



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 201355	Truss A1	Truss Type Piggyback Base	Qty 2	Ply 1	2350 SW River Trail Rd. - LSMO	I42843773
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8,330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:34 2020 Page 1
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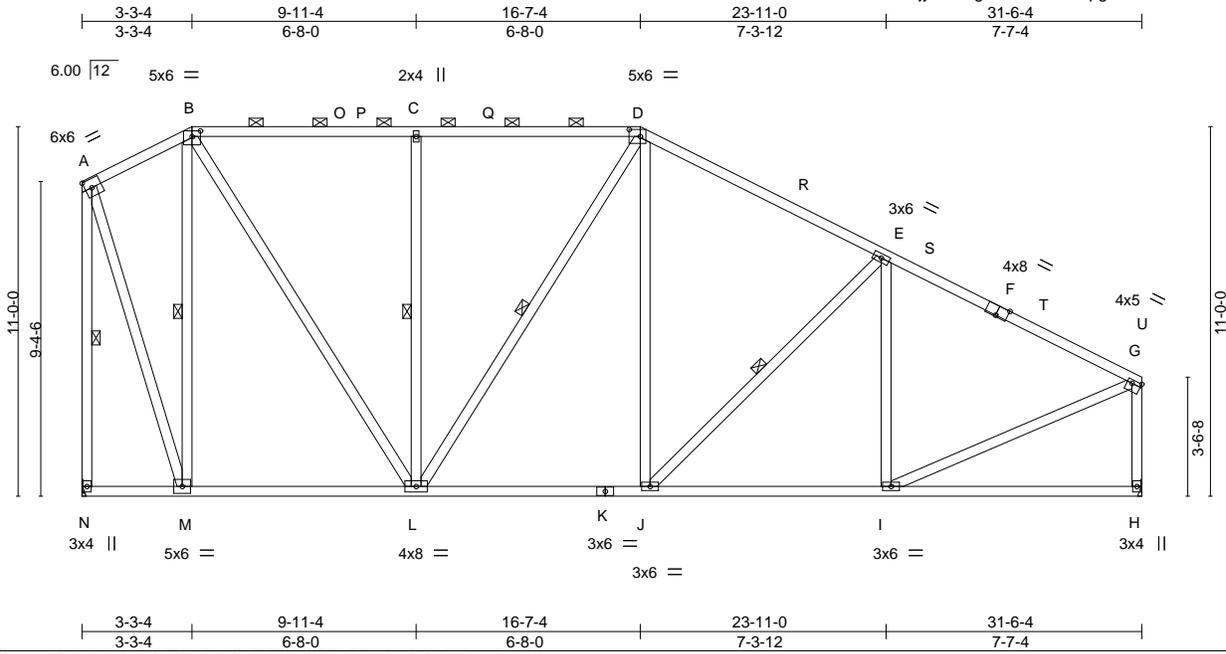


Plate Offsets (X,Y)--	[B:0-3-0,0-2-0], [D:0-4-0,0-2-8], [F:0-4-0,Edge], [G:Edge,0-1-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.88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

LUMBER-	BRACING-
TOP CHORD 2x4 SP 1650F 1.5E *Except* A-B: 2x4 SP No.2, D-F: 2x4 SP 2400F 2.0E	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.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* A-N,G-H: 2x4 SP No.2	WEBS 1 Row at midpt B-M, C-L, D-L, E-J, A-N

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

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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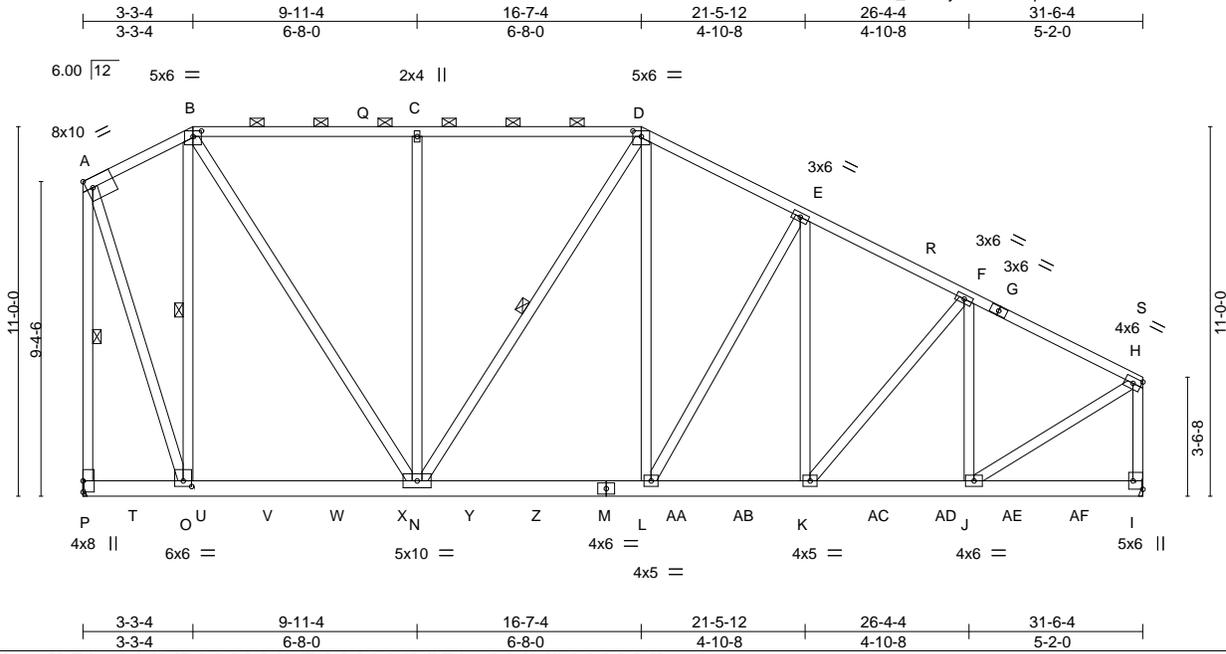


Plate Offsets (X,Y)--	[A:Edge,0-3-8], [B:0-3-0,0-2-0], [D:0-3-0,0-2-0], [I:Edge,0-3-8], [O:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	TC 0.97 BC 0.55 WB 0.88 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.14 L-N >999 240 Vert(CT) -0.20 L-N >999 180 Horz(CT) 0.03 I n/a n/a	MT20	244/190
TCDL 10.0					
BCLL 0.0					
BCDL 10.0				Weight: 577 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-12 max.); B-D.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt B-O, D-N, A-P

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

<p>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</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job 201355	Truss A2	Truss Type Piggyback Base Girder	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO Job Reference (optional)	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 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.**

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/TP1 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 A3	Truss Type Piggyback Base	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843775
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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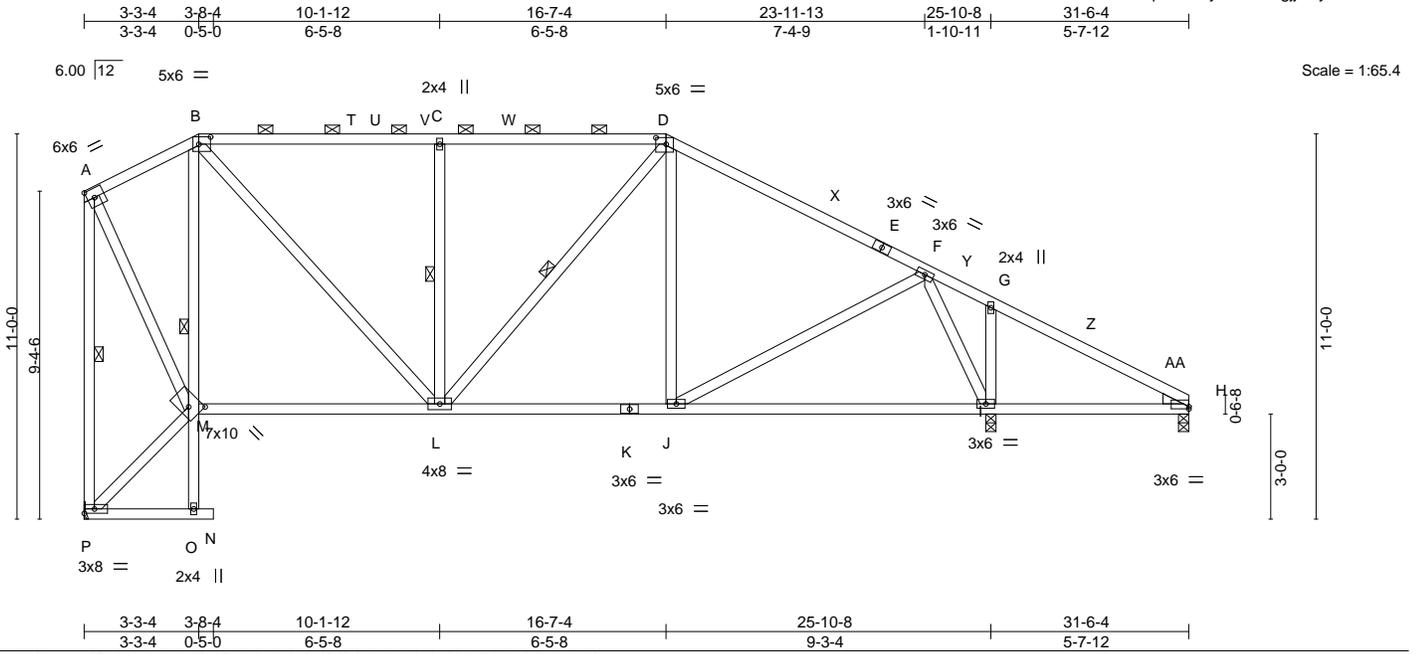


Plate Offsets (X,Y)--	[B:0-4-0,0-2-8], [D:0-3-8,0-2-4], [H:0-0-0,0-0-13], [M:0-4-0,0-4-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.88 BC 0.61 WB 0.56 Matrix-MS	in (loc)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

LUMBER-	BRACING-
TOP CHORD 2x4 SP 1650F 1.5E *Except* A-B: 2x4 SP No.2	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.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except* A-P: 2x4 SP No.2	WEBS 6-0-0 oc bracing: H-I. 1 Row at midpt C-L, D-L, A-P, B-O
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.



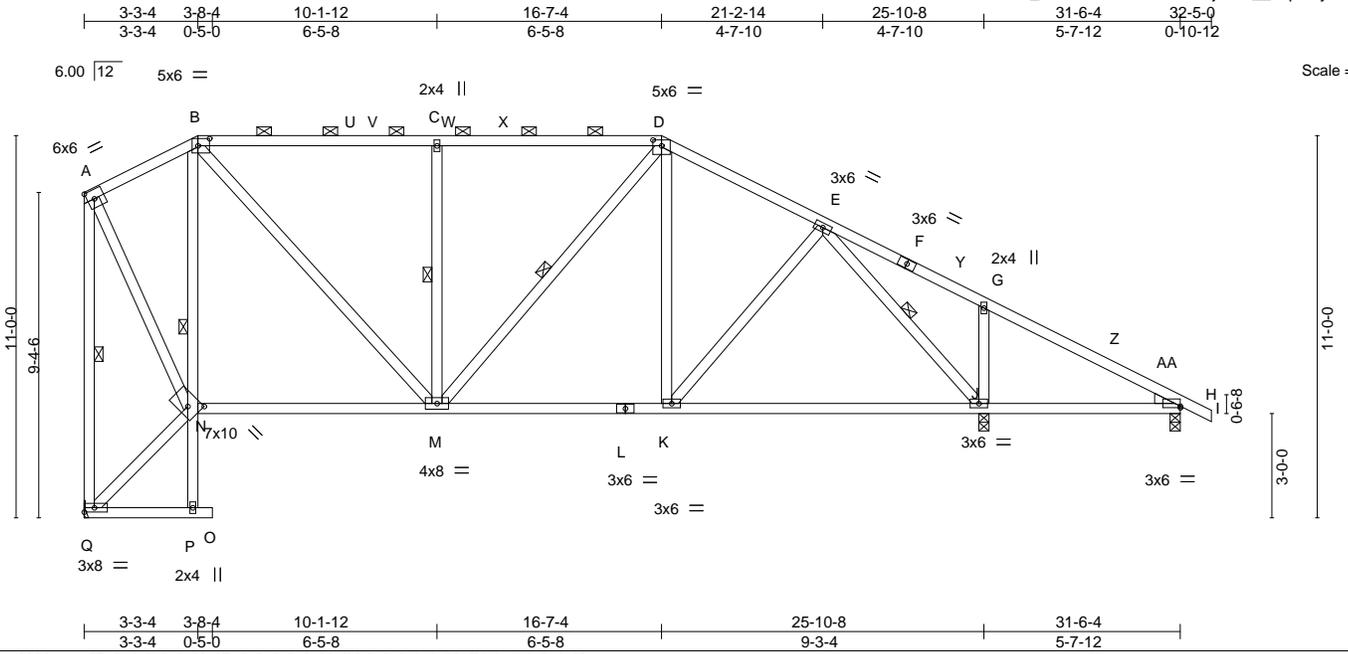
September 17, 2020

Job 201355	Truss A5	Truss Type Piggyback Base	Qty 3	Ply 1	2350 SW River Trail Rd. - LSMO	I42843776
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:42 2020 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.86 BC 0.65 WB 0.50 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.14 J-K >999 240 Vert(CT) -0.28 J-K >999 180 Horz(CT) 0.07 J n/a n/a	MT20	244/190
TCDL 10.0				Weight: 220 lb	FT = 20%
BCLL 0.0					
BCDL 10.0					

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* B-D: 2x4 SP 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-3 max.): B-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3 *Except* A-Q: 2x4 SP No.2	WEBS 6-0-0 oc bracing: H-J. 1 Row at midpt C-M, D-M, E-J, A-Q, B-P
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

- NOTES-**
- 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) 0-1-12 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
 - 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.
 - 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) H except (jt=lb) Q=151, J=135.
 - This truss 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.



