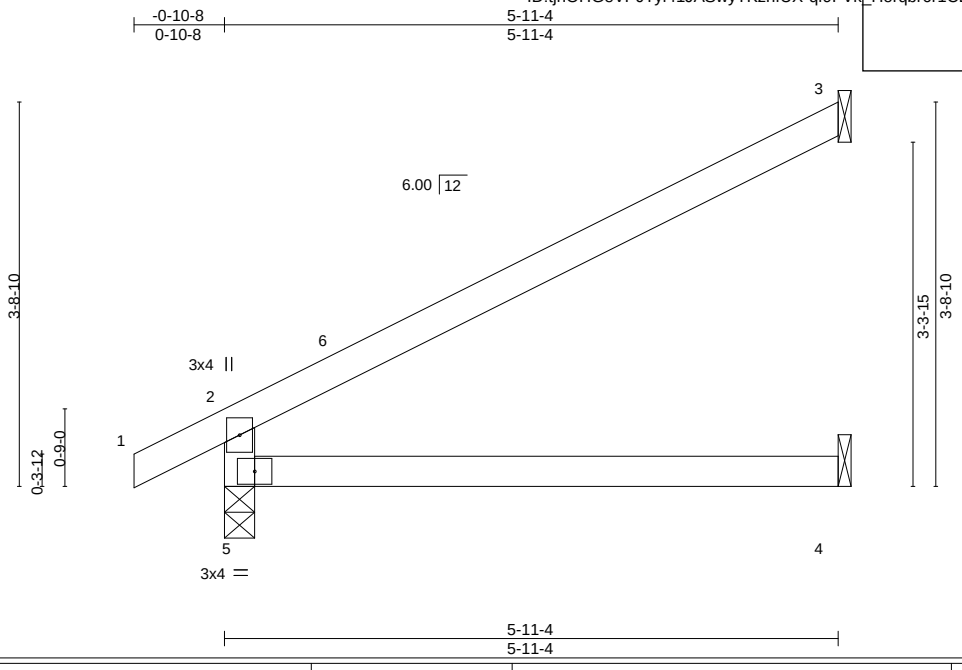

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.11	4-5	>639	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 16 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=80(LC 12)
Max Uplift 3=-51(LC 12)
Max Grav 3=207(LC 17), 4=107(LC 7), 5=336(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-290/34

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J06	JACK-OPEN	7	1	Job Reference (optional)

J41762488

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:14 2020 Page 1
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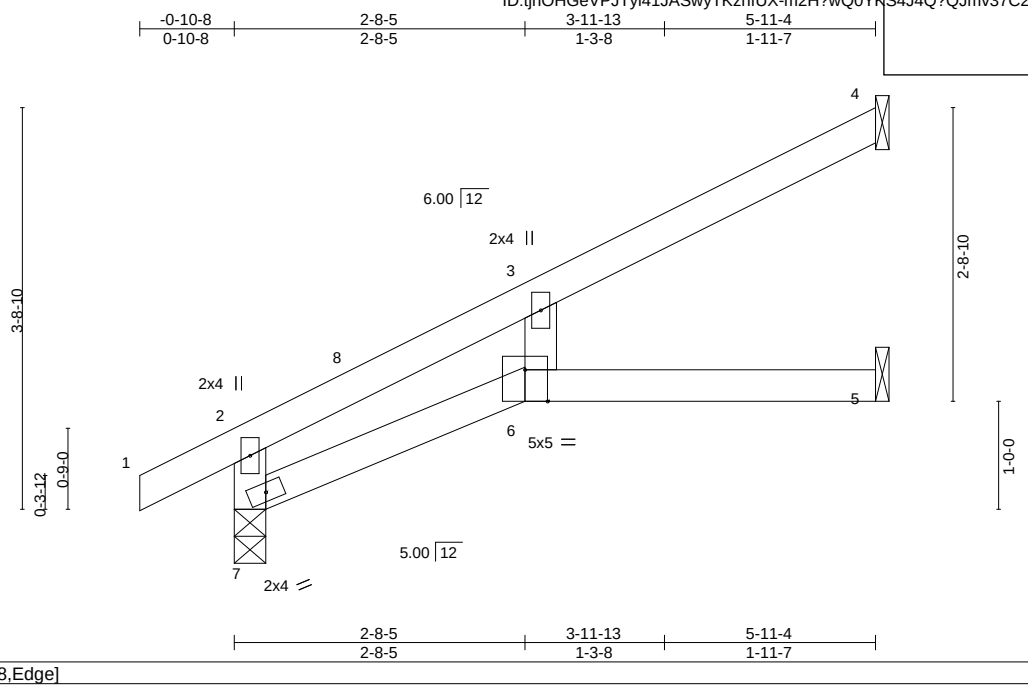

Plate Offsets (X,Y)-- [6:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.09	6	>754	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.15	5-6	>448	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=80(LC 12)
Max Uplift 4=-38(LC 12), 5=-1(LC 12)
Max Grav 4=179(LC 17), 5=99(LC 17), 7=336(LC 2)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J07	HALF HIP	1	1	J41762489

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:14 2020 Page 1
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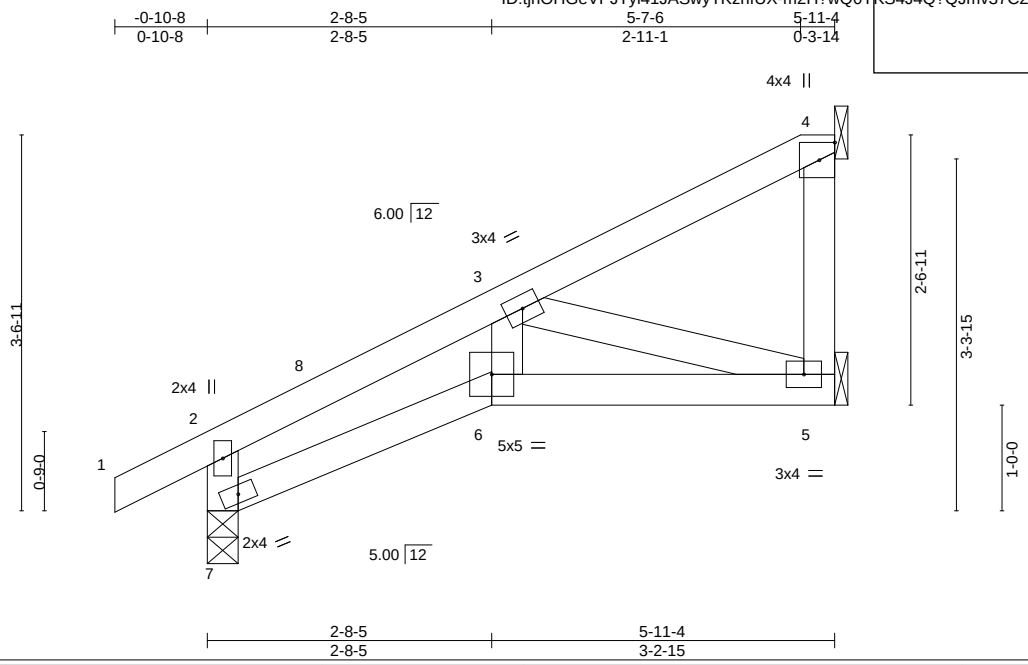

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.18	6	>370	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.30	6	>226	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.12	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 22 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=Mechanical, 7=0-3-8, 4=Mechanical
Max Horz 7=82(LC 12)
Max Uplift 5=-10(LC 12), 4=-29(LC 12)
Max Grav 5=56(LC 7), 7=332(LC 2), 4=246(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-7=-307/42

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762490
2648535	J08	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:31 2020 Page 1
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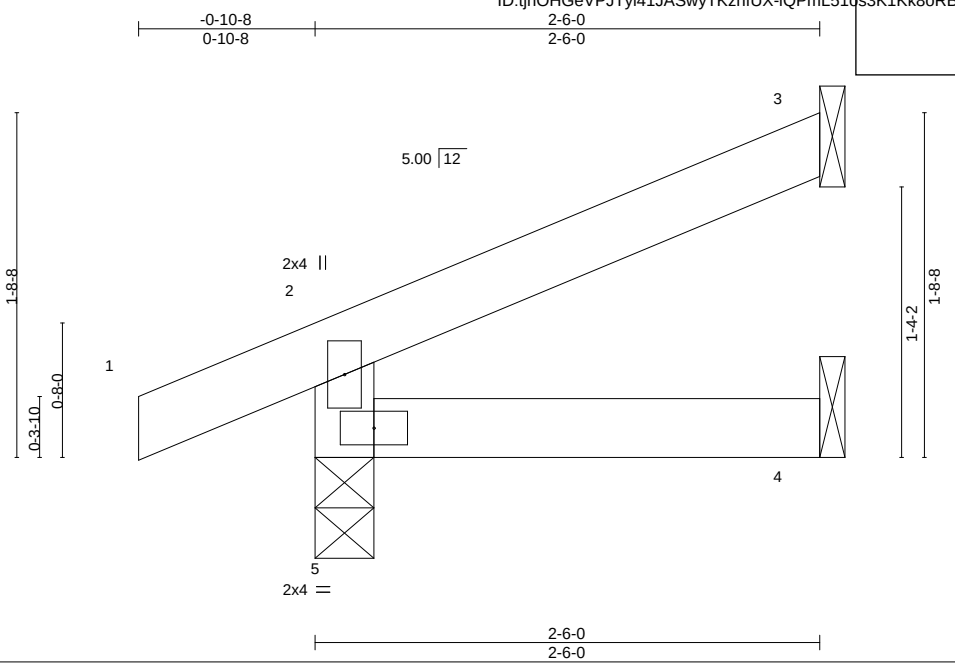

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-6-0 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=31(LC 9)
Max Uplift 3=-19(LC 12), 5=-14(LC 8)
Max Grav 3=67(LC 17), 4=42(LC 7), 5=196(LC 17)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J09	Half Hip Girder	1	1	J41762401

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:18 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-epWWln32OhalZ1IBYc_?H2D4HZd7XYH3PwplbbzQsN

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

-0-10-8 / 0-10-8 | 2-8-5 / 2-8-5 | 3-11-6 / 1-3-1 | 5-11-4 / 1-11-14

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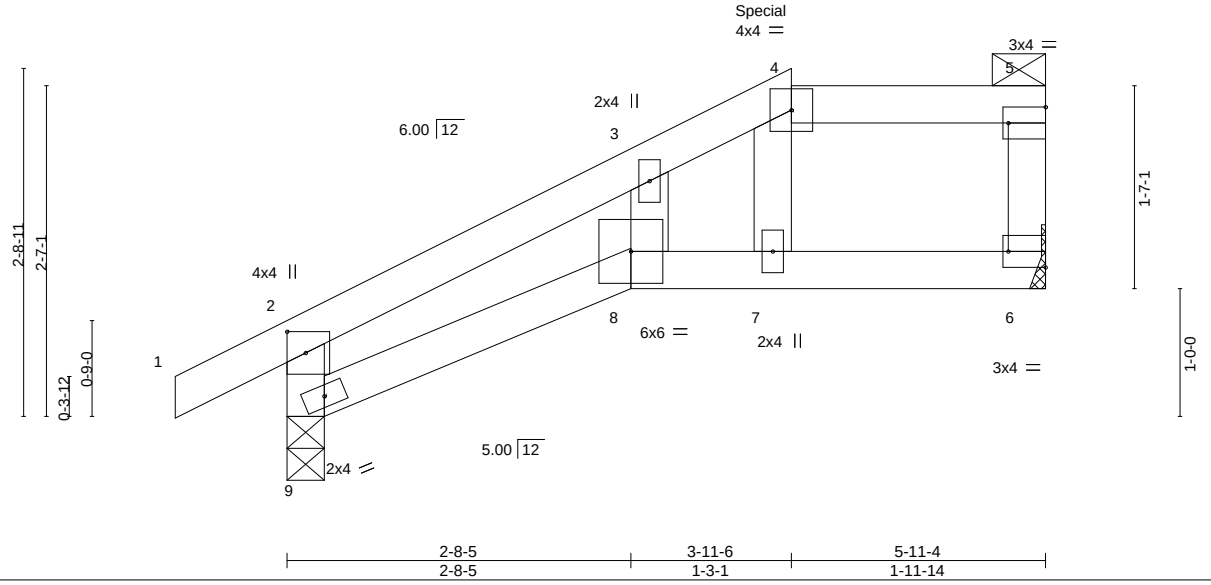

2-8-5 / 2-8-5 | 3-11-6 / 1-3-1 | 5-11-4 / 1-11-14

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.08	8	>800	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	8	>719	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 19 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 6=Mechanical, 9=0-3-8
Max Horz 9=63(LC 9)
Max Uplift 6=-246(LC 9), 9=-125(LC 12)
Max Grav 6=305(LC 2), 9=421(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-367/227, 2-9=-437/176

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=246, 9=125.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 159 lb down and 368 lb up at 3-11-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.
14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J09	Half Hip Girder	1	1	J41762491

Job Reference (optional)

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-51, 2-4=-51, 4-5=-61, 8-9=-20, 6-8=-20

Concentrated Loads (lb)

Vert: 4=-120(F)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J10	Jack-Open	1	1	I41762492 Job Reference (optional)

