MiTek®

MiTek, Inc.
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

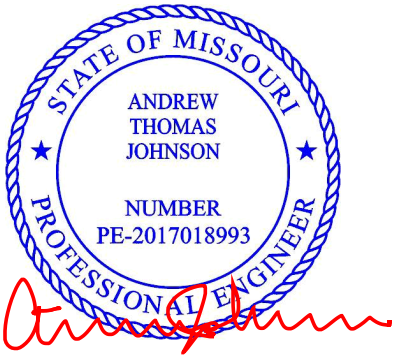
Re: 242042
GENE BOSLEY RES. / ROOF

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: I69875878 thru I69875976

My license renewal date for the state of Missouri is December 31, 2025.

Missouri COA: Engineering 001193



November 27,2024

Johnson, Andrew ,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.

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	01	Piggyback Base	1	1	Job Reference (optional)

I69975878

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:07 2024 Page 1
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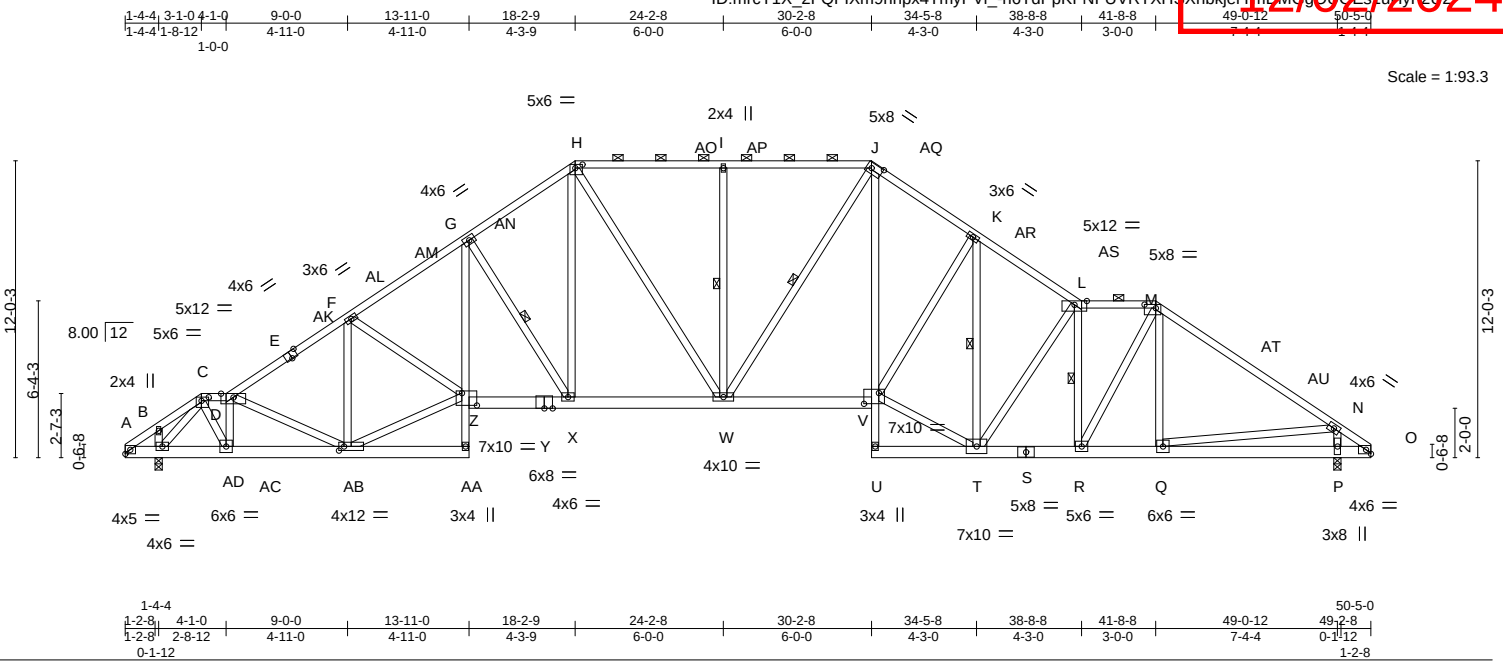

Plate Offsets (X,Y)-- [C:0-3-8,0-1-12], [E:0-3-0,Edge], [H:0-3-8,0-1-12], [J:0-5-8,0-2-8], [M:0-5-8,0-1-12], [V:0-7-4,0-5-4], [Z:0-7-4,0-6-0], [AB:0-2-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.32	V-W	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.52	V-W	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.25	P	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 424 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
E-H,H-J,D-E: 2x4 SP 1650F 1.5E, M-O: 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1 *Except*
A-AA: 2x6 SP 2400F 2.0E, G-AA,J-U: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
C-AC,Z-AB,T-V: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-4-15 max.): C-D, H-J, L-M.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt G-X, I-W, J-W, K-T, L-R

REACTIONS. (size) AD=0-3-8, P=0-3-8
Max Horz AD=-287(LC 10)
Max Uplift AD=-185(LC 12), P=-205(LC 13)
Max Grav AD=2981(LC 40), P=2935(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-375/20, B-C=-475/76, C-D=-3262/301, D-F=-4013/393, F-G=-4728/498, G-H=-3613/495, H-I=-3008/482, I-J=-3008/482, J-K=-3838/531, K-L=-3641/486, L-M=-3504/451, M-N=-3560/377, N-O=-511/15
BOT CHORD A-AD=0/323, AC-AD=-268/2026, AB-AC=-327/3095, G-Z=-129/1454, X-Z=-209/3797, W-X=-148/2834, V-W=-87/3013, J-V=-168/1787, R-T=-253/3468, Q-R=-180/2715, P-Q=-122/753, O-P=-122/753
WEBS B-AD=-286/78, C-AD=-2774/220, C-AC=-232/2697, D-AC=-2558/275, F-AB=-1439/148, Z-AB=-270/3452, F-Z=-30/797, G-X=-1722/286, H-X=-163/1299, H-W=-193/764, I-W=-890/193, J-W=-233/321, T-V=-179/3329, K-V=-147/490, K-T=-831/87, L-T=-872/185, L-R=-1460/183, M-R=-167/1692, N-Q=-92/1978, N-P=-2961/471

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 4-1-0, Interior(1) 4-1-0 to 13-2-0, Exterior(2R) 13-2-0 to 23-3-1, Interior(1) 23-3-1 to 25-3-12, Exterior(2R) 25-3-12 to 35-4-12, Interior(1) 35-4-12 to 38-8-8, Exterior(2R) 38-8-8 to 45-4-8, Exterior(2E) 45-4-8 to 50-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AD=185, P=205.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	02	Piggyback Base	1	1	I69875879 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Heartland Truss, Inc., Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:08 2024 Page 1
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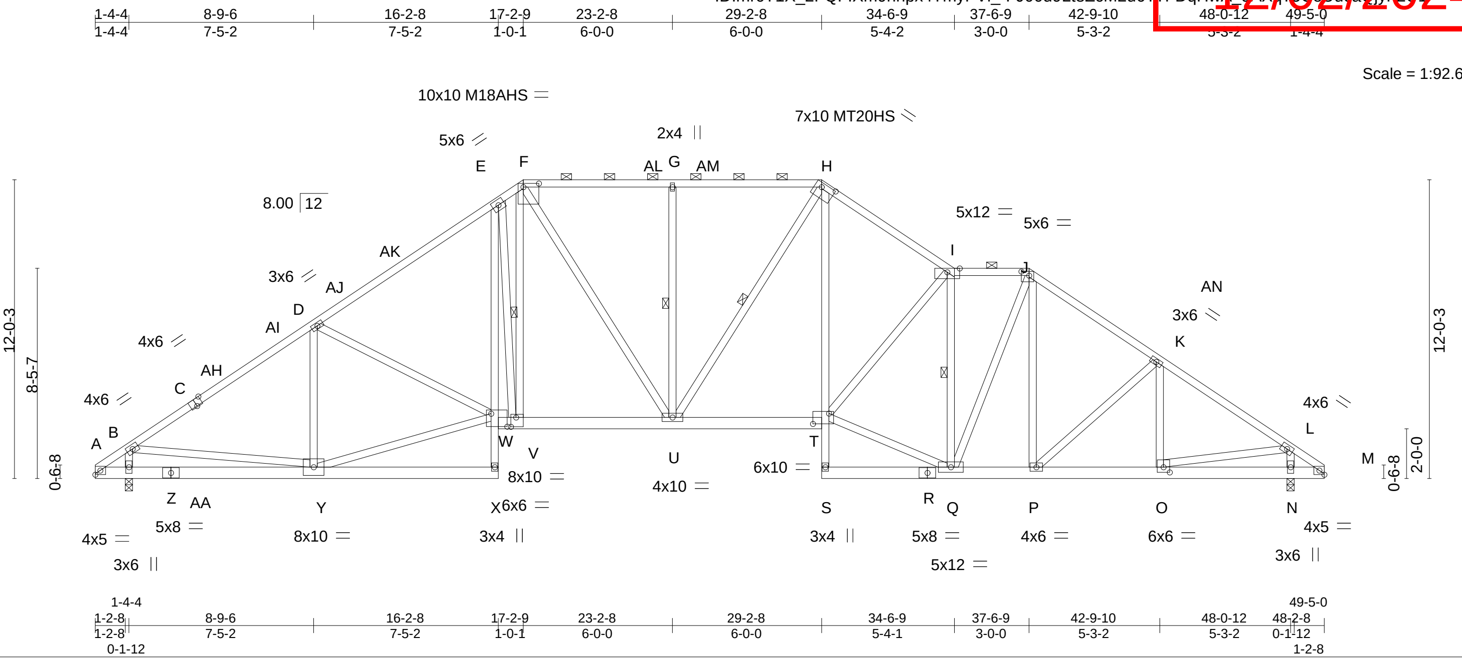

Plate Offsets (X,Y)-- [C:0-3-0,Edge], [F:0-7-8,0-1-12], [H:0-6-12,0-2-0], [J:0-3-12,0-2-0], [O:0-3-0,0-2-8], [T:0-7-12,0-5-0], [V:0-2-8,0-4-8], [W:0-7-12,0-6-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.29	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.47	T-U	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.21	N	n/a	n/a	M18AHS	186/179
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 427 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E *Except*
I-J,J-M,A-C: 2x4 SP No.2
BOT CHORD 2x6 SP No.1 *Except*
E-X: 2x4 SP No.2, H-S: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
W-Y,Q-T: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-1-4 max.): F-H, I-J.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: W-X.
WEBS 1 Row at midpt E-V, G-U, H-U, I-Q

REACTIONS. (size) AA=0-3-8, N=0-3-8
Max Horz AA=-287(LC 8)
Max Uplift AA=-174(LC 12), N=-204(LC 13)
Max Grav AA=2683(LC 36), N=2890(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-464/0, B-D=-3499/341, D-E=-3695/437, E-F=-3437/551, F-G=-2925/448, G-H=-2925/448, H-I=-3612/480, I-J=-2907/427, J-K=-3234/412, K-L=-3403/335, L-M=-355/15
BOT CHORD A-AA=-69/549, Y-AA=-282/699, E-W=-48/782, V-W=-184/2671, U-V=-169/2639, T-U=-67/2832, H-T=-124/1555, P-Q=-123/2505, O-P=-187/2684, N-O=-33/391, M-N=-33/391
WEBS B-AA=-2485/389, B-Y=-125/2252, D-Y=-1038/168, W-Y=-215/2642, D-W=-70/524, E-V=-1487/310, F-V=-338/1677, F-U=-199/764, G-U=-874/192, H-U=-235/264, Q-T=-169/3083, I-T=-170/302, I-Q=-2309/237, J-Q=-111/1248, J-P=-57/340, K-P=-331/198, K-O=-465/114, L-O=-182/2337, L-N=-2617/311

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 4-11-5, Interior(1) 4-11-5 to 12-3-4, Exterior(2R) 12-3-4 to 22-1-13, Interior(1) 22-1-13 to 24-4-15, Exterior(2R) 24-4-15 to 29-4-4, Exterior(2E) 29-4-4 to 34-6-9, Exterior(2R) 34-6-9 to 42-5-14, Interior(1) 42-5-14 to 44-5-11, Exterior(2E) 44-5-11 to 49-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AA=174, N=204.
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.

November 27,2024

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975880
242042	03	Piggyback Base	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:09 2024 Page 1
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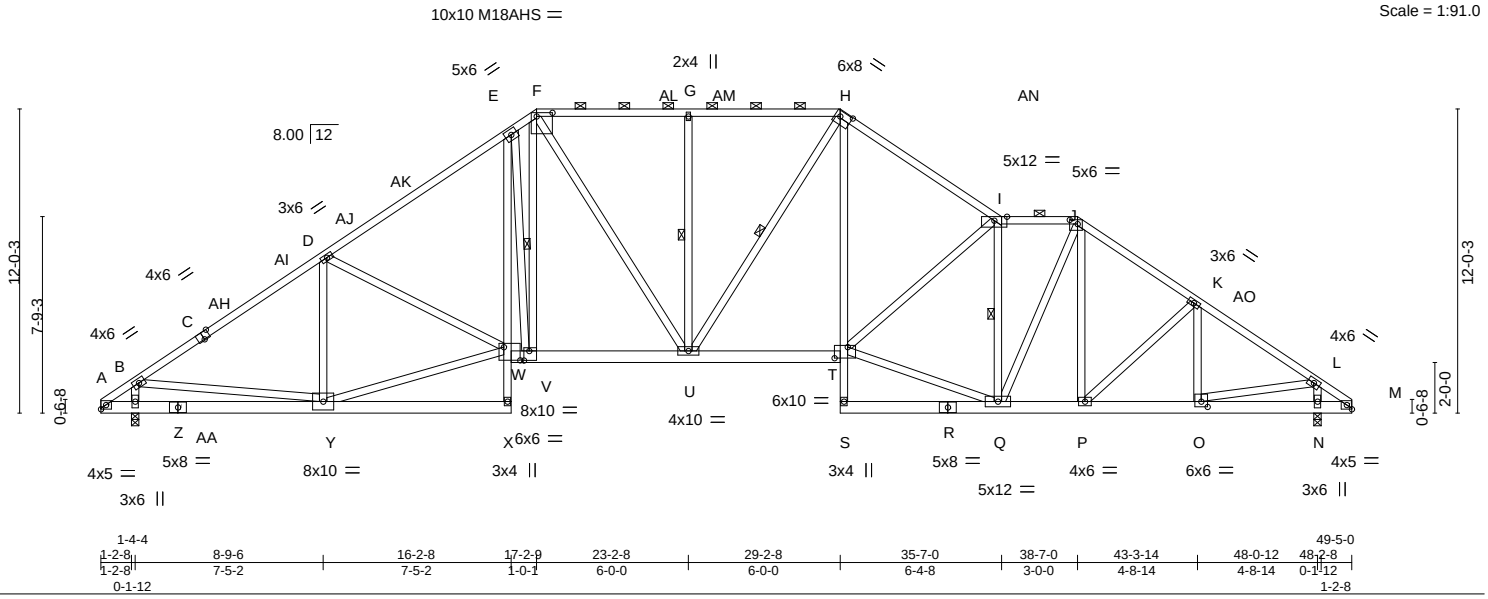
1-4-4 | 8-9-6 | 16-2-8 | 17-2-9 | 23-2-8 | 29-2-8 | 35-7-0 | 38-7-0 | 43-3-14 | 48-0-12 | 49-5-0
1-4-4 | 7-5-2 | 7-5-2 | 1-0-1 | 6-0-0 | 6-0-0 | 6-4-9 | 3-0-0 | 4-8-14 | 4-8-14 | 1-4-4

Scale = 1:91.0



1-4-4 | 8-9-6 | 16-2-8 | 17-2-9 | 23-2-8 | 29-2-8 | 35-7-0 | 38-7-0 | 43-3-14 | 48-0-12 | 49-5-0
1-2-8 | 7-5-2 | 7-5-2 | 1-0-1 | 6-0-0 | 6-0-0 | 6-4-8 | 3-0-0 | 4-8-14 | 4-8-14 | 48-2-8
0-1-12 | | | | | | | | | | 0-1-12
1-2-8

Plate Offsets (X,Y)-- [C:0-3-0,Edge], [F:0-7-8,0-1-12], [H:0-5-8,0-2-8], [J:0-3-12,0-2-0], [O:0-3-0,0-2-8], [T:0-6-4,0-5-4], [V:0-2-8,0-4-8], [W:0-7-12,0-6-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.29	X	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.46	T-U	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.21	N	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 423 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* C-F,F-H: 2x4 SP 1650F 1.5E, H-I: 2x4 SP 2400F 2.0E
BOT CHORD	2x6 SP No.1 *Except* E-X: 2x4 SP No.2, H-S: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except* W-Y,Q-T: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-10-15 max.): F-H, I-J.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: W-X.
WEBS	1 Row at midpt E-V, G-U, H-U, I-Q

REACTIONS. (size) AA=0-3-8, N=0-3-8
Max Horz AA=-287(LC 8)
Max Uplift AA=-174(LC 12), N=-204(LC 13)
Max Grav AA=2689(LC 36), N=2884(LC 36)

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

TOP CHORD	A-B=-465/0, B-D=-3508/361, D-E=-3708/459, E-F=-3448/573, F-G=-2911/474, G-H=-2911/474, H-I=-3670/501, I-J=-3069/452, J-K=-3274/429, K-L=-3329/346, L-M=-336/17
BOT CHORD	A-AA=-69/549, Y-AA=-282/699, E-W=-46/785, V-W=-179/2681, U-V=-164/2649, T-U=-84/2850, H-T=-119/1498, P-Q=-154/2556, O-P=-203/2637, N-O=-25/347, M-N=-25/347
WEBS	B-AA=-2490/401, B-Y=-139/2259, D-Y=-1042/169, W-Y=-215/2649, D-W=-70/521, E-V=-1487/310, F-V=-337/1676, F-U=-198/757, G-U=-871/193, H-U=-252/267, Q-T=-215/3163, I-T=-299/254, I-Q=-2266/285, J-Q=-144/1344, J-P=-55/270, K-O=-544/119, L-O=-201/2344, L-N=-2573/309

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 4-11-5, Interior(1) 4-11-5 to 12-3-4, Exterior(2R) 12-3-4 to 22-1-13 , Interior(1) 22-1-13 to 24-4-15, Exterior(2R) 24-4-15 to 34-3-9, Interior(1) 34-3-9 to 35-7-0, Exterior(2R) 35-7-0 to 43-3-14, Interior(1) 43-3-14 to 44-5-11, Exterior(2E) 44-5-11 to 49-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AA=174, N=204.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975881
242042	04	Piggyback Base	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:11 2024 Page 1
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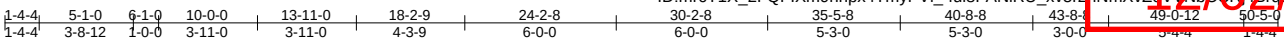

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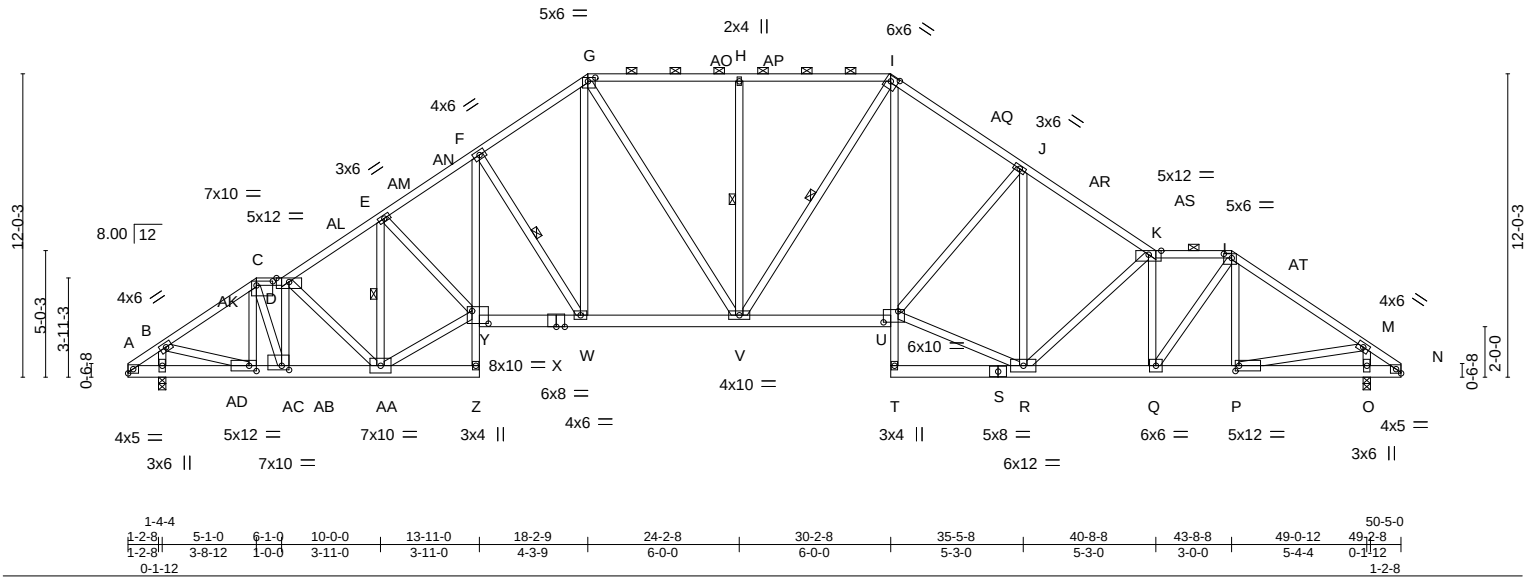

Plate Offsets (X,Y)-- [C:0-7-12,0-2-0], [G:0-3-8,0-1-12], [I:0-3-8,0-2-8], [L:0-3-12,0-2-0], [P:0-1-12,0-2-8], [U:0-7-0,0-5-4], [Y:0-7-12,0-6-0], [AB:0-3-8,0-2-0], [AC:0-3-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.34	U-V	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.55	U-V	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.25	O	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 424 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
G-I,I-K: 2x4 SP 1650F 1.5E
BOT CHORD 2x6 SP No.1 *Except*
A-Z: 2x6 SP 2400F 2.0E, F-Z,I-T: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
Y-AA,R-U: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-7-13 max.): C-D, G-I, K-L.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-AA, F-W, H-V, I-V

REACTIONS. (size) AD=0-3-8, O=0-3-8
Max Horz AD=-287(LC 8)
Max Uplift AD=-185(LC 12), O=-205(LC 13)
Max Grav AD=2997(LC 40), O=2919(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-330/15, B-C=-3267/291, C-D=-3280/328, D-E=-3826/403, E-F=-4689/499, F-G=-3618/489, G-H=-3018/476, H-I=-3018/476, I-J=-3902/511, J-K=-3928/465, K-L=-3913/444, L-M=-3415/342, M-N=-354/14
BOT CHORD A-AD=-12/313, AC-AD=-272/470, AB-AC=-273/2616, AA-AB=-297/3191, F-Y=-144/1504, W-Y=-198/3807, V-W=-139/2842, U-V=-87/3037, I-U=-140/1744, Q-R=-293/3858, P-Q=-183/2668, O-P=-57/449, N-O=-57/449
WEBS B-AD=-2646/281, B-AC=-164/2372, C-AC=-610/70, C-AB=-190/2165, D-AB=-2164/224, E-AA=-1673/129, Y-AA=-252/3526, E-Y=-41/988, F-W=-1724/285, G-W=-160/1281, G-V=-191/747, H-V=-890/192, I-V=-237/335, R-U=-194/3382, J-U=-289/330, J-R=-647/80, K-R=-945/182, K-Q=-1774/220, L-Q=-207/2219, L-P=-409/83, M-P=-153/2250, M-O=-2767/362

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 6-1-0, Interior(1) 6-1-0 to 13-2-0, Exterior(2R) 13-2-0 to 23-3-1, Interior(1) 23-3-1 to 25-3-12, Exterior(2R) 25-3-12 to 35-5-8, Interior(1) 35-5-8 to 40-8-8, Exterior(2R) 40-8-8 to 45-4-8, Exterior(2E) 45-4-8 to 50-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AD=185, O=205.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I69975882
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	05	Piggyback Base	1	1	Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:12 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-74GWSWONCn6nXFQEB5HmRmUjNpvkzVQDPyanYUyF2Tz

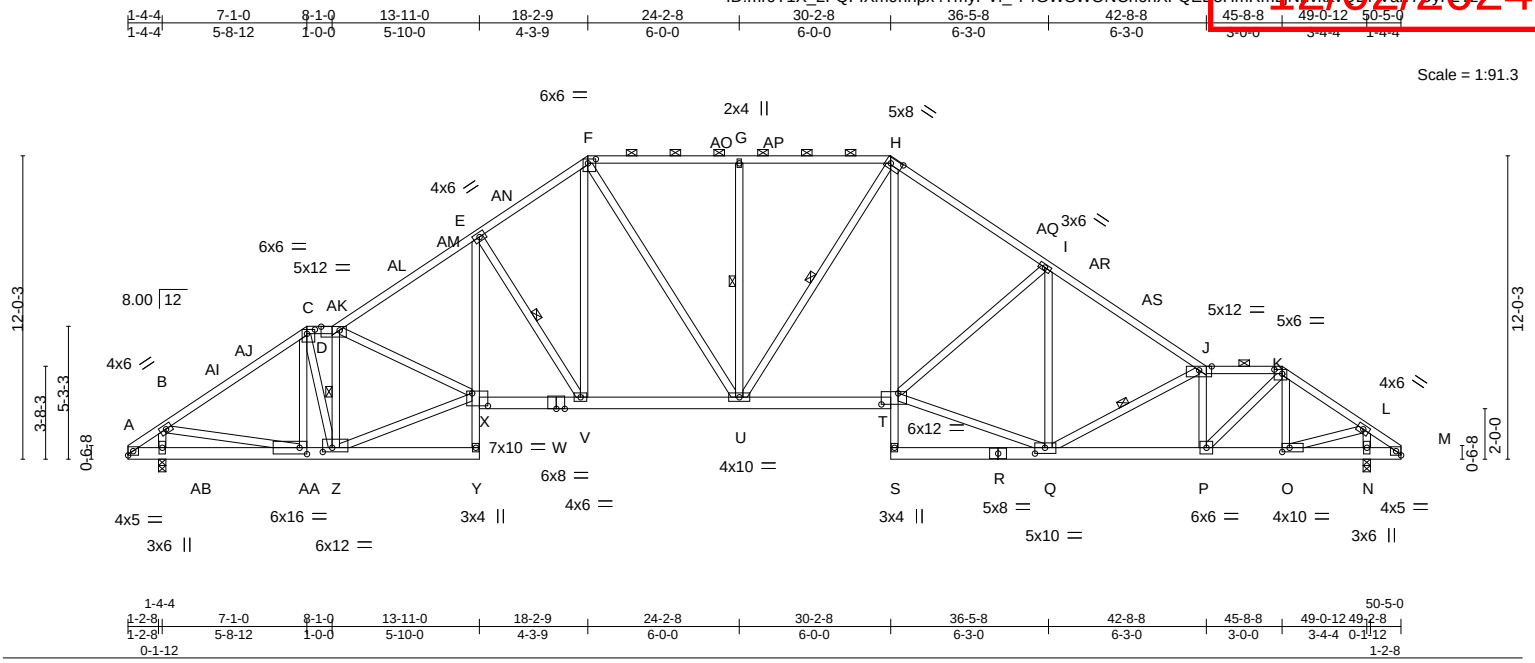

Plate Offsets (X,Y)-- [C:0-3-12,0-2-0], [D:0-8-12,0-1-12], [F:0-3-12,0-2-0], [H:0-5-8,0-2-8], [K:0-3-12,0-2-0], [O:0-3-8,0-2-0], [Q:0-4-12,0-2-12], [T:0-8-0,0-5-4], [X:0-7-8,0-6-0], [Z:0-4-8,0-2-0], [AA:0-3-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.33	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.53	T-U	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.25	N	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 413 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* A-C,F-H: 2x4 SP 1650F 1.5E, D-F,H-J: 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1 *Except* A-Y: 2x6 SP 2400F 2.0E, E-Y,H-S: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except* X-Z,Q-T,K-P: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-5-8 max.): C-D, F-H, J-K.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt D-Z, E-V, G-U, H-U, J-Q