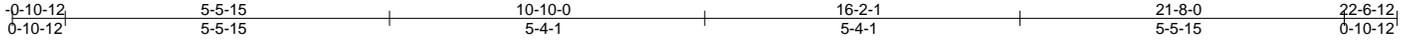
September 17, 2020

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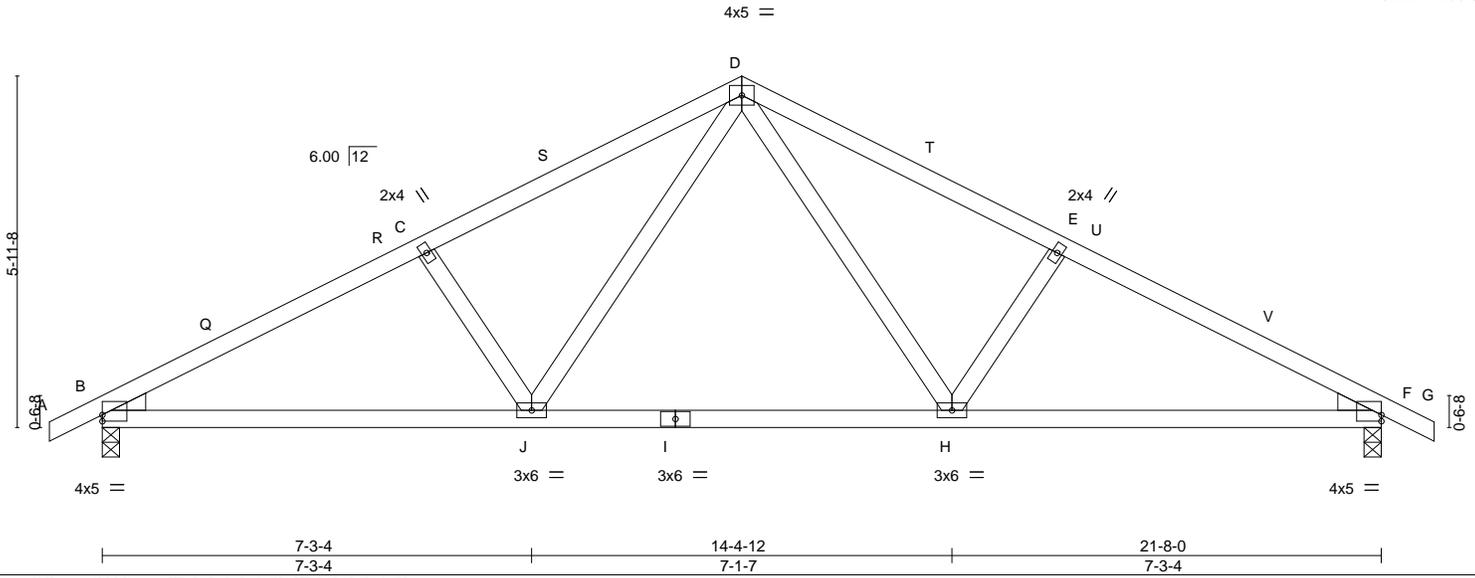
Heartland Truss, Inc, Plattsburg, MO - 64477,

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Scale = 1:38.8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.81 BC 0.65 WB 0.26 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.09 H-J >999 240 Vert(CT) -0.17 H-J >999 180 Horz(CT) 0.04 F n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
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; TCCL=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); ls=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

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



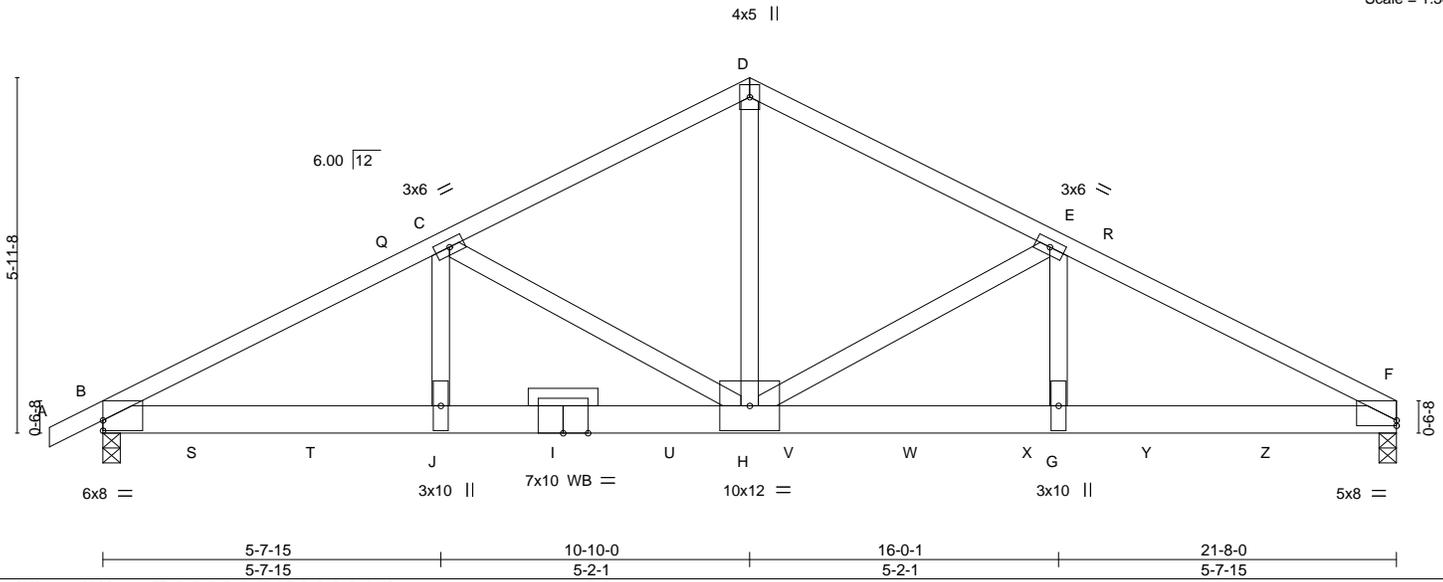
Job 201355	Truss B2	Truss Type Roof Special Girder	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843778
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:44 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-oeZyL0Zy8cBrkkZUN6?0ygV6UprmGYK5RIhxqFyd0vX



Scale = 1:38.4



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

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.1 *Except* F-I: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* D-H: 2x4 SP No.2	
OTHERS 2x4 SP No.3	

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=B) 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.



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 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 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-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)

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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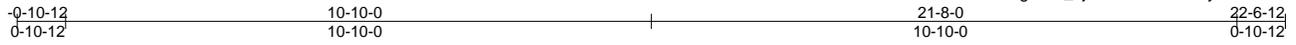


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss B3	Truss Type Common Supported Gable	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	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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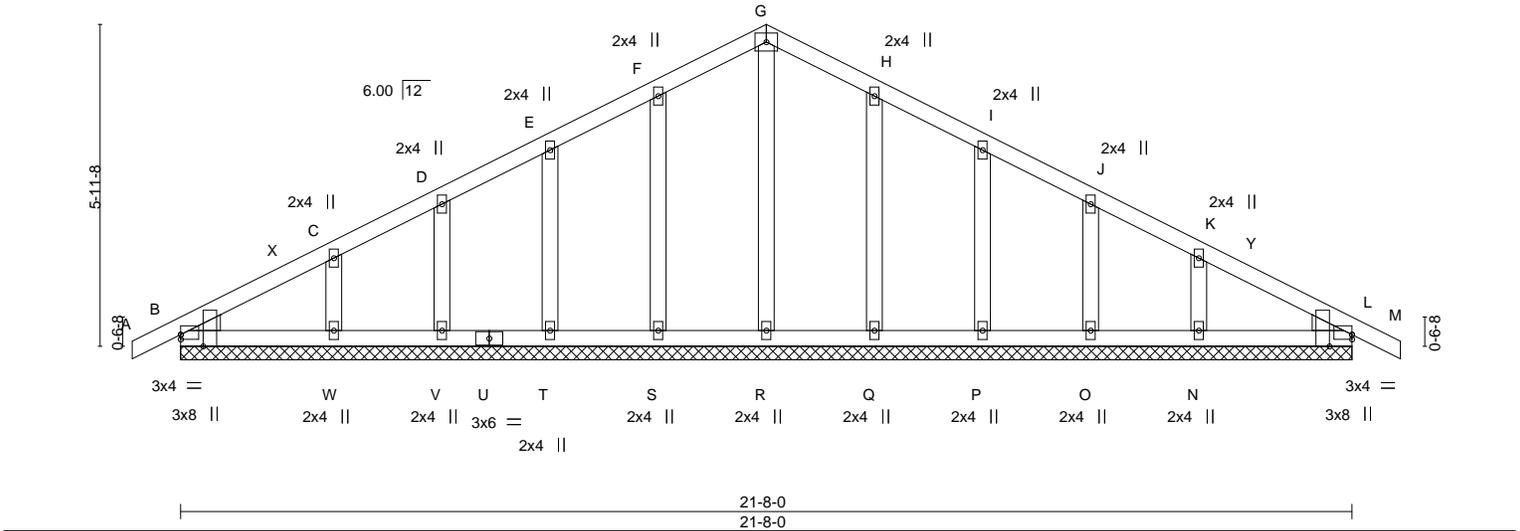


Plate Offsets (X,Y)-- [B:0-0-0,0-1-1], [B:0-2-9,Edge], [L:0-0-0,0-1-1], [L:0-2-9,Edge]					
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.00 L n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) 0.00 L n/r 90		
BCLL 0.0	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.00 L n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S			
				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.



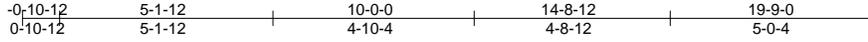
September 17, 2020

Job 201355	Truss C1	Truss Type Roof Special	Qty 6	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843780
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

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4x5 =

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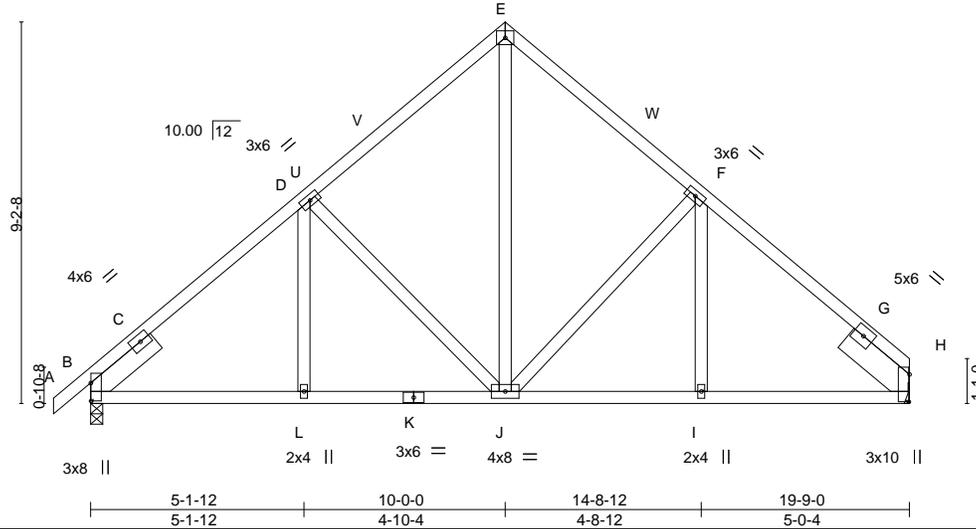


Plate Offsets (X,Y)-- [B:0-5-3,0-0-1], [H:0-7-15,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.56	Vert(LL) -0.05 I-J >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.35	Vert(CT) -0.08 I-J >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 H n/a n/a		
	Code IRC2018/TPI2014			Weight: 127 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) 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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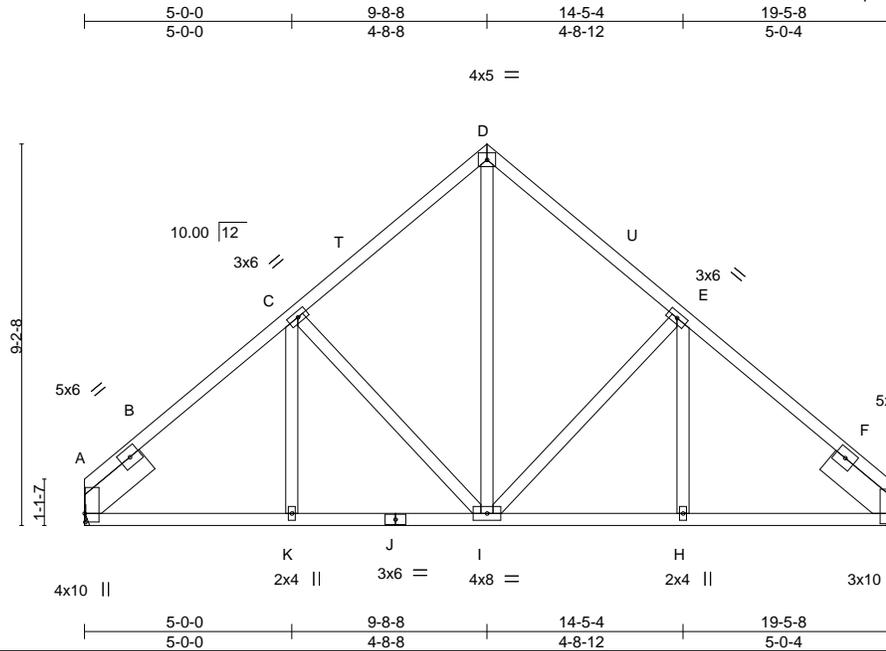
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss C2	Truss Type Roof Special	Qty 3	Ply 1	2350 SW River Trail Rd. - LSMO	I42843781
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

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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 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.63 BC 0.67 WB 0.32 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.05 I-K >999 240 Vert(CT) -0.08 I-K >999 180 Horz(CT) 0.04 G n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
BCDL 10.0				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 201355	Truss C3	Truss Type Roof Special	Qty 2	Ply 1	2350 SW River Trail Rd. - LSMO	I42843782
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:48 2020 Page 1
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4x5 =