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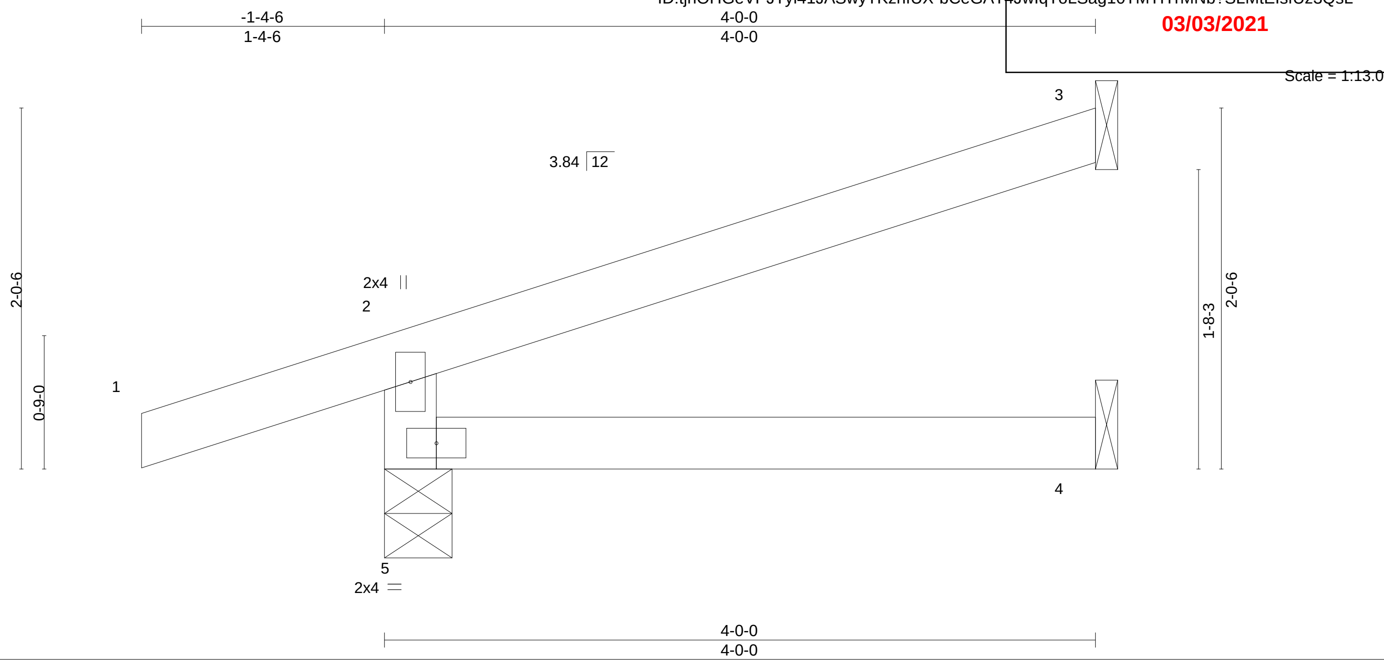
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 8)
Max Uplift 5=-46(LC 8), 3=-27(LC 12)
Max Grav 5=312(LC 17), 3=117(LC 17), 4=69(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-275/66

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J11	Jack-Open	1	1	J41762493

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:32 2020 Page 1
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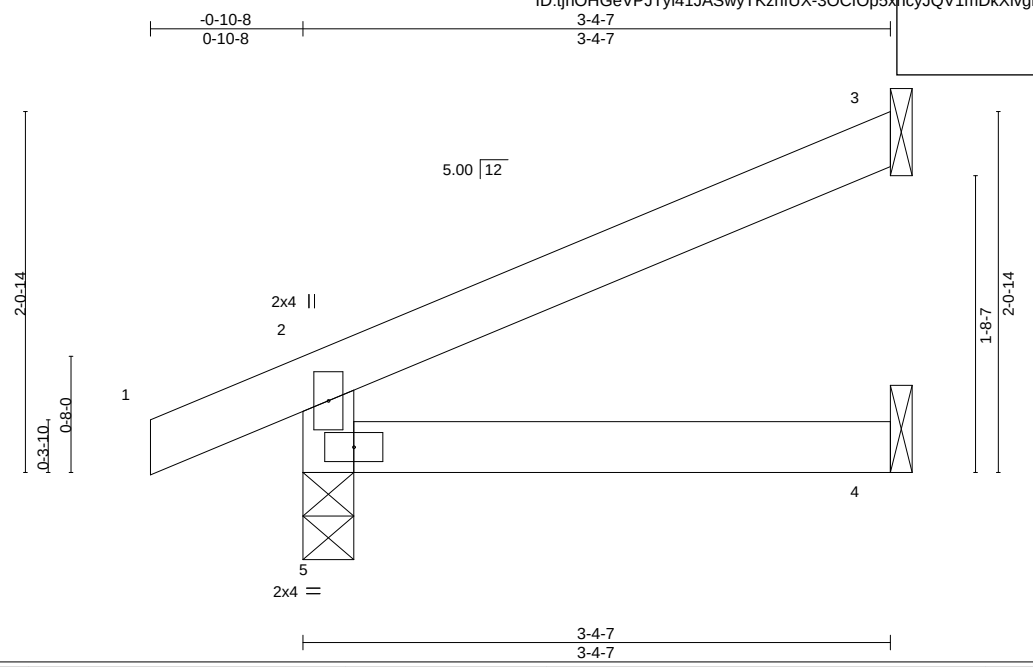

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-4-7 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=39(LC 12)
Max Uplift 3=-25(LC 12), 5=-10(LC 8)
Max Grav 3=102(LC 17), 4=59(LC 7), 5=239(LC 17)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J12	Jack-Open Girder	1	1	J41762494

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:22 2020 Page 1
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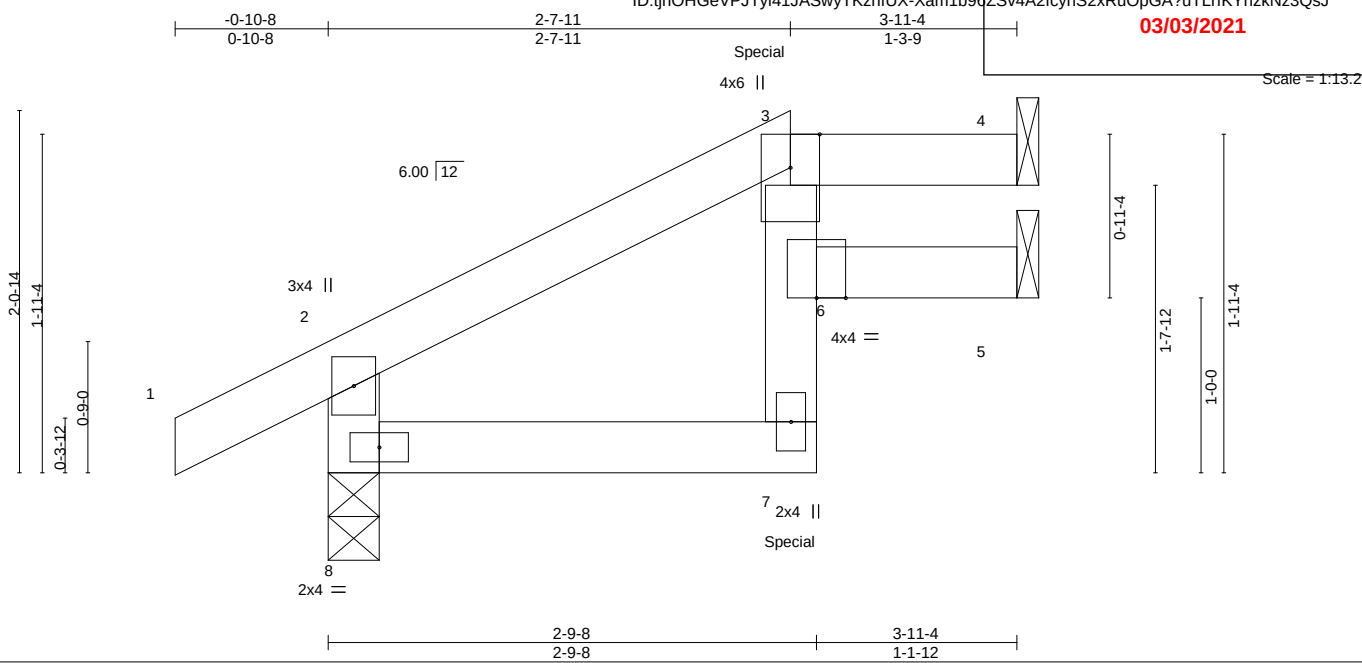

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	6	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.02	7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 12 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-4 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) 4=Mechanical, 5=Mechanical, 8=0-3-8
Max Horz 8=36(LC 53)
Max Uplift 4=-15(LC 9), 5=-12(LC 12), 8=-16(LC 12)
Max Grav 4=119(LC 31), 5=117(LC 32), 8=329(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-302/30

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 126 lb down and 77 lb up at 2-7-11 on top chord, and 52 lb down at 2-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-3=-51, 3-4=-61, 7-8=-20, 5-6=-20

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J12	Jack-Open Girder	1	1	J41762494

Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-30(B) 3=-92(B)

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J13	Jack-Open	3	1	J41762495

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:24 2020 Page 1
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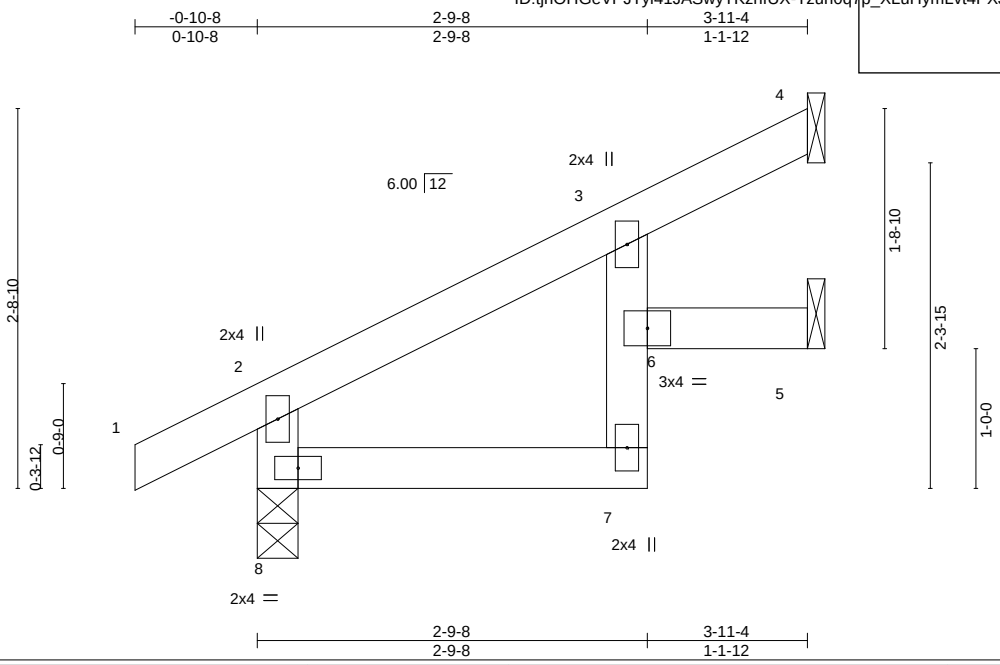
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.01	6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 13 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 8=0-3-8
Max Horz 8=55(LC 12)
Max Uplift 4=-17(LC 12), 5=-10(LC 12)
Max Grav 4=96(LC 17), 5=77(LC 17), 8=276(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-251/17

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 8 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) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J14	Jack-Open	1	1	J41762496

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:13:32 2020 Page 1
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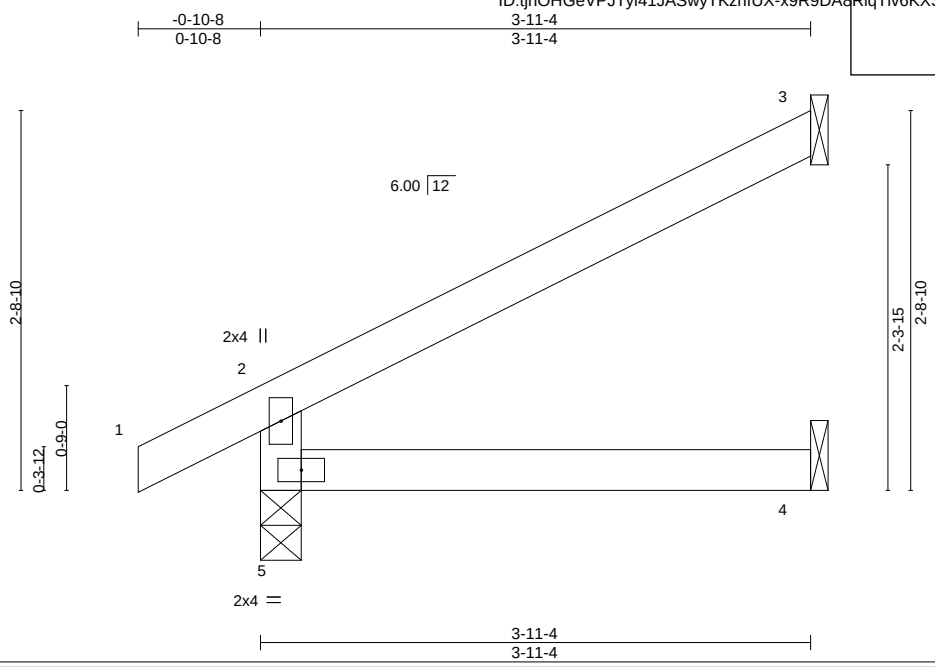

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-4 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=55(LC 12)
Max Uplift 3=-34(LC 12)
Max Grav 3=128(LC 17), 4=70(LC 7), 5=276(LC 17)

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

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J15	Jack-Open	4	1	J41762497

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:32 2020 Page 1

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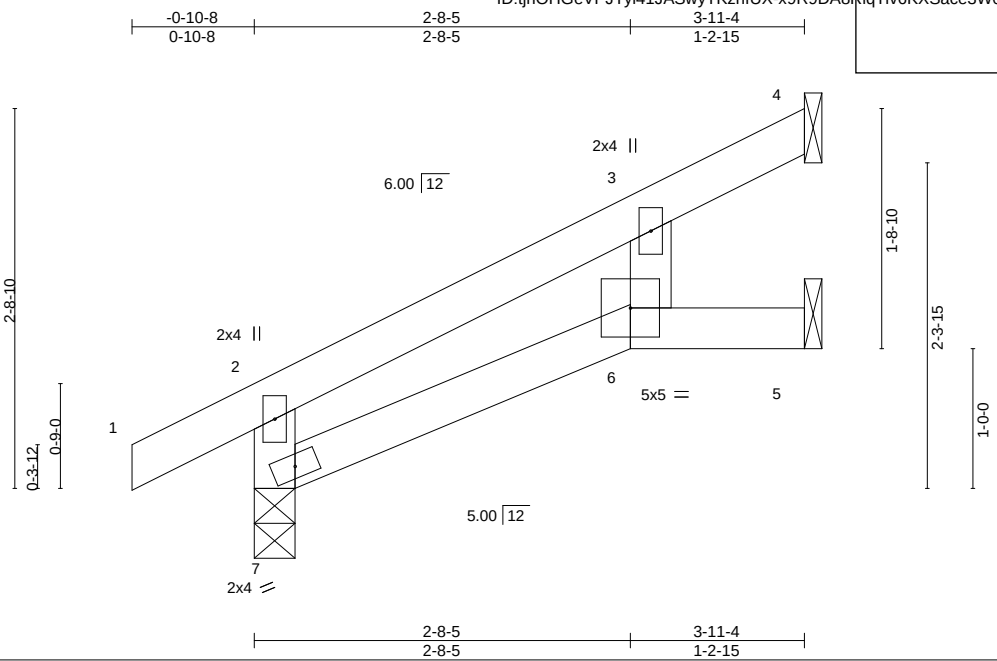


