



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

Re: 201355
2350 SW River Trail Rd. - LSMO

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/30/2020

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

Pages or sheets covered by this seal: I42843773 thru I42843817

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

Missouri COA: Engineering 001193



Scott Sevier

September 17, 2020

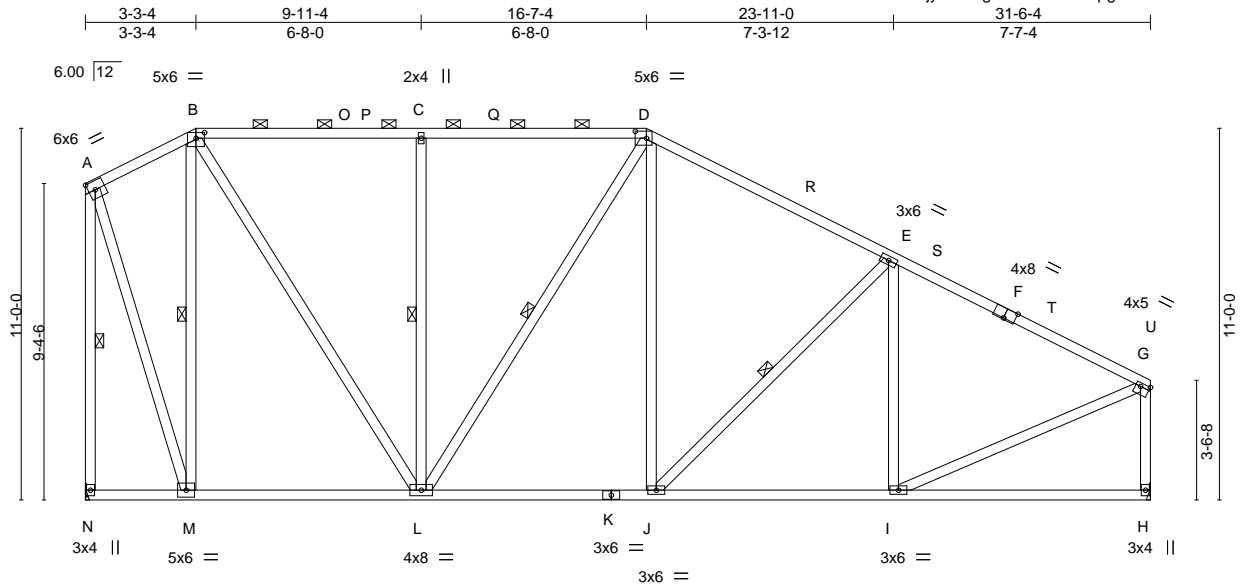
Sevier, Scott, Engineer

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	2350 SW River Trail Rd. - LSMO	I42843773
201355	A1	Piggyback Base	2	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:34 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-5jyAEbRgVXwFXCoZn0pgYZ5PtnX1w09d8lGPUyqd0vh



Scale = 1:68.2

Plate Offsets (X,Y)--		[B:0-3-0,0-2-0], [D:0-4-0,0-2-8], [F:0-4-0,Edge], [G:Edge,0-1-4]
LOADING (psf)	SPACING-	CSI.
TCLL 25.0	2-0-0	TC 0.88
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.58
TCDL 10.0	Lumber DOL 1.15	WB 0.75
BCLL 0.0	Rep Stress Incr YES	Matrix-MS
BCDL 10.0	Code IRC2018/TPI2014	
DEFL.	DEFL.	PLATES
Vert(LL) -0.08	in (loc) l/defl L/d	MT20
Vert(CT) -0.17	H-I >999 240	GRIP
Horz(CT) 0.03	H-I >999 180	244/190
	n/a n/a	
		Weight: 248 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 1650F 1.5E *Except*	TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-14 max.): B-D.
A-B: 2x4 SP No.2, D-F: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SP No.2	WEBS 1 Row at midpt B-M, C-L, D-L, E-J, A-N
WEBS 2x4 SP No.3 *Except*	
A-N,G-H: 2x4 SP No.2	

REACTIONS. (size) N=Mechanical, H=Mechanical
Max Horz N=-371(LC 8)
Max Uplift N=-158(LC 8), H=-181(LC 13)
Max Grav N=1629(LC 31), H=1784(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-510/237, B-C=-1129/282, C-D=-1129/282, D-E=-1485/287, E-G=-1822/228, A-N=-1612/223, G-H=-1713/219
BOT CHORD M-N=-149/298, L-M=-103/485, J-L=-65/1130, I-J=-151/1496
WEBS B-M=-1265/267, B-L=-187/1253, C-L=-923/211, D-L=-492/105, D-J=-31/505, E-J=-526/157, E-I=-477/150, A-M=-183/1444, G-I=-128/1555

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-4, Exterior(2R) 3-3-4 to 7-8-12, Interior(1) 7-8-12 to 12-1-12, Exterior(2R) 12-1-12 to 21-0-12, Interior(1) 21-0-12 to 28-2-11, Exterior(2E) 28-2-11 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=1.33 plate grip DOL=1.33
 - 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) N=158, H=181.
 - 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.



September 17, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss A2	Truss Type Piggyback Base Girder	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO I42843774
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:38 2020 Page 1
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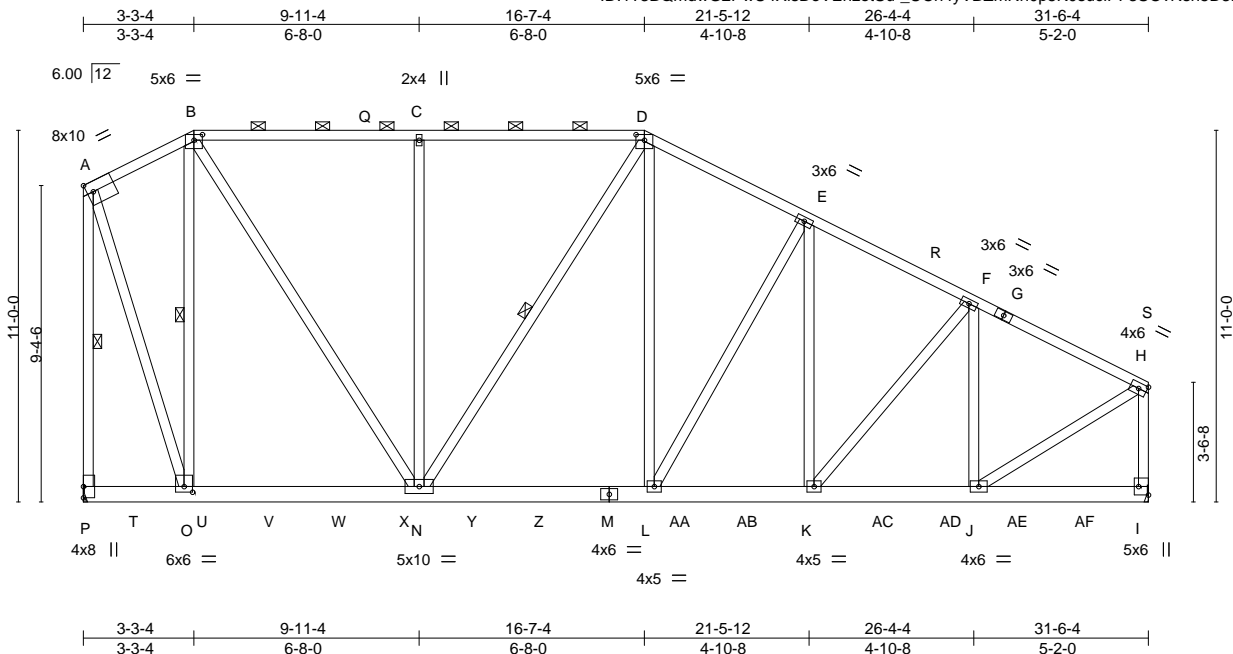


Plate Offsets (X,Y)-- [A:Edge,0-3-8], [B:0-3-0,0-2-0], [D:0-3-0,0-2-0], [I:Edge,0-3-8], [O:0-3-0,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.97	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.14 L-N >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.88	Vert(CT) -0.20 L-N >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.03 I n/a n/a		
	Code IRC2018/TPI2014			Weight: 577 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

REACTIONS.

(size) P=Mechanical, I=Mechanical
Max Horz P=-368(LC 6)
Max Uplift P=-933(LC 6), I=-937(LC 11)
Max Grav P=4544(LC 29), I=4661(LC 30)

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

TOP CHORD A-B=-1423/396, B-C=-3119/753, C-D=-3119/753, D-E=-3966/950, E-F=-4553/997,
F-H=-4170/849, A-P=-4466/922, H-I=-4342/886
BOT CHORD O-P=-146/296, N-O=-323/1298, L-N=-659/3405, K-L=-777/3955, J-K=-746/3635
WEBS B-O=-2685/637, B-N=-758/3426, C-N=-923/212, D-N=-1014/234, D-L=-472/2206,
E-L=-1080/276, E-K=-184/585, F-K=-133/677, F-J=-1152/246, A-O=-862/4009,
H-J=-839/4236

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) P=933, I=937.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843774
201355	A2	Piggyback Base Girder	1	2	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:38 2020 Page 2
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NOTES-

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 380 lb down and 111 lb up at 1-7-0, 380 lb down and 111 lb up at 3-7-0, 380 lb down and 111 lb up at 5-7-0, 380 lb down and 111 lb up at 7-7-0, 380 lb down and 111 lb up at 9-7-0, 380 lb down and 111 lb up at 11-7-0, 380 lb down and 111 lb up at 13-7-0, 380 lb down and 111 lb up at 15-7-0, 404 lb down and 108 lb up at 17-7-0, 404 lb down and 108 lb up at 19-7-0, 404 lb down and 108 lb up at 21-7-0, 404 lb down and 108 lb up at 23-7-0, 380 lb down and 111 lb up at 25-7-0, and 380 lb down and 111 lb up at 27-7-0, and 380 lb down and 111 lb up at 29-7-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: A-B=-70, B-D=-70, D-H=-70, I-P=-20

Concentrated Loads (lb)

Vert: M=-380(F) K=-404(F) T=-380(F) U=-380(F) V=-380(F) W=-380(F) X=-380(F) Y=-380(F) Z=-380(F) AA=-404(F) AB=-404(F) AC=-404(F) AD=-380(F)
AE=-380(F) AF=-380(F)

 **WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss A3	Truss Type Piggyback Base	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843775
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:40 2020 Page 1

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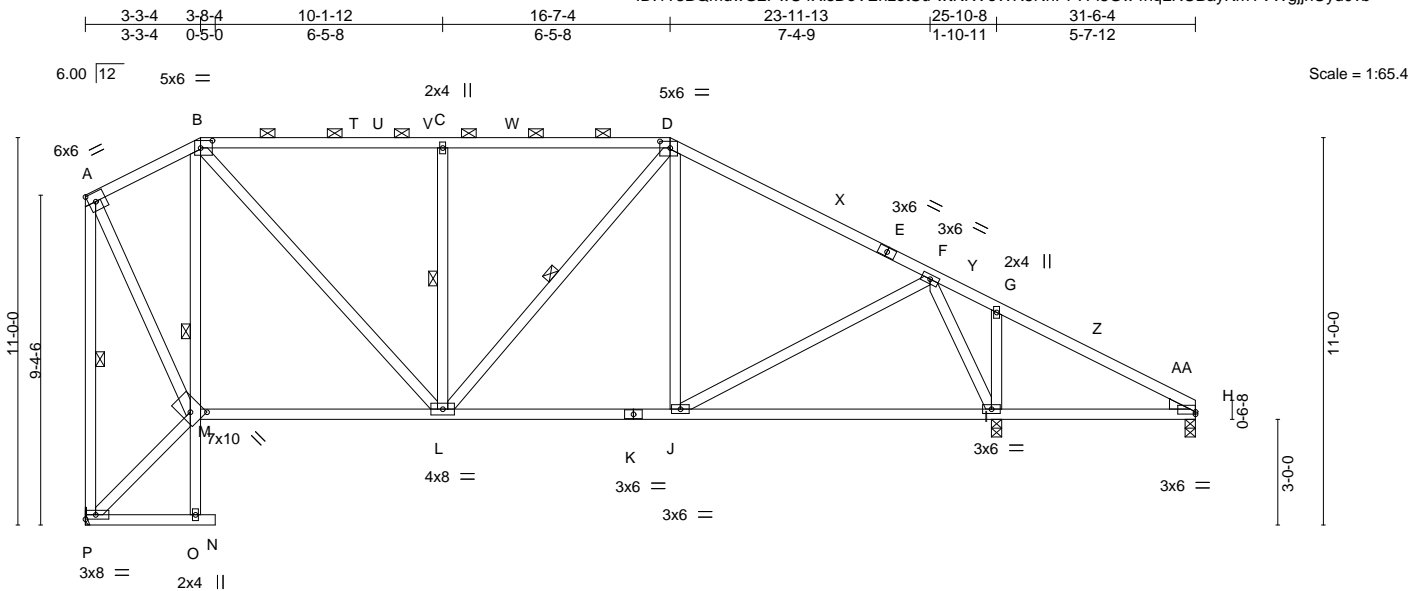


Plate Offsets (X,Y)--		[B:0-4-0,0-2-8], [D:0-3-8,0-2-4], [H:0-0-0,0-0-13], [M:0-4-0,0-4-0]					
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.88		Vert(LL)	-0.14 I-J >999 240
(Roof Snow=25.0)		Lumber DOL	1.15	BC 0.61		Vert(CT)	-0.28 I-J >999 180
TCDL 10.0		Rep Stress Incr	YES	WB 0.56		Horz(CT)	0.06 I n/a n/a
BCLL 0.0		Code IRC2018/TPI2014		Matrix-MS			
BCDL 10.0							
						PLATES	GRIP
						MT20	244/190
						Weight: 217 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP 1650F 1.5E *Except*	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-5 max.); B-D.
	A-B: 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD	2x4 SP No.2		6-0-0 oc bracing: H-I.
WEBS	2x4 SP No.3 *Except*	WEBS	1 Row at midpt C-L, D-L, A-P, B-O
	A-P: 2x4 SP No.2		
WEDGE			
Right: 2x4 SP No.3			

REACTIONS. (size) P=Mechanical, H=0-3-8, I=0-3-8
Max Horz P=341(LC 10)
Max Uplift P=152(LC 8), H=81(LC 13), I=121(LC 13)
Max Grav P=1386(LC 31), H=337(LC 32), I=1772(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-590/211, B-C=-1259/261, C-D=-1259/261, D-F=-1220/238, A-P=-1351/161
BOT CHORD L-M=-74/563, J-L=-31/1034, I-J=-80/702
WEBS B-L=-201/1069, C-L=-922/212, D-L=-195/350, F-J=-35/735, B-M=-987/298, M-P=-84/329,
A-M=-64/1203, G-I=-292/88, F-I=-1397/157

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-4, Exterior(2R) 3-3-4 to 7-8-12, Interior(1) 7-8-12 to 12-1-12, Exterior(2R) 12-1-12 to 21-0-12, Interior(1) 21-0-12 to 28-4-7, Exterior(2E) 28-4-7 to 31-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H except (jt=lb) P=152, I=121.
- 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.



September 17, 2020

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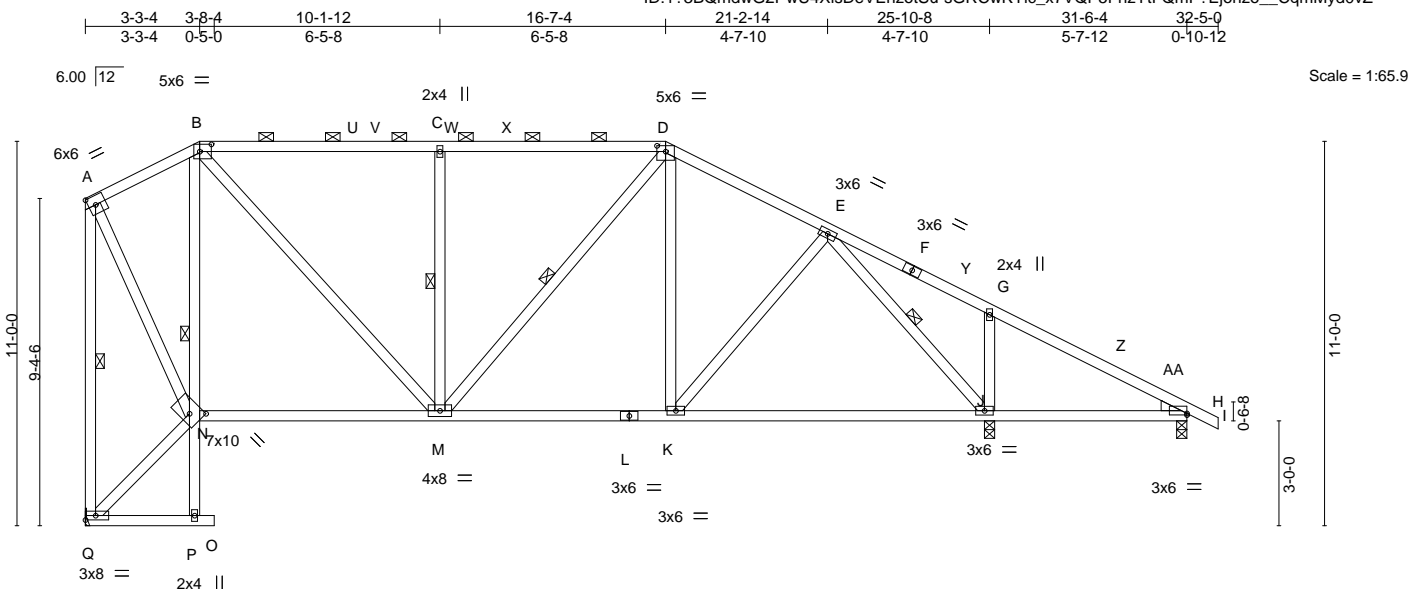
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843776
201355	A5	Piggyback Base	3	1	Job Reference (optional)	

Heartland Truss, Inc.	Plattsburg, MO - 64477.
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8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:42 2020 Page 1

ID:123BQmdwG2PwlJ4XisDeVEhzotSll-sGBCwKYic x7VQP5EhzYtEQmE?Eiohzo CgmMyd0yZ



	3-3-4	3-8-4	10-1-12	16-7-4	25-10-8	31-6-4					
	3-3-4	0-5-0	6-5-8	6-5-8	9-3-4	5-7-12					
Plate Offsets (X,Y)--	[B:0-4-0,0-2-8], [D:0-0-0,0-2-0], [H:0-0-0,0-0-9], [N:0-4-0,0-4-0]										
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 0.86	Vert(LL)	-0.14	J-K	>999	240	MT20	244/190
(Roof Snow=25.0)	Lumber DOL		1.15	BC 0.65	Vert(CT)	-0.28	J-K	>999	180		
TCDL 10.0	Rep Stress Incr		YES	WB 0.50	Horz(CT)	0.07	J	n/a	n/a		
BCLL 0.0	Code IRC2018/TPI2014			Matrix-MS						Weight: 220 lb	FT = 20%
BCDL 10.0											

TOP CHORD	2x4 SP No.2 *Except*
	B-D: 2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except*
	A-Q: 2x4 SP No.2

WEDGE
Right: 2x4 SP No.3

REACTIONS. (size) Q=Mechanical, J=0-3-8, H=0-3-8
 Max Horz Q=-349(LC 10)
 Max Uplift Q=-151(LC 8), J=-135(LC 13), H=-87(LC 13)
 Max Grav Q=1393(LC 32), J=1759(LC 33), H=411(LC 33)