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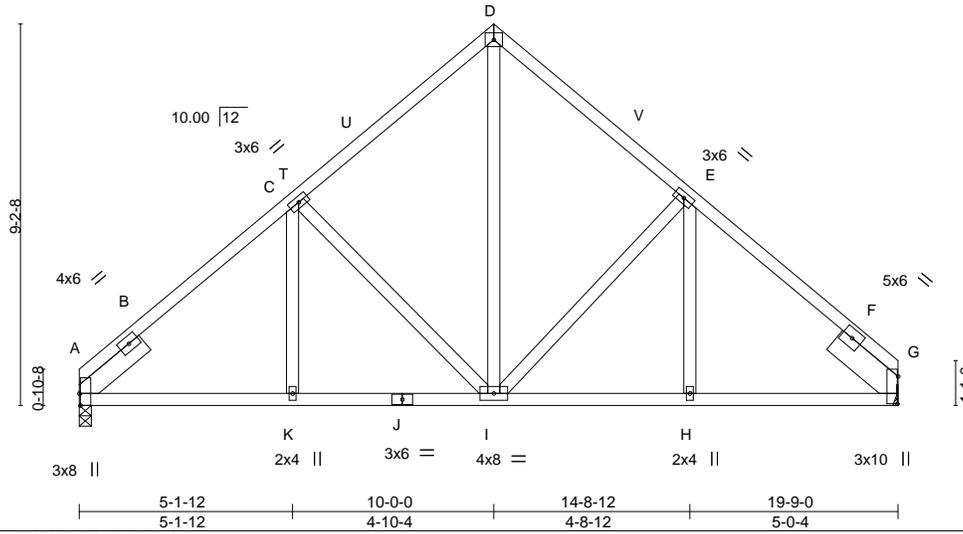


Plate Offsets (X,Y)-- [A:0-3-8,Edge], [G:0-7-15,0-0-3]

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

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

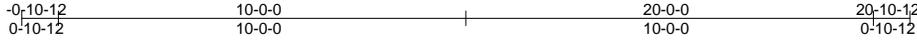


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 201355	Truss C4	Truss Type Common Supported Gable	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843783
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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?3BQmdwG2PwU4XisDeVEhztotSu-dowDb3ejkSy_Sf0djN6QBxIK?D7sgMd_qE8F2vyd0vR



4x5 =

Scale = 1:56.3

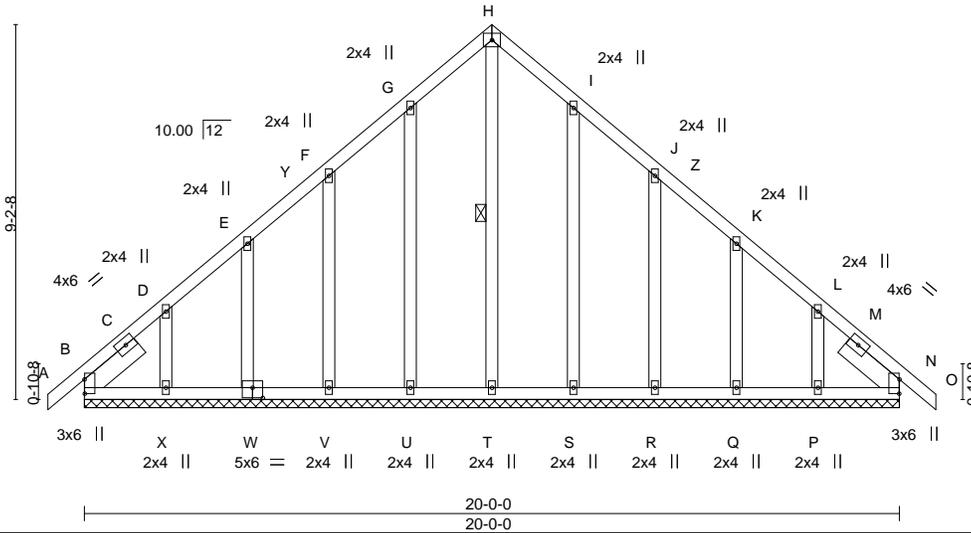


Plate Offsets (X,Y)-- [B:0-4-3,0-0-1], [N:0-4-3,0-0-1], [W:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) -0.00 N n/r 120		
BCLL 0.0	Lumber DOL 1.15	WB 0.27	Vert(CT) 0.00 N n/r 90		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 N n/a n/a		
	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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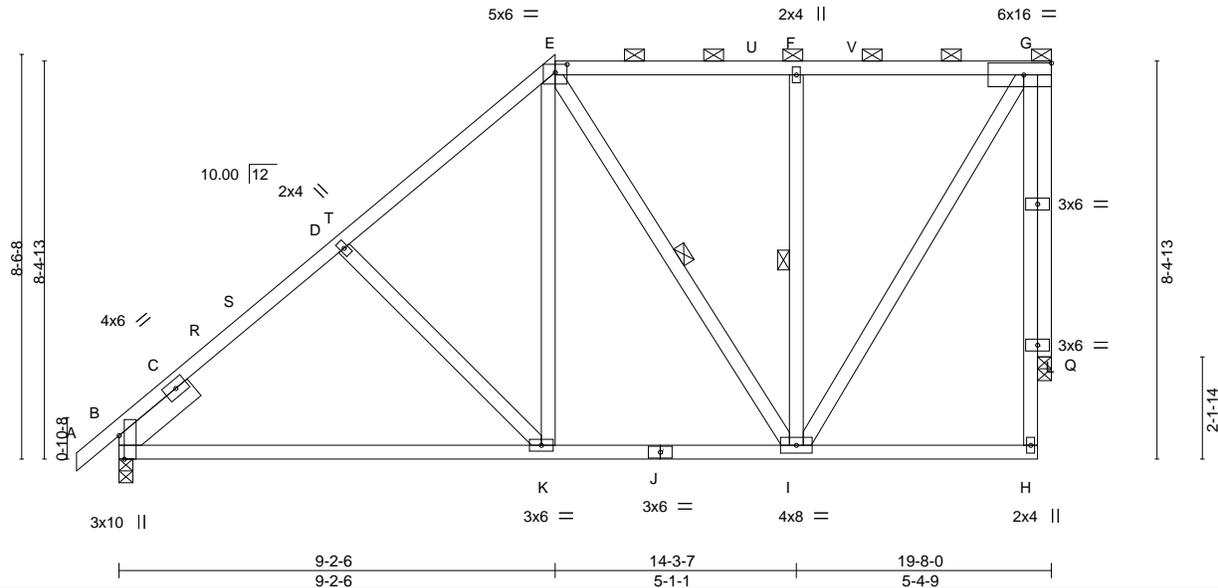
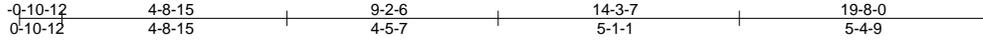
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss D1	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843784
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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_UbpPFLV14r4pbqH4dfk8IKpdl7P172uupaLyd0vQ



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

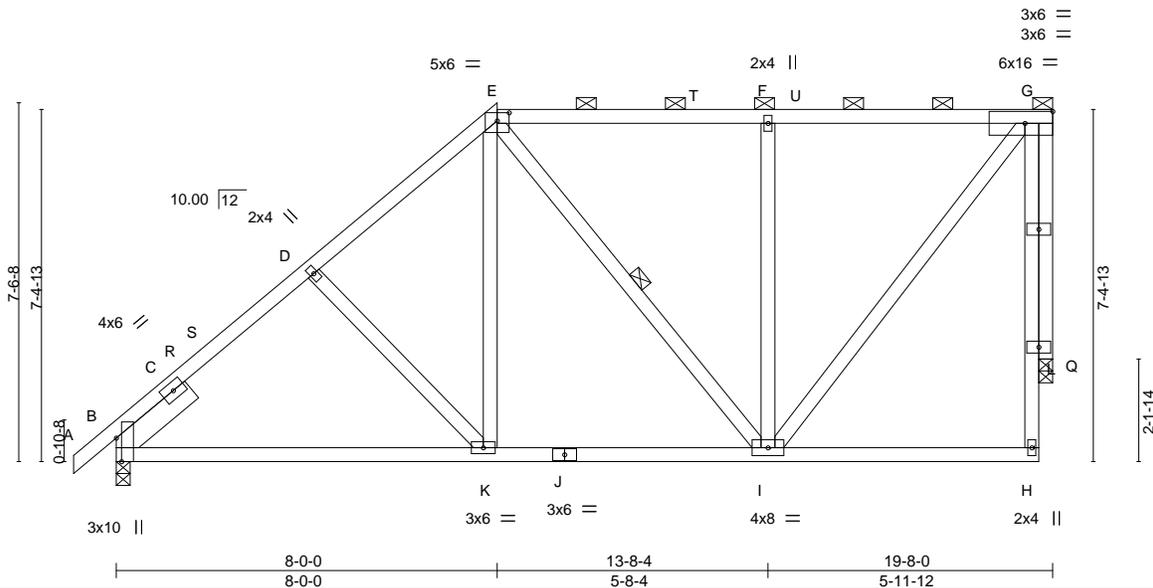


September 17, 2020

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Job 201355	Truss D2	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843785
Heartland Truss, Inc., Plattsburg, MO - 64477,					8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:48:52 2020 Page 1	
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					Job Reference (optional)	



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

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* E-G: 2x4 SP 1650F 1.5E	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt E-I
OTHERS 2x4 SP No.2	
SLIDER Left 2x6 SP No.1 -x 2-0-0	

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

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

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

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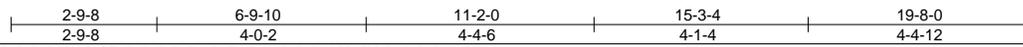
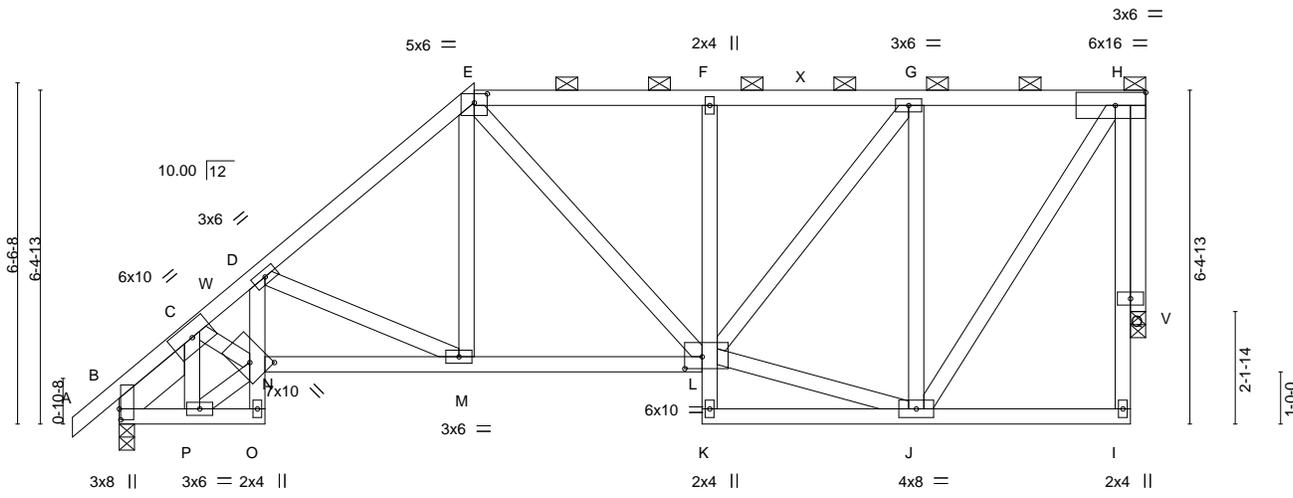
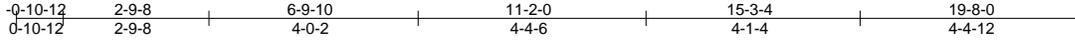


Plate Offsets (X,Y)-- [B:0-2-8,0-0-5], [E:0-3-0,0-2-1], [L:0-4-0,0-2-12], [N:0-4-0,0-4-0]

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

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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?3BQmdwG2PwU4XisDeVEhzotSu-_mk6emirZ_aHZQvbWwibu_T2IEjzLWwjzWsoj6yd0vM



Scale = 1:39.6

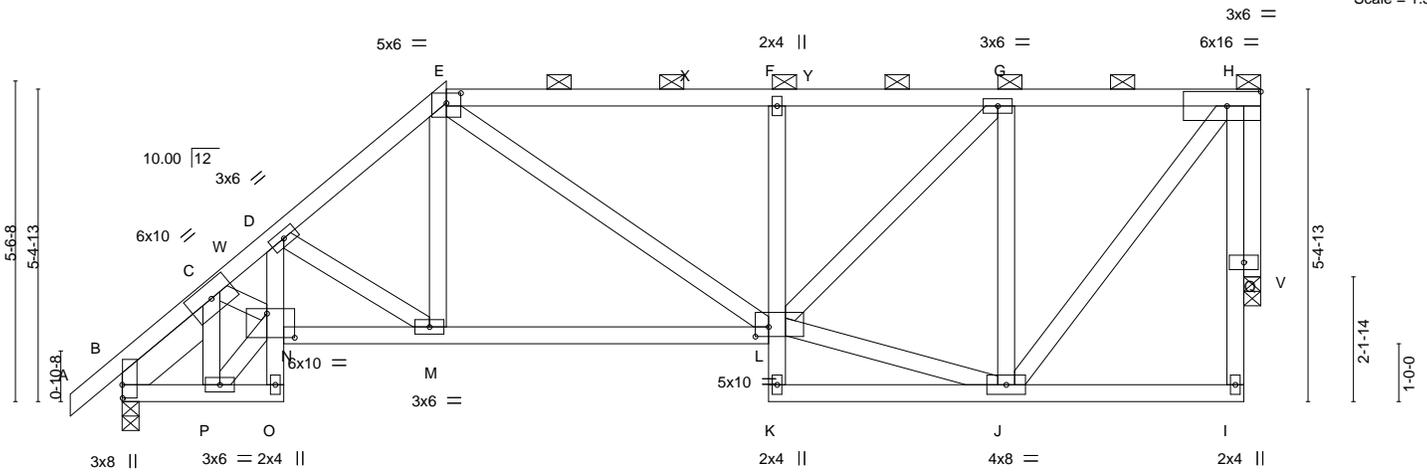


Plate Offsets (X,Y)-- [B:0-2-12,0-0-1], [E:0-3-0,0-2-1], [L:0-2-12,0-2-0], [N:0-5-12,0-5-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.65 BC 0.51 WB 0.65 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.08 L >999 240 Vert(CT) -0.14 L-M >999 180 Horz(CT) 0.12 V n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
BCDL 10.0				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

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 D5	Truss Type Half Hip	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	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

