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

Re: 3542878
Summit/186 Highland Meadows

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

Pages or sheets covered by this seal: I58813596 thru I58813659

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

Missouri COA: Engineering 001193

June 9,2023

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A01	Hip Girder	1	1	I58813596 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:19 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8v3uI XoGKWrQDq7J4zJC?f

Scale: 3/16"=1'

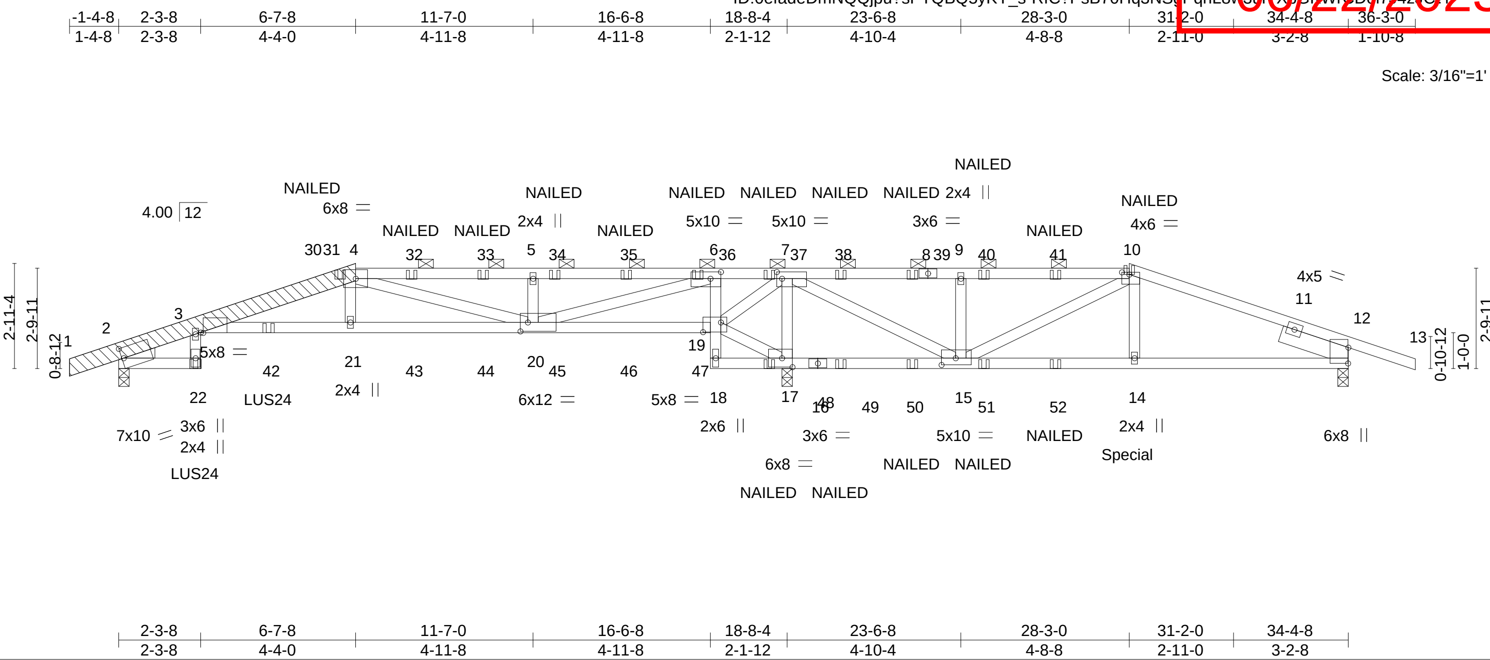


Plate Offsets (X,Y)-- [2:0-0-9,0-3-8], [3:0-0-13,Edge], [6:0-3-8,0-2-4], [7:0-1-12,0-2-4], [10:0-2-8,0-0-12], [12:0-5-5,0-0-2], [15:0-4-12,0-2-4], [17:0-3-8,0-3-0], [19:0-6-0,0-3-4], [20:0-2-8,0-3-0]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.27	3-21	>837	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.47	3-21	>472	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.19	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 155 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF 2100F 1.8E, 4-8: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2 *Except*
3-19: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
4-20,6-20: 2x4 SPF 1650F 1.5E
OTHERS 2x6 SPF 2100F 1.8E
LBR SCAB 1-4 2x6 SPF 2100F 1.8E one side
WEDGE
Left: 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins, except 2-0-0 oc purlins (4-6-10 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 2-11-9 oc bracing.

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

REACTIONS. (size) 2=0-3-8, 17=0-3-8 (req. 0-6-12), 12=0-3-8
Max Horz 2=44(LC 8)
Max Uplift 2=-342(LC 4), 17=-877(LC 4), 12=-220(LC 5)
Max Grav 2=1423(LC 1), 17=4297(LC 1), 12=892(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-24=-559/161, 3-4=-3574/811, 4-5=-1970/507, 5-6=-1970/507, 6-7=-551/2829, 10-12=-1243/256
BOT CHORD 3-22=-122/573, 3-21=-767/3520, 20-21=-759/3460, 19-20=-2681/568, 6-19=-1815/451, 15-17=-3246/715, 14-15=-167/1100, 12-14=-168/1129
WEBS 4-21=-84/611, 4-20=-1569/326, 5-20=-648/237, 6-20=-1059/4823, 17-19=-3447/779, 7-19=-129/539, 7-17=-2401/567, 7-15=-667/3469, 9-15=-722/269, 10-15=-1336/277, 10-14=-28/530

NOTES-
1) Attached 8-7-0 scab 1 to 4, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-5-6 from end at joint 1, nail 2 row(s) at 4" o.c. for 4-3-2.
2) Unbalanced roof live loads have been considered for this design.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) WARNING: Required bearing size at joint(s) 17 greater than input bearing size.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=342, 17=877, 12=220.
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.

Continued on page 2

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES-

9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-8 oc max. starting at 2-1-12 from the left end to 4-2-4 to connect truss(es) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
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) 250 lb down and 78 lb up at 6-2-4, 78 lb down and 23 lb up at 8-2-4, 78 lb down and 23 lb up at 10-2-4, 78 lb down and 23 lb up at 12-2-4, 78 lb down and 23 lb up at 14-2-4, and 78 lb down and 23 lb up at 16-2-4, and 410 lb down and 109 lb up at 28-2-4 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
      Vert: 1-3=-70, 3-4=-70, 4-10=-70, 10-13=-70, 22-23=-20, 3-19=-20, 18-26=-20
   Concentrated Loads (lb)
      Vert: 22=-256(B) 21=-250 10=-133(B) 14=-410(B) 32=-117(B) 33=-117(B) 34=-117(B) 35=-117(B) 36=-117(B) 37=-133(B) 38=-133(B) 39=-133(B) 40=-133(B) 41=-133(B) 42=-261(B) 43=-78 44=-78 45=-78 46=-78 47=-78 48=-62(B) 49=-62(B) 50=-62(B) 51=-62(B) 52=-62(B)

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

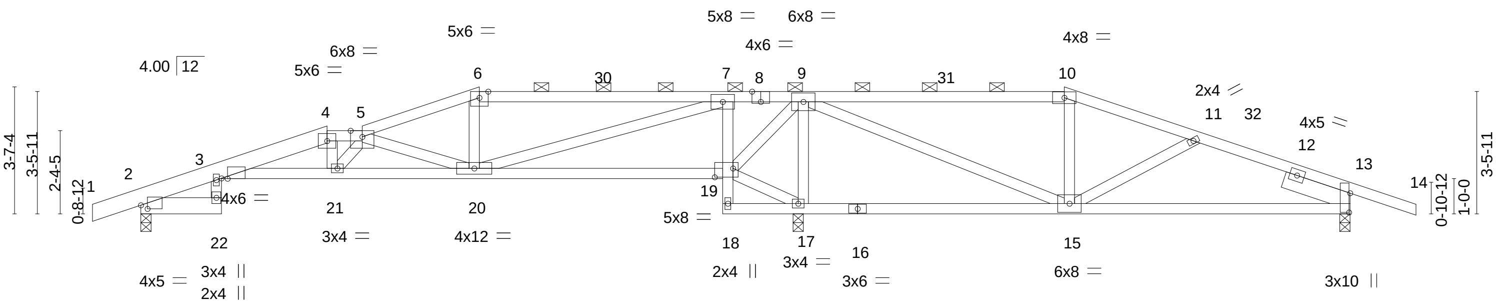
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A02	Roof Special	1	1	I58813597 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:21 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSdPqnL8v3u1Xo6KWrQDq17J4zICPf

-1-4-8 | 2-3-8 | 5-3-8 | 6-3-8 | 9-7-8 | 16-6-8 | 18-8-4 | 26-3-0 | 29-11-1 | 34-4-8 | 36-3-0
1-4-8 | 2-3-8 | 3-0-0 | 1-0-0 | 3-3-15 | 6-11-0 | 2-1-12 | 7-6-12 | 3-8-0 | 4-5-7 | 1-10-8

Scale = 1:65.5



2-3-8 | 5-3-8 | 6-3-8 | 9-7-8 | 16-6-8 | 18-8-4 | 26-3-0 | 34-4-8
2-3-8 | 3-0-0 | 1-0-0 | 3-3-15 | 6-11-0 | 2-1-12 | 7-6-12 | 8-1-8

Plate Offsets (X,Y)-- [2:0-2-4,0-1-4], [3:0-2-1,Edge], [8:0-3-0,Edge], [13:0-6-9,0-0-6], [19:0-6-4,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.17	3-21	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.30	3-21	>753	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.12	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 139 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-22: 2x6 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 17=0-3-8, 13=0-3-8
Max Horz 2=56(LC 12)
Max Uplift 2=-160(LC 8), 17=-348(LC 8), 13=-175(LC 9)
Max Grav 2=702(LC 25), 17=2103(LC 1), 13=617(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-24=-325/93, 3-4=-1875/393, 4-5=-1841/404, 5-6=-879/189, 6-7=-832/204,
7-9=-197/1194, 9-10=-368/150, 10-11=-397/131, 11-13=-606/184
BOT CHORD 3-22=-47/288, 3-21=-325/1837, 20-21=-306/1710, 19-20=-1056/292, 7-19=-809/189,
15-17=-1384/316, 13-15=-111/545
WEBS 5-20=-941/255, 7-20=-379/1919, 17-19=-1466/382, 9-19=-24/295, 9-17=-1285/261,
9-15=-288/1660, 10-15=-367/147, 11-15=-271/106

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) gable end zone and C-C Exterior(2E) -1-4-8 to 2-1-12, Interior(1) 2-1-12 to 5-3-8, Exterior(2E) 5-3-8 to 6-3-8, Interior(1) 6-3-8 to 9-7-8, Exterior(2R) 9-7-8 to 13-0-12, Interior(1) 13-0-12 to 26-3-0, Exterior(2R) 26-3-0 to 29-8-4, Interior(1) 29-8-4 to 36-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=160, 17=348, 13=175.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A03	Roof Special	1	1	I58813598 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:22 2023 Page 1
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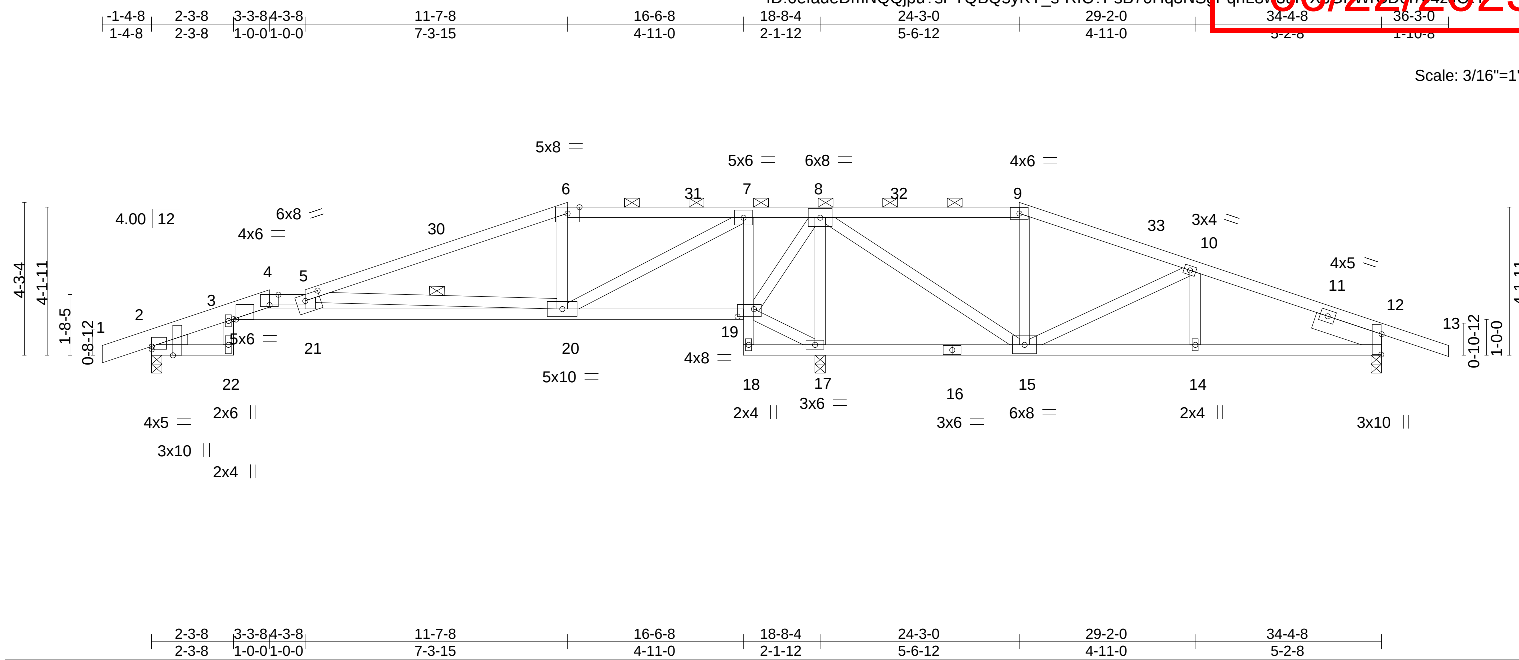

Plate Offsets (X,Y)-- [2:0-0-0,0-1-0], [2:0-2-15,Edge], [3:0-0-13,Edge], [4:0-3-0,Edge], [5:0-5-0,0-2-0], [12:0-6-13,0-0-2], [19:0-5-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.29	20-21	>783	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.53	20-21	>425	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.15	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
16-18: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-4-3 max.): 4-5, 6-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-20

REACTIONS. (size) 2=0-3-8, 17=0-3-8, 12=0-3-8
Max Horz 2=66(LC 12)
Max Uplift 2=-123(LC 8), 17=-410(LC 8), 12=-173(LC 9)
Max Grav 2=505(LC 25), 17=2526(LC 1), 12=525(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1723/332, 4-5=-1763/354, 5-6=-115/533, 6-7=-53/427, 7-8=-335/2136,
8-9=-154/884, 9-10=-189/959, 10-12=-351/568
BOT CHORD 3-21=-341/1766, 20-21=-312/1759, 19-20=-2117/482, 7-19=-1101/222, 15-17=-2122/453,
14-15=-507/369, 12-14=-507/369
WEBS 5-20=-2119/433, 6-20=-627/199, 7-20=-370/1941, 17-19=-2289/503, 8-17=-1286/254,
8-15=-303/1727, 9-15=-575/161, 10-15=-702/157

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) gable end zone and C-C Exterior(2E) -1-4-8 to 2-1-12, Interior(1) 2-1-12 to 3-3-8, Exterior(2E) 3-3-8 to 4-3-8, Interior(1) 4-3-8 to 11-7-8, Exterior(2R) 11-7-8 to 15-0-12, Interior(1) 15-0-12 to 24-3-0, Exterior(2R) 24-3-0 to 27-8-4, Interior(1) 27-8-4 to 36-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=123, 17=410, 12=173.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A04	Roof Special Girder	1	1	I58813599 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:24 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrQDoi7J4zJC?f

Scale: 3/16"=1'

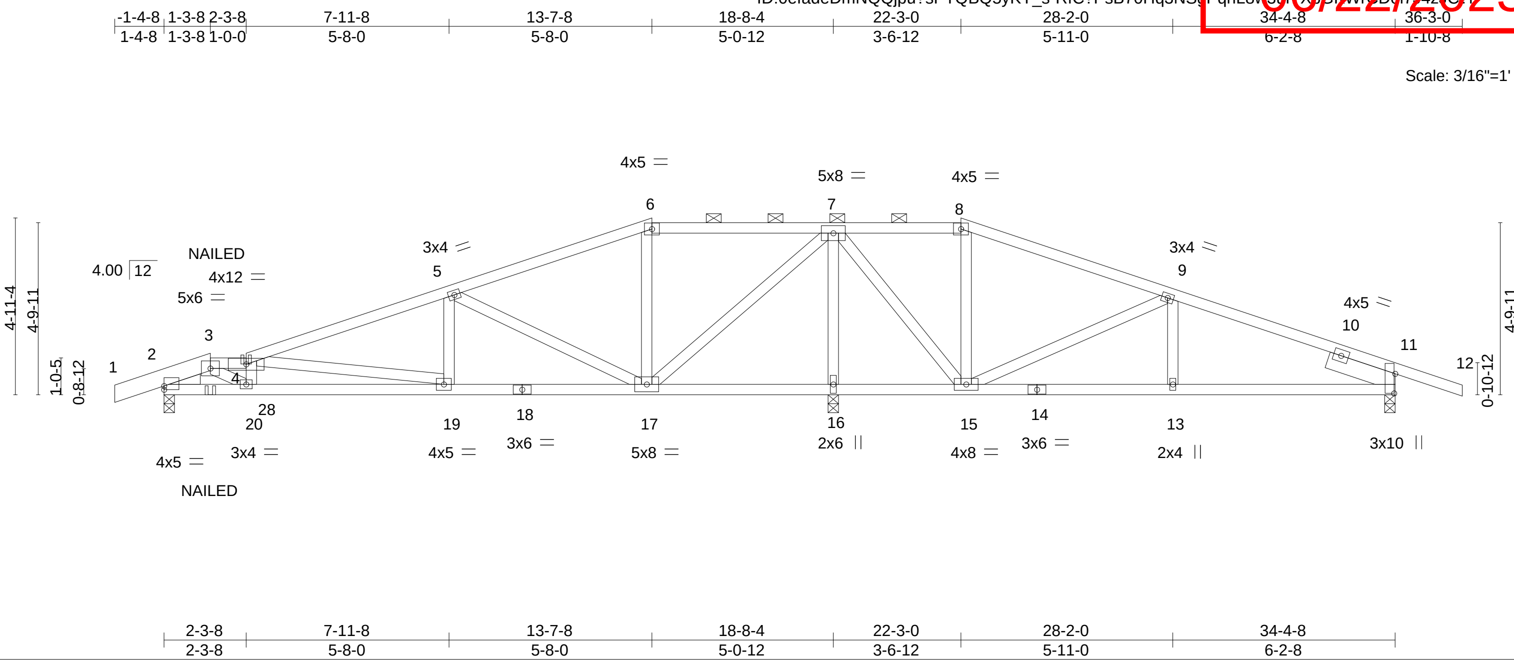

Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [11:0-6-9,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.07	19-20	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.13	19-20	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.02	16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x6 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except
2-0-0 oc purlins (4-6-8 max.): 3-4, 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 16-17,15-16.

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 11=0-3-8
Max Horz 2=77(LC 8)
Max Uplift 2=-190(LC 4), 16=-284(LC 4), 11=-180(LC 33)
Max Grav 2=736(LC 21), 16=2009(LC 1), 11=662(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1004/186, 3-4=-1622/312, 4-5=-1100/221, 5-6=-285/105, 7-8=-10/276,
8-9=-41/312, 9-11=-617/195
BOT CHORD 2-20=-218/870, 19-20=-331/1536, 17-19=-197/989, 16-17=-852/165, 15-16=-852/165,
13-15=-114/629, 11-13=-114/629
WEBS 3-20=-179/895, 4-20=-488/149, 4-19=-560/135, 5-19=0/303, 5-17=-883/216,
6-17=-313/89, 7-17=-204/1227, 7-16=-1906/315, 7-15=-142/995, 8-15=-365/80,
9-15=-768/172

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=190, 16=284, 11=180.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

June 9,2023

Continued on page 2

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
      Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 8-12=-70, 21-24=-20
   Concentrated Loads (lb)
      Vert: 28=36(F)

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A05	HIP	1	1	I58813600 Job Reference (optional)

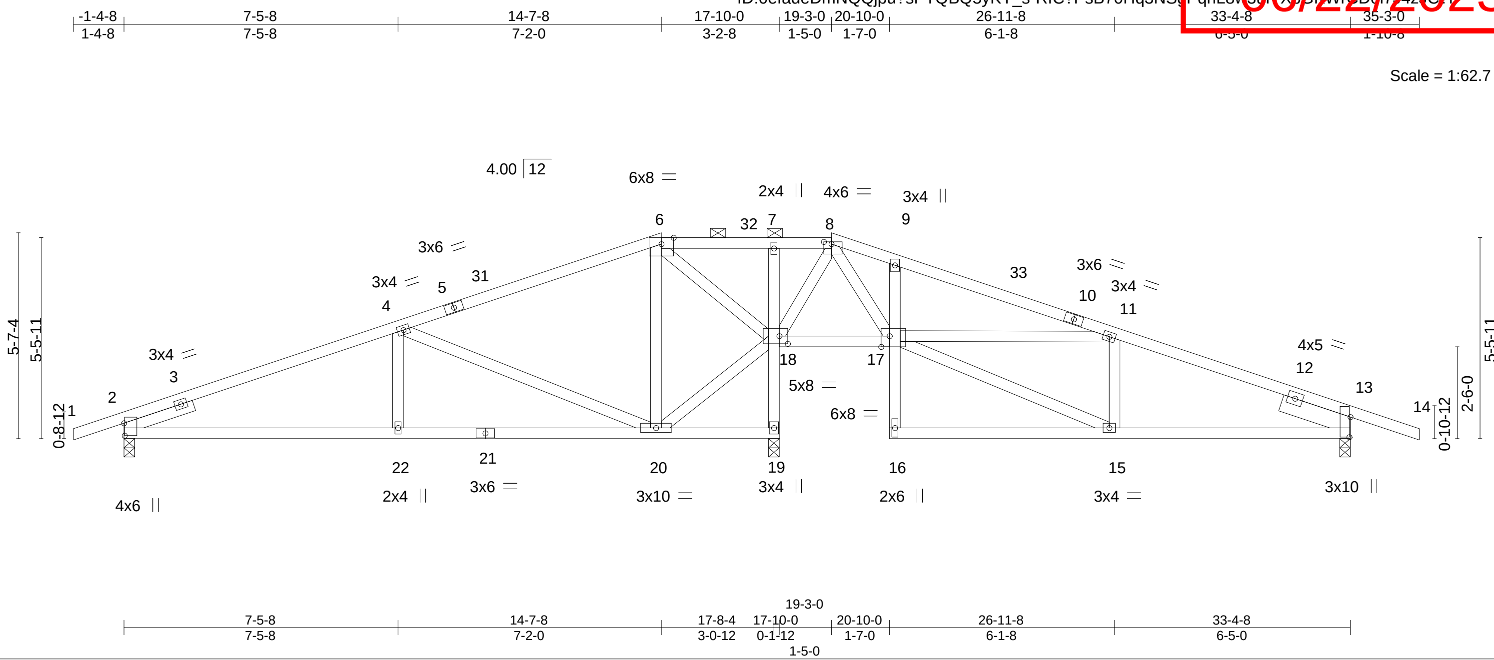

Plate Offsets (X,Y)-- [2:0-4-1,0-0-3], [8:0-2-8,0-0-12], [13:0-6-9,0-0-6], [17:0-2-12,Edge], [18:0-2-12,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.05	20-22	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	20-22	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.02	19	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 147 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 19=0-3-8, 13=0-3-8
Max Horz 2=-84(LC 17)
Max Uplift 2=-185(LC 8), 19=-209(LC 8), 13=-196(LC 9)
Max Grav 2=813(LC 25), 19=1763(LC 1), 13=726(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1080/260, 4-6=-303/137, 6-7=-64/822, 7-8=-64/815, 9-11=-313/138,
11-13=-840/217
BOT CHORD 2-22=-246/1083, 20-22=-246/1083, 18-19=-1751/323, 17-18=-394/198, 9-17=-323/149,
13-15=-132/750
WEBS 4-22=0/293, 4-20=-970/229, 6-20=-72/429, 18-20=-67/263, 6-18=-1187/301,
8-18=-847/168, 15-17=-149/791, 11-17=-599/168, 8-17=-194/853

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-11-9, Interior(1) 1-11-9 to 14-7-8, Exterior(2E) 14-7-8 to 19-3-0, Exterior(2R) 19-3-0 to 23-11-11, Interior(1) 23-11-11 to 35-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=185, 19=209, 13=196.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A06	Hip	1	1	I58813601 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:27 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrQDoi7J4zJCPf

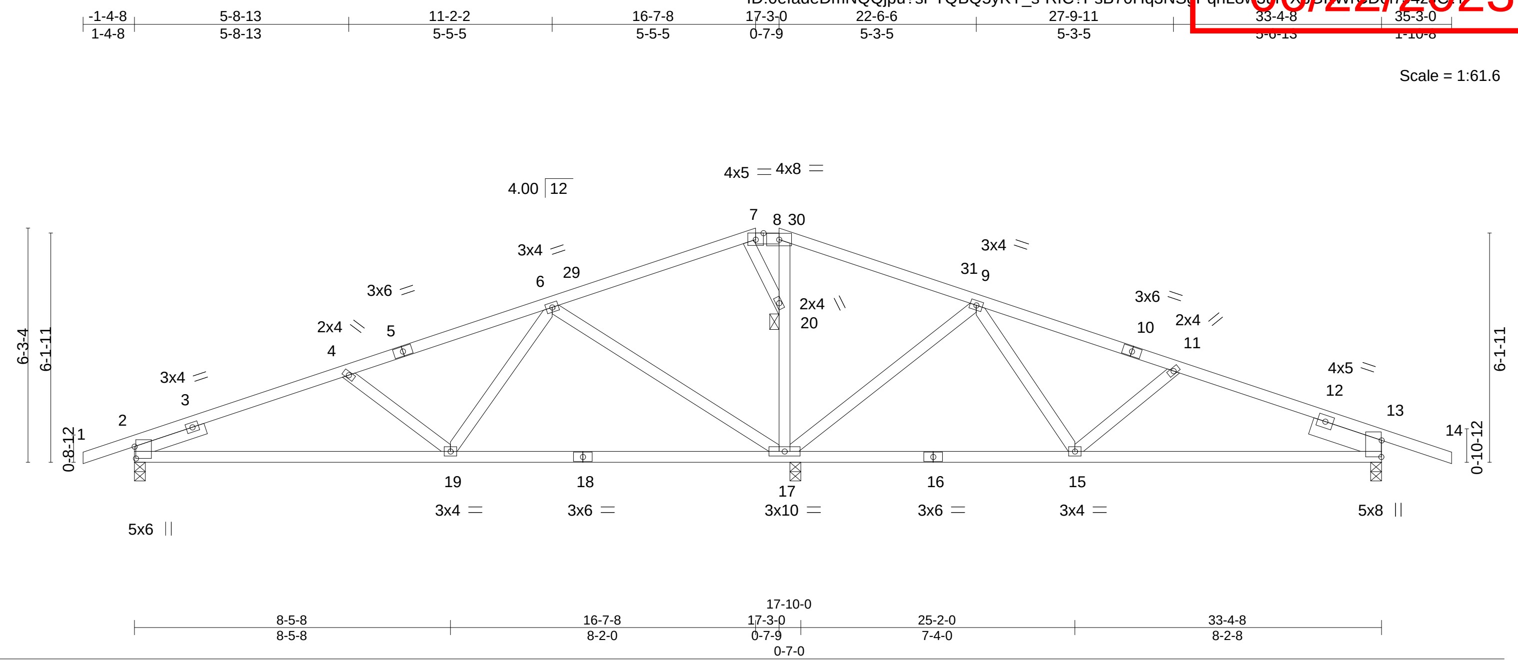

Plate Offsets (X,Y)-- [2:0-3-13,0-0-7], [7:0-2-8,Edge], [13:0-5-5,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.10	17-19	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.20	17-19	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.02	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 131 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (10-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 20