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

TOP CHORD A-B=-593/200, B-C=-1269/253, C-D=-1269/253, D-E=-1197/241, E-G=-287/193,
G-H=-273/141, A-Q=-1359/151

BOT CHORD M-N=-59/574, K-M=-18/1047, J-K=-27/916

WEBS B-M=-201/1080, C-M=-926/211, D-M=-172/345, E-K=-79/404, E-J=-1317/96, G-J=-648/199,
B-N=-993/298, N-Q=-81/341, A-N=-55/1209

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-4, Exterior(2R) 3-3-4 to 7-8-12, Interior(1) 7-8-12 to 12-1-12, Exterior(2R) 12-1-12 to 21-2-14, Interior(1) 21-2-14 to 29-3-3, Exterior(2E) 29-3-3 to 32-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H except (jt=lb) Q=151, J=135.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss B1	Truss Type Common	Qty 4	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843777
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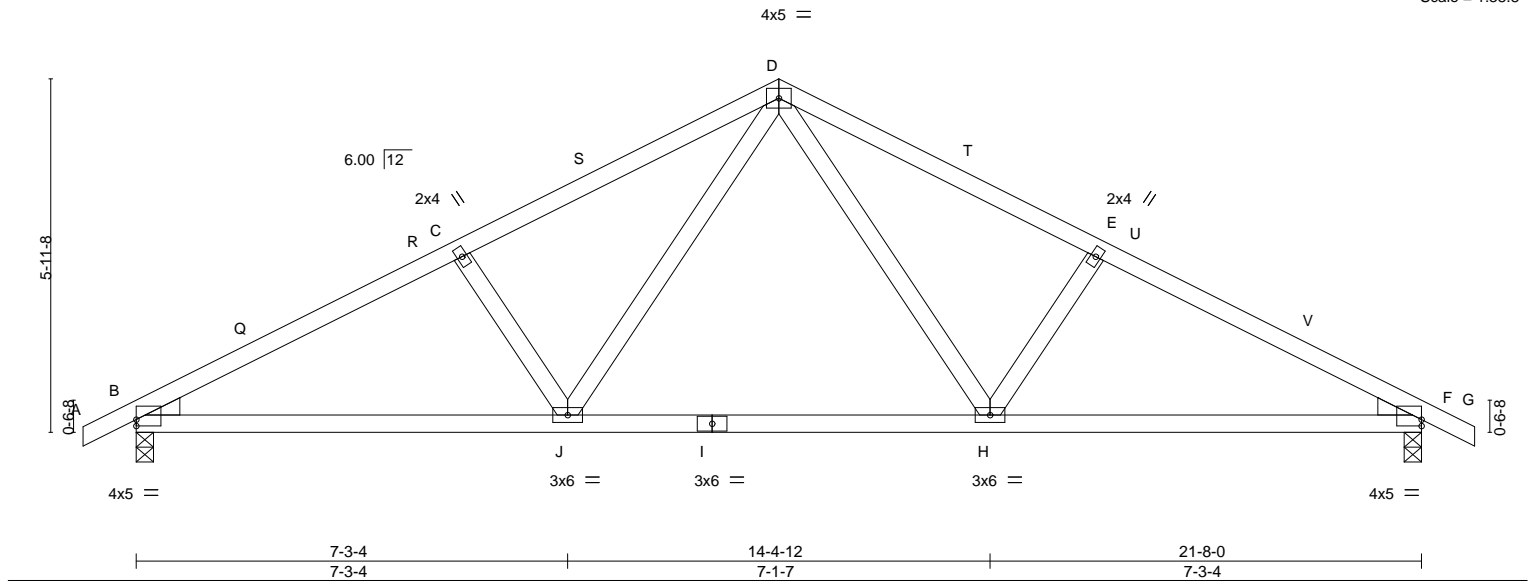
Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:43 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-KS?a7gYKNI3_6a_HpPUnPSzypPaxXB?yDeyOlpyd0vY

-0-10-12 0-10-12'	5-5-15 5-5-15	10-10-0 5-4-1	16-2-1 5-4-1	21-8-0 5-5-15	22-6-12 0-10-12'
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Scale = 1:38.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.09 H-J >999 240	MT20		244/190	
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.17 H-J >999 180				
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.04 F n/a n/a				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							
BCDL	10.0										
								Weight: 102 lb FT = 20%			

LUMBER-

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

BRACING-

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

REACTIONS.

(size) B=0-3-8, F=0-3-8
Max Horz B=99(LC 16)
Max Uplift B=-123(LC 12), F=-123(LC 13)
Max Grav B=1094(LC 19), F=1094(LC 20)

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

TOP CHORD B-C=-1769/293, C-D=-1549/305, D-E=-1549/305, E-F=-1769/293
BOT CHORD B-J=-187/1511, H-J=-43/937, F-H=-168/1511
WEBS D-H=-90/624, E-H=-474/191, D-J=-90/624, C-J=-474/191

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 7-10-0, Exterior(2R) 7-10-0 to 13-10-0, Interior(1) 13-10-0 to 19-6-12, Exterior(2E) 19-6-12 to 22-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=123, F=123.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss B2	Truss Type Roof Special Girder	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843778
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:44 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-oeZyL0Zy8cBrkkZUN6?0ygV6UpmGYK5RIhxqFyd0vX

0-10-12 0-10-12'	5-7-15 5-7-15	10-10-0 5-2-1	16-0-1 5-2-1	21-8-0 5-7-15
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Scale = 1:38.4

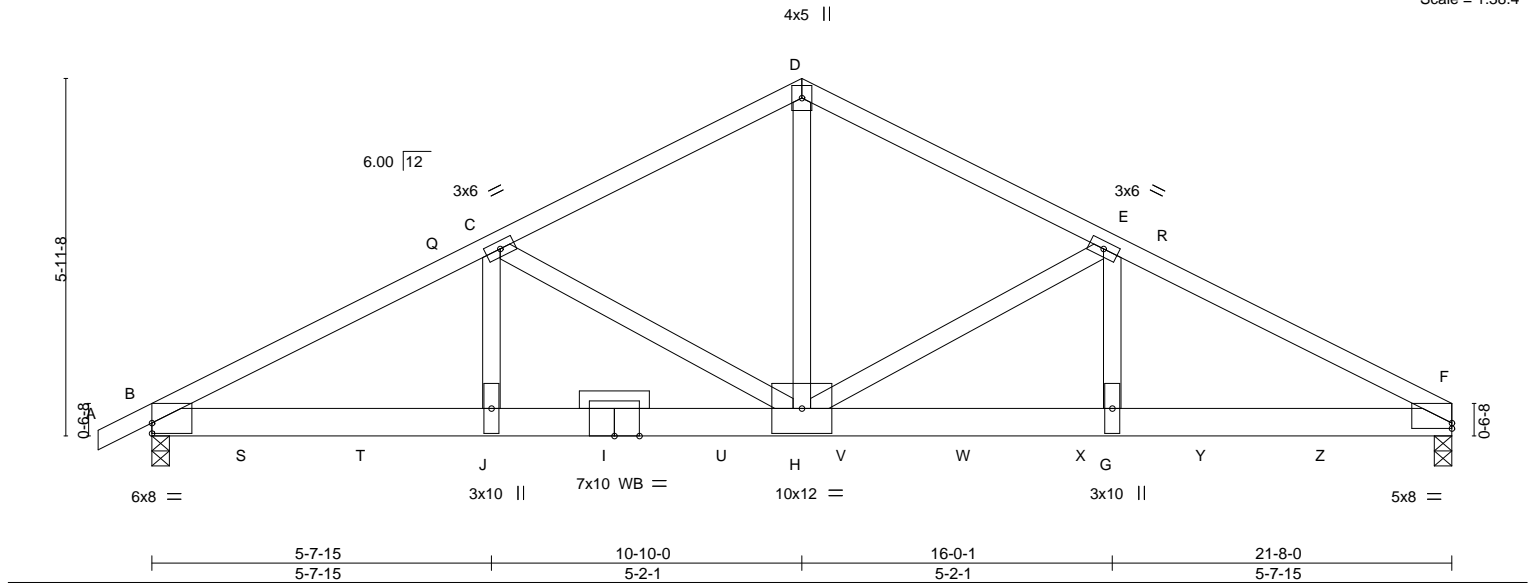


Plate Offsets (X,Y)-- [B:0-0-0,0-2-1], [F:0-0-0,0-1-1]		5-7-15 5-7-15		10-10-0 5-2-1		16-0-1 5-2-1		21-8-0 5-7-15	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.17	H-J	>999	MT20	244/190
(Roof Snow=25.0)	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.28	H-J	>920		
TCDL 10.0	Rep Stress Incr	NO	WB 0.70	Horz(CT)	0.06	F	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MS						
BCDL 10.0								Weight: 245 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1 "Except"
F-I: 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 "Except"
D-H: 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) F=0-3-8, B=0-3-8
Max Horz B=106(LC 10)
Max Uplift F=592(LC 11), B=549(LC 10)
Max Grav F=6547(LC 18), B=5844(LC 17)

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

TOP CHORD B-C=9921/906, C-D=6917/665, D-E=6918/664, E-F=9919/907
BOT CHORD B-J=-832/8827, H-J=-832/8827, G-H=742/8807, F-G=742/8807
WEBS D-H=487/5716, E-H=-3160/395, E-G=-160/2442, C-H=-3184/394, C-J=-159/2454

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) F=592, B=549.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 936 lb down and 92 lb up at 1-7-4, 936 lb down and 92 lb up at 3-7-4, 925 lb down and 91 lb up at 5-7-4, 925 lb down and 91 lb up at 7-7-4, 925 lb down and 91 lb up at 9-7-4, 935 lb down and 92 lb up at 11-7-4, 935 lb down and 92 lb up at 13-7-4, 935 lb down and 92 lb up at 15-7-4, 935 lb down and 92 lb up at 17-7-4, and 935 lb down and 92 lb up at 19-7-4, and 944 lb down and 82 lb up at 21-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

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September 17, 2020



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843778
201355	B2	Roof Special Girder	1	2	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:44 2020 Page 2
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-oeZyL0Zy8cBrkkZUN6?0ygV6UpmGYK5RIhxqFyd0vX

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: A-D=-70, D-F=-70, K-N=-20
- Concentrated Loads (lb)
 - Vert: I=-925(F) J=-925(F) K=-944(F) S=-936(F) T=-936(F) U=-925(F) V=-935(F) W=-935(F) X=-935(F) Y=-935(F) Z=-935(F)

Job 201355	Truss B3	Truss Type Common Supported Gable	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843779
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Heartland Truss, Inc., Plattsburg, MO - 64477,

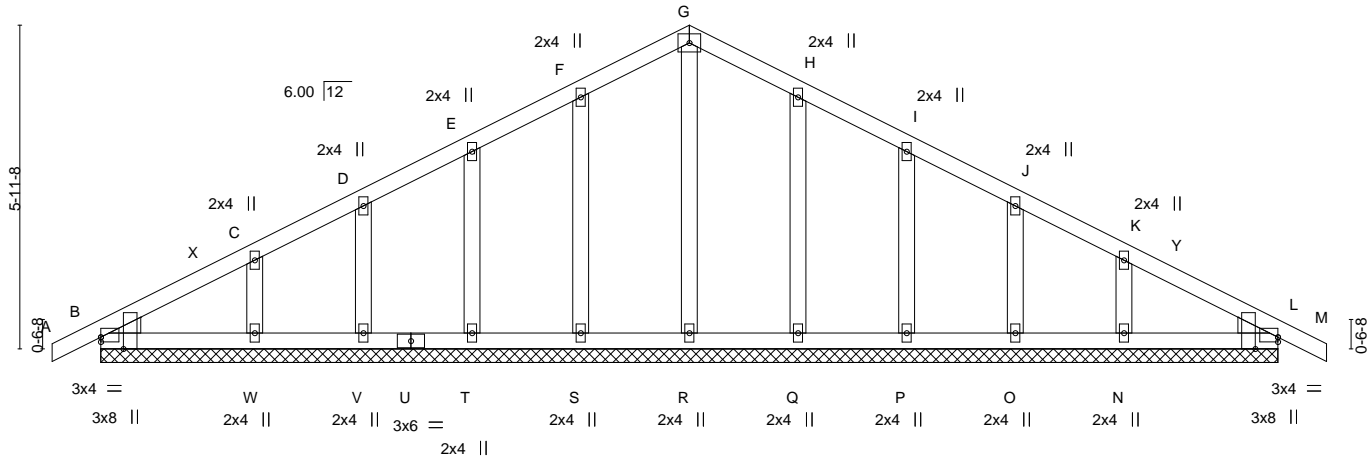
8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:46 2020 Page 1

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0-10-12 10-10-0 21-8-0 22-6-12
0-10-12 10-10-0 10-10-0 0-10-12

4x5 =

Scale = 1:42.4



21-8-0
21-8-0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 L n/r 120		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) 0.00 L n/r 90		
BCLL 0.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 L n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 116 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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 21-8-0.
(lb) - Max Horz B=99(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) B, S, T, V, W, Q, P, O, N, L
Max Grav All reactions 250 lb or less at joint(s) B, R, V, W, O, N, L except S=275(LC 19), T=269(LC 19),
Q=275(LC 20), P=269(LC 20)

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=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-12 to 2-1-4, Exterior(2N) 2-1-4 to 7-10-0, Corner(3R) 7-10-0 to 13-10-0, Exterior(2N) 13-10-0 to 19-6-12, Corner(3E) 19-6-12 to 22-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, S, T, V, W, Q, P, O, N, L.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) B.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO
201355	C1	Roof Special	6	1	142843780 Job Reference (optional)

Heartland Truss, Inc.

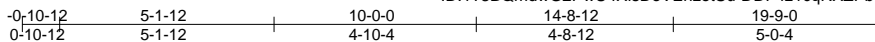
Plattsburg, MO - 64477.

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:47 2020 Page 1

142843780

Job Reference (optional)

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:47 2020 Page 1
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 $4 \times 5 =$

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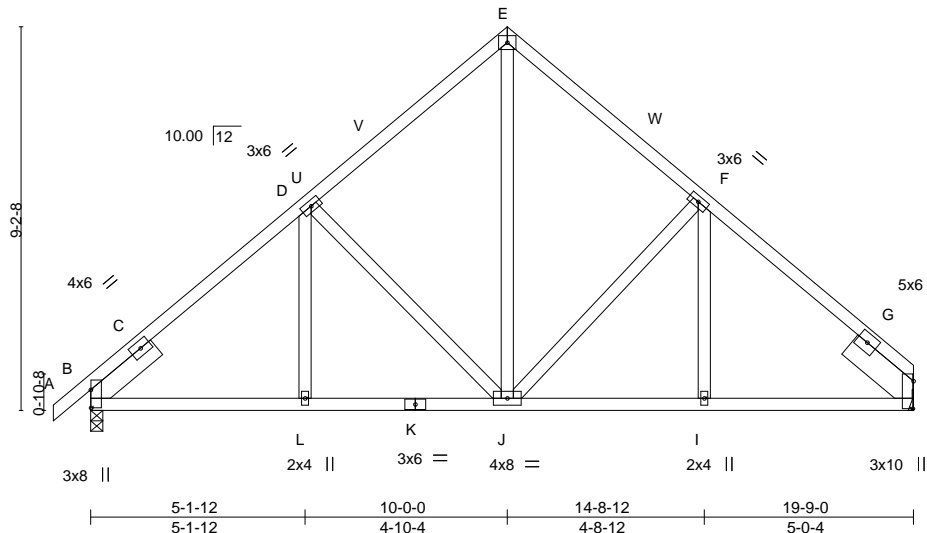


Plate Offsets (X,Y)--	[B:0-5-3,0-0-1], [H:0-7-15,0-0-3]
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[illegible]

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-0-0, Right 2x8 SP 2400F 2.0E -x 2-0-0

BRACING-

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

REACTIONS.

(size) H=Mechanical, B=0-3-8
Max Horz B=219(LC 9)
Max Uplift H=-72(LC 13), B=-93(LC 12)
Max Grav H=955(LC 20), B=1012(LC 19)

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

TOP CHORD B-D=-1024/141, D-E=-865/195, E-F=-869/197, F-H=-1087/141
BOT CHORD B-L=-134/797, J-L=-134/797, I-J=-30/768, H-I=-30/768
WEBS D-J=-393/201, E-J=-124/519, F-J=-360/198

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 7-0-0, Exterior(2R) 7-0-0 to 13-0-0, Interior(1) 13-0-0 to 16-9-0, Exterior(2E) 16-9-0 to 19-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TcLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H, B.
- 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.



September 17, 2020



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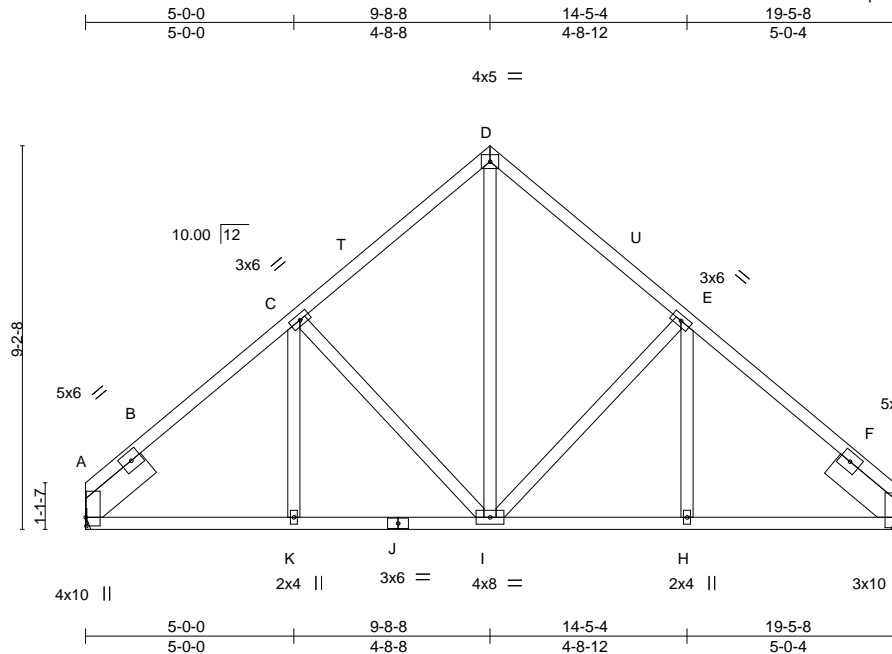


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843781
201355	C2	Roof Special	3	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:48 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-hPoTANcSCqhGDLSFcy4y6WgsKQhRCREhMwf8z0y0vT



Scale = 1:55.3

Plate Offsets (X,Y)-- [A:0-2-8,0-0-3], [G:0-7-15,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.63	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.05 I-K >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.32	Vert(CT) -0.08 I-K >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 G n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 126 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x8 SP 2400F 2.0E -x 2-0-0, Right 2x8 SP 2400F 2.0E -x 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) A=Mechanical, G=Mechanical
Max Horz A=-202(LC 8)
Max Uplift A=-70(LC 12), G=-71(LC 13)
Max Grav A=944(LC 18), G=945(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-C=-1066/139, C-D=-853/196, D-E=-855/195, E-G=-1074/139
BOT CHORD A-K=-126/751, I-K=-126/751, H-I=-29/759, G-H=-29/759
WEBS C-I=-352/197, D-I=-125/498, E-I=-360/198

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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 6-8-8, Exterior(2R) 6-8-8 to 12-8-8, Interior(1) 12-8-8 to 16-5-8, Exterior(2E) 16-5-8 to 19-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, G.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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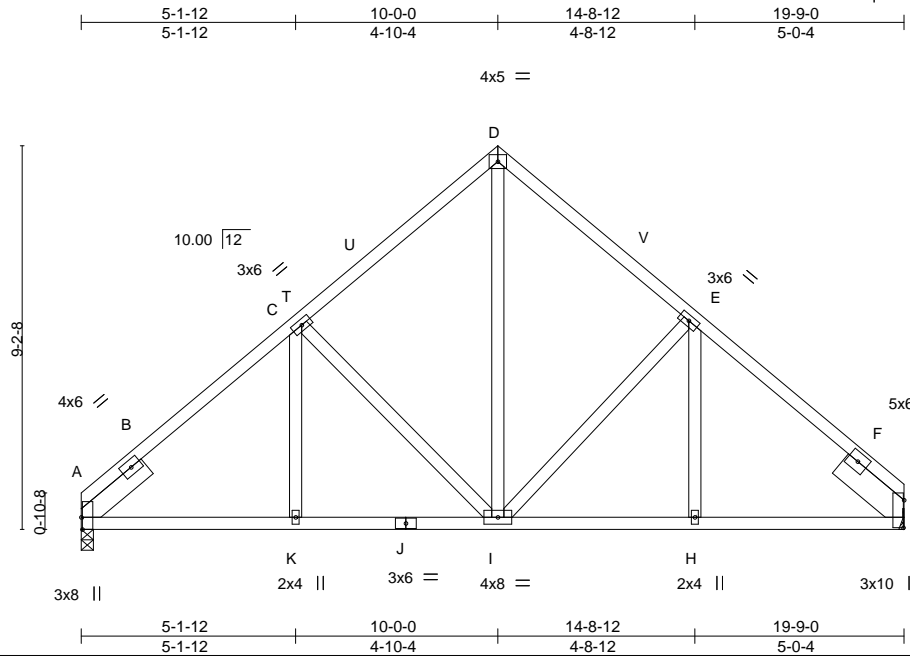


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843782
201355	C3	Roof Special	2	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:48 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-hPoTANcSCqhGDLsFcy4y6WgsAQJYCRghMwf8z0yd0vT



Scale = 1:55.3

Plate Offsets (X,Y)-- [A:0-3-8,Edge], [G:0-7-15,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.05 H-I >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.36	Vert(CT) -0.08 H-I >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 G n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 125 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-0-0, Right 2x8 SP 2400F 2.0E -x 2-0-0

BRACING-

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

REACTIONS.