REACTIONS. (size) AB=0-3-8, N=0-3-8
Max Horz AB=287(LC 9)
Max Uplift AB=-185(LC 12), N=-205(LC 13)
Max Grav AB=3012(LC 40), N=2904(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-432/4, B-C=-3588/339, C-D=-3210/360, D-E=-4697/495, E-F=-3648/498, F-G=-3035/477, G-H=-3035/477, H-I=-3971/500, I-J=-4213/451, J-K=-4479/449, K-L=-3056/291, L-M=-252/18
BOT CHORD A-AB=-55/529, AA-AB=-281/663, Z-AA=-251/2804, E-X=-93/1277, V-X=-199/3808, U-V=-130/2849, T-U=-93/3063, H-T=-122/1712, P-Q=-341/4387, O-P=-171/2451
WEBS B-AB=-2832/368, B-AA=-137/2304, C-AA=-320/46, C-Z=-142/1779, D-Z=-3042/293, X-Z=-267/3243, D-X=-27/773, E-V=-1717/296, F-V=-172/1310, F-U=-187/723, G-U=-886/192, H-U=-235/357, Q-T=-217/3517, I-T=-466/279, I-Q=-539/88, J-Q=-1159/193, J-P=-2089/254, K-P=-263/2941, K-O=-709/92, L-O=-177/2292, L-N=-2598/282

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 5-0-8, Exterior(2R) 5-0-8 to 7-1-0, Exterior(2E) 7-1-0 to 8-1-0, Interior(1) 8-1-0 to 13-2-0, Exterior(2R) 13-2-0 to 23-3-1, Interior(1) 23-3-1 to 25-3-12, Exterior(2R) 25-3-12 to 35-4-12, Interior(1) 35-4-12 to 42-8-8, Exterior(2R) 42-8-8 to 45-8-8, Exterior(2E) 45-8-8 to 50-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AB=185, N=205.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER
November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975883
242042	06	Roof Special Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:15 2024 Page 1
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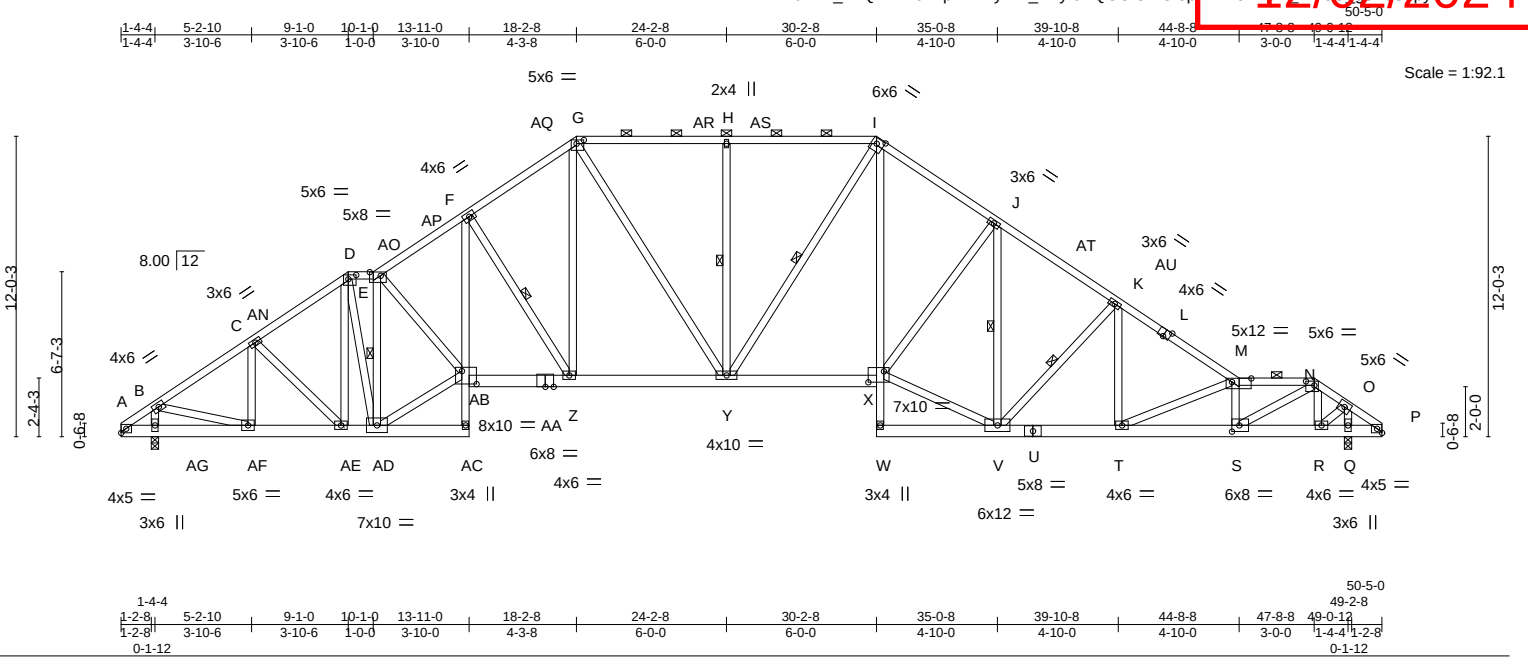

Plate Offsets (X,Y)-- [D:0-3-12,0-2-0], [E:0-5-4,0-1-12], [G:0-3-8,0-1-12], [I:0-3-8,0-2-8], [L:0-3-0,Edge], [M:0-9-4,0-1-12], [N:0-4-0,0-2-0], [S:0-3-8,0-3-0], [X:0-7-8,0-5-4], [AB:0-7-0,0-6-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.39	X	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.61	X-Y	>933	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.28	Q	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 430 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
G-I,I-L: 2x4 SP 1650F 1.5E, L-M: 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.1 *Except*
A-AC: 2x6 SP 2400F 2.0E, F-AC,I-W: 2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
B-AF,AB-AD,V-X: 2x4 SP No.2, N-S: 2x4 SP 1650F 1.5E

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-3-12 max.): D-E, G-I, M-N.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-AD, F-Z, H-Y, I-Y, J-V, K-V

REACTIONS. (size) AG=0-3-8, Q=0-3-8
Max Horz AG=-287(LC 8)
Max Uplift AG=-186(LC 12), Q=-244(LC 13)
Max Grav AG=3031(LC 40), Q=2839(LC 40)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-379/17, B-C=-3343/315, C-D=-3560/402, D-E=-3068/388, E-F=-4625/518, F-G=-3650/502, G-H=-3061/481, H-I=-3061/481, I-J=-3963/514, J-K=-3980/468, K-M=-4853/470, M-N=-5386/512, N-O=-2061/218
BOT CHORD A-AG=-9/348, AF-AG=-266/496, AE-AF=-281/2667, AD-AE=-213/2835, F-AB=-130/1388, Z-AB=-210/3822, Y-Z=-119/2864, X-Y=-98/3113, I-X=-145/1790, T-V=-278/3961, S-T=-436/5208, R-S=-146/1753
WEBS B-AG=-2597/278, B-AF=-191/2402, C-AF=-789/121, C-AE=-57/374, D-AD=-114/1287, E-AD=-3358/293, AB-AD=-243/3427, E-AB=-42/1198, F-Z=-1714/287, G-Z=-162/1270, G-Y=-186/701, H-Y=-873/190, I-Y=-250/359, V-X=-188/3457, J-X=-200/458, J-V=-631/110, K-V=-1163/211, K-T=-23/683, M-T=-1346/193, M-S=-2424/267, N-S=-367/4289, N-R=-1265/139, O-R=-189/1982, O-Q=-2424/255

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 5-2-10, Exterior(2R) 5-2-10 to 9-1-0, Exterior(2E) 9-1-0 to 10-1-0, Interior(1) 10-1-0 to 13-2-0, Exterior(2R) 13-2-0 to 23-3-0, Interior(1) 23-3-0 to 25-2-0, Exterior(2R) 25-2-0 to 35-0-8, Interior(1) 35-0-8 to 44-8-8, Exterior(2R) 44-8-8 to 47-8-8, Exterior(2E) 47-8-8 to 50-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AG=186, Q=244.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975883
242042	06	Roof Special Girder	1	1	Job Reference (optional)	

NOTES-

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 95 lb up at 47-8-8 on top chord, and 65 lb up at 47-8-8 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-D=-70, D-E=-70, E-G=-70, G-I=-70, I-M=-70, M-N=-70, N-P=-70, AC-AH=-20, X-AB=-20, W-AK=-20
   Concentrated Loads (lb)
   Vert: N=29(B) R=31(B)

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	07	Roof Special	1	1	I69975884
					Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:16 2024 Page 1
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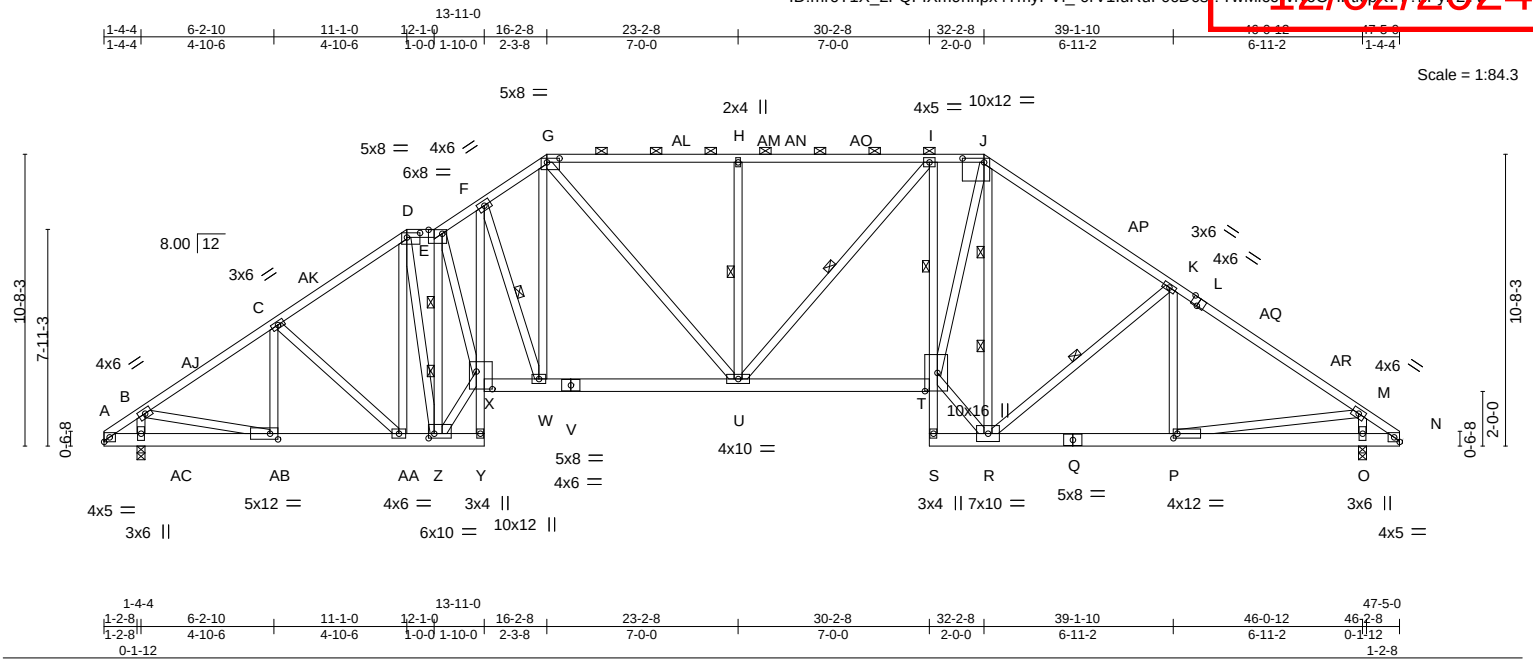

Plate Offsets (X,Y)-- [D:0-5-12,0-2-0], [E:0-6-0,0-1-12], [G:0-5-8,0-1-12], [J:0-9-8,0-1-12], [L:0-3-0,Edge], [P:0-1-12,0-2-0], [T:0-8-0,0-5-8], [X:0-7-12,0-7-0], [Z:0-2-8,0-2-0], [AB:0-3-8,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.38	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.60	T-U	>889	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.42	O	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 412 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2 *Except*
	G-J: 2x4 SP 2400F 2.0E, J-L,L-N: 2x4 SP 1650F 1.5E
BOT CHORD	2x6 SP No.1 *Except*
	F-Y: 2x4 SP No.2, I-S: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except*
	E-Z,X-Z,E-X,R-T,J-T: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except	
	2-0-0 oc purlins (3-2-7 max.): D-E, G-J.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:	
	6-0-0 oc bracing: X-Y,S-T.	
	1 Row at midpt	I-T
WEBS	1 Row at midpt	F-W, H-U, I-U, K-R
	2 Rows at 1/3 pts	E-Z, J-R

REACTIONS. (size) AC=0-3-8, O=0-3-8
Max Horz AC=-253(LC 8)
Max Uplift AC=-167(LC 12), O=-155(LC 13)
Max Grav AC=2689(LC 36), O=2533(LC 36)

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

TOP CHORD	A-B=-314/6, B-C=-3080/317, C-D=-2965/393, D-E=-2457/381, E-F=-3841/495, F-G=-3442/483, G-H=-3407/452, H-I=-3407/452, I-J=-3102/429, J-K=-2739/404, K-M=-3192/331, M-N=-445/0
BOT CHORD	A-AC=-16/343, AB-AC=-245/469, AA-AB=-232/2423, Z-AA=-195/2311, F-X=-178/1451, W-X=-265/3279, U-W=-216/2861, T-U=-108/3129, I-T=-959/287, P-R=-162/2506, O-P=-58/547, N-O=-58/547
WEBS	B-AC=-2420/295, B-AB=-176/2127, C-AB=-472/110, C-AA=-250/257, D-Z=-79/1163, E-Z=-4433/292, X-Z=-336/4094, E-X=-205/2814, F-W=-1648/250, G-W=-160/1254, G-U=-205/847, H-U=-1004/213, I-U=-155/436, R-T=-85/3361, J-T=-293/3748, J-R=-2292/203, K-R=-614/226, K-P=-264/114, M-P=-138/1981, M-O=-2375/354

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 4-8-14, Interior(1) 4-8-14 to 6-2-10, Exterior(2R) 6-2-10 to 11-1-0, Exterior(2E) 11-1-0 to 12-1-0, Exterior(2R) 12-1-0 to 20-11-6, Interior(1) 20-11-6 to 27-5-10, Exterior(2R) 27-5-10 to 36-11-6, Interior(1) 36-11-6 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AC=167, O=155.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	08	Roof Special	1	1	I69875885 Job Reference (optional)

Heartland Truss, Inc., Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:39:17 2024 Page 1
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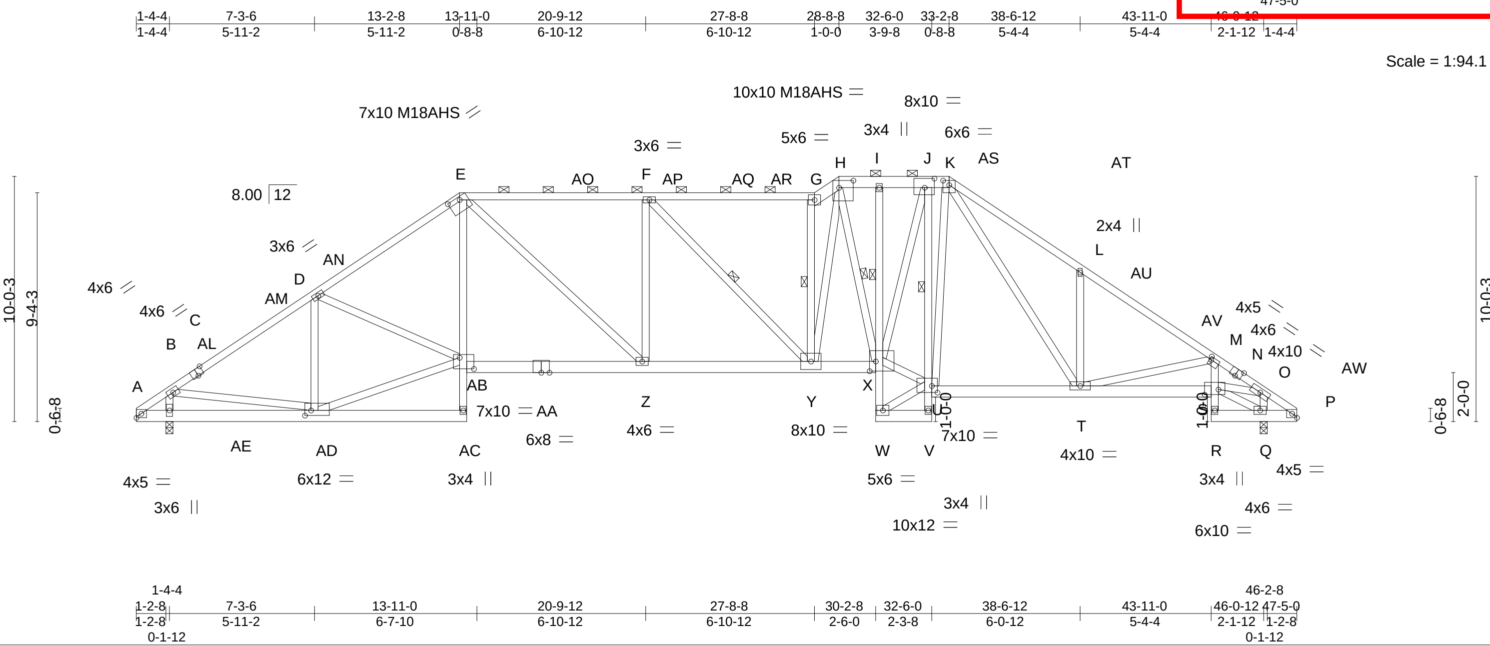

Plate Offsets (X,Y)-- [C:0-3-0,Edge], [E:0-6-0,0-1-8], [H:0-7-0,0-3-8], [J:0-4-12,0-4-8], [K:0-3-0,0-2-3], [M:0-0-12,0-1-8], [N:0-3-0,Edge], [S:0-6-12,0-2-8], [U:0-2-12,0-3-4], [X:0-3-0,0-4-12], [AB:0-7-0,0-5-8], [AD:0-3-0,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.38	Y-Z	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.60	Y-Z	>893	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.33	Q	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS								
BCDL	10.0										Weight: 408 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
C-E: 2x4 SP 1650F 1.5E, E-G: 2x4 SP 2850F 2.3E
G-H,H-K: 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except*
E-AC,I-W,J-V: 2x4 SP No.3, M-R: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
H-Y,U-X,J-X,O-S: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-0 max.): E-G, H-K.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: W-X,V-W,U-V,R-S.
1 Row at midpt I-X, J-U
WEBS 1 Row at midpt G-Y, F-Y, H-X

REACTIONS. (size) AE=0-3-8, Q=0-3-8
Max Horz AE=-233(LC 8)
Max Uplift AE=-136(LC 12), Q=-146(LC 13)
Max Grav AE=2500(LC 36), Q=2519(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-370/0, B-D=-3055/313, D-E=-3876/416, E-F=-4164/455, F-G=-3932/442, G-H=-4343/505, H-I=-3335/419, I-J=-3327/418, J-K=-2601/383, K-L=-3637/516, L-M=-3613/364, M-O=-4564/365
BOT CHORD A-AE=-29/455, AD-AE=-224/548, E-AB=-51/965, Z-AB=-271/3215, Y-Z=-279/4163, X-Y=-145/3601, J-U=-1797/174, T-U=-80/2576, S-T=-294/4046, M-S=0/454, Q-R=-26/274
WEBS B-AE=-2343/315, B-AD=-150/2048, D-AD=-1150/172, F-Z=-841/248, E-Z=-238/1290, G-Y=-2143/272, F-Y=-332/153, H-Y=-217/2507, H-X=-1249/157, U-W=0/273, U-X=-90/2887, J-X=-226/2629, L-T=-741/260, M-T=-1220/189, O-Q=-2111/190, O-S=-276/3602, AB-AD=-229/2401, D-AB=-76/971, K-T=-251/1152, K-U=-103/696

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 4-8-14, Interior(1) 4-8-14 to 8-5-10, Exterior(2R) 8-5-10 to 17-11-6 , Interior(1) 17-11-6 to 27-8-8, Exterior(2R) 27-8-8 to 37-11-6, Interior(1) 37-11-6 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AE=136, Q=146.
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.

November 27,2024

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

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	09	Roof Special	1	1	Job Reference (optional)

I69975886

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:19 2024 Page 1
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12/02/2024

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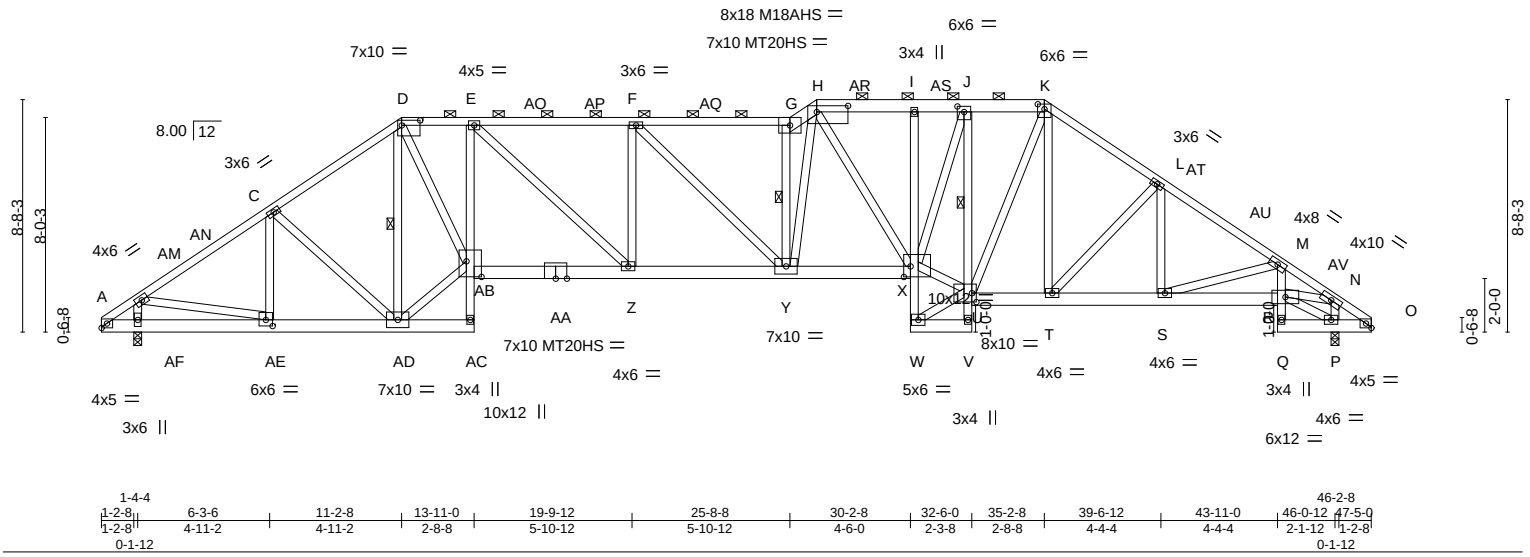

Plate Offsets (X,Y)-- [D:0-8-4,0-2-4], [H:1-2-0,0-2-12], [J:0-3-0,0-2-8], [K:0-3-0,0-2-3], [U:0-2-0,0-4-0], [X:0-3-0,0-4-12], [AB:0-7-0,0-6-12], [AE:0-3-0,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.54	Y-Z	>996	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.80	Y-Z	>668	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.44	P	n/a	n/a	M18AHS	186/179
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 402 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
D-G: 2x4 SP 2400F 2.0E, G-H,H-K: 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except*
E-AC,M-Q: 2x4 SP No.3, I-W,J-V: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
AB-AD,H-Y,U-X,J-X,N-R: 2x4 SP No.2, D-AB: 2x4 SP 1650F 1.5E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-5 oc purlins, except
2-0-0 oc purlins (2-8-0 max.): D-G, H-K.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: AB-AC,Q-R
6-0-0 oc bracing: W-X,V-W,U-V.
1 Row at midpt J-U
WEBS 1 Row at midpt D-AD, G-Y

REACTIONS. (size) AF=0-3-8, P=0-3-8
Max Horz AF=204(LC 9)
Max Uplift AF=-271(LC 12), P=-126(LC 13)
Max Grav AF=2394(LC 36), P=2453(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-346/20, B-C=-3000/344, C-D=-3250/405, D-E=-4551/516, E-F=-5347/520, F-G=-5384/526, G-H=-6065/608, H-I=-4380/478, I-J=-4365/478, J-K=-3513/432, K-L=-3560/427, L-M=-3738/393, M-N=-4346/393
BOT CHORD A-AF=-31/307, AE-AF=-191/396, AD-AE=-313/2455, E-AB=-1281/263, Z-AB=-363/4576, Y-Z=-364/5347, X-Y=-244/4891, J-U=-3049/201, T-U=-124/2922, S-T=-204/3089, R-S=-300/3731, M-R=0/482
WEBS B-AF=-2151/336, B-AE=-171/2204, C-AE=-504/109, C-AD=-309/268, D-AD=-2234/147, AB-AD=-279/3393, D-AB=-305/4253, F-Z=-917/204, E-Z=-186/1067, G-Y=-2971/324, F-Y=-120/429, H-Y=-336/3146, H-X=-1013/164, U-W=-18/283, U-X=-176/3821, J-X=-165/2761, K-T=-70/549, K-U=-123/1610, L-T=-704/162, M-S=-965/133, N-P=-2051/210, N-R=-293/3399