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	6-7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=54(LC 12)
Max Uplift 4=-19(LC 12), 5=-9(LC 12)
Max Grav 4=101(LC 17), 5=73(LC 17), 7=276(LC 17)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

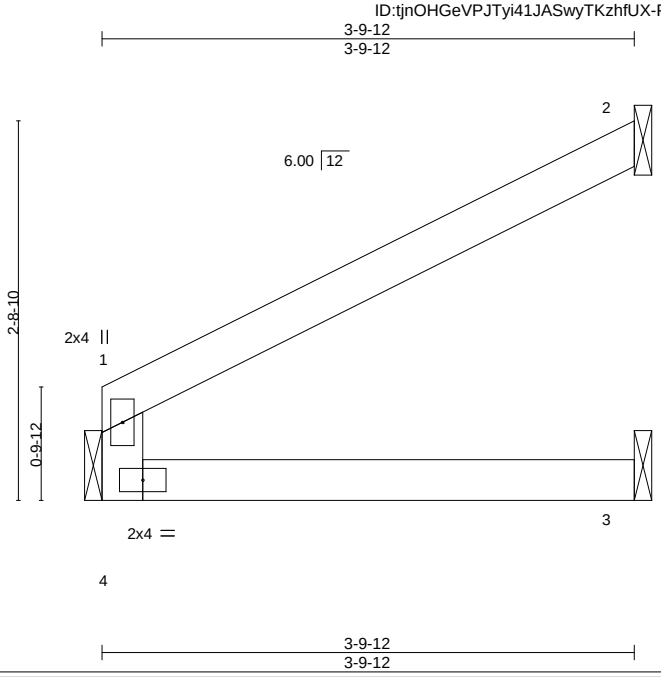
June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J16	Jack-Open	5	1	Job Reference (optional)

J41762498

Scale = 1:16.5



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	3-4	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 10 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 4=Mechanical
Max Horz 4=42(LC 9)
Max Uplift 2=-34(LC 12)
Max Grav 2=125(LC 16), 3=69(LC 7), 4=172(LC 16)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for 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.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762499
2648535	J17	Jack-Open	1	1	Job Reference (optional)	

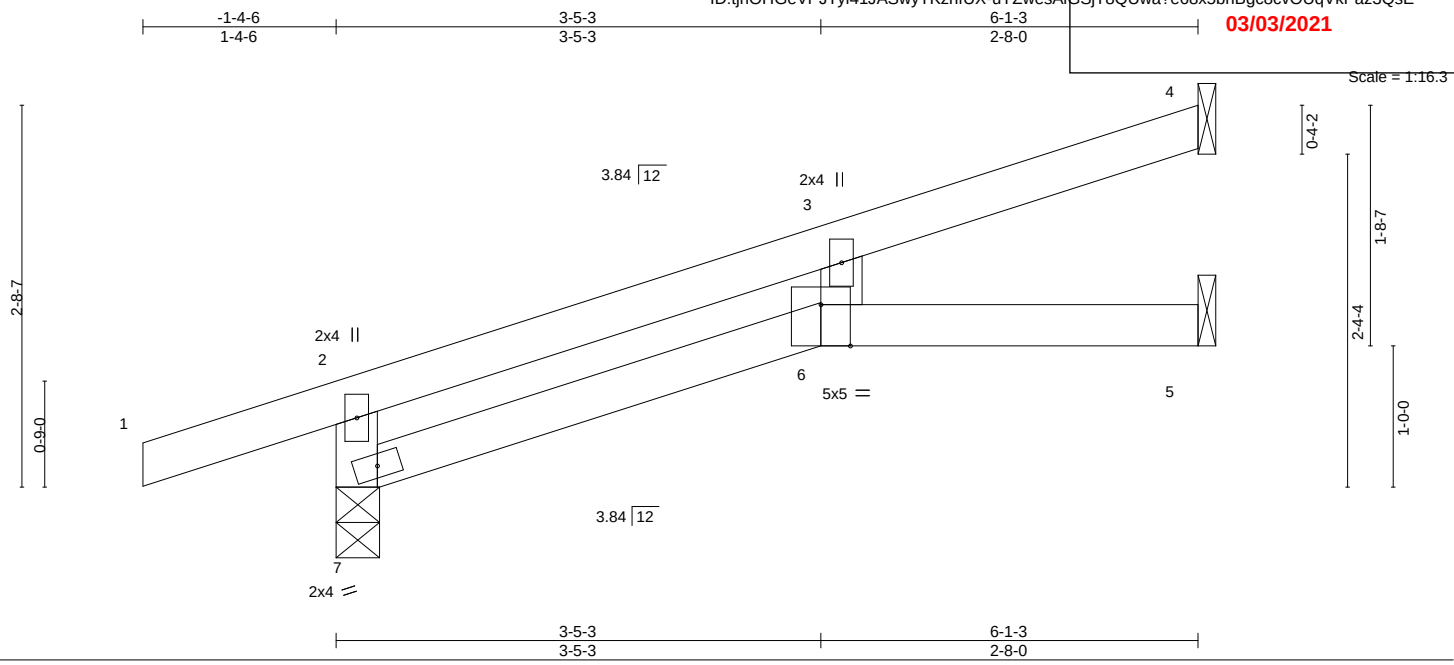


Plate Offsets (X,Y)-- [6:0-2-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.09	6-7	>804	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.15	6-7	>466	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.05	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 17 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 7=0-3-11, 4=Mechanical, 5=Mechanical
Max Horz 7=60(LC 8)
Max Uplift 7=-46(LC 8), 4=-25(LC 12), 5=-1(LC 12)
Max Grav 7=385(LC 2), 4=166(LC 17), 5=101(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-292/54

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762500
2648535	J18	Jack-Open	2	1	Job Reference (optional)	

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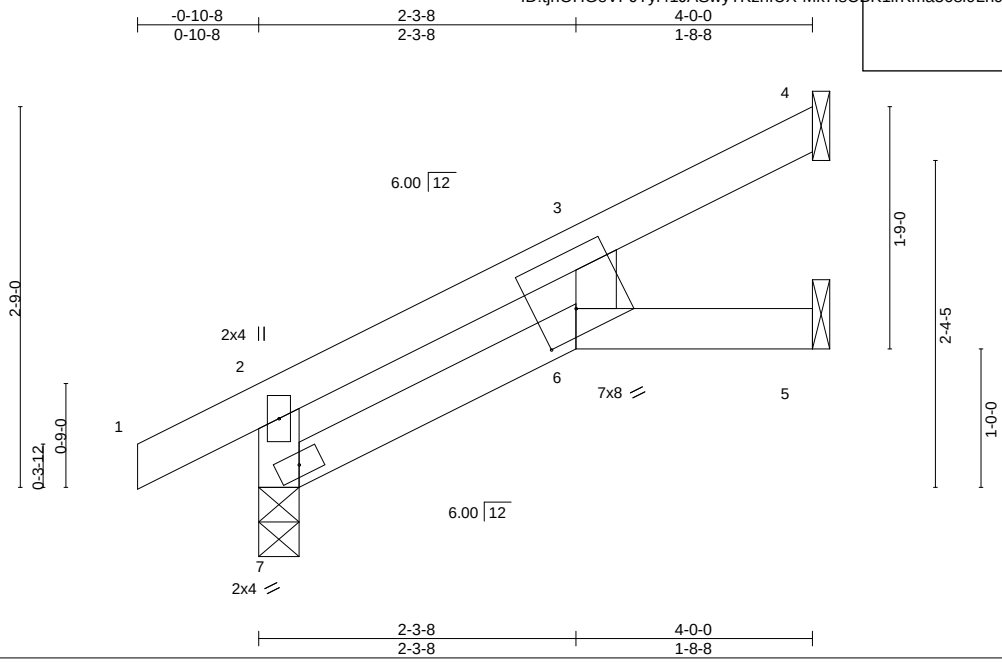

Plate Offsets (X,Y)-- [3:0-1-15,0-0-0], [6:0-3-8,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.02	6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 12 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=55(LC 12)
Max Uplift 4=-24(LC 12), 5=-4(LC 12)
Max Grav 4=111(LC 17), 5=66(LC 17), 7=279(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J19	Jack-Open	1	1	J41762501

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:32 2020 Page 1
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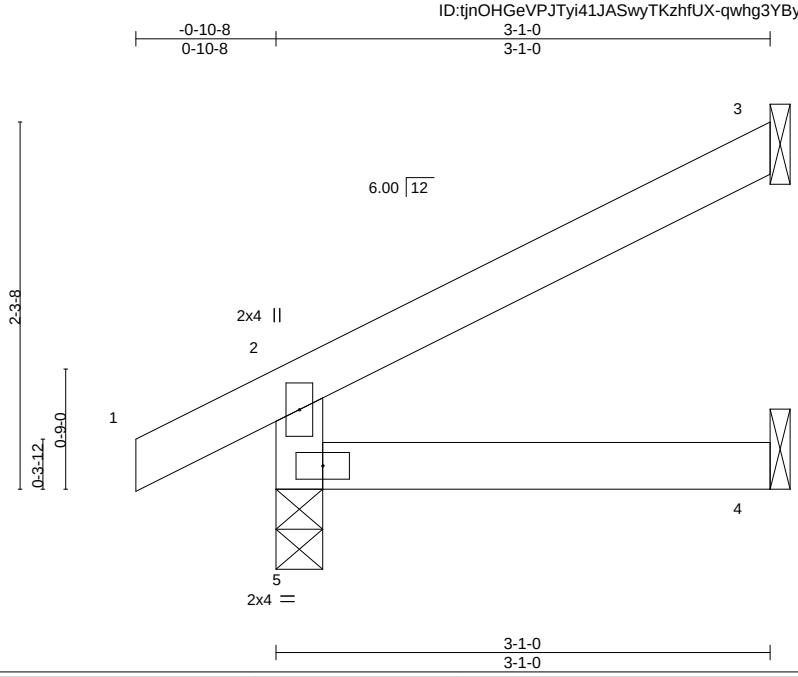


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-0 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=44(LC 12)
Max Uplift 3=-27(LC 12), 5=-1(LC 12)
Max Grav 3=93(LC 17), 4=54(LC 7), 5=230(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

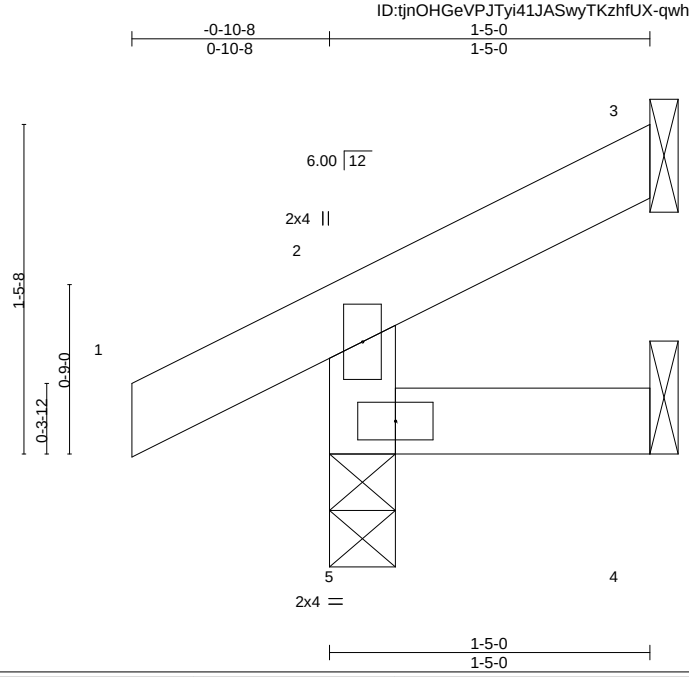
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J20	Jack-Open	1	1	J41762502

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:32 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-qwhg3YByo3zBOkeIhQgaEMA0G_SJcWahx8_rUTz3QsC

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 5 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-5-0 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=27(LC 9)
Max Uplift 3=-12(LC 12), 5=-3(LC 12)
Max Grav 3=22(LC 17), 4=22(LC 7), 5=158(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J21	Diagonal Hip Girder	1	1	J41762503

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Mar 23 10:33:30 2021 Page 1
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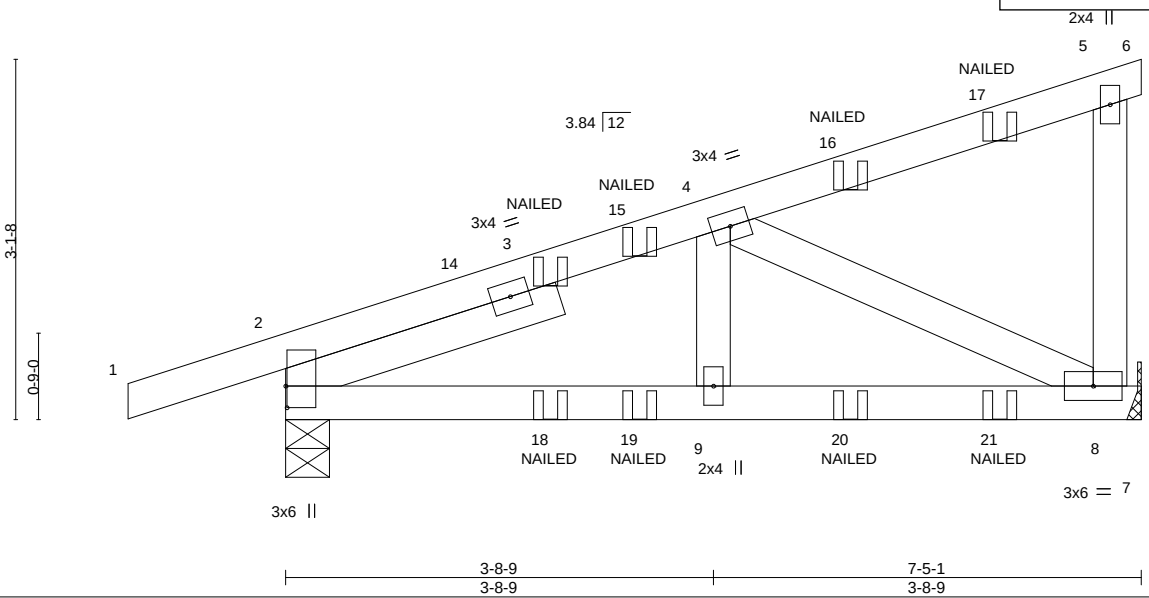