(size) A=0-3-8, G=Mechanical
Max Horz A=207(LC 9)
Max Uplift A=-73(LC 12), G=-72(LC 13)
Max Grav A=948(LC 18), G=956(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-C=-1030/142, C-D=-867/196, D-E=-870/197, E-G=-1088/141
BOT CHORD A-K=-135/803, I-K=-135/803, H-I=-31/769, G-H=-31/769
WEBS C-I=-399/202, D-I=-125/523, E-I=-360/198

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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 13-0-0, Interior(1) 13-0-0 to 16-9-0, Exterior(2E) 16-9-0 to 19-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, G.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843783
201355	C4	Common Supported Gable	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:50 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-dowDb3ejkSy_Sf0djN6QBxIK?D7sgMd_qE8F2vyd0vR

0-10-12 10-0-0 20-0-0 20-10-12
0-10-12 10-0-0 10-0-0 0-10-12

Scale = 1:56.3

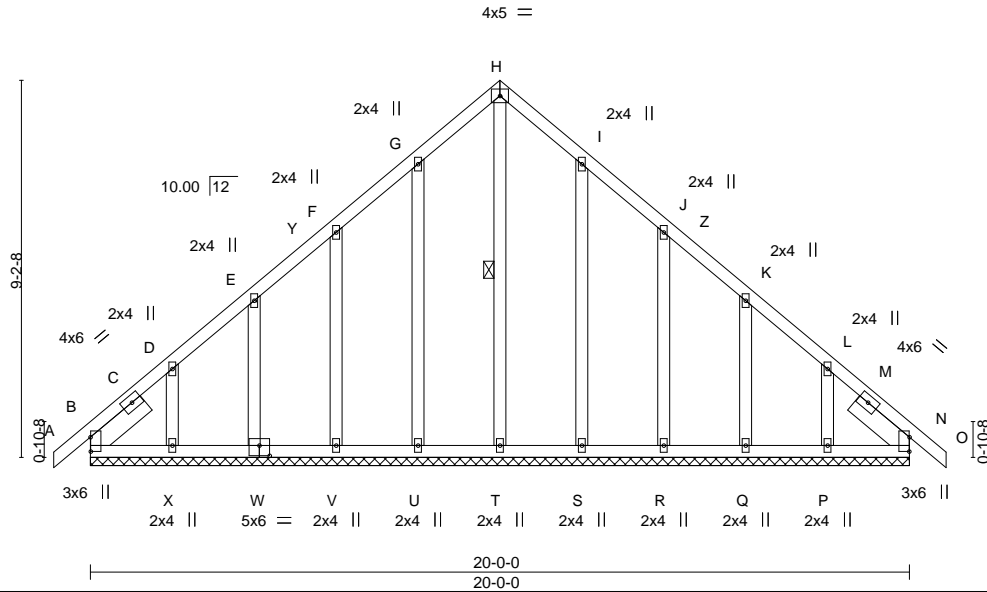


Plate Offsets (X,Y)-- [B:0-4-3,0-0-1], [N:0-4-3,0-0-1], [W:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.11	Vert(LL)	-0.00	N	n/r	120	MT20
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	0.00	N	n/r	90	244/190
TCDL 10.0	Lumber DOL 1.15	WB 0.27	Horz(CT)	0.01	N	n/a	n/a	
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014							
							Weight: 147 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 1-8-9, Right 2x6 SP No.1 -x 1-8-9

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 H-T

REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz B=-226(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) B, U, V, W, S, R, Q, N except X=-154(LC 12), P=-145(LC 13)
Max Grav All reactions 250 lb or less at joint(s) B, T, W, X, Q, P, N except U=306(LC 19), V=252(LC 19), S=306(LC 20), R=255(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-258/182
WEBS G-U=-266/106, I-S=-266/106

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-12 to 2-0-0, Exterior(2N) 2-0-0 to 7-0-0, Corner(3R) 7-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 17-10-12, Corner(3E) 17-10-12 to 20-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, U, V, W, S, R, Q, N except (jt=lb) X=154, P=145.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843784
201355	D1	Half Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:51 2020 Page 1

ID:173BQmdwG2PwU4XisDeVEhzotSu-5_UbpPFLVl4r4pbqH4dfk8IKpdL7Pf172uupaLydvQ

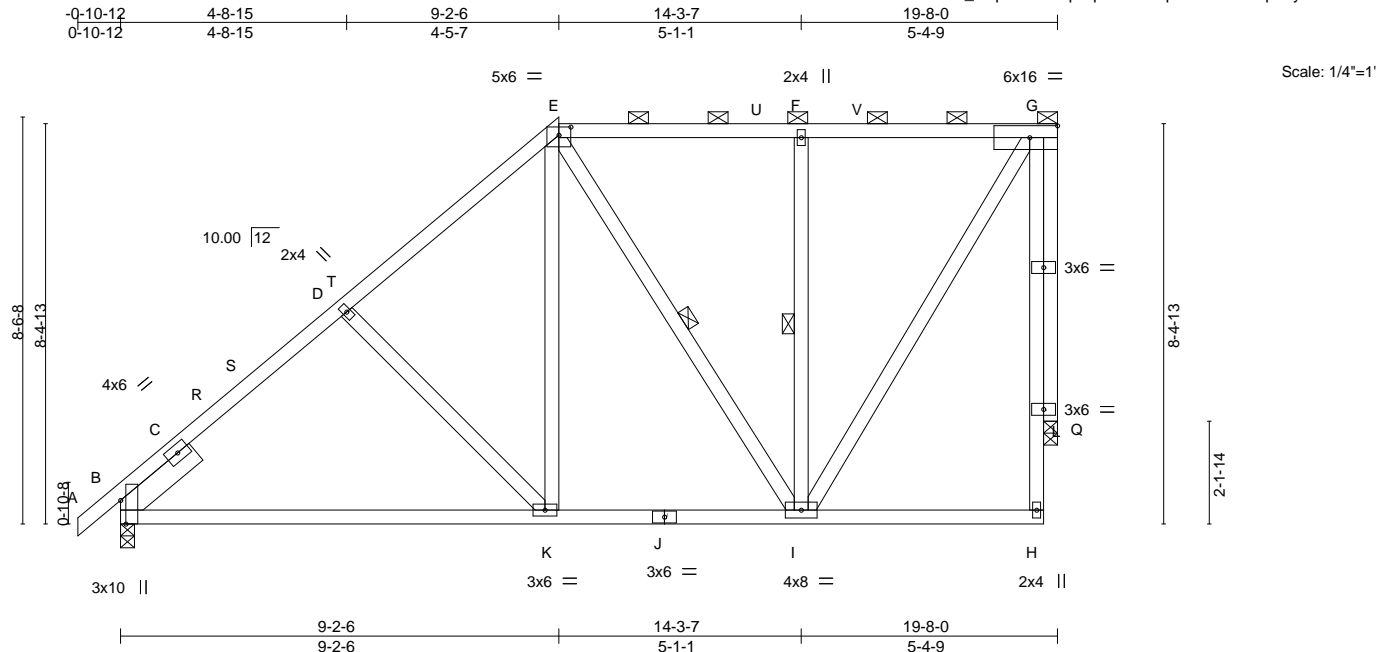


Plate Offsets (X,Y)-- [B:0-5-15,Edge], [E:0-3-0,0-2-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.81	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.11 K-O >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.96	Vert(CT) -0.23 K-O >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 Q n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 149 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): E-G.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-I, F-I

REACTIONS. (size) B=0-3-8, Q=0-3-8
Max Horz B=282(LC 12)
Max Uplift B=-56(LC 12), Q=-144(LC 9)
Max Grav B=1351(LC 30), Q=1239(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-1345/90, D-E=-1009/110, E-F=-618/90, F-G=-616/90
BOT CHORD B-K=-225/945, I-K=-115/644
WEBS D-K=-464/203, E-K=-59/471, E-I=-388/110, F-I=-787/160, G-I=-149/1068, G-Q=-1240/144

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 4-11-8, Exterior(2R) 4-11-8 to 13-5-5, Interior(1) 13-5-5 to 19-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
 - 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) Bearing at joint(s) Q considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B except (jt=lb) Q=144.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843785
201355	D2	Half Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc.

Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:52 2020 Page 1

ID:173BQmdwG2PwU4XisDeVEhzotSu-ZB2z0lfzG3CiizA0ro8uGMrXZ1i887iHHYdM6nyd0vP

0-10-12 4-1-12 8-0-0 13-8-4 19-8-0
0-10-12 4-1-12 3-10-4 5-8-4 5-11-12

Scale: 1/4"=1'

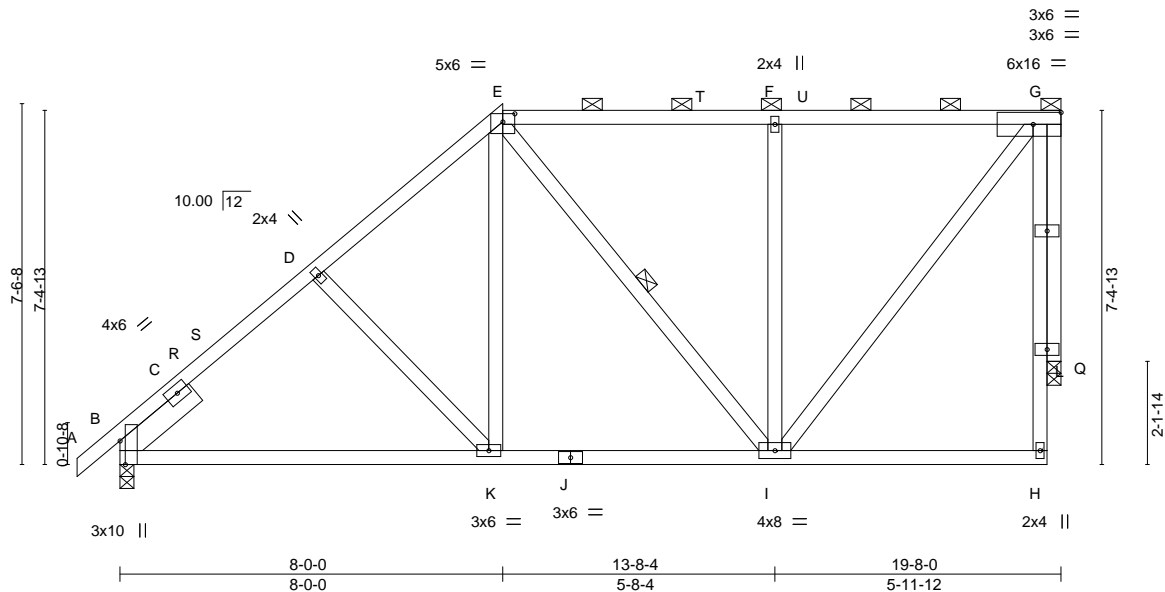


Plate Offsets (X,Y)-- [B:0-5-15,Edge], [E:0-3-0,0-2-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.06 K-O >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.87	Vert(CT) -0.12 K-O >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.09 Q n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 140 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
E-G: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 2-0-0

BRACING-

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

REACTIONS.

(size) B=0-3-8, Q=0-3-8
Max Horz B=243(LC 12)
Max Uplift B=60(LC 12), Q=-144(LC 9)
Max Grav B=1285(LC 30), Q=1291(LC 29)

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

TOP CHORD B-D=-1272/104, D-E=-1001/123, E-F=-801/98, F-G=-799/97
BOT CHORD B-K=-198/897, I-K=-126/752
WEBS D-K=-371/174, E-K=-47/394, E-I=-285/114, F-I=-881/178, G-I=-137/1177, G-Q=-1294/144

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 3-9-1, Exterior(2R) 3-9-1 to 12-2-15, Interior(1) 12-2-15 to 19-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Bearing at joint(s) Q considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B except (jt=lb) Q=144.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D3	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843786
Heartland Truss, Inc., Plattsburg, MO - 64477,						Job Reference (optional)

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:54 2020 Page 1
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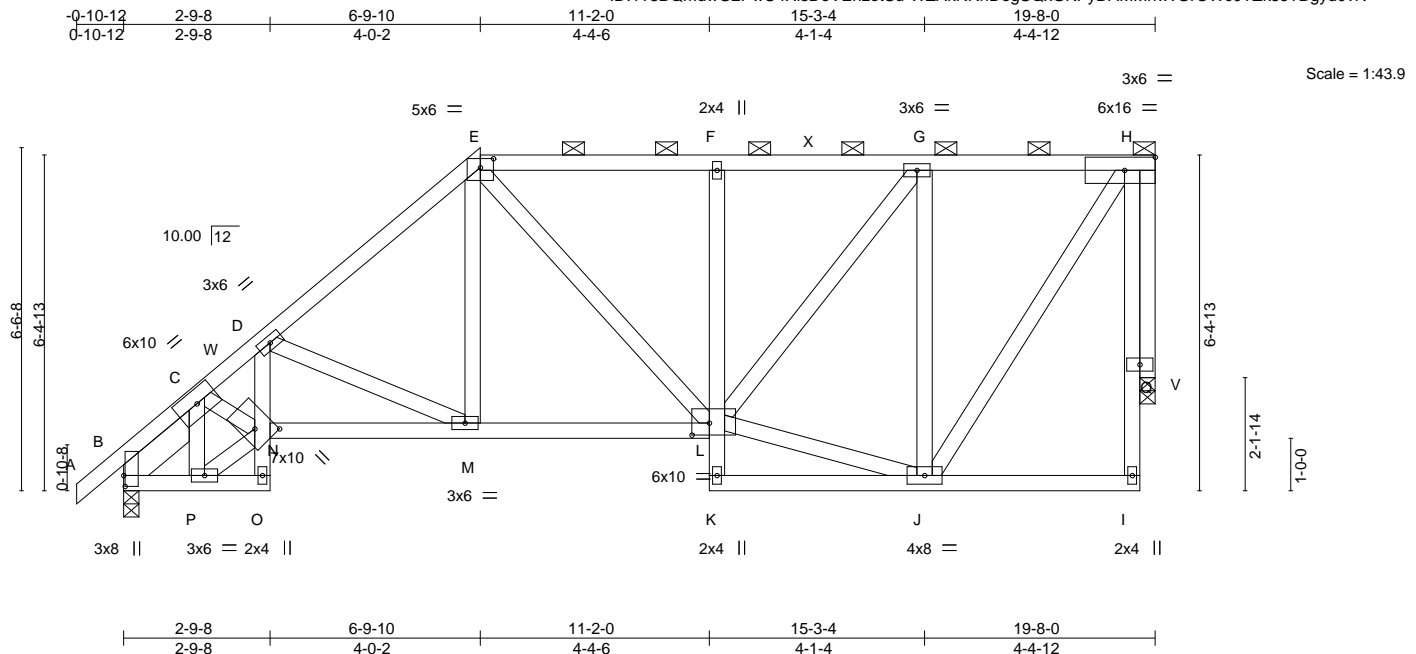


Plate Offsets (X,Y)-- [B:0-2-8,0-0-5], [E:0-3-0,0-2-1], [L:0-4-0,0-2-12], [N:0-4-0,0-4-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.54	in (loc) L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.40	Vert(LL) -0.06 L >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.85	Vert(CT) -0.09 L-M >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.10 V n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 156 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
D-O: 2x4 SP 2400F 2.0E
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 1-9-1

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

REACTIONS. (size) B=0-3-8, V=0-3-8
Max Horz B=204(LC 12)
Max Uplift B=61(LC 12), V=-145(LC 9)
Max Grav B=1210(LC 30), V=1334(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-466/69, C-D=-1686/205, D-E=-1363/152, E-F=-1241/149, F-G=-1252/151, G-H=-765/79
BOT CHORD B-P=-178/748, M-N=-296/1390, L-M=-165/1021
WEBS F-L=-613/128, D-M=-670/230, E-M=-31/385, E-L=-171/336, J-L=-112/755, G-L=-116/778, H-J=-136/1257, G-J=-1160/205, C-P=-520/128, N-P=-215/888, C-N=-131/708, H-V=-1338/145

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 2-6-11, Exterior(2R) 2-6-11 to 11-3-12, Interior(1) 11-3-12 to 19-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
 - 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) Bearing at joint(s) V considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B except (jt=lb) V=145.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D4	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO I42843787
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:55 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhztSu-_mk6emirZ_aHZQvbWwibu_T2IEjzLWwjzWs0j6yd0vM

0-10-12	1-6-8	2-9-8	5-7-3	11-2-0	15-3-4	19-8-0
0-10-12	1-6-8	1-3-0	2-9-11	5-6-13	4-1-4	4-4-12

Scale = 1:39.6

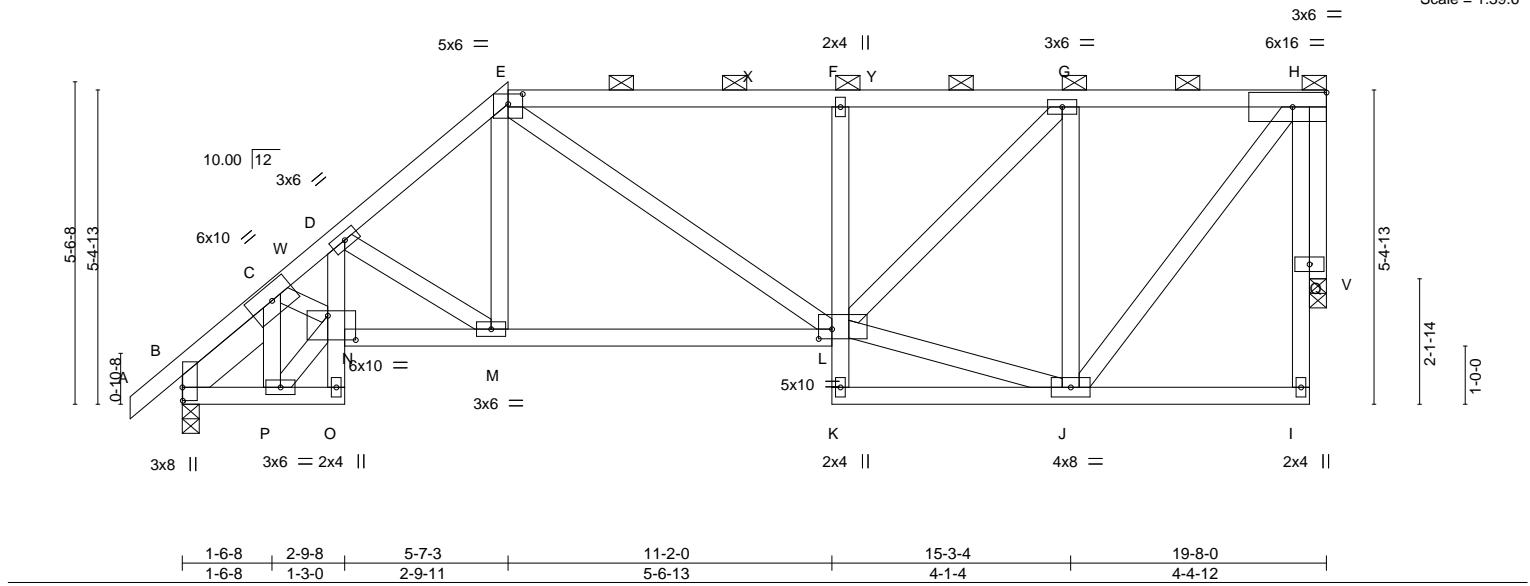


Plate Offsets (X,Y)--		[B:0-2-12,0-0-1], [E:0-3-0,0-2-1], [L:0-2-12,0-2-0], [N:0-5-12,0-5-0]					
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	
TCLL 25.0		Plate Grip DOL	1.15	TC 0.65		in (loc)	L/d
(Roof Snow=25.0)		Lumber DOL	1.15	BC 0.51		Vert(LL) -0.08	L >999 240
TCDL 10.0		Rep Stress Incr	YES	WB 0.65		Vert(CT) -0.14	L-M >999 180
BCLL 0.0		Code IRC2018/TPI2014		Matrix-MS		Horz(CT) 0.12	V n/a n/a
BCDL 10.0							
						PLATES	GRIP
						MT20	244/190
						Weight: 145 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
E-H: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 - x 1-11-6

BRACING-

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

REACTIONS.