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 4-8-14, Interior(1) 4-8-14 to 6-3-6, Exterior(2R) 6-3-6 to 15-11-6, Interior(1) 15-11-6 to 25-8-8, Exterior(2R) 25-8-8 to 39-11-6, Interior(1) 39-11-6 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) AF=271, P=126.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	10	Roof Special	1	1	I69975887 Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:39:20 2024 Page 1
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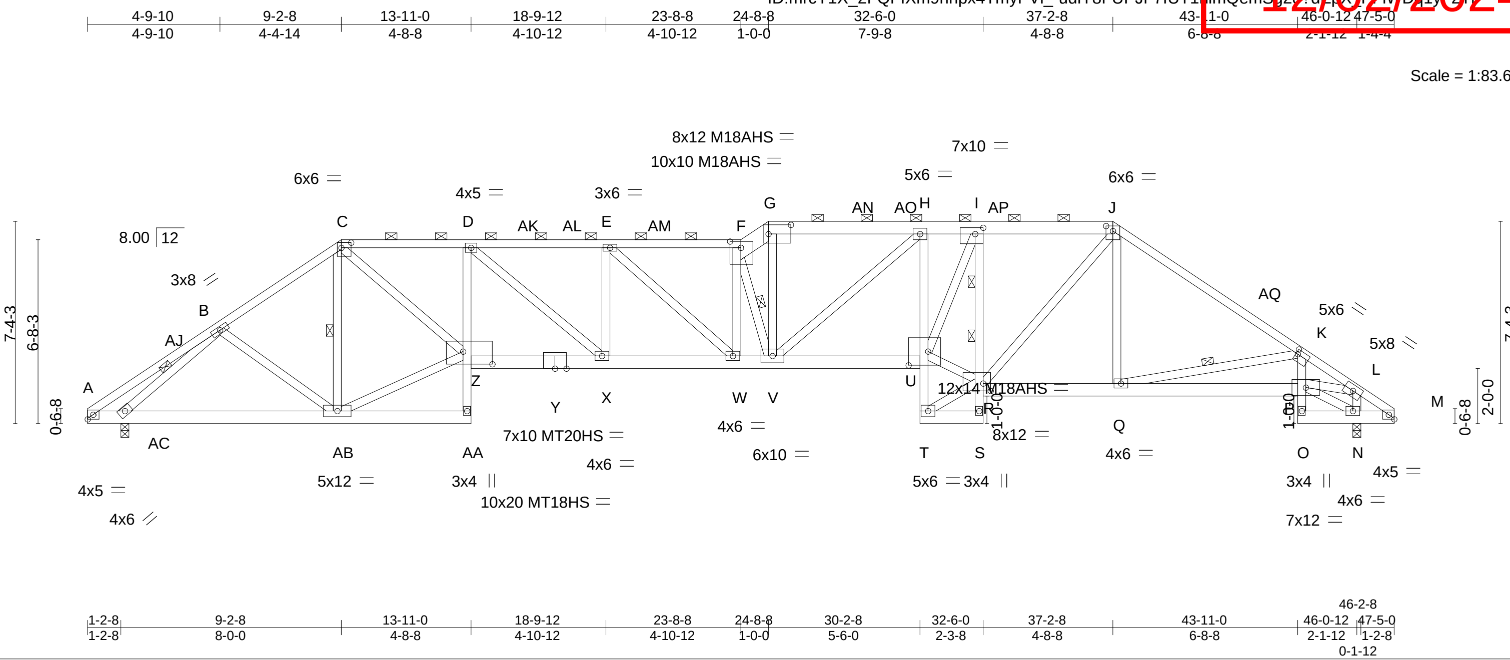

Plate Offsets (X,Y)-- [C:0-4-4,0-2-4], [F:0-4-12,0-2-12], [G:0-9-12,0-4-0], [I:0-3-8,0-2-12], [J:0-3-0,0-2-3], [K:0-0-12,0-2-0], [R:0-3-4,0-3-4], [U:0-8-8,0-6-0], [Z:1-0-12,0-5-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.71	W-X	>757	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.94	Vert(CT)	-1.03	W-X	>522	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.53	N	n/a	n/a	M18AHS	186/179
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MS							MT18HS	244/190
BCDL	10.0										Weight: 372 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
C-F: 2x4 SP 2400F 2.0E, F-G: 2x8 SP 2400F 2.0E, G-J: 2x6 SP No.1
J-M: 2x4 SP 1650F 1.5E
BOT CHORD 2x6 SP No.1 *Except*
D-AA: 2x4 SP No.3, Y-Z,U-Y: 2x6 SP 2400F 2.0E
H-T,I-S,K-O: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
Z-AB,G-V,L-P: 2x4 SP No.2, C-Z,R-U,I-U: 2x4 SP 1650F 1.5E

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-0 max.): C-F, G-J.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
2 Rows at 1/3 pts I-R
WEBS 1 Row at midpt B-AC, C-AB, F-V, K-Q

REACTIONS. (size) N=0-3-8, AC=0-3-8
Max Horz AC=170(LC 9)
Max Uplift N=-134(LC 8), AC=-258(LC 12)
Max Grav N=2525(LC 35), AC=2559(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-539/47, B-C=-3549/371, C-D=-6523/588, D-E=-7277/600, E-F=-7523/629, F-G=-7499/639, G-H=-6780/588, H-I=-6361/569, I-J=-4671/471, J-K=-4052/392, K-L=-4752/417, L-M=-270/24
BOT CHORD A-AC=0/400, AB-AC=-325/2633, D-Z=-1260/241, X-Z=-463/6545, W-X=-444/7277, V-W=-427/7539, U-V=-348/6399, H-U=-618/131, I-R=-4470/302, Q-R=-158/3316, P-Q=-399/4150, K-P=0/467, N-O=-46/261
WEBS B-AC=-3017/352, B-AB=-221/357, C-AB=-1529/137, Z-AB=-236/3130, C-Z=-315/4759, E-X=-931/179, D-X=-152/980, F-W=-520/73, E-W=-58/587, G-V=-196/2930, F-V=-3291/333, H-V=-147/624, R-T=-14/287, R-U=-279/5417, I-U=-247/4209, J-R=-180/2136, J-Q=0/331, K-Q=-1480/290, L-N=-2156/173, L-P=-342/3730

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 4-9-10, Exterior(2R) 4-9-10 to 13-9-4, Interior(1) 13-9-4 to 23-8-8, Exterior(2R) 23-8-8 to 29-5-6, Interior(1) 29-5-6 to 32-4-4, Exterior(2R) 32-4-4 to 41-11-6, Interior(1) 41-11-6 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) N=134, AC=258.
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.

November 27,2024

Continued on page 2

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975887
242042	10	Roof Special	1	1	Job Reference (optional)	

NOTES-

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

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975888
242042	11	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:30:22 2024 Page 1
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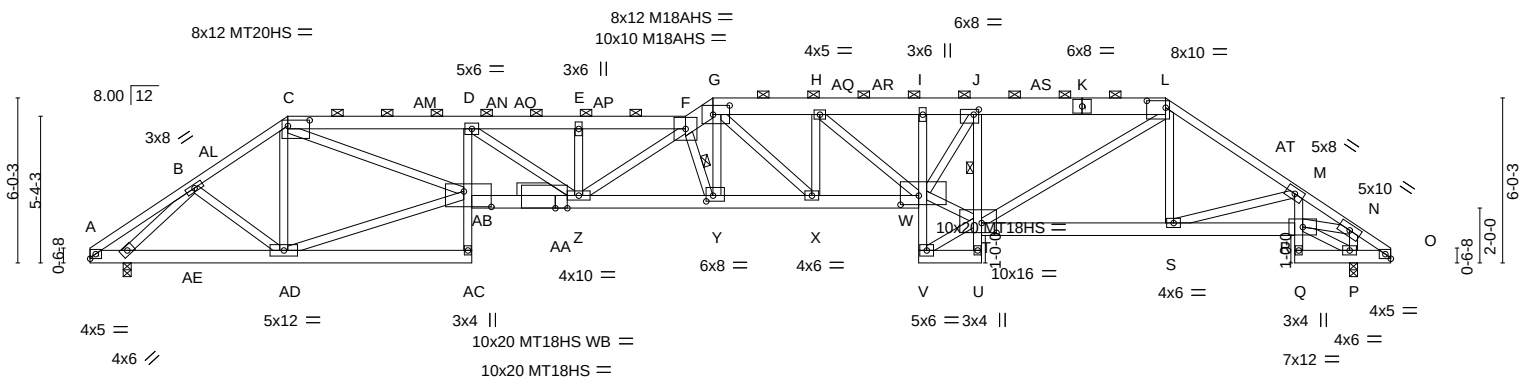

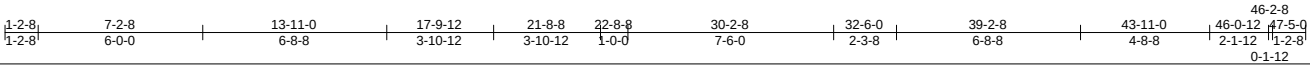

Plate Offsets (X,Y)-- [C:0-9-8,0-2-8], [G:0-7-4,0-4-0], [J:0-2-4,0-2-4], [L:0-8-4,0-3-0], [T:0-6-8,0-4-4], [W:0-8-0,0-4-0], [Y:0-3-0,0-2-8], [AA:0-5-4,0-0-0], [AB:1-0-0,0-6-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-1.03	Y-Z	>521	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.86	Vert(CT)	-1.47	Y-Z	>367	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.66	P	n/a	n/a	M18AHS	186/179
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 380 lb	FT=20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x8 SP 2400F 2.0E *Except*
A-C,L-O: 2x4 SP No.2, C-F: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2 *Except*
A-AC,U-V,R-T,O-Q: 2x6 SP No.1, AA-AB,W-AA: 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except*
AB-AD,L-T,N-R: 2x4 SP No.2, C-AB,T-W: 2x4 SP 2400F 2.0E
J-W,G-Y,H-X: 2x4 SP 1650F 1.5E
OTHERS 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except
2-0-0 oc purlins (2-5-6 max.): C-F, G-L.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: V-W,U-V,T-U,Q-R.
1 Row at midpt J-T
WEBS 1 Row at midpt F-Y

REACTIONS. (size) P=0-3-8, AE=0-3-8
Max Horz AE=138(LC 9)
Max Uplift P=-181(LC 8), AE=-245(LC 12)
Max Grav P=2709(LC 36), AE=2742(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-454/53, B-C=-3712/335, C-D=-10398/757, D-E=-10954/813, E-F=-10954/813,
F-G=-10678/825, G-H=-9586/771, H-I=-8742/722, I-J=-8701/719, J-L=-6517/579,
L-M=-4442/369, M-N=-5073/385, N-O=-288/30
BOT CHORD A-AE=-2/329, AD-AE=-272/2595, D-AB=-1120/219, Z-AB=-657/10449, Y-Z=-763/11424,
X-Y=-645/9942, W-X=-655/9586, J-T=-4946/448, S-T=-210/3673, R-S=-322/4349,
M-R=0/511, P-Q=-28/294
WEBS B-AE=-3210/293, B-AD=-94/634, C-AD=-1333/169, AB-AD=-221/3080, C-AB=-617/7849,
E-Z=-699/109, D-Z=-80/674, T-V=0/278, T-W=-502/7120, J-W=-281/4356, L-S=0/314,
L-T=-303/3427, M-S=-979/177, N-P=-2336/194, N-R=-295/3959, G-Y=-279/4275,
H-X=-57/591, H-W=-1132/124, G-X=-678/145, F-Y=-4505/356, F-Z=-744/111

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 4-8-14, Exterior(2R) 4-8-14 to 11-11-6, Interior(1) 11-11-6 to 21-8-8, Exterior(2R) 21-8-8 to 27-5-6, Interior(1) 27-5-6 to 34-5-10, Exterior(2R) 34-5-10 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) The Fabrication Tolerance at joint AB = 16%
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) P=181, AE=245.

Continued on page 2

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975888
242042	11	Roof Special	1	1	Job Reference (optional)	

NOTES-

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.

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975889
242042	12	Roof Special Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:24 2024 Page 1
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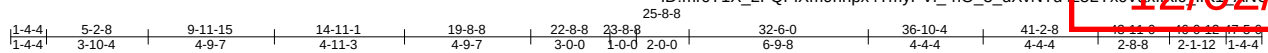

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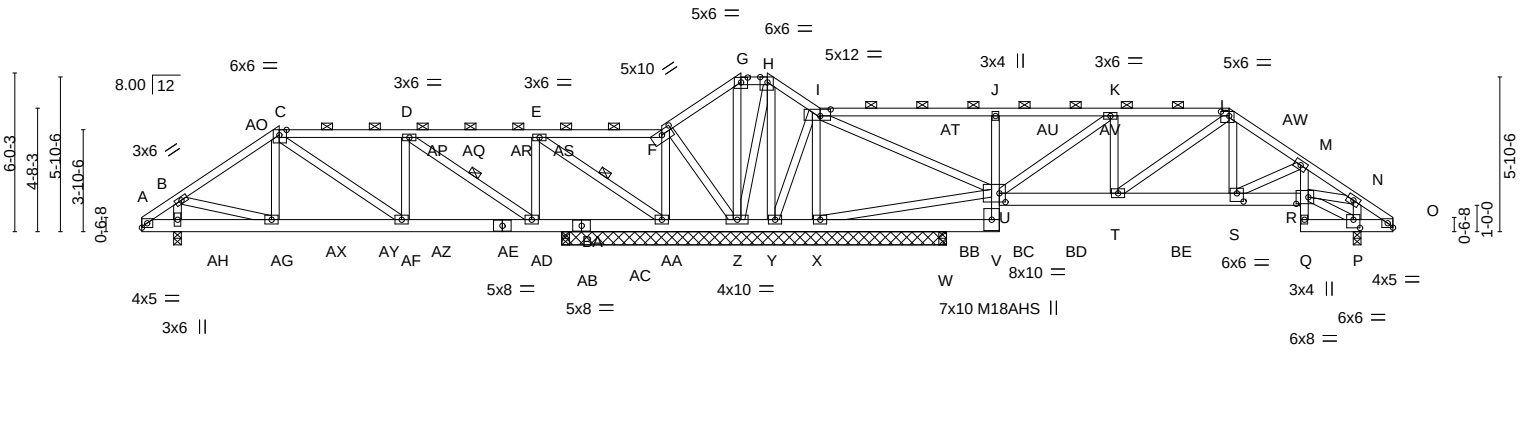

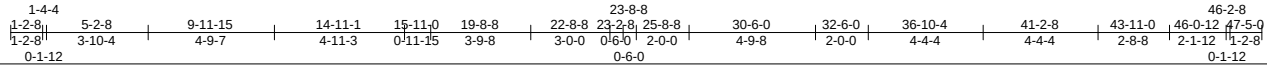

Plate Offsets (X,Y)-- [C:0-3-5,Edge], [F:0-5-0,0-2-0], [G:0-3-0,0-2-3], [H:0-3-5,Edge], [I:0-4-12,0-3-0], [L:0-3-12,0-2-0], [P:0-3-0,0-3-12], [R:0-5-8,0-3-0], [S:0-3-0,0-3-12], [U:0-2-12,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.15	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.20	T-U	>944	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.11	P	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 343 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* C-F,I-L: 2x4 SP 1650F 1.5E
BOT CHORD	2x6 SP No.1 *Except* J-V: 2x4 SP No.2, M-Q: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except* I-U,N-R: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-11-8 oc purlins, except 2-0-0 oc purlins (3-8-14 max.): C-F, G-H, I-L.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt D-AD, E-AA

REACTIONS. All bearings 0-3-8 except (jt=length) AA=14-7-0, Z=14-7-0, Y=14-7-0, X=14-7-0.
(lb) - Max Horz AH=-134(LC 68)
Max Uplift All uplift 100 lb or less at joint(s) except AH=-373(LC 12), AA=-101(LC 12), Z=-230(LC 9), Y=-195(LC 13), X=-227(LC 13), P=-488(LC 13), AC=-211(LC 12), W=-223(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except AH=1578(LC 41), AA=513(LC 18), Z=1276(LC 40), Y=745(LC 40), X=1201(LC 40), P=1971(LC 41), AC=1091(LC 40), W=1157(LC 40)

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

TOP CHORD	B-C=-1738/458, C-D=-1880/485, D-E=-420/139, E-F=-298/1410, F-G=-370/1730, G-H=-273/1411, H-I=-322/1624, I-J=-1492/387, J-K=-1459/380, K-L=-2806/718, L-M=-2945/805, M-N=-3349/874
BOT CHORD	AF-AG=-374/1423, AD-AF=-444/1877, AC-AD=-84/420, AA-AC=-84/420, Z-AA=-1380/388, Y-Z=-1400/435, X-Y=-1559/459, W-X=-588/148, V-W=-588/148, U-V=-532/124, J-U=-787/167, T-U=-640/2806, S-T=-547/2396, R-S=-684/2809, M-R=-54/392
WEBS	B-AH=-1480/410, B-AG=-319/1370, C-AG=-199/401, C-AF=-168/565, D-AF=-191/613, D-AD=-1892/441, E-AD=-169/665, E-AA=-2132/479, F-AA=-198/760, G-Z=-1037/237, H-Y=-799/167, I-Y=-98/386, I-X=-1477/357, U-X=-931/302, I-U=-750/3351, K-U=-1672/419, K-T=-264/722, L-T=-117/515, L-S=-323/1090, M-S=-645/162, N-R=-638/2608, N-P=-1641/439

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 4-8-14, Exterior(2R) 4-8-14 to 9-11-15, Interior(1) 9-11-15 to 19-8-8, Exterior(2R) 19-8-8 to 23-8-8, Exterior(2E) 23-8-8 to 25-8-8, Interior(1) 25-8-8 to 36-5-10, Exterior(2R) 36-5-10 to 42-8-2, Exterior(2E) 42-8-2 to 47-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) All plates are 4x2 MT20 unless otherwise indicated.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER
November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	12	Roof Special Girder	1	1	I60975889

Job Reference (optional)

NOTES-

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 373 lb uplift at joint AH, 101 lb uplift at joint AA, 230 lb uplift at joint Z, 195 lb uplift at joint Y, 227 lb uplift at joint X, 488 lb uplift at joint P, 211 lb uplift at joint AC and 223 lb uplift at joint W.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 495 lb down and 197 lb up at 5-2-8, 200 lb down and 83 lb up at 7-1-12, 200 lb down and 83 lb up at 9-1-12, 200 lb down and 83 lb up at 11-1-12, 200 lb down and 83 lb up at 13-1-12, 200 lb down and 83 lb up at 15-1-12, 285 lb down and 99 lb up at 31-1-12, 285 lb down and 100 lb up at 33-1-12, 285 lb down and 100 lb up at 35-1-12, 285 lb down and 100 lb up at 37-1-12, and 285 lb down and 100 lb up at 39-1-12, and 764 lb down and 317 lb up at 41-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: A-C=-70, C-F=-70, F-G=-70, G-H=-70, H-I=-70, I-L=-70, L-O=-70, V-AI=-20, R-U=-20, Q-AL=-20
   Concentrated Loads (lb)
   Vert: AG=-495(B) AD=-200(B) T=-285(B) S=-764(B) AX=-200(B) AY=-200(B) AZ=-200(B) BA=-200(B) BB=-285(B) BC=-285(B) BD=-285(B) BE=-285(B)

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975890
242042	13	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:24 2024 Page 1
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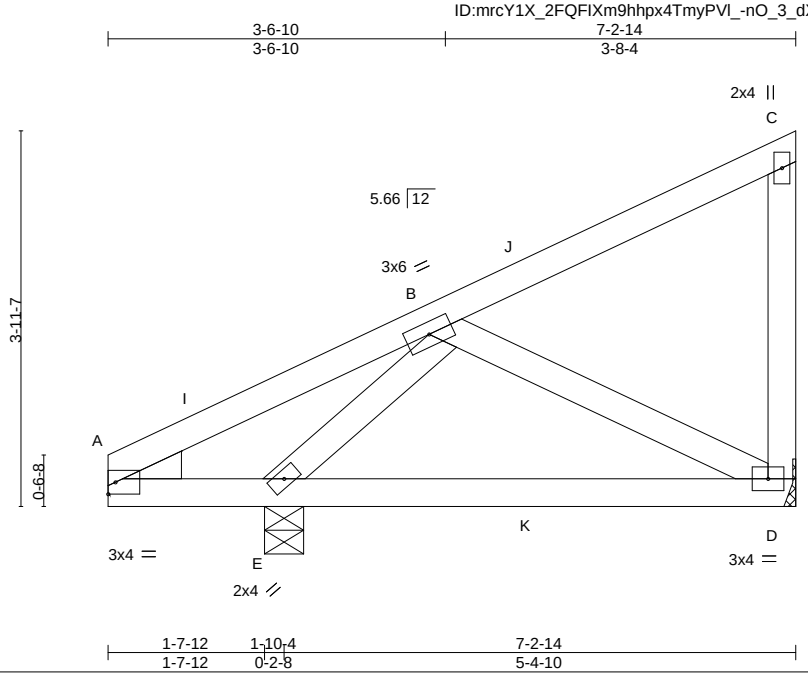

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.03	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 38 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) D=Mechanical, E=0-4-15
Max Horz E=141(LC 11)
Max Uplift D=-86(LC 9), E=-62(LC 12)
Max Grav D=323(LC 18), E=547(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-D=-276/191, B-E=-535/253

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 7-1-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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 86 lb uplift at joint D and 62 lb uplift at joint E.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 88 lb up at 4-6-0, and 111 lb down and 88 lb up at 4-6-0 on top chord, and 12 lb down and 19 lb up at 4-6-0, and 12 lb down and 19 lb up at 4-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, D-F=-20
Concentrated Loads (lb)
Vert: K=5(F=2, B=2)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975891
242042	14	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:25 2024 Page 1
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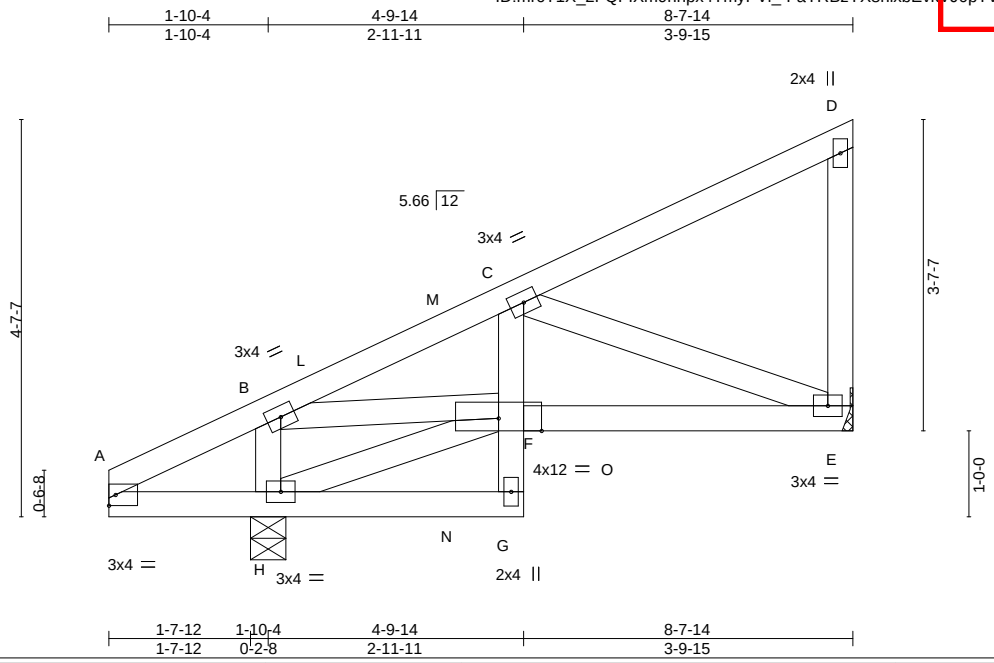

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.05	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.07	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.01	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 50 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
C-G: 2x4 SP No.3
WEBS 2x4 SP No.3

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

REACTIONS. (size) H=0-4-15, E=Mechanical
Max Horz H=137(LC 9)
Max Uplift H=-147(LC 12), E=-189(LC 12)
Max Grav H=633(LC 18), E=508(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-774/371
BOT CHORD E-F=-366/690
WEBS B-H=-527/287, B-F=-324/740, C-E=-730/456

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 8-6-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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 147 lb uplift at joint H and 189 lb uplift at joint E.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 104 lb down and 76 lb up at 4-0-6, and 104 lb down and 76 lb up at 4-0-6 on top chord, and 55 lb up at 4-0-6, 55 lb up at 4-0-6, and 99 lb down and 78 lb up at 5-11-0, and 99 lb down and 78 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, G-I=-20, E-F=-20
Concentrated Loads (lb)
Vert: N=59(F=29, B=29) O=-197(F=-99, B=-99)

November 27,2024

MiTek®
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975892
242042	15	Jack-Closed	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:25 2024 Page 1
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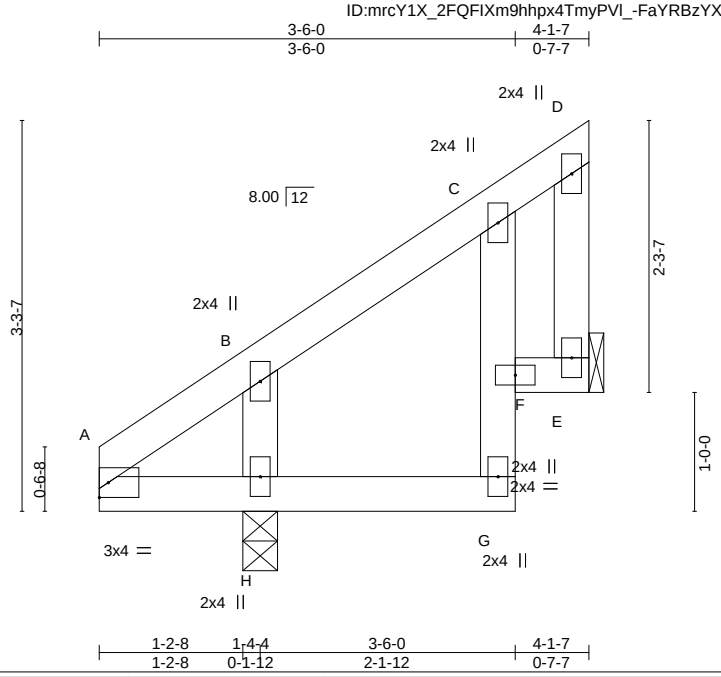

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	G	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	G	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
C-G: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) E=Mechanical, H=0-3-8
Max Horz H=88(LC 9)
Max Uplift E=-55(LC 9), H=-10(LC 12)
Max Grav E=127(LC 18), H=399(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-H=-316/151