Plate Offsets (X,Y)-- [2:0-2-4,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	8-9	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.02	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 30 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-4-9, 8=Mechanical
Max Horz 2=77(LC 8)
Max Uplift 2=-45(LC 8), 8=-39(LC 12)
Max Grav 2=444(LC 2), 8=446(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-447/13
BOT CHORD 2-9=-51/440, 8-9=-51/440
WEBS 4-8=-488/56

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-51, 7-10=-20
Concentrated Loads (lb)
Vert: 16=-27(B) 17=-77(F) 18=1(B) 19=-9(F) 20=-6(B) 21=-55(F)

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J22	Jack-Open	1	1	J41762504

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:24 2020 Page 1
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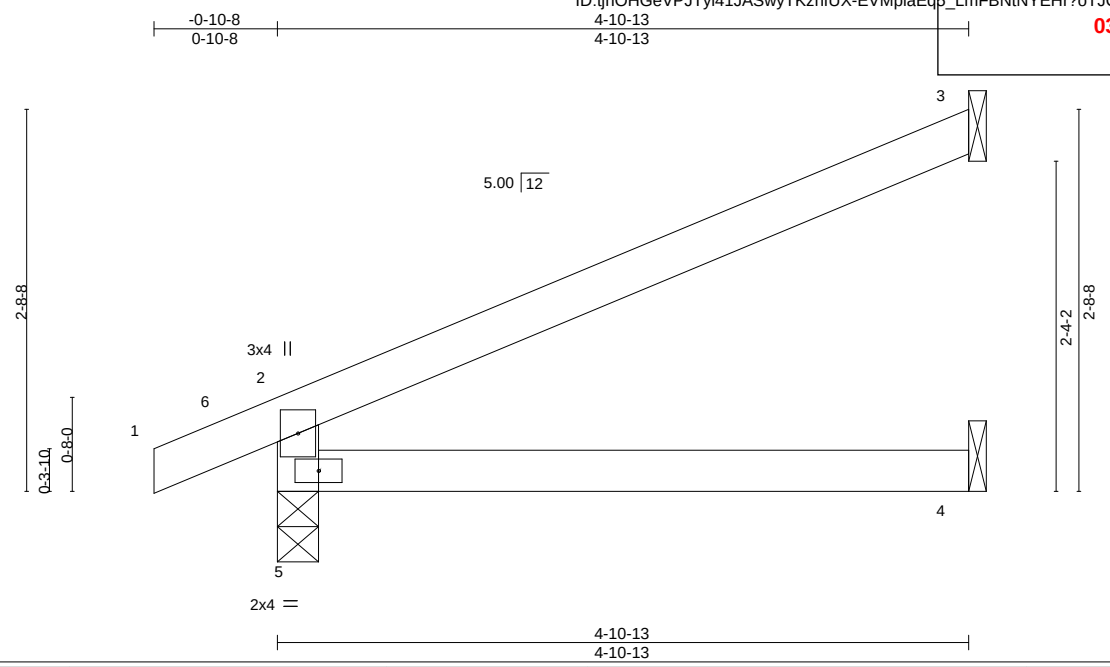

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 13 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=56(LC 12)
Max Uplift 3=-37(LC 12), 5=-6(LC 12)
Max Grav 3=164(LC 17), 4=87(LC 7), 5=296(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-261/34

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J23	Jack-Open	2	1	J41762505

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:33 2020 Page 1
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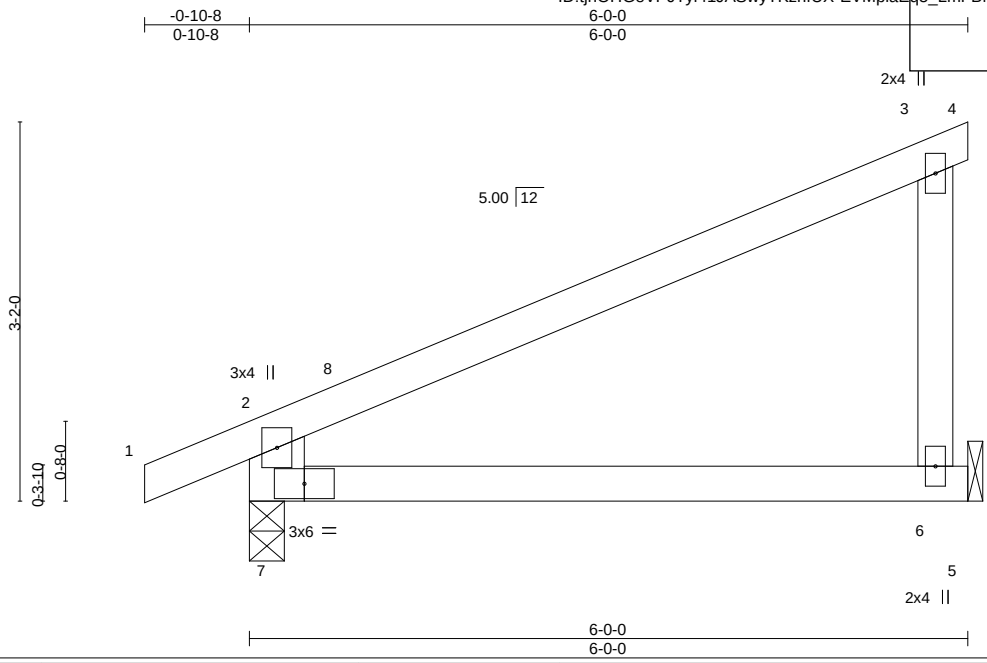

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.04	6-7	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.09	6-7	>723	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00		n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 19 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except*
3-6: 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, 7=0-3-8
Max Horz 7=67(LC 12)
Max Uplift 6=-32(LC 12), 7=-6(LC 12)
Max Grav 6=288(LC 17), 7=332(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-287/38

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J24	Roof Special Girder	1	1	Job Reference (optional)

J41762506

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:33:33 2020 Page 1
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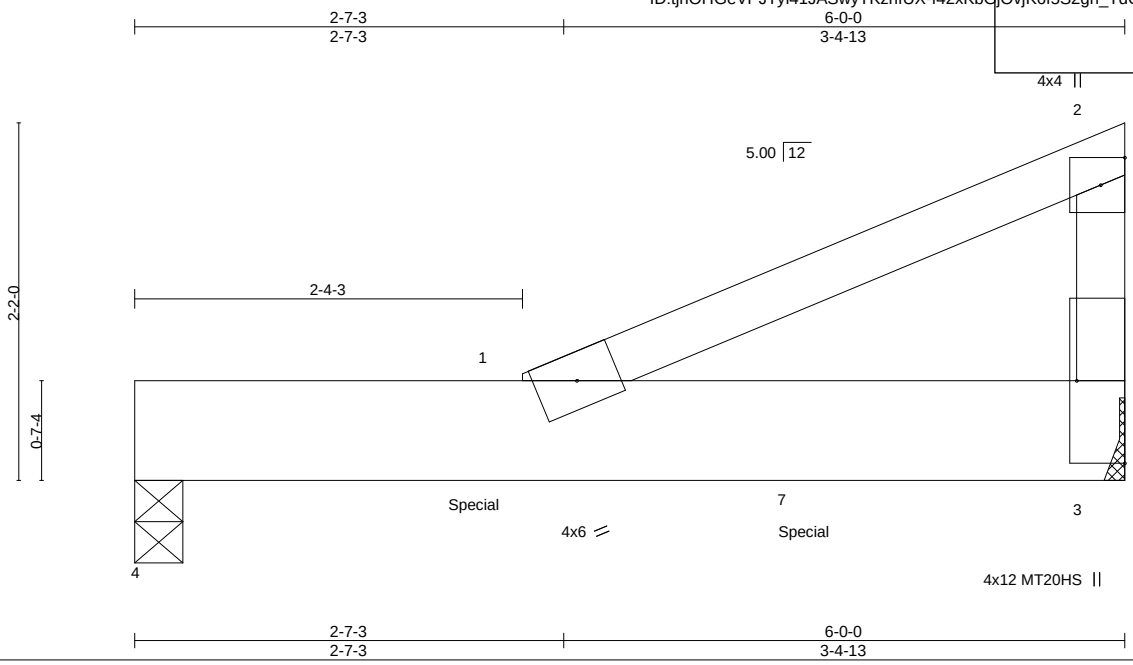

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Plate Offsets (X,Y)-- [3:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.06	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.11	5	>635	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) 3=Mechanical, 4=0-3-8
Max Horz 4=50(LC 11)
Max Uplift 3=-57(LC 12), 4=-16(LC 12)
Max Grav 3=1144(LC 2), 4=1047(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-318/20
BOT CHORD 1-3=-24/301

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) 3, 4.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 830 lb down and 59 lb up at 2-0-12, and 848 lb down and 68 lb up at 4-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 1-4=-81, 1-3=-20
Concentrated Loads (lb)
Vert: 1=-683(F) 7=-695(F)

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J25	Jack-Open	1	1	J41762507

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:23:33 2020 Page 1
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0-10-8 4-11-4

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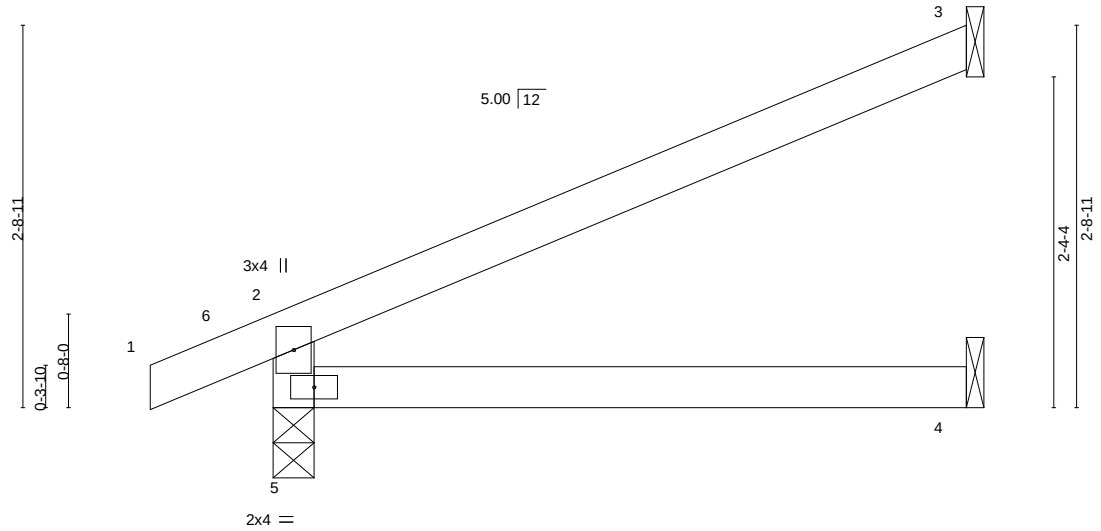

4-11-4
4-11-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 13 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=56(LC 12)
Max Uplift 3=-38(LC 12), 5=-6(LC 12)
Max Grav 3=165(LC 17), 4=88(LC 7), 5=297(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-261/35

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J26	Jack-Open	1	1	J41762508

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:23:34 2020 Page 1
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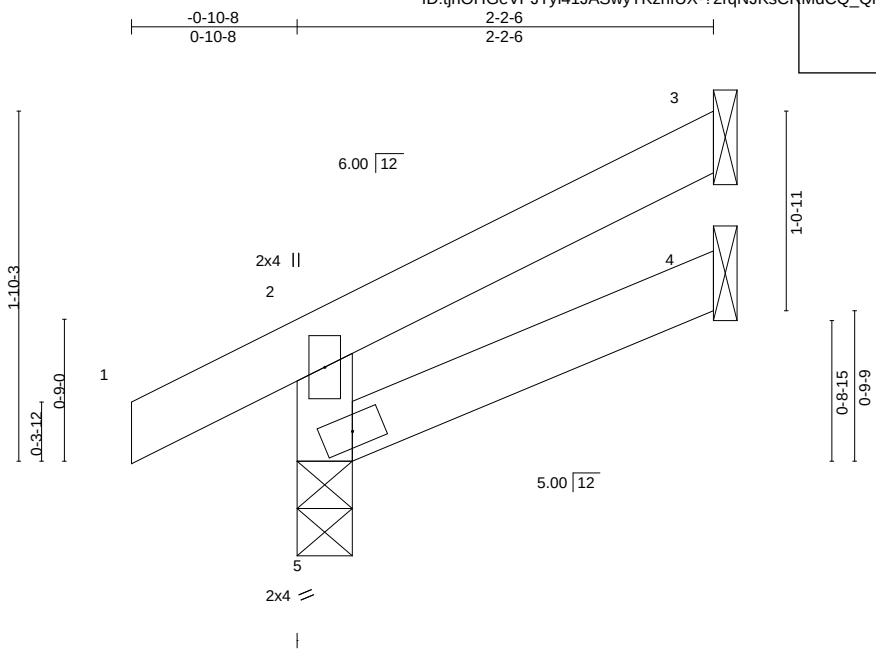