(size) B=0-3-8, V=0-3-8
Max Horz B=165(LC 12)
Max Uplift B=58(LC 12), V=-145(LC 9)
Max Grav B=1130(LC 30), V=1371(LC 29)

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

TOP CHORD B-C=-408/60, C-D=-2208/281, D-E=-1572/165, E-F=-1643/191, F-G=-1658/194,
G-H=-939/93
BOT CHORD B-P=-163/808, M-N=-324/1740, L-M=-183/1221
WEBS D-N=-145/726, F-L=-732/150, C-P=-939/199, N-P=-251/1235, C-N=-160/955,
D-M=-822/226, E-M=-19/374, E-L=-120/524, J-L=-126/924, G-L=-144/1018,
G-J=-1231/206, H-J=-143/1370, H-V=-1379/146

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Exterior(2R) 2-1-4 to 9-10-2, Interior(1) 9-10-2 to 19-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Bearing at joint(s) V considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B except (jt=lb) V=145.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D5	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843788
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:57 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-w8rs3Sj64bq_ok2zdLk3zPYLI2NUPQ50RqL7o?yd0vK

-0-10-12	1-6-8	2-9-8	4-4-13	11-2-0	15-3-4	19-8-0
0-10-12	1-6-8	1-3-0	1-7-5	6-9-3	4-1-4	4-4-12

Scale = 1:36.8

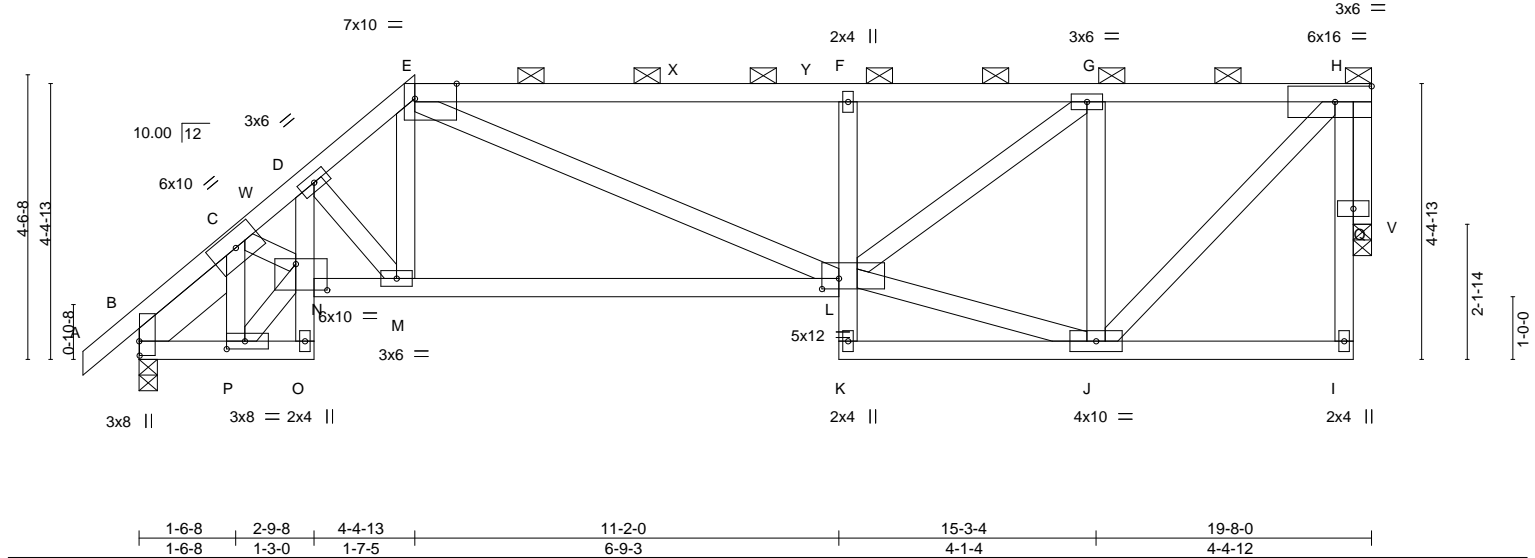


Plate Offsets (X,Y)-- [B:0-2-12,0-0-1], [E:0-8-0,Edge], [L:0-3-4,0-2-0], [N:0-6-0,0-5-0], [P:0-3-8,0-1-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.81		Vert(LL) -0.10	L >999 240
(Roof Snow=25.0)		Lumber DOL	1.15	BC 0.64		Vert(CT) -0.19	L-M >999 180
TCDL 10.0		Rep Stress Incr	YES	WB 0.67		Horz(CT) 0.12	V n/a n/a
BCLL 0.0		Code IRC2018/TPI2014		Matrix-MS			
BCDL 10.0							
						PLATES	GRIP
						MT20	244/190
						Weight: 135 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
E-H: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 1-11-6

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-8-6 max.): E-H.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) B=0-3-8, V=0-3-8
Max Horz B=126(LC 12)
Max Uplift B=74(LC 9), V=145(LC 9)
Max Grav B=1144(LC 29), V=1402(LC 29)

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

TOP CHORD B-C=-417/50, C-D=-2404/299, D-E=-1811/182, E-F=-2292/261, F-G=-2312/266,
G-H=-1190/114
BOT CHORD B-P=-159/884, M-N=-317/1888, L-M=-203/1486
WEBS D-N=-202/917, F-L=-857/175, C-P=-1034/196, N-P=-245/1351, C-N=-144/1008,
D-M=-629/166, E-M=0/359, E-L=-163/886, J-L=-145/1161, G-L=-191/1408, G-J=-1312/209,
H-J=-156/1537, H-V=-1418/147

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Exterior(2R) 2-1-4 to 8-7-11, Interior(1) 8-7-11 to 19-2-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Bearing at joint(s) V considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B except (jt=lb) V=145.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D6	Truss Type Half Hip Girder	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO I42843789
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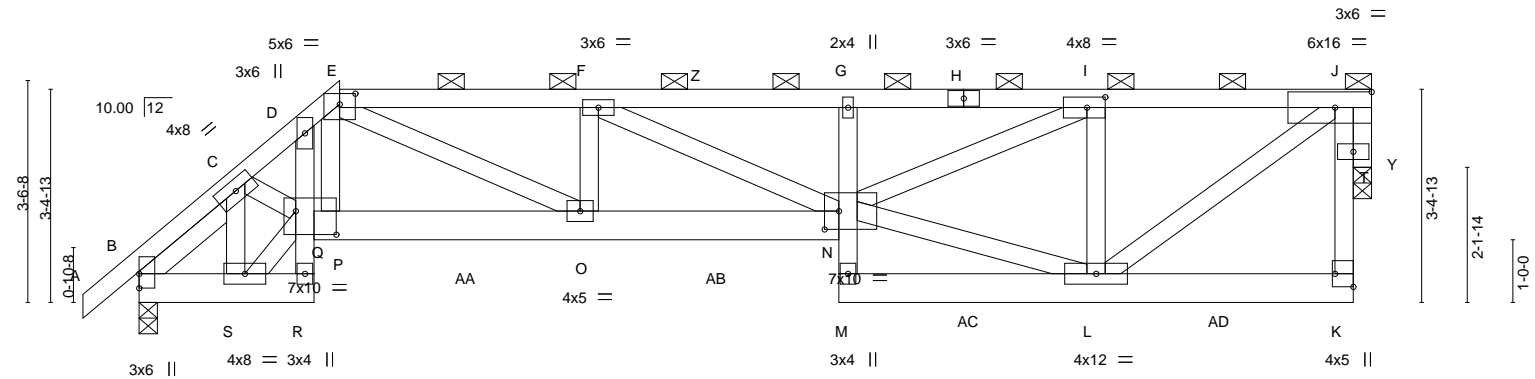
Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:00 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-KjX?iUm_NWCZfBnYJTHmb2AtmFOR0jCS7nZnPjyd0vH

-0-10-12	1-6-8	2-9-8	3-2-6	7-2-3	11-2-0	15-3-4	19-8-0
0-10-12	1-6-8	1-3-0	0-4-14	3-11-13	3-11-13	4-1-4	4-4-12

Scale = 1:36.8



1-6-8		2-9-8		3-2-6		7-2-3		11-2-0		15-3-4		19-8-0			
1-6-8		1-3-0		0-4-14		3-11-13		3-11-13		4-1-4		4-4-12			
Plate Offsets (X,Y)-- [E:0-3-0,0-2-1], [I:0-3-8,0-2-0], [K:Edge,0-3-8], [N:0-2-12,0-3-8], [P:0-1-12,0-0-0], [Q:0-7-12,0-4-8]															
LOADING (psf)				SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d			
TCLL 25.0				Plate Grip DOL		1.15		TC 0.73		Vert(LL) -0.22		N-O >999 240			
(Roof Snow=25.0)				Lumber DOL		1.15		BC 0.66		Vert(CT) -0.30		N-O >770 180			
TCDL 10.0				Rep Stress Incr		NO		WB 0.90		Horz(CT) 0.11		Y n/a n/a			
BCLL 0.0				Code IRC2018/TPI2014		Matrix-MS									
BCDL 10.0															
												Weight: 277 lb		FT = 20%	

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
J-K: 2x4 SP No.2
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.3 - x 1-10-1

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

REACTIONS. (size) B=0-3-8, Y=0-3-8
Max Horz B=99(LC 42)
Max Uplift B=453(LC 7), Y=523(LC 7)
Max Grav B=2896(LC 27), Y=3339(LC 27)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1853/308, C-D=-6168/1087, D-E=-5519/965, E-F=-7258/1183, F-G=-7681/1233,
G-H=-7575/1217, H-I=-3682/570, K-T=-89/628, J-T=-89/628
BOT CHORD B-S=-448/2315, P-Q=-815/4413, O-P=-874/4738, N-O=-1213/7257, L-M=-49/314,
K-L=-87/408
WEBS D-Q=-265/1332, G-N=-476/111, C-S=-2985/572, Q-S=-643/3314, C-Q=-443/2547,
E-O=-464/2834, F-O=-818/158, F-N=-81/477, L-N=-566/3466, I-N=-723/4342,
I-L=-2544/445, J-L=-645/4122, E-P=-253/1292, J-Y=-3468/544

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) Y considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=453, Y=523.

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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September 17, 2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843789
201355	D6	Half Hip Girder	1	2	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:00 2020 Page 2
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-KjX?iUm_NWCZfBnYJTHmb2AtmFOR0jCS7nZnPJyd0vH

NOTES-

- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 698 lb down and 187 lb up at 3-2-6, 358 lb down and 81 lb up at 5-3-2, 358 lb down and 81 lb up at 7-3-2, 358 lb down and 81 lb up at 9-3-2, 358 lb down and 79 lb up at 11-3-12, 358 lb down and 79 lb up at 13-3-2, 358 lb down and 79 lb up at 15-3-2, and 358 lb down and 79 lb up at 17-3-2, and 368 lb down and 69 lb up at 19-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: A-E=-70, E-J=-70, R-U=-20, N-Q=-20, K-M=-20

Concentrated Loads (lb)

Vert: K=-368(B) O=-358(B) N=-358(B) L=-358(B) P=-698(B) AA=-358(B) AB=-358(B) AC=-358(B) AD=-358(B)

 **WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D7	Truss Type Half Hip Girder	Qty 1	Ply 3	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843790
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:03 2020 Page 1

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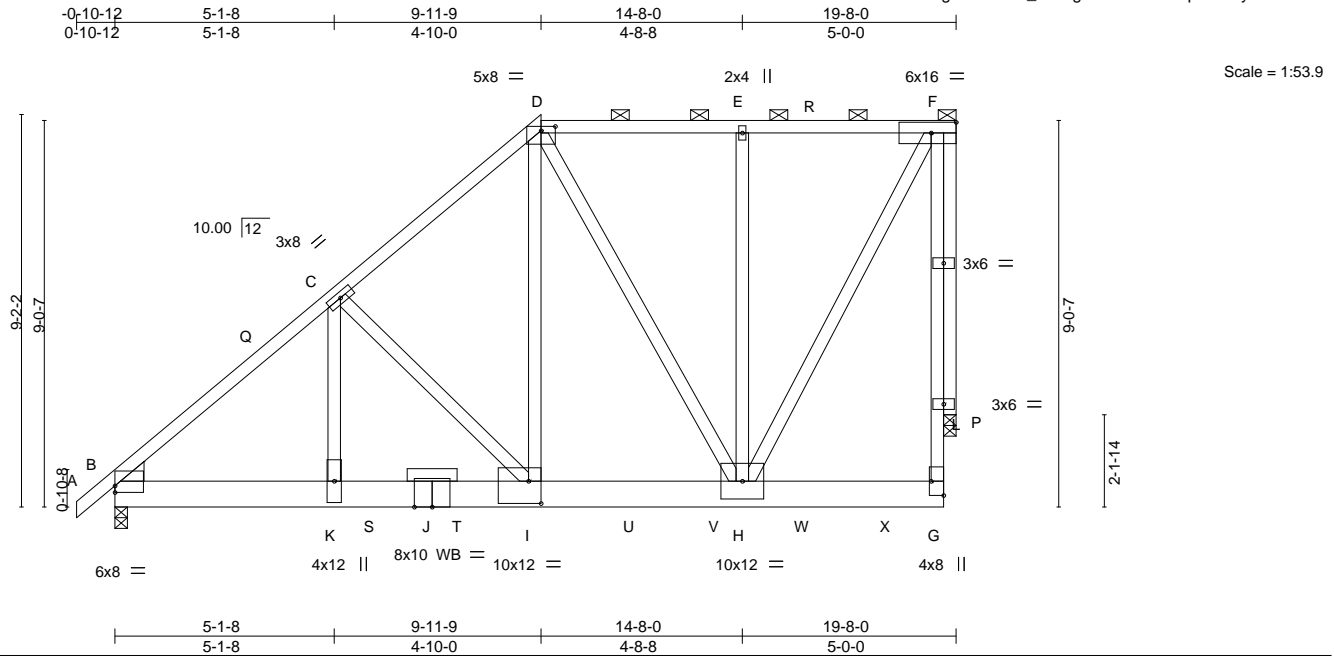


Plate Offsets (X,Y)-- [B:0-0-0,0-1-14], [D:0-4-0,0-1-4], [G:Edge,0-3-8], [I:0-3-8,0-6-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.83	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.12 I-K >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.96	Vert(CT) -0.19 I-K >999 180		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.06 P n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 563 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
F-H: 2x4 SP No.2
OTHERS 2x4 SP No.2 *Except*
J-J: 2x4 SP No.3

WEDGE
Left: 2x6 SP No.2

REACTIONS.

(size) B=0-3-8, P=0-3-8
Max Horz B=310(LC 45)
Max Uplift B=1038(LC 10), P=1095(LC 7)
Max Grav B=7493(LC 28), P=8324(LC 27)

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

TOP CHORD B-C=-10264/1471, C-D=-7297/1003, D-E=-3938/527, E-F=-3936/526, G-L=-136/1299,
F-L=-136/1299
BOT CHORD B-K=-1311/7673, I-K=-1311/7673, H-I=-803/5369, G-H=-82/343
WEBS C-K=-680/3541, C-L=-3079/724, D-L=-1067/6979, D-H=-3294/601, E-H=-722/151,
F-H=-1028/7663, F-P=-8332/1096

NOTES-

- n/a
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) P considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

Continued on page 2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): D-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED FOR LOADS REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.148"x 3" NAILS PER HANGER MANUFACTURER SPECIFICATIONS.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843790
201355	D7	Half Hip Girder	1	3	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:03 2020 Page 2
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-IIC8KWotgRa8WfW7_crTDgoMMTSkD3xuploR?eyd0vE

NOTES-

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1038, P=1095.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4524 lb down and 953 lb up at 6-0-8, 1609 lb down and 178 lb up at 8-1-4, 1609 lb down and 178 lb up at 10-1-4, 1366 lb down and 172 lb up at 12-1-4, 1373 lb down and 171 lb up at 14-1-4, and 1373 lb down and 171 lb up at 16-1-4, and 1373 lb down and 171 lb up at 18-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: A-D=-70, D-F=-70, G-M=-20

Concentrated Loads (lb)

Vert: I=-1609(F) S=-4524(F) T=-1609(F) U=-1366(F) V=-1373(F) W=-1373(F) X=-1373(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843791
201355	E1	Scissor	4	1	Job Reference (optional)	

Heartland Truss, Inc.

Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:04 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-DUWwXrpVRli?8p5KYJMimtKZytidybm22PX?Y5yd0vD

0-10-12 4-6-2 8-8-12 12-10-14 17-4-8 18-3-4
0-10-12 4-6-2 4-2-10 4-2-2 4-5-10 0-10-12

4x5 ||

Scale = 1:51.2

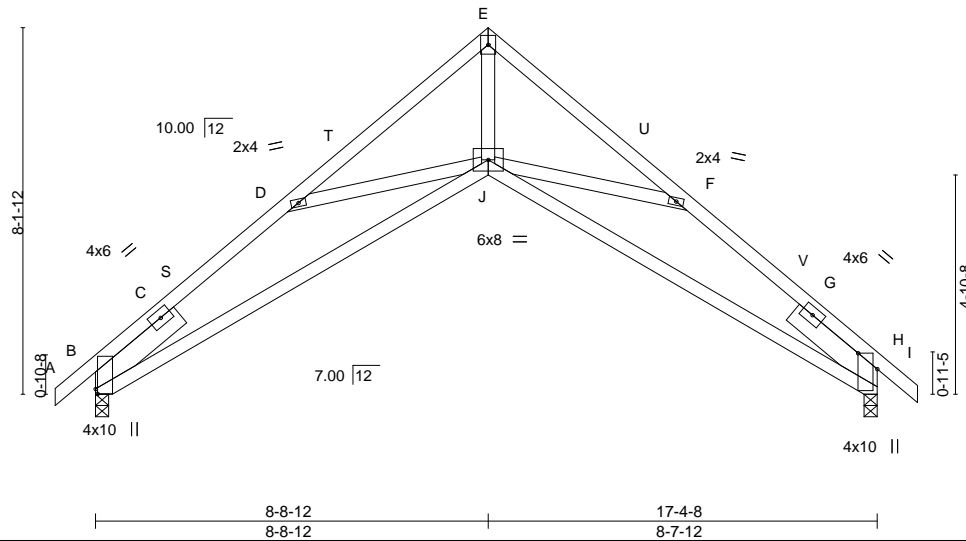


Plate Offsets (X,Y)-- [B:0-1-5,0-0-9], [H:0-4-4,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.17 J >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.28 J-M >753 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.38 H n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 97 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-6-0, Right 2x6 SP No.1 -x 2-6-0

BRACING-

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

REACTIONS.

(size) B=0-3-8, H=0-3-8
Max Horz B=-199(LC 10)
Max Uplift B=-82(LC 12), H=-81(LC 13)
Max Grav B=919(LC 19), H=917(LC 20)

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

TOP CHORD B-D=-2141/322, D-E=-1731/81, E-F=-1724/116, F-H=-2111/173
BOT CHORD B-J=-326/1782, H-J=-87/1752
WEBS D-J=-291/316, E-J=-16/1621, F-J=-268/377

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 5-8-12, Exterior(2R) 5-8-12 to 11-8-12, Interior(1) 11-8-12 to 15-3-4, Exterior(2E) 15-3-4 to 18-3-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCDL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) B, H considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, H.
- 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.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843792
201355	E2	Scissor	2	1	Job Reference (optional)	

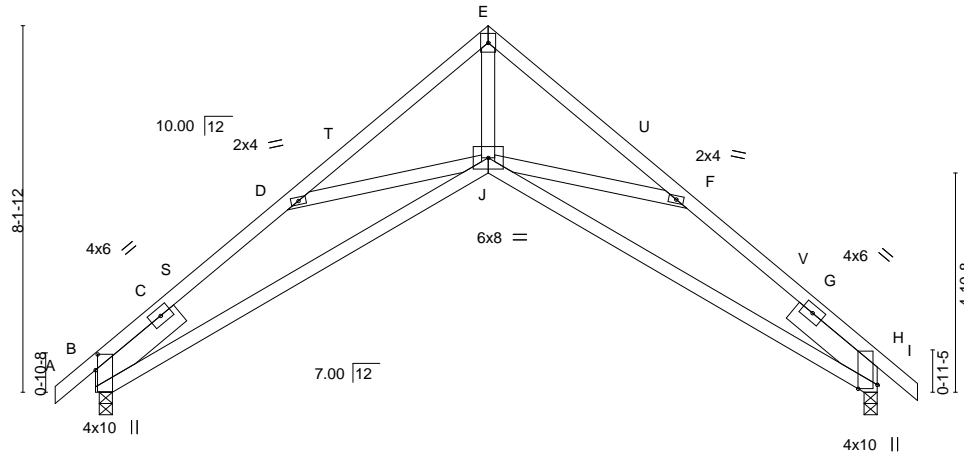
Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:05 2020 Page 1
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0-10-12 4-6-2 8-8-12 12-10-14 17-4-8 18-3-4
0-10-12 4-6-2 4-2-10 4-2-2 4-5-10 0-10-12

4x5 ||

Scale = 1:51.2



0-1-0 8-8-12 17-4-8
0-1-0 8-7-12 8-7-12

Plate Offsets (X,Y)-- [B:0-4-3,0-0-9], [H:0-1-1,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.71	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.17 J >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.28 J-Q >753 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.38 H n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 97 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-6-0, Right 2x6 SP No.1 -x 2-6-0

BRACING-

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

REACTIONS.

(size) H=0-3-8, B=0-3-8
Max Horz B=-199(LC 10)
Max Uplift H=-81(LC 13), B=-82(LC 12)
Max Grav H=917(LC 20), B=919(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-2141/322, D-E=-1731/81, E-F=-1724/116, F-H=-2111/173
BOT CHORD B-J=-326/1782, H-J=-87/1752
WEBS D-J=-291/316, E-J=-16/1621, F-J=-268/377

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 5-8-12, Exterior(2R) 5-8-12 to 11-8-12, Interior(1) 11-8-12 to 15-3-4, Exterior(2E) 15-3-4 to 18-3-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCDL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) H, B considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H, B.
- 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.



September 17, 2020

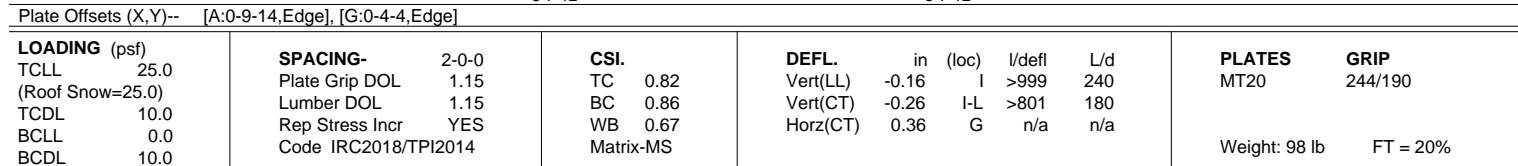
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:06 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzoTSu-9tuGyXqlzMzjN6EifkOArIkQukgO8QVGKvJ05czyd0vB
4-5-10 8-7-12 12-9-14 17-3-8 18-2-4
4-5-10 4-2-2 4-2-2 4-5-10 0-10-12
4x5 11 Scale = 1:50.7



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

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

TOP CHORD	A-C=-2128/310, C-D=-1723/81, D-E=-1713/114, E-G=-2105/172
BOT CHORD	A-I=-307/1793, G-I=-86/1748
WEBS	C-I=-311/303, D-I=-16/1618, E-I=-273/377

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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 5-7-12, Exterior(2R) 5-7-12 to 11-7-12, Interior(1) 11-7-12 to 15-2-4, Exterior(2E) 15-2-4 to 18-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Bearing at joint(s) A, G considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, G.
- 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.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843794
201355	E4	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:07 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-d3SeAtrNkg5a?GpuDRvPNWY2r4II9_5UkNm8Qyd0vA

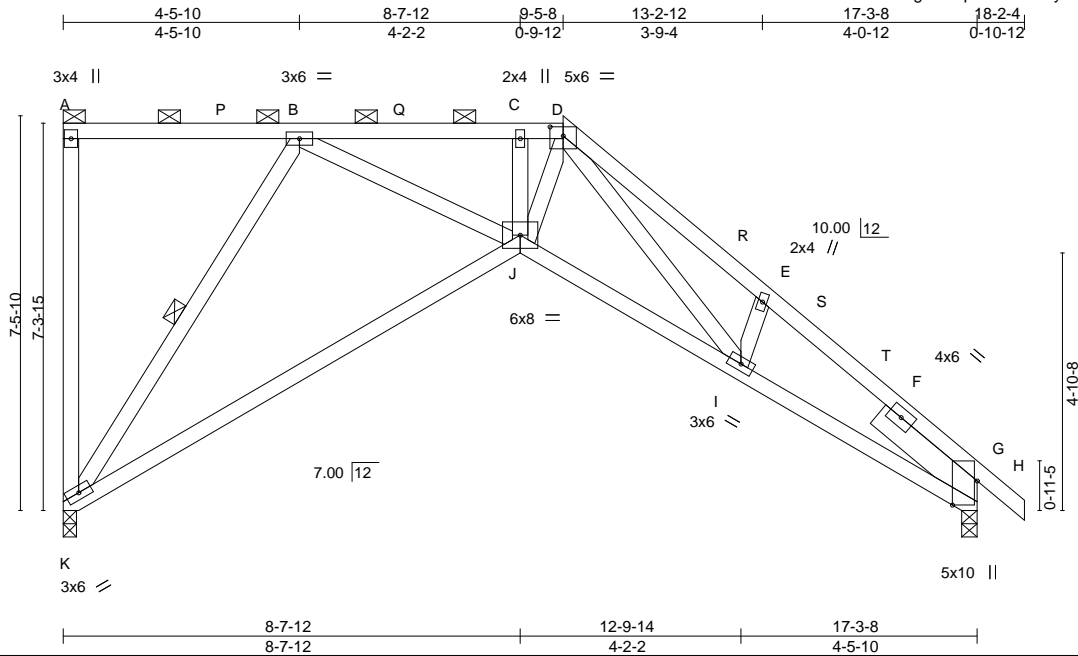


Plate Offsets (X,Y)-- [D:0-3-0,0-2-1], [G:0-5-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.23 J-K >899 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.48 J-K >432 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.28 G n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 112 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x4 SP No.3
SLIDER Right 2x6 SP No.1 -x 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-2 max.): A-D.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt B-K

REACTIONS.

(size) K=0-3-0, G=0-3-8
Max Horz K=-274(LC 10)
Max Uplift K=-153(LC 8), G=-76(LC 13)
Max Grav K=1138(LC 29), G=1189(LC 30)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1993/88, C-D=-1996/90, D-E=-2147/207, E-G=-2322/124
BOT CHORD J-K=-190/959, I-J=-54/1799, G-I=-5/1861
WEBS B-K=-1492/111, B-J=0/1350, C-J=-367/118, D-J=-174/1351, D-I=-519/436

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-5-8, Exterior(2R) 6-5-8 to 12-5-8, Interior(1) 12-5-8 to 15-2-4, Exterior(2E) 15-2-4 to 18-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Bearing at joint(s) K, G considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G except (jt=lb) K=153.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843795
201355	E5	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:08 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-5G01NDs?V_DRcQO5n9RwvjVDZU4zuKqdy1VChsyd0v9

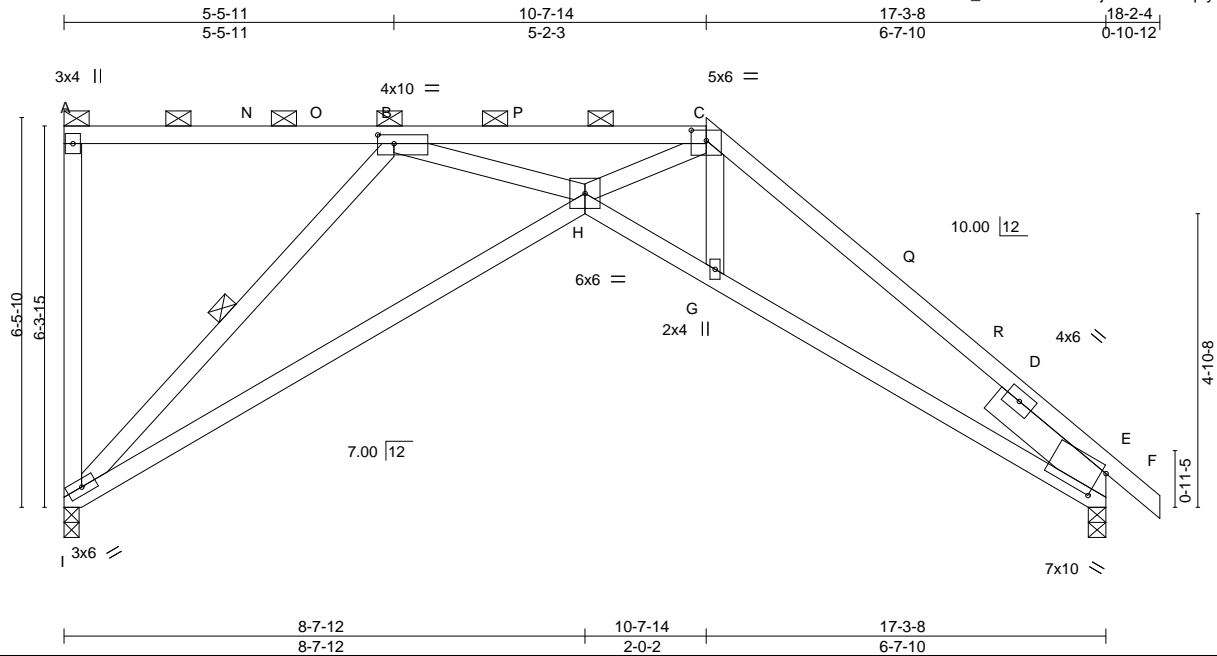


Plate Offsets (X,Y)-- [B:0-3-4,0-1-12], [C:0-3-0,0-2-1], [E:0-0-15,0-5-9]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.30 G-H >696 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.99	Vert(CT) -0.44 H-I >471 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.55 E n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 98 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
C-H: 2x4 SP No.2
SLIDER Right 2x6 SP No.1 -x 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-8 max.): A-C.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt B-I

REACTIONS. (size) I=0-3-0, E=0-3-8
Max Horz I=-236(LC 10)
Max Uplift I=-147(LC 8), E=-72(LC 13)
Max Grav I=1188(LC 29), E=1121(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-I=-296/63, B-C=-3721/173, C-E=-2162/84
BOT CHORD H-I=-270/1744, G-H=-31/1935, E-G=-9/1810
WEBS B-I=-2212/214, B-H=0/2381, C-H=-194/2443

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-7-14, Exterior(2R) 7-7-14 to 13-7-14, Interior(1) 13-7-14 to 15-2-4, Exterior(2E) 15-2-4 to 18-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 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) Bearing at joint(s) I, E considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E except (jt=Ib) I=147.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 17, 2020

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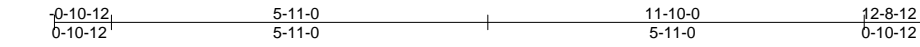


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843796
201355	F1	Common	2	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:09 2020 Page 1
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4x5 =

Scale = 1:36.2

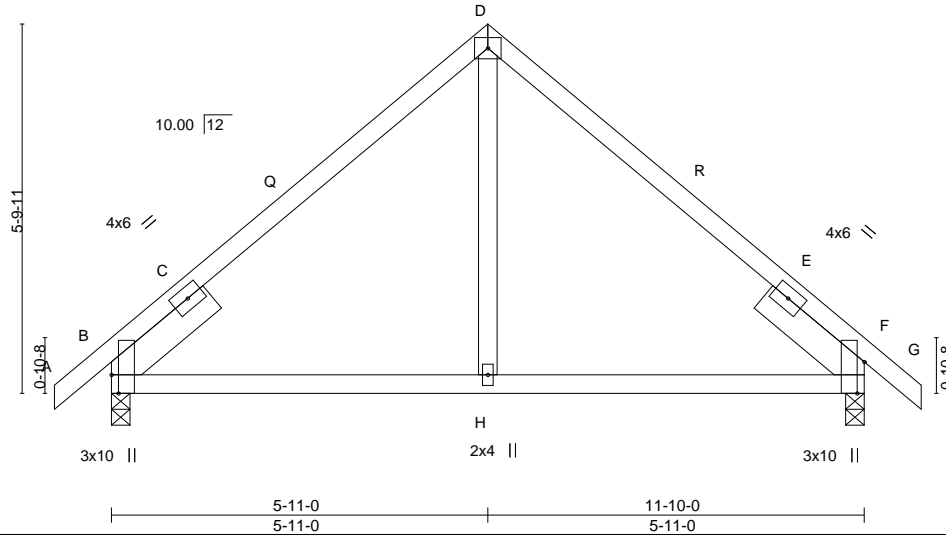


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [F:0-5-15,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.78	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.08 H-O >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.11 H-O >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 B n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 62 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-0-0, Right 2x6 SP No.1 -x 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) B=0-3-8, F=0-3-8
Max Horz B=141(LC 11)
Max Uplift B=-62(LC 12), F=-62(LC 13)
Max Grav B=717(LC 19), F=717(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-503/170, D-F=-503/170
BOT CHORD B-H=0/354, F-H=0/354
WEBS D-H=-10/257

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 2-11-0, Exterior(2R) 2-11-0 to 8-11-0, Interior(1) 8-11-0 to 9-8-12, Exterior(2E) 9-8-12 to 12-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843797
201355	F2	Roof Special Girder	1	3	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:11 2020 Page 1
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4x5 ||

Scale = 1:36.2

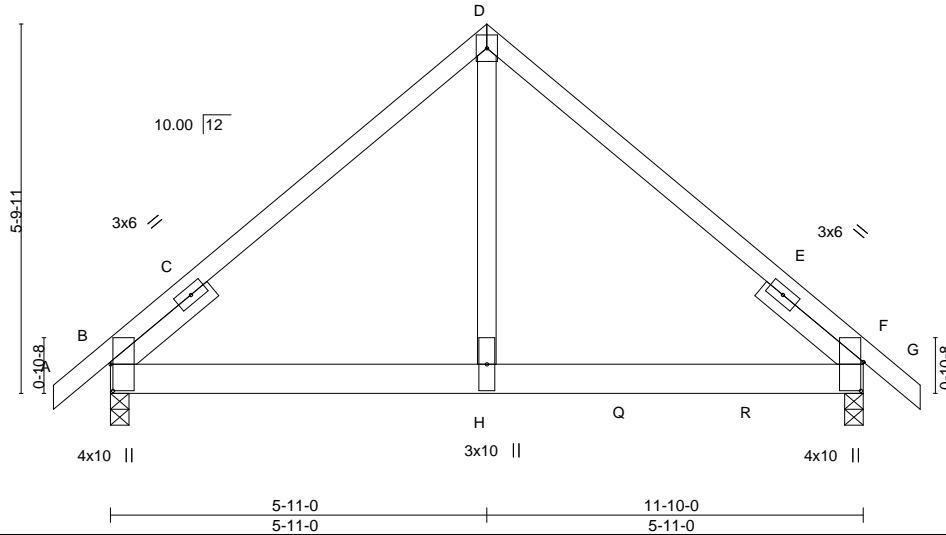


Plate Offsets (X,Y)-- [B:0-5-0,0-0-7], [F:0-5-7,0-0-7]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.78	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.95	Vert(LL) -0.11 H-O >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.85	Vert(CT) -0.17 H-O >830 180		
BCLL 0.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) -0.02 B n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 204 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -x 2-0-0, Right 2x4 SP No.3 -x 2-0-0

BRACING-

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

REACTIONS.

(size) B=0-3-8, F=0-3-8
Max Horz B=141(LC 29)
Max Uplift B=626(LC 10), F=835(LC 11)
Max Grav B=3847(LC 17), F=5747(LC 18)

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

TOP CHORD B-D=5325/926, D-F=5097/918
BOT CHORD B-H=617/3916, F-H=617/3916
WEBS D-H=1045/6190

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 2 rows staggered at 0-4-0 oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=626, F=835.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4641 lb down and 957 lb up at 6-0-8, and 1764 lb down and 201 lb up at 8-1-4, and 1764 lb down and 201 lb up at 10-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



September 17, 2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843797
201355	F2	Roof Special Girder	1	3	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:11 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
 Vert: A-D=-70, D-G=-70, I-M=-20
Concentrated Loads (lb)
 Vert: H=-4641(B) Q=-1764(B) R=-1764(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843798
201355	F3	Common Structural Gable	1	1	Job Reference (optional)	

Heartland Truss, Inc.

Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:12 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu_1FXDavWYCjs51is0?Va4ZgyN5U6qMGDTfTQqdyd0v5

0-10-12 5-11-0 11-10-0 12-8-12
0-10-12 5-11-0 5-11-0 0-10-12

4x5 =

Scale = 1:37.2

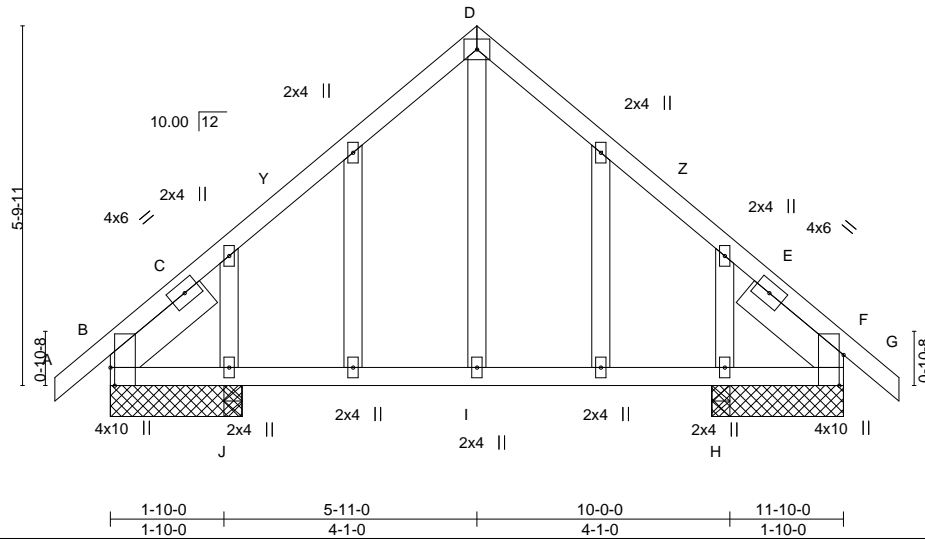


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [F:0-5-15,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.02	H-W	>999	MT20	244/190
(Roof Snow=25.0)	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.02	H-W	>999		
TCDL 10.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.02	B	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MS						
BCDL 10.0								Weight: 78 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-0-0, Right 2x6 SP No.1 -x 2-0-0

BRACING-

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

REACTIONS.

All bearings 2-1-8.
(lb) - Max Horz B=141(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) B, F except J=128(LC 12), H=126(LC 13)
Max Grav All reactions 250 lb or less at joint(s) J, H except B=433(LC 19), F=433(LC 20), J=325(LC 19), H=325(LC 20), B=408(LC 1), F=408(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-394/682, D-F=-394/682
BOT CHORD B-J=0/258, I-J=0/258, H-I=0/258, F-H=0/258

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 2-11-0, Exterior(2R) 2-11-0 to 8-11-0, Interior(1) 8-11-0 to 9-8-12, Exterior(2E) 9-8-12 to 12-8-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F, B, F except (jt=lb) J=128, H=126.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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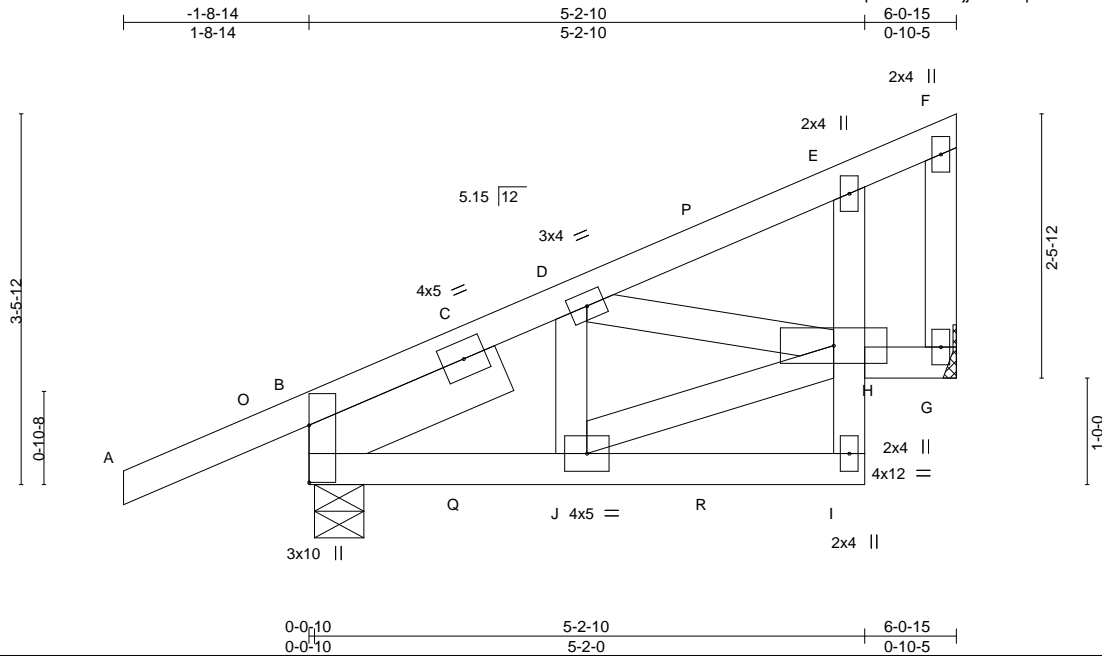


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843799
201355	G1	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:13 2020 Page 1
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Scale = 1:21.6

Plate Offsets (X,Y)-- [B:Edge,0-0-0]		0-0-10 0-0-10		5-2-10 5-2-0		6-0-15 0-10-5	
LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP		
TCLL 25.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190		
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.25	Vert(LL) -0.05 I >999 240				
TCDL 10.0	Lumber DOL 1.15	WB 0.15	Vert(CT) -0.07 I >955 180				
BCLL 0.0	Rep Stress Incr NO	Matrix-MP	Horz(CT) 0.02 G n/a n/a				
BCDL 10.0	Code IRC2018/TPI2014					Weight: 42 lb FT = 20%	

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
E-I: 2x4 SP No.3
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 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, Except: 6-0-0 oc bracing: B-J.

REACTIONS. (size) G=Mechanical, B=0-5-9
Max Horz B=113(LC 7)
Max Uplift G=-83(LC 10), B=-99(LC 10)
Max Grav G=363(LC 17), B=522(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-356/237, F-G=-355/87
BOT CHORD B-J=-104/349, E-H=-61/265
WEBS H-J=-111/370, D-H=-370/126

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G, B.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 43 lb down and 130 lb up at 1-5-13, and 56 lb down and 51 lb up at 2-3-15, and 64 lb down and 45 lb up at 3-9-13 on top chord, and 7 lb down and 13 lb up at 1-5-13, and 9 lb down and 8 lb up at 2-3-15, and 18 lb down and 27 lb up at 3-9-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-F=-70, I-K=-20, G-H=-20



September 17, 2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843799
201355	G1	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:13 2020 Page 2
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-SDpwQww8JWrjBH2Zi0pdnC51VwKZn3M6JDzM3yd0v4

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: J=-9(B) C=24(F) P=-0(F) Q=2(F) R=-9(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

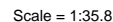
Plattsburg, MO - 64477.

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:14 2020 Page 1

142843800

Job Reference (optional)

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-wQNleGwm4qzaLLsF7PX2A IEevEHIDqWLzyWuWvd0v3



LUMBER-

REACTIONS. (size) G=0-3-8, E=Mechanical
Max Horz G=216(LC 11)
Max Uplift G=-43(LC 12), E=-88(LC 12)
Max Grav G=550(LC 19), E=424(LC 19)

BRACING-

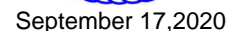
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

TOP CHORD B-C=-260/39, B-G=-500/178
WEBS C-F=0/289, C-E=-450/146

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-12 to 2-1-4, Interior(1) 2-1-4 to 6-2-0, Exterior(2E) 6-2-0 to 7-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TcLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G, E.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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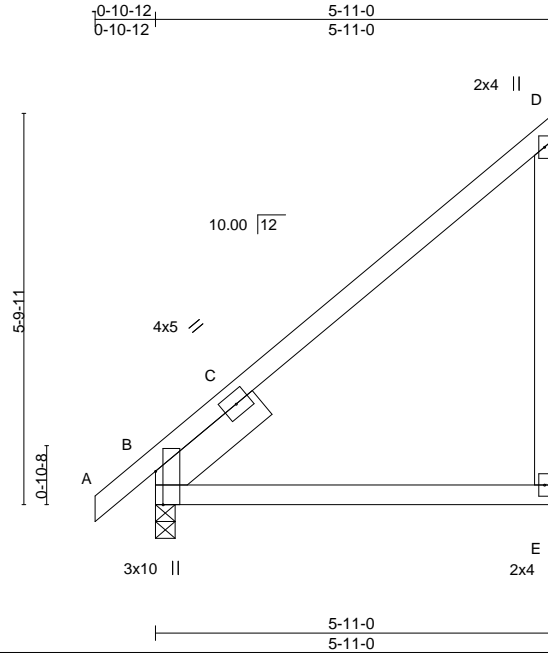


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843801
201355	G3	Jack-Closed	11	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:14 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-wQNleGwm4qzaLLsF7PX2A_IDbv7MIGiWLzyWuWyd0v3



Scale = 1:34.2

Plate Offsets (X,Y)-- [B:0-5-15,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.96	Vert(LL)	-0.13	E-H	>523	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.77	Vert(CT)	-0.20	E-H	>345		
TCDL 10.0	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.07	B	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-MP						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 35 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.1 -x 2-0-0

BRACING-

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

REACTIONS.

(size) E=Mechanical, B=0-3-8
Max Horz B=210(LC 11)
Max Uplift E=91(LC 12), B=-15(LC 12)
Max Grav E=400(LC 19), B=421(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-291/201, D-E=-293/116

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, B.
- 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.



September 17, 2020

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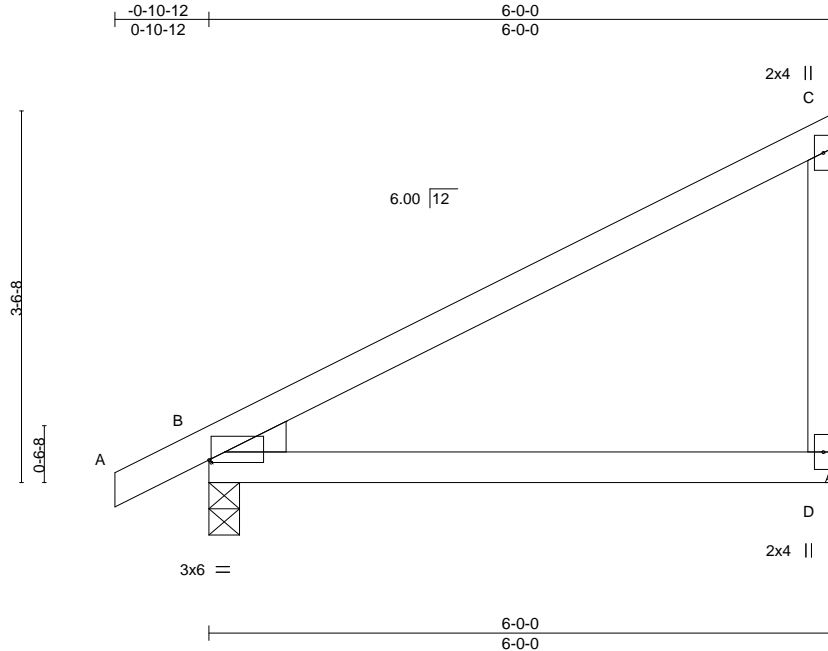


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843802
201355	G4	Jack-Closed	5	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:15 2020 Page 1
ID:173BQmdwG2PwU4XisDeVEhzotSu-OcxgrcxOr75RyVQRh73HiCIN?IW51jyadi4Qyyd0v2



Scale = 1:22.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.98 BC 0.61 WB 0.00	Vert(LL) -0.10 Vert(CT) -0.17 Horz(CT) 0.03	D-G D-G B	>675 >404 n/a	240 180 n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES	Matrix-MP						
BCLL 0.0	Code IRC2018/TPI2014							
BCDL 10.0								
							Weight: 26 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) D=Mechanical, B=0-3-8
Max Horz B=131(LC 11)
Max Uplift D=-59(LC 12), B=-47(LC 12)
Max Grav D=378(LC 19), B=450(LC 19)

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

TOP CHORD C-D=-284/142

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, B.
- 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.



September 17, 2020

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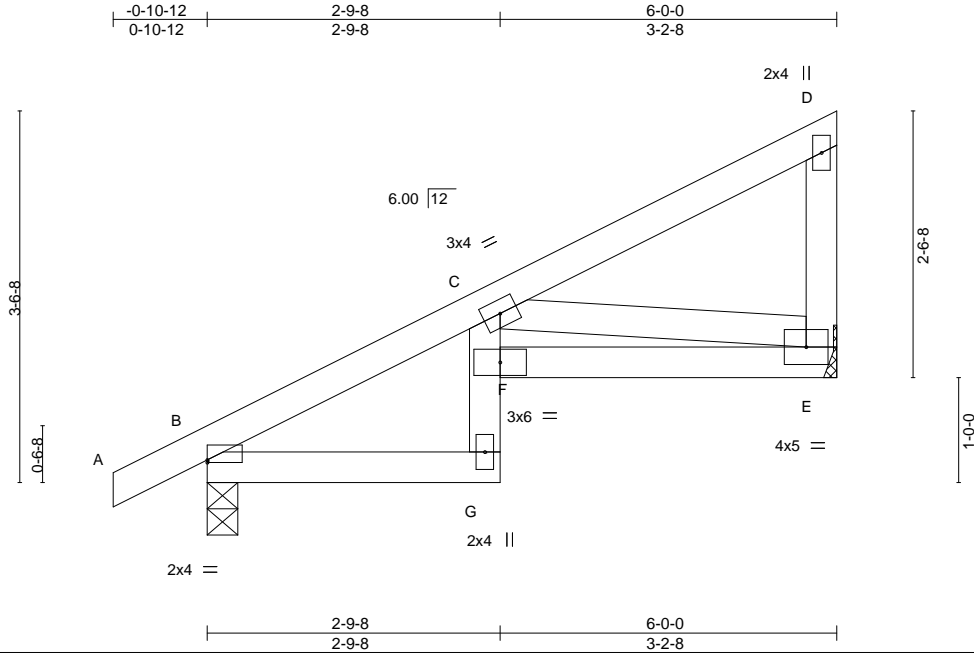


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843803
201355	G5	Jack-Closed	4	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:15 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-OcxgrcxOr75RyVQRh73HiCIXzISP1fqadi4Qyyd0v2



Scale = 1:22.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.34	in (loc) l/defl L/d	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.05 G >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.26	Vert(CT) -0.07 G >998 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-MP	Horz(CT) 0.05 E n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 30 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-1-8 oc bracing.

REACTIONS.

(size) E=Mechanical, B=0-3-8
Max Horz B=112(LC 9)
Max Uplift E=-61(LC 12), B=-46(LC 12)
Max Grav E=378(LC 19), B=450(LC 19)

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

TOP CHORD B-C=-465/106
BOT CHORD B-G=-149/350, E-F=-416/979
WEBS C-E=-993/466

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, B.
- 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.



September 17, 2020

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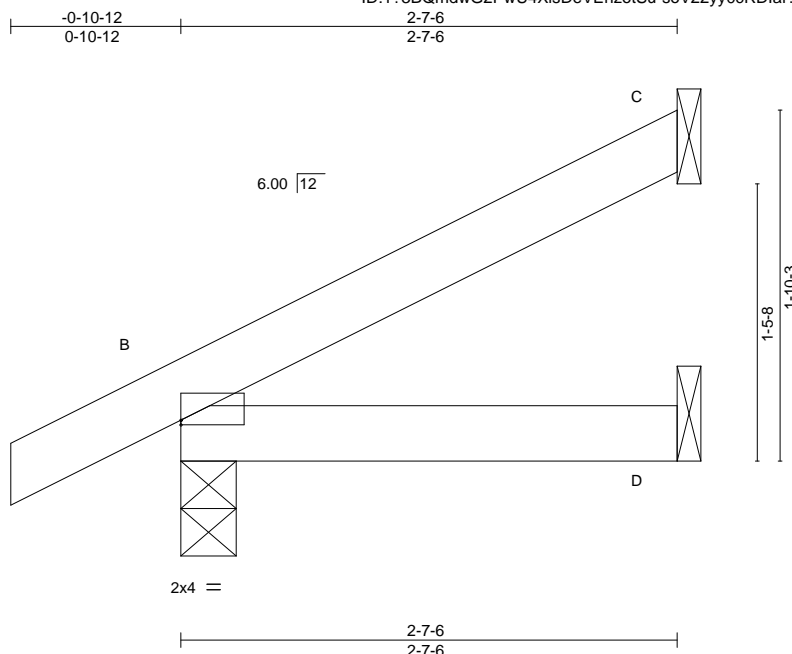


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843804
201355	G6	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:16 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzoTsu-soV22yy0cRDIaf?dFqaWFPql0i_qmACpohRdzOyd0v1



Scale = 1:12.1

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	D-G	>999	240	MT20
(Roof Snow=25.0)	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	D-G	>999	180	244/190
TCDL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	B	n/a	n/a	
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MP						
BCDL 10.0									
								Weight: 10 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) C=Mechanical, B=0-3-8, D=Mechanical
Max Horz B=65(LC 12)
Max Uplift C=-38(LC 12), B=-25(LC 12)
Max Grav C=109(LC 19), B=268(LC 19), D=46(LC 5)

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=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, B.
- 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.



September 17, 2020

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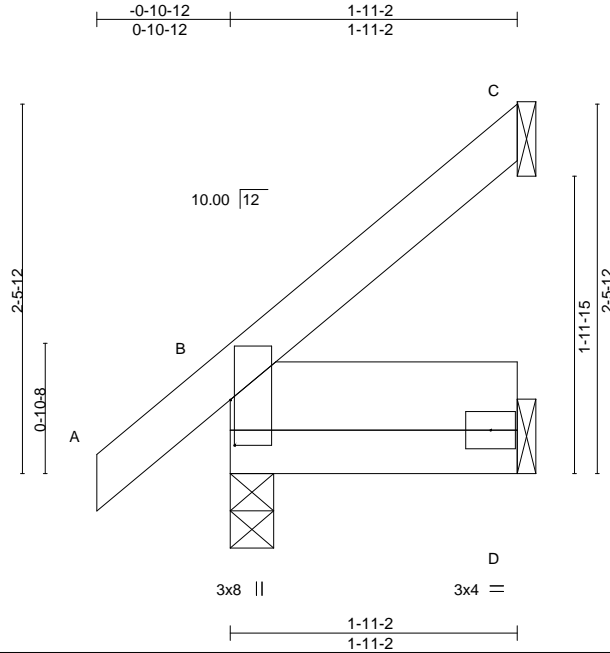
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843805
201355	G7	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:17 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-L?3QGlfNl9CpapoY5mndNx16J?VdSy1xBBVqyd0v0



Scale = 1:15.5

Plate Offsets (X,Y)-- [B:0-3-11,0-0-5]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	0.00	G	>999	MT20	244/190
(Roof Snow=25.0)	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.00	G	>999		
TCDL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	C	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-MP						
BCDL 10.0								Weight: 13 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 1-11-2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-11-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) C=Mechanical, B=0-3-8, D=Mechanical
Max Horz B=87(LC 12)
Max Uplift C=-41(LC 12), D=-15(LC 12)
Max Grav C=72(LC 19), B=246(LC 19), D=39(LC 5)

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=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, D.
- 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.