REACTIONS. (size) 2=0-3-8, 17=0-3-8, 13=0-3-8
Max Horz 2=-95(LC 17)
Max Uplift 2=-155(LC 8), 17=-242(LC 8), 13=-166(LC 9)
Max Grav 2=736(LC 25), 17=1952(LC 1), 13=681(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1004/202, 4-6=-751/137, 6-7=-50/642, 7-8=-22/628, 8-9=-64/697, 9-11=-478/122, 11-13=-742/175
BOT CHORD 2-19=-224/953, 17-19=-96/394, 13-15=-98/667
WEBS 4-19=-395/159, 6-19=-30/519, 6-17=-931/239, 17-20=-761/176, 8-20=-622/165, 9-17=-789/215, 9-15=-34/466, 11-15=-377/145

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-11-9, Interior(1) 1-11-9 to 16-7-8, Exterior(2E) 16-7-8 to 17-3-0, Exterior(2R) 17-3-0 to 21-11-11, Interior(1) 21-11-11 to 35-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=155, 17=242, 13=166.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A07	HIP	1	1	I58813692 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:29 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3ulTXoGKWrQDqI7J4zlC?f

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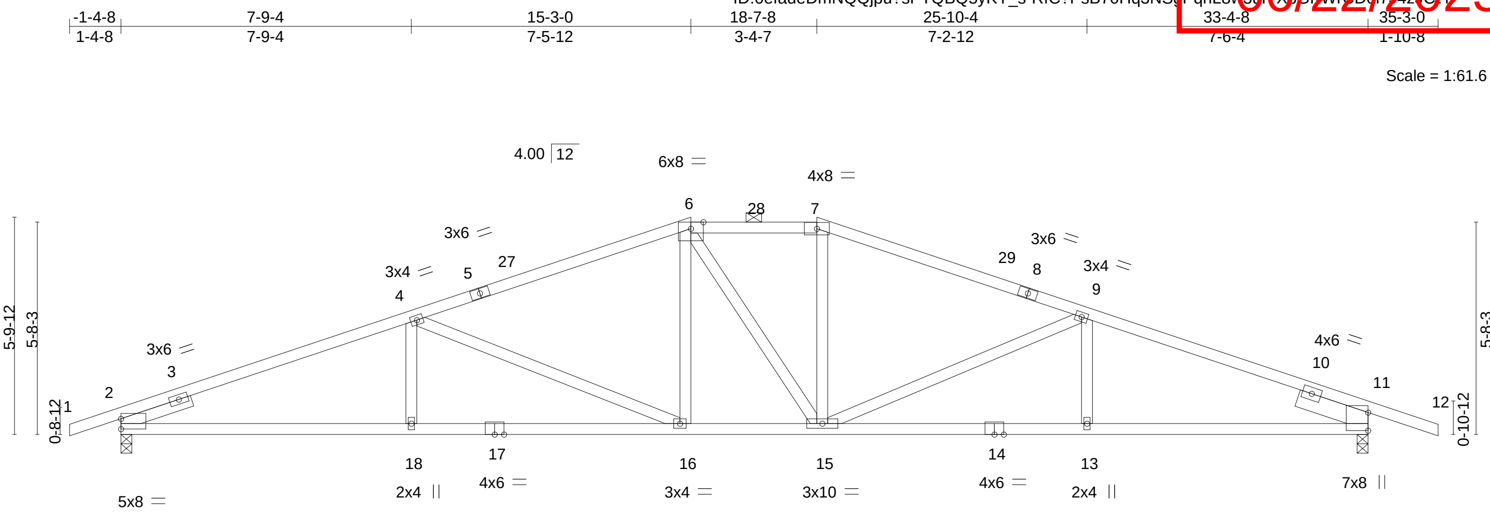

7-9-4	15-3-0	18-7-8	25-10-4	33-4-8
7-9-4	7-5-12	3-4-7	7-2-12	7-6-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.26	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.51	13-15	>792	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.14	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 150 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-5,8-12: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=88(LC 12)
Max Uplift 2=-279(LC 8), 11=-296(LC 9)
Max Grav 2=1596(LC 1), 11=1635(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3234/636, 4-6=-2525/550, 6-7=-2301/540, 7-9=-2506/541, 9-11=-3028/578
BOT CHORD 2-18=-520/2993, 16-18=-520/2993, 15-16=-350/2311, 13-15=-466/2783, 11-13=-466/2783
WEBS 4-18=0/258, 4-16=-783/220, 6-16=-40/418, 6-15=-254/227, 7-15=-40/382,
9-15=-595/189

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-11-9, Interior(1) 1-11-9 to 15-3-0, Exterior(2E) 15-3-0 to 18-7-8, Exterior(2R) 18-7-8 to 23-4-2, Interior(1) 23-4-2 to 35-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=279, 11=296.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A08	Roof Special Girder	1	1	I58813693 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:30 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NScPqnL8w3u1tXoGKWrQDd7?4zIC?f

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Scale = 1:63.3

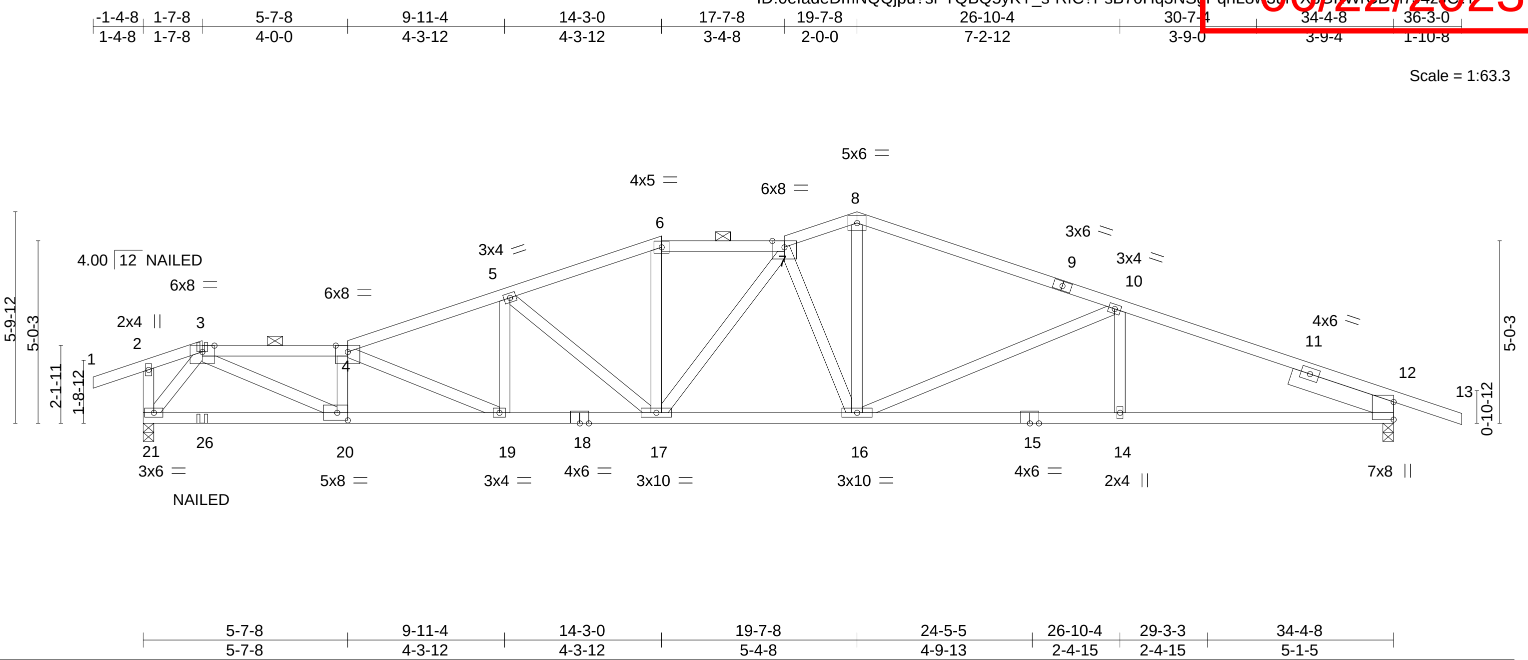

Plate Offsets (X,Y)-- [20:0-3-8,0-2-8]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.27	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.52	14-16	>788	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.15	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 163 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
8-9,9-13: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E *Except*
18-21: 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 3-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-6 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-7 max.): 3-4, 6-7.
BOT CHORD Rigid ceiling directly applied or 7-11-10 oc bracing.

REACTIONS. (size) 21=0-3-8, 12=0-3-8
Max Horz 21=-88(LC 13)
Max Uplift 21=-298(LC 4), 12=-272(LC 5)
Max Grav 21=1611(LC 1), 12=1671(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-3570/540, 4-5=-3391/516, 5-6=-2854/445, 6-7=-2654/438, 7-8=-2522/379, 8-10=-2581/373, 10-12=-3107/395
BOT CHORD 20-21=-196/1084, 19-20=-554/3658, 17-19=-451/3162, 16-17=-317/2728, 14-16=-279/2874, 12-14=-279/2874
WEBS 3-20=-401/2782, 4-20=-1152/224, 4-19=-546/115, 5-19=-13/325, 5-17=-649/158, 6-17=-44/576, 7-16=-921/213, 8-16=-160/1230, 3-21=-1727/261, 10-16=-666/204

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=298, 12=272.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 7-8=-70, 8-13=-70, 21-22=-20

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

June 9,2023

Continued on page 2

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=36(B)

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A09	Roof Special	1	1	I58813694 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:32 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3u1TXpGKWrQDqI7J4zIC?f

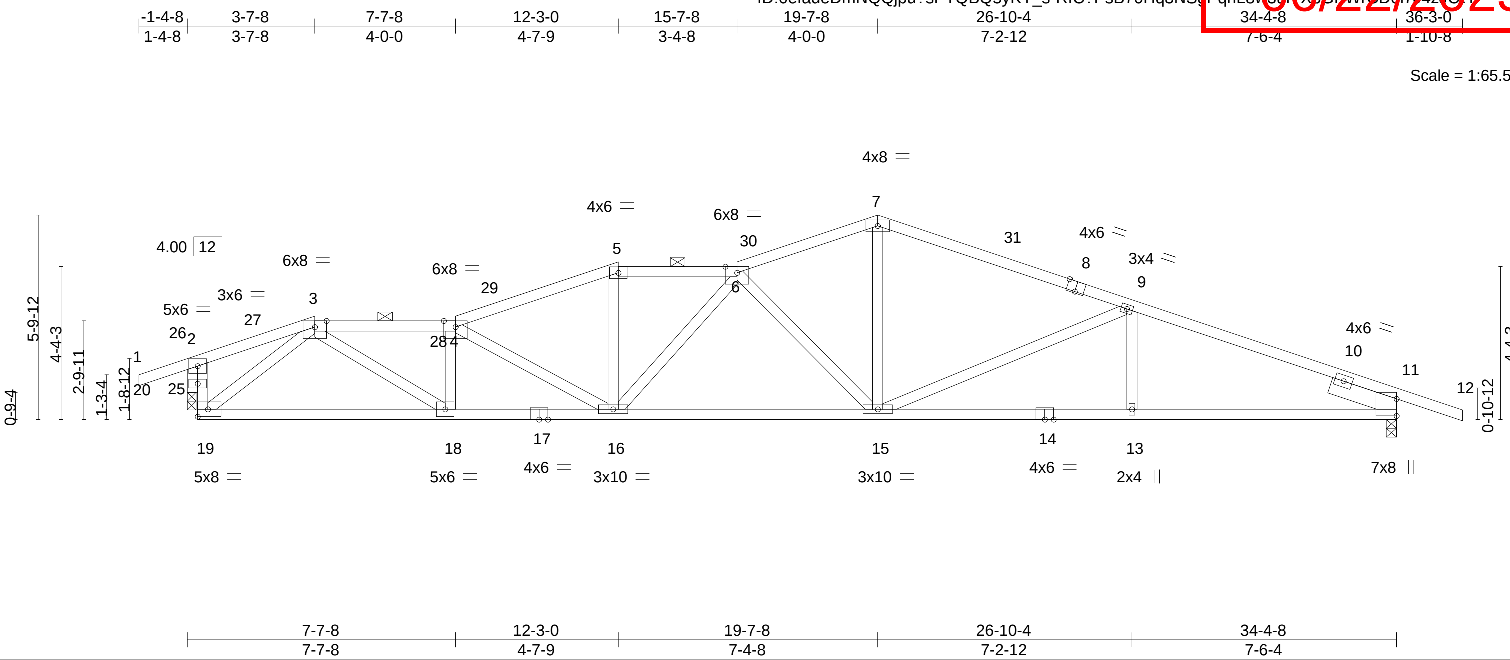

Plate Offsets (X,Y)-- [8:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.30	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.55	13-15	>746	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.14	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 154 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
8-12: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E *Except*
17-19: 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 11=0-3-8, 25=0-3-0
Max Horz 25=-97(LC 13)
Max Uplift 11=-272(LC 9), 25=-299(LC 8)
Max Grav 11=1674(LC 1), 25=1639(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-419/110, 3-4=-3452/688, 4-5=-3164/639, 5-6=-2932/628, 6-7=-2555/546, 7-9=-2597/541, 9-11=-3122/586, 19-20=-214/1277, 2-20=-214/1277
BOT CHORD 18-19=-328/1847, 16-18=-613/3507, 15-16=-524/3143, 13-15=-473/2872, 11-13=-473/2872
WEBS 3-18=-327/1929, 4-18=-968/234, 4-16=-645/155, 5-16=-92/675, 6-16=-326/87, 6-15=-1076/275, 7-15=-187/1173, 9-15=-652/205, 3-19=-1904/384, 2-25=-1726/390

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) gable end zone and C-C Exterior(2E) -1-4-8 to 2-0-12, Interior(1) 2-0-12 to 3-7-8, Exterior(2R) 3-7-8 to 7-0-12, Interior(1) 7-0-12 to 12-3-0, Exterior(2E) 12-3-0 to 15-7-8, Interior(1) 15-7-8 to 19-7-8, Exterior(2R) 19-7-8 to 23-0-12, Interior(1) 23-0-12 to 36-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=272, 25=299.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A10	Roof Special	1	1	I58813695 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:34 2023 Page 1

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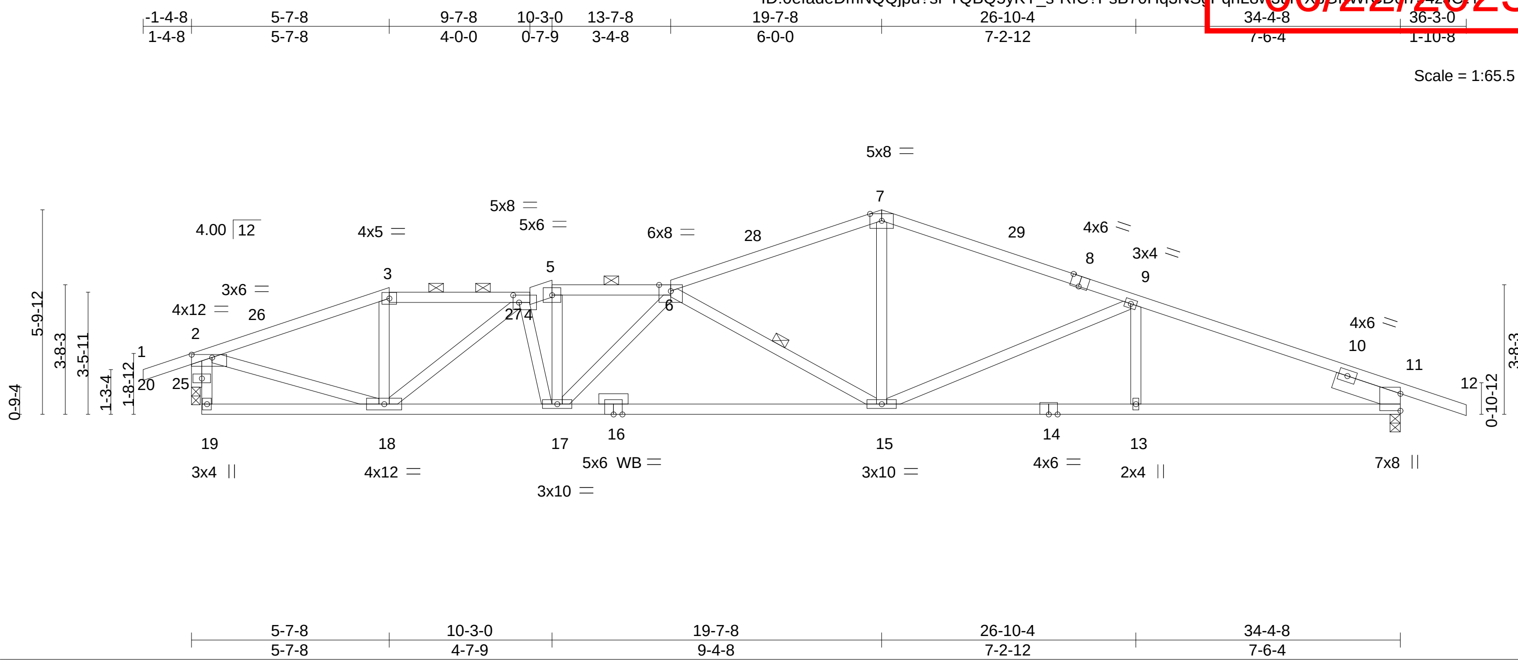

Plate Offsets (X,Y)-- [2:0-7-0,0-1-0], [4:0-2-0,0-2-8], [8:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.29	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.53	15-17	>770	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.13	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 159 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2, 8-12: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 11=0-3-8, 25=0-3-0
Max Horz 25=-97(LC 13)
Max Uplift 11=-272(LC 9), 25=-299(LC 8)
Max Grav 11=1674(LC 1), 25=1639(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2343/474, 3-4=-2158/467, 4-5=-3397/684, 5-6=-3278/659, 6-7=-2602/543, 7-9=-2607/532, 9-11=-3118/589
BOT CHORD 18-19=-102/422, 17-18=-557/3311, 15-17=-630/3626, 13-15=-476/2867, 11-13=-476/2867
WEBS 3-18=-29/401, 5-17=-161/811, 6-17=-512/146, 6-15=-1409/332, 7-15=-156/1115, 9-15=-646/208, 2-18=-314/1836, 4-18=-1455/263, 4-17=-326/129, 2-25=-1742/394

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) gable end zone and C-C Exterior(2E) -1-4-8 to 2-0-12, Interior(1) 2-0-12 to 5-7-8, Exterior(2R) 5-7-8 to 9-0-12, Interior(1) 9-0-12 to 10-3-0, Exterior(2E) 10-3-0 to 13-7-8, Interior(1) 13-7-8 to 19-7-8, Exterior(2R) 19-7-8 to 23-0-12, Interior(1) 23-0-12 to 36-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=272, 25=299.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A11	Roof Special	1	1	I58813606 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:35 2023 Page 1
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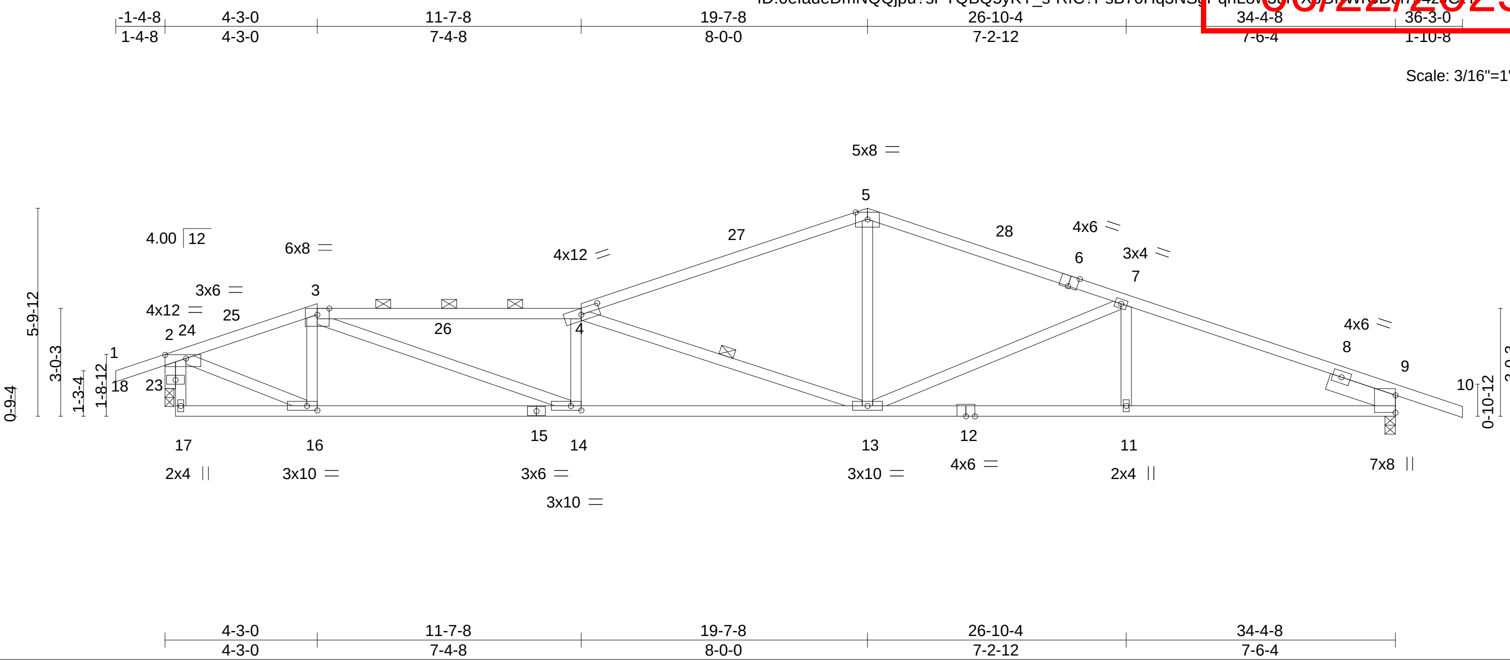

Plate Offsets (X,Y)-- [2:0-7-0,0-1-4], [4:0-6-4,0-2-0], [6:0-3-0,Edge], [14:0-3-8,0-1-8], [16:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.31	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.58	13-14	>703	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 150 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
3-4,6-10: 2x4 SP 2400F 2.0E, 4-5: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SP 2400F 2.0E *Except*
15-17: 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 9=0-3-8, 23=0-3-0
Max Horz 23=-97(LC 13)
Max Uplift 9=-273(LC 9), 23=-299(LC 8)
Max Grav 9=1674(LC 1), 23=1639(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2164/423, 3-4=-4265/808, 4-5=-2637/530, 5-7=-2596/525, 7-9=-3115/575
BOT CHORD 16-17=-76/306, 14-16=-326/2068, 13-14=-715/4302, 11-13=-462/2864, 9-11=-462/2864
WEBS 3-16=-623/175, 3-14=-404/2354, 4-14=-707/219, 4-13=-2002/401, 5-13=-129/1055,
7-13=-649/202, 2-16=-319/1882, 2-23=-1720/381

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) gable end zone and C-C Exterior(2E) -1-4-8 to 2-0-12, Interior(1) 2-0-12 to 4-3-0, Exterior(2R) 4-3-0 to 7-8-4, Interior(1) 7-8-4 to 19-7-8, Exterior(2R) 19-7-8 to 23-0-12, Interior(1) 23-0-12 to 36-3-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearing at joint(s) 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=273, 23=299.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A12	Roof Special Girder	1	1	I58813697 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:37 2023 Page 1
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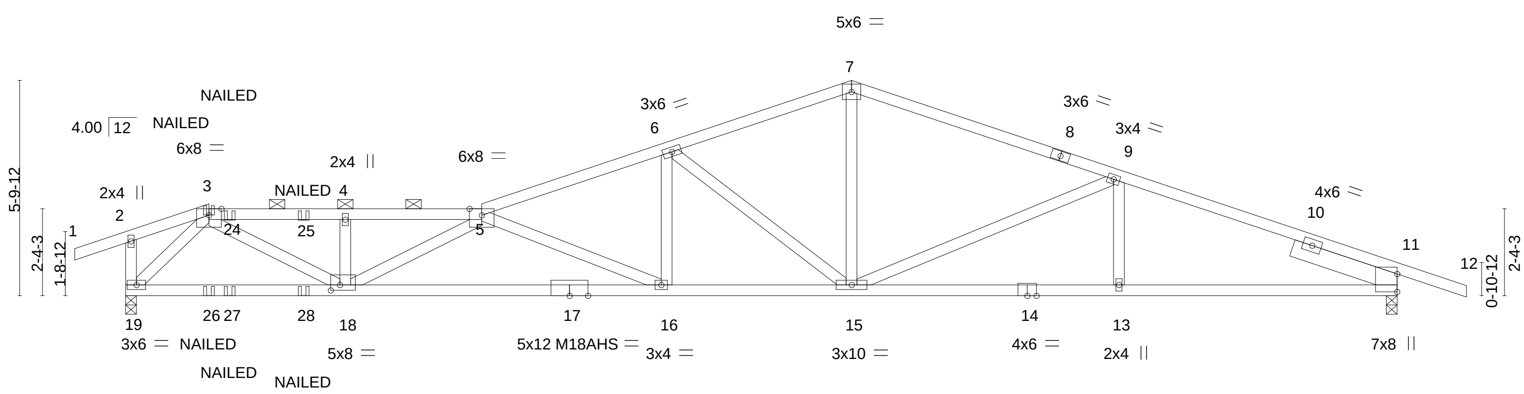
-1-4-8 | 2-3-0 | 5-11-4 | 9-7-8 | 14-7-8 | 19-7-8 | 26-10-4 | 34-4-8 | 36-3-0
1-4-8 | 2-3-0 | 3-8-4 | 3-8-4 | 5-0-0 | 5-0-0 | 7-2-12 | 7-6-4 | 1-10-8

Scale = 1:62.3



2-3-0 | 5-11-4 | 9-7-8 | 14-7-8 | 19-7-8 | 26-10-4 | 34-4-8
2-3-0 | 3-8-4 | 3-8-4 | 5-0-0 | 5-0-0 | 7-2-12 | 7-6-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.32	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.64	16-18	>641	180	M18AHS	186/179
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.15	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 158 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
7-8,8-12: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Right 2x6 SPF No.2 3-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-7 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 9-1-12 oc bracing.