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=34(LC 9)
Max Uplift 3=-20(LC 12), 5=-1(LC 12)
Max Grav 3=56(LC 17), 4=36(LC 7), 5=187(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J27	JACK-OPEN	1	1	J41762509

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:43 2020 Page 1
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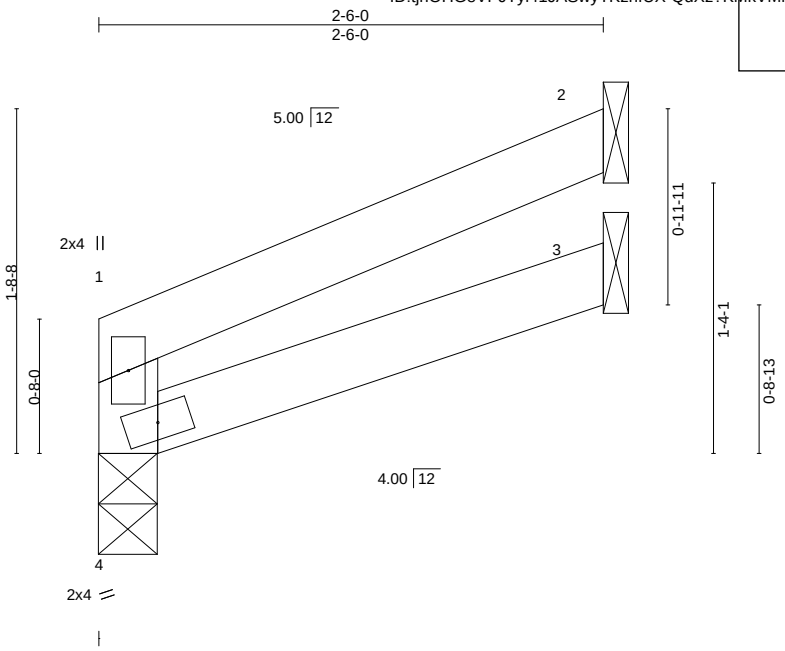

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	3-4	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=Mechanical, 3=Mechanical, 4=0-3-8
Max Horz 4=26(LC 9)
Max Uplift 2=-20(LC 12)
Max Grav 2=75(LC 2), 3=44(LC 7), 4=103(LC 2)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J28	MONOPITCH	1	1	J41762510

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:34 2020 Page 1
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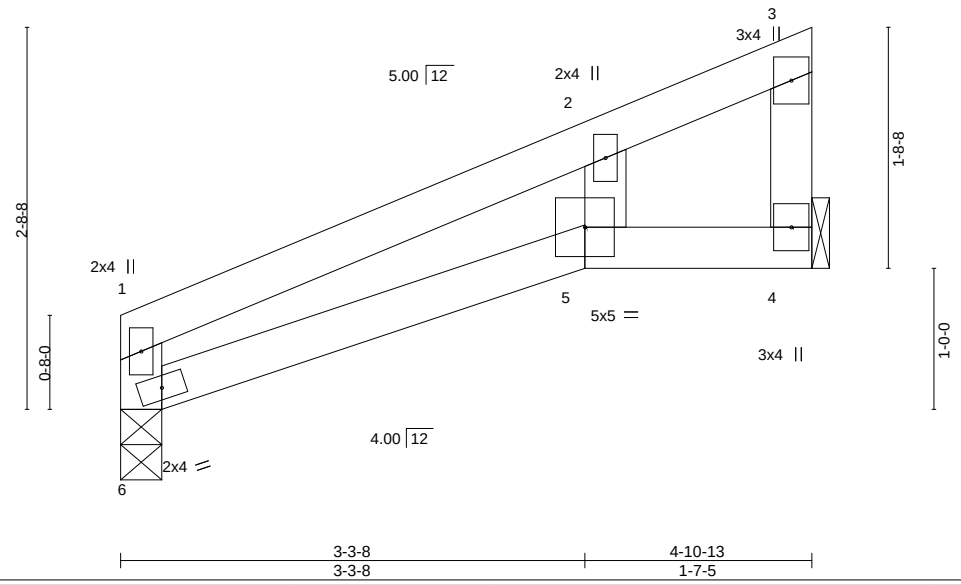

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 14 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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, 6=0-3-8
Max Horz 6=59(LC 9)
Max Uplift 4=-20(LC 12), 6=-4(LC 12)
Max Grav 4=221(LC 16), 6=221(LC 16)

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

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 6 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) 4, 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762511
2648535	J29	Jack-Open Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:35 2020 Page 1
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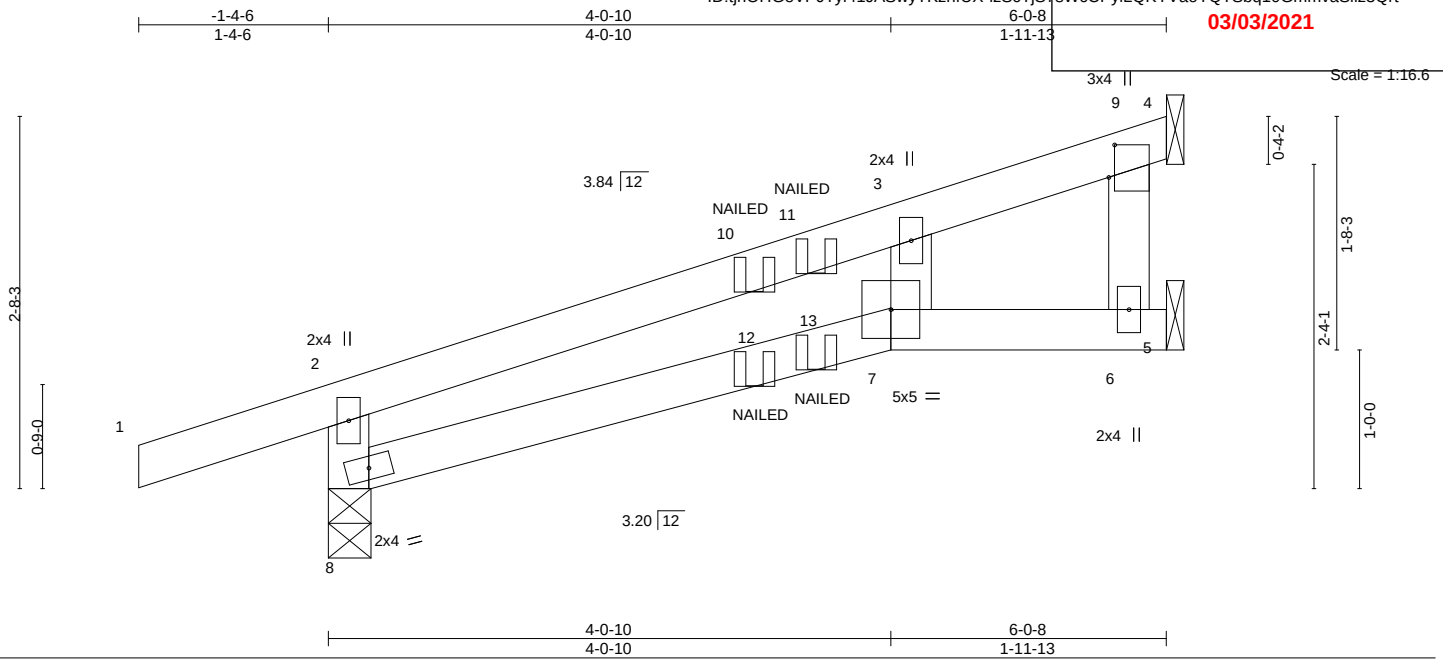

Plate Offsets (X,Y)-- [4:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.16	7	>430	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.25	7	>274	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.07	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 18 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 8=0-3-11, 6=Mechanical, 4=Mechanical
Max Horz 8=60(LC 34)
Max Uplift 8=-62(LC 8), 6=-12(LC 28), 4=-347(LC 8)
Max Grav 8=389(LC 2), 6=363(LC 34), 4=192(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-346/95
WEBS 4-6=-360/22

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) n/a
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Refer to girder(s) for truss to truss connections.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6 except (jt=lb) 4=347.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
13) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-4=-51, 7-8=-20, 5-7=-20

June 24,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J29	Jack-Open Girder	1	1	J41762511

Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 12=-17(F) 13=0(B)

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J30	Jack-Open	1	1	J41762512

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:35 2020 Page 1
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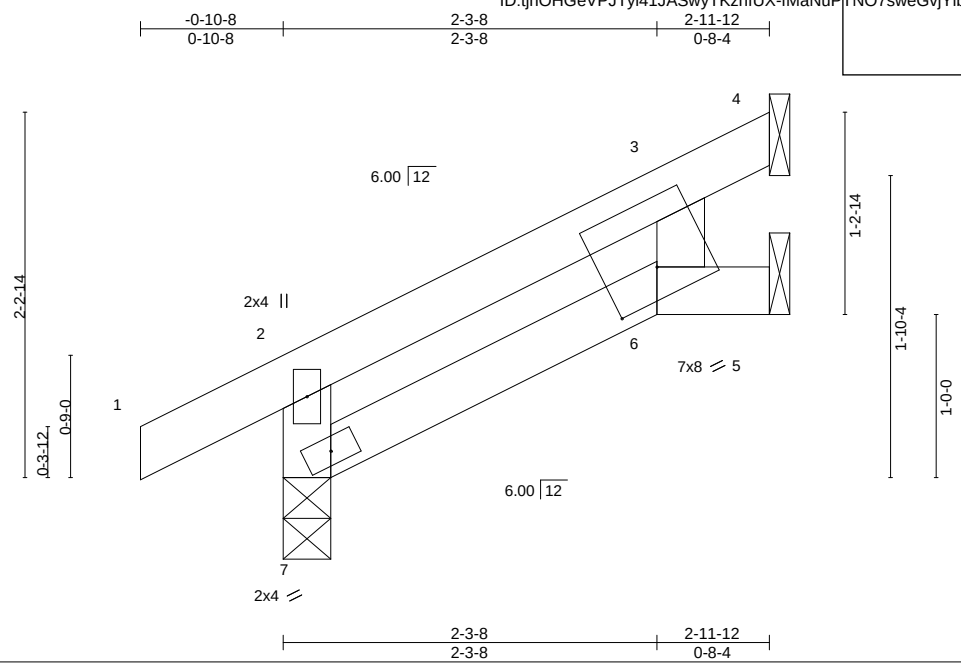

Plate Offsets (X,Y)-- [3:0-1-15,0-0-0], [6:0-4-0,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=42(LC 12)
Max Uplift 4=-17(LC 12), 5=-6(LC 12)
Max Grav 4=73(LC 17), 5=46(LC 17), 7=225(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	J31	Jack-Open	1	1	J41762513

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:03:35 2020 Page 1
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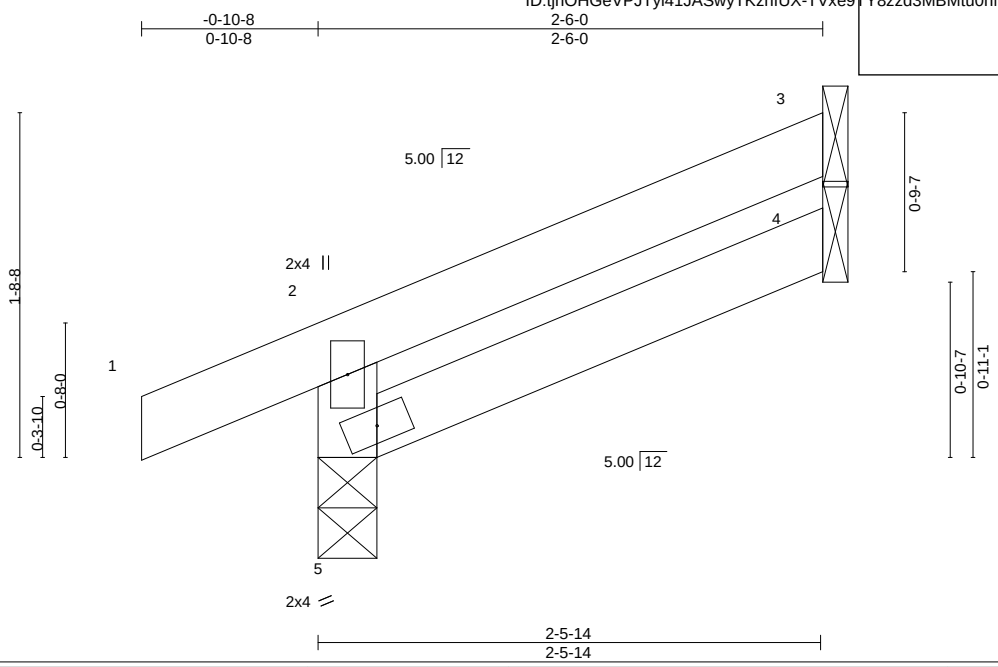