September 17, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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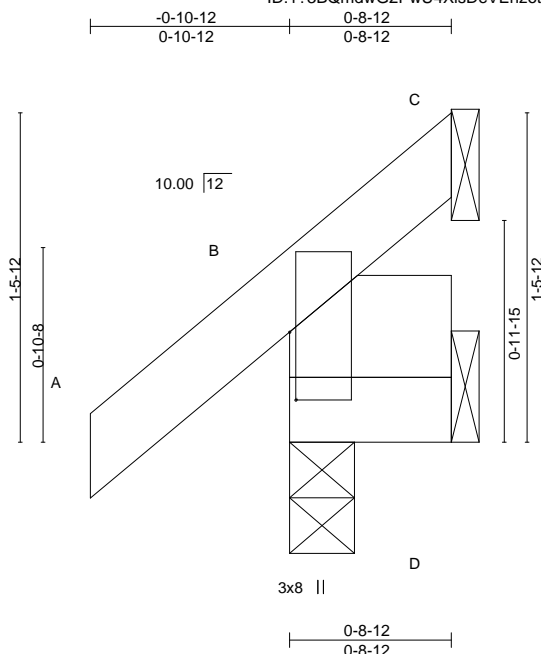
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843806
201355	G8	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc.	Plattsburg, MO - 64477.
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8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:18 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-pBcpTe H82T0pv90MFC?Kqv6mWhvE4h5Gbwk1Hvd0y?



Scale = 1:10.4

Plate Offsets (X,Y)-- [B:0-3-11,0-0-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.12		Vert(LL) 0.00 E >999 240		MT20	244/190
(Roof Snow=25.0)		Lumber DOL 1.15		BC 0.02		Vert(CT) 0.00 E >999 180			
TCDL 10.0		Rep Stress Incr YES		WB 0.00		Horz(CT) -0.00 C n/a n/a			
BCLL 0.0		Code IRC2018/TPI2014		Matrix-MP				Weight: 6 lb	FT = 20%
BCDL 10.0									

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 0-8-12

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 0-8-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, B=0-3-8, D=Mechanical
Max Horz B=48(LC 12)
Max Uplift C=-30(LC 18), B=-3(LC 12), D=-23(LC 18)
Max Grav C=7(LC 10), B=189(LC 18), D=10(LC 5)

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=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TcLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, B, D.
- 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.



September 17, 2020



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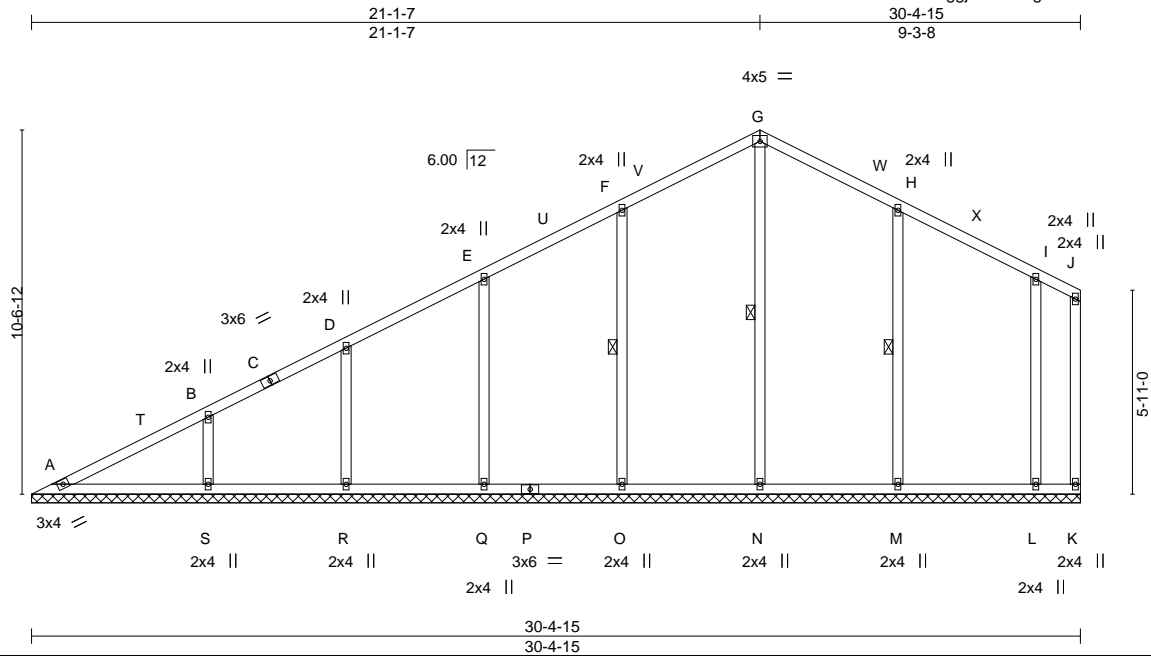


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss V1	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843807
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:20 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-lZkZuk?Xggjk3GJOuGeTPF?O6JKJixqOjvPr59y0uz



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.15	WB 0.22	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 K n/a n/a		
	Code IRC2018/TPI2014			Weight: 169 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt G-N, F-O, H-M
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 30-4-15.
(lb) - Max Horz A=282(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) K, A, Q, R, L except O=-109(LC 12), S=-121(LC 12), M=-114(LC 13)
Max Grav All reactions 250 lb or less at joint(s) K, A except N=345(LC 18), O=542(LC 18), Q=365(LC 18), R=337(LC 1), S=442(LC 18), M=560(LC 19), L=299(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD F-G=-170/253, G-H=-171/254
WEBS G-N=-265/31, F-O=-462/157, E-Q=-283/146, D-R=-265/140, B-S=-334/171, H-M=-478/162

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-15, Interior(1) 3-7-15 to 18-0-15, Exterior(2R) 18-0-15 to 24-1-15, Interior(1) 24-1-15 to 27-2-11, Exterior(2E) 27-2-11 to 30-3-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 2) TCDL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) K, A, Q, R, L except (jt=lb) O=109, S=121, M=114.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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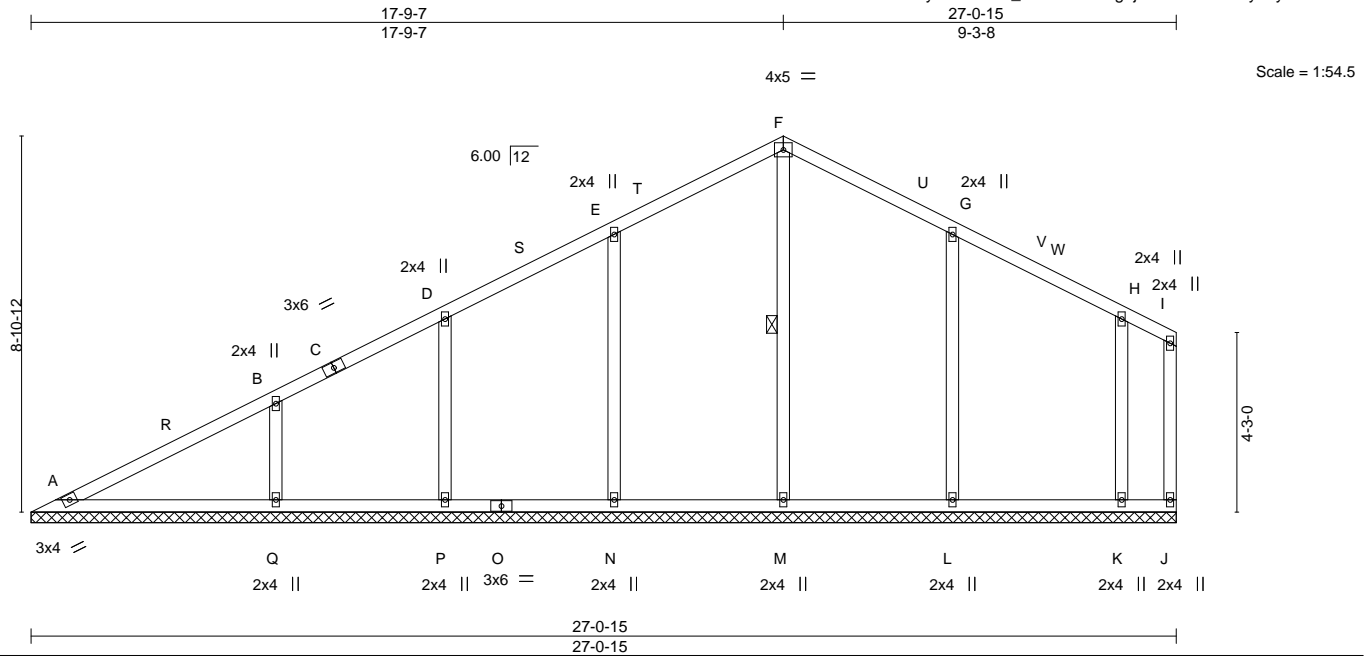


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843808
201355	V2	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:22 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhztSu-hysJJ?1nCH_RlaTnb5hxUg4jP7?zAoShBCuy92yd0ux



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.39	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.40	Horz(CT)	-0.00	J	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2018/TPI2014						Weight: 138 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt F-M

REACTIONS.

All bearings 27-0-15.
(lb) - Max Horz A=215(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) J, A, P, K except N=-112(LC 12), Q=-135(LC 12), L=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) J, A except M=341(LC 18), N=555(LC 18), P=315(LC 18), Q=492(LC 1), L=556(LC 19), K=296(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS F-M=-263/15, E-N=-471/161, B-Q=-370/189, G-L=-473/162

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 14-9-7, Exterior(2R) 14-9-7 to 20-9-7, Interior(1) 20-9-7 to 23-11-3, Exterior(2E) 23-11-3 to 26-11-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) J, A, P, K except (jt=lb) N=112, Q=135, L=113.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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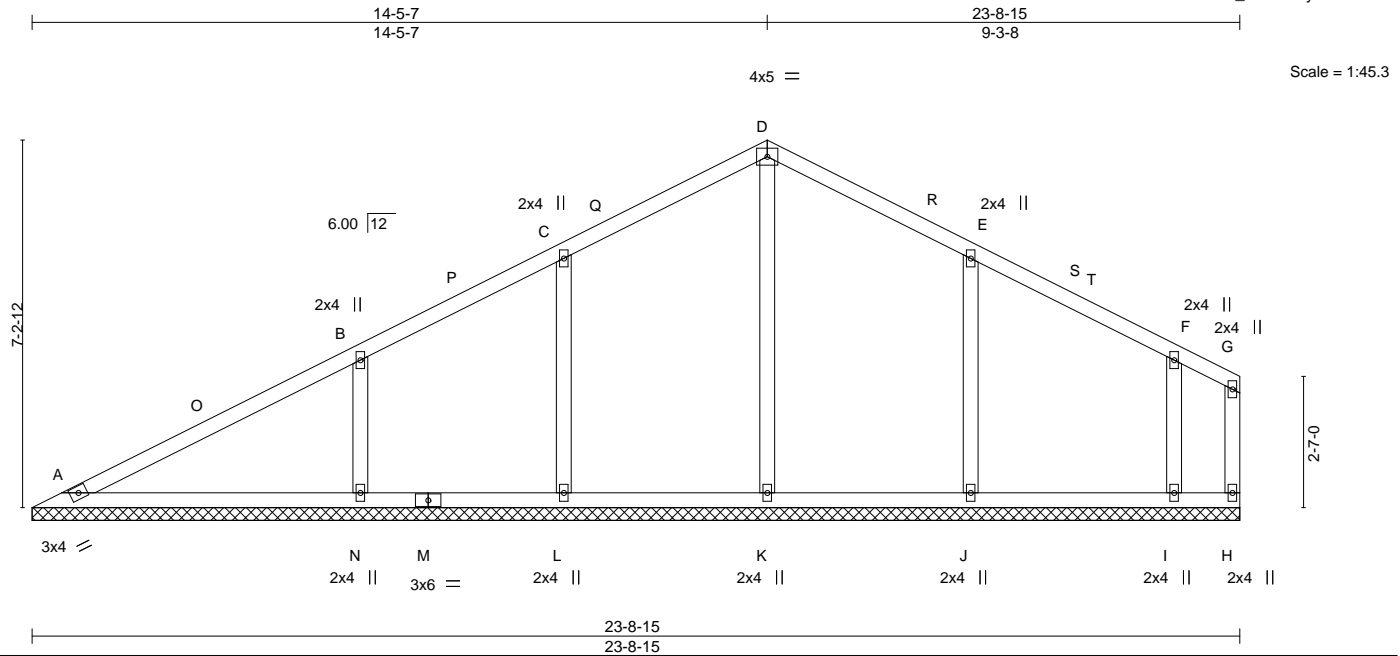


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843809
201355	V3	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:23 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzoTSu-98QhWL1Qzb6lwk2Z9oCA1udtOXKCVl_rPseViUyd0uw



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.51	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.27	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.15	WB 0.25	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 H n/a n/a		
	Code IRC2018/TPI2014			Weight: 109 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 23-8-15.
(lb) - Max Horz A=149(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) A, H, L, I except N=-146(LC 12), J=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) A, H except K=358(LC 18), L=480(LC 18), N=542(LC 18), J=553(LC 19), I=297(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS D-K=-273/4, C-L=-420/137, B-N=-406/205, E-J=-472/162

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 11-5-7, Exterior(2R) 11-5-7 to 17-5-7, Interior(1) 17-5-7 to 20-7-3, Exterior(2E) 20-7-3 to 23-7-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, H, L, I except (jt=lb) N=146, J=113.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

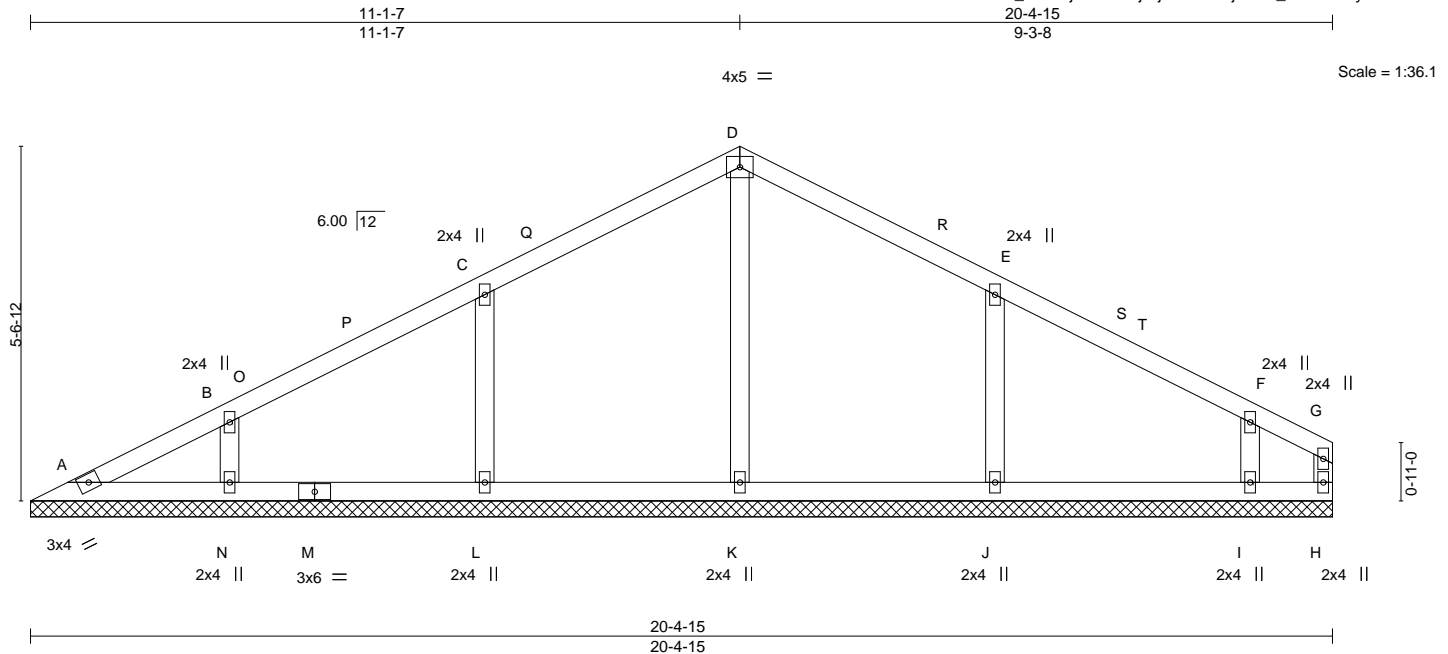
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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843810
201355	V4	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:24 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-dL_4kh22juE9XtcAjWjPZ594Hxjzem1_eWN2Ewyd0uv



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.37	Vert(LL)	n/a	-	n/a	MT20	244/190
(Roof Snow=25.0)	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Horz(CT)	0.00	H	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-S						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 84 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 20-4-15.
(lb) - Max Horz A=90(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) A, H, N except L=112(LC 12), J=112(LC 13), I=105(LC 13)
Max Grav All reactions 250 lb or less at joint(s) A, H except K=330(LC 19), L=553(LC 18), N=323(LC 18), J=556(LC 19), I=291(LC 19)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS D-K=-251/0, C-L=-471/162, E-J=-473/162

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 8-1-7, Exterior(2R) 8-1-7 to 14-1-7, Interior(1) 14-1-7 to 17-3-3, Exterior(2E) 17-3-3 to 20-3-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCCL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, H, N except (jt=lb) L=112, J=112, I=105.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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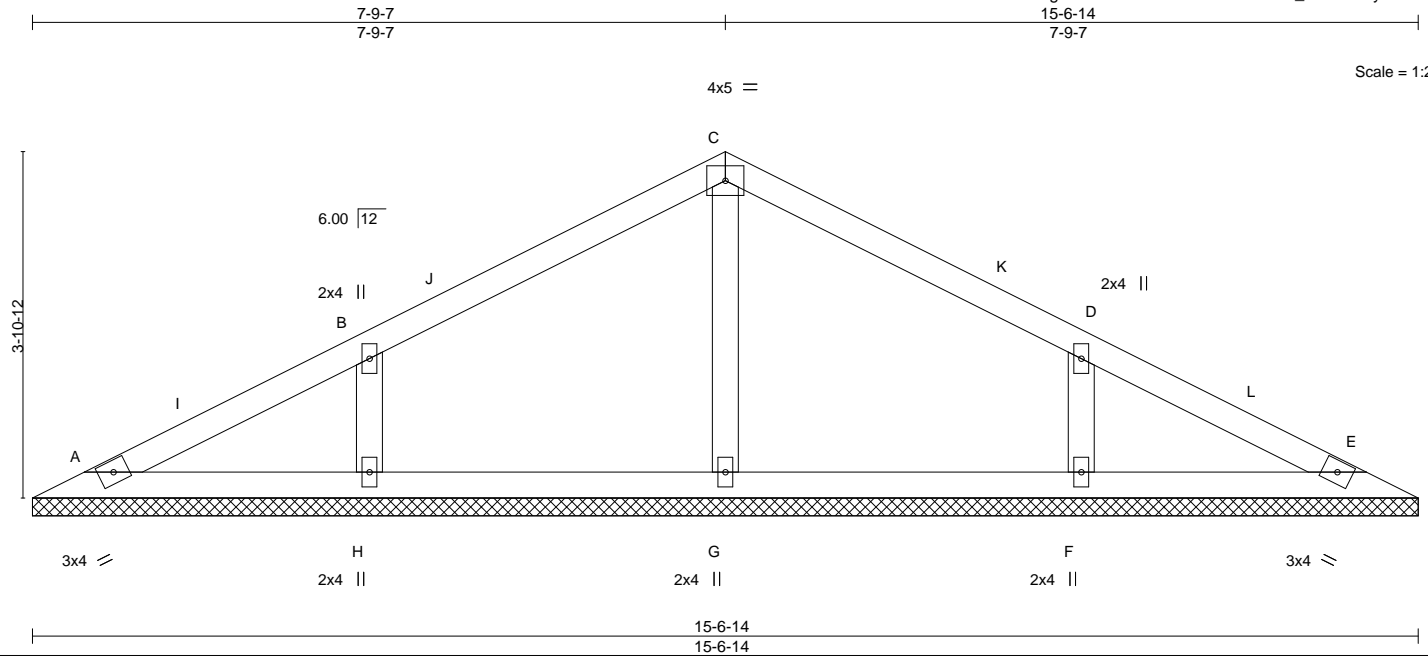


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843811
201355	V5	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:25 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-6XYSx13gUCM091BMGDEe6JiFQK3ENE_7iA7cmNyd0uu



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	n/a	-	n/a	MT20	244/190
(Roof Snow=25.0)	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
TCDL 10.0	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	E	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-S					Weight: 56 lb	FT = 20%
BCDL 10.0									

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 15-6-14.