REACTIONS. (size) 11=0-3-8, 19=0-3-8
Max Horz 19=-88(LC 34)
Max Uplift 11=-281(LC 5), 19=-364(LC 4)
Max Grav 11=1674(LC 1), 19=1657(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-3640/641, 4-5=-3640/641, 5-6=-3628/551, 6-7=-2561/393, 7-9=-2583/396, 9-11=-3116/418
BOT CHORD 18-19=-286/1407, 16-18=-827/4925, 15-16=-473/3381, 13-15=-301/2882, 11-13=-301/2882
WEBS 3-18=-414/2571, 4-18=-384/118, 5-16=-1676/385, 6-16=-83/780, 6-15=-1266/272, 7-15=-141/1146, 9-15=-677/210, 5-18=-1484/308, 3-19=-1955/338

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=281, 19=364.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-12=-70, 19-20=-20

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

June 9,2023

Continued on page 2

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 26=-4(F) 27=-4(F) 28=-4(F)

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A13	Common	1	1	I58813698 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:40:38 2023 Page 1
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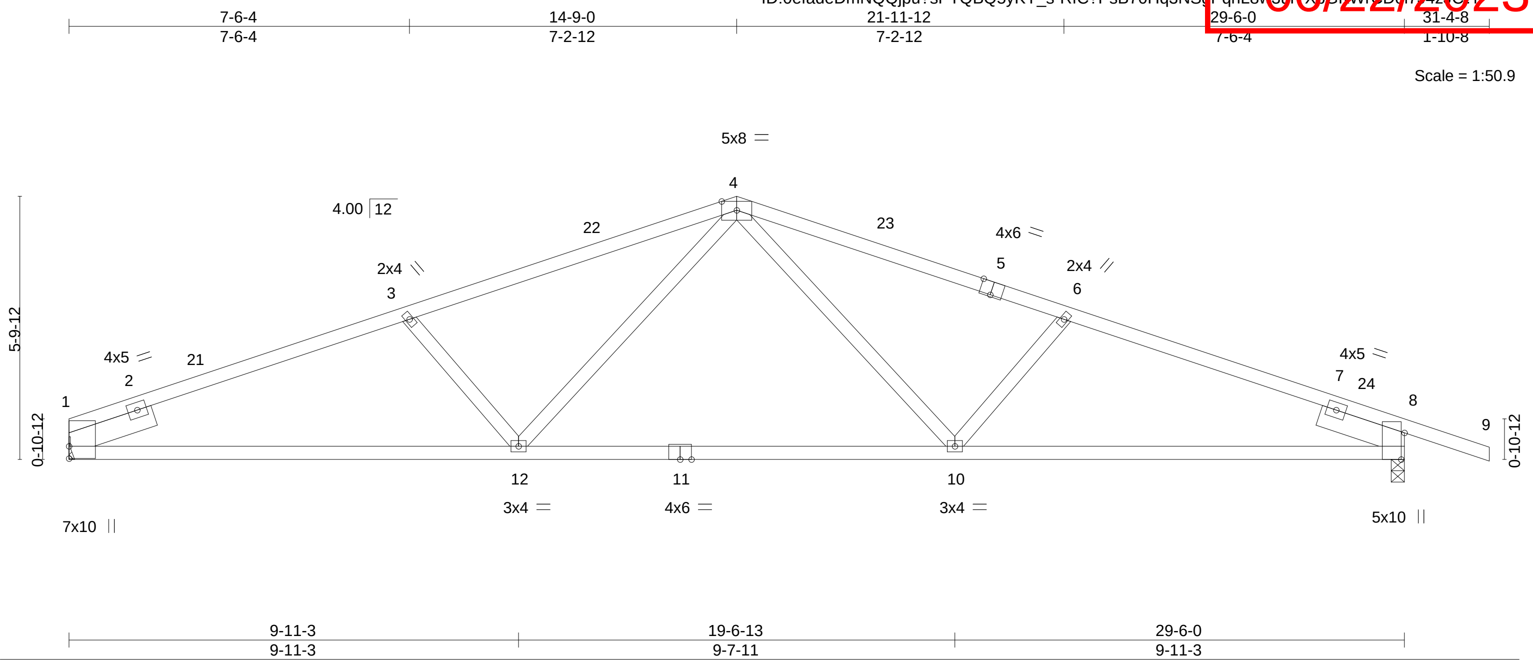

Plate Offsets (X,Y)-- [5:0-3-0,Edge], [8:0-7-1,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.33	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.66	10-12	>538	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.13	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 108 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
4-5: 2x4 SPF No.2, 5-9: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 1=Mechanical, 8=0-3-8
Max Horz 1=-97(LC 17)
Max Uplift 1=-190(LC 8), 8=-262(LC 9)
Max Grav 1=1323(LC 1), 8=1463(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2634/497, 3-4=-2375/465, 4-6=-2364/460, 6-8=-2617/494
BOT CHORD 1-12=-380/2417, 10-12=-235/1792, 8-10=-385/2396
WEBS 4-10=-99/653, 6-10=-415/204, 4-12=-102/668, 3-12=-429/206

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) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-9-0, Exterior(2R) 14-9-0 to 17-9-0, Interior(1) 17-9-0 to 31-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=190, 8=262.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) 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 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A14	Common	1	1	I58813609 Job Reference (optional)

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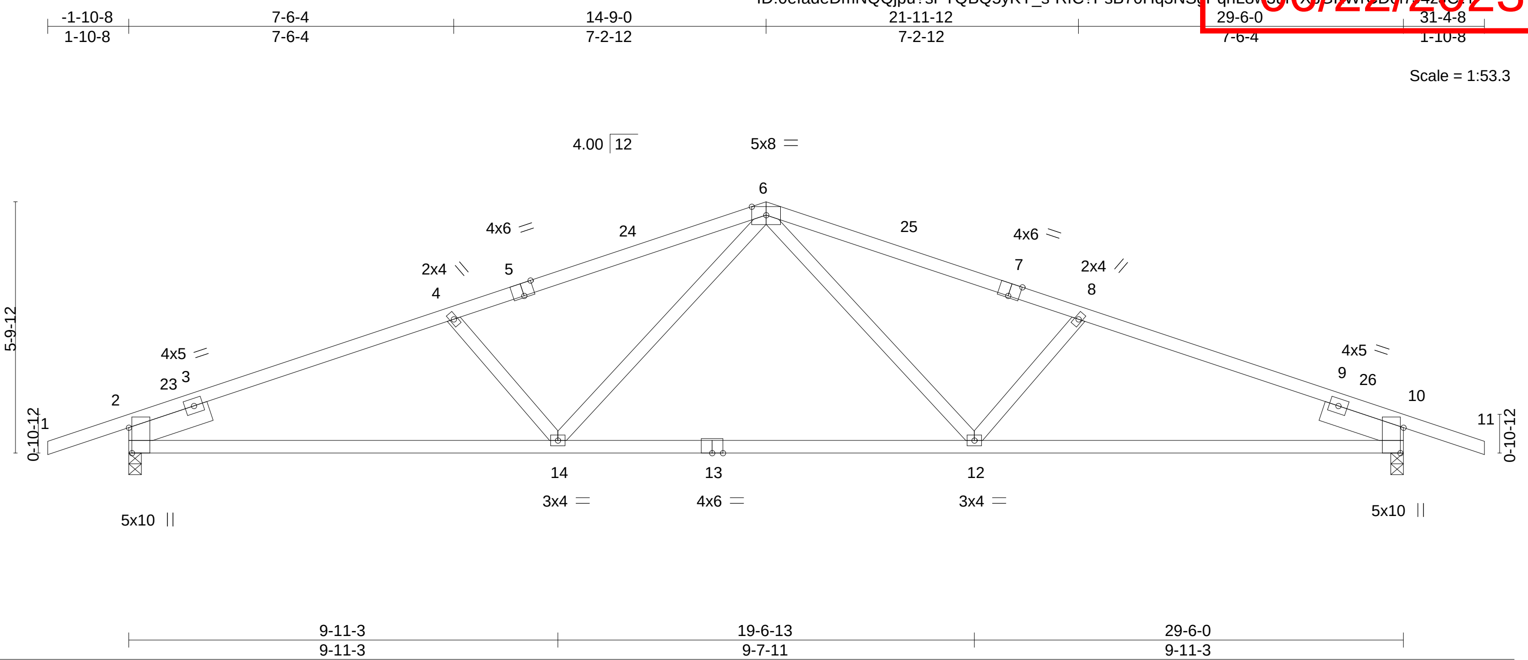

Plate Offsets (X,Y)-- [2:0-7-1,Edge], [5:0-3-0,Edge], [7:0-3-0,Edge], [10:0-7-1,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.32	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.65	12-14	>548	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.13	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 114 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
1-5,7-11: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-88(LC 13)
Max Uplift 2=-261(LC 8), 10=-261(LC 9)
Max Grav 2=1459(LC 1), 10=1459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2606/486, 4-6=-2353/452, 6-8=-2353/452, 8-10=-2606/486
BOT CHORD 2-14=-366/2386, 12-14=-227/1781, 10-12=-378/2386
WEBS 6-12=-99/653, 8-12=-416/205, 6-14=-99/653, 4-14=-416/204

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 14-9-0, Exterior(2R) 14-9-0 to 17-9-0, Interior(1) 17-9-0 to 31-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=261, 10=261.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A15	Hip	1	1	I58813610 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:41 2023 Page 1

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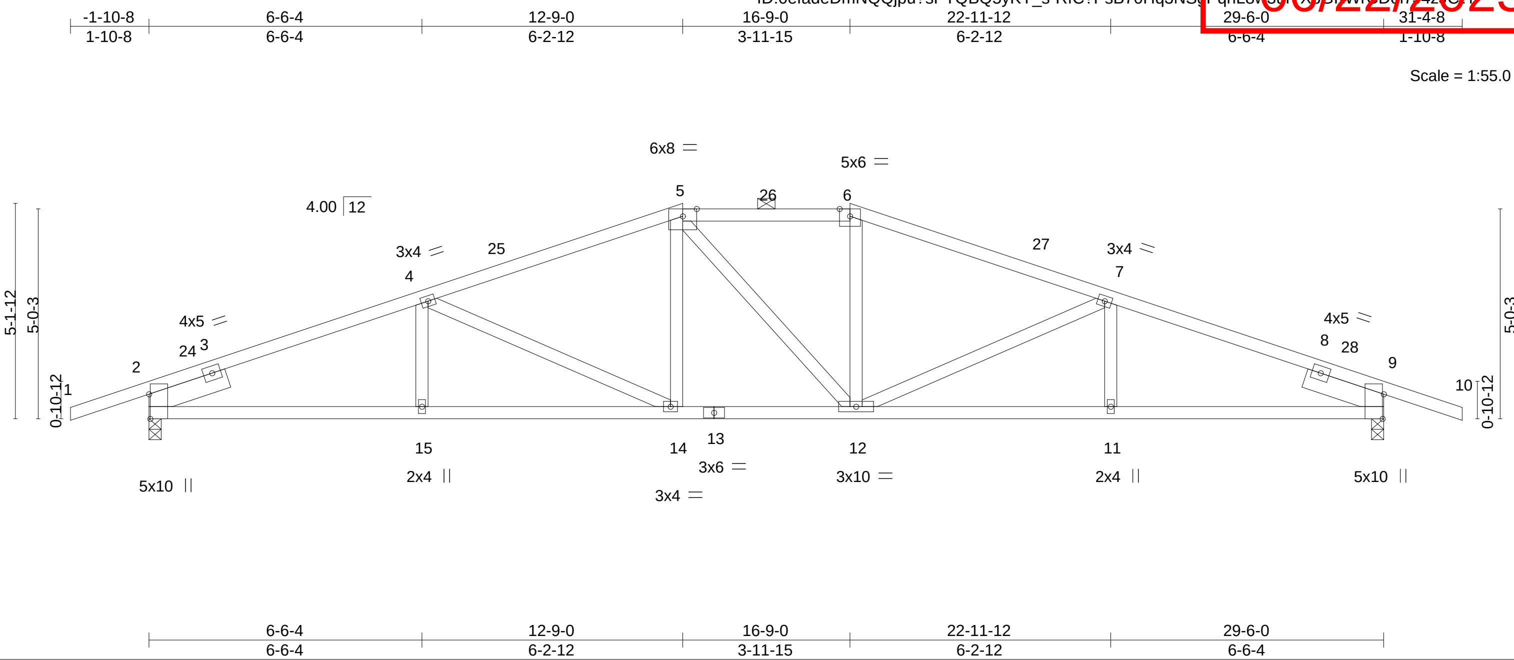

Plate Offsets (X,Y)-- [2:0-7-1,Edge], [9:0-7-1,Edge]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.22	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.41	14-15	>871	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 128 lb	FT = 20%

SPACING- 2-0-0

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
5-6: 2x4 SPF No.2
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-10-9 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-76(LC 13)
Max Uplift 2=-274(LC 8), 9=-274(LC 9)
Max Grav 2=1459(LC 1), 9=1459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2569/521, 4-5=-2191/493, 5-6=-2031/483, 6-7=-2191/482, 7-9=-2568/493
BOT CHORD 2-15=-409/2359, 14-15=-409/2359, 12-14=-316/2031, 11-12=-393/2358, 9-11=-393/2358
WEBS 4-14=-418/148, 5-14=-22/322, 6-12=-22/322, 7-12=-418/148

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 12-9-0, Exterior(2E) 12-9-0 to 16-9-0, Exterior(2R) 16-9-0 to 20-11-14, Interior(1) 20-11-14 to 31-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=274, 9=274.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A16	Hip	1	1	I58813611 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:43 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXoGKWrQDoi7J4zJC?f

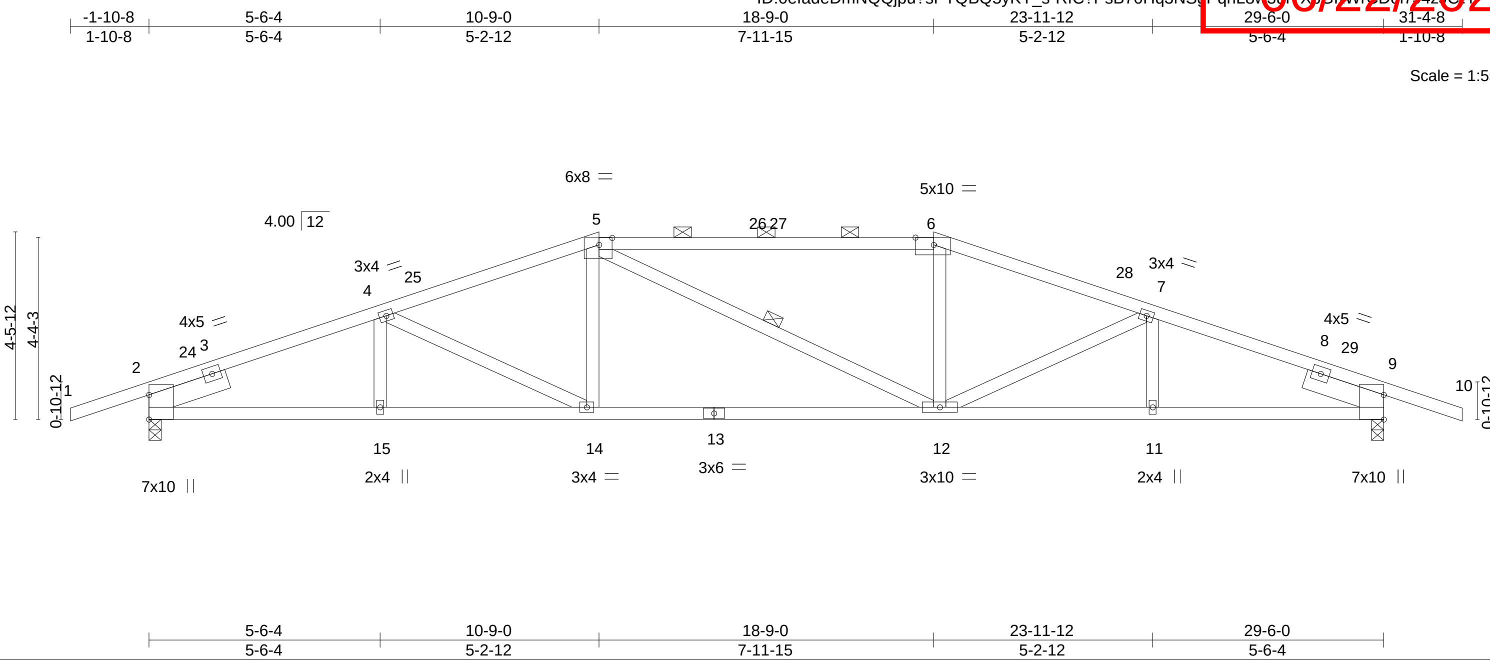

Plate Offsets (X,Y)-- [5:0-3-12,0-2-0], [6:0-5-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.21	14-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.42	12-14	>836	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.12	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 116 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

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

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-66(LC 13)
Max Uplift 2=-284(LC 8), 9=-284(LC 9)
Max Grav 2=1459(LC 1), 9=1459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2510/511, 4-5=-2408/515, 5-6=-2265/523, 6-7=-2408/514, 7-9=-2510/511
BOT CHORD 2-15=-403/2296, 14-15=-403/2296, 12-14=-362/2265, 11-12=-412/2296, 9-11=-412/2296
WEBS 5-14=0/322, 6-12=0/322

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-9-0, Exterior(2R) 10-9-0 to 14-11-15, Interior(1) 14-11-15 to 18-9-0, Exterior(2R) 18-9-0 to 22-11-14, Interior(1) 22-11-14 to 31-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=284, 9=284.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A17	Hip	1	1	I58813612 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:45 2023 Page 1
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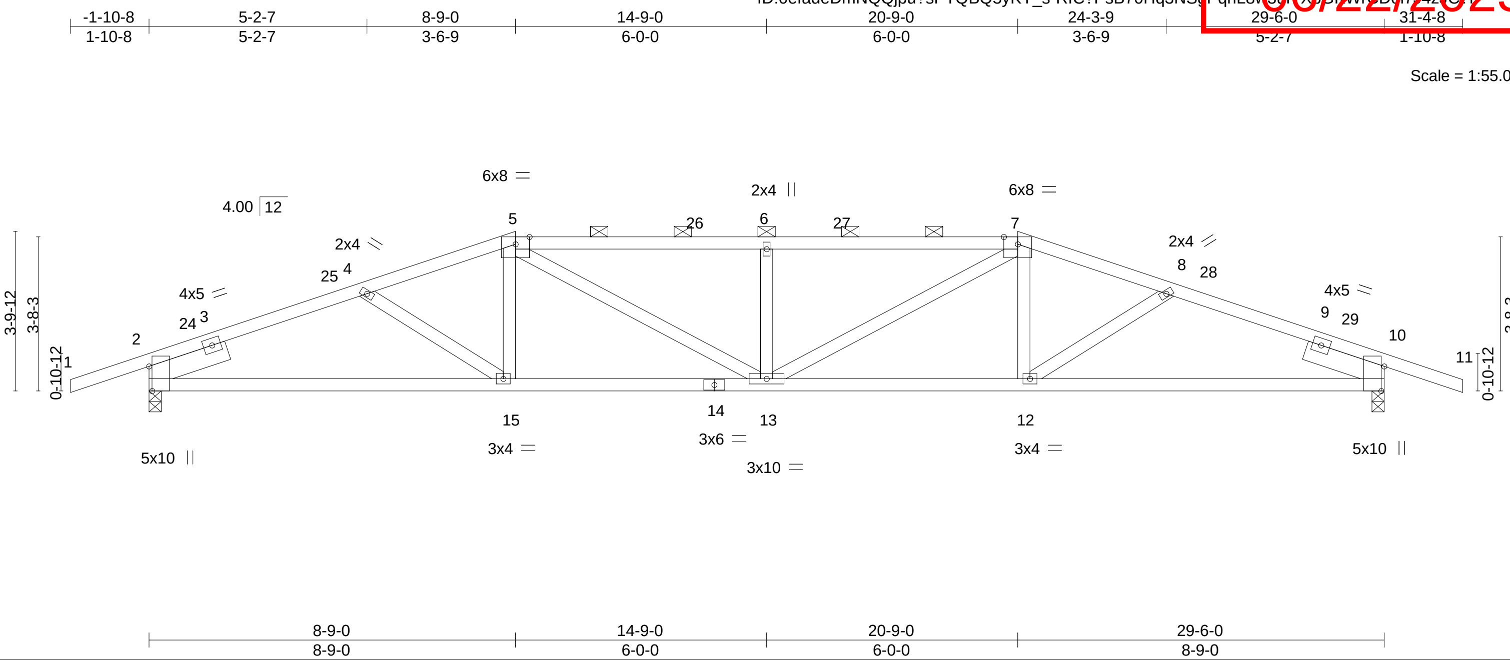


Plate Offsets (X,Y)-- [2:0-7-1,Edge], [10:0-7-1,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.26	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.47	13-15	>760	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 115 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
5-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-11-2 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=54(LC 12)
Max Uplift 2=-293(LC 8), 10=-293(LC 9)
Max Grav 2=1459(LC 1), 10=1459(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2503/526, 4-5=-2497/507, 5-6=-2937/620, 6-7=-2937/620, 7-8=-2497/507,
8-10=-2503/525
BOT CHORD 2-15=-413/2276, 13-15=-373/2378, 12-13=-382/2378, 10-12=-422/2276
WEBS 4-15=-12/295, 5-13=-162/764, 6-13=-498/170, 7-13=-162/764, 8-12=-12/295

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-9-0, Exterior(2R) 8-9-0 to 12-11-15, Interior(1) 12-11-15 to 20-9-0, Exterior(2R) 20-9-0 to 24-11-14, Interior(1) 24-11-14 to 31-4-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=293, 10=293.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

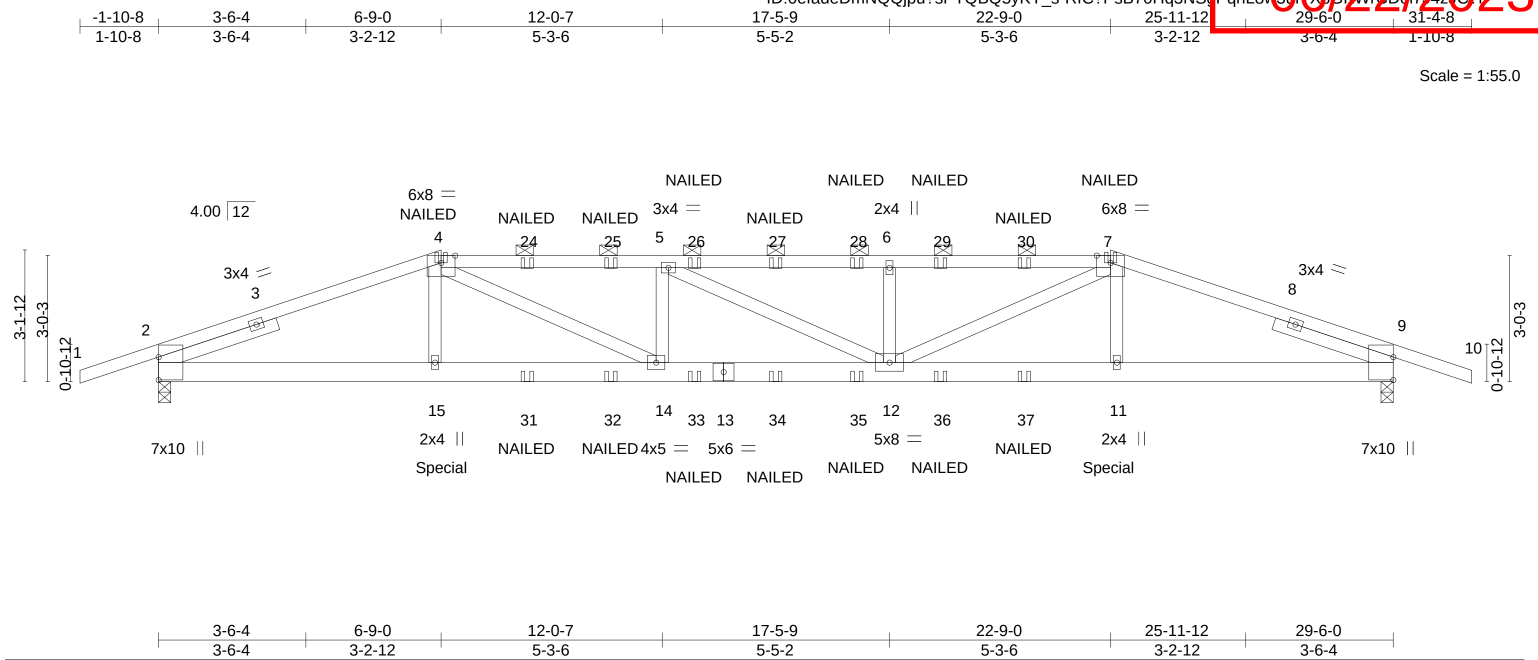
June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	A18	Hip Girder	1	2	I58813613 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:47 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSdPqnL8v3uIXoGKWrQDd?74zdC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.31	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.56	12-14	>632	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 257 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E
BOT CHORD 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 3-0-0, Right 2x4 SPF No.2 3-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins, except 2-0-0 oc purlins (4-2-9 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=44(LC 4)
Max Uplift 2=-660(LC 4), 9=-660(LC 5)
Max Grav 2=2876(LC 1), 9=2876(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-6130/1350, 4-5=-8455/1893, 5-6=-8400/1879, 6-7=-8405/1881, 7-9=-6139/1352
BOT CHORD 2-15=-1231/5768, 14-15=-1233/5758, 12-14=-1827/8450, 11-12=-1191/5765, 9-11=-1190/5777
WEBS 4-15=-17/289, 4-14=-710/3125, 5-14=-870/280, 6-12=-855/276, 7-12=-695/3062, 7-11=-14/307

NOTES-
1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=660, 9=660.
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) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 543 lb down and 148 lb up at 6-9-0, and 543 lb down and 148 lb up at 22-8-4 on bottom 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 9,2023

LOAD CASE(S) Standard

Continued on page 2

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-7=-70, 7-10=-70, 16-20=-20
Concentrated Loads (lb)
Vert: 4=-120(F) 7=-120(F) 15=-543(F) 11=-543(F) 24=-120(F) 25=-120(F) 26=-120(F) 27=-120(F) 28=-120(F) 29=-120(F) 30=-120(F) 31=-96(F) 32=-96(F) 33=-96(F) 34=-96(F) 35=-96(F) 36=-96(F) 37=-96(F)

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ01	Diagonal Hip Girder	1	1	I58813614 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:48 2023 Page 1
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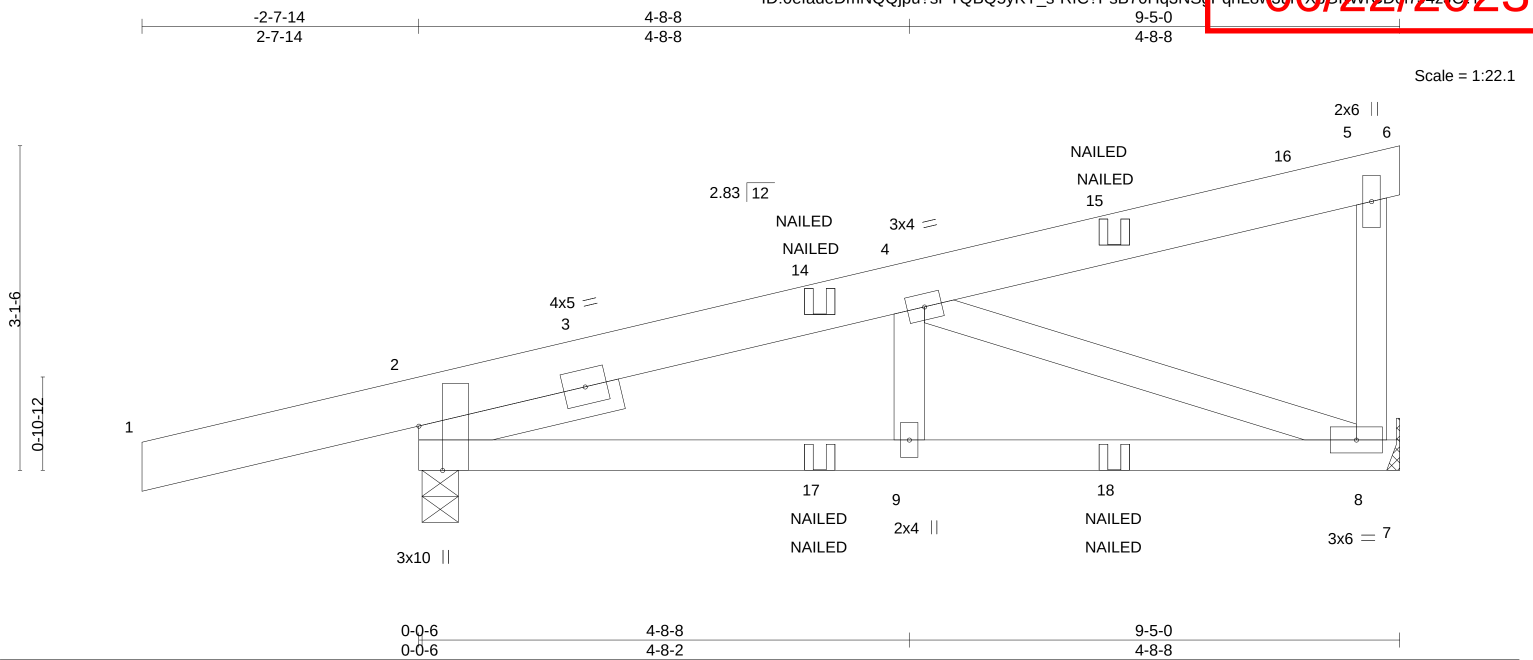