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 8 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=32(LC 9)
Max Uplift 3=-19(LC 12), 5=-13(LC 8)
Max Grav 3=67(LC 17), 4=42(LC 7), 5=196(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	JD01	Jack-Open	2	1	I41762514 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:24:02 2020 Page 1
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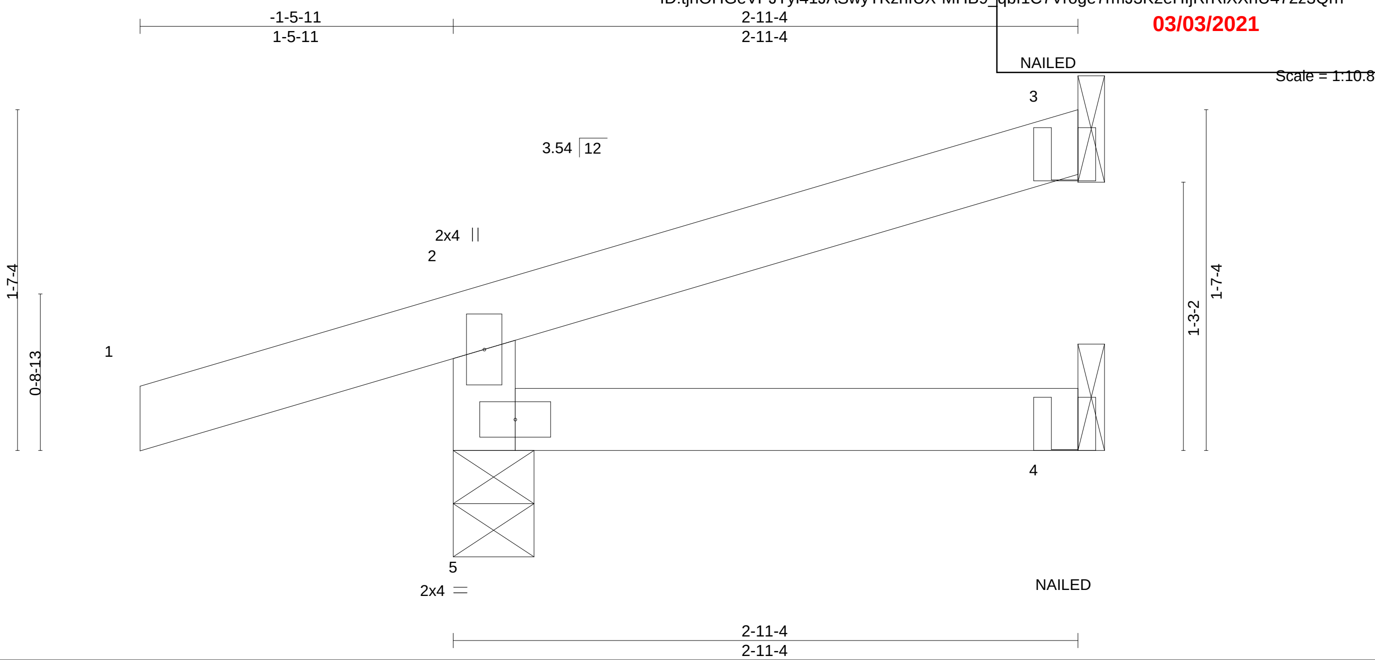

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=33(LC 8)
Max Uplift 5=-53(LC 8), 3=-19(LC 12)
Max Grav 5=275(LC 17), 3=70(LC 17), 4=48(LC 7)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-51, 2-3=-51, 4-5=-20
Concentrated Loads (lb)
Vert: 3=-1(F) 4=1(F)

June 24,2020

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	JD02	Jack-Open	2	1	J41762515

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:47 2020 Page 1
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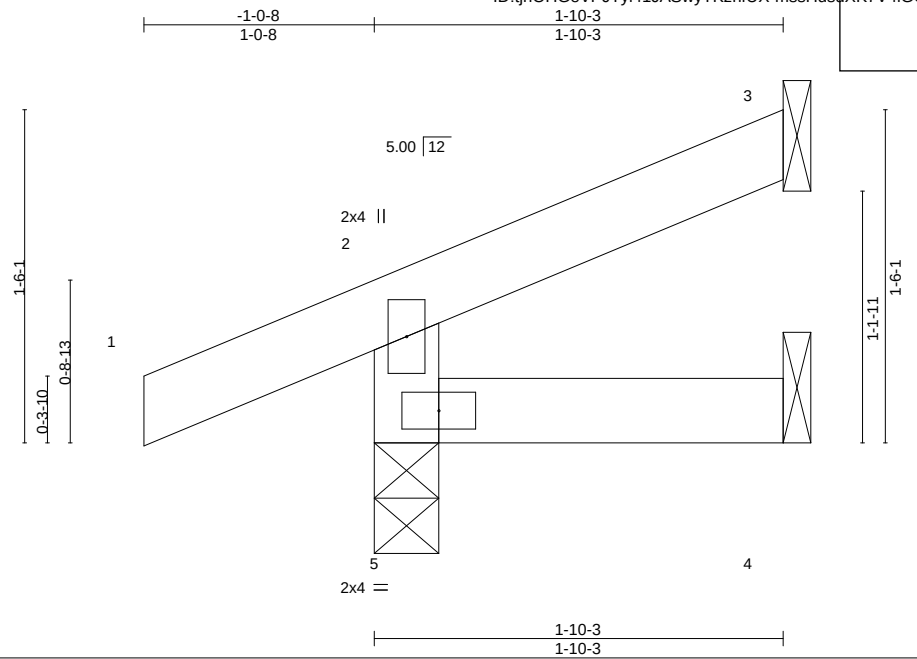

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 6 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=28(LC 9)
Max Uplift 3=-14(LC 12), 5=-21(LC 8)
Max Grav 3=37(LC 17), 4=29(LC 7), 5=190(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	JD03	Jack-Open	3	1	Job Reference (optional)

J41762516

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:47 2020 Page 1
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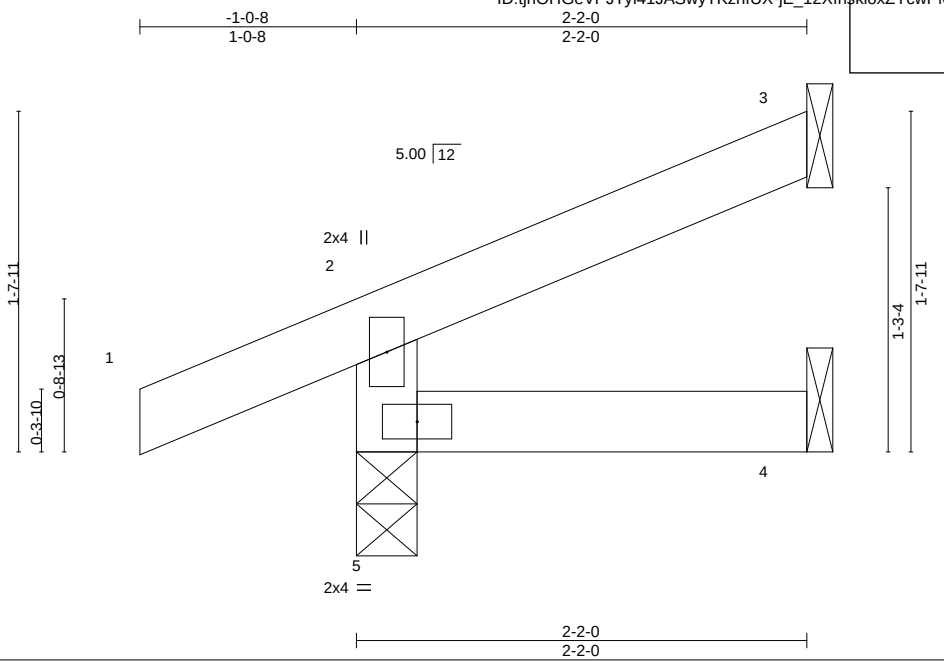

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	5	>999	240	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 7 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 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=30(LC 9)
Max Uplift 3=-16(LC 12), 5=-19(LC 8)
Max Grav 3=49(LC 17), 4=35(LC 7), 5=201(LC 17)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762517
2648535	LG1	GABLE	1	1	Job Reference (optional)	

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:37:11 2020 Page 1
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7-3-6 | 23-11-3 | 31-2-9
7-3-6 | 16-7-13 | 7-3-6

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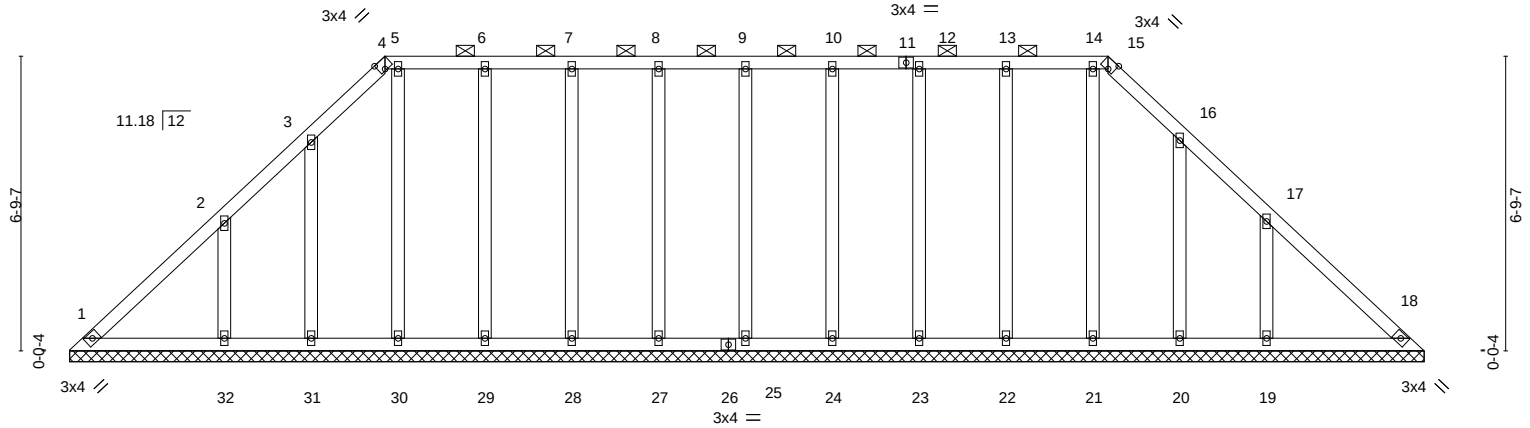

0-0-4 | 31-2-9
0-0-4 | 31-2-5

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	18	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 157 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 31-2-5.
(lb) - Max Horz 1=-122(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 32, 31, 30, 29, 28, 27, 25, 24, 23, 22, 20, 19
Max Grav All reactions 250 lb or less at joint(s) 1, 18, 31, 30, 29, 28, 27, 25, 24, 23, 22, 21, 20 except 32=307(LC 19), 19=312(LC 20)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 32, 31, 30, 29, 28, 27, 25, 24, 23, 22, 20, 19.
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.

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG2	GABLE	1	1	J41762518

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:27:17 2020 Page 1
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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

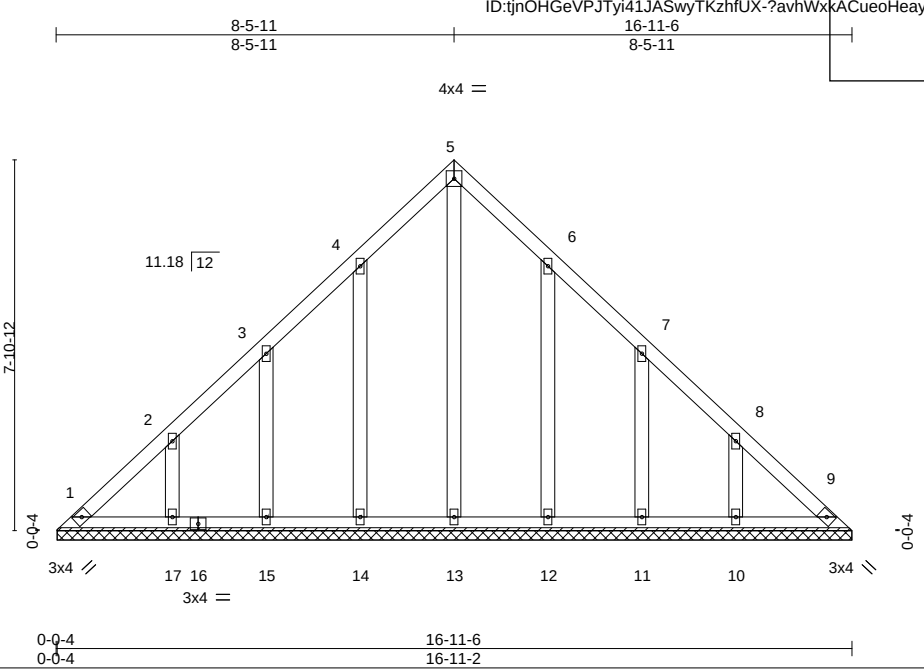

Plate Offsets (X,Y)-- [6:0-0-0,0-0-0], [7:0-0-0,0-0-0], [8:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 78 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 16-11-2.
(lb) - Max Horz 1=-142(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 17, 15, 14, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 17, 15, 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 17, 15, 14, 12, 11, 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG3	GABLE	1	1	J41762519

Job Reference (optional)

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

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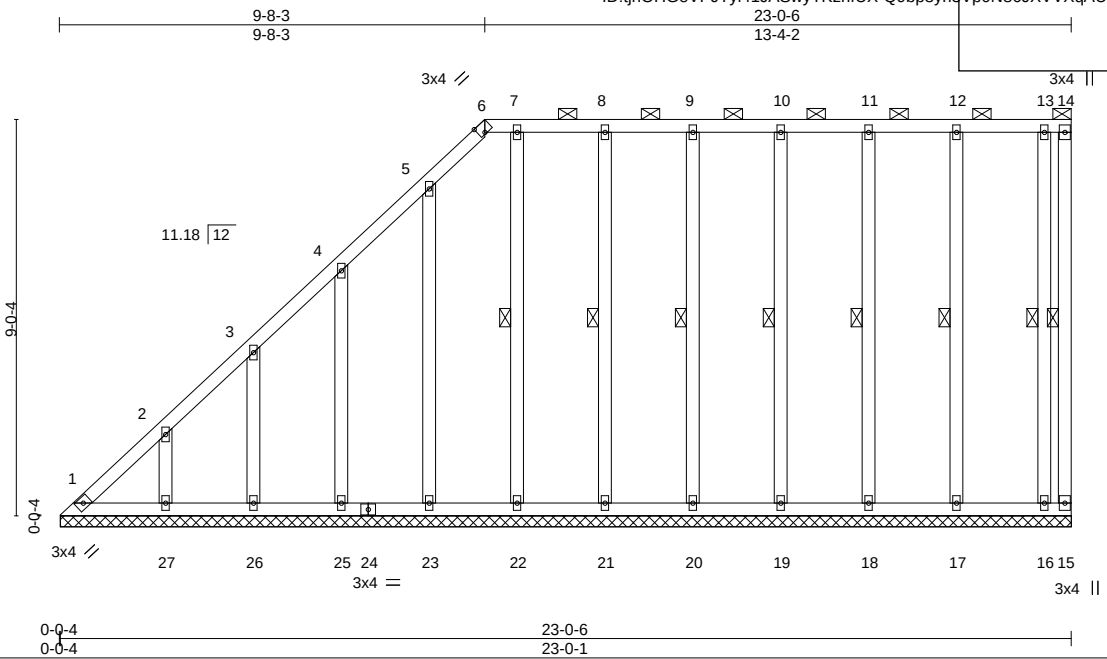