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 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 55 lb uplift at joint E and 10 lb uplift at joint H.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	16	Jack-Open	3	1	I69975893
					Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:26 2024 Page 1
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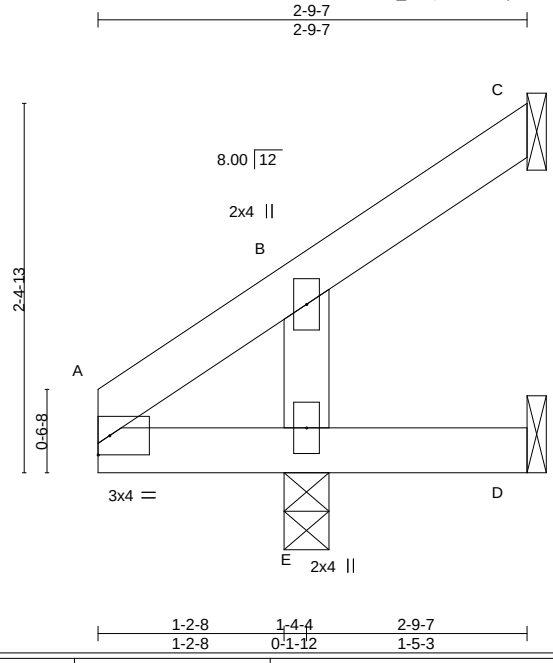

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%
BCDL	10.0											

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 2-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=71(LC 12)
Max Uplift C=-43(LC 12), D=-27(LC 18)
Max Grav C=29(LC 21), D=11(LC 10), E=339(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) 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 43 lb uplift at joint C and 27 lb uplift at joint 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975894
242042	17	Jack-Open	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:26 2024 Page 1
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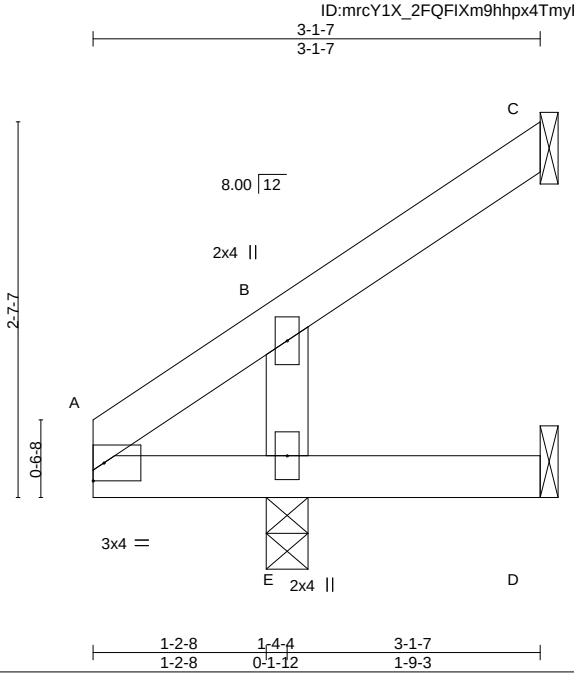

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb	FT = 20%
BCDL	10.0											

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 3-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=79(LC 12)
Max Uplift C=-49(LC 12), D=-13(LC 12)
Max Grav C=53(LC 18), D=17(LC 10), E=349(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) 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 49 lb uplift at joint C and 13 lb uplift at joint 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975895
242042	18	Jack-Closed	6	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:26 2024 Page 1
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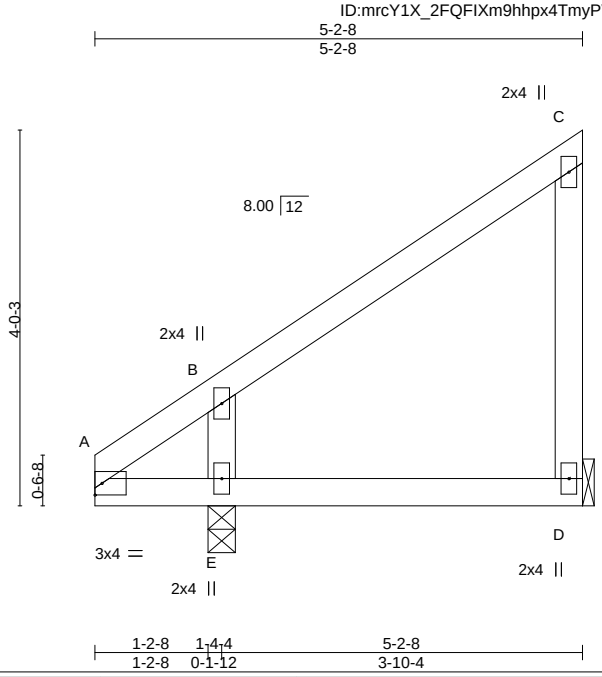

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 24 lb	FT = 20%
BCDL	10.0											

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 5-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=134(LC 11)
Max Uplift D=-63(LC 9), E=-17(LC 12)
Max Grav D=220(LC 18), E=474(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-449/228

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 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 63 lb uplift at joint D and 17 lb uplift at joint E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975896
242042	19	Jack-Closed	5	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:27 2024 Page 1
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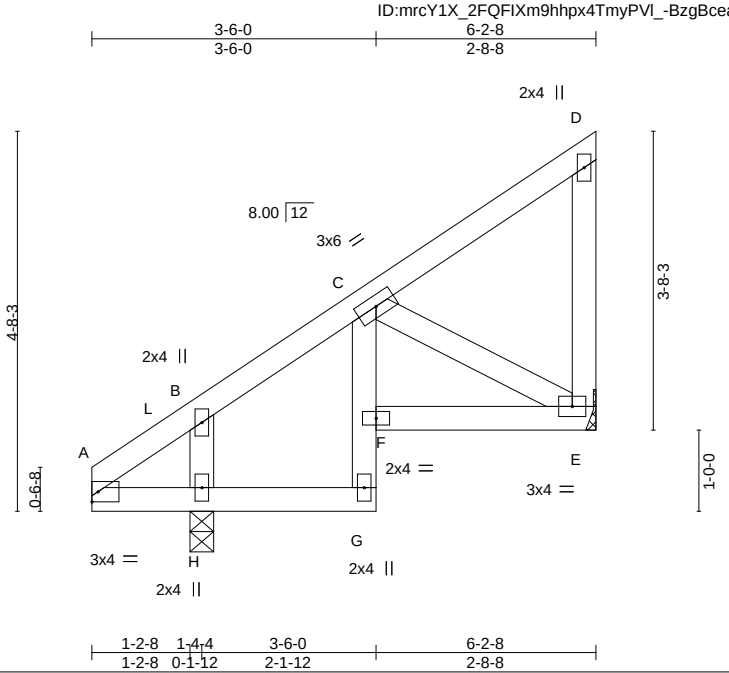

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.02	F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.03	F	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 34 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
C-G: 2x4 SP No.3
WEBS 2x4 SP No.3

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

REACTIONS. (size) H=0-3-8, E=Mechanical
Max Horz H=141(LC 9)
Max Uplift H=-10(LC 12), E=-80(LC 12)
Max Grav H=478(LC 18), E=305(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-257/49
BOT CHORD E-F=-113/261
WEBS B-H=-321/114, C-E=-252/141

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 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 10 lb uplift at joint H and 80 lb uplift at joint E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975897
242042	20	Jack-Closed	4	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:27 2024 Page 1
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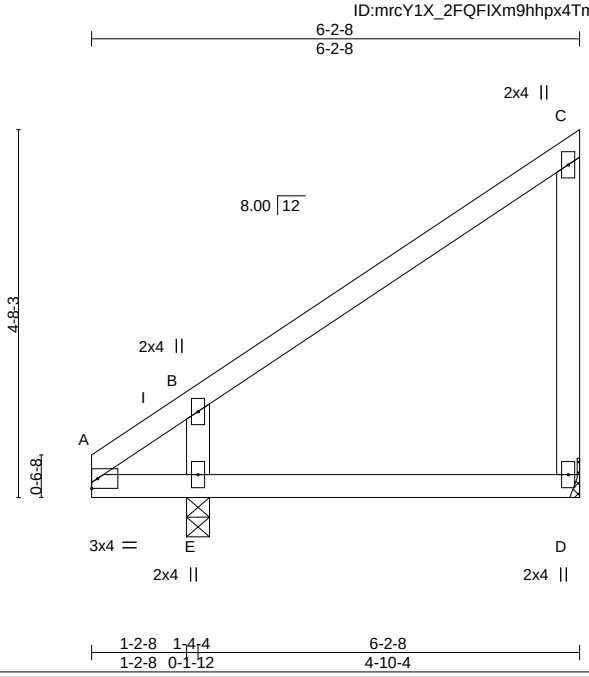

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.04	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=160(LC 11)
Max Uplift D=-79(LC 12), E=-12(LC 12)
Max Grav D=305(LC 18), E=478(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-540/291

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 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 79 lb uplift at joint D and 12 lb uplift at joint E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975898
242042	21	Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:28 2024 Page 1
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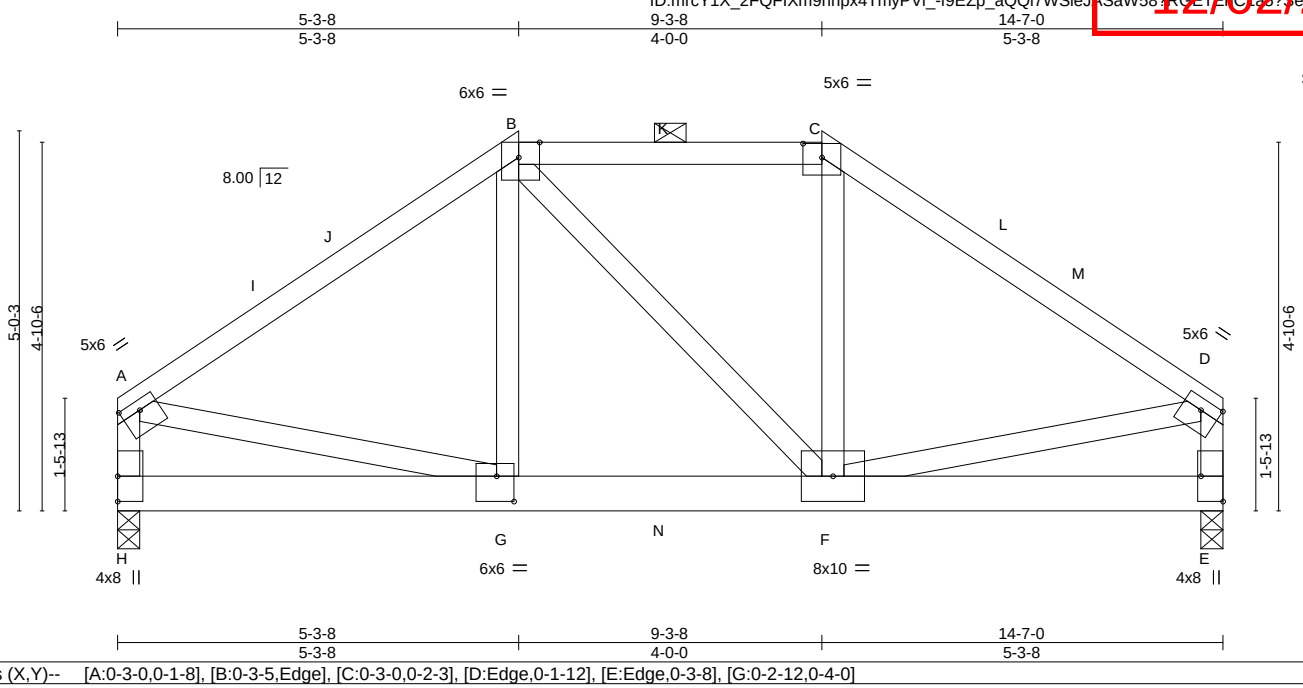

Plate Offsets (X,Y)-- [A:0-3-0,0-1-8], [B:0-3-5,Edge], [C:0-3-0,0-2-3], [D:Edge,0-1-12], [E:Edge,0-3-8], [G:0-2-12,0-4-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.06	F-G	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.08	F-G	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.01	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 97 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E *Except* B-C: 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-1 max.): B-C.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) H=0-3-8, E=0-3-8
Max Horz H=-127(LC 8)
Max Uplift H=-405(LC 12), E=-405(LC 13)
Max Grav H=1839(LC 32), E=1836(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-2199/587, B-C=-1672/537, C-D=-2198/590, A-H=-1786/462, D-E=-1786/457
BOT CHORD G-H=-137/268, F-G=-436/1670
WEBS B-G=-220/749, C-F=-237/825, A-G=-415/1581, D-F=-418/1582

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, Exterior(2R) 3-1-12 to 11-5-4, Exterior(2E) 11-5-4 to 14-5-4 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 405 lb uplift at joint H and 405 lb uplift at joint E.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 812 lb down and 314 lb up at 5-3-8, and 321 lb down and 95 lb up at 7-2-12, and 812 lb down and 314 lb up at 9-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-70, B-C=-70, C-D=-70, E-H=-20

November 27,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	21	Hip Girder	1	1	I69975898

Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: G=-812(B) F=-812(B) N=-321(B)

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975899
242042	22	Diagonal Hip Girder	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:28 2024 Page 1
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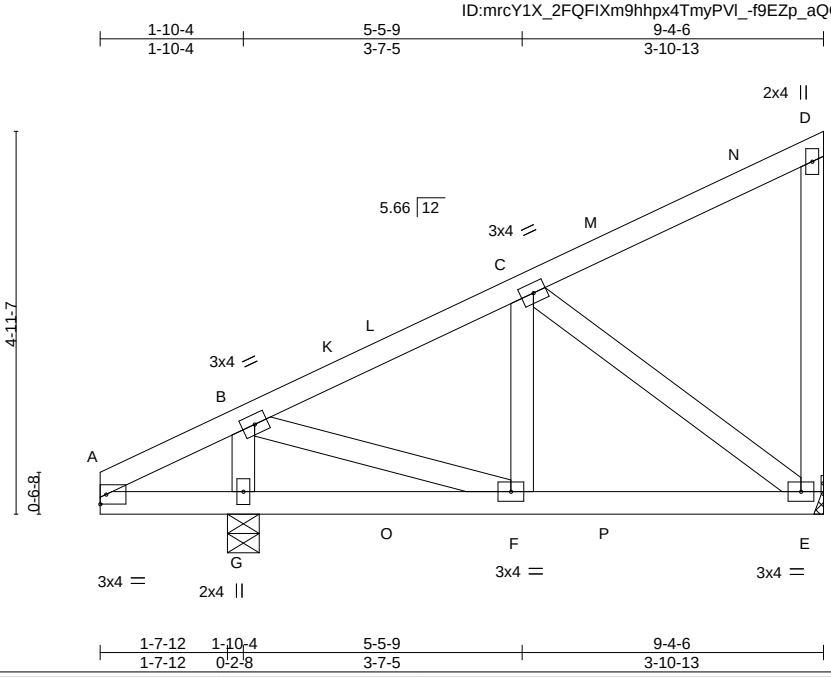

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.02	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.03	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	-0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 53 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) G=0-4-15, E=Mechanical
Max Horz G=162(LC 11)
Max Uplift G=-180(LC 12), E=-190(LC 12)
Max Grav G=578(LC 18), E=519(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-451/232
BOT CHORD E-F=-210/367
WEBS B-G=-568/316, B-F=-148/484, C-E=-440/301

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 9-2-9 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 180 lb uplift at joint G and 190 lb uplift at joint E.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 82 lb down and 100 lb up at 3-9-8, and 82 lb down and 100 lb up at 3-9-8, and 129 lb down and 122 lb up at 6-7-7 on top chord, and 64 lb up at 3-9-8, 64 lb up at 3-9-8, and 142 lb down and 88 lb up at 6-7-7, and 26 lb down and 22 lb up at 6-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: L=60(F=30, B=30) M=-49(B) O=66(F=33, B=33) P=-155(F=-142, B=-13)

November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	23	Jack-Open	2	1	I69875990 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Heartland Truss, Inc, Plattsburg, MO - 64477,

8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:29 2024 Page 1
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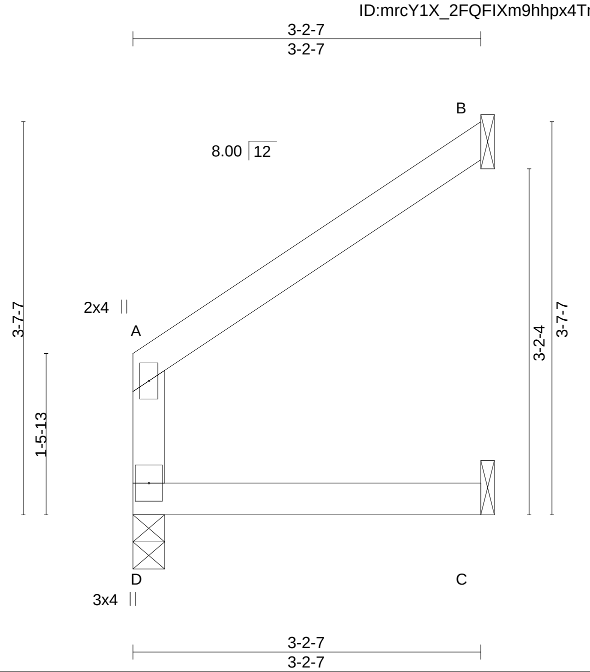

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	0.01	C-D	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.01	C-D	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.03	B	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 12 lb	FT = 20%
BCDL	10.0											

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 3-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=0-3-8, B=Mechanical, C=Mechanical
Max Horz D=70(LC 9)
Max Uplift B=-73(LC 12), C=-4(LC 12)
Max Grav D=190(LC 18), B=148(LC 18), C=58(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 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 73 lb uplift at joint B and 4 lb uplift at joint 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.

November 27,2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975091
242042	24	Jack-Open	8	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:39:29 2024 Page 1
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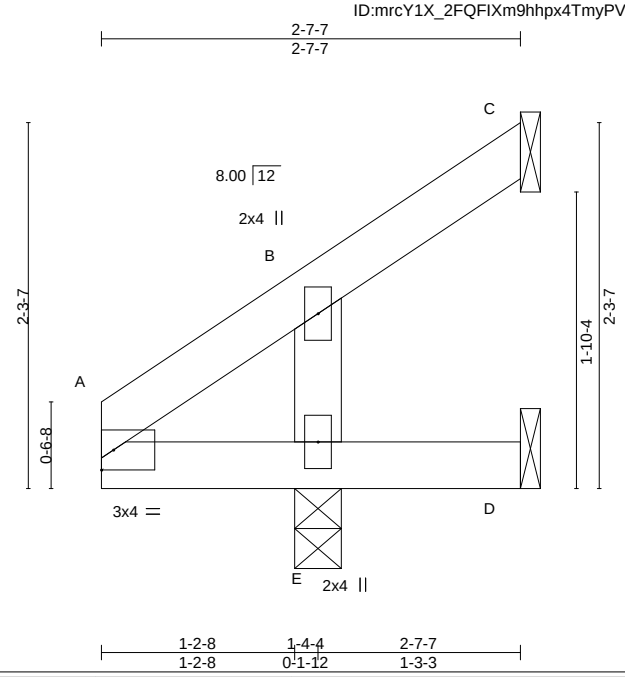

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%
BCDL	10.0											

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 2-7-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=66(LC 12)
Max Uplift C=-40(LC 12), D=-35(LC 18)
Max Grav C=21(LC 21), D=8(LC 10), E=337(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) 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 40 lb uplift at joint C and 35 lb uplift at joint 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975992
242042	25	Jack-Closed	3	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:29 2024 Page 1
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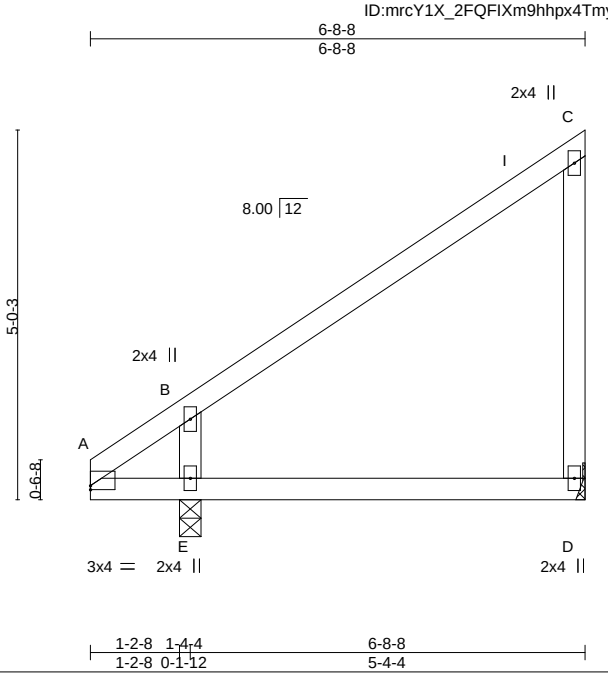


Plate Offsets (X,Y)-- [A:0-0-0,0-0-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	0.06	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09	D-E	>709	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 30 lb	FT = 20%
BCDL	10.0											

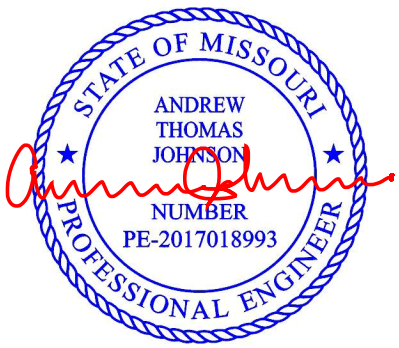
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=172(LC 11)
Max Uplift D=-75(LC 12), E=-16(LC 12)
Max Grav D=341(LC 18), E=495(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD C-D=-268/81
WEBS B-E=-594/321

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 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 75 lb uplift at joint D and 16 lb uplift at joint E.
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.



November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975093
242042	26	Jack-Closed	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:30:30 2024 Page 1
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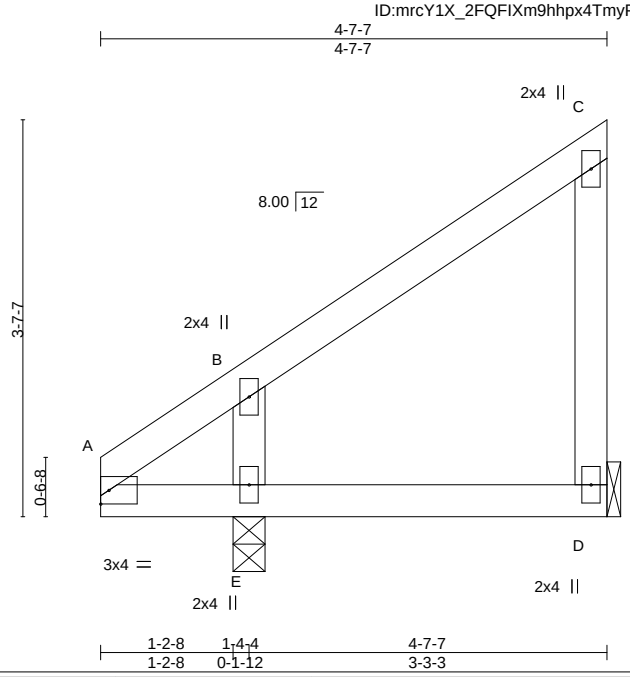

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.01	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 21 lb	FT = 20%
BCDL	10.0											

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 4-7-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=119(LC 11)
Max Uplift D=-60(LC 9), E=-15(LC 12)
Max Grav D=171(LC 18), E=433(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-379/194

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 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 60 lb uplift at joint D and 15 lb uplift at joint E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975094
242042	27	Half Hip Girder	1	2	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:30 2024 Page 1
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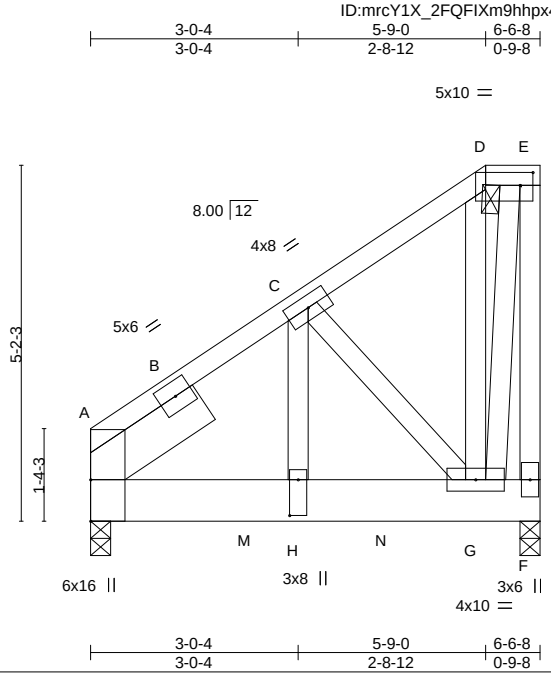

Plate Offsets (X,Y)-- [A:Edge,0-0-0], [D:0-2-4,0-2-4], [H:0-6-4,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.03	G-H	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	G-H	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.00	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 132 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) A=0-3-8, F=0-3-8
Max Horz A=139(LC 11)
Max Uplift A=-405(LC 12), F=-538(LC 9)
Max Grav A=5518(LC 29), F=4144(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-C=-3295/364, C-D=-603/146, D-E=-436/149, E-F=-2616/340
BOT CHORD A-H=-285/2640, G-H=-285/2640
WEBS C-H=-335/3754, C-G=-3299/423, E-G=-332/2641

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; Hip Roof; Hip Truss; MWFRS (envelope) and C-C Exterior(2E) 0-0-0 to 3-0-4, Exterior(2R) 3-0-4 to 5-9-0, Exterior(2E) 5-9-0 to 6-4-12 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
4) 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
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 405 lb uplift at joint A and 538 lb uplift at joint F.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2666 lb down and 197 lb up at 0-3-11, 2573 lb down and 204 lb up at 2-3-11, and 2520 lb down and 248 lb up at 4-3-11, and 1025 lb down and 298 lb up at 5-9-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

November 27,2024

LOAD CASE(S) Standard

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875994
242042	27	Half Hip Girder	1	2	Job Reference (optional)	

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: A-D=-70, D-E=-70, F-I=-20
   Concentrated Loads (lb)
   Vert: G=-1025(B) K=-2666(F) M=-2573(F) N=-2520(F)