(lb) - Max Horz A=60(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) A, E except H=110(LC 12), F=110(LC 13)

Max Grav All reactions 250 lb or less at joint(s) A, E except G=319(LC 19), H=543(LC 18), F=543(LC 19)

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

WEBS B-H=-459/192, D-F=-459/192

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-9-7, Interior(1) 3-9-7 to 4-9-7, Exterior(2R) 4-9-7 to 10-9-7, Interior(1) 10-9-7 to 11-9-7, Exterior(2E) 11-9-7 to 14-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, E except (jt=lb) H=110, F=110.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

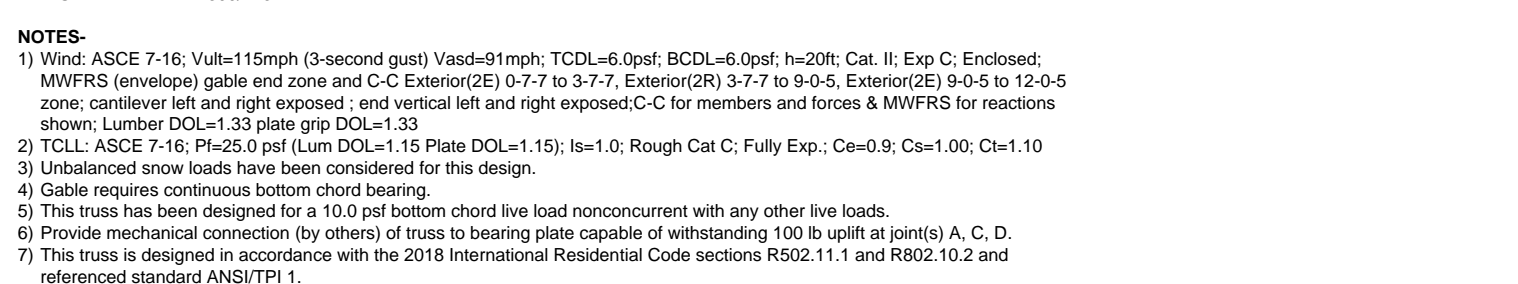
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:25 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-6XYSx13gUCM091BMGDEeJi7EK?pN9w7t47cmNyd0uu
|-----6-3-14-----12-7-12-----|
|-----6-3-14-----6-3-14-----|



September 17, 2020

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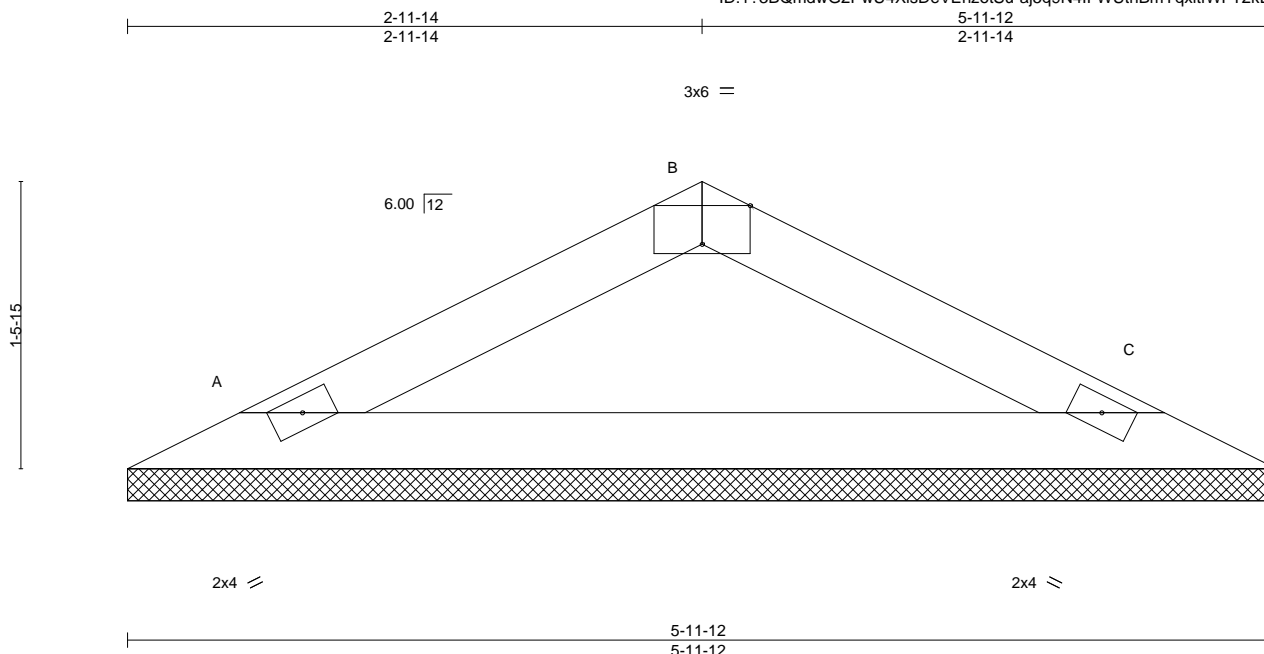


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843813
201355	V7	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc.	Plattsburg, MO - 64477.
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8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:26 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-ai5a9N4lFWUtbnBmYaxlrfWFT2kLi6iaH5gs9lpvdOut



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a -	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	n/a -	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 C	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 17 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-11-12 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) A=5-11-12, C=5-11-12
 Max Horz A=-20(LC 13)
 Max Uplift A=-23(LC 12), C=-23(LC 13)
 Max Grav A=243(LC 18), C=243(LC 19)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCdL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, C.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020



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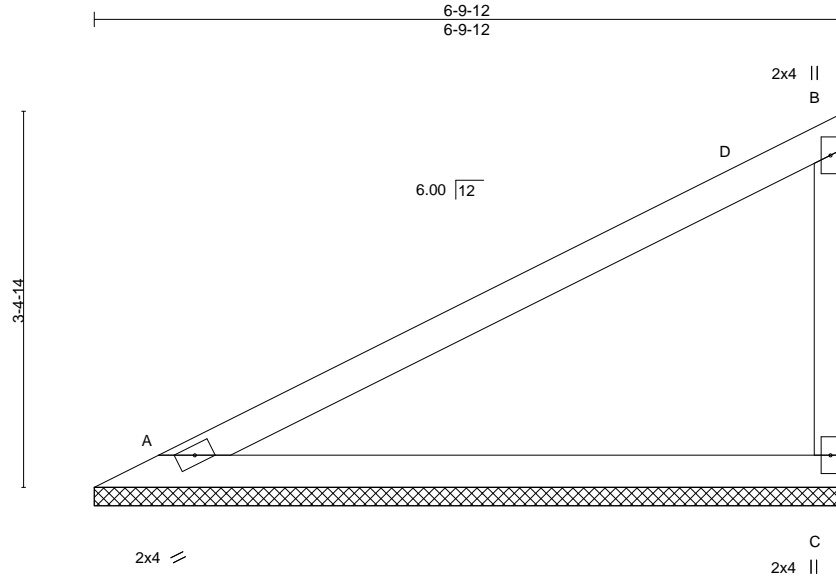


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843814
201355	V8	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:26 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-aj5q9N4IFWUtnBmYqxtfWFHBKlr6igH5qs9lpyd0ut



Scale = 1:20.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	C	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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) A=6-9-12, C=6-9-12
Max Horz A=120(LC 9)
Max Uplift A=-28(LC 12), C=-54(LC 12)
Max Grav A=396(LC 18), C=396(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-335/174

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, C.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 17, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	2350 SW River Trail Rd. - LSMO	I42843815
201355	V9	Valley	1	1	Job Reference (optional)	

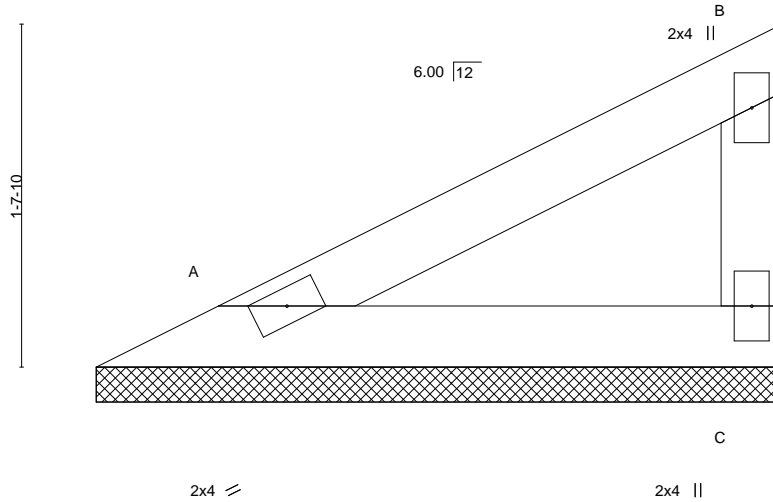
Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:27 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzoTsU-2wFCMj5w0pckOLLkOeG6BkneR8kLr9wQKUcjrFyd0us

3-3-4
3-3-4

Scale = 1:11.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	C	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 11 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) A=3-3-4, C=3-3-4
Max Horz A=50(LC 9)
Max Uplift A=-12(LC 12), C=-25(LC 12)
Max Grav A=149(LC 18), C=149(LC 18)

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=6.0psf; h=20ft; 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=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, C.
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss Z1	Truss Type Roof Special	Qty 6	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843816
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:28 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-W6Daa35Yn7kb0VwxyMnLkxKe4Y?VabiaZ8LGNiYd0ur

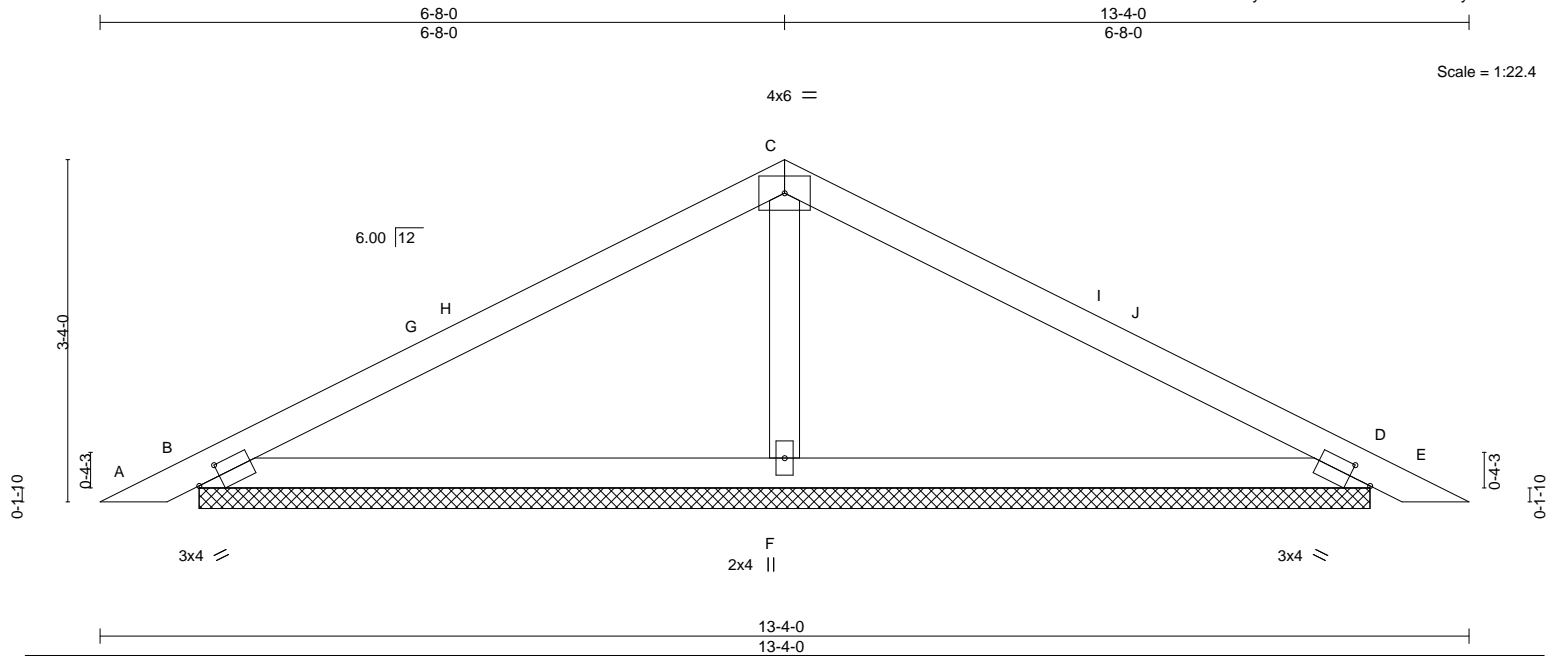


Plate Offsets (X,Y)-- [B:0-2-10,0-1-6], [D:0-2-10,0-1-6]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.83 BC 0.39 WB 0.09 Matrix-S	Vert(LL) -0.02 Vert(CT) -0.00 Horz(CT) 0.00	E D D	n/r n/r n/a	120 90 n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES							
BCLL 0.0	Code IRC2018/TPI2014							
BCDL 10.0							Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) B=11-4-14, D=11-4-14, F=11-4-14
Max Horz B=53(LC 12)
Max Uplift B=-58(LC 12), D=-68(LC 13), F=-23(LC 12)
Max Grav B=397(LC 19), D=397(LC 20), F=571(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS C-F=-388/208

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-8-0, Exterior(2R) 3-8-0 to 9-8-0, Interior(1) 9-8-0 to 10-0-1, Exterior(2E) 10-0-1 to 13-0-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, D, F.
- 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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 17, 2020

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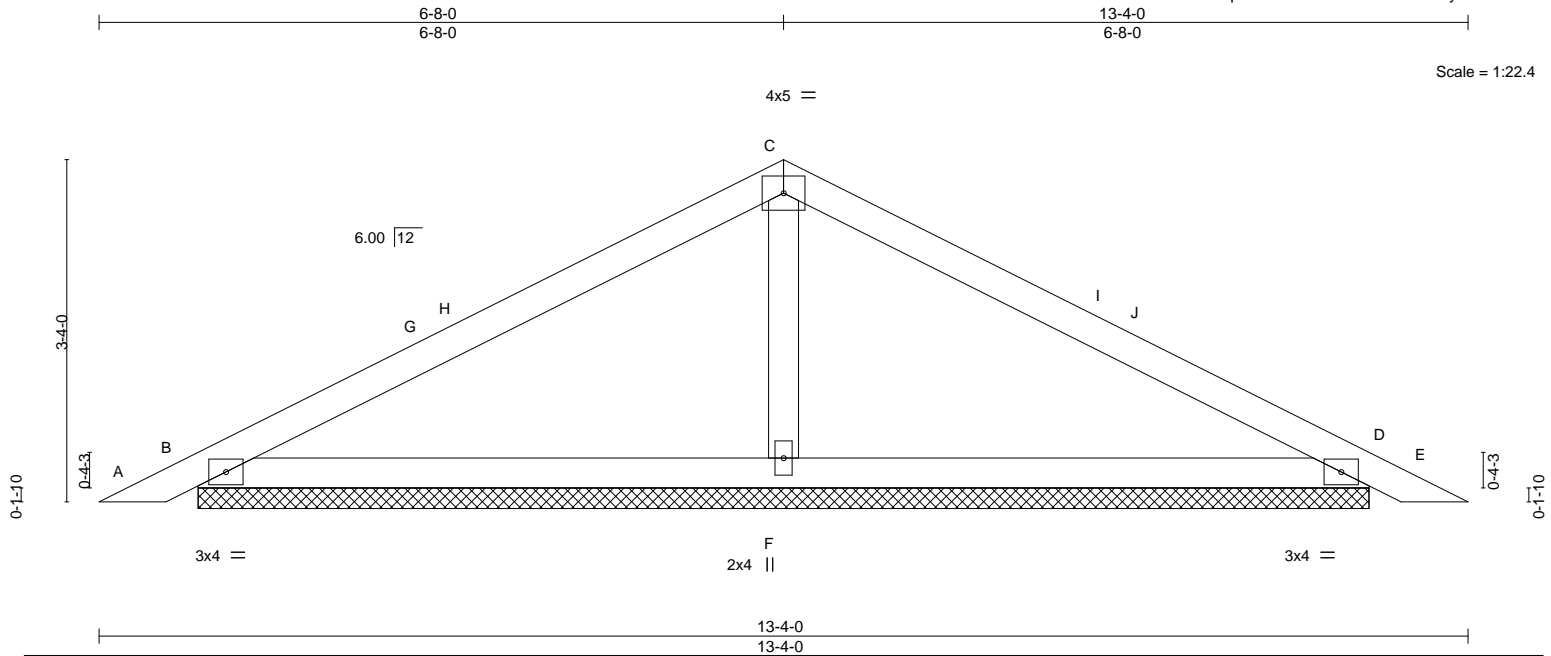


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss Z2	Truss Type Piggyback	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843817
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:33 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-t41Tdm9hcfMu6GpukvNWR?1bJZIIIFsnJiQ312vyd0um



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.01	E	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.00	D	n/r	90	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	D	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 86 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) B=11'-4"-14, D=11'-4"-14, F=11'-4"-14
Max Horz B=53(LC 12)
Max Uplift B=-58(LC 12), D=-68(LC 13), F=-23(LC 12)
Max Grav B=397(LC 19), D=397(LC 20), F=571(LC 20)

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

WEBS C-F=-388/208

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0'-9" oc.
Bottom chords connected as follows: 2x4 - 1 row at 0'-9" oc.
- 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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope) gable end zone and C-C Exterior(2E) 0'-3"-15 to 3'-3"-15, Interior(1) 3'-3"-15 to 3'-8"-0, Exterior(2R) 3'-8"-0 to 9'-8"-0, Interior(1) 9'-8"-0 to 10'-0"-1, Exterior(2E) 10'-0"-1 to 13'-0"-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, D, F.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



September 17, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

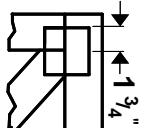
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



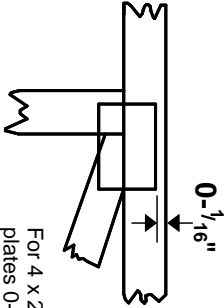
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

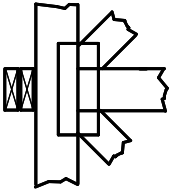
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:

ANSI/TP1: 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

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