Plate Offsets (X,Y)-- [2:0-5-2,Edge]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 44 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-4-3, 8=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-186(LC 4), 8=-90(LC 8)
Max Grav 2=650(LC 1), 8=475(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-658/112
BOT CHORD 2-9=-128/609, 8-9=-128/609
WEBS 4-8=-606/145

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=186.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 7-10=-20
Concentrated Loads (lb)
Vert: 15=-71(F=-53, B=-18) 17=9(F=0, B=9) 18=-44(F=-27, B=-17)

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ02	Diagonal Hip Girder	1	1	I58813615 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:49 2023 Page 1
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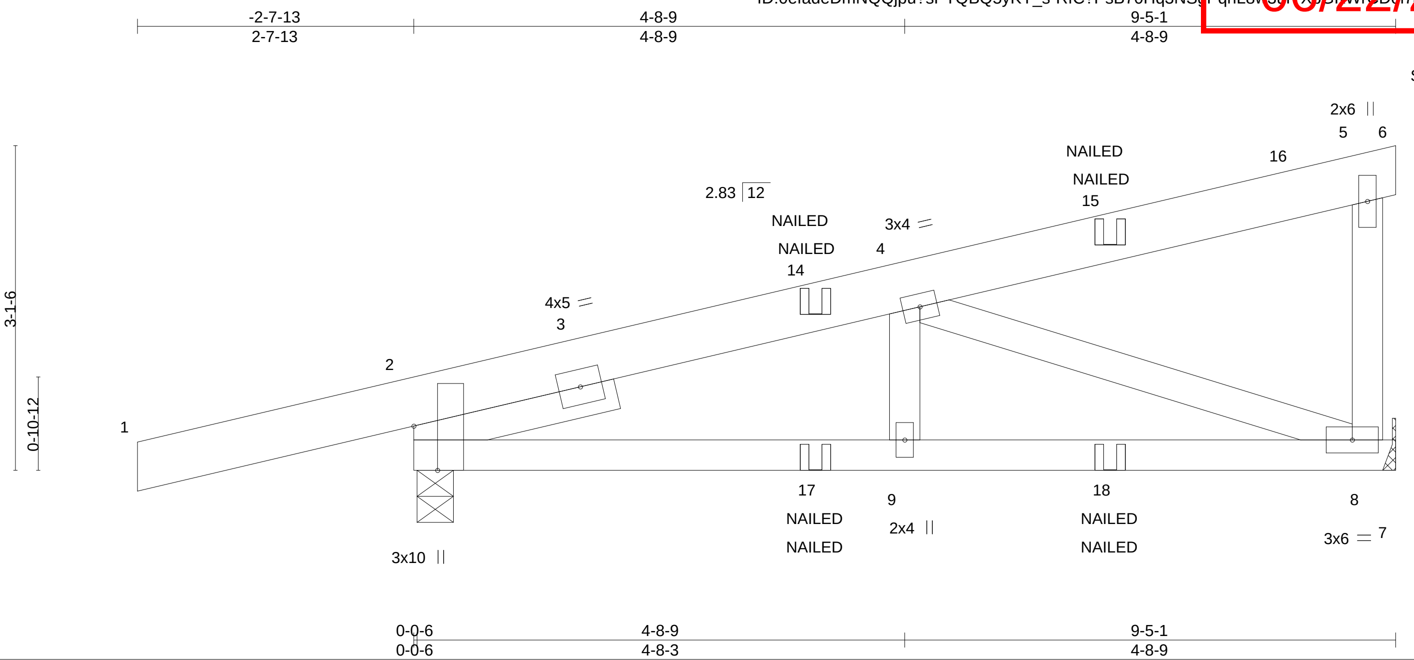

Plate Offsets (X,Y)-- [2:0-5-2,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 45 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-4-3, 8=Mechanical
Max Horz 2=97(LC 7)
Max Uplift 2=-186(LC 4), 8=-90(LC 8)
Max Grav 2=650(LC 1), 8=476(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-659/113
BOT CHORD 2-9=-128/610, 8-9=-128/610
WEBS 4-8=-607/145

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=186.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 7-10=-20
Concentrated Loads (lb)
Vert: 15=-71(F=-18, B=-53) 17=9(F=9, B=0) 18=-44(F=-17, B=-27)

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ03	Diagonal Hip Girder	1	1	I58813616 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:51 2023 Page 1
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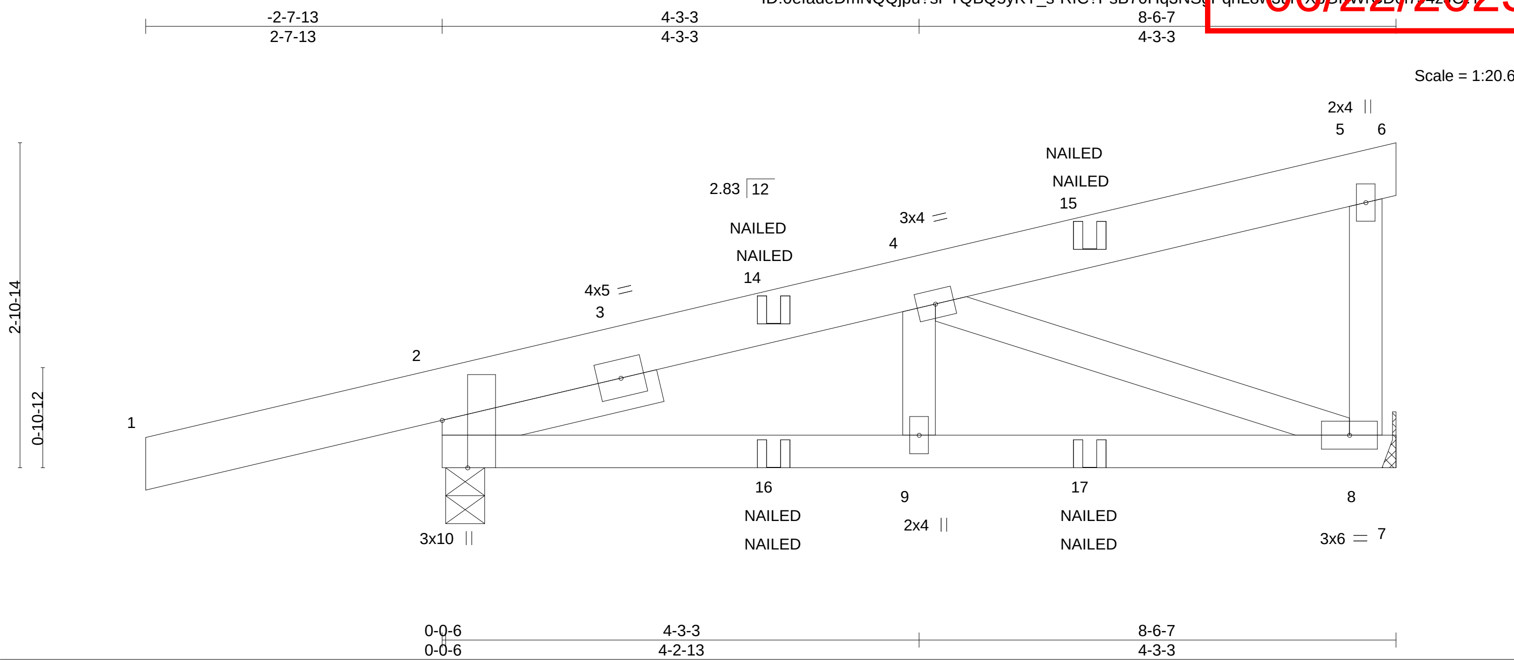

Plate Offsets (X,Y)-- [2:0-5-2,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.02	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.03	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 41 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-4-3, 8=Mechanical
Max Horz 2=100(LC 7)
Max Uplift 2=-190(LC 4), 8=-88(LC 8)
Max Grav 2=575(LC 1), 8=377(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-481/142
BOT CHORD 2-9=-125/443, 8-9=-125/443
WEBS 4-8=-473/140

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=190.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-70, 5-6=-20, 7-10=-20
Concentrated Loads (lb)
Vert: 14=30(B) 15=-31(F=-31, B=-1) 16=16(F=3, B=13) 17=-26(F=-18, B=-8)

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ04	Jack-Open	1	1	I58813617 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:52 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uIfXpGKWrQDoI7J4zJCPf

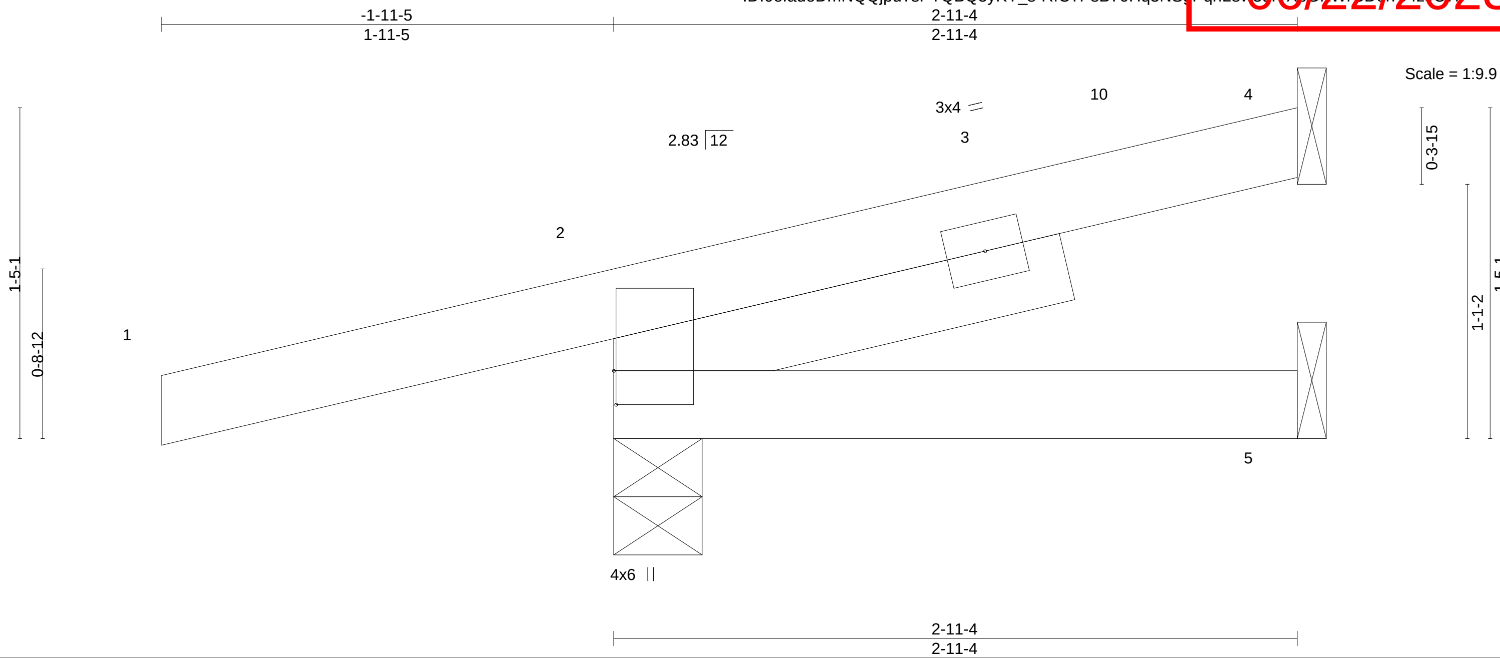

Plate Offsets (X,Y)-- [2:0-1-12,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.00	8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=47(LC 8)
Max Uplift 4=-24(LC 12), 2=-111(LC 8)
Max Grav 4=61(LC 1), 2=312(LC 1), 5=43(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-11-5 to 2-3-9, Exterior(2R) 2-3-9 to 2-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=111.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ05	Jack-Open	1	1	I58813618 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:53 2023 Page 1
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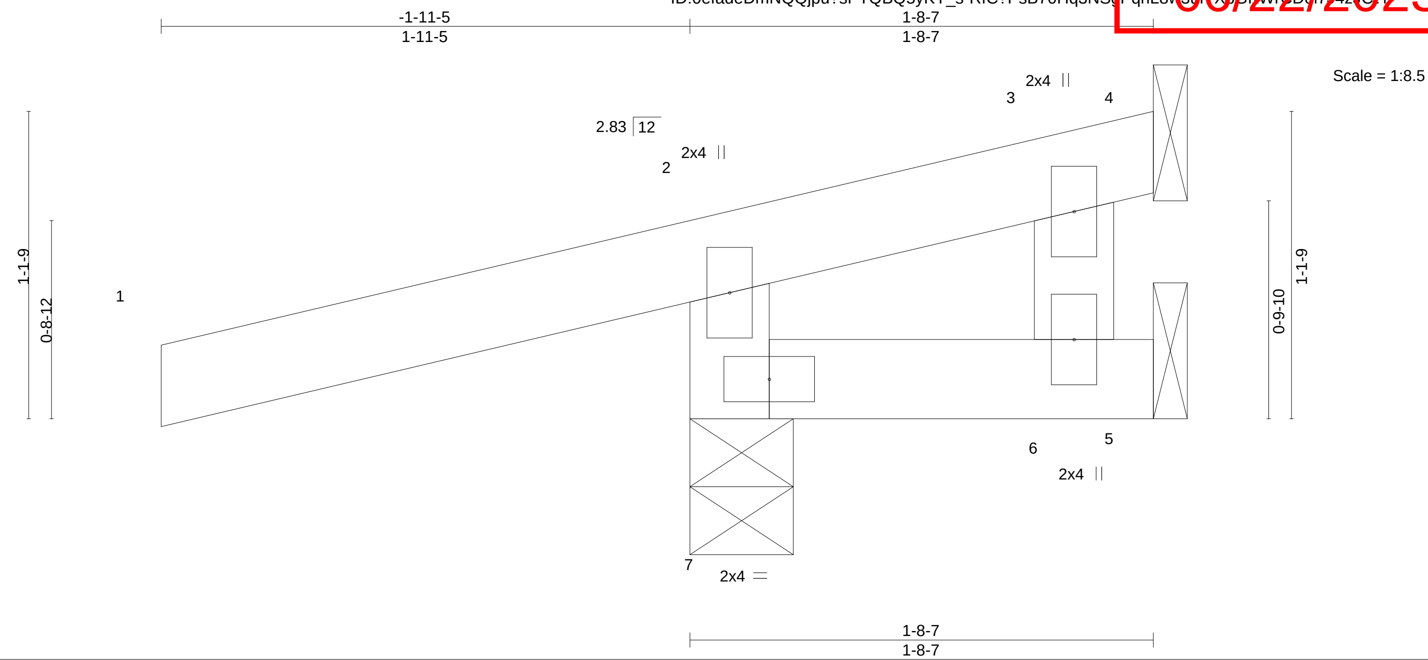
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-4-9, 4=Mechanical, 5=Mechanical
Max Horz 7=28(LC 8)
Max Uplift 7=-134(LC 8), 4=-3(LC 12), 5=-45(LC 1)
Max Grav 7=315(LC 1), 4=21(LC 3), 5=33(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-277/263

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) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 7=134.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ06	Roof Special Girder	1	1	I58813619 Job Reference (optional)

RELEASE FOR CONSTRUCTION
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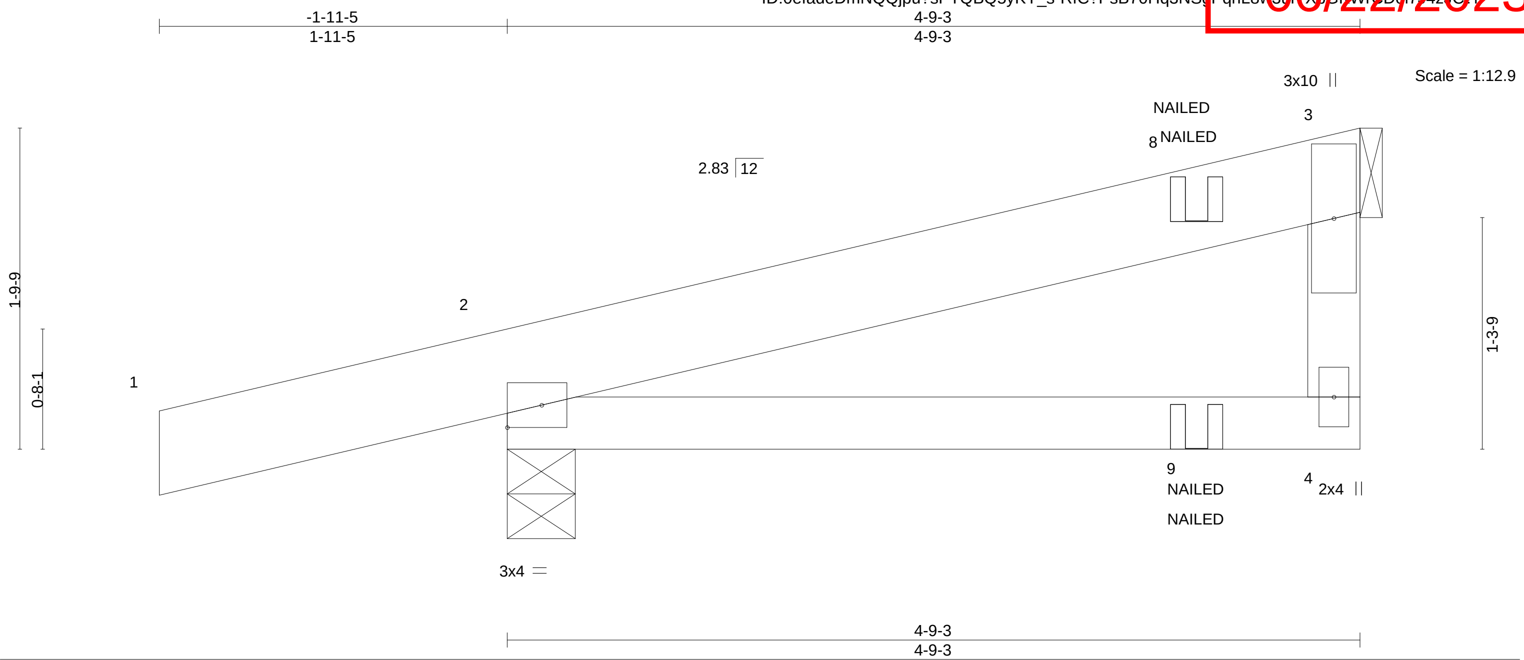

Plate Offsets (X,Y)-- [2:Edge,0-1-8]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 19 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-9, 3=Mechanical
Max Horz 2=62(LC 4)
Max Uplift 2=-117(LC 4), 3=-39(LC 8)
Max Grav 2=372(LC 1), 3=175(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=117.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ07	Jack-Open	1	1	Job Reference (optional)

I58813620

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:54 2023 Page 1
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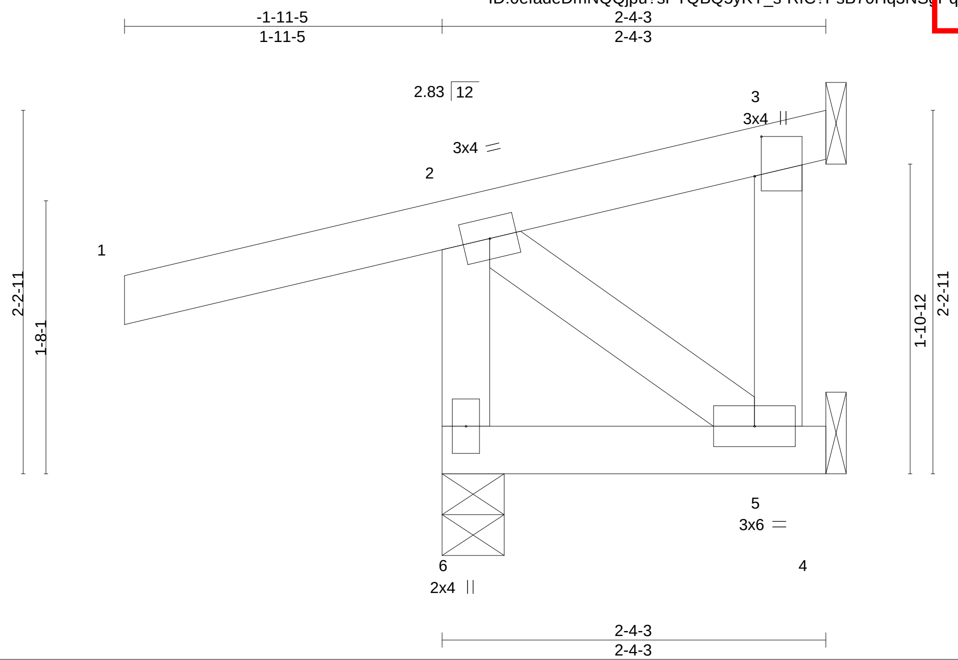

Plate Offsets (X,Y)-- [3:0-2-15,0-0-8]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-4-9, 3=Mechanical, 5=Mechanical
Max Horz 6=47(LC 9)
Max Uplift 6=-114(LC 8), 3=-13(LC 1), 5=-14(LC 9)
Max Grav 6=312(LC 1), 3=20(LC 8), 5=51(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-293/245

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) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5 except (jt=lb) 6=114.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ08	Roof Special Girder	1	1	I58813621 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:56 2023 Page 1
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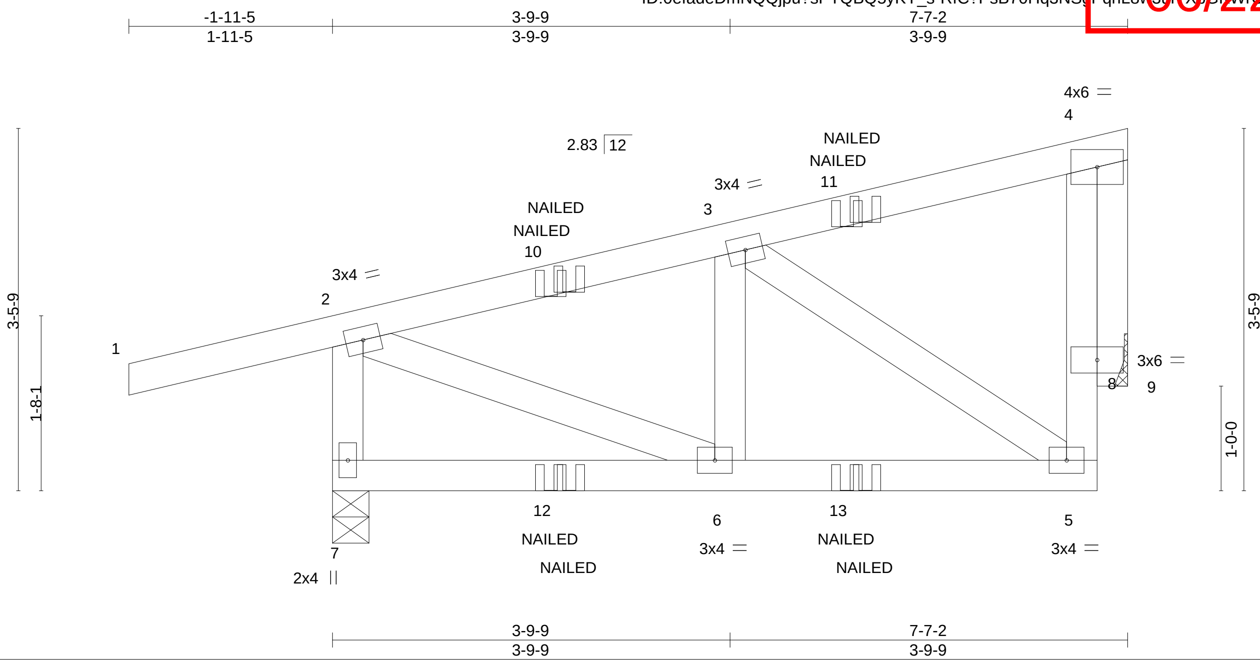

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 37 lb	FT = 20%

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

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

REACTIONS. (size) 7=0-4-3, 9=Mechanical
Max Horz 7=88(LC 5)
Max Uplift 7=-179(LC 4), 9=-109(LC 8)
Max Grav 7=498(LC 1), 9=296(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-325/94, 2-7=-476/176
BOT CHORD 5-6=-122/281
WEBS 3-5=-278/130, 2-6=-76/302, 4-9=-303/111

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=179, 9=109.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-12(F) 12=16(F=-12, B=28) 13=-21(F=-13, B=-9)

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ10	Jack-Open	1	1	I58813622 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:48:57 2023 Page 1

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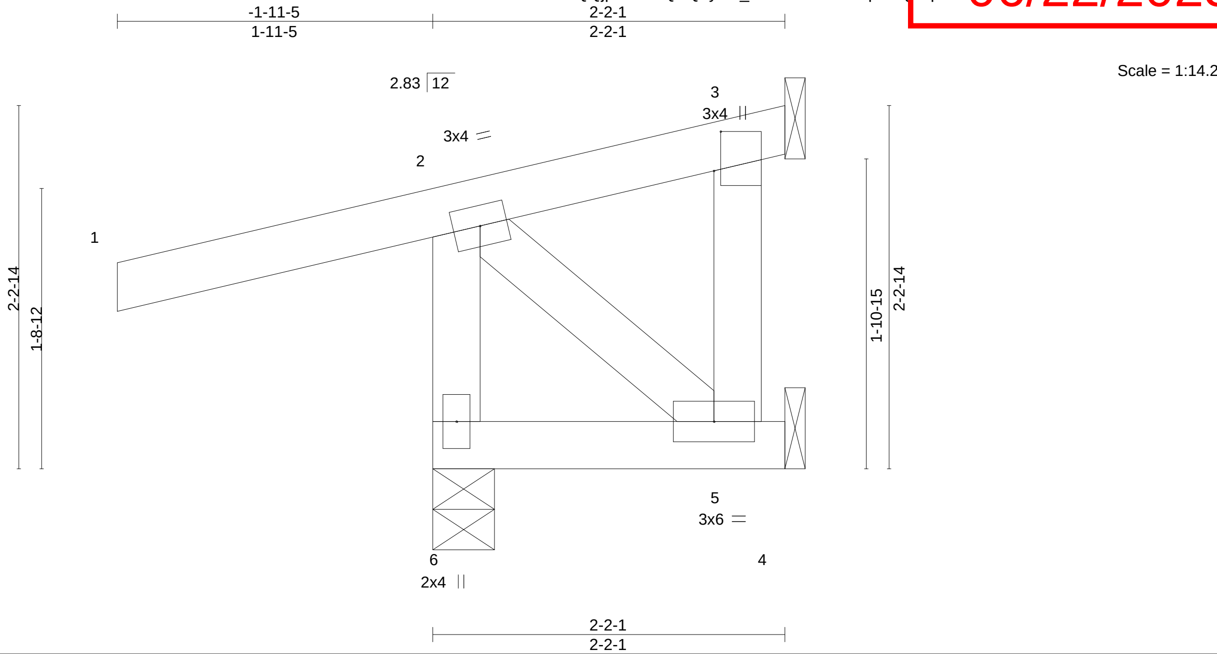

Plate Offsets (X,Y)-- [3:0-2-15,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-4-9, 3=Mechanical, 5=Mechanical
Max Horz 6=47(LC 9)
Max Uplift 6=-116(LC 8), 3=-28(LC 1), 5=-18(LC 9)
Max Grav 6=312(LC 1), 3=27(LC 8), 5=47(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-295/247