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975995
242042	28	Piggyback Base	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:32 2024 Page 1
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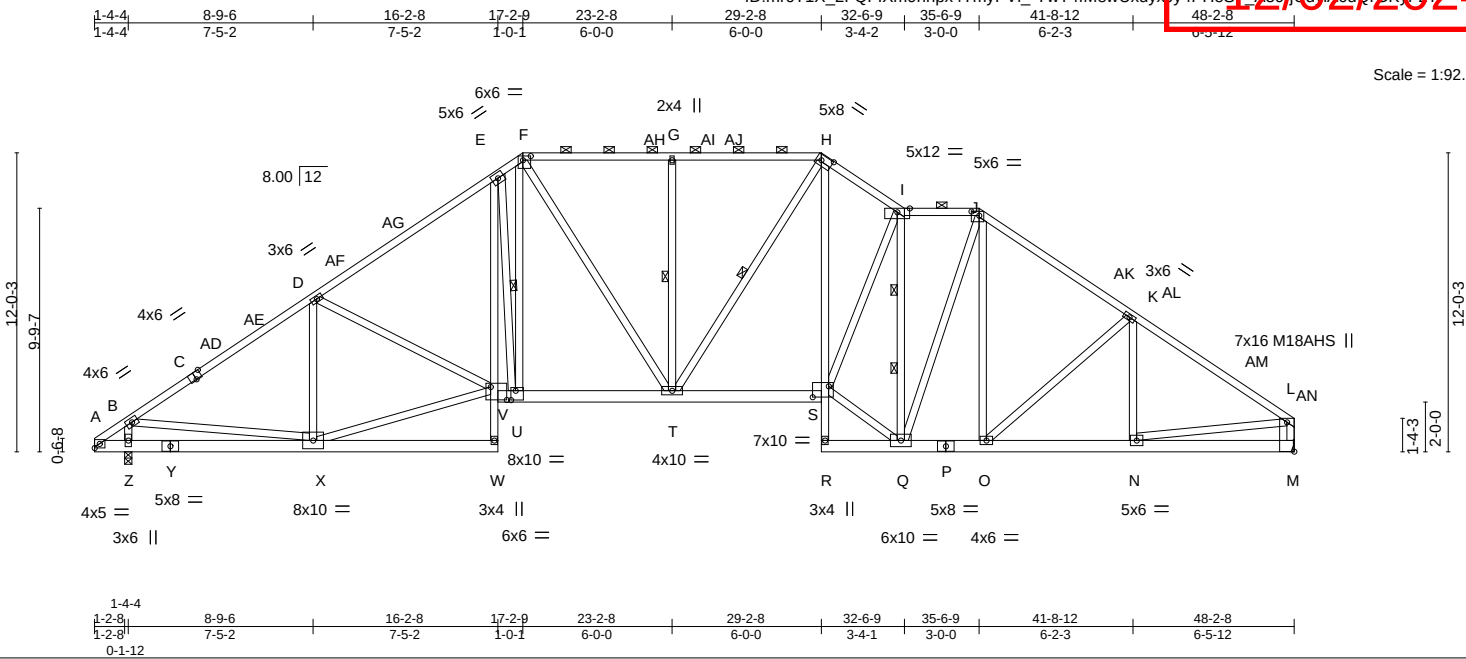


Plate Offsets (X,Y)-- [C:0-3-0,Edge], [F:0-3-12,0-2-0], [H:0-5-8,0-2-8], [J:0-3-12,0-2-0], [L:Edge,0-3-8], [S:0-7-12,0-5-4], [U:0-2-4,0-4-8], [V:0-7-12,0-6-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.29	S-T	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.49	S-T	>999	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.23	M	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 430 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP 1650F 1.5E *Except* H-I,I-J,A-C: 2x4 SP No.2
BOT CHORD	2x6 SP No.1 *Except* E-W: 2x4 SP No.2, H-R: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except* V-X,F-U,Q-S,I-Q,L-N: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-2 max.): F-H, I-J.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: V-W.	
WEBS	1 Row at midpt	E-U, G-T, H-T
	2 Rows at 1/3 pts	I-Q

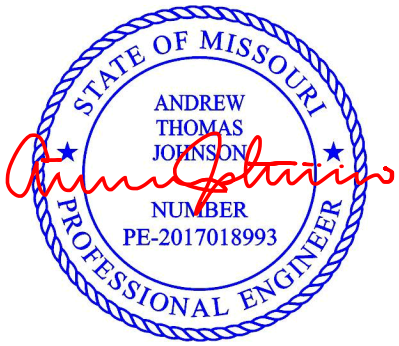
REACTIONS. (size) Z=0-3-8, M=Mechanical
Max Horz Z=302(LC 11)
Max Uplift Z=-173(LC 12), M=-184(LC 13)
Max Grav Z=2674(LC 36), M=2679(LC 36)

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

TOP CHORD	A-B=-463/0, B-D=-3486/345, D-E=-3677/439, E-F=-3424/554, F-G=-2955/453, G-H=-2955/453, H-I=-3499/503, I-J=-2634/432, J-K=-3139/426, K-L=-3526/351, L-M=-2588/256
BOT CHORD	A-Z=-69/548, X-Z=-297/698, E-V=-54/775, U-V=-210/2655, T-U=-194/2624, S-T=-86/2861, H-S=-169/1691, O-Q=-87/2392, N-O=-177/2780, M-N=-67/332
WEBS	B-Z=-2477/392, B-X=-127/2242, D-X=-1033/165, V-X=-215/2631, D-V=-69/531, E-U=-1489/311, F-U=-339/1685, F-T=-199/780, G-T=-874/189, Q-S=-131/3190, I-S=-145/793, I-Q=-2878/204, J-Q=-127/1102, J-O=-71/448, K-O=-525/190, K-N=-321/115, L-N=-158/2481

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 4-9-14, Interior(1) 4-9-14 to 12-4-11, Exterior(2R) 12-4-11 to 22-0-6, Interior(1) 22-0-6 to 24-6-6, Exterior(2R) 24-6-6 to 29-4-4, Exterior(2E) 29-4-4 to 32-6-9, Exterior(2R) 32-6-9 to 40-4-7, Interior(1) 40-4-7 to 43-2-14, Exterior(2E) 43-2-14 to 48-0-12 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint Z and 184 lb uplift at joint M.
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.



November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975996
242042	29	Piggyback Base	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:33 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-071SsieYFEmpYTXH?9hoBjKWF3cMOxJE69PomyF?Te

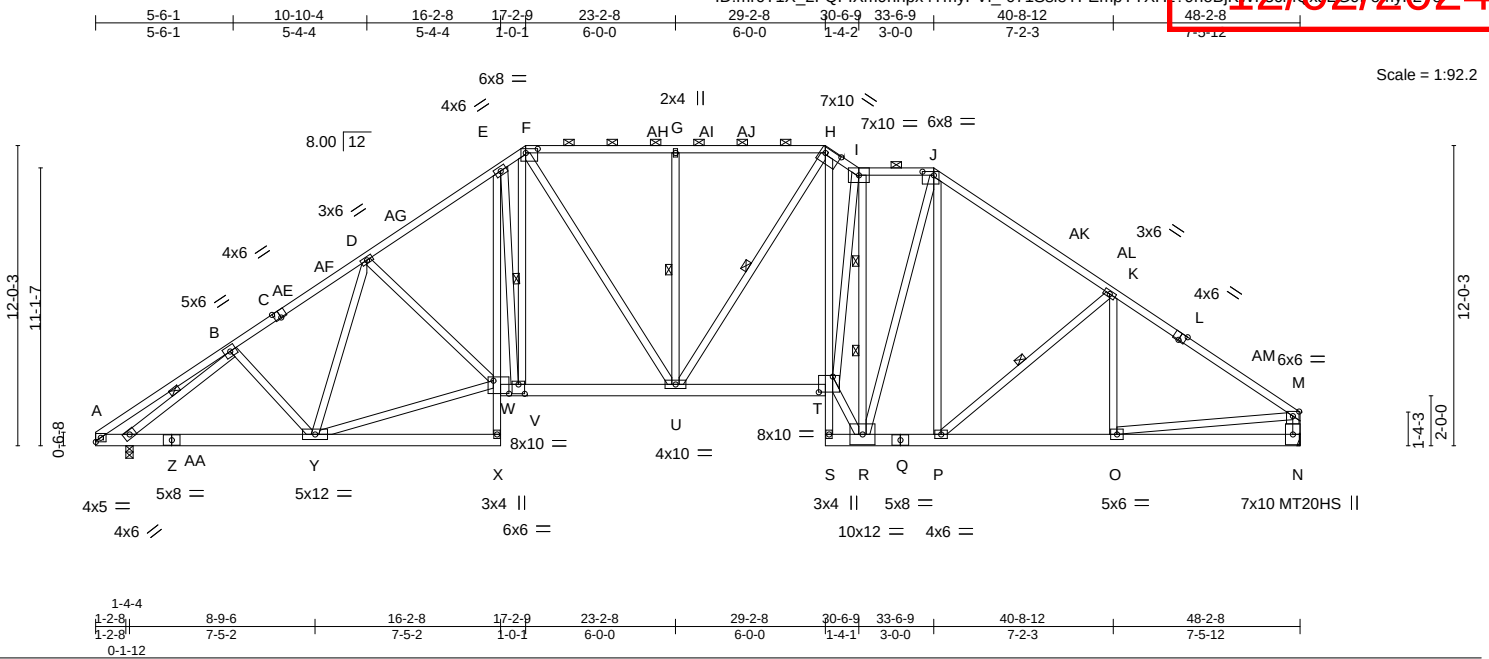


Plate Offsets (X,Y)-- [C:0-3-0,Edge], [F:0-5-12,0-2-0], [H:0-7-8,0-2-8], [J:0-5-8,0-1-12], [L:0-3-0,Edge], [T:0-6-12,0-7-8], [V:0-3-0,0-4-8], [W:0-7-8,0-6-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.31	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.52	T-U	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.30	N	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 444 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E *Except*
F-H: 2x4 SP 1650F 1.5E, H-I,I-J,A-C: 2x4 SP No.2
BOT CHORD 2x6 SP No.1 *Except*
E-X,H-S: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W-Y,M-N,M-O: 2x4 SP No.2, R-T: 2x4 SP 1650F 1.5E
I-R: 2x4 SP 2400F 2.0E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-7 max.): F-H, I-J.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: W-X
6-0-0 oc bracing: S-T.
WEBS 1 Row at midpt E-V, G-U, H-U, K-P, B-AA
2 Rows at 1/3 pts I-R

REACTIONS. (size) N=Mechanical, AA=0-3-8
Max Horz AA=302(LC 11)
Max Uplift N=-184(LC 13), AA=-173(LC 12)
Max Grav N=2593(LC 36), AA=2630(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-624/75, B-D=-3416/383, D-E=-3600/462, E-F=-3274/526, F-G=-3010/462, G-H=-3010/462, H-I=-3411/524, I-J=-2463/436, J-K=-3009/435, K-M=-3524/359, M-N=-2503/260
BOT CHORD A-AA=0/439, Y-AA=-299/2707, E-W=-98/977, V-W=-216/2650, U-V=-203/2638, T-U=-95/2798, S-T=-292/15, H-T=-214/1577, P-R=-62/2254, O-P=-171/2797, N-O=-81/359
WEBS D-Y=-780/113, W-Y=-235/2816, D-W=-199/347, E-V=-1267/243, F-V=-262/1434, F-U=-200/784, G-U=-866/188, H-U=-158/434, R-T=-127/4193, I-T=-198/1974, I-R=-4073/268, J-R=-192/1133, J-P=-95/440, K-P=-704/228, B-AA=-3013/304, M-O=-143/2463

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 4-9-14, Interior(1) 4-9-14 to 12-4-11, Exterior(2R) 12-4-11 to 22-0-6, Interior(1) 22-0-6 to 24-6-6, Exterior(2R) 24-6-6 to 29-4-4, Exterior(2E) 29-4-4 to 30-6-9, Exterior(2R) 30-6-9 to 38-4-7, Interior(1) 38-4-7 to 43-2-14, Exterior(2E) 43-2-14 to 48-0-12 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint N and 173 lb uplift at joint AA.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975997
242042	30	Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:34 2024 Page 1
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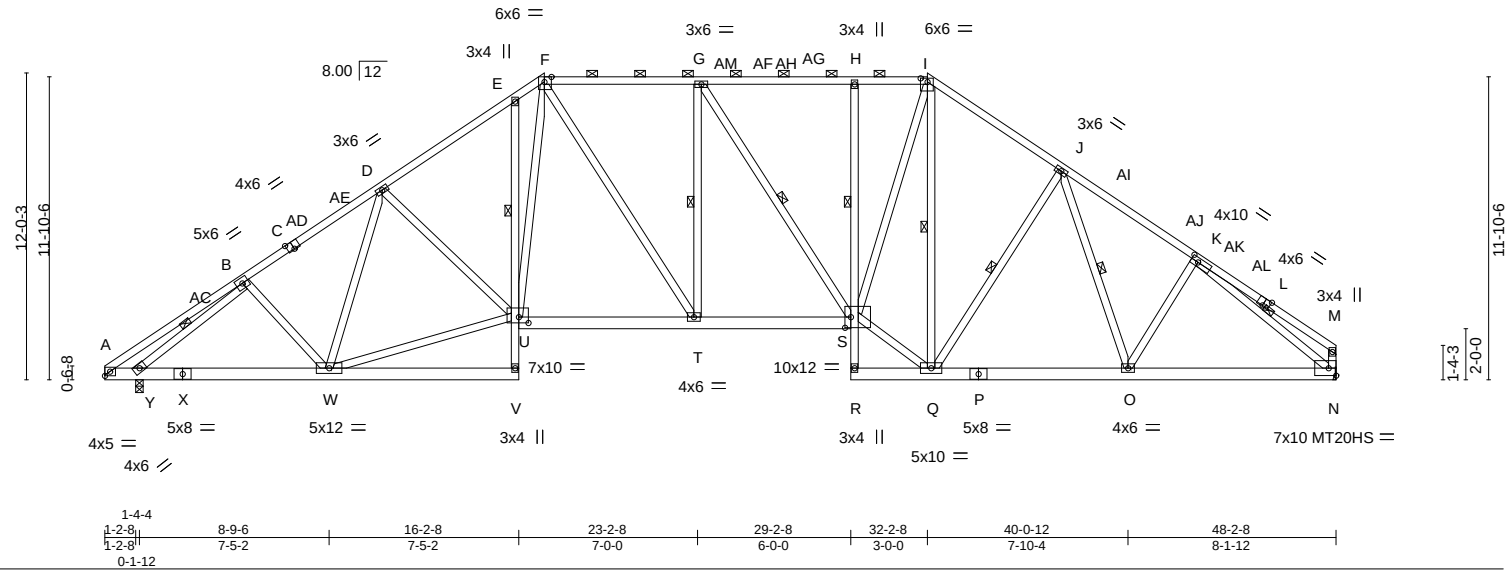
5-6-1 | 10-10-4 | 16-2-8 | 17-2-8 | 23-2-8 | 29-2-8 | 32-2-8 | 37-5-5 | 42-8-3 | 48-2-8
5-6-1 | 5-4-4 | 5-4-4 | 1-0-0 | 6-0-0 | 6-0-0 | 3-0-0 | 5-2-13 | 5-2-13 | 5-6-5

Scale = 1:90.2



1-4-4 | 8-9-6 | 16-2-8 | 23-2-8 | 29-2-8 | 32-2-8 | 40-0-12 | 48-2-8
1-2-8 | 7-5-2 | 7-5-2 | 7-0-0 | 6-0-0 | 3-0-0 | 7-10-4 | 8-1-12
0-1-12

Plate Offsets (X,Y)-- [C:0-3-0,Edge], [F:0-3-5,Edge], [I:0-3-4,0-1-12], [K:0-3-7,0-2-1], [L:0-3-0,Edge], [S:0-2-12,0-5-0], [U:0-4-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.24	T-U	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.40	T-U	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.21	N	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 413 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* F-I: 2x4 SP 1650F 1.5E
BOT CHORD	2x6 SP No.1 *Except* E-V,H-R: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except* U-W,Q-S,I-S: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): F-I.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: R-S.
	1 Row at midpt E-U, H-S
WEBS	1 Row at midpt G-T, G-S, I-Q, J-Q, J-O, B-Y, K-N

REACTIONS. (size) N=Mechanical, Y=0-3-8
Max Horz Y=299(LC 11)
Max Uplift N=-228(LC 13), Y=-246(LC 12)
Max Grav N=2540(LC 32), Y=2651(LC 32)

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

TOP CHORD	A-B=-621/88, B-D=-3430/372, D-E=-3532/434, E-F=-3301/505, F-G=-3073/448, G-H=-2872/437, H-I=-2868/437, I-J=-2811/432, J-K=-3335/389, K-M=-452/136, M-N=-376/126
BOT CHORD	A-Y=0/438, W-Y=-382/2736, E-U=-263/191, T-U=-205/2615, S-T=-183/3070, H-S=-645/140, O-Q=-116/2564, N-O=-207/2683
WEBS	D-W=-700/103, U-W=-298/2908, D-U=-236/299, F-U=-233/1276, F-T=-197/896, G-T=-573/266, G-S=-386/149, Q-S=-35/2554, I-S=-251/2454, I-Q=-1105/231, J-Q=-720/231, J-O=-54/279, B-Y=-3052/273, K-N=-3157/214

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 4-9-14, Interior(1) 4-9-14 to 10-4-11, Exterior(2R) 10-4-11 to 24-0-5, Interior(1) 24-0-5 to 25-4-11, Exterior(2R) 25-4-11 to 39-0-5, Interior(1) 39-0-5 to 43-2-14, Exterior(2E) 43-2-14 to 48-0-12 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) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint N and 246 lb uplift at joint Y.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975998
242042	31	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:35 2024 Page 1
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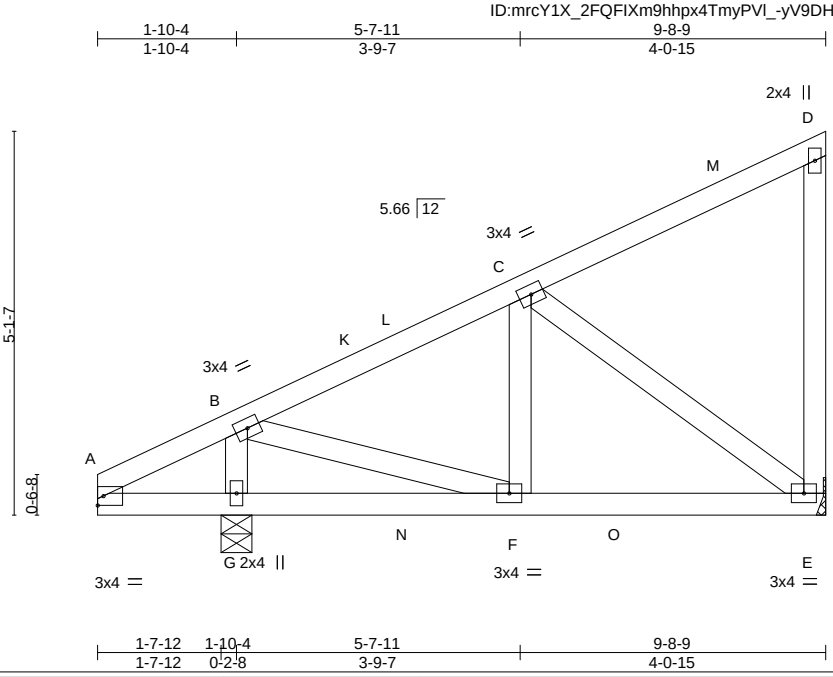

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.05	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.06	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 55 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) G=0-4-15, E=Mechanical
Max Horz G=167(LC 11)
Max Uplift G=-130(LC 12), E=-187(LC 12)
Max Grav G=736(LC 18), E=690(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-654/214
BOT CHORD E-F=-186/539
WEBS B-G=-718/318, B-F=-169/636, C-E=-645/296

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 9-6-13 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 130 lb uplift at joint G and 187 lb uplift at joint E.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 101 lb down and 76 lb up at 4-1-12, and 101 lb down and 76 lb up at 4-1-12 on top chord, and 12 lb down and 24 lb up at 4-1-12, 12 lb down and 24 lb up at 4-1-12, and 164 lb down and 89 lb up at 6-11-11, and 164 lb down and 89 lb up at 6-11-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: O=-328(F=-164, B=-164)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	32	Jack-Closed	1	1	I69875999

Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:35 2024 Page 1
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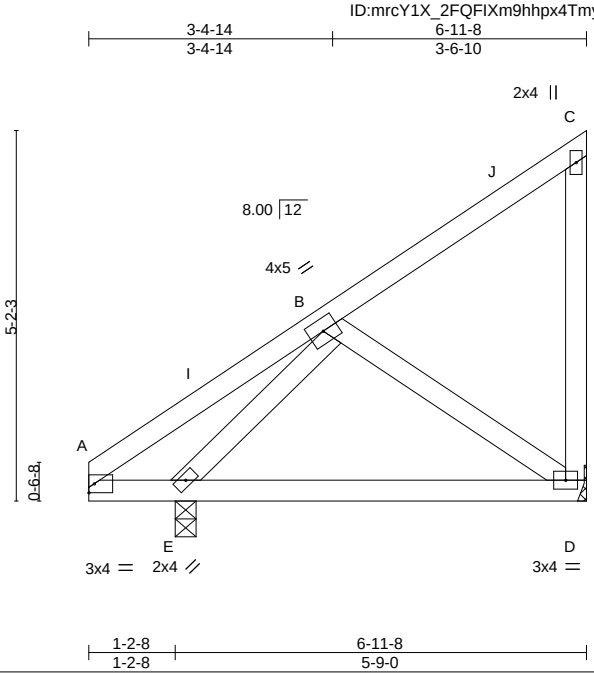


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.03	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 40 lb	FT = 20%
BCDL	10.0											

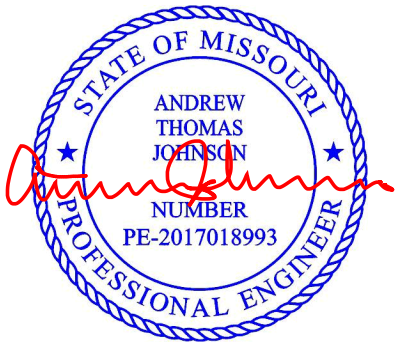
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=179(LC 11)
Max Uplift D=-75(LC 12), E=-17(LC 12)
Max Grav D=371(LC 18), E=479(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-D=-286/163, B-E=-379/174

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) 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 75 lb uplift at joint D and 17 lb uplift at joint E.
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.



November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975910
242042	33	Jack-Closed	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:35 2024 Page 1
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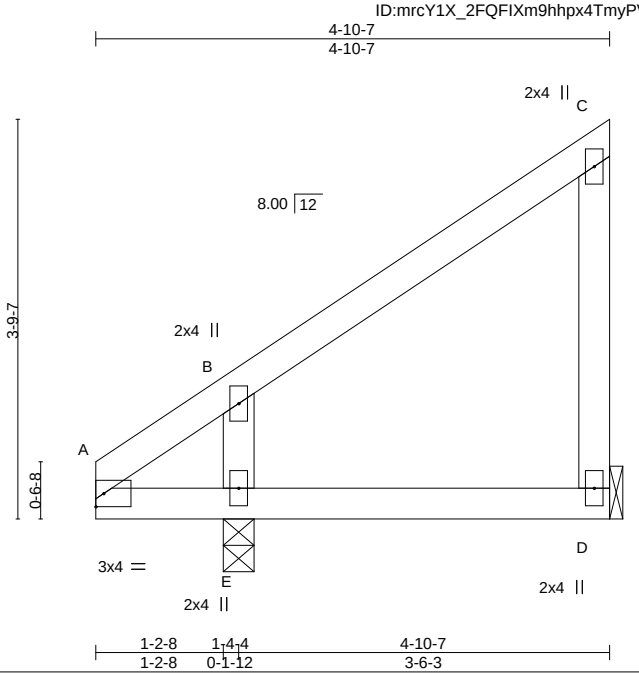

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.02	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 22 lb	FT = 20%
BCDL	10.0											

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 4-10-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=126(LC 11)
Max Uplift D=-61(LC 9), E=-16(LC 12)
Max Grav D=192(LC 18), E=451(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-409/208

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) 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 61 lb uplift at joint D and 16 lb uplift at joint E.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I60975911
242042	34	Jack-Open	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:36 2024 Page 1
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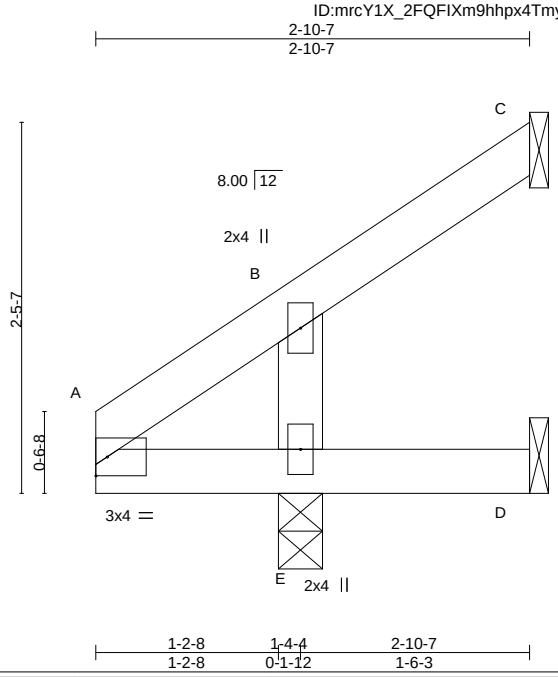

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%
BCDL	10.0											

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 2-10-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=73(LC 12)
Max Uplift C=-45(LC 12), D=-23(LC 18)
Max Grav C=35(LC 18), D=13(LC 10), E=340(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) 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 45 lb uplift at joint C and 23 lb uplift at joint 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	35	Hip	1	1	I69875912 Job Reference (optional)