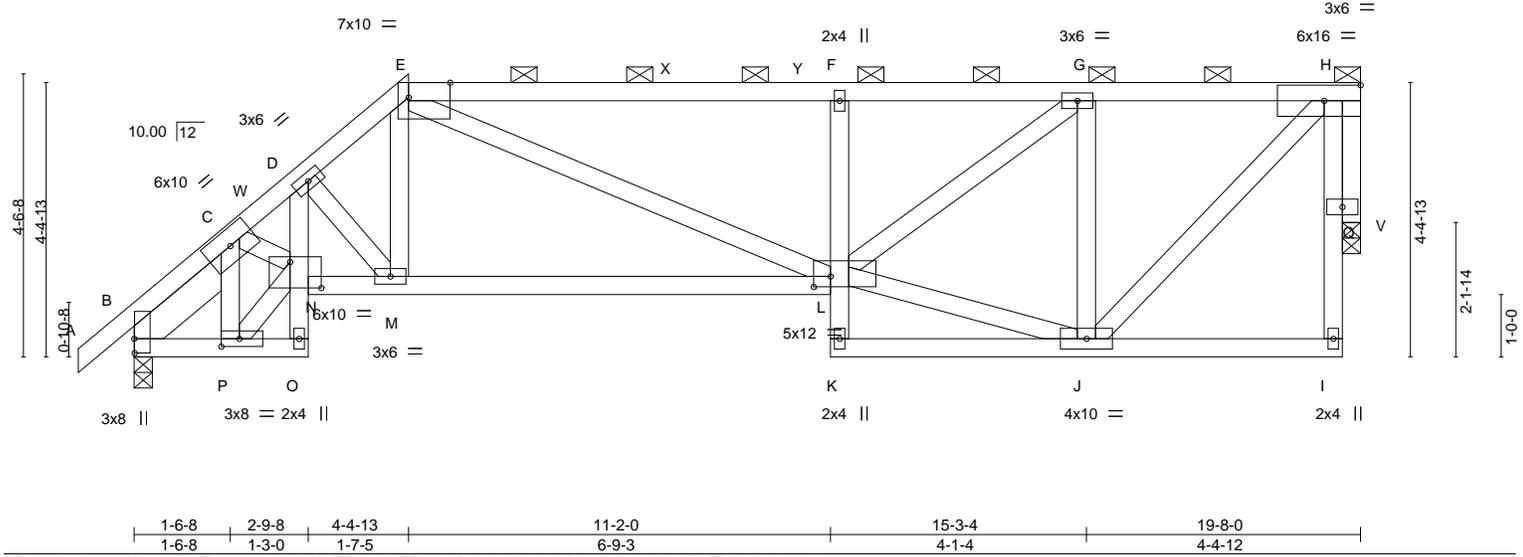


Plate Offsets (X,Y)--	[B:0-2-12,0-0-1], [E:0-8-0,Edge], [L:0-3-4,0-2-0], [N:0-6-0,0-5-0], [P:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.81 BC 0.64 WB 0.67 Matrix-MS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

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* E-H: 2x4 SP 2400F 2.0E	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 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.2	
SLIDER Left 2x6 SP No.1 -x 1-11-6	

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); ls=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.



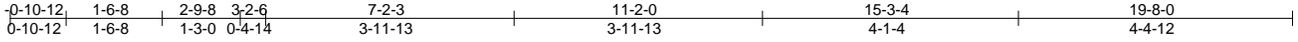
September 17, 2020

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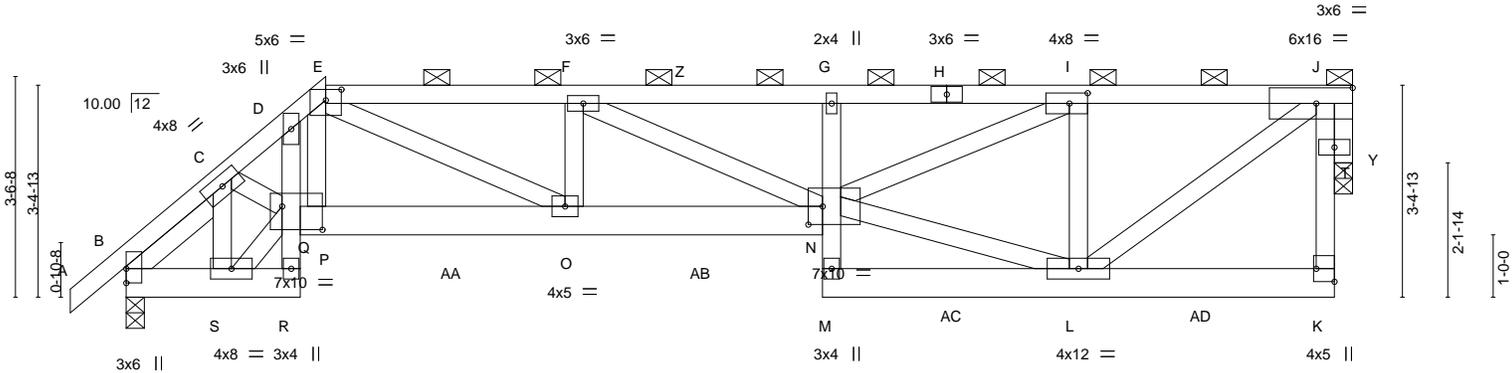
Heartland Truss, Inc, Plattsburg, MO - 64477,

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

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-KjX?iUm_NWCZfBnYJTHmb2AtmFORoJCS7nZnPjyd0vH



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-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.66	Vert(LL) -0.22 N-O >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.90	Vert(CT) -0.30 N-O >770 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.11 Y n/a n/a		
	Code IRC2018/TPI2014			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-I=-7575/1217, I-J=-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.



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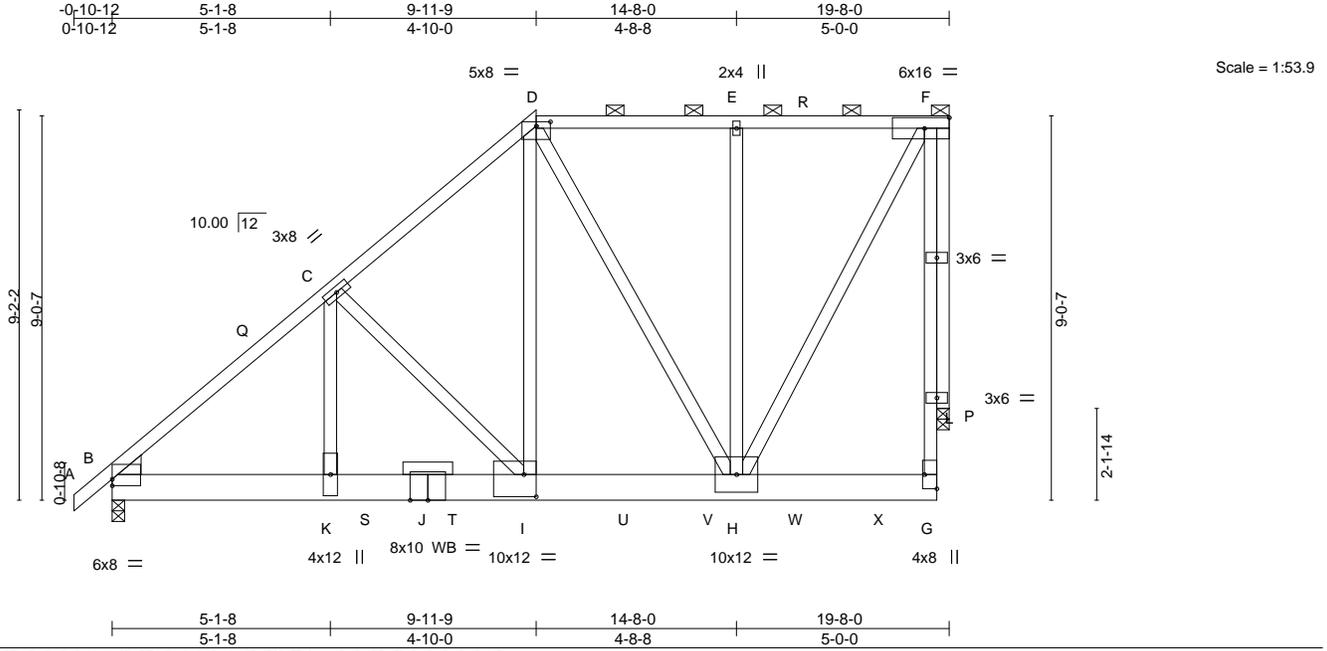


Plate Offsets (X,Y)--	[B:0-0-0,0-1-14], [D:0-4-0,0-1-4], [G:Edge,0-3-8], [I:0-3-8,0-6-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.83 BC 0.45 WB 0.96 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.12 I-K >999 240 Vert(CT) -0.19 I-K >999 180 Horz(CT) 0.06 P n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr NO				
BCLL 0.0	Code IRC2018/TPI2014				
BCDL 10.0				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

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.

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.



September 17, 2020

Continued on page 2

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>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</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
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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 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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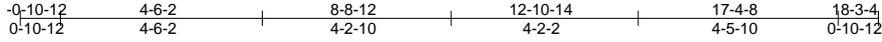
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss E1	Truss Type Scissor	Qty 4	Ply 1	2350 SW River Trail Rd. - LSMO	I42843791
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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-DUWxrpVRli?8p5KYJMimtKZytidybm22PX?Y5yd0vD



Scale = 1:51.2

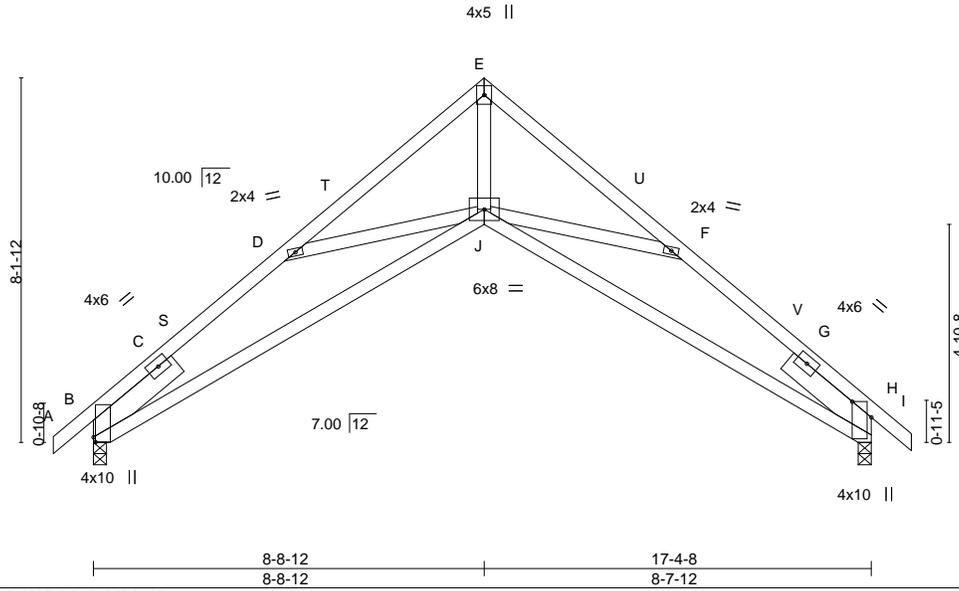


Plate Offsets (X,Y)-- [B:0-1-5,0-0-9], [H:0-4-4,Edge]

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



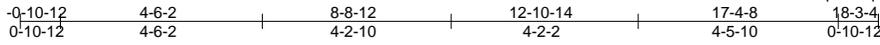
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss E2	Truss Type Scissor	Qty 2	Ply 1	2350 SW River Trail Rd. - LSMO	I42843792
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:05 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-hhKulBp7C3qslzgW51xl5tkiG2sh2?BG3HY4Xyd0vC



Scale = 1:51.2

Plate Offsets (X,Y)-- [B:0-4-3,0-0-9], [H:0-1-1,Edge]					
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 0.71	Vert(LL) -0.17 J >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.86	Vert(CT) -0.28 J-Q >753 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.38 H n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS			
				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) 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) 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

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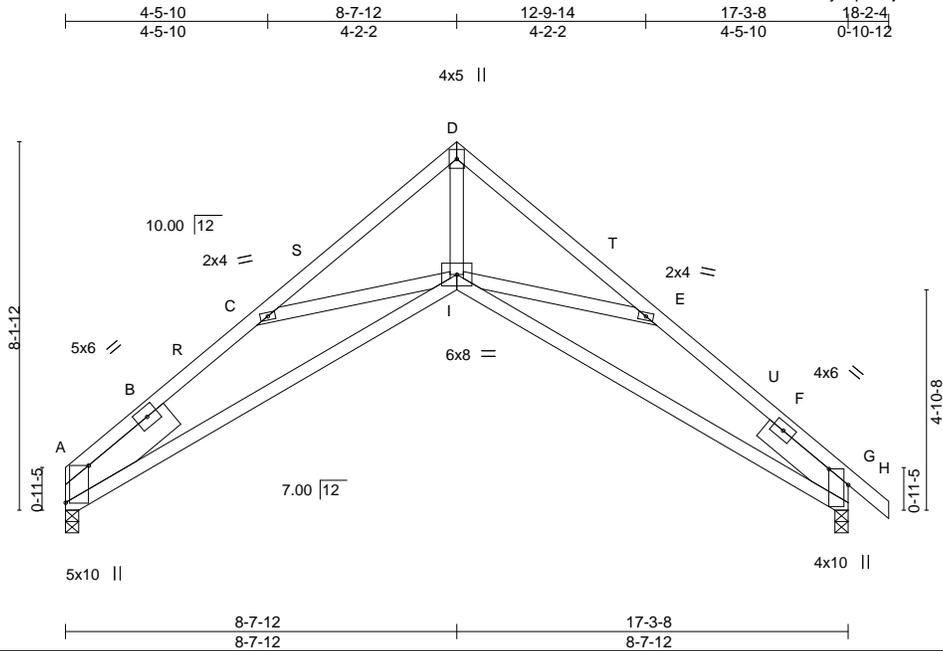


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss E3	Truss Type Scissor	Qty 16	Ply 1	2350 SW River Trail Rd. - LSMO	I42843793
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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-9tuGyXqlzMzjN6EifkOArIQukgO8QVGKVj05czyd0vB



Scale = 1:50.7

Plate Offsets (X,Y)-- [A:0-9-14,Edge], [G:0-4-4,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.16 I >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.26 I-L >801 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.36 G n/a n/a		
	Code IRC2018/TPI2014			Weight: 98 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
D-H: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x8 SP 2400F 2.0E -x 3-0-13, Right 2x6 SP No.1 -x 2-6-0

BRACING-

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

REACTIONS.