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) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5 except (jt=lb) 6=116.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	CJ11	Jack-Open	1	1	I58813623 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:58 2023 Page 1
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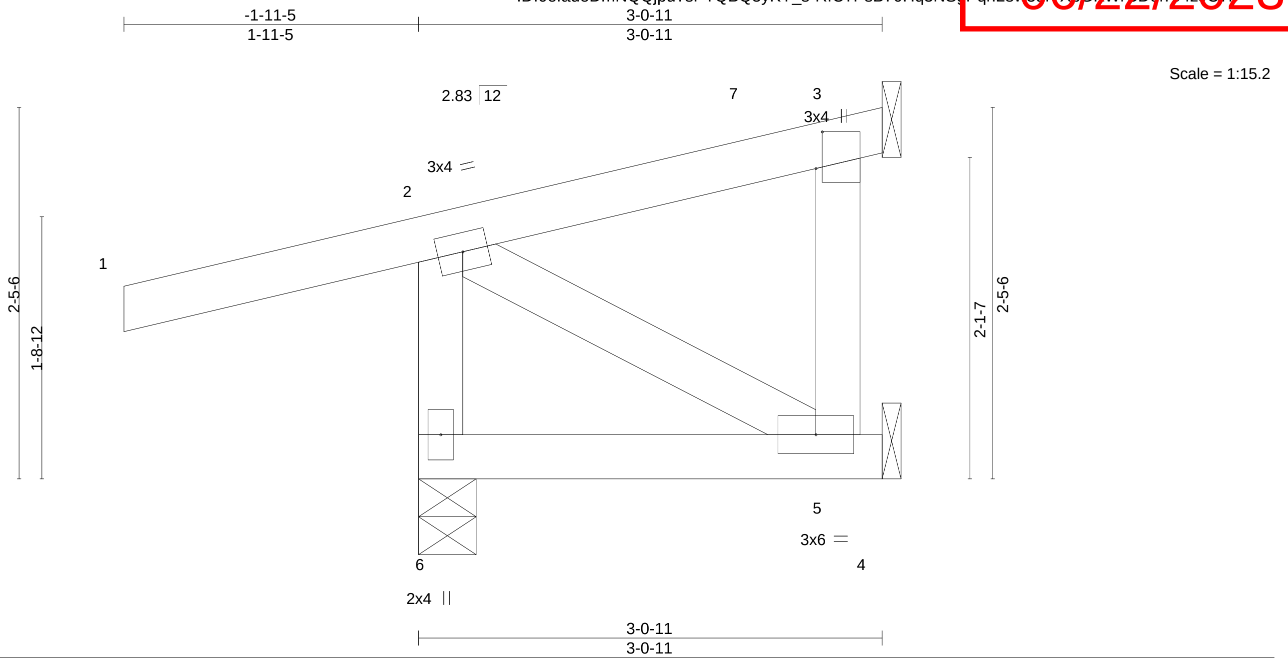

Plate Offsets (X,Y)-- [3:0-2-15,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 16 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-4-9, 3=Mechanical, 5=Mechanical
Max Horz 6=52(LC 9)
Max Uplift 6=-109(LC 8), 3=-17(LC 12), 5=-7(LC 9)
Max Grav 6=322(LC 1), 3=33(LC 1), 5=65(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-296/239

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) gable end zone and C-C Corner(3) -1-11-5 to 2-3-9, Exterior(2R) 2-3-9 to 2-9-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5 except (jt=lb) 6=109.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	F01	GABLE	1	1	I58813624 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:59 2023 Page 1
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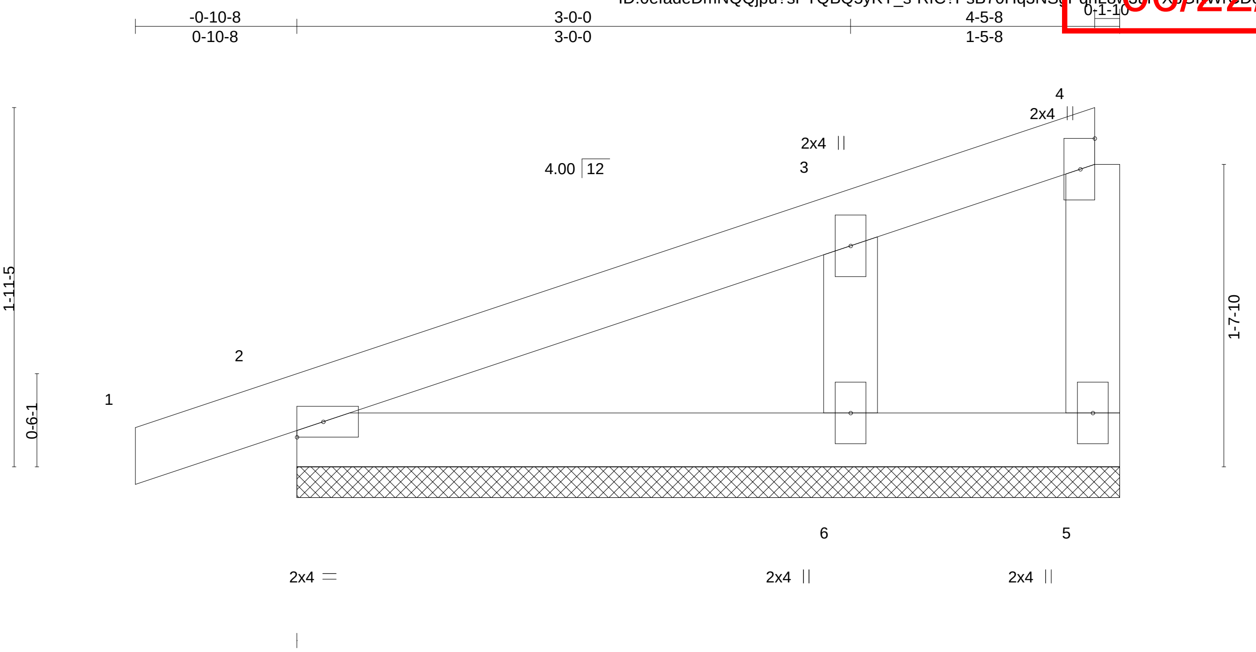


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 14 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=4-5-8, 2=4-5-8, 6=4-5-8
Max Horz 2=67(LC 9)
Max Uplift 5=-5(LC 11), 2=-48(LC 8), 6=-61(LC 12)
Max Grav 5=6(LC 1), 2=183(LC 1), 6=257(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-196/275

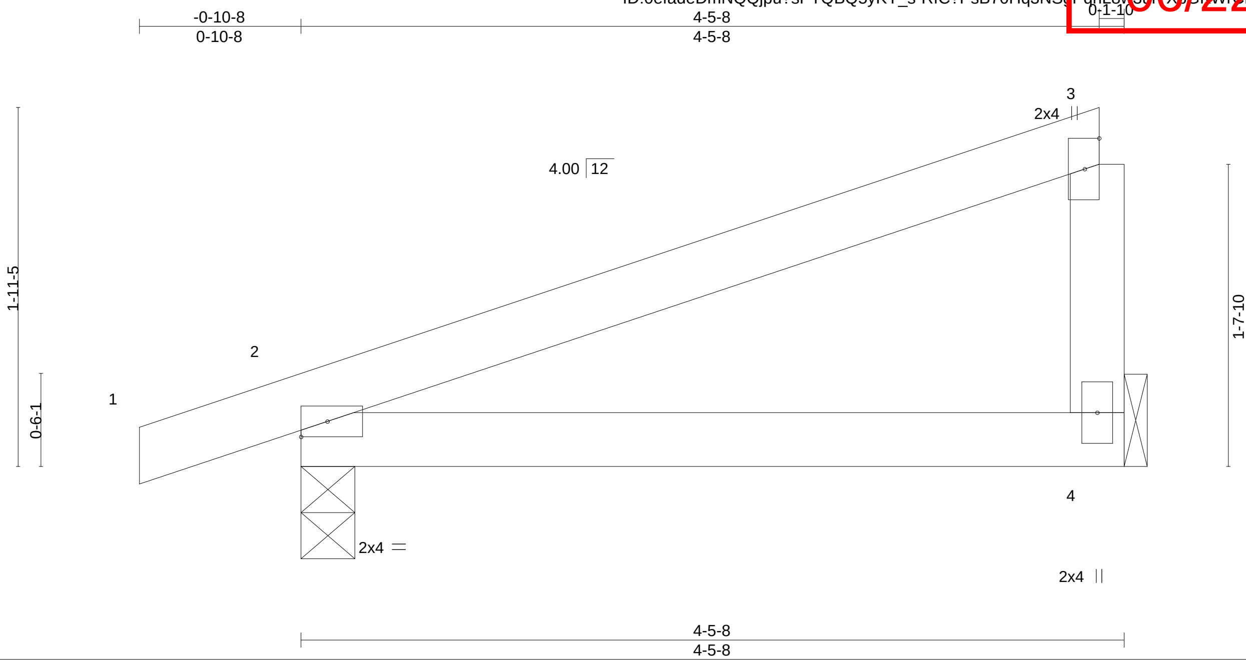
NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-3-5 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
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) 5, 2, 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	F02	Monopitch	7	1	I58813625 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:49:59 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8v3uITXbGKWrCDoI7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=68(LC 11)
Max Uplift 4=-39(LC 12), 2=-65(LC 8)
Max Grav 4=188(LC 1), 2=262(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	H01	GABLE	1	1	I58813626 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:01 2023 Page 1
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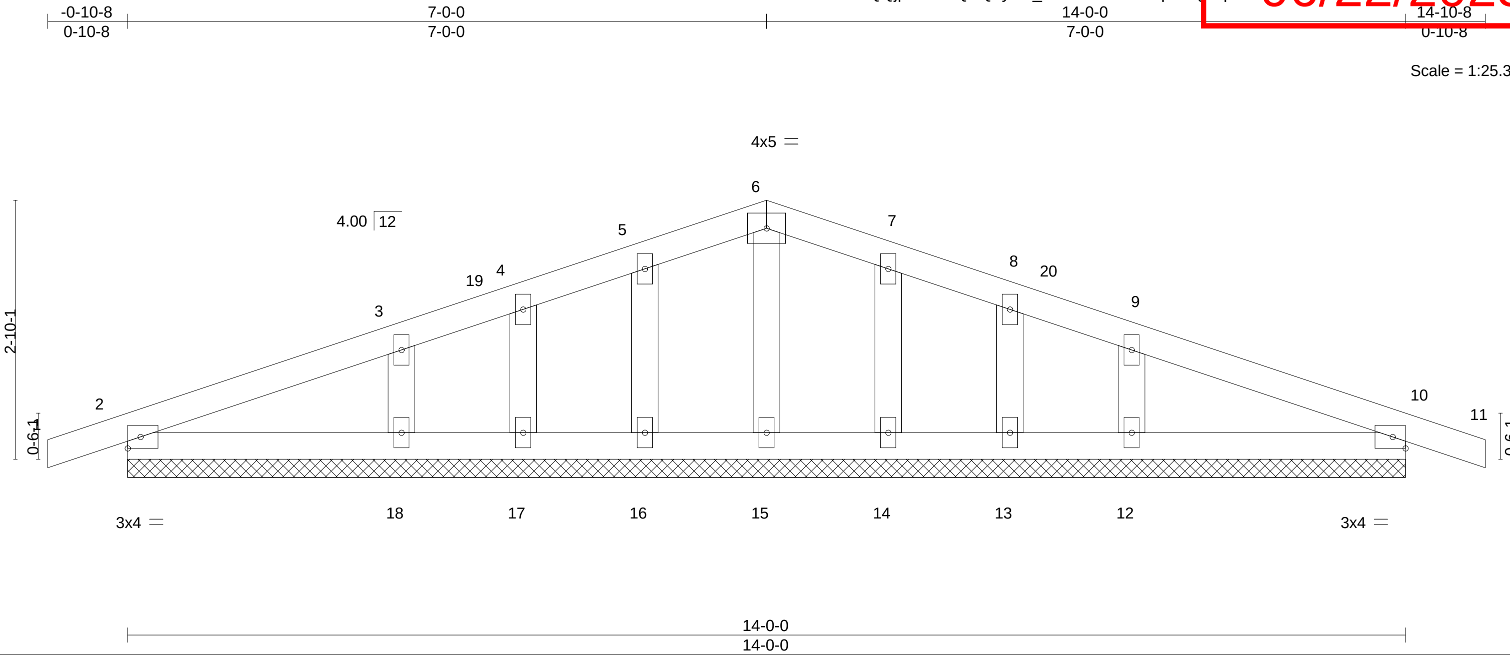

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	11	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	11	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 47 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 14-0-0.
(lb) - Max Horz 2=-42(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 14, 13 except 18=257(LC 25), 12=257(LC 26)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 7-0-0, Corner(3R) 7-0-0 to 10-0-0, Exterior(2N) 10-0-0 to 14-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 16, 17, 18, 14, 13, 12.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	H02	Common	2	1	I58813627 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:02 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrQDqi7J4zJC?f

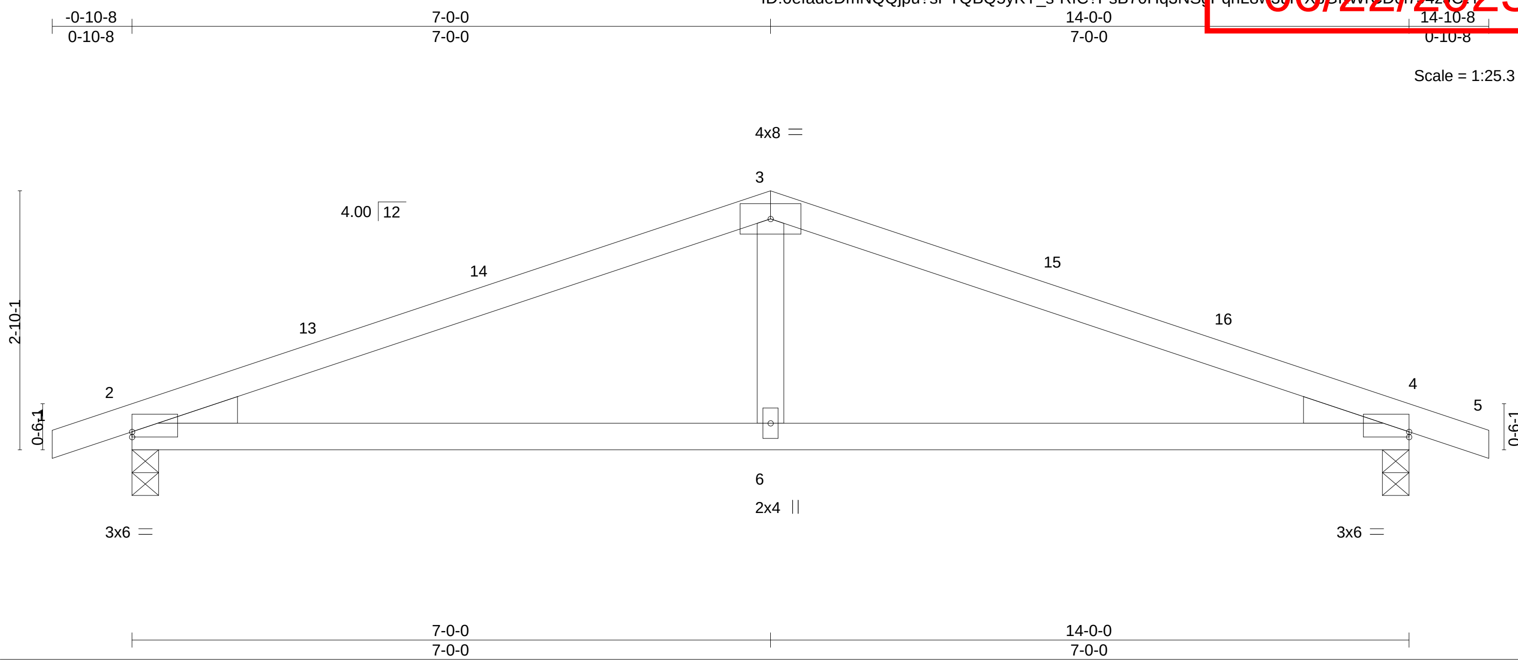

Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [4:0-0-0,0-0-11]

LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.07	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.13	6-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 40 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=-42(LC 17)
Max Uplift 2=-124(LC 8), 4=-124(LC 9)
Max Grav 2=691(LC 1), 4=691(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1114/307, 3-4=-1114/307
BOT CHORD 2-6=-211/988, 4-6=-211/988
WEBS 3-6=0/297

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) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=124, 4=124.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	H03	Common	2	1	I58813628 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:03 2023 Page 1
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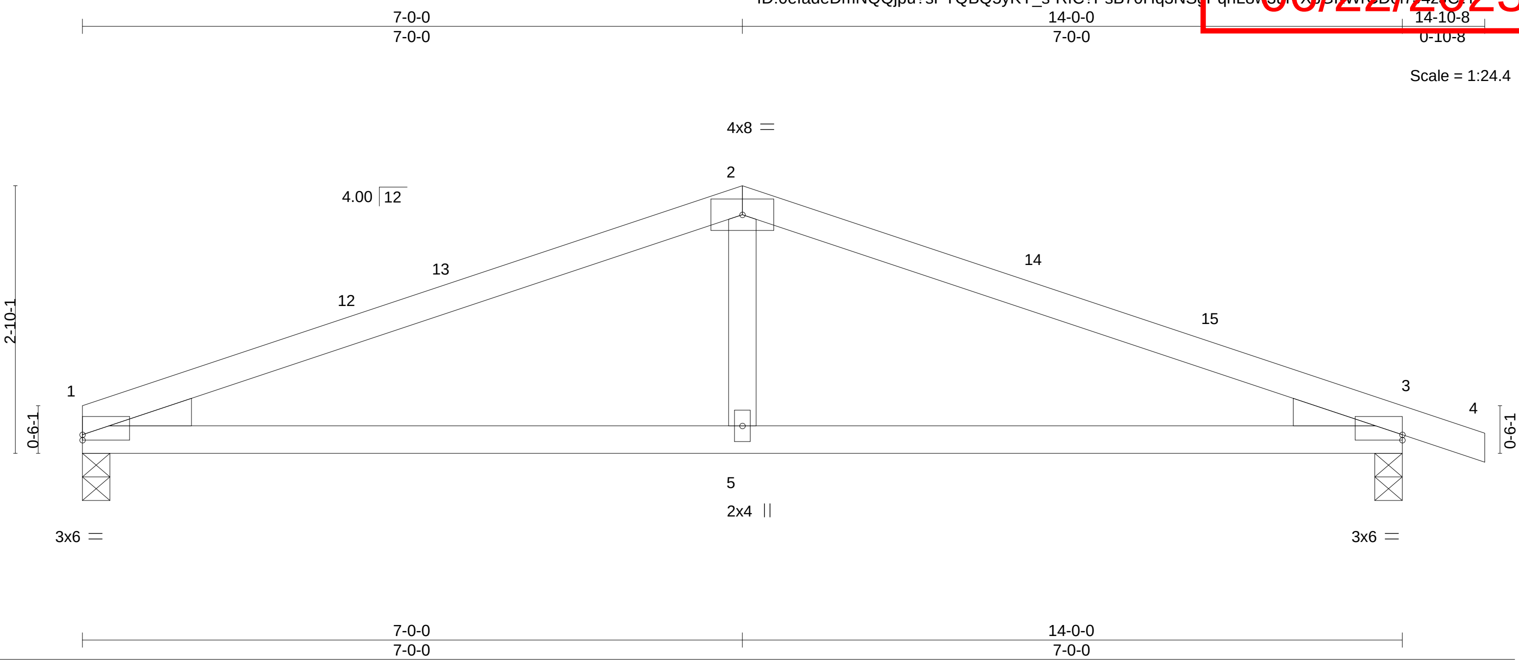

Plate Offsets (X,Y)-- [1:0-0-0,0-0-11], [3:Edge,0-0-11]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.08	5-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	5-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 39 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-3-8, 3=0-3-8
Max Horz 1=-46(LC 13)
Max Uplift 1=-91(LC 8), 3=-124(LC 9)
Max Grav 1=628(LC 1), 3=693(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1121/317, 2-3=-1122/309
BOT CHORD 1-5=-215/995, 3-5=-215/995
WEBS 2-5=0/298

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) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 3=124.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J01	Jack-Partial	9	1	I58813629 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:04 2023 Page 1

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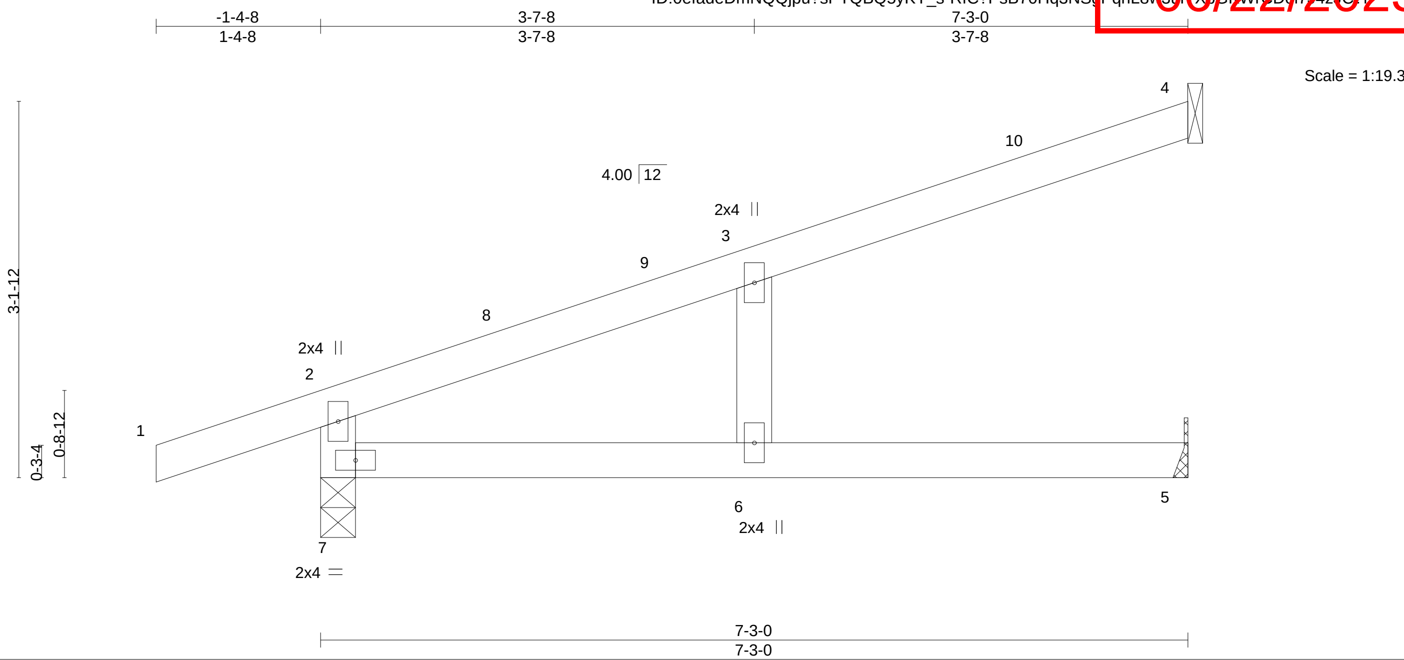
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	0.18	6	>472	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.30	6	>283	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.06	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 7=0-3-8
Max Horz 7=104(LC 8)
Max Uplift 4=-63(LC 8), 5=-10(LC 12), 7=-99(LC 8)
Max Grav 4=190(LC 1), 5=117(LC 3), 7=435(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-313/149

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 7-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Refer to girder(s) for truss to truss connections.
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J02	Jack-Open	2	1	I58813630 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:05 2023 Page 1

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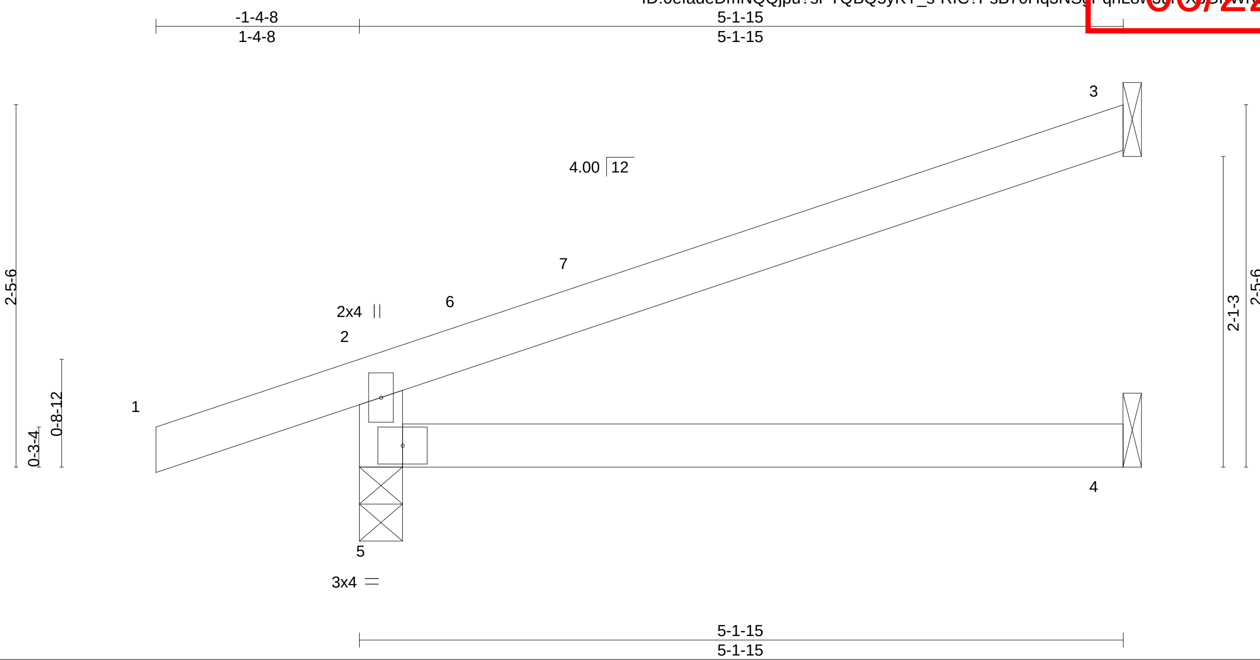

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.03	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.06	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=78(LC 8)
Max Uplift 3=-62(LC 12), 5=-88(LC 8)
Max Grav 3=152(LC 1), 4=91(LC 3), 5=346(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-302/184

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 5-1-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J03	Jack-Open	2	1	I58813631 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:06 2023 Page 1

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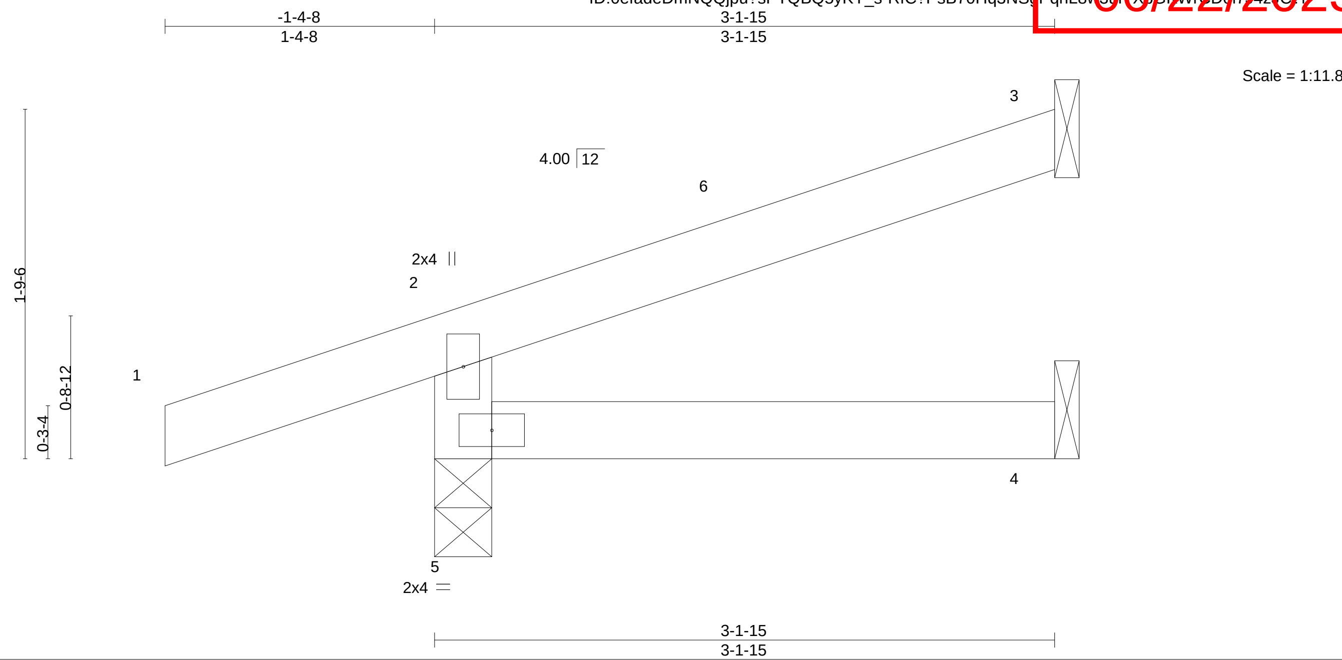