Heartland Truss, Inc., Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:37 2024 Page 1
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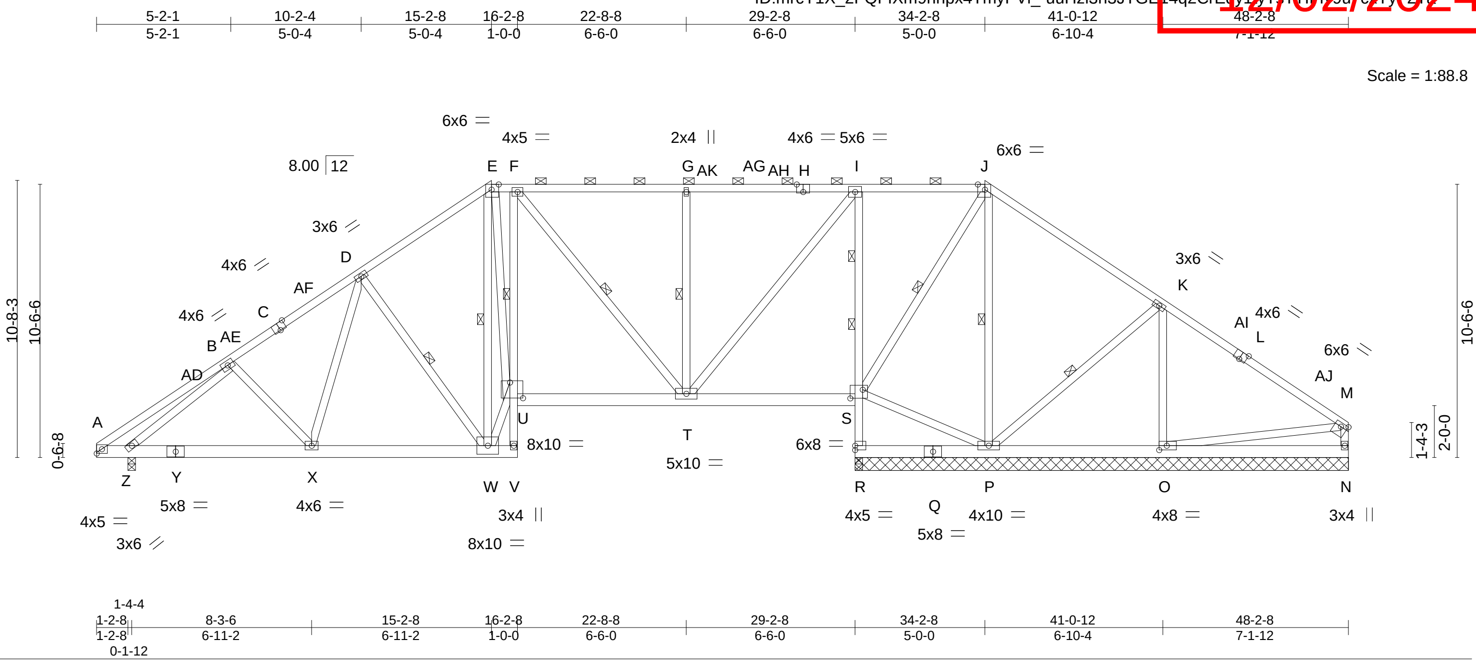

Plate Offsets (X,Y)-- [C:0-3-0,Edge], [E:0-3-5,Edge], [H:0-3-0,Edge], [J:0-3-5,Edge], [L:0-3-0,Edge], [M:Edge,0-1-12], [O:0-3-8,0-2-0], [S:0-5-12,0-4-0], [U:0-6-0,0-7-4]

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0		2-0-0									
(Roof Snow=25.0)		Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.10	T-U	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.17	T-U	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.08	R	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 398 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
E-H,J-L,H-J: 2x4 SP 1650F 1.5E
BOT CHORD 2x6 SP No.1 *Except*
F-V,I-R: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): E-J.
BOT CHORD Rigid ceiling directly applied or 3-1-8 oc bracing. Except:
1 Row at midpt F-U
2 Rows at 1/3 pts I-S
WEBS 1 Row at midpt D-W, E-W, F-T, G-T, J-S, J-P, K-P

REACTIONS. All bearings 19-0-0 except (jt=length) Z=0-3-8.
(lb) - Max Horz Z=266(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) P, N except R=-315(LC 9), O=-119(LC 13), Z=-174(LC 12)
Max Grav All reactions 250 lb or less at joint(s) except R=2565(LC 31), R=1864(LC 1), P=952(LC 32), O=620(LC 42), N=328(LC 42), Z=1553(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-417/65, B-D=-1680/259, D-E=-1102/274, E-F=-885/286, F-G=-499/219, G-I=-499/219, I-J=-110/754, J-K=-121/689, K-M=-183/345, M-N=-266/130
BOT CHORD A-Z=0/265, X-Z=-279/1430, W-X=-170/1189, F-U=-317/663, T-U=-142/880, S-T=-748/199, R-S=-2530/338, I-S=-2299/349
WEBS B-X=-260/154, D-X=-16/277, D-W=-749/209, E-W=-721/170, U-W=-203/1562, E-U=-222/1390, F-T=-907/160, G-T=-876/187, I-T=-252/1969, P-S=-520/182, J-S=-495/60, J-P=-320/41, K-P=-507/130, K-O=-451/228, B-Z=-1561/187, M-O=-305/90

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 5-0-8, Interior(1) 5-0-8 to 8-4-11, Exterior(2R) 8-4-11 to 22-0-5, Interior(1) 22-0-5 to 27-4-11, Exterior(2R) 27-4-11 to 41-0-12, Interior(1) 41-0-12 to 43-2-14, Exterior(2E) 43-2-14 to 48-0-12 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) P, N except (jt=lb) R=315, O=119, Z=174.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975913
242042	36	Half Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:37 2024 Page 1
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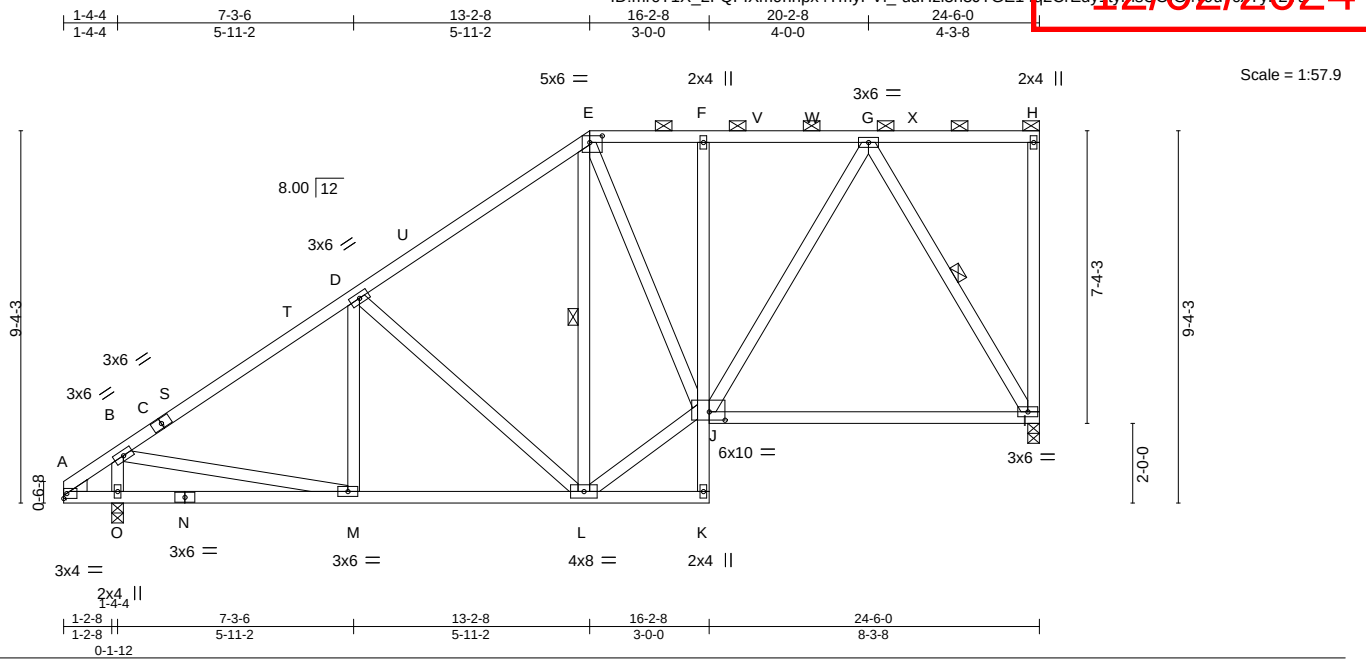

Plate Offsets (X,Y)-- [E:0-3-12,0-2-0], [J:0-4-12,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.17	I-J	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.35	I-J	>785	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.03	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 181 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
F-K: 2x4 SP No.3
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) I=0-3-8, O=0-3-8
Max Horz O=307(LC 9)
Max Uplift I=-187(LC 9), O=-144(LC 12)
Max Grav I=1405(LC 28), O=1565(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-1705/177, D-E=-1165/208, E-F=-956/214, F-G=-963/213
BOT CHORD M-O=-304/417, L-M=-233/1257, F-J=-437/112, I-J=-167/663
WEBS B-O=-1512/239, B-M=-39/1042, D-L=-648/189, E-L=-292/127, J-L=-177/952, E-J=-70/573, G-J=-116/693, G-I=-1282/227

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 8-11-9, Exterior(2R) 8-11-9 to 17-5-7, Interior(1) 17-5-7 to 21-4-4, Exterior(2E) 21-4-4 to 24-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) I=187, O=144.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875914
242042	37	Half Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:38 2024 Page 1
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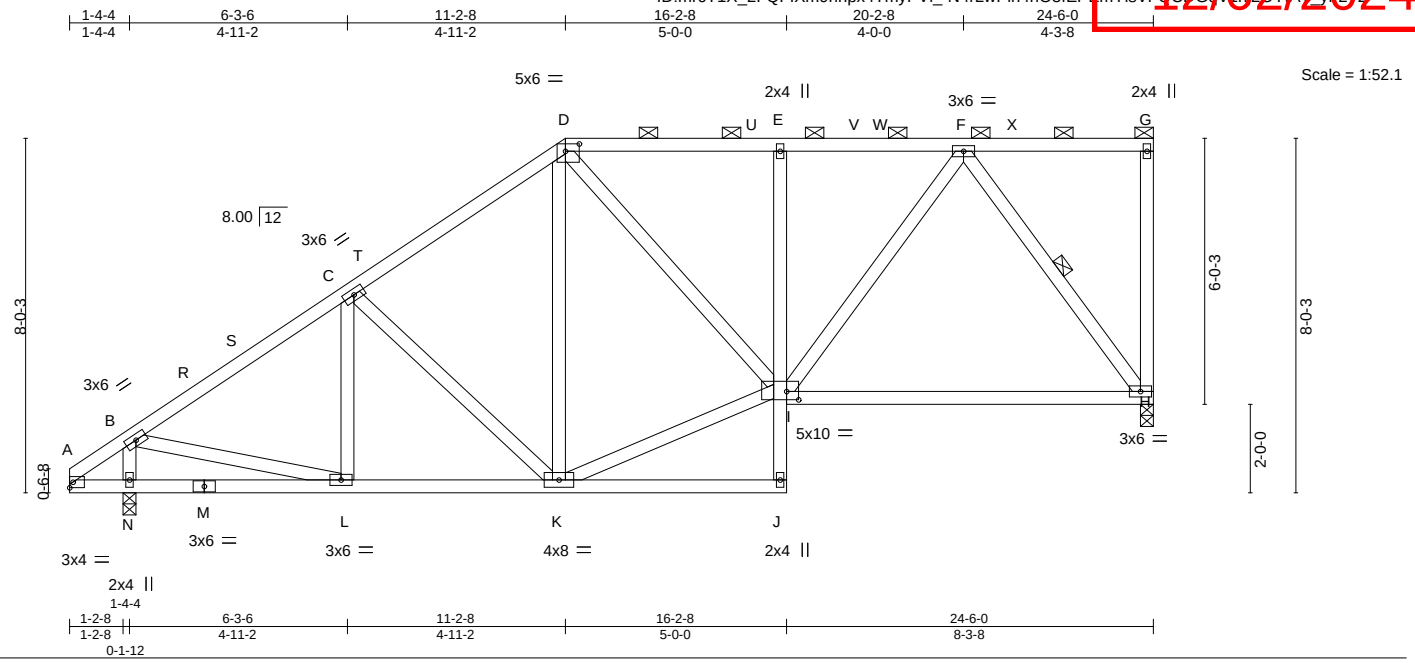

Plate Offsets (X,Y)-- [D:0-3-12,0-2-0], [I:0-3-4,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.17	H-I	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.35	H-I	>790	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.03	H	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 169 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
E-J: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-14 max.): D-G.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: J-K.
WEBS 1 Row at midpt F-H

REACTIONS. (size) H=0-3-8, N=0-3-8
Max Horz N=257(LC 9)
Max Uplift H=-184(LC 9), N=-149(LC 12)
Max Grav H=1491(LC 28), N=1547(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1538/181, C-D=-1169/214, D-E=-1330/215, E-F=-1330/211
BOT CHORD L-N=-252/334, K-L=-225/1145, E-I=-611/137, H-I=-178/875
WEBS B-N=-1463/219, B-L=-52/1065, C-K=-461/151, I-K=-178/1002, D-I=-90/632, F-I=-113/777, F-H=-1459/233

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 6-11-9, Exterior(2R) 6-11-9 to 15-5-7, Interior(1) 15-5-7 to 21-4-4, Exterior(2E) 21-4-4 to 24-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=184, N=149.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975915
242042	38	Half Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:39:39 2024 Page 1
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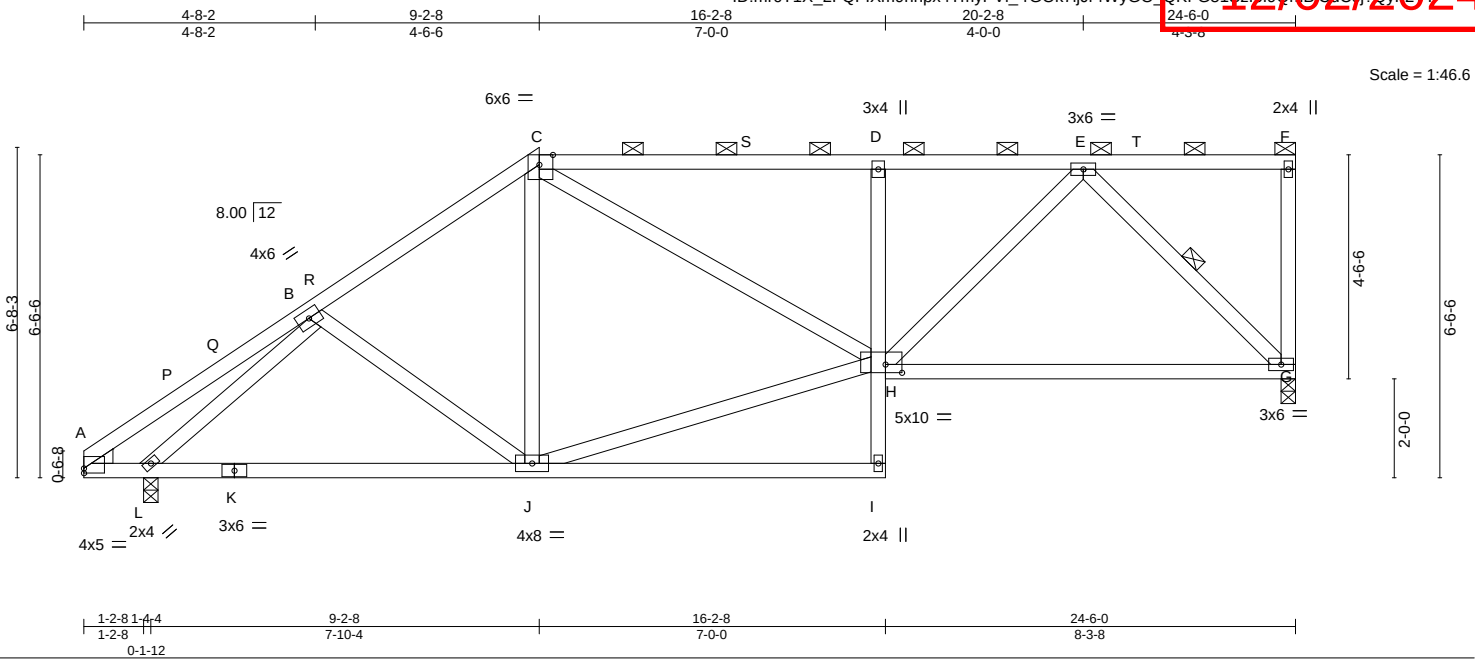

Plate Offsets (X,Y)-- [A:0-0-0,0-1-2], [C:0-3-5,Edge], [H:0-4-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.17	G-H	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.35	G-H	>792	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.06	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 154 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* C-F: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2 *Except* D-I: 2x4 SP No.3
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) G=0-3-8, L=0-3-8
Max Horz L=200(LC 9)
Max Uplift G=-180(LC 9), L=-89(LC 12)
Max Grav G=1570(LC 28), L=1424(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1398/156, C-D=-2010/218, D-E=-1987/204
BOT CHORD J-L=-225/1069, D-H=-818/176, G-H=-204/1246
WEBS B-J=-281/221, C-J=-272/130, H-J=-183/1199, C-H=-145/1003, E-H=-97/1060, E-G=-1739/252, B-L=-1478/208

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) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-11-9, Exterior(2R) 4-11-9 to 13-5-7, Interior(1) 13-5-7 to 21-4-4, Exterior(2E) 21-4-4 to 24-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) L except (jt=lb) G=180.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875916
242042	39	Common	3	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:39 2024 Page 1
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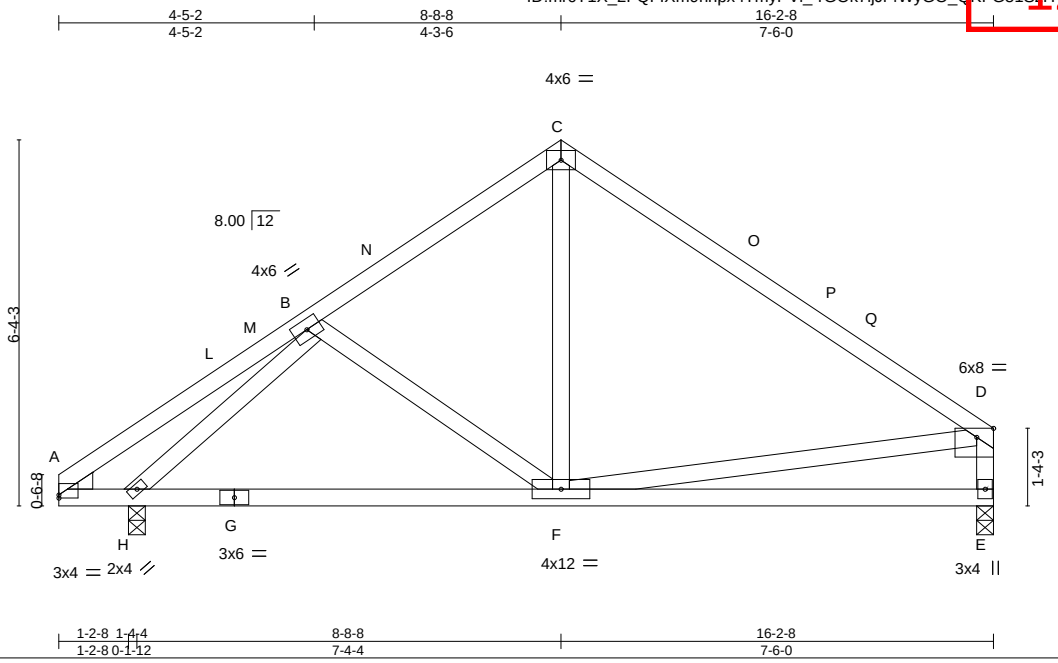

Plate Offsets (X,Y)-- [A:0-0-0,0-0-10], [D:0-3-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.06	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.01	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 89 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
C-D: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
D-E: 2x4 SP No.2
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) E=0-3-8, H=0-3-8
Max Horz H=162(LC 11)
Max Uplift E=-61(LC 13), H=-78(LC 12)
Max Grav E=760(LC 19), H=874(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-703/141, C-D=-768/115, D-E=-693/116
BOT CHORD F-H=-114/650, E-F=-99/312
WEBS C-F=0/298, B-H=-888/184, D-F=-36/336

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 5-8-8, Exterior(2R) 5-8-8 to 11-8-8, Interior(1) 11-8-8 to 13-0-12, Exterior(2E) 13-0-12 to 16-0-12 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, H.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975917
242042	40	Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:39:39 2024 Page 1
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3-5-2 | 6-8-8 | 10-8-8 | 16-2-8 | 17-5-0
3-5-2 | 3-3-6 | 4-0-0 | 5-6-0 | 1-2-8

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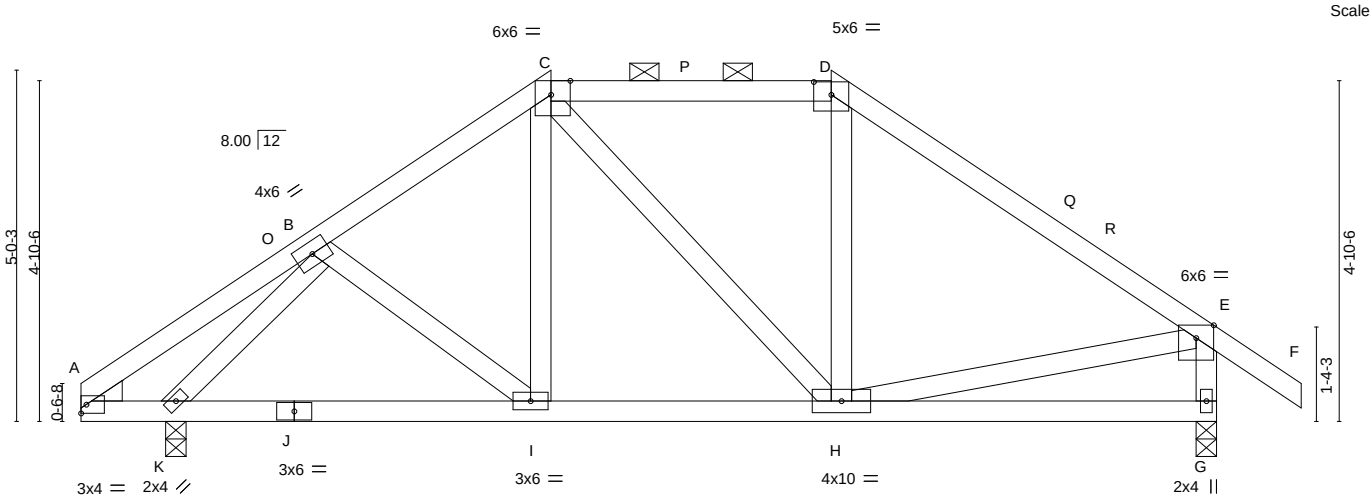

1-2-8 | 6-8-8 | 10-8-8 | 16-2-8
1-2-8 | 5-6-0 | 4-0-0 | 5-6-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.02	G-H	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.04	G-H	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.01	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 96 lb	FT = 20%
BCDL	10.0											

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 or 5-3-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-D.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) G=0-3-8, K=0-3-8
Max Horz K=135(LC 11)
Max Uplift G=-98(LC 13), K=-87(LC 12)
Max Grav G=1077(LC 33), K=1084(LC 33)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-839/150, C-D=-608/162, D-E=-925/137, E-G=-1025/176
BOT CHORD I-K=-91/659, H-I=-49/609
WEBS B-K=-1106/192, E-H=-49/487

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, Exterior(2R) 3-0-0 to 14-5-0, Exterior(2E) 14-5-0 to 17-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) G, K.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975918
242042	41	Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:40 2024 Page 1
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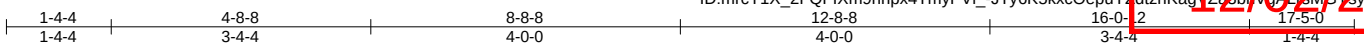

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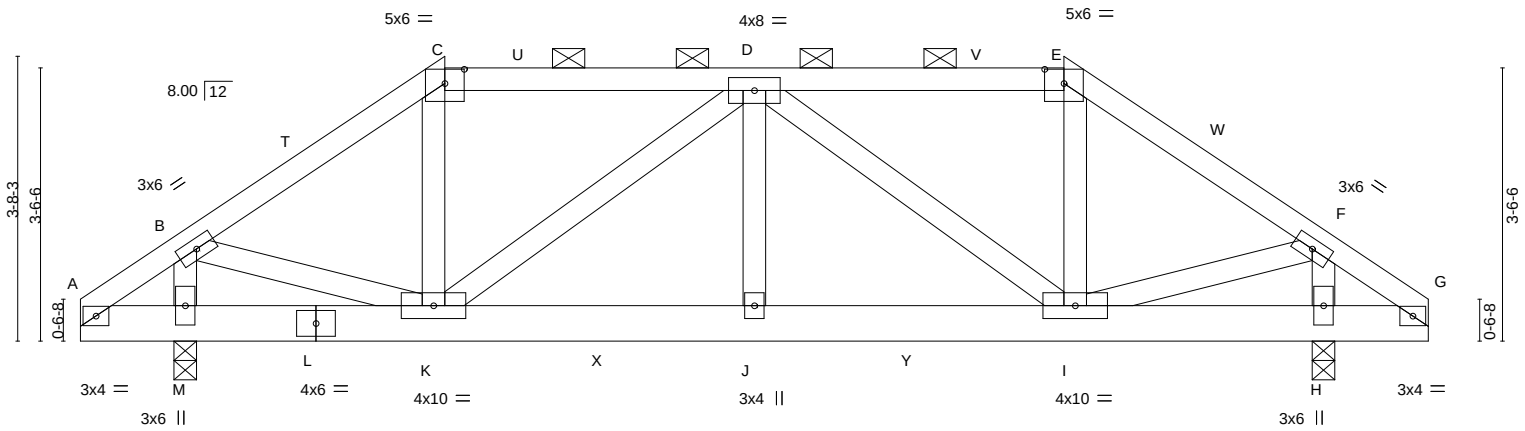

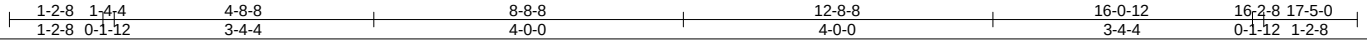

Plate Offsets (X,Y)-- [C:0-3-0,0-2-3], [E:0-3-0,0-2-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	J	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.07	J-K	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.02	H	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 108 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) M=0-3-8, H=0-3-8
Max Horz M=76(LC 9)
Max Uplift M=-385(LC 12), H=-387(LC 13)
Max Grav M=1477(LC 32), H=1479(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1558/463, C-D=-1265/408, D-E=-1268/409, E-F=-1562/465
BOT CHORD J-K=-514/1958, I-J=-514/1958
WEBS B-M=-1336/405, B-K=-334/1245, C-K=-192/563, D-K=-876/235, D-J=-117/457, D-I=-872/232, E-I=-193/565, F-I=-339/1248, F-H=-1339/406

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, Exterior(2R) 3-0-0 to 14-5-0, Exterior(2E) 14-5-0 to 17-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) M=385, H=387.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 330 lb down and 191 lb up at 4-8-8, 158 lb down and 80 lb up at 6-9-4, 158 lb down and 80 lb up at 8-9-4, and 158 lb down and 80 lb up at 10-9-4, and 330 lb down and 191 lb up at 12-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, C-E=-70, E-G=-70, N-Q=-20

November 27,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	41	Hip Girder	1	1	I69875918

Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: K=-330(F) J=-158(F) I=-330(F) X=-158(F) Y=-158(F)