(size) A=0-3-8, G=0-3-8
Max Horz A=-192(LC 8)
Max Uplift A=-62(LC 12), G=-81(LC 13)
Max Grav A=850(LC 19), G=915(LC 20)

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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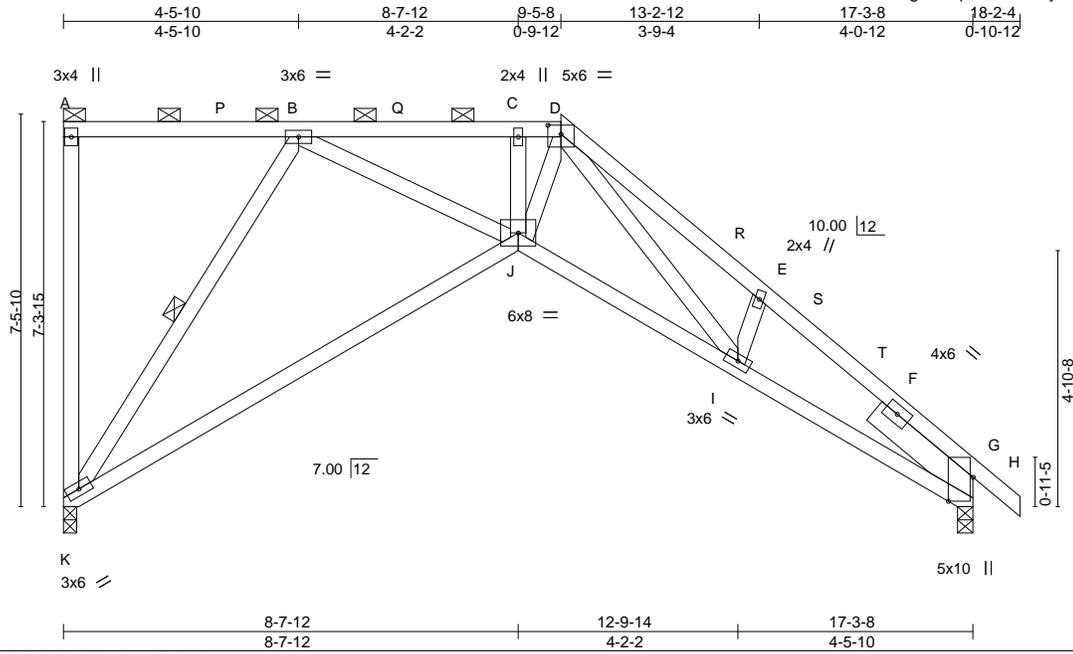


Job 201355	Truss E4	Truss Type Roof Special	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843794
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-d3SeAtrNkg5a?GpuDRvPNWY2r4II9_5UkNmF8Qyd0vA



Scale = 1:43.6

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 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.86 BC 0.73 WB 0.57 Matrix-MS	in (loc) l/defl L/d Vert(LL) -0.23 J-K >899 240 Vert(CT) -0.48 J-K >432 180 Horz(CT) 0.28 G n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
BCDL 10.0					
				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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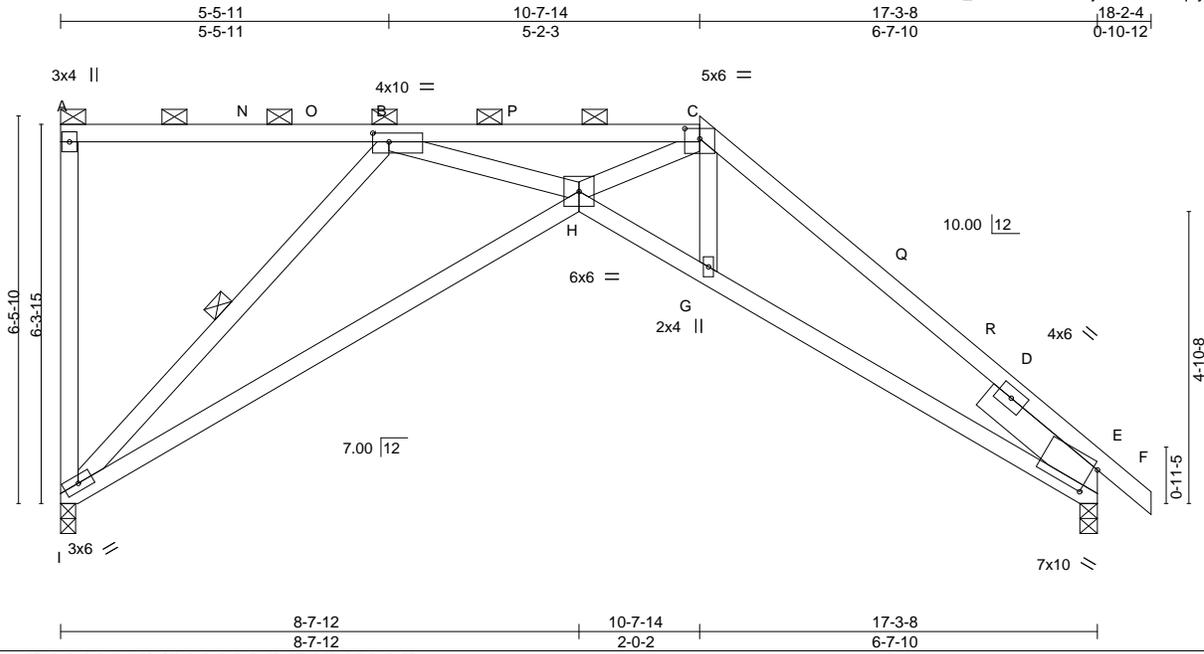
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss E5	Truss Type Roof Special	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843795
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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_DRcQO5n9RewjVDZU4zuKqdy1VChsyd0v9



Scale = 1:38.2

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 (Roof Snow=25.0)	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.30 G-H >696 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.99	Vert(CT) -0.44 H-I >471 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.55 E n/a n/a		
	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=lb) 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

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

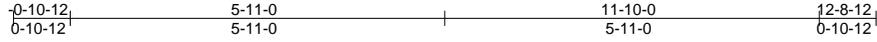


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss F1	Truss Type Common	Qty 2	Ply 1	2350 SW River Trail Rd. - LSMO	I42843796
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:09 2020 Page 1
ID:1?3BQmdwG2PwU4XisDeVEhzotSu-aSaPaZtdGHLIEazHKsyTTx2PkuTfd?ynBhFmDlyd0v8



4x5 =

Scale = 1:36.2

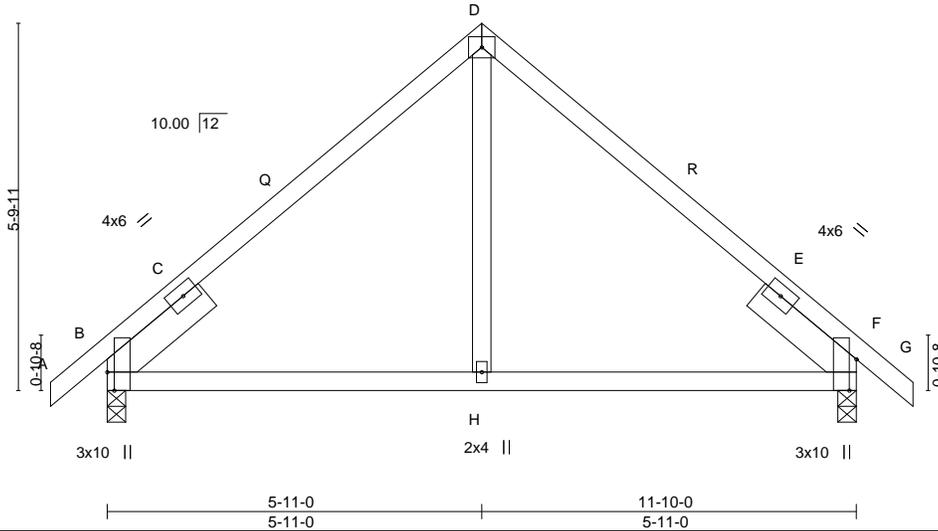


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [F:0-5-15,Edge]

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

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

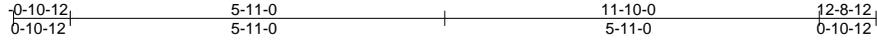
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



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

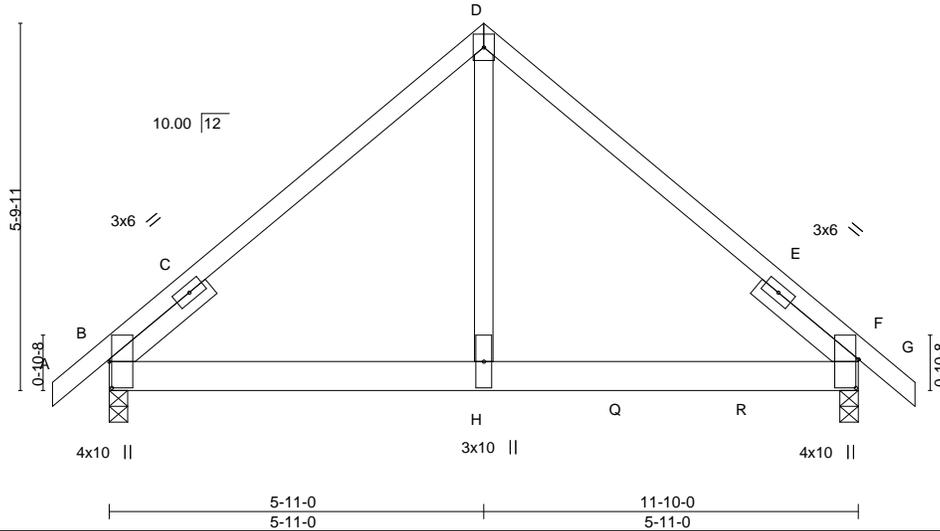


Plate Offsets (X,Y)-- [B:0-5-0,0-0-7], [F:0-5-7,0-0-7]

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

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

 **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 F3	Truss Type Common Structural Gable	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843798
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

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4x5 =

Scale = 1:37.2

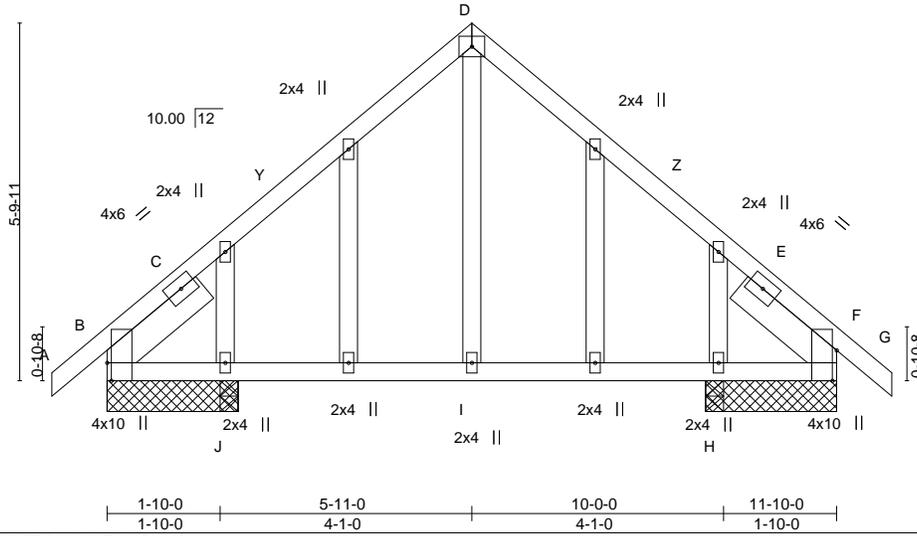


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [F:0-5-15,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.02 H-W >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.06	Vert(CT) -0.02 H-W >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 B n/a n/a		
	Code IRC2018/TPI2014			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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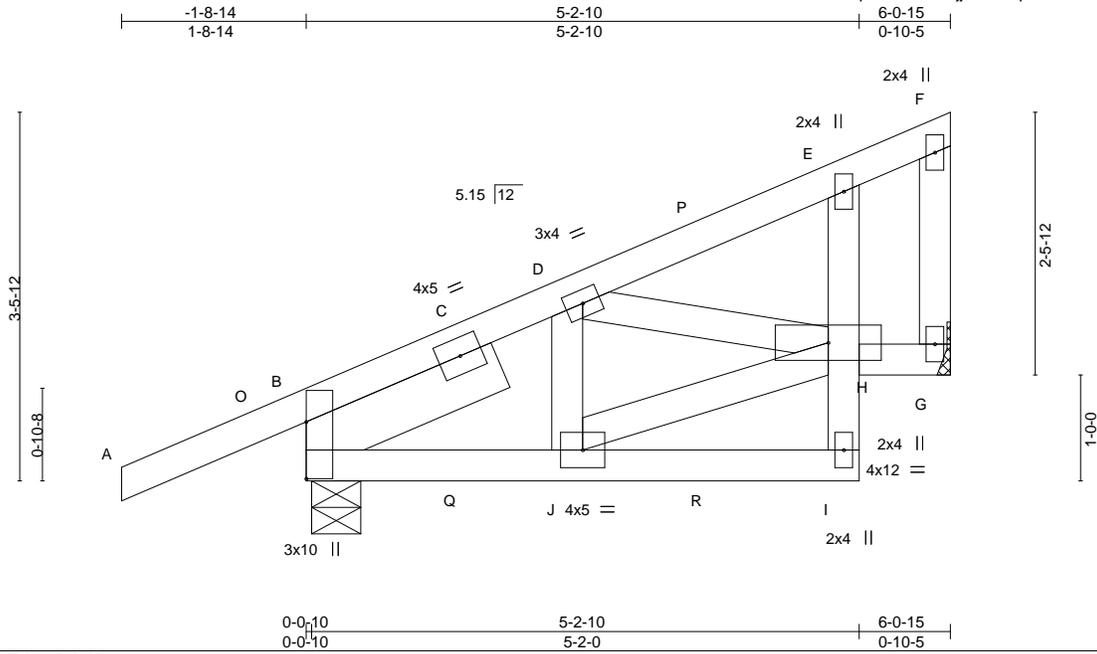