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-15 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=54(LC 8)
Max Uplift 3=-35(LC 12), 5=-81(LC 8)
Max Grav 3=80(LC 1), 4=53(LC 3), 5=267(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 3-1-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J04	Jack-Open	2	1	I58813632 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:06 2023 Page 1

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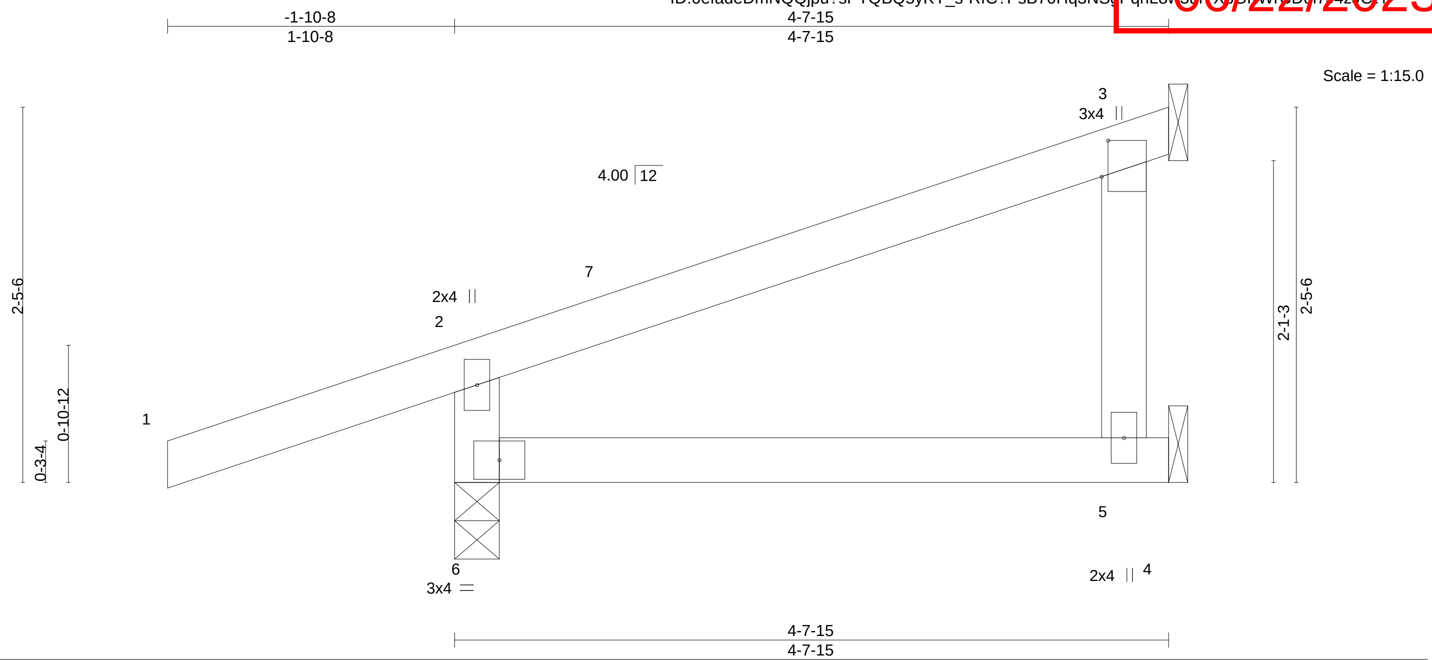

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	0.02	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 16 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=75(LC 8)
Max Uplift 3=-52(LC 12), 6=-108(LC 8)
Max Grav 5=88(LC 3), 3=117(LC 1), 6=365(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-320/201

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-4-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=108.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

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

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J05	Jack-Open	2	1	I58813633 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:07 2023 Page 1
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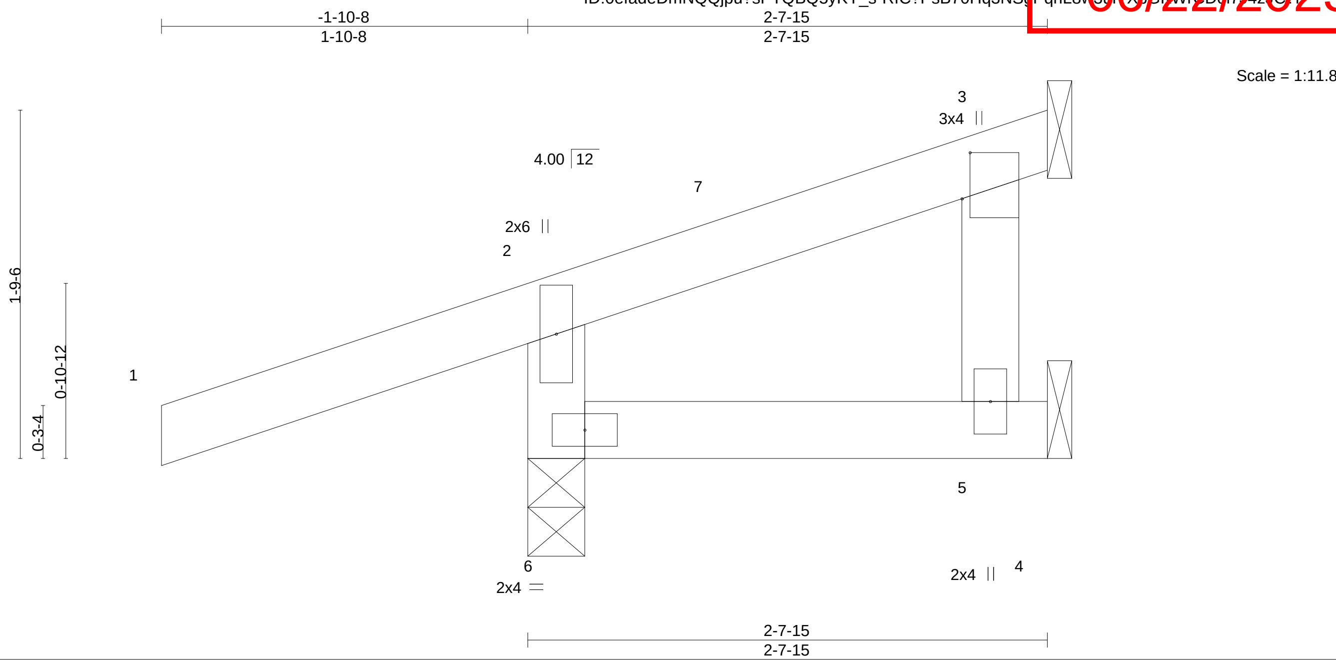

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=50(LC 8)
Max Uplift 3=-21(LC 12), 6=-111(LC 8)
Max Grav 5=49(LC 3), 3=32(LC 1), 6=305(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-265/210

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-4-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=111.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J06	Jack-Open	6	1	I58813634 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:08 2023 Page 1
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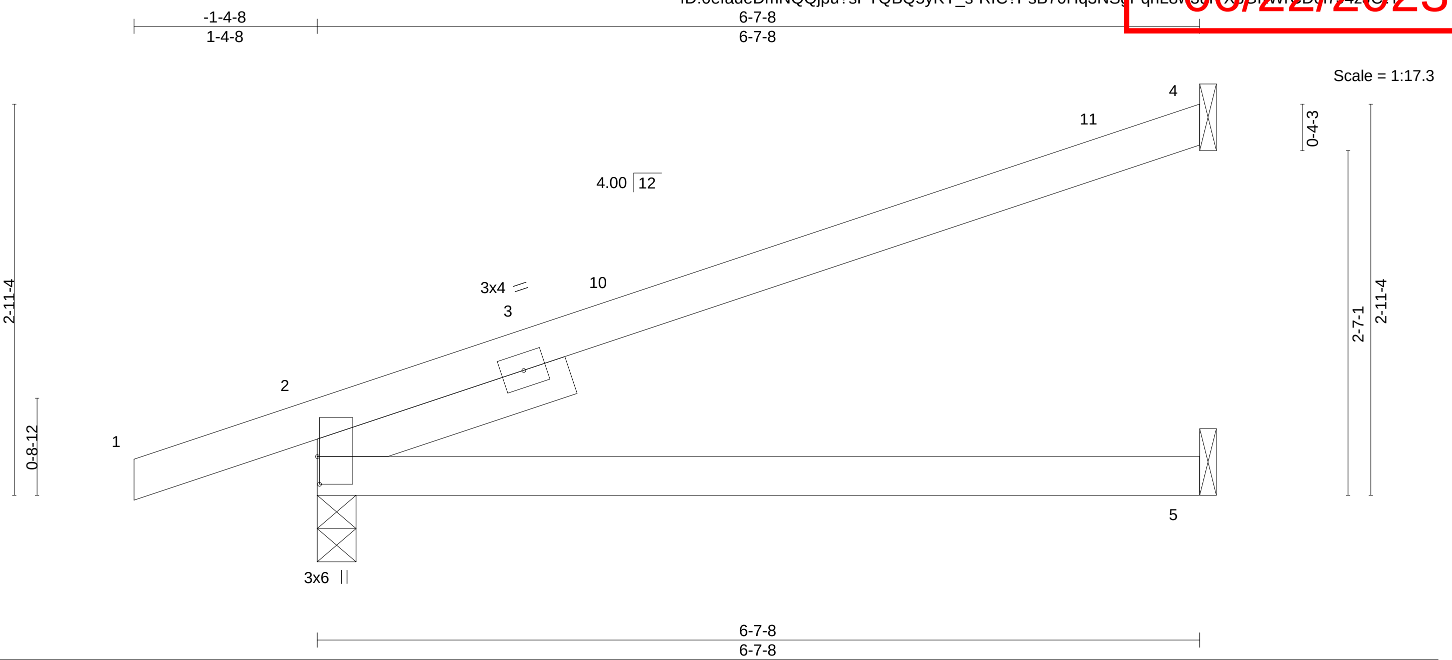

Plate Offsets (X,Y)-- [2:0-2-8,0-0-3]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	0.09	5-8	>833	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.18	5-8	>448	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=103(LC 8)
Max Uplift 4=-77(LC 8), 2=-90(LC 8)
Max Grav 4=203(LC 1), 2=402(LC 1), 5=116(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-350/52

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 6-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J07	Jack-Open	5	1	I58813635 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:09 2023 Page 1
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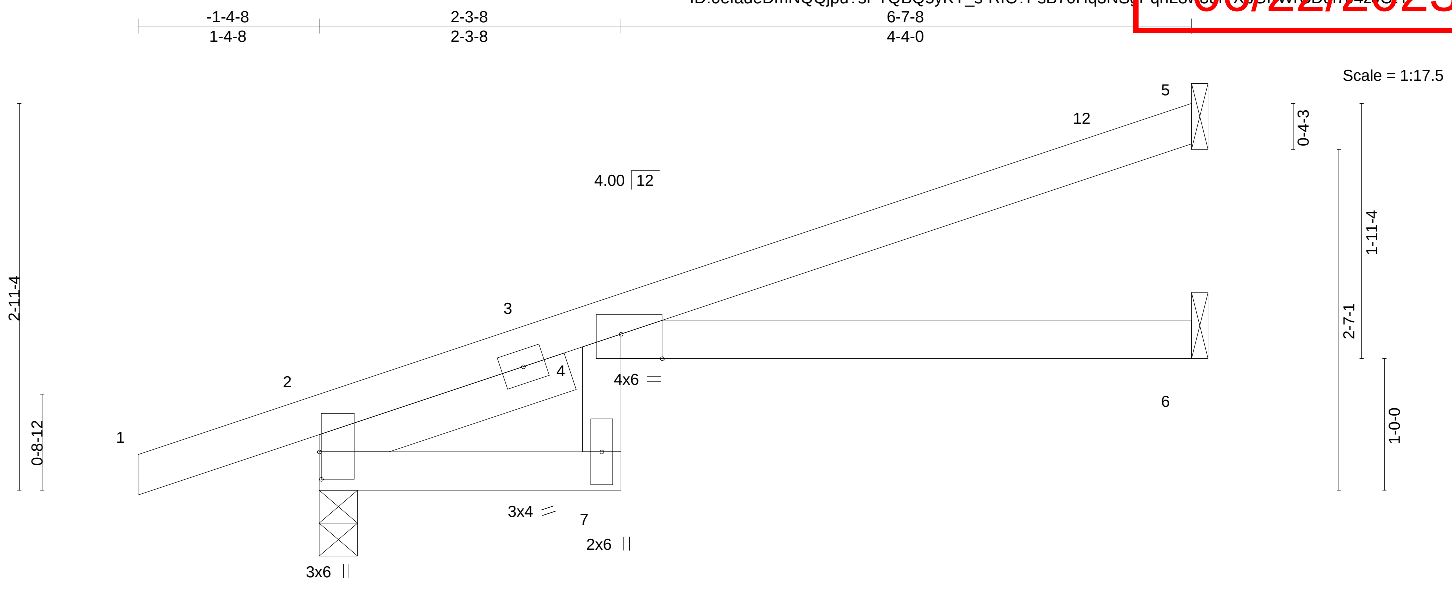

Plate Offsets (X,Y)-- [2:0-2-8,0-0-3], [4:0-3-12,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	0.14	4-6	>554	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.23	4-6	>345	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.12	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=103(LC 8)
Max Uplift 5=-65(LC 8), 2=-90(LC 8), 6=-3(LC 12)
Max Grav 5=187(LC 1), 2=402(LC 1), 6=112(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-9=-270/140

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 6-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J08	Half Hip	1	1	I58913636 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:53:10 2023 Page 1
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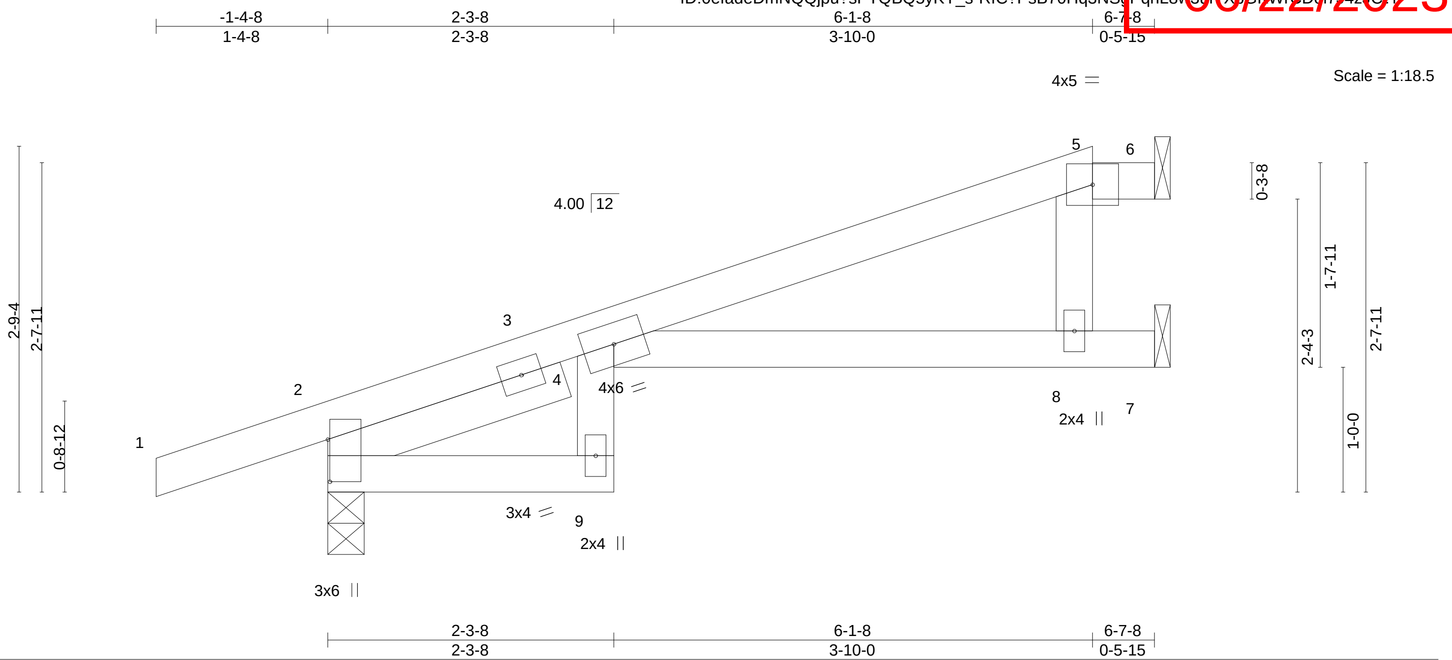

Plate Offsets (X,Y)-- [2:0-4-1,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	0.21	9	>380	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.30	9	>259	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.18	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 22 lb	FT = 20%

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

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

REACTIONS. (size) 6=Mechanical, 2=0-3-8, 7=Mechanical
Max Horz 2=93(LC 8)
Max Uplift 6=-5(LC 8), 2=-94(LC 8), 7=-58(LC 8)
Max Grav 6=15(LC 1), 2=402(LC 1), 7=270(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-11=-282/167
WEBS 5-8=-260/217

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 6-1-8, Exterior(2E) 6-1-8 to 6-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J09	Jack-Open	1	1	I58813637 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:11 2023 Page 1

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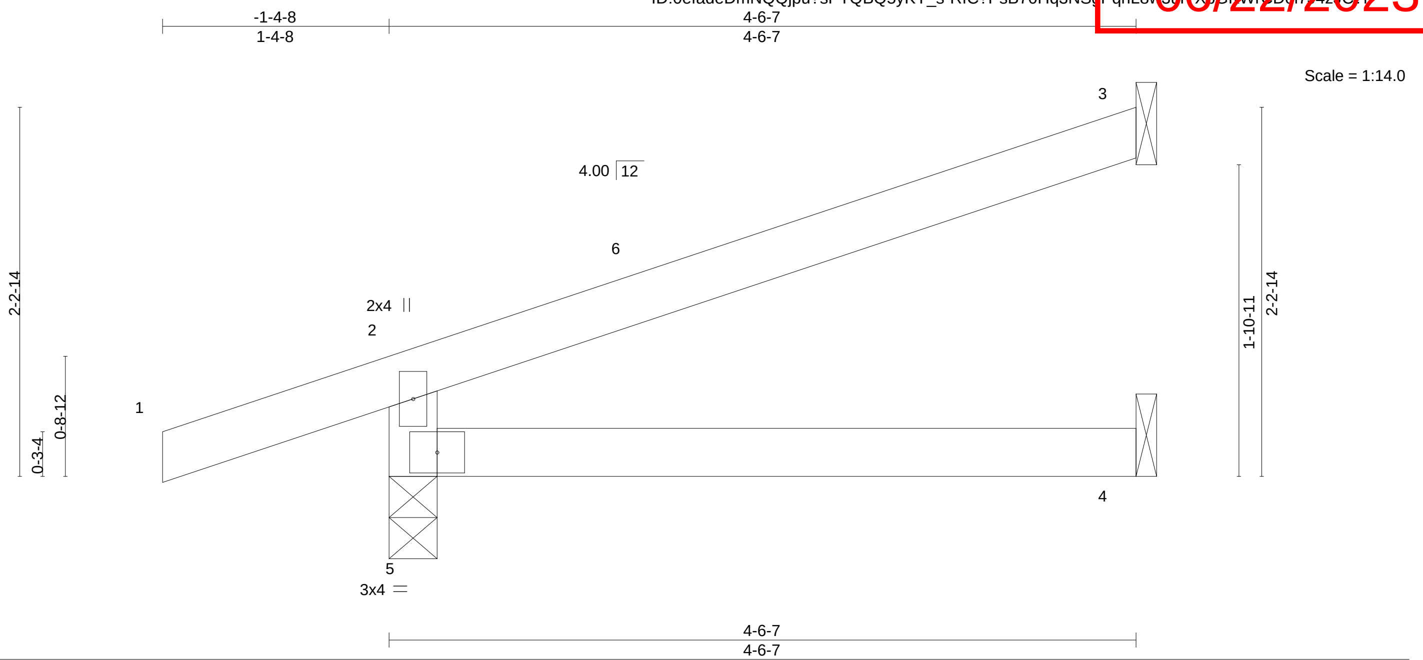

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.02	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.03	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=70(LC 8)
Max Uplift 3=-54(LC 12), 5=-85(LC 8)
Max Grav 3=130(LC 1), 4=79(LC 3), 5=320(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-280/175

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 4-5-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J10	Jack-Open	1	1	I58813638 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:12 2023 Page 1

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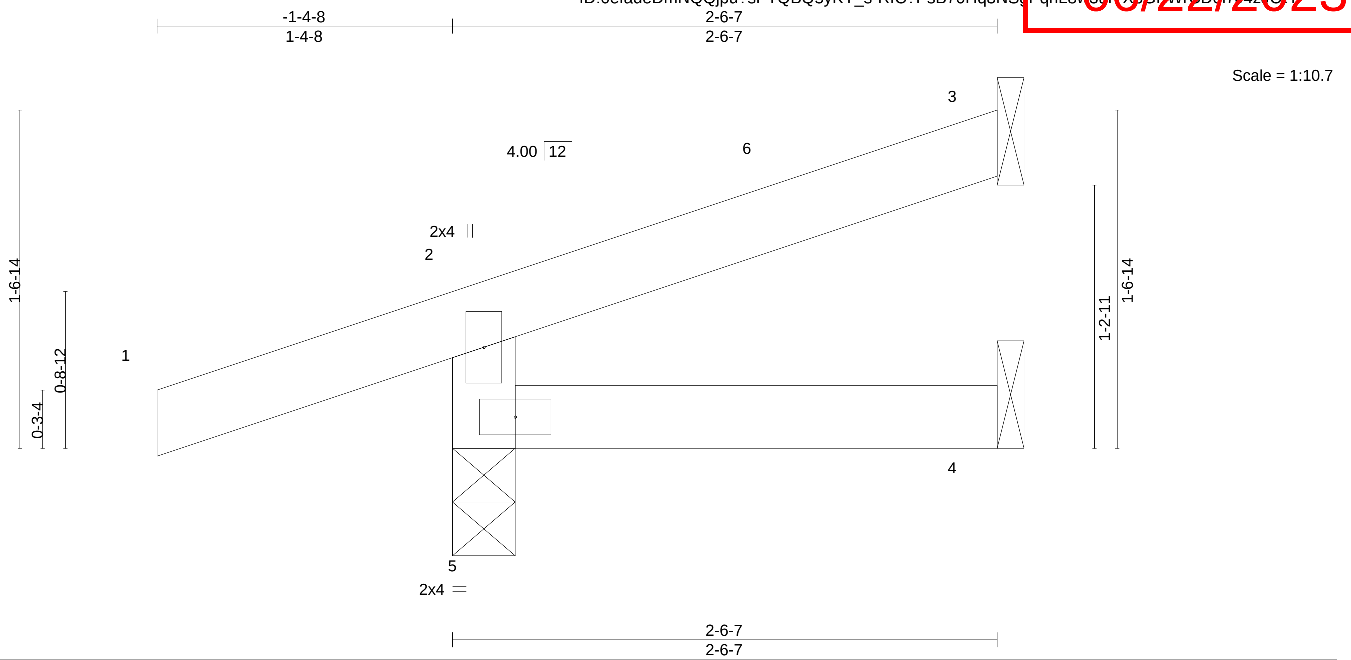

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 8 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-7 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=46(LC 8)
Max Uplift 3=-27(LC 12), 5=-81(LC 8)
Max Grav 3=55(LC 1), 4=41(LC 3), 5=246(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 2-5-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J11	Jack-Open	1	1	Job Reference (optional) I58813639

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:13 2023 Page 1
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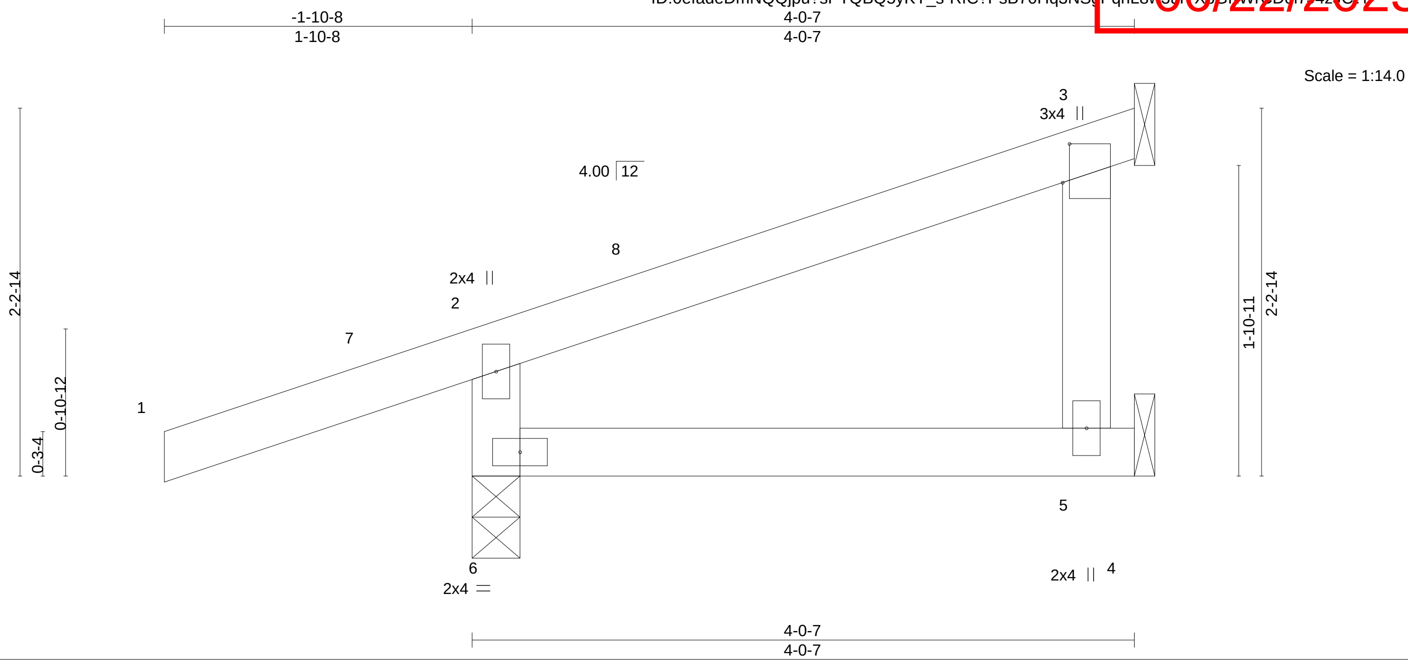

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=67(LC 8)
Max Uplift 3=-43(LC 12), 6=-107(LC 8)
Max Grav 5=76(LC 3), 3=93(LC 1), 6=343(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-300/194