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975919
242042	42	Diagonal Hip Girder	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:41 2024 Page 1
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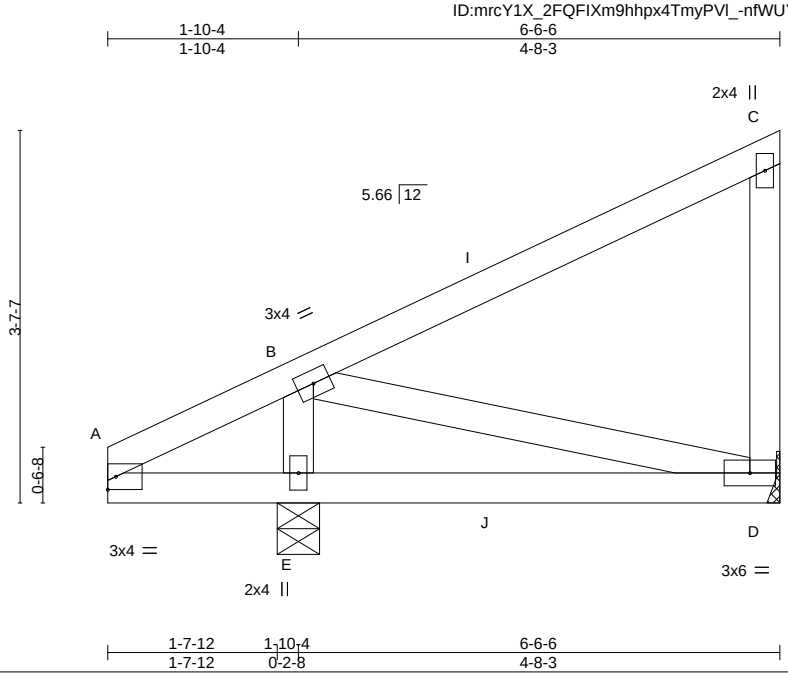

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	0.02	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.21	Vert(CT)	0.02	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	-0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 33 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) E=0-4-15, D=Mechanical
Max Horz E=128(LC 11)
Max Uplift E=-106(LC 12), D=-100(LC 9)
Max Grav E=502(LC 18), D=193(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-526/258

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 6-4-10 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) D except (jt=lb) E=106.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 105 lb up at 3-9-8, and 93 lb down and 105 lb up at 3-9-8 on top chord, and 64 lb up at 3-9-8, and 64 lb up at 3-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, D-F=-20
Concentrated Loads (lb)
Vert: I=60(F=30, B=30) J=66(F=33, B=33)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975920
242042	43	Jack-Closed	5	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:41 2024 Page 1
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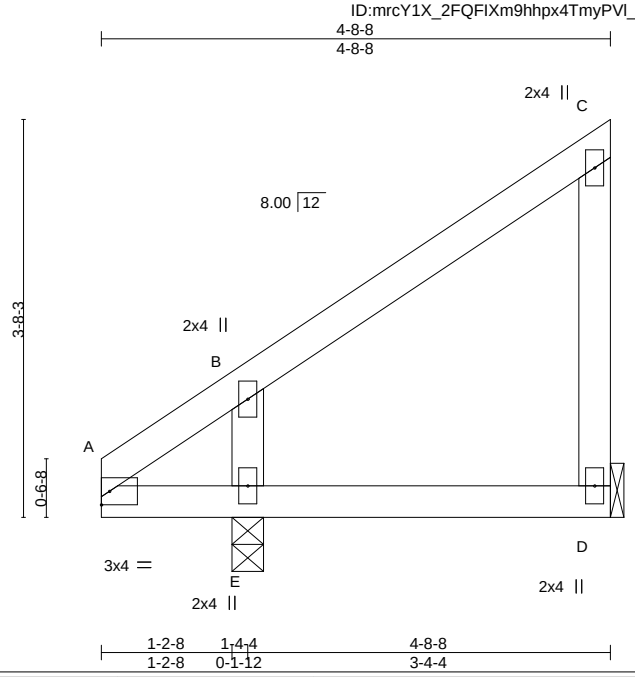


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.01	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 22 lb	FT = 20%
BCDL	10.0											

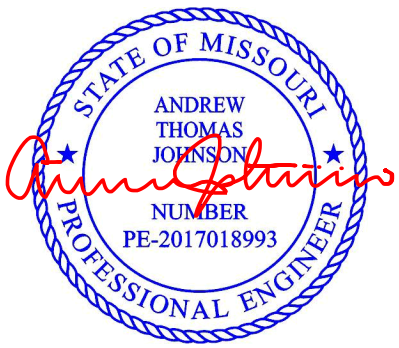
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=122(LC 11)
Max Uplift D=-60(LC 9), E=-16(LC 12)
Max Grav D=178(LC 18), E=439(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-389/199

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 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) D, E.
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.



November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875021
242042	44	Roof Special Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:42 2024 Page 1
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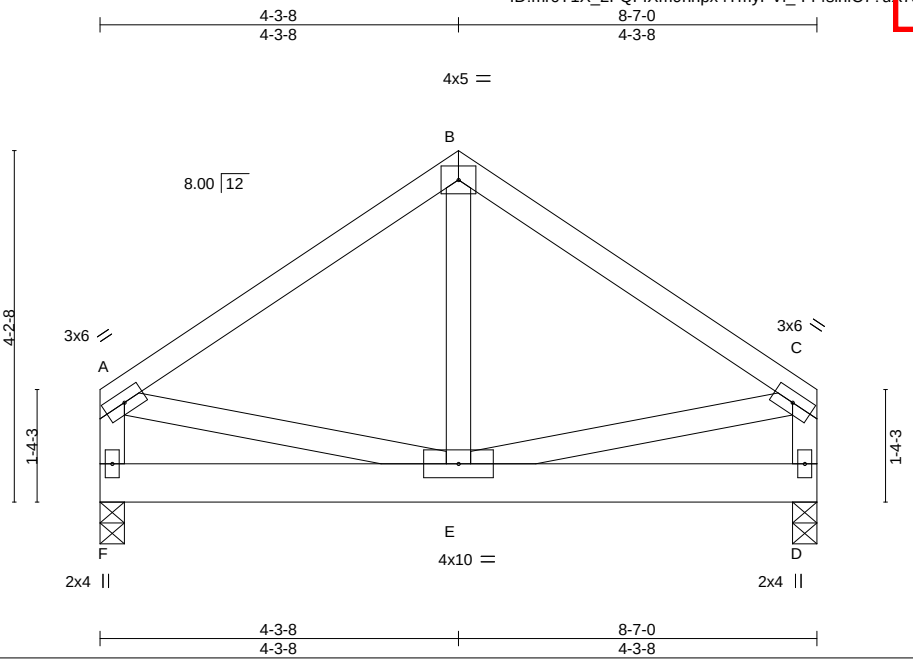

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.01	E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.01	E	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	-0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 55 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) F=0-3-8, D=0-3-8
Max Horz F=107(LC 9)
Max Uplift F=-168(LC 12), D=-168(LC 13)
Max Grav F=743(LC 18), D=743(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-715/268, B-C=-715/268, A-F=-701/260, C-D=-701/251
WEBS B-E=-169/375, A-E=-163/524, C-E=-143/524

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, Exterior(2R) 3-1-12 to 5-5-4, Exterior(2E) 5-5-4 to 8-5-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) F=168, D=168.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 544 lb down and 282 lb up at 4-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-70, B-C=-70, D-F=-20
Concentrated Loads (lb)
Vert: E=-544(F)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	45	Common	1	1	I69875922 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:42 2024 Page 1

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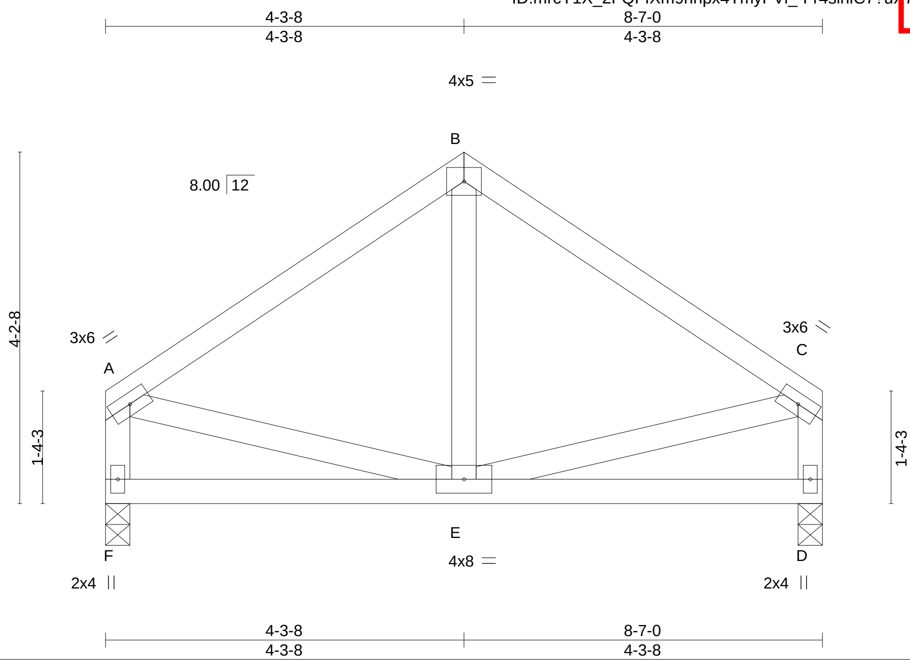

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.01	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 48 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) F=0-3-8, D=0-3-8
Max Horz F=110(LC 11)
Max Uplift F=-33(LC 12), D=-33(LC 13)
Max Grav F=471(LC 18), D=471(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-366/96, B-C=-366/96, A-F=-439/129, C-D=-439/119

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, Exterior(2R) 3-1-12 to 5-5-4, Exterior(2E) 5-5-4 to 8-5-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) F, D.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 27,2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	46	Diagonal Hip Girder	1	1	I69875923 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:30:43 2024 Page 1
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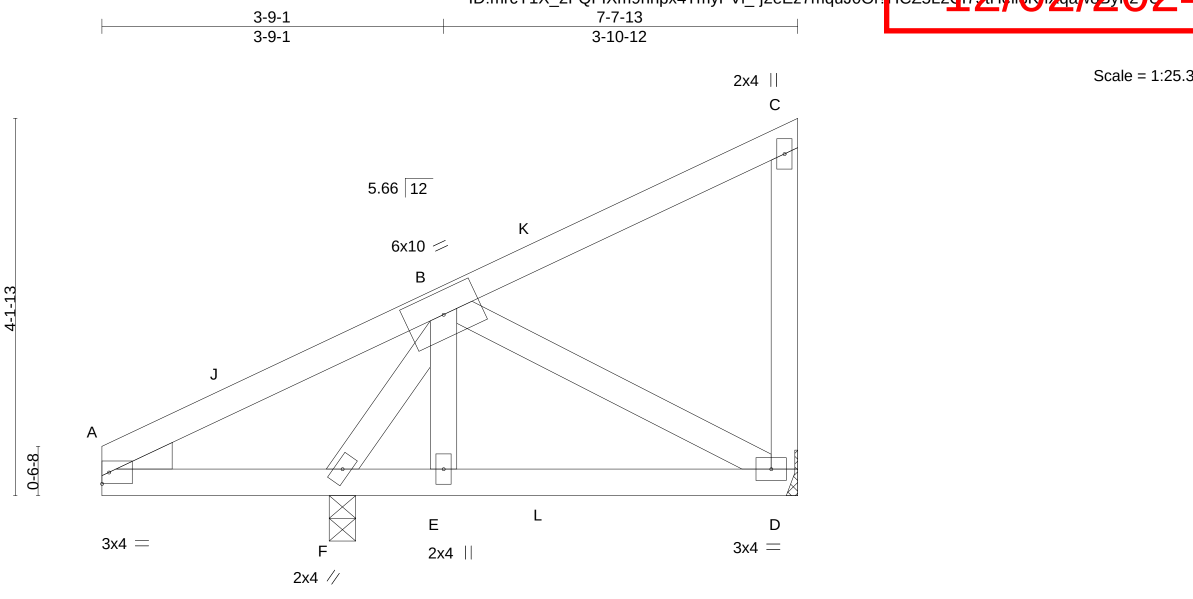

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.01	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	-0.00	F	n/a	n/a		
BCLL	0.0	Code 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
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) D=Mechanical, F=0-3-8
Max Horz D=149(LC 11)
Max Uplift D=-112(LC 9), F=-104(LC 12)
Max Grav D=215(LC 18), F=606(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-150/311
WEBS B-F=-507/266

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 7-6-1 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 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) except (jt=lb) D=112, F=104.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 95 lb up at 4-10-15, and 124 lb down and 176 lb up at 4-10-15 on top chord, and 11 lb down and 18 lb up at 4-10-15, and 12 lb down and 111 lb up at 4-10-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, D-G=-20
Concentrated Loads (lb)
Vert: K=42(F) L=49(F=47, B=2)

November 27,2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875024
242042	47	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:43 2024 Page 1
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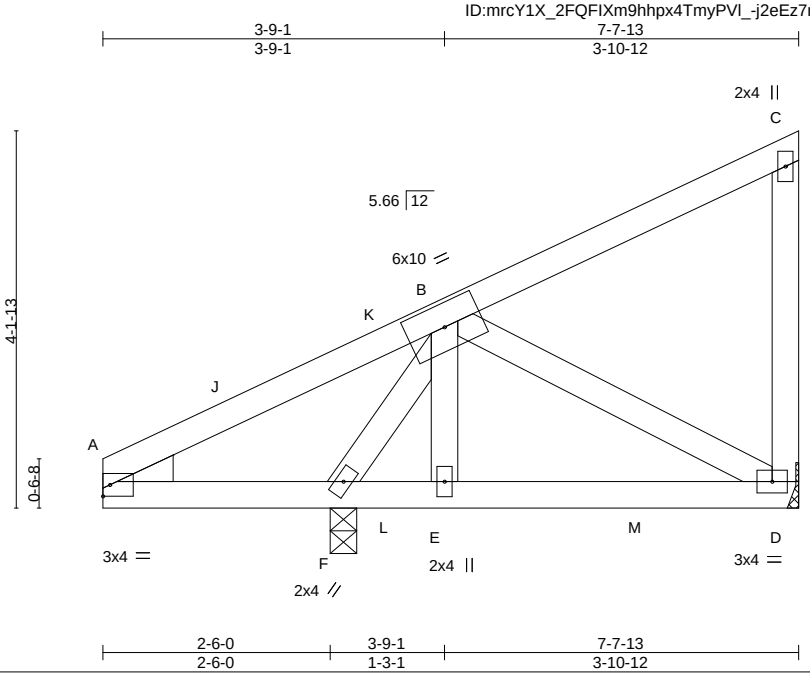

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.03	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.04	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	-0.00	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 42 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) D=Mechanical, F=0-3-8
Max Horz D=149(LC 11)
Max Uplift D=-129(LC 9), F=-161(LC 12)
Max Grav D=386(LC 18), F=639(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-138/296
WEBS B-F=-719/290

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 7-6-1 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 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) except (jt=lb) D=129, F=161.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 95 lb up at 3-2-7, and 124 lb down and 176 lb up at 3-2-7 on top chord, and 23 lb down and 18 lb up at 3-2-7, and 24 lb down and 111 lb up at 3-2-7, and 203 lb down and 92 lb up at 5-11-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, D-G=-20
Concentrated Loads (lb)
Vert: K=42(B) L=49(F=2, B=47) M=-203(F)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975025
242042	48	Jack-Closed	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:44 2024 Page 1
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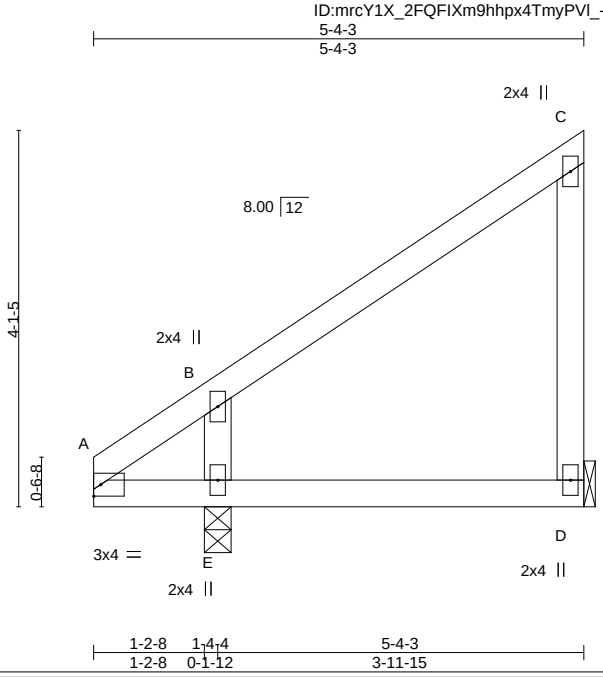


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	0.02	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 24 lb	FT = 20%
BCDL	10.0											

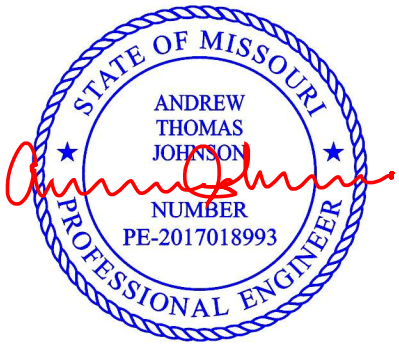
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=138(LC 11)
Max Uplift D=-64(LC 9), E=-18(LC 12)
Max Grav D=231(LC 18), E=482(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-465/236

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 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) D, E.
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.



November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975026
242042	49	Jack-Open	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:44 2024 Page 1
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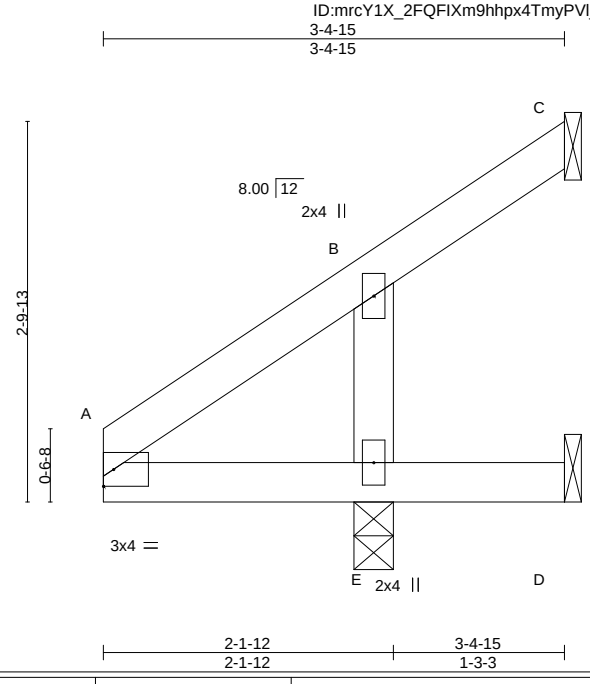

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.30	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.05	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%
BCDL	10.0											

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 3-4-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz C=87(LC 12)
Max Uplift C=-25(LC 21), D=-83(LC 18), E=-134(LC 12)
Max Grav C=55(LC 12), D=29(LC 12), E=535(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-328/224

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 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) C, D except (jt=lb) E=134.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975027
242042	50	Jack-Open	2	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:44 2024 Page 1
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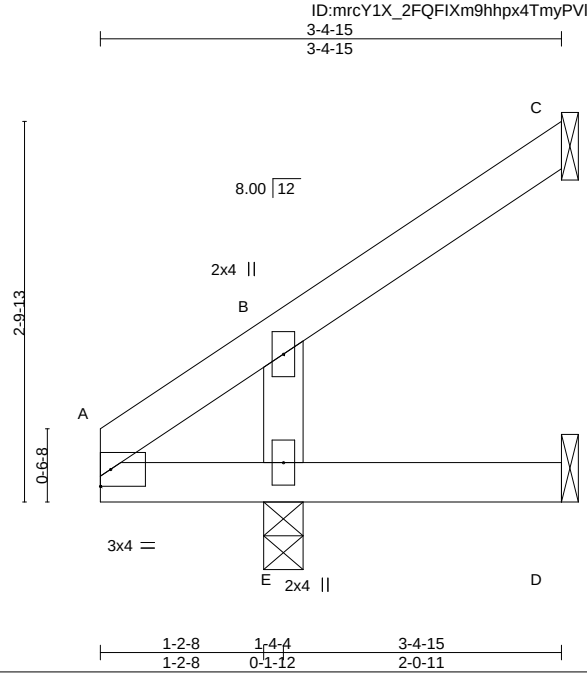

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 13 lb	FT = 20%
BCDL	10.0											

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 3-4-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=87(LC 12)
Max Uplift C=-54(LC 12), D=-12(LC 12)
Max Grav C=73(LC 18), D=23(LC 5), E=362(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-266/113

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 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) 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.

November 27,2024

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975028
242042	51	Common	4	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:45 2024 Page 1
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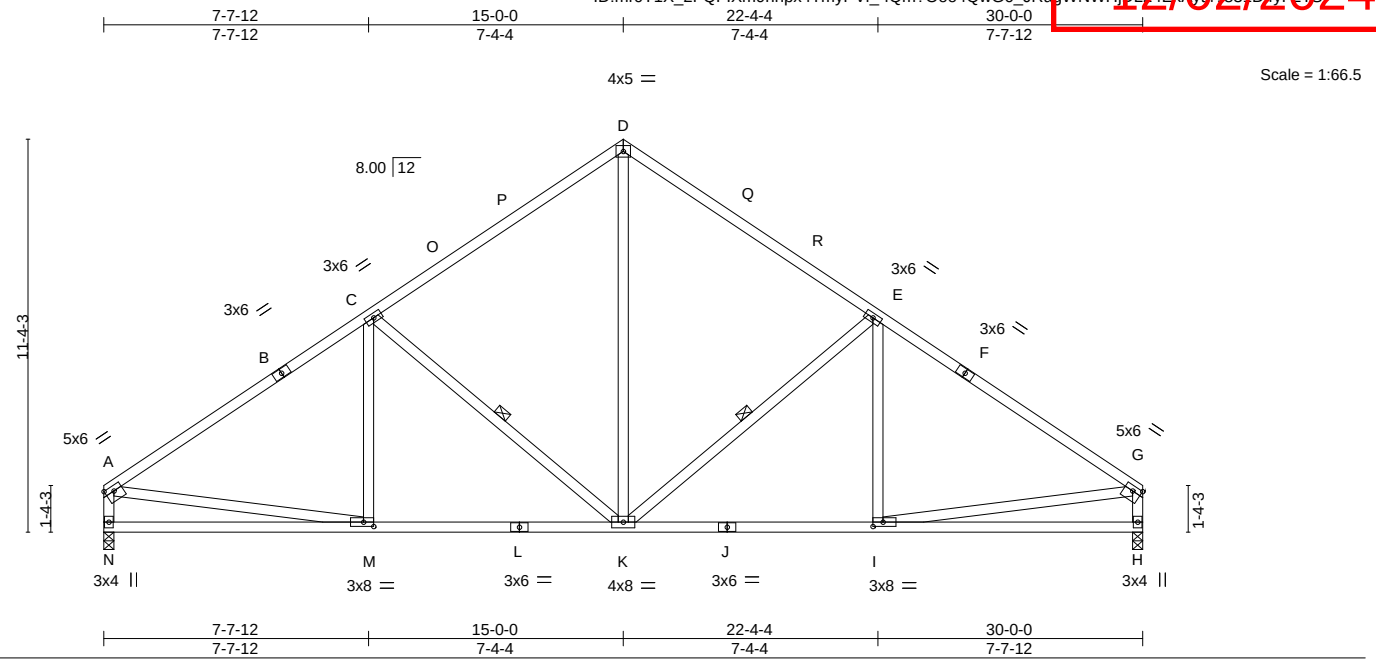

Plate Offsets (X,Y)-- [A:Edge,0-1-12], [G:Edge,0-1-12], [I:0-3-8,0-1-8], [M:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.08	M-N	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.17	M-N	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.04	H	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 184 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E *Except* A-B,F-G: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 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.
WEBS 1 Row at midpt E-K, C-K

REACTIONS. (size) N=0-3-8, H=0-3-8
Max Horz N=288(LC 9)
Max Uplift N=-126(LC 12), H=-126(LC 13)
Max Grav N=1345(LC 18), H=1345(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-C=-1719/190, C-D=-1273/255, D-E=-1273/255, E-G=-1719/194, A-N=-1274/165, G-H=-1274/165
BOT CHORD M-N=-278/396, K-M=-183/1333, I-K=-53/1333
WEBS D-K=-110/781, E-K=-586/246, C-K=-586/246, A-M=-46/1174, G-I=-29/1174

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 12-0-0, Exterior(2R) 12-0-0 to 18-0-0 , Interior(1) 18-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) N=126, H=126.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975029
242042	52	Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:45 2024 Page 1
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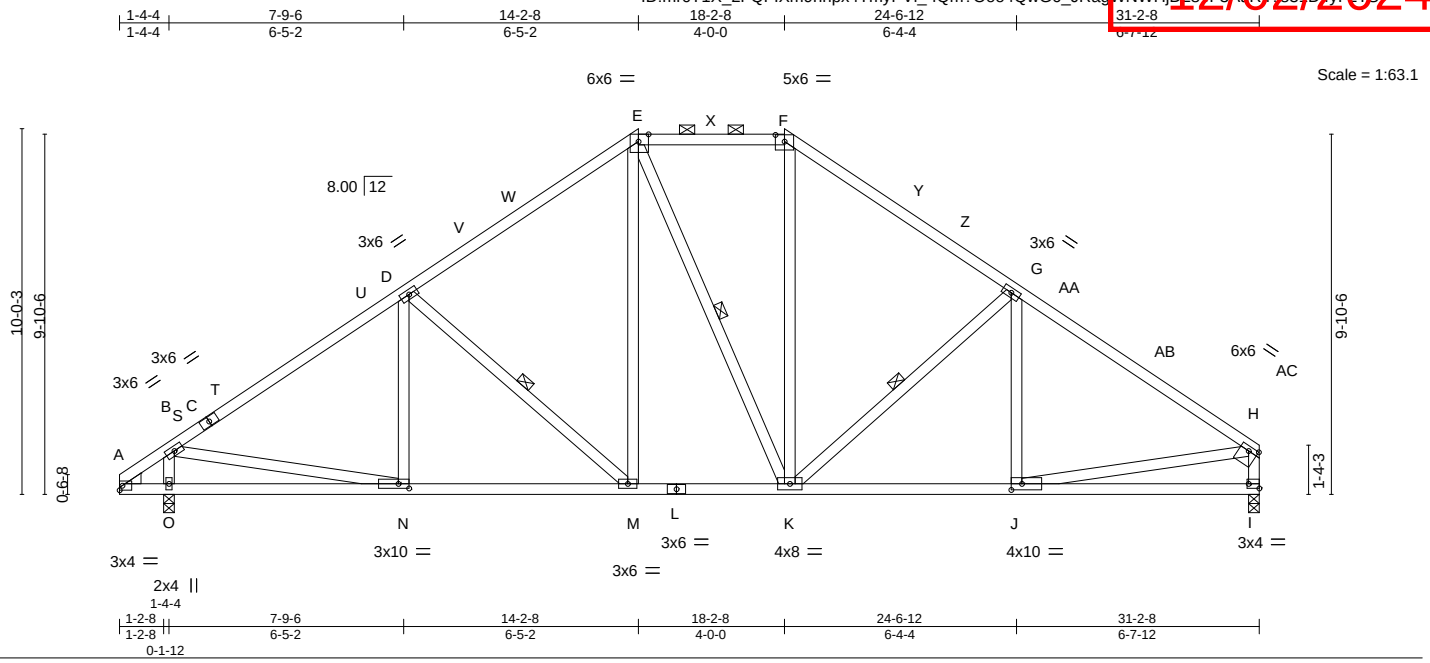