Job 201355	Truss G1	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843799
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	2-0-0	TC	0.76	Vert(LL)	-0.05	I	>999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.07	I	>955		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.02	G	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							
BCDL	10.0									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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G1	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843799
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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-SDpwQww8JWrijBH2Zi0pdnC51VwKZn3M6JDzM3yd0v4

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: J=-9(B) C=24(F) P=-0(F) Q=2(F) R=-9(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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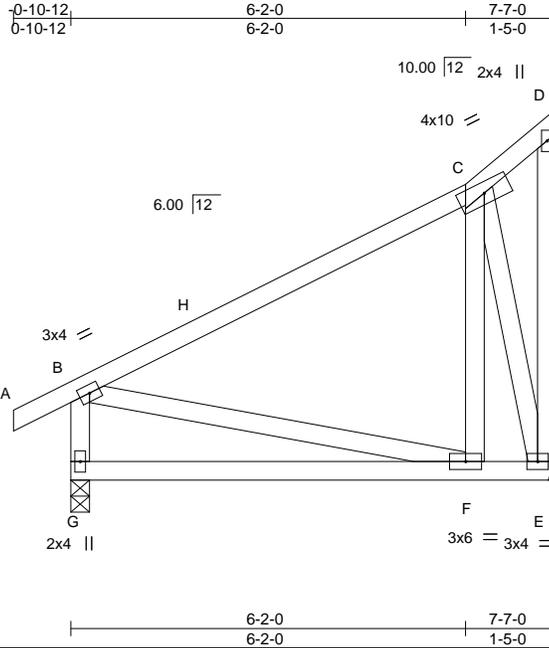
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G2	Truss Type Roof Special	Qty 4	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843800
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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:173BQmdwG2PwU4XisDeVEhzotSu-wQNleGwm4qzaLLsF7PX2A_IEvEHIDgWLzyWuWyd0v3



Scale = 1:35.8

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.89 BC 0.33 WB 0.19 Matrix-MP	in (loc) l/defl L/d Vert(LL) -0.05 F-G >999 240 Vert(CT) -0.09 F-G >934 180 Horz(CT) -0.00 E n/a n/a	MT20	244/190
TCDL 10.0				Weight: 57 lb	FT = 20%
BCLL 0.0					
BCDL 10.0					

LUMBER-

TOP CHORD 2x4 SP 1650F 1.5E *Except*
C-D: 2x4 SP No.2
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) 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)

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.



September 17, 2020

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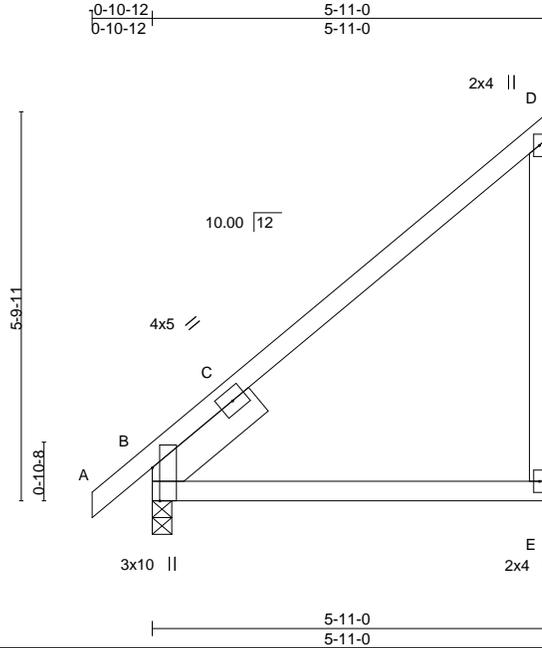
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G3	Truss Type Jack-Closed	Qty 11	Ply 1	2350 SW River Trail Rd. - LSMO I42843801
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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-wQNIeGwm4qzaLLsF7PX2A_IDbv7MIGiWLzyWuWyd0v3



Scale = 1:34.2

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.96 BC 0.77 WB 0.00 Matrix-MP	in (loc) l/defl L/d Vert(LL) -0.13 E-H >523 240 Vert(CT) -0.20 E-H >345 180 Horz(CT) 0.07 B n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
BCDL 10.0				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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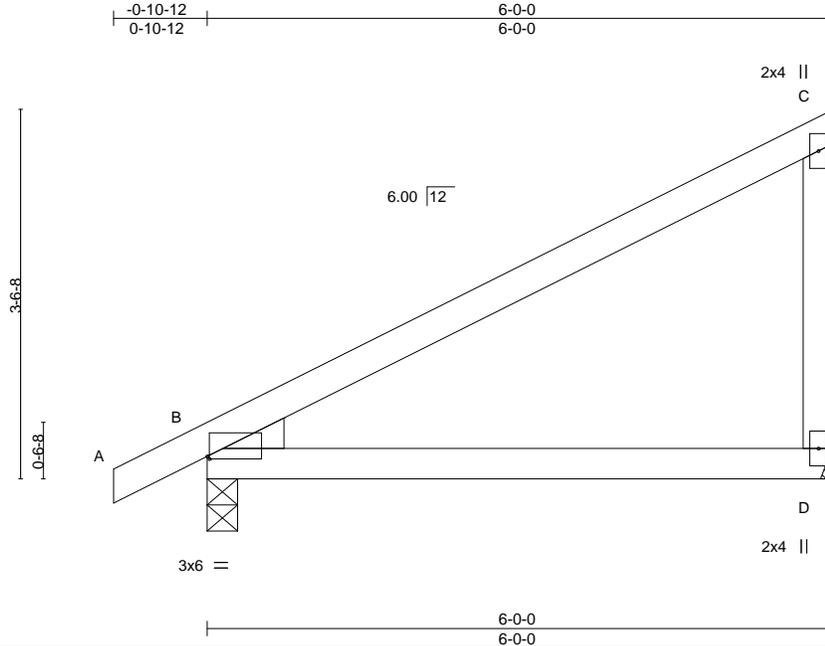


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G4	Truss Type Jack-Closed	Qty 5	Ply 1	2350 SW River Trail Rd. - LSMO	I42843802
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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-OcxgrcOr75RyVQRh73HiCIN?IW51jyfadi4Qyyd0v2



Scale = 1:22.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.98 BC 0.61 WB 0.00 Matrix-MP	in (loc) l/defl L/d Vert(LL) -0.10 D-G >675 240 Vert(CT) -0.17 D-G >404 180 Horz(CT) 0.03 B n/a n/a	MT20	244/190
TCDL 10.0					
BCLL 0.0					
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; TCCL=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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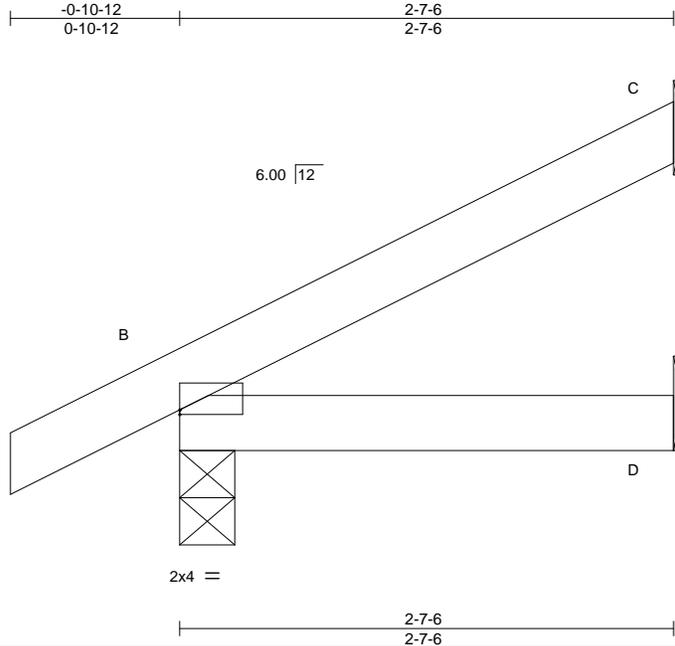
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G6	Truss Type Jack-Open	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843804
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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?dFqaWFPqI0i_qmACpohRdzOyd0v1



Scale = 1:12.1

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

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.13 BC 0.07 WB 0.00 Matrix-MP	in (loc) l/defl L/d Vert(LL) -0.00 D-G >999 240 Vert(CT) -0.00 D-G >999 180 Horz(CT) 0.00 B n/a n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES				
BCLL 0.0	Code IRC2018/TPI2014				
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 201355	Truss G7	Truss Type Jack-Open	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843805
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Heartland Truss, Inc, Plattsburg, MO - 64477,

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

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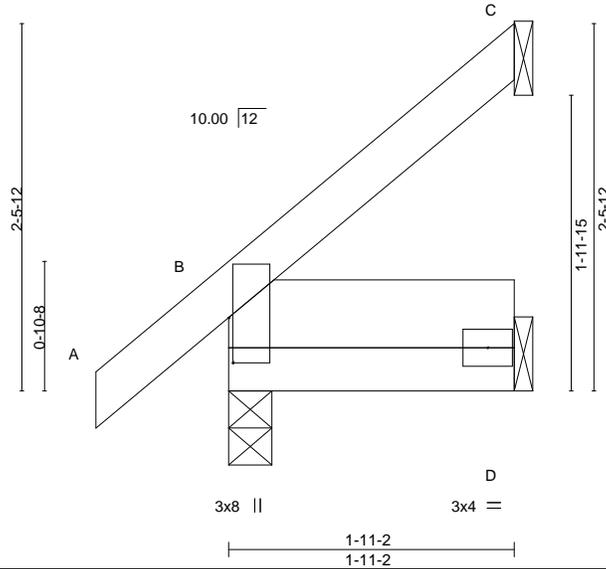


Plate Offsets (X,Y)-- [B:0-3-11,0-0-5]

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 0.12 BC 0.13 WB 0.00 Matrix-MP	Vert(LL) 0.00 Vert(CT) -0.00 Horz(CT) -0.00	G G C	>999 >999 n/a	240 180 n/a	MT20	244/190
TCDL 10.0	Rep Stress Incr YES Code IRC2018/TPI2014							
BCLL 0.0							Weight: 13 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 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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss G8	Truss Type Jack-Open	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO Job Reference (optional)	I42843806
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Heartland Truss, Inc., Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:18 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-pBcpTe_H82T0py90MFC?Kqv6mWhyE4h5Gbwk1Hyd0v?



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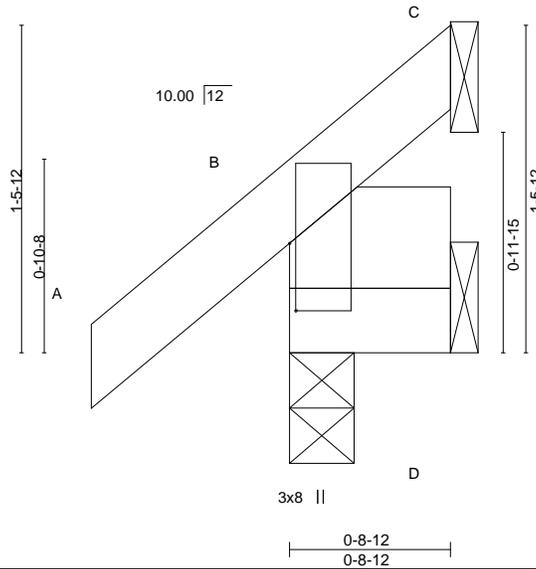


Plate Offsets (X,Y)-- [B:0-3-11,0-0-5]

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

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

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

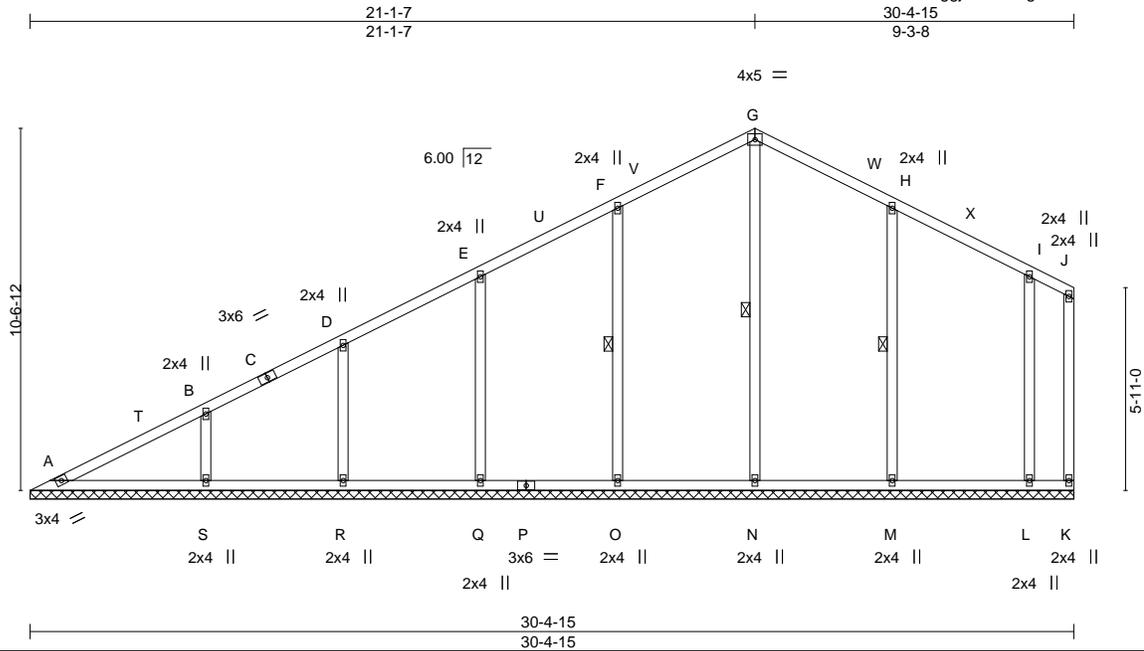


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 201355	Truss V1	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	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?06JKJixqQjvPr59yd0uz



Scale = 1:66.8

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; 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 3-7-15, 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) 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) 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