Plate Offsets (X,Y)-- [6:0-1-10,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.00	15	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 153 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, and 2-0-0 oc purlins (6-0-0 max.): 6-14.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-15, 7-22, 8-21, 9-20, 10-19, 11-18, 12-17, 13-16

REACTIONS. All bearings 23-0-2.
(lb) - Max Horz 1=253(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17, 16 except 15=-113(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17, 16

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-265/173

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17, 16 except (jt=lb) 15=113.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG4	GABLE	1	1	J41762520

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:11 2020 Page 1
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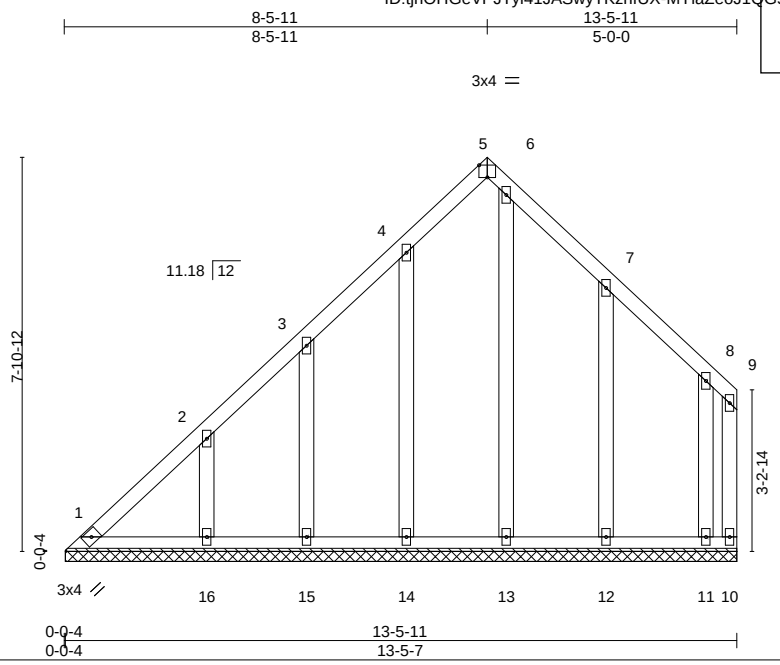

Plate Offsets (X,Y)-- [5:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 70 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 13-5-7.
(lb) - Max Horz 1=173(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 16, 15, 14, 13, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 1, 10, 16, 15, 14, 13, 12, 11

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 16, 15, 14, 13, 12, 11.
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.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG5	GABLE	1	1	J41762521

Job Reference (optional)

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:47:22 2020 Page 1
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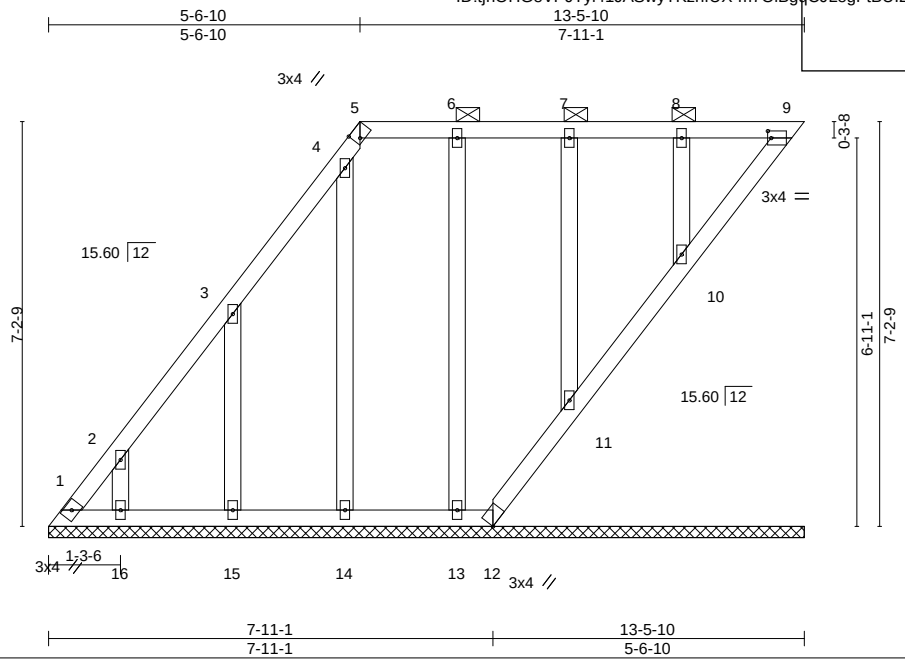

Plate Offsets (X,Y)-- [5:0-1-4,Edge], [9:0-0-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 13-5-10.
(lb) - Max Horz 1=178(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 12, 16, 14, 13, 11, 10 except 15=-109(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 12, 16, 15, 14, 13, 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 12, 16, 14, 13, 11, 10 except (jt=lb) 15=109.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 11, 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG6	GABLE	1	1	J41762522

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:27:24 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-jWWTcLsSrzuNUBLtQT9TyyyRd9Dv?MynaCpFvnz3QrL

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

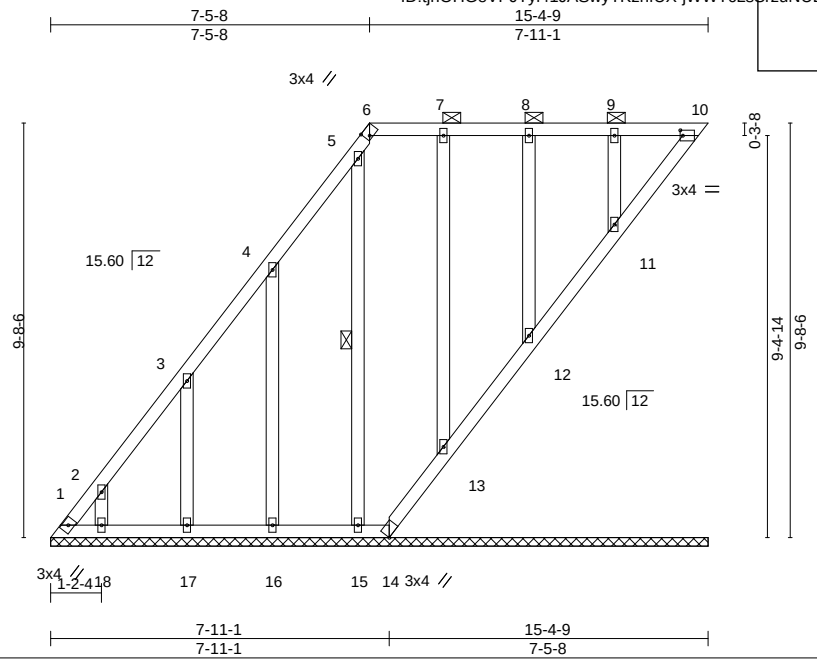

Plate Offsets (X,Y)-- [6:0-1-4,Edge], [10:0-0-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	-0.00	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 84 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.): 6-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-15

REACTIONS. All bearings 15-4-9.
(lb) - Max Horz 1=241(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 10, 14, 18, 17, 15, 13, 12, 11 except 1=-119(LC 8), 16=-106(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 10, 14, 18, 17, 16, 15, 13, 12, 11 except 1=253(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-319/171

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 14, 18, 17, 15, 13, 12, 11 except (jt=lb) 1=119, 16=106.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 13, 12, 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	LG7	GABLE	1	1	J41762523

Job Reference (optional)

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:27:27 2020 Page 1
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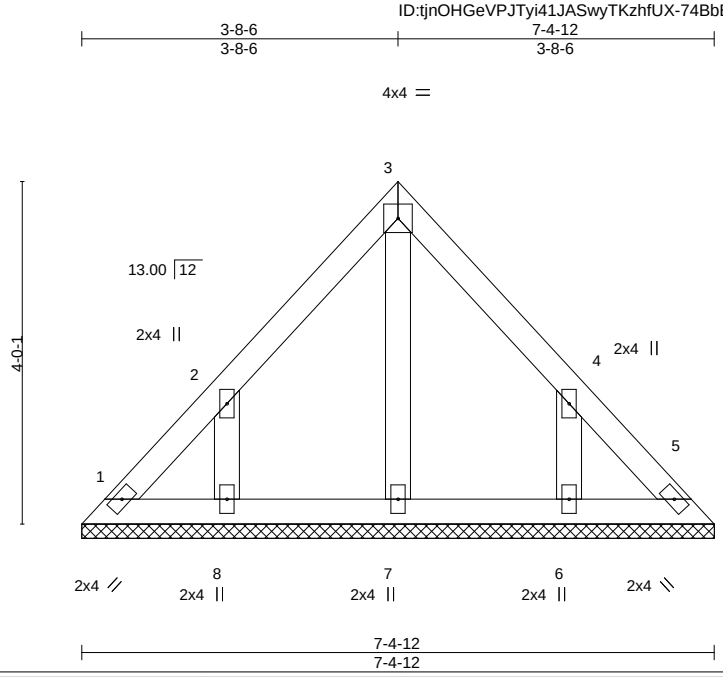


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 7-4-12.
(lb) - Max Horz 1=70(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

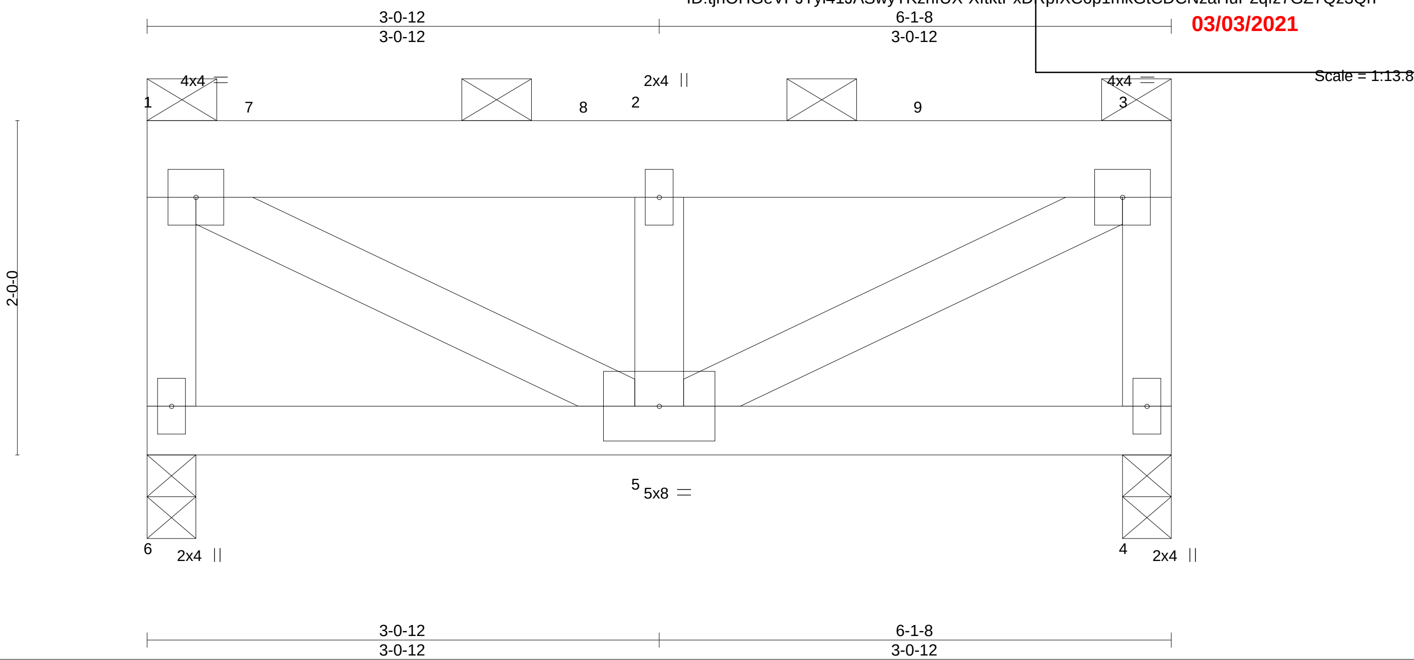
June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	R1	Flat Girder	1	2	Job Reference (optional) I41762524

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:24:30 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-XftktPxDRpfXC6p1mkGtCDCNzaHuP2qfz7GZ7Qz3QrF

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.01	5	>999	240	MT20	197/144
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.02	5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 58 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 4=0-3-8
Max Horz 6=-44(LC 6)
Max Uplift 6=-99(LC 6), 4=-78(LC 7)
Max Grav 6=2408(LC 1), 4=1923(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-2362/107, 1-2=-2212/86, 2-3=-2212/86, 3-4=-1877/86
WEBS 2-5=-2440/125, 3-5=-108/2532, 1-5=-108/2532

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 0-9-0 oc, 2x6 - 2 rows staggered 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1340 lb down and 64 lb up at 0-9-0, and 1287 lb down and 63 lb up at 2-9-0, and 1236 lb down and 59 lb up at 4-9-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

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

June 24,2020

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-61, 4-6=-20

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	R1	Flat Girder	1	2	Job Reference (optional)

J41762524

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-1339 8=-1286 9=-1235

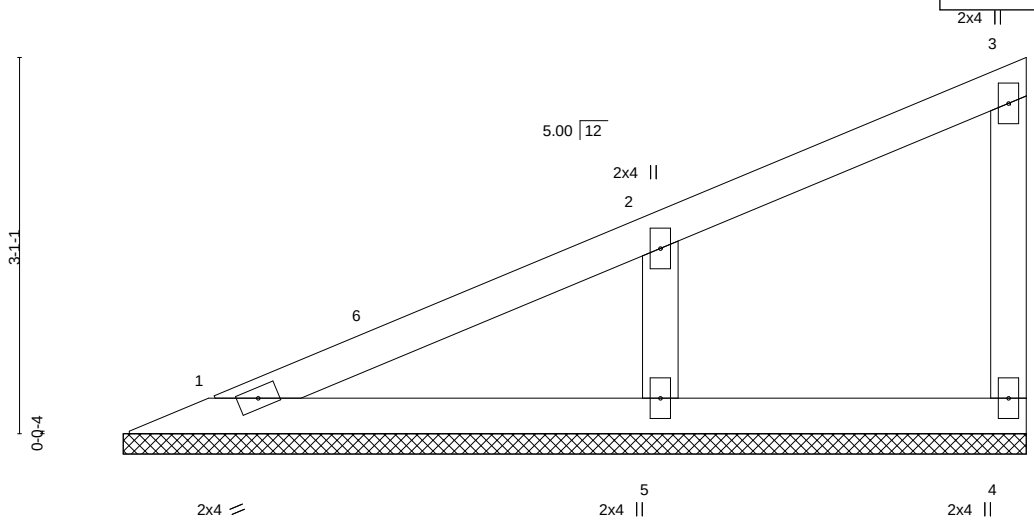
Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	V01	GABLE	1	1	J41762525