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) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-8-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=107.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J12	Jack-Open	1	1	I58813640 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:14 2023 Page 1
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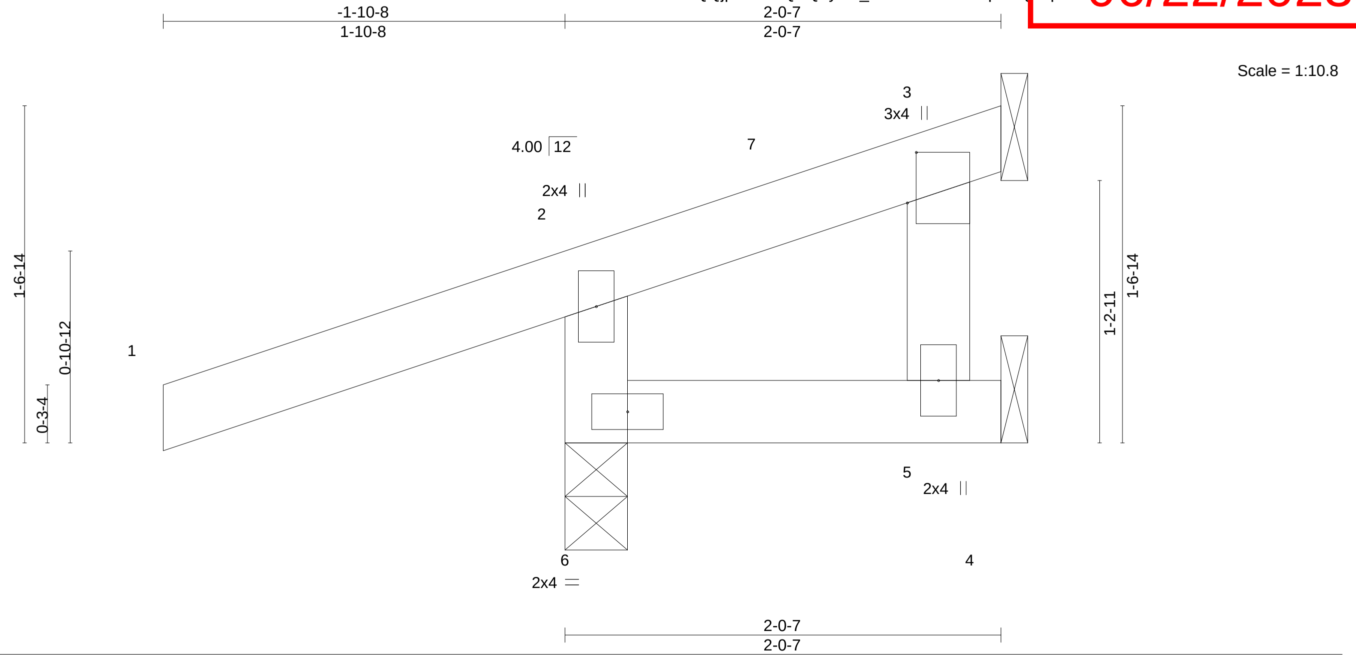

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 9 lb	FT = 20%

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

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

REACTIONS. (size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=40(LC 8)
Max Uplift 5=-7(LC 25), 3=-45(LC 25), 6=-120(LC 8)
Max Grav 5=35(LC 3), 3=7(LC 8), 6=302(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-261/188

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-8-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3 except (jt=lb) 6=120.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J13	Half Hip	1	1	I58813641 Job Reference (optional)

Builders First Source, Valley Center, KS 67147

8.630 s Nov 21 2022 MiTek Industries, Inc. Thu Jun 8 14:07:21 2023 Page 1

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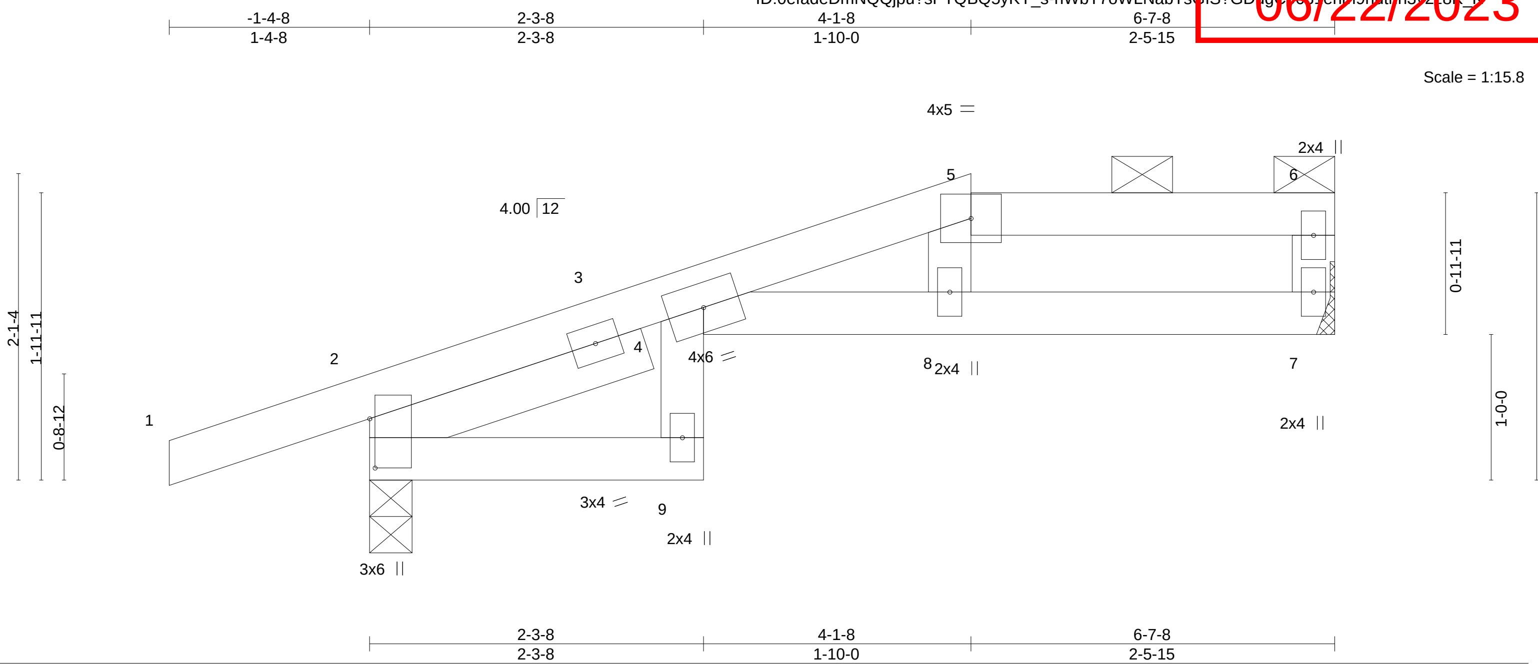

Plate Offsets (X,Y)-- [2:0-4-1,0-0-7]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	0.21	4-8	>376	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.33	4-8	>233	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.15	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (size) 7=Mechanical, 2=0-3-8
Max Horz 2=55(LC 8)
Max Uplift 7=-53(LC 8), 2=-103(LC 8)
Max Grav 7=281(LC 1), 2=398(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-11=-270/209
WEBS 5-8=-369/277

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 4-1-8, Exterior(2E) 4-1-8 to 6-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 7 and 103 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J14	Half Hip Girder	1	1	Job Reference (optional)

I58813642

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:16 2023 Page 1

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Scale = 1:15.4

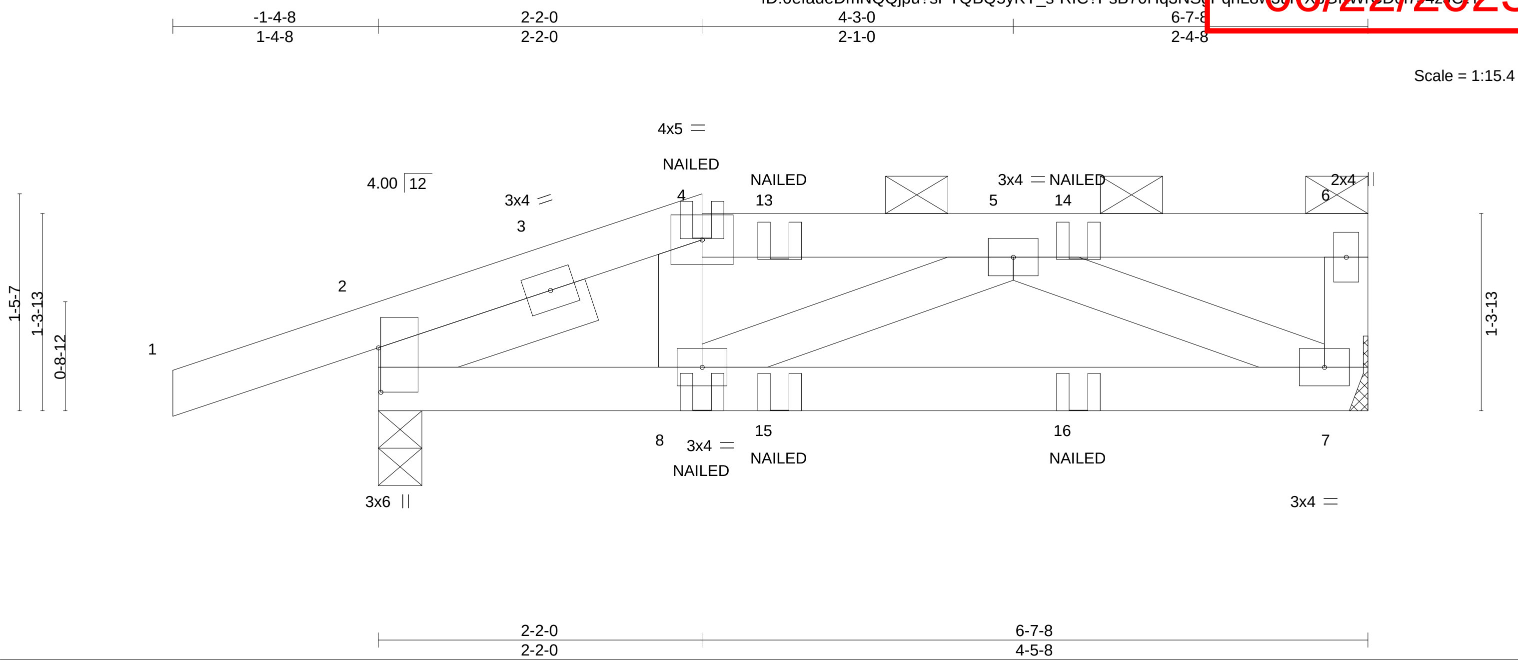

Plate Offsets (X,Y)-- [2:0-3-9,0-0-3]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 1-6-0

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.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=43(LC 7)
Max Uplift 2=-107(LC 4), 7=-51(LC 5)
Max Grav 2=394(LC 1), 7=276(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-381/45, 4-5=-345/50
BOT CHORD 2-8=-51/349, 7-8=-100/372
WEBS 5-7=-410/102

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=107.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 4-6=-70, 7-9=-20
Concentrated Loads (lb)
Vert: 8=-1(F) 15=5(F) 16=5(F)

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J15	Jack-Open Girder	1	1	I58813643 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:17 2023 Page 1
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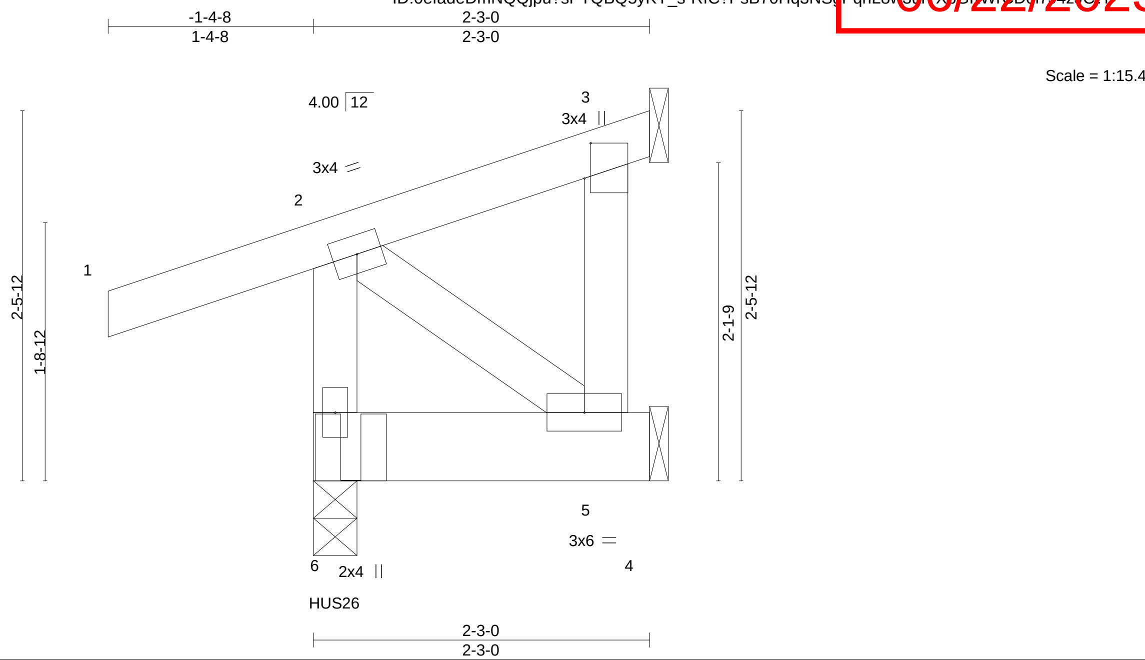

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 14 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=52(LC 5)
Max Uplift 6=-261(LC 4), 3=-11(LC 8), 5=-19(LC 5)
Max Grav 6=1544(LC 1), 3=19(LC 1), 5=49(LC 3)

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) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5 except (jt=lb) 6=261.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 0-1-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
9) Fill all nail holes where hanger is in contact with lumber.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-6=-20
Concentrated Loads (lb)
Vert: 6=-1312(F)

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J16	Jack-Open	1	1	I58813644 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:18 2023 Page 1
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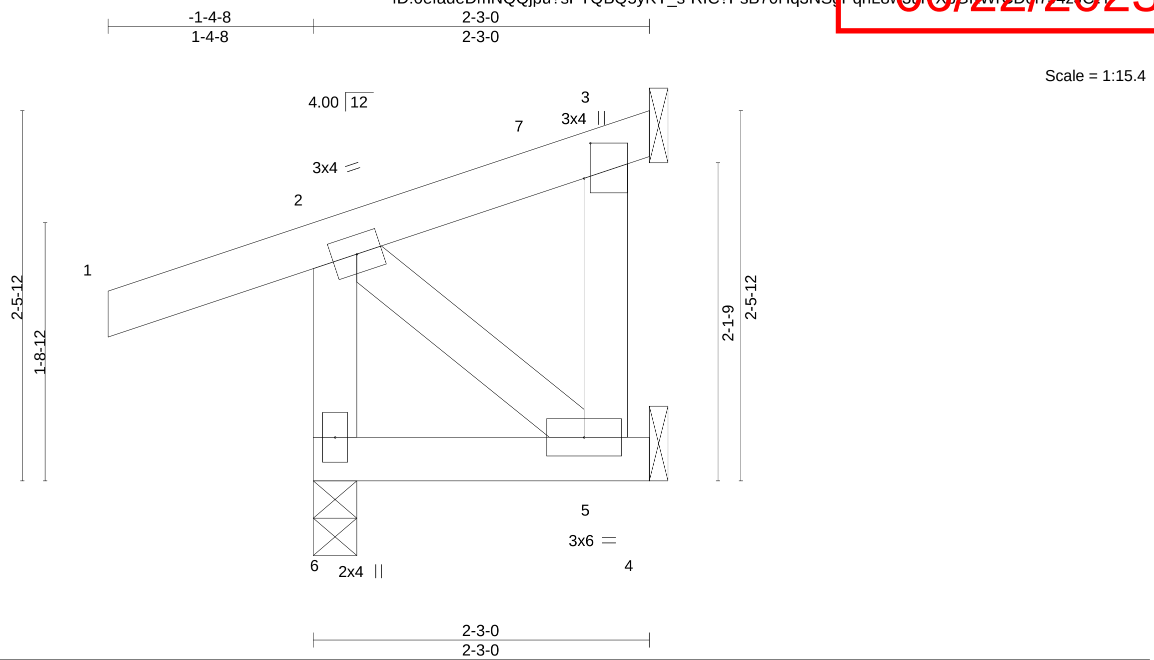


Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=54(LC 9)
Max Uplift 6=-65(LC 8), 3=-11(LC 12), 5=-22(LC 9)
Max Grav 6=232(LC 1), 3=19(LC 1), 5=49(LC 3)

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

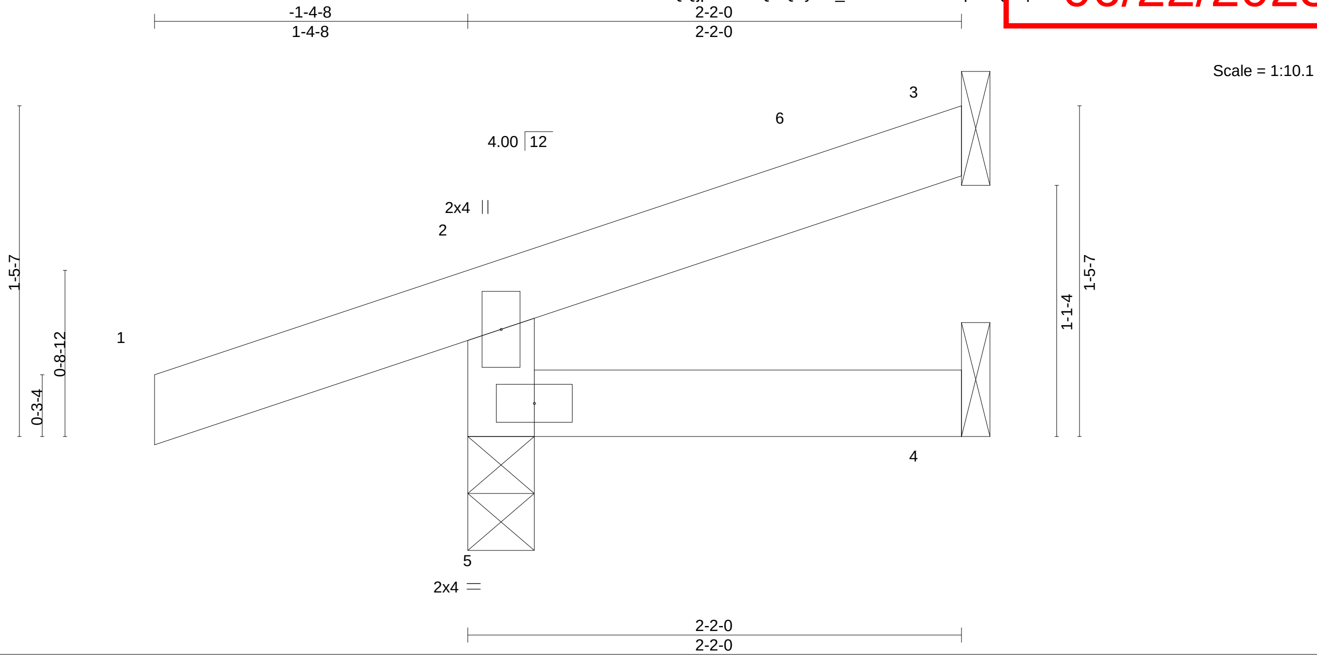
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 1-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	J17	Jack-Open	2	1	I58813645 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:52:19 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoI7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 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=42(LC 8)
Max Uplift 3=-21(LC 12), 5=-82(LC 8)
Max Grav 3=38(LC 1), 4=33(LC 3), 5=236(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 2-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

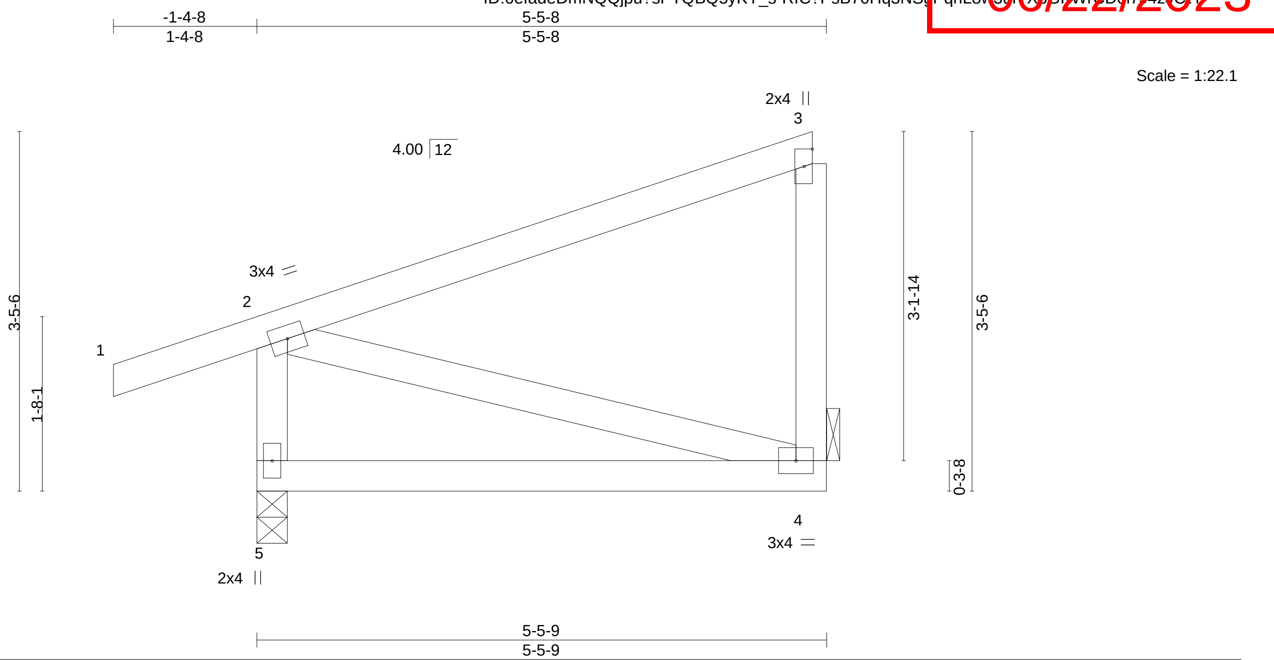
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K01	Monopitch	3	1	I58813646 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:20 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.04	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.09	4-5	>725	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 25 lb	FT = 20%

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

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

REACTIONS. (size) 5=0-3-8, 4=Mechanical
Max Horz 5=128(LC 11)
Max Uplift 5=-94(LC 8), 4=-50(LC 9)
Max Grav 5=355(LC 1), 4=217(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-303/225

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 5-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

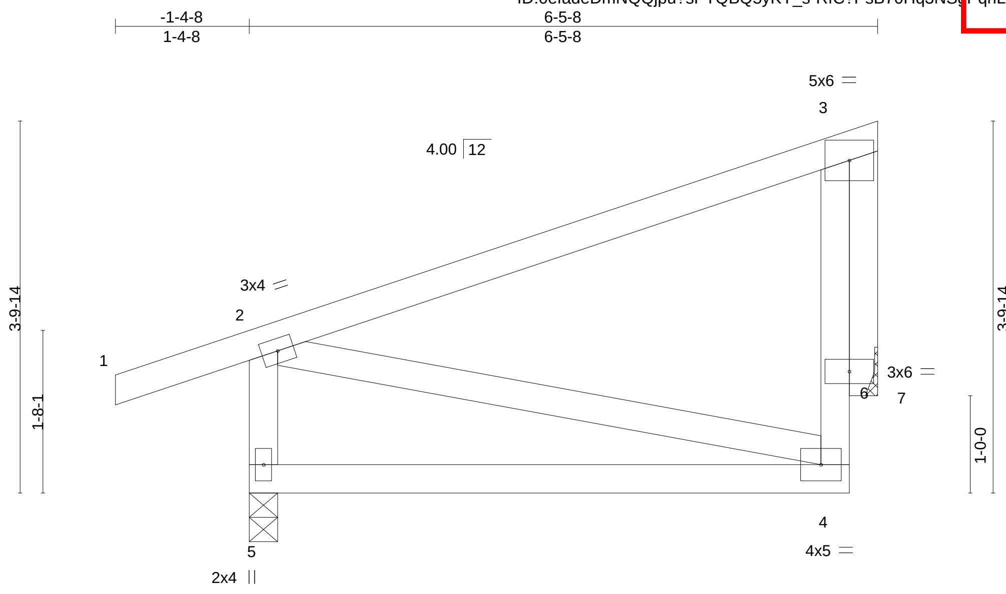
June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K02	Monopitch	1	1	I58813647 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:21 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.07	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.14	4-5	>521	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 31 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 5=0-3-8, 7=Mechanical
Max Horz 5=99(LC 9)
Max Uplift 5=-85(LC 8), 7=-69(LC 12)
Max Grav 5=400(LC 1), 7=236(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-341/216

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 6-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K03	Half Hip	1	1	I58813648 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:22 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8v3u1Xo...