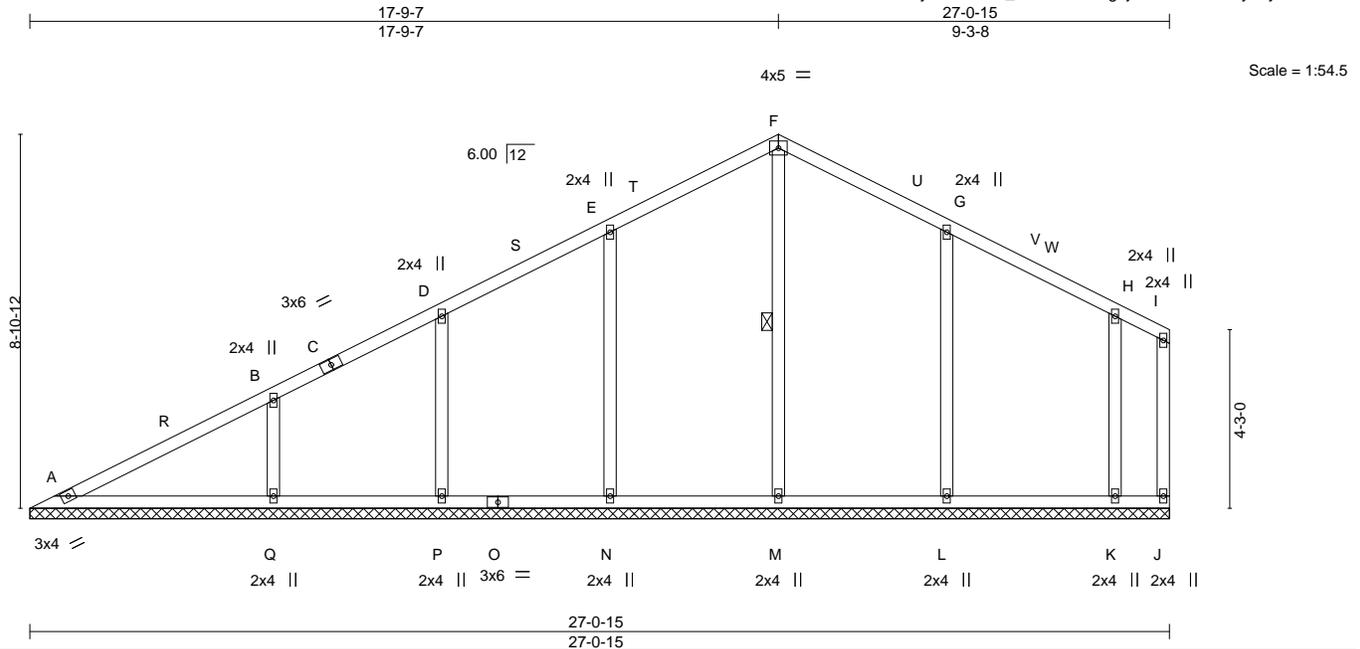
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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



Job 201355	Truss V2	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843808
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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?3BQmdwG2PwU4XisDeVEhzoTsu-hysJJ?1nCH_RlaTnb5hxUg4jP7?zAoShBCuy92yd0ux



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.15	WB 0.40	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 J n/a n/a		
	Code IRC2018/TPI2014			Weight: 138 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 F-M
OTHERS 2x4 SP No.3	

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.

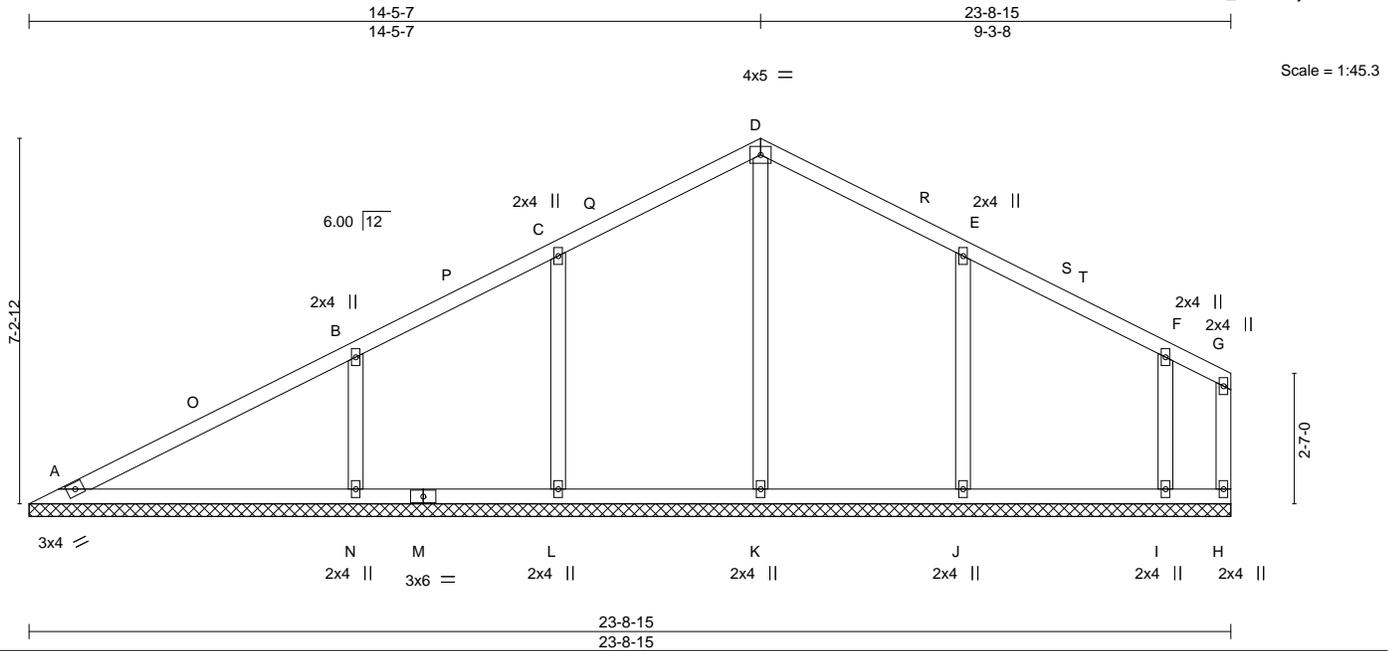


September 17, 2020

Job 201355	Truss V3	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843809
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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-98QhWL1Qzb6lwk2z9oCA1udtOXXKcVl_rPseViUyd0uw



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

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

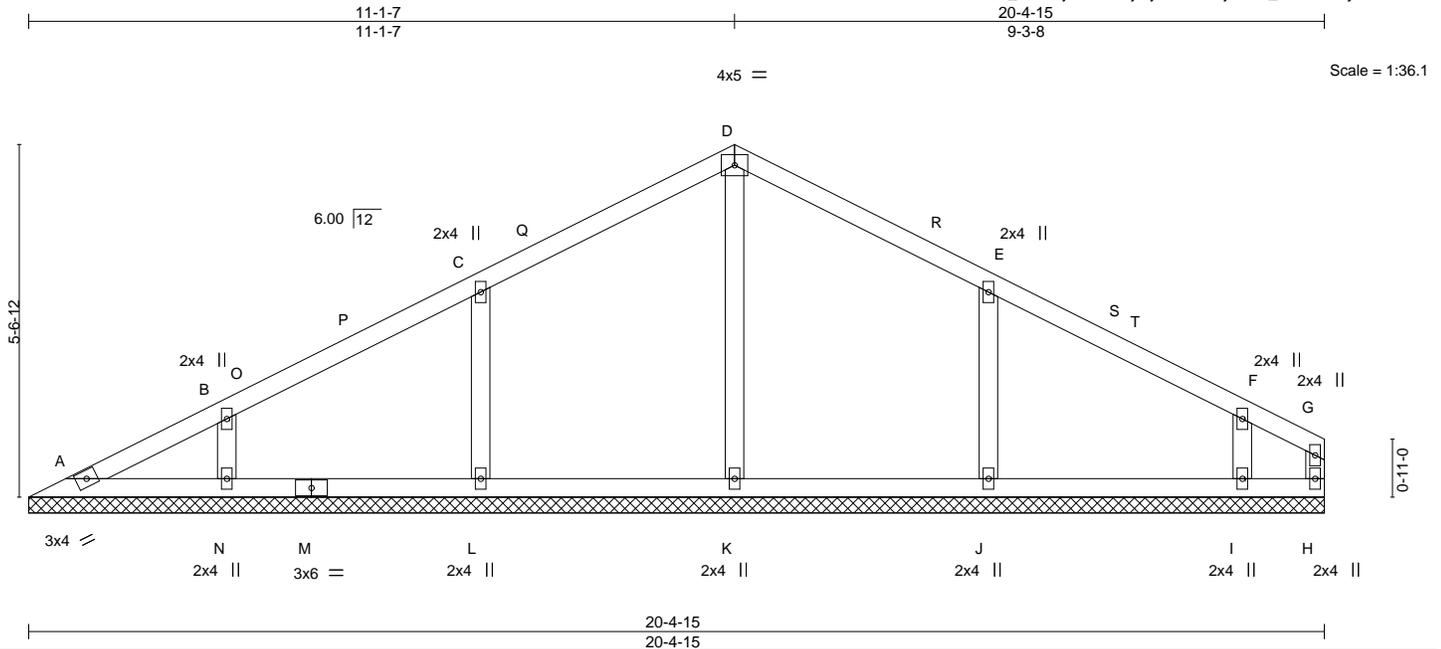
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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



Job 201355	Truss V4	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843810
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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?3BQmdwG2PwU4XisDeVEhztotSu-dL_4kh22juE9XtcAjWjPZ594Hxjzem1_eWN2Ewyd0uv



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.37	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(LL) n/a - n/a 999		
BCLL 0.0	Lumber DOL 1.15	WB 0.14	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: 84 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 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

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; 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 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) 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, 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

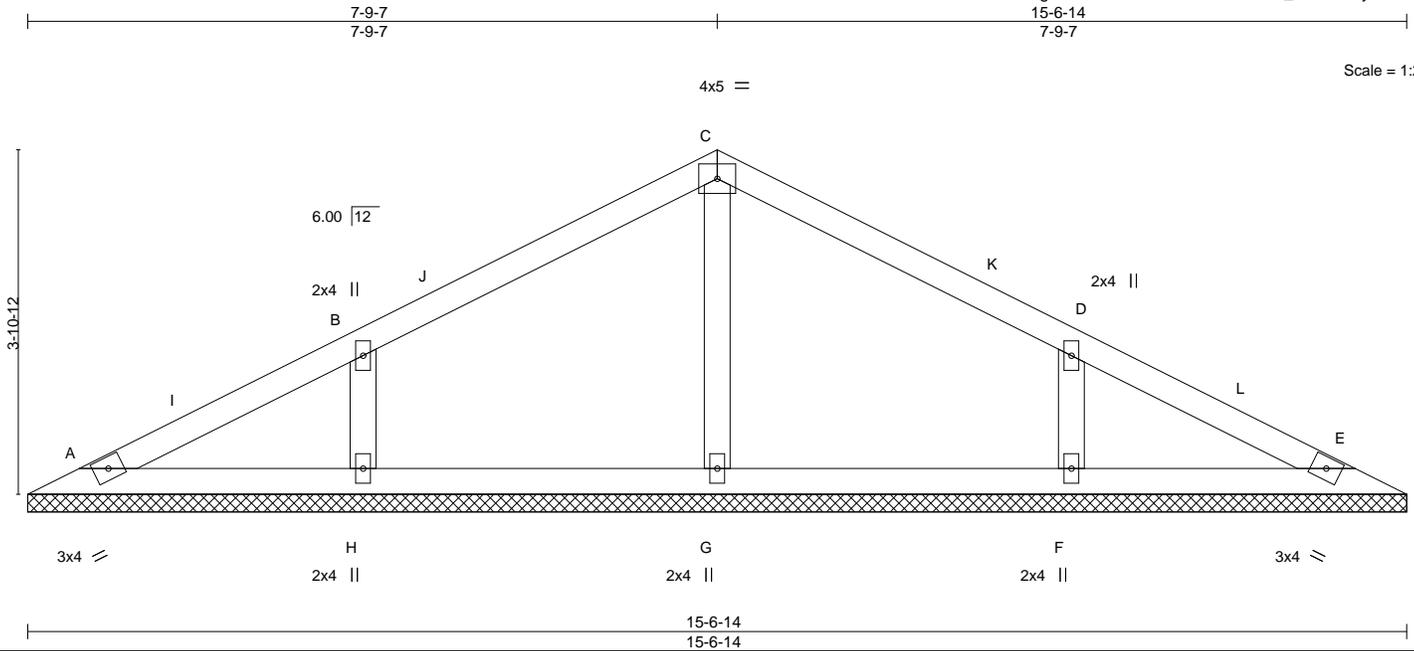
Job 201355	Truss V5	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843811
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:25 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-6XYsX13gUCM091BMGDEe6JiFQK3ENE_7IA7cmNyd0uu

Job Reference (optional)



Scale = 1:25.9

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.35 BC 0.11 WB 0.09 Matrix-S	in (loc) l/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.00 E n/a n/a	MT20	244/190
TCDL 10.0				Weight: 56 lb	FT = 20%
BCLL 0.0					
BCDL 10.0					

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

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; 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 3-9-7, 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 (j=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