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:37:13 2020 Page 1
ID:tjnOHGeVPJTyi41JASwyTKzhfUX-U2?UH5yTzQvFRPyPu9ILHeHmYOxst0YyQRlgBJz3QrD

7-4-14
7-4-14

Scale = 1:18.9



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.2
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=7-4-14, 4=7-4-14, 5=7-4-14
Max Horz 1=82(LC 11)
Max Uplift 4=-8(LC 9), 5=-39(LC 12)
Max Grav 1=130(LC 2), 4=94(LC 16), 5=388(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-306/74

NOTES-

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	V02	GABLE	1	1	J41762526

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:13:31 2020 Page 1
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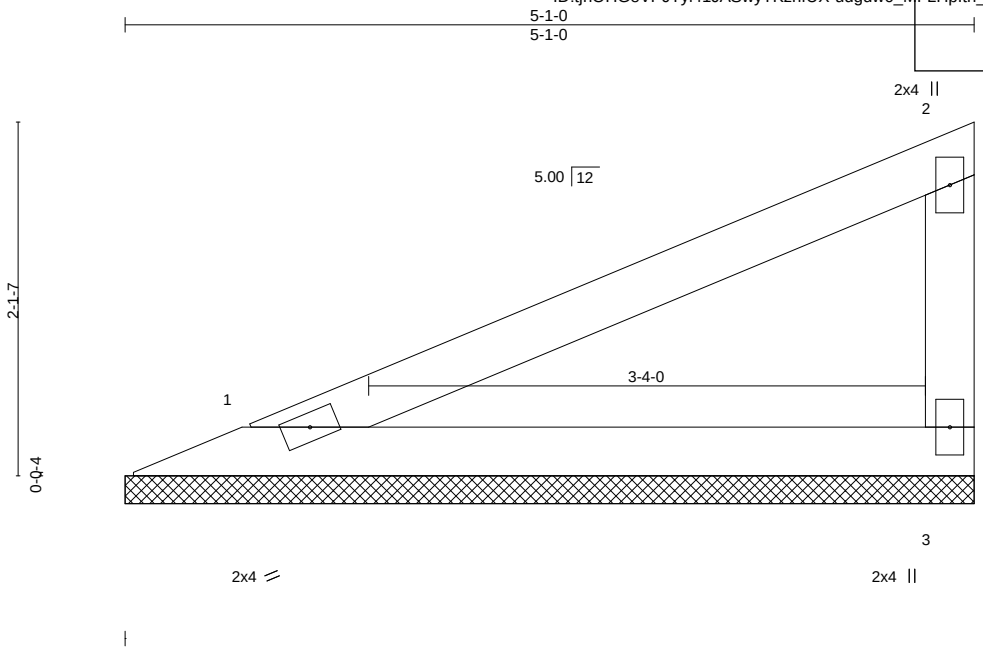

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 1=5-1-0, 3=5-1-0
Max Horz 1=53(LC 11)
Max Uplift 1=-6(LC 12), 3=-15(LC 12)
Max Grav 1=198(LC 16), 3=198(LC 16)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	V03	Valley	1	1	J41762527

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:13 2020 Page 1
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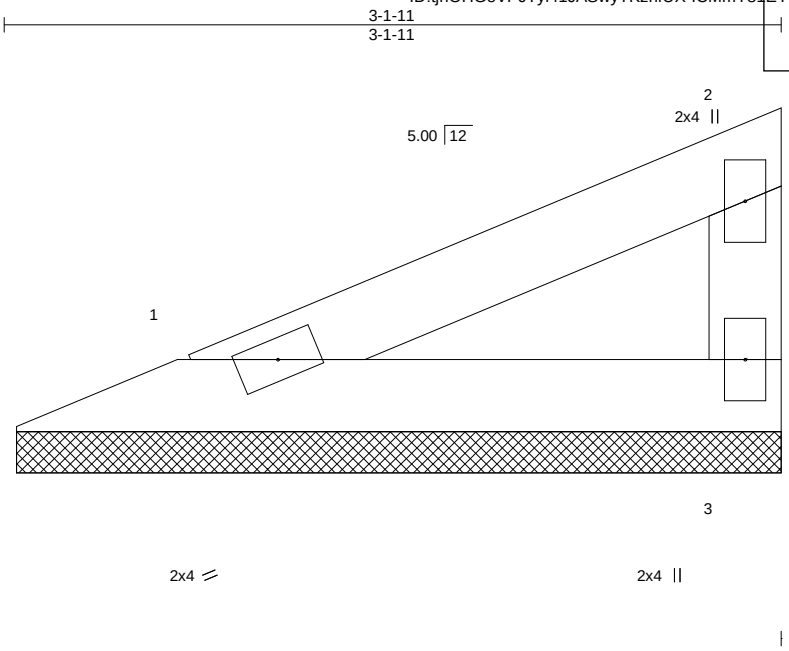

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-1-2, 3=3-1-2
Max Horz 1=28(LC 9)
Max Uplift 1=-3(LC 12), 3=-8(LC 12)
Max Grav 1=101(LC 2), 3=101(LC 2)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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, 3.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside	J41762528
2648535	V04	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:27:40 2020 Page 1
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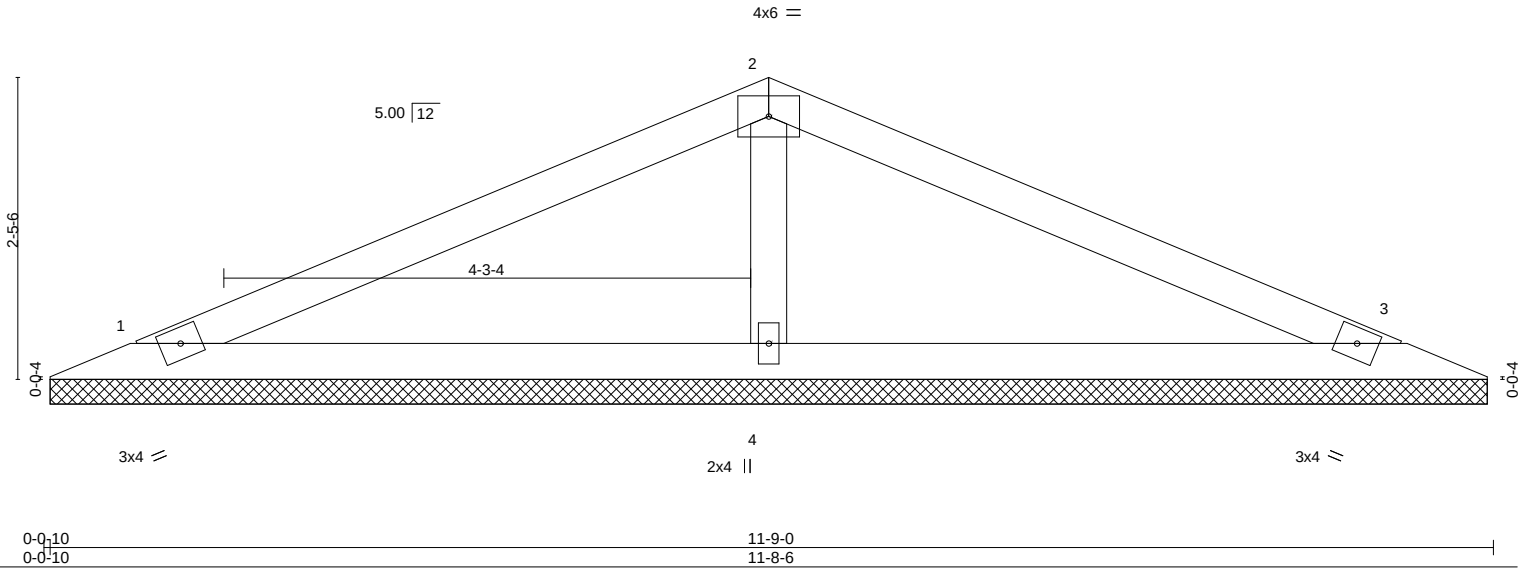
5-10-8
5-10-8
11-9-0
5-10-8

Scale = 1:18.7



0-0-10
0-0-10
11-9-0
11-8-6

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 28 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 1=11-7-13, 3=11-7-13, 4=11-7-13
Max Horz 1=20(LC 12)
Max Uplift 1=-15(LC 12), 3=-18(LC 13)
Max Grav 1=225(LC 16), 3=225(LC 17), 4=516(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-361/40

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

June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/66 Woodside
2648535	V05	Valley	1	1	J41762529

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 23 10:07:43 2020 Page 1
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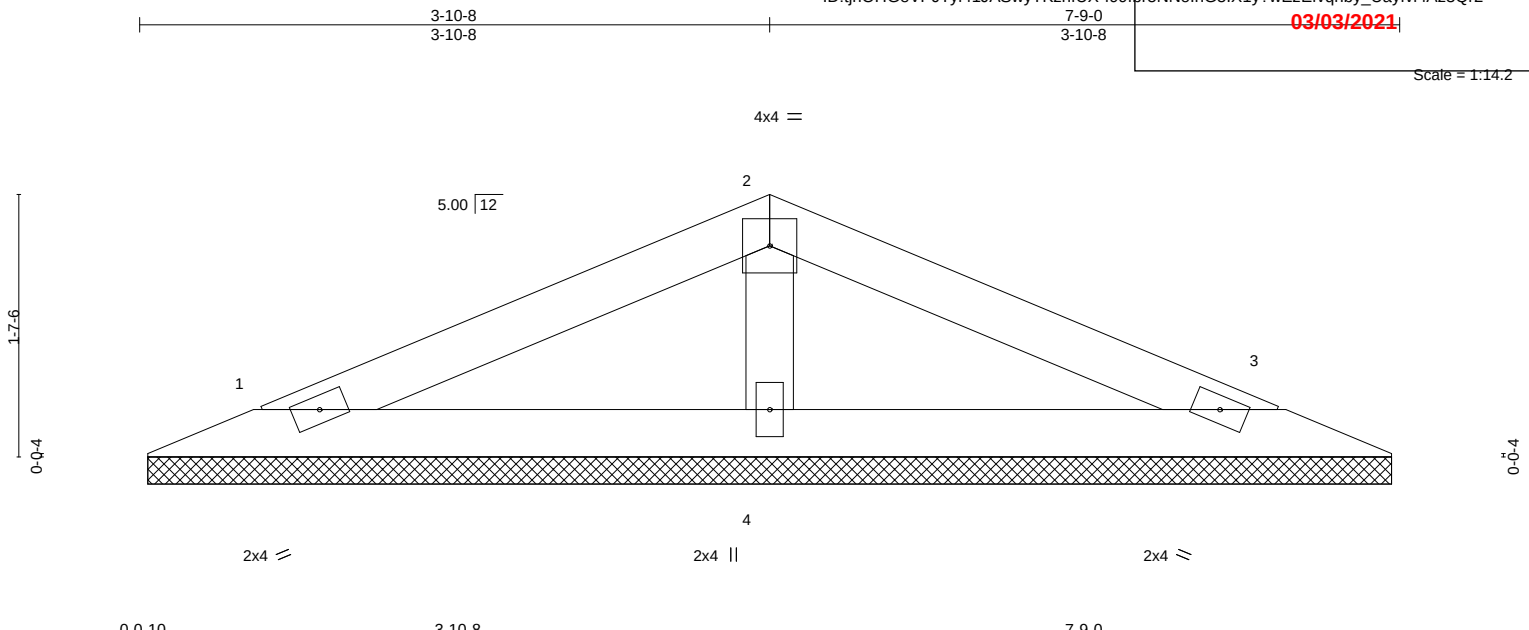


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) 1=7-7-13, 3=7-7-13, 4=7-7-13
Max Horz 1=12(LC 12)
Max Uplift 1=-12(LC 12), 3=-14(LC 13)
Max Grav 1=140(LC 16), 3=140(LC 17), 4=283(LC 2)

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

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

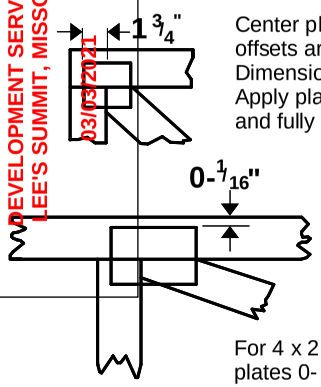
June 24,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/03/2021

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.

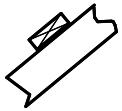
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

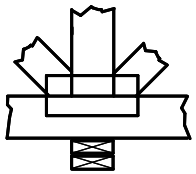
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

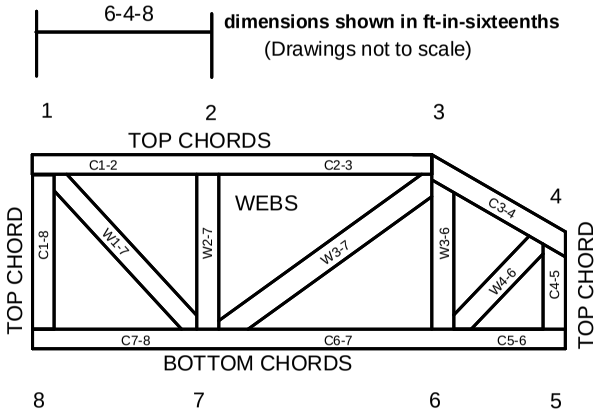


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.