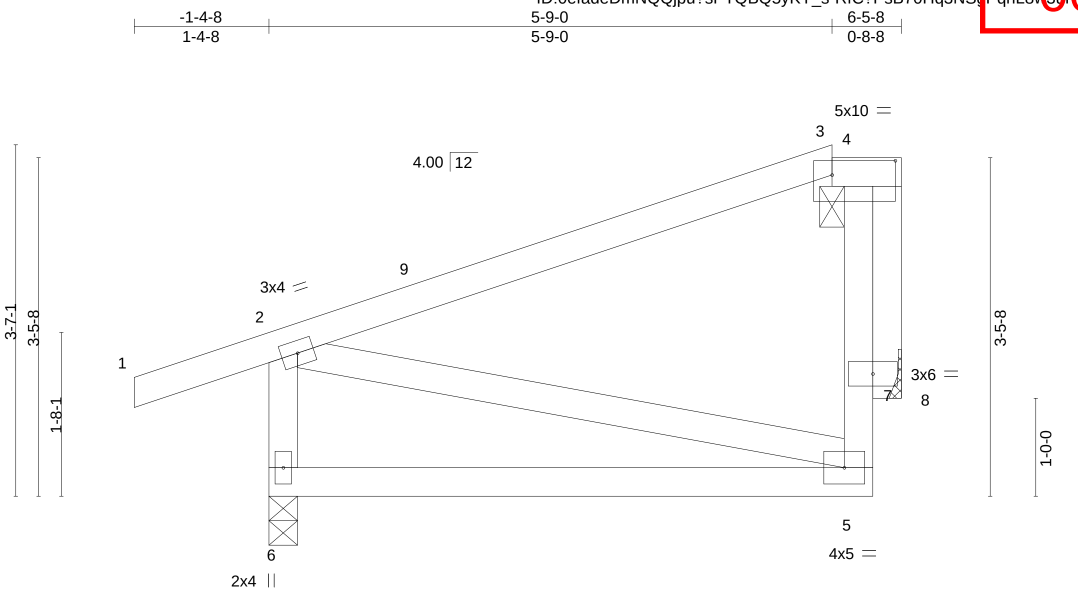


Plate Offsets (X,Y)-- [3:0-7-12,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.07	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.14	5-6	>522	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 30 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 8=Mechanical
Max Horz 6=95(LC 9)
Max Uplift 6=-87(LC 8), 8=-58(LC 12)
Max Grav 6=400(LC 1), 8=236(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-341/177

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

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

June 9,2023

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows I58813649
3542878	K04	Half Hip	1	1	Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:23 2023 Page 1
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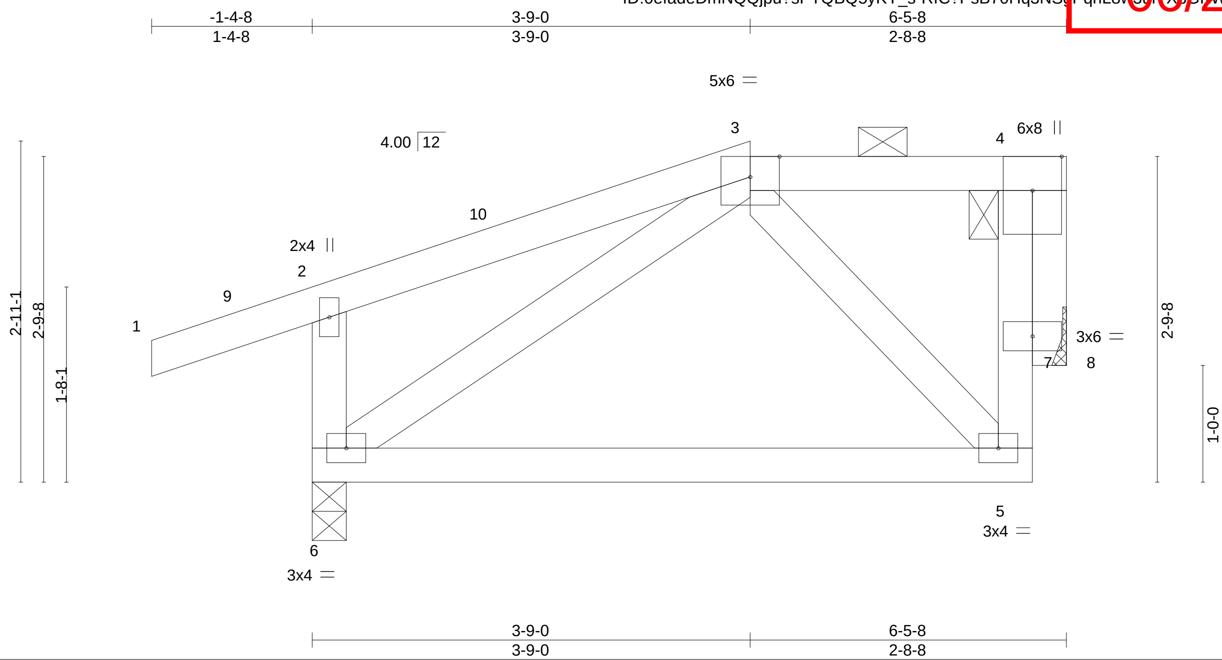


LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.07	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.14	5-6	>522	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 30 lb	FT = 20%

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

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

REACTIONS. (size) 6=0-3-8, 8=Mechanical
Max Horz 6=77(LC 9)
Max Uplift 6=-100(LC 8), 8=-51(LC 8)
Max Grav 6=400(LC 1), 8=236(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-255/207

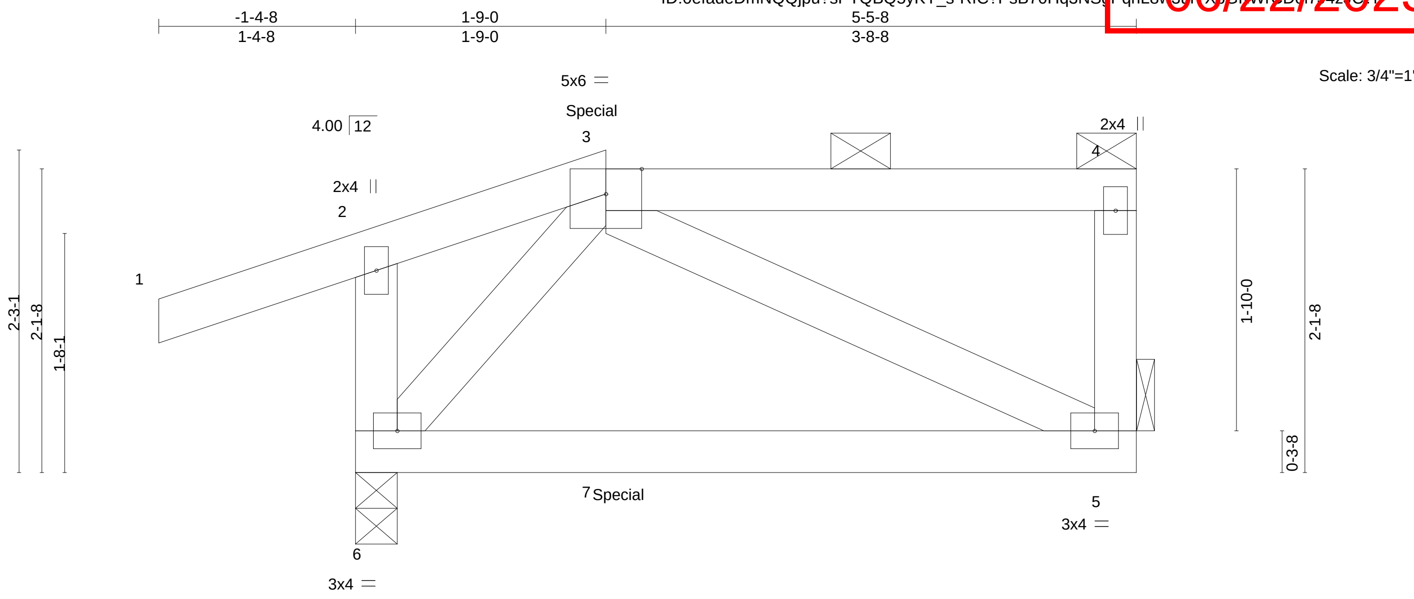
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 3-9-0, Exterior(2E) 3-9-0 to 6-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

June 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K05	Half Hip Girder	1	1	I58813650 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:53:24 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.04	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.07	5-6	>844	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 24 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-5-8 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) 6=0-3-8, 5=Mechanical
Max Horz 6=74(LC 7)
Max Uplift 6=-121(LC 4), 5=-63(LC 5)
Max Grav 6=317(LC 1), 5=200(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=121.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 82 lb down and 112 lb up at 1-9-0 on top chord, and 10 lb down and 24 lb up at 1-9-0, and 15 lb down and 44 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 3=32(B) 7=22(B)

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

June 9,2023

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/22/2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K06	Jack-Open	1	1	I58813651 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:25 2023 Page 1
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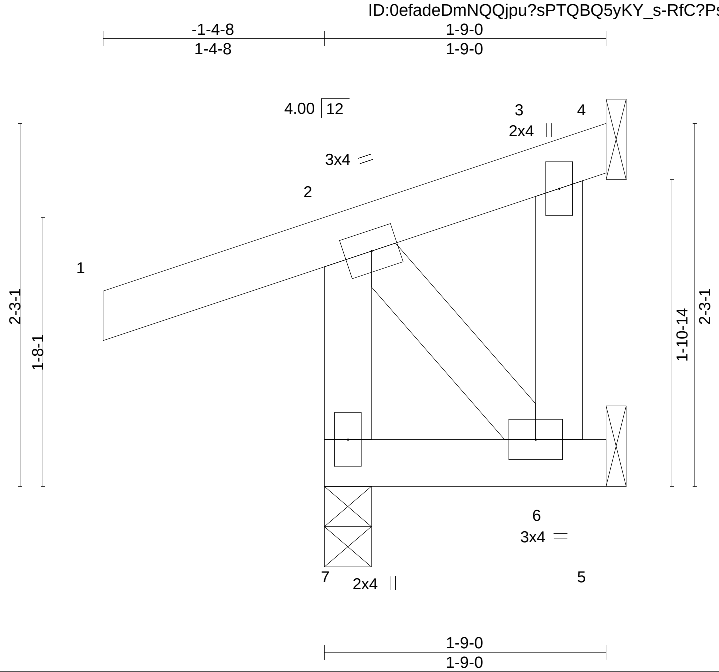

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=51(LC 9)
Max Uplift 7=-66(LC 8), 4=-26(LC 8), 5=-23(LC 1)
Max Grav 7=229(LC 1), 4=44(LC 1), 5=10(LC 8)

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) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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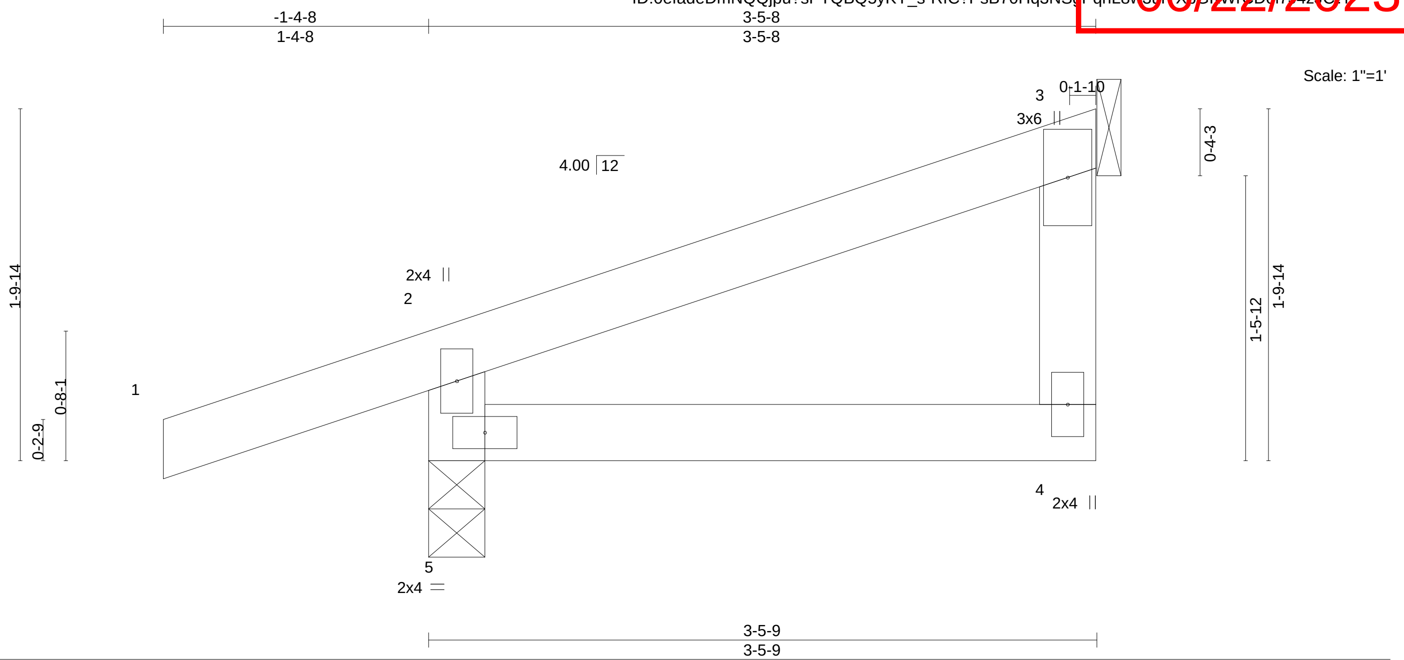
Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K07	Monopitch	4	1	I58813652 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:26 2023 Page 1

ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrQDoi7J4zJCPf



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical
Max Horz 5=67(LC 9)
Max Uplift 5=-89(LC 8), 3=-25(LC 12)
Max Grav 5=275(LC 1), 3=117(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 3-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

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RELEASE FOR CONSTRUCTION
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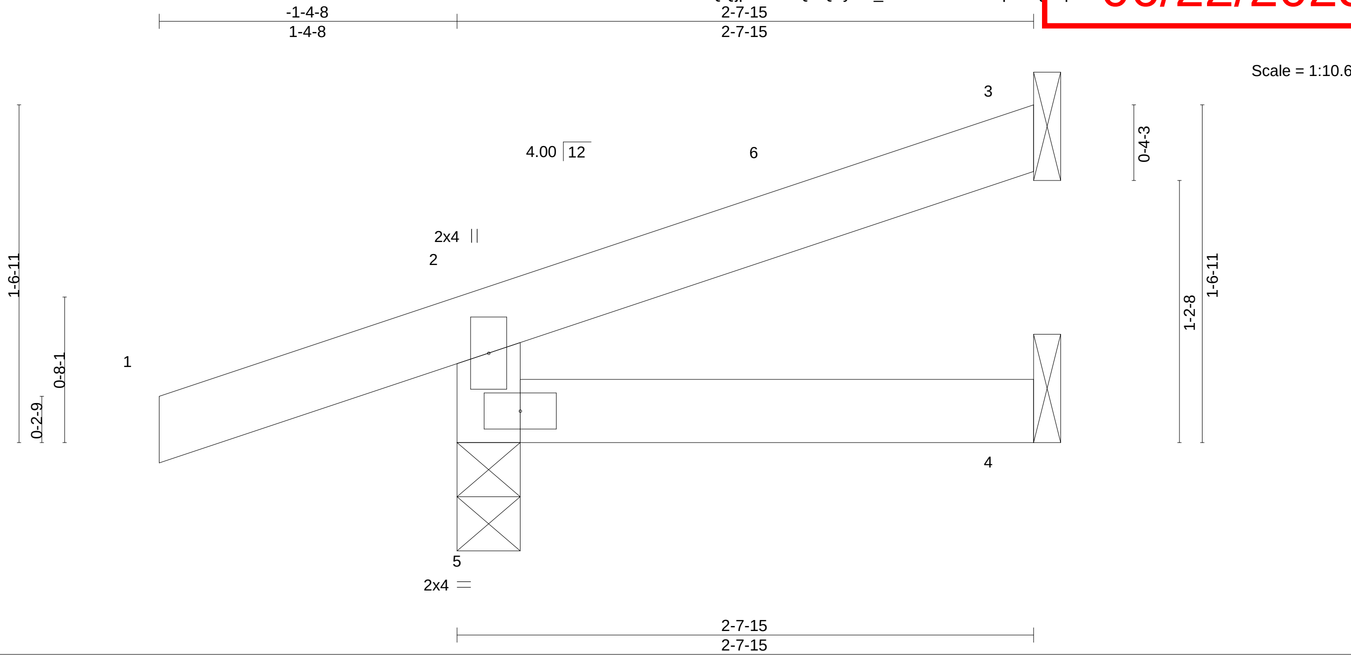
Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K08	Jack-Open	2	1	I58813653 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:53:27 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 8 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-15 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=48(LC 8)
Max Uplift 3=-28(LC 12), 5=-82(LC 8)
Max Grav 3=60(LC 1), 4=43(LC 3), 5=250(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 2-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K09	Jack-Open	1	1	I58813654 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:28 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f

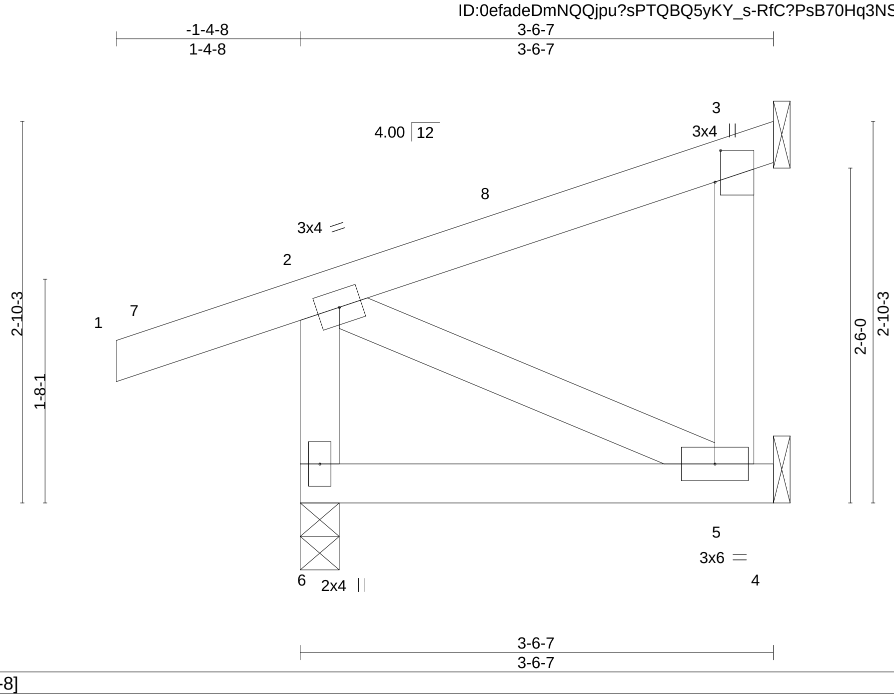

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 17 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=63(LC 9)
Max Uplift 6=-67(LC 8), 3=-36(LC 12), 5=-8(LC 8)
Max Grav 6=272(LC 1), 3=82(LC 1), 5=74(LC 3)

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) gable end zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior(1) 1-7-8 to 3-2-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

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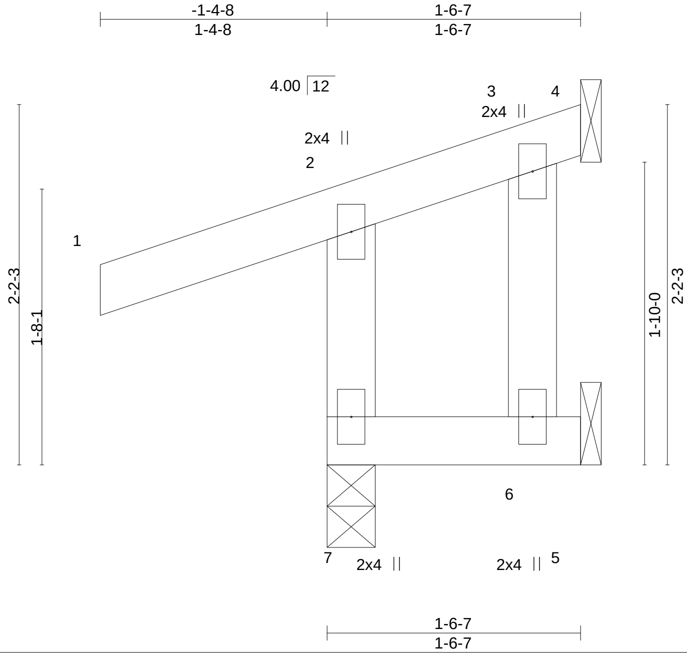
Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K10	Jack-Open	1	1	I58813655 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:29 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 8 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-6-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=49(LC 9)
Max Uplift 7=-68(LC 8), 4=-21(LC 9), 5=-17(LC 1)
Max Grav 7=227(LC 1), 4=21(LC 1), 5=7(LC 10)

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) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K11	Jack-Open	1	1	I58813656 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:59:30 2023 Page 1
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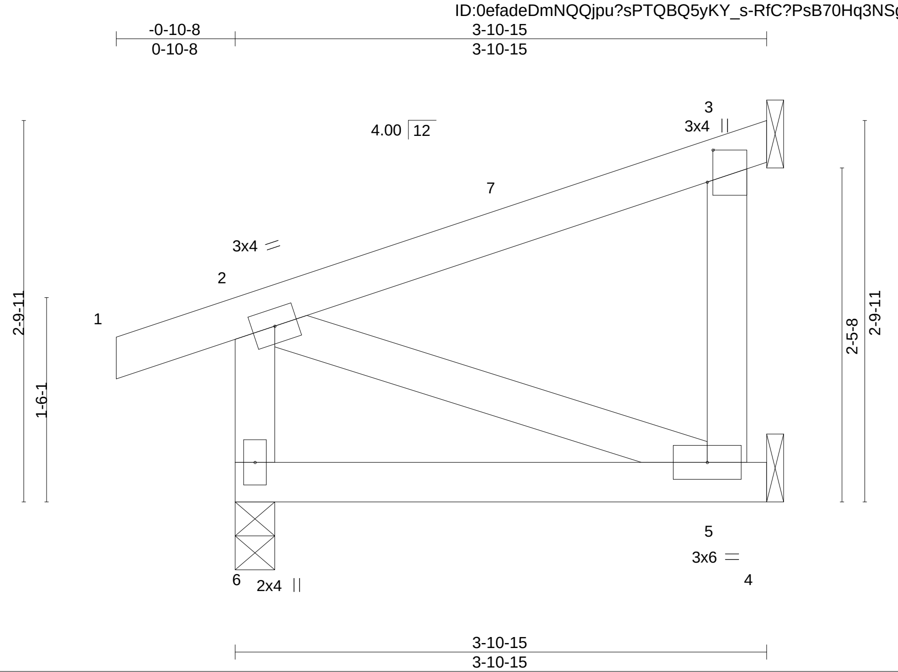

Plate Offsets (X,Y)-- [3:0-2-13,0-0-8]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 18 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 5=Mechanical
Max Horz 6=60(LC 9)
Max Uplift 6=-47(LC 8), 3=-46(LC 12), 5=-1(LC 8)
Max Grav 6=238(LC 1), 3=111(LC 1), 5=82(LC 3)

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) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-7-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3, 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

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Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	K12	Jack-Open	1	1	I58813657 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:58:31 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrQDoi7J4zJC?f

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
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LEE'S SUMMIT, MISSOURI
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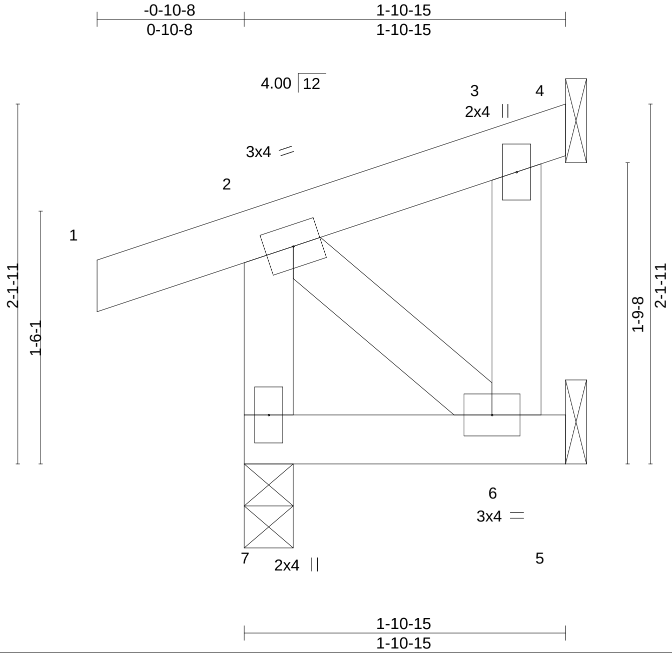
Scale = 1:13.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 10 lb	FT = 20%

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

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

REACTIONS. (size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=46(LC 9)
Max Uplift 7=-40(LC 8), 4=-15(LC 8), 5=-18(LC 9)
Max Grav 7=171(LC 1), 4=36(LC 1), 5=22(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	LG1	GABLE	1	1	I58813658 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:53:32 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoI7J4zJC?f

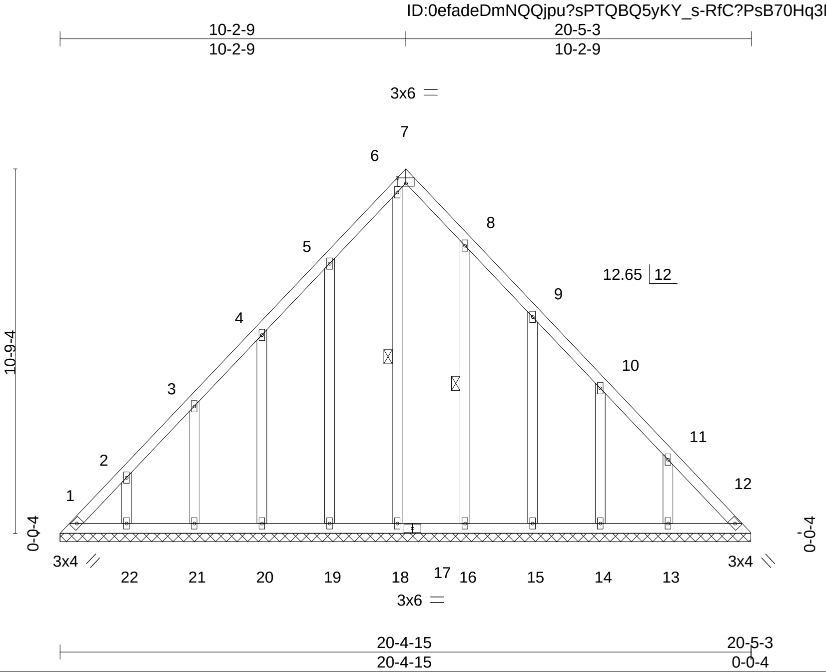


Plate Offsets (X,Y)--	[7:Edge,0-1-15]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 113 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-16, 6-18

REACTIONS. All bearings 20-4-15.
(lb) - Max Horz 1=-248(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 12, 16 except 1=-115(LC 10), 13=-135(LC 13), 14=-106(LC 13), 15=-127(LC 13), 19=-131(LC 12), 20=-112(LC 12), 21=-114(LC 12), 22=-115(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 12, 13, 14, 15, 16, 18, 19, 20, 21, 22 except 1=256(LC 12)

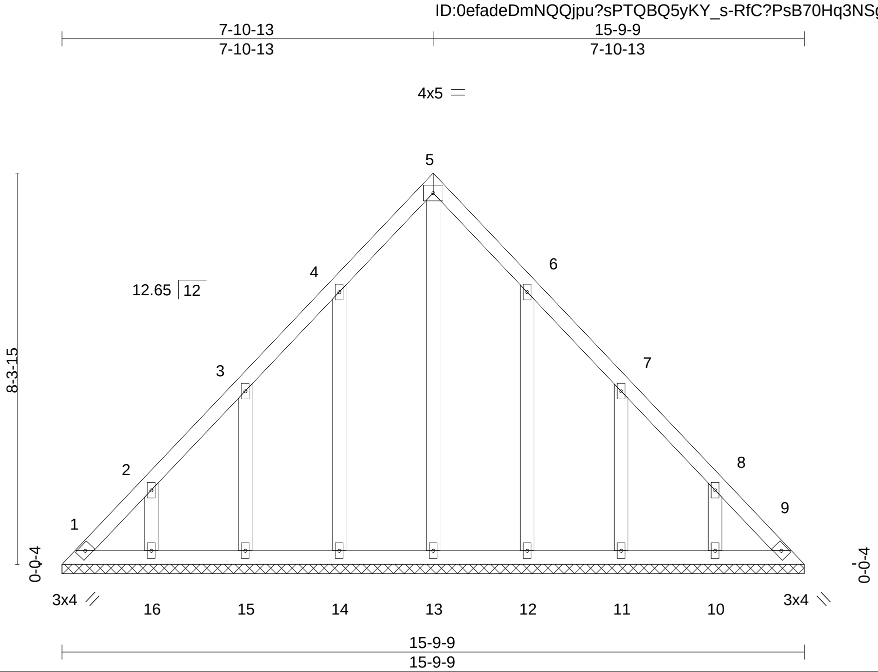
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-316/223, 1-2=-368/231, 2-3=-263/176

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) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 10-2-9, Exterior(2R) 10-2-9 to 13-2-9, Interior(1) 13-2-9 to 20-1-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 16 except (jt=lb) 1=115, 13=135, 14=106, 15=127, 19=131, 20=112, 21=114, 22=115.
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 9,2023

Job	Truss	Truss Type	Qty	Ply	Summit/186 Highland Meadows
3542878	LG2	GABLE	1	1	I58813659 Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.630 s Nov 19 2022 MiTek Industries, Inc. Wed Jun 7 16:50:34 2023 Page 1
ID:0efadeDmNQQjpu?sPTQBQ5yKY_s-RfC?PsB70Hq3NSqPqnL8w3uIXoGKWrCDoI7J4zIC?f



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 76 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 15-9-9.
(lb) - Max Horz 1=190(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-116(LC 12), 15=-116(LC 12), 16=-112(LC 12), 12=-115(LC 13), 11=-116(LC 13), 10=-112(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

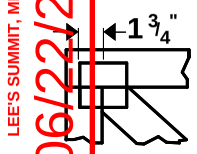
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-252/161

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) gable end zone and C-C Exterior(2E) 0-4-1 to 3-4-1, Interior(1) 3-4-1 to 7-10-13, Exterior(2R) 7-10-13 to 10-10-13, Interior(1) 10-10-13 to 15-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=116, 15=116, 16=112, 12=115, 11=116, 10=112.
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.

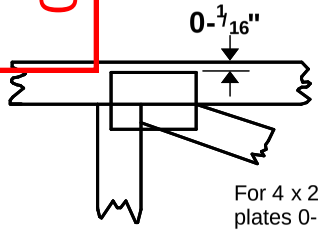
June 9,2023

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.

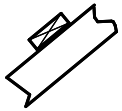
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

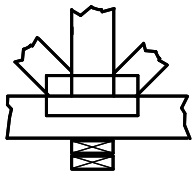
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

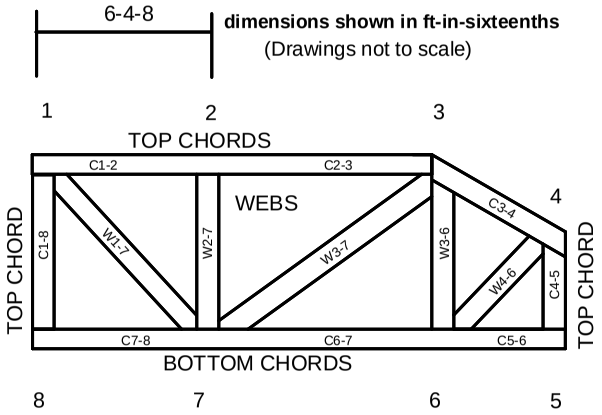


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.