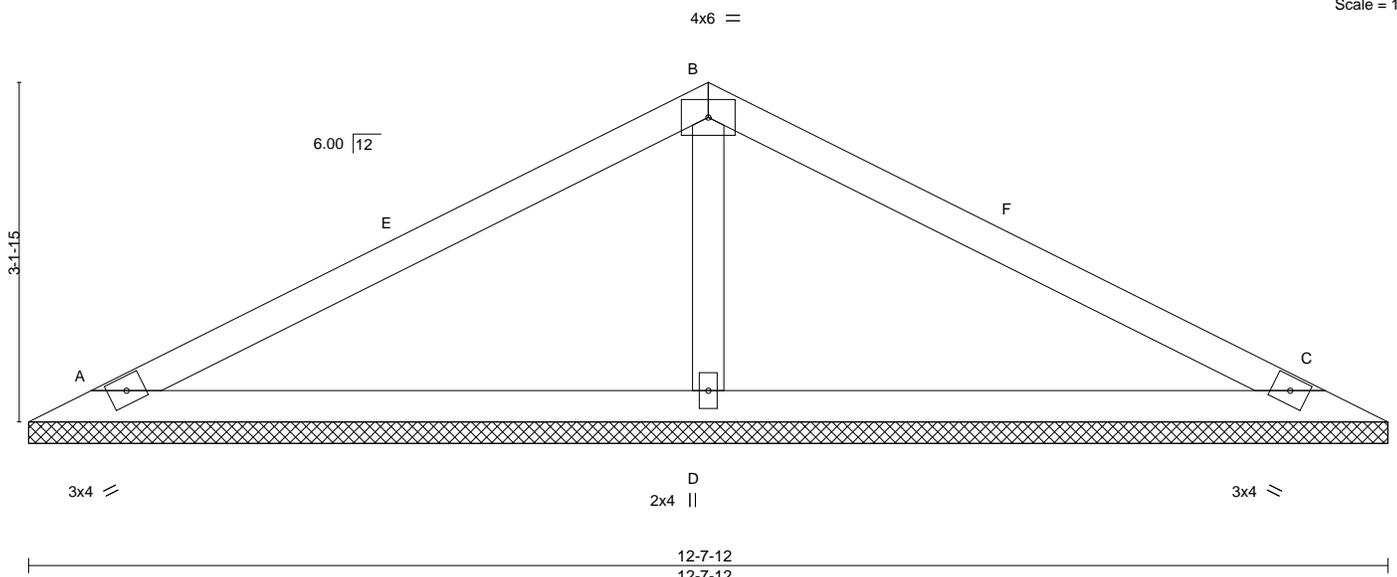
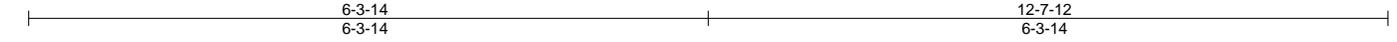
Job 201355	Truss V6	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843812
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Heartland Truss, Inc, Plattsburg, MO - 64477,

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:25 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-6XYsX13gUCM091BMGDEe6Ji7EK?pNEw7tA7cmNyd0uu

Job Reference (optional)



Scale = 1:21.3

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	TC 0.87 BC 0.33 WB 0.10 Matrix-S	in (loc) l/defl L/d Vert(LL) n/a - n/a 999 Vert(CT) n/a - n/a 999 Horz(CT) 0.00 C n/a n/a	MT20	244/190
TCDL 10.0				Weight: 42 lb	FT = 20%
BCLL 0.0					
BCDL 10.0					

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. (size) A=12-7-12, C=12-7-12, D=12-7-12
 Max Horz A=48(LC 12)
 Max Uplift A=-43(LC 12), C=-52(LC 13), D=-25(LC 12)
 Max Grav A=351(LC 18), C=351(LC 19), D=573(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS B-D=-399/213

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=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, Exterior(2R) 3-7-7 to 9-0-5, Exterior(2E) 9-0-5 to 12-0-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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, D.
 - 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.



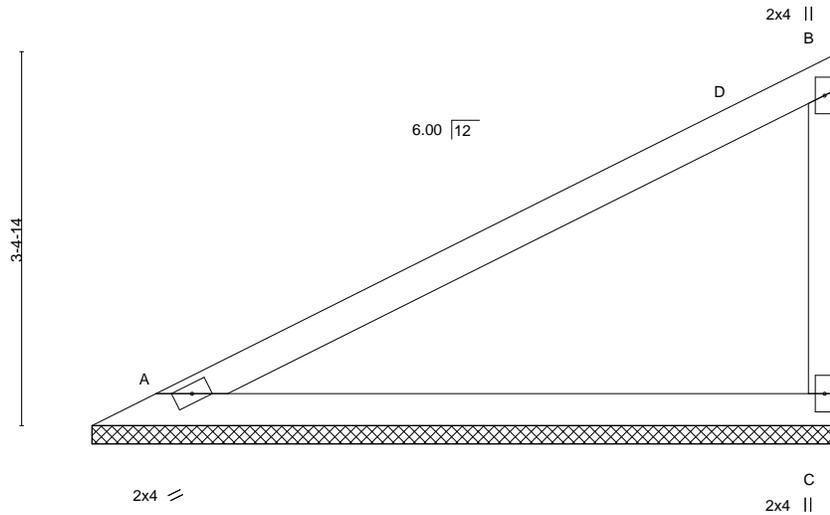
September 17, 2020

Job 201355	Truss V8	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843814
Heartland Truss, Inc., Plattsburg, MO - 64477,					Job Reference (optional)	

8.330 s Jul 22 2020 MiTek Industries, Inc. Wed Sep 16 14:49:26 2020 Page 1

ID:1?3BQmdwG2PwU4XisDeVEhzotSu-aj5q9N4IFWUtnBmYqxtfWFHbKlr6igH5qs9lpyd0ut

6-9-12
6-9-12



Scale = 1:20.9

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

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

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

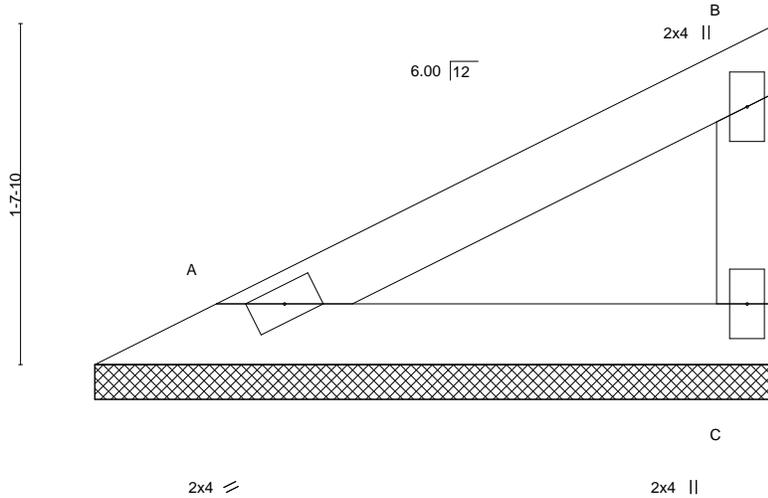
Job 201355	Truss V9	Truss Type Valley	Qty 1	Ply 1	2350 SW River Trail Rd. - LSMO	I42843815
Heartland Truss, Inc., Plattsburg, MO - 64477,					Job Reference (optional)	

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

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3-3-4
3-3-4

Scale = 1:11.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	2-0-0	TC 0.18	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.



September 17, 2020

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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	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
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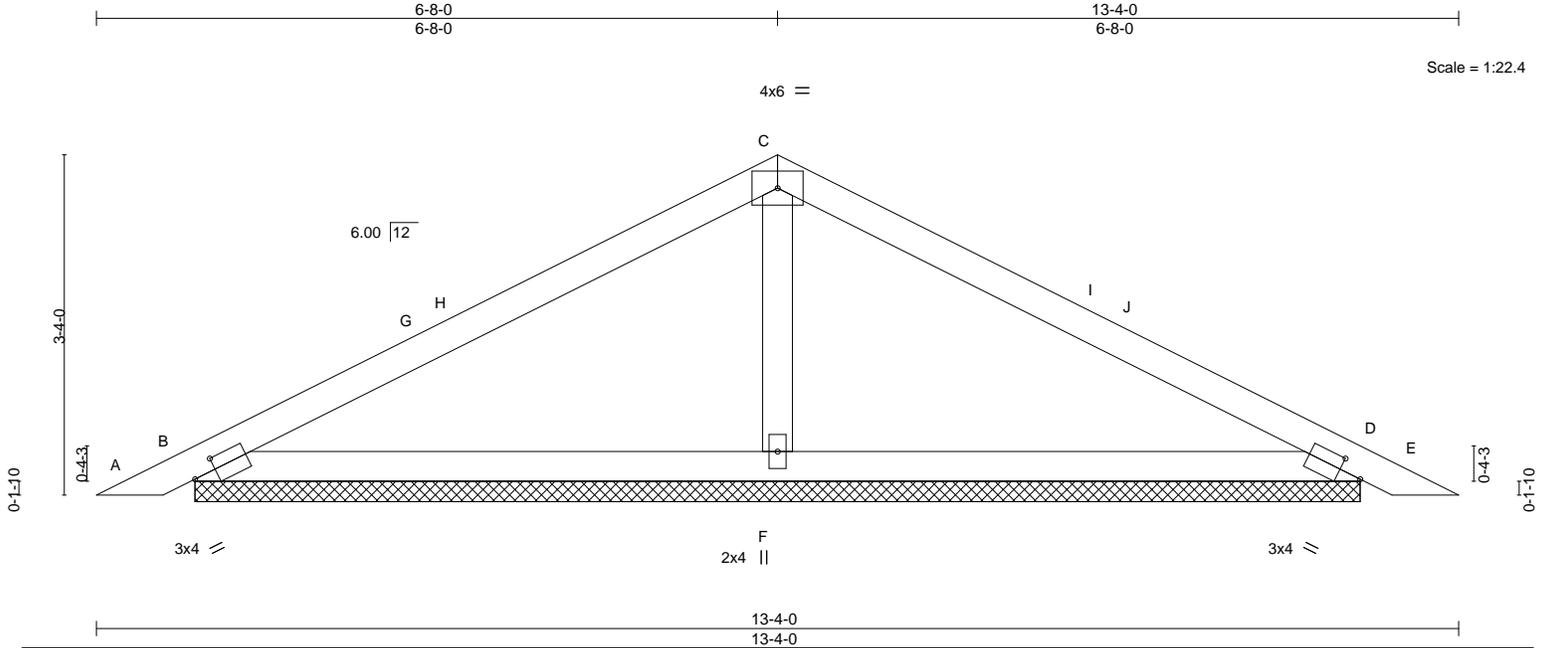


Plate Offsets (X,Y)-- [B:0-2-10,0-1-6], [D:0-2-10,0-1-6]					
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0 (Roof Snow=25.0)	Plate Grip DOL 1.15	TC 0.83	Vert(LL) -0.02 E n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.00 D n/r 90		
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(CT) 0.00 D n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		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

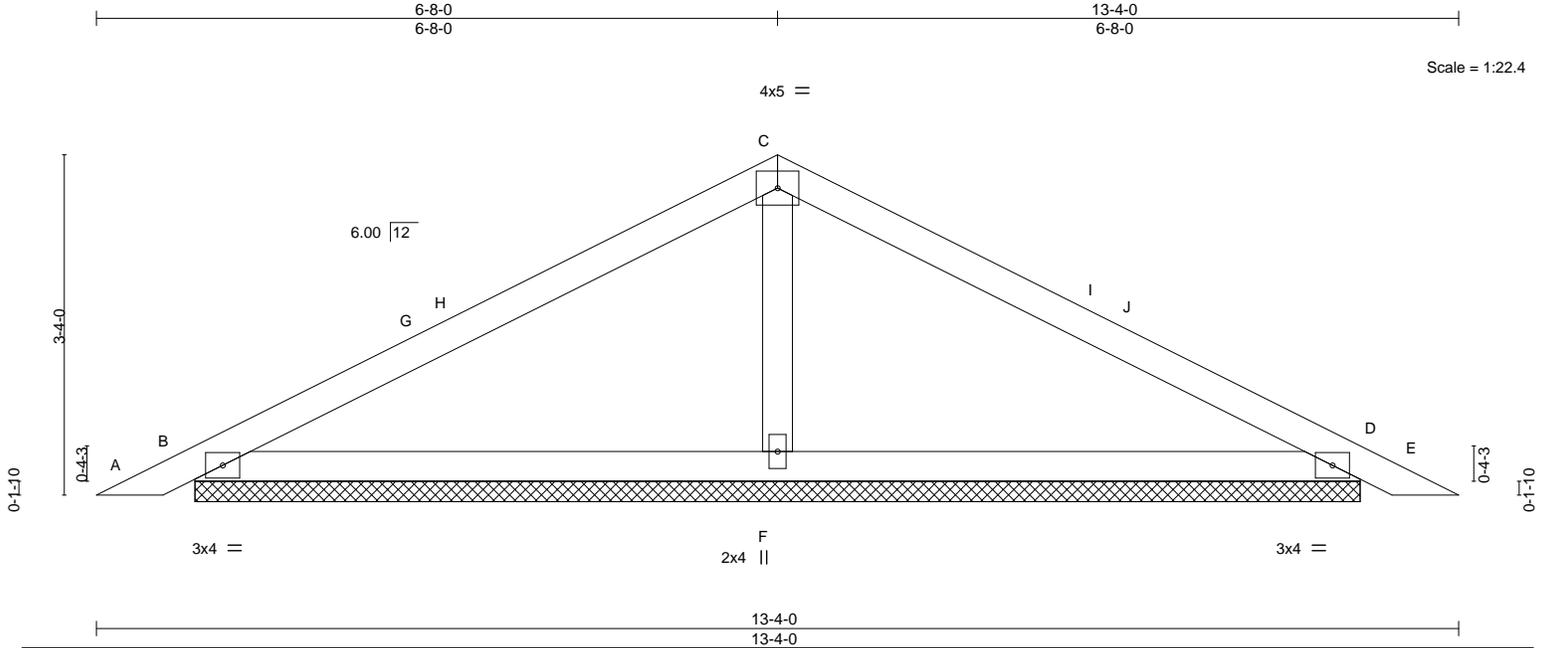
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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



Job 201355	Truss Z2	Truss Type Piggyback	Qty 1	Ply 2	2350 SW River Trail Rd. - LSMO	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
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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.01	E	n/r	L/d	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.00	D	n/r		90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	D	n/a	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								Weight: 86 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" 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 0-9-0 oc.
Bottom chords 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; TCCL=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
- 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
- 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

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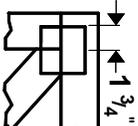
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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



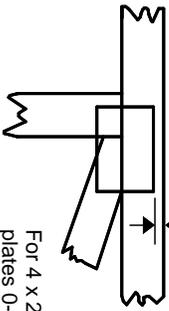
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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

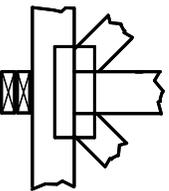
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



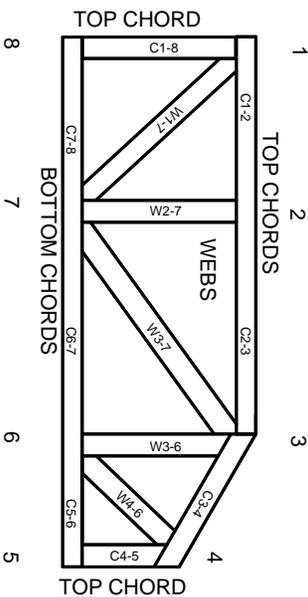
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, 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)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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



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