Plate Offsets (X,Y)-- [E:0-3-5,Edge], [F:0-3-0,0-2-3], [H:0-3-0,0-1-8], [I:Edge,0-1-8], [J:0-3-8,0-2-0], [N:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.10	M-N	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.17	M-N	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.05	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 205 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E *Except* E-F,A-C: 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 or 3-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-13 max.): E-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt D-M, E-K, G-K

REACTIONS. (size) O=0-3-8, I=0-3-8
Max Horz O=252(LC 11)
Max Uplift O=-154(LC 12), I=-134(LC 13)
Max Grav O=2080(LC 32), I=1952(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-D=-2474/191, D-E=-1961/227, E-F=-1420/243, F-G=-1964/231, G-H=-2479/184, H-I=-1886/168
BOT CHORD A-O=-37/287, N-O=-247/433, M-N=-185/1903, K-M=-30/1420, J-K=-75/1915
WEBS B-O=-2013/261, B-N=-55/1640, D-M=-627/203, E-M=-70/513, F-K=-60/531, G-K=-648/202, H-J=-28/1706

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 3-1-7, Interior(1) 3-1-7 to 9-9-9, Exterior(2R) 9-9-9 to 22-7-7, Interior(1) 22-7-7 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) O=154, I=134.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975030
242042	53	Hip	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:46 2024 Page 1
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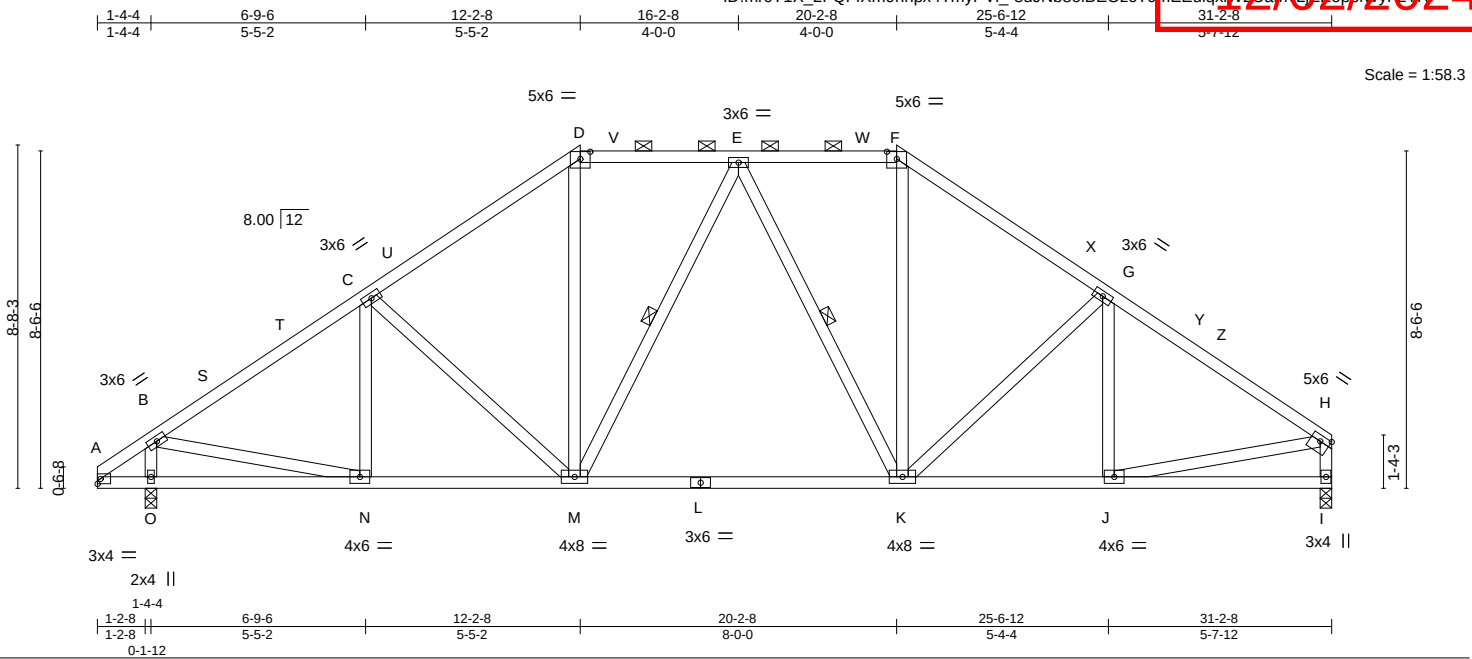

Scale = 1:58.3

Plate Offsets (X,Y)-- [D:0-3-0,0-2-3], [F:0-3-0,0-2-3], [H:Edge,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.12	K-M	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	K-M	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.05	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 202 lb	FT = 20%
BCDL	10.0											

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 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-0 max.): D-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-M, E-K

REACTIONS. (size) O=0-3-8, I=0-3-8
Max Horz O=219(LC 11)
Max Uplift O=-161(LC 12), I=-141(LC 13)
Max Grav O=2015(LC 32), I=1808(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-2192/200, C-D=-1828/247, D-E=-1345/251, E-F=-1348/254, F-G=-1834/252, G-H=-2209/198, H-I=-1747/171
BOT CHORD N-O=-211/305, M-N=-184/1674, K-M=-80/1375, J-K=-97/1697
WEBS B-O=-1919/247, B-N=-97/1537, C-M=-443/171, D-M=-47/501, E-M=-340/163, E-K=-337/162, F-K=-50/518, G-K=-470/170, H-J=-69/1548

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 3-1-7, Interior(1) 3-1-7 to 7-9-9, Exterior(2R) 7-9-9 to 24-7-7, Interior(1) 24-7-7 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) O=161, I=141.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975931
242042	54	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:47 2024 Page 1
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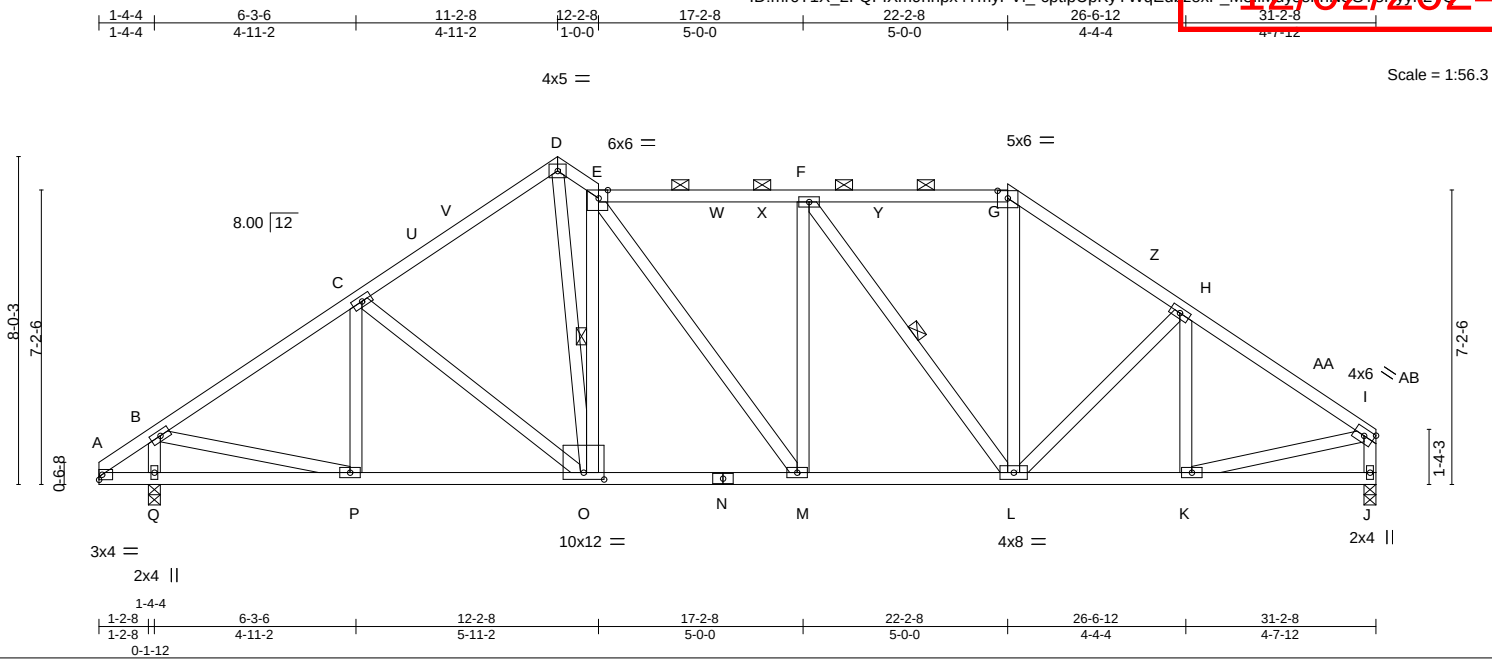

Plate Offsets (X,Y)-- [E:0-2-11,Edge], [G:0-3-0,0-2-3], [O:0-6-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.10	M	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.18	M-O	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.05	J	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 212 lb	FT = 20%
BCDL	10.0											

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 3-11-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-0 max.): E-G.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-O, F-L

REACTIONS. (size) Q=0-3-8, J=0-3-8
Max Horz Q=204(LC 11)
Max Uplift Q=-114(LC 12), J=-179(LC 13)
Max Grav Q=1525(LC 35), J=1538(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-1707/182, C-D=-1573/245, D-E=-1731/285, E-F=-1746/288, F-G=-1360/275, G-H=-1669/286, H-I=-1802/234, I-J=-1488/202
BOT CHORD O-P=-141/1343, M-O=-111/1483, L-M=-107/1743, K-L=-145/1383
WEBS B-Q=-1426/209, B-P=-75/1287, C-O=-288/155, D-O=-251/1731, E-O=-1615/304, E-M=-96/445, F-M=-261/142, F-L=-646/127, G-L=-42/557, H-L=-345/133, I-K=-117/1298

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 3-1-7, Interior(1) 3-1-7 to 8-1-1, Exterior(2R) 8-1-1 to 11-2-8, Exterior(2E) 11-2-8 to 12-2-8, Interior(1) 12-2-8 to 19-1-1, Exterior(2R) 19-1-1 to 25-3-15, Interior(1) 25-3-15 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 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) Provide adequate drainage to prevent water ponding.
5) All plates are 3x6 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) Q=114, J=179.
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.

November 27,2024

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Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975932
242042	55	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:48 2024 Page 1
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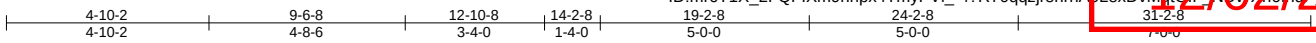

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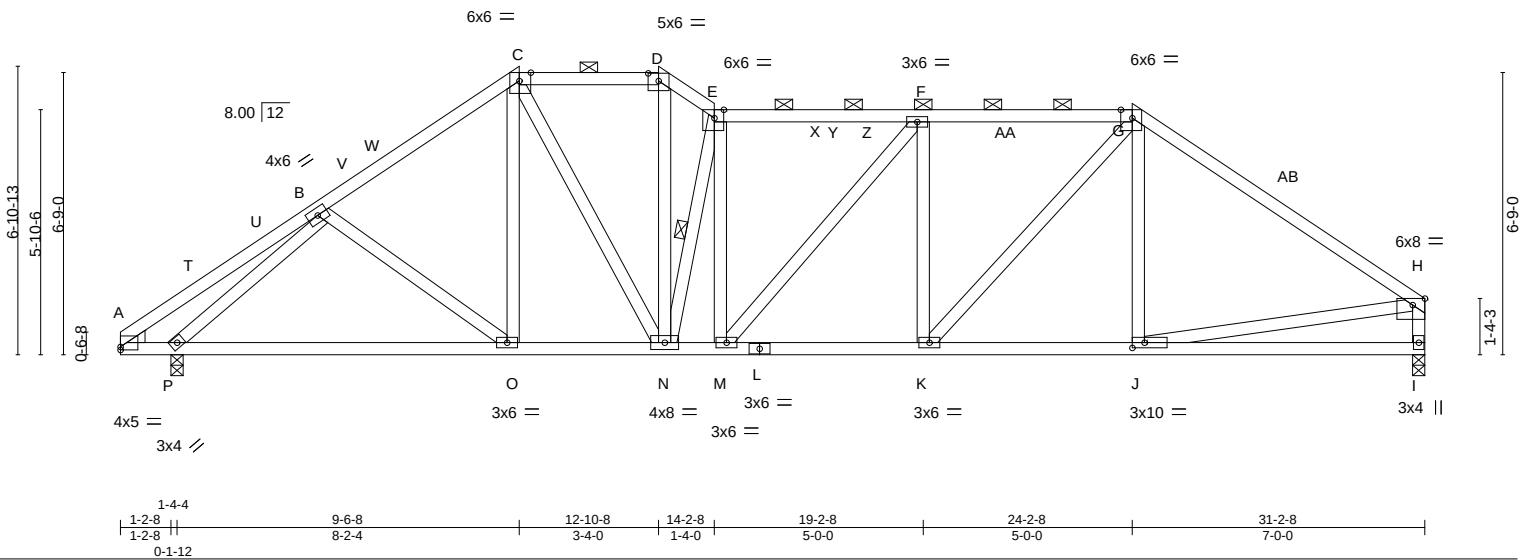

Plate Offsets (X,Y)-- [A:0-0-0,0-0-14], [C:0-3-5,Edge], [D:0-3-0,0-2-3], [E:0-2-11,Edge], [G:0-3-5,Edge], [H:0-3-8,Edge], [J:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.14	K-M	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.22	K-M	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.06	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 208 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* G-H: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* H-I: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

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

REACTIONS. (size) I=0-3-8, P=0-3-8
Max Horz P=174(LC 11)
Max Uplift I=-174(LC 13), P=-99(LC 12)
Max Grav I=1533(LC 36), P=1802(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-269/108, B-C=-1838/236, C-D=-1865/266, D-E=-2274/312, E-F=-2239/274, F-G=-2312/292, G-H=-1974/228, H-I=-1465/210
BOT CHORD O-P=-188/1472, N-O=-134/1502, M-N=-162/2232, K-M=-159/2308, J-K=-100/1600, I-J=-83/336
WEBS C-O=-10/253, C-N=-126/769, D-N=-125/1002, E-N=-1665/225, F-K=-692/170, G-K=-153/1065, B-P=-1963/294, H-J=-105/1486

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 3-1-7, Interior(1) 3-1-7 to 6-5-1, Exterior(2R) 6-5-1 to 12-10-8, Exterior(2E) 12-10-8 to 14-2-8, Interior(1) 14-2-8 to 21-1-1, Exterior(2R) 21-1-1 to 27-3-15, Interior(1) 27-3-15 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) P except (jt=lb) I=174.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975933
242042	56	Roof Special Girder	1	2	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:49 2024 Page 1
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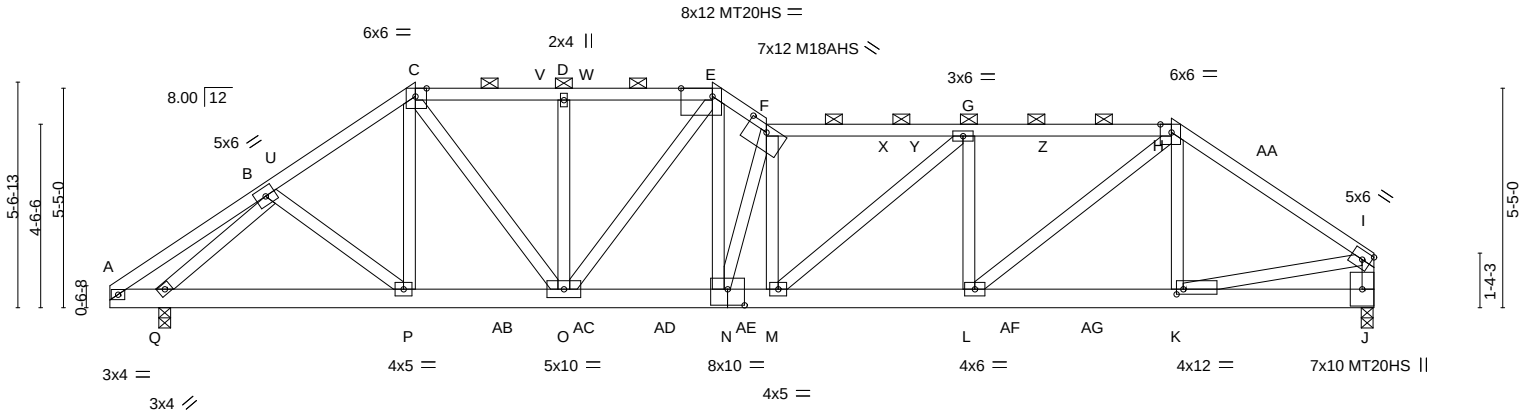
3-11-10 | 7-6-8 | 11-2-8 | 14-10-8 | 16-2-8 | 21-2-8 | 26-2-8 | 31-2-8
3-11-10 | 3-6-14 | 3-8-0 | 3-8-0 | 1-4-0 | 5-0-0 | 5-0-0 | 5-0-0

Scale = 1:56.9



1-4-4 | 7-6-8 | 11-2-8 | 14-10-8 | 16-2-8 | 21-2-8 | 26-2-8 | 31-2-4 | 31-2-8
1-2-8 | 6-2-4 | 3-8-0 | 3-8-0 | 1-4-0 | 5-0-0 | 5-0-0 | 4-11-12 | 0-0-4
0-1-12

Plate Offsets (X,Y)-- [C:0-3-5,Edge], [E:0-9-5,Edge], [F:0-6-0,0-2-0], [H:0-3-5,Edge], [K:0-2-0,0-1-8], [N:0-5-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.28	M	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.39	L-M	>927	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.96	Horz(CT)	0.07	J	n/a	n/a	M18AHS	186/179
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 446 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* F-H: 2x4 SP 1650F 1.5E
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except* C-P,E-N: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-12 max.): C-E, F-H.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) J=0-3-8, Q=0-3-8
Max Horz Q=139(LC 63)
Max Uplift J=-943(LC 13), Q=-815(LC 12)
Max Grav J=4243(LC 36), Q=4365(LC 36)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-731/129, B-C=-6159/1329, C-D=-7026/1492, D-E=-7026/1492, E-F=-9675/2023, F-G=-8932/1836, G-H=-8043/1668, H-I=-5717/1283, I-J=-4182/963
BOT CHORD A-Q=-64/551, P-Q=-949/4262, O-P=-1091/5147, N-O=-1546/7657, M-N=-1790/8983, L-M=-1609/8040, K-L=-1009/4751, J-K=-90/318
WEBS B-P=-276/1131, C-P=-242/730, C-O=-602/3208, D-O=-643/137, E-O=-1086/285, E-N=-1277/5993, F-N=-3980/802, F-M=-1587/388, G-M=-223/1329, G-L=-1674/341, H-L=-808/4295, H-K=-319/261, B-Q=-5232/1159, I-K=-1004/4650

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 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 3-1-7, Interior(1) 3-1-7 to 4-5-1, Exterior(2R) 4-5-1 to 10-7-15, Interior(1) 10-7-15 to 11-9-1, Exterior(2R) 11-9-1 to 14-10-8, Exterior(2E) 14-10-8 to 16-2-8, Interior(1) 16-2-8 to 23-1-1, Exterior(2R) 23-1-1 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 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
4) 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
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) J=943, Q=815.
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.

Continued on page 2

STATE OF MISSOURI
ANDREW THOMAS JOHNSON
NUMBER PE-2017018993
PROFESSIONAL ENGINEER

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	56	Roof Special Girder	1	2	I59875933

Job Reference (optional)

NOTES-

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

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1145 lb down and 353 lb up at 7-6-8, 389 lb down and 96 lb up at 9-7-4, 389 lb down and 96 lb up at 11-7-4, 389 lb down and 96 lb up at 13-7-4, 1177 lb down and 341 lb up at 14-9-12, 470 lb down and 95 lb up at 21-3-4, 285 lb down and 99 lb up at 22-1-12, and 285 lb down and 99 lb up at 24-1-12, and 783 lb down and 350 lb up at 26-1-12 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-C=-70, C-E=-70, E-F=-70, F-H=-70, H-I=-70, J-R=-20
   Concentrated Loads (lb)
   Vert: P=-1145(F) L=-470(F) K=-783(F) AB=-389(F) AC=-389(F) AD=-389(F) AE=-1177(F) AF=-285(F) AG=-285(F)

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975034
242042	57	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:50 2024 Page 1
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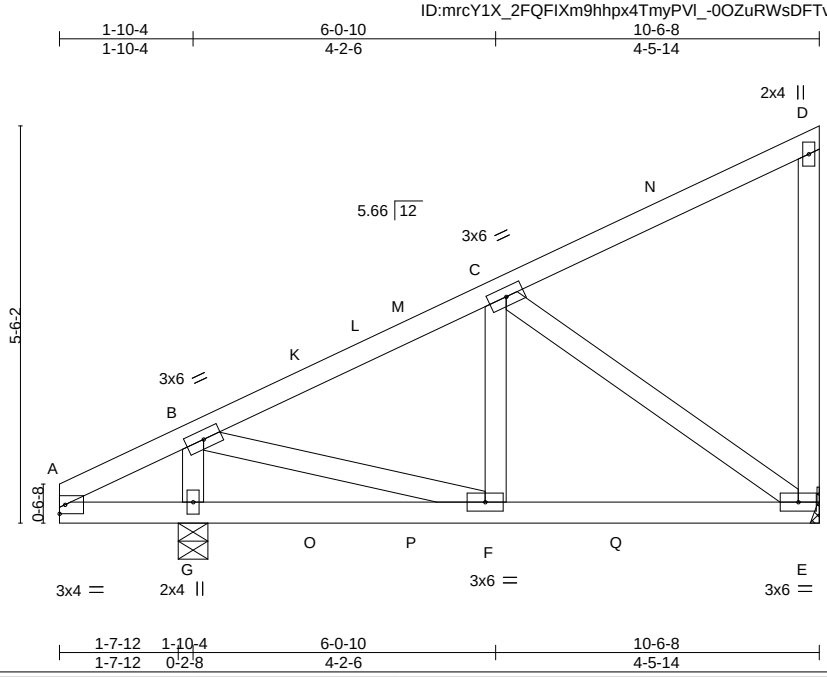

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.08	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.11	E-F	>917	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	-0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 59 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) G=0-4-15, E=Mechanical
Max Horz G=179(LC 11)
Max Uplift G=-240(LC 12), E=-229(LC 12)
Max Grav G=664(LC 18), E=784(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-680/322
BOT CHORD F-G=-269/180, E-F=-263/578
WEBS B-G=-729/367, B-F=-179/737, C-F=-140/256, C-E=-677/375

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 10-4-12 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 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) except (jt=lb) G=240, E=229.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 96 lb up at 3-6-11, 76 lb down and 96 lb up at 3-6-11, and 103 lb down and 91 lb up at 4-11-11, and 103 lb down and 91 lb up at 4-11-11 on top chord, and 74 lb up at 3-6-11, 74 lb up at 3-6-11, 11 lb down and 18 lb up at 4-11-11, 11 lb down and 18 lb up at 4-11-11, and 211 lb down and 93 lb up at 7-9-10, and 211 lb down and 93 lb up at 7-9-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: K=67(F=34, B=34) O=75(F=38, B=38) P=3(F=2, B=2) Q=-422(F=-211, B=-211)

November 27,2024

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16023 Swingley Ridge Rd.
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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975035
242042	58	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:51 2024 Page 1
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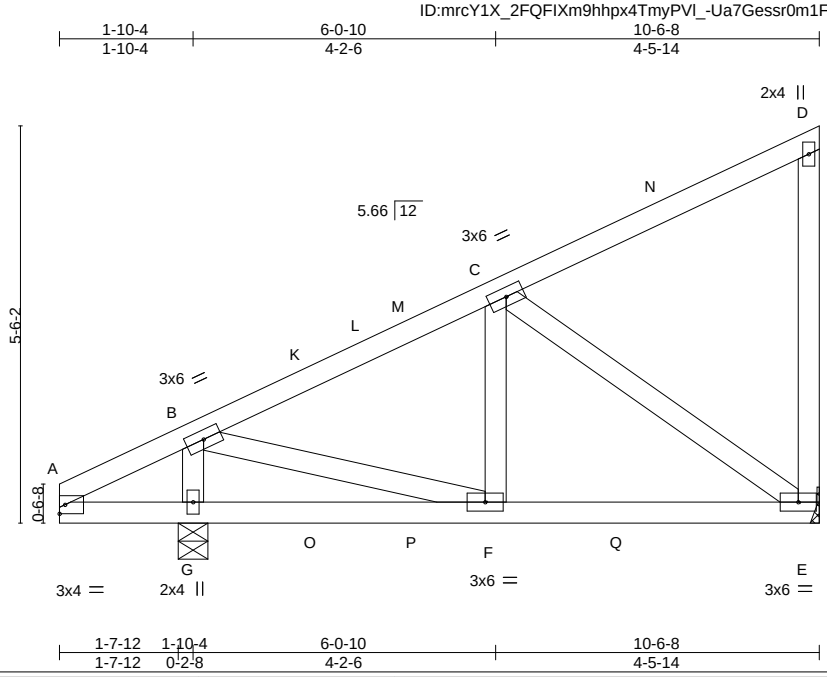

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.08	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.11	E-F	>895	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 59 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) G=0-4-15, E=Mechanical
Max Horz G=179(LC 11)
Max Uplift G=-192(LC 12), E=-217(LC 12)
Max Grav G=733(LC 18), E=816(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-736/256
BOT CHORD E-F=-241/621
WEBS B-G=-768/352, B-F=-180/753, C-F=-109/291, C-E=-729/348

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 10-4-12 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 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) except (jt=lb) G=192, E=217.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 76 lb down and 96 lb up at 3-6-11, and 107 lb down and 94 lb up at 4-11-11, and 103 lb down and 91 lb up at 4-11-11 on top chord, and 74 lb up at 3-6-11, 16 lb down and 17 lb up at 4-11-11, 11 lb down and 18 lb up at 4-11-11, and 233 lb down and 92 lb up at 7-9-10, and 211 lb down and 93 lb up at 7-9-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: K=34(B) M=-5(F) O=38(B) P=-4(F=-6, B=2) Q=-444(F=-233, B=-211)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975036
242042	59	Diagonal Hip Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:51 2024 Page 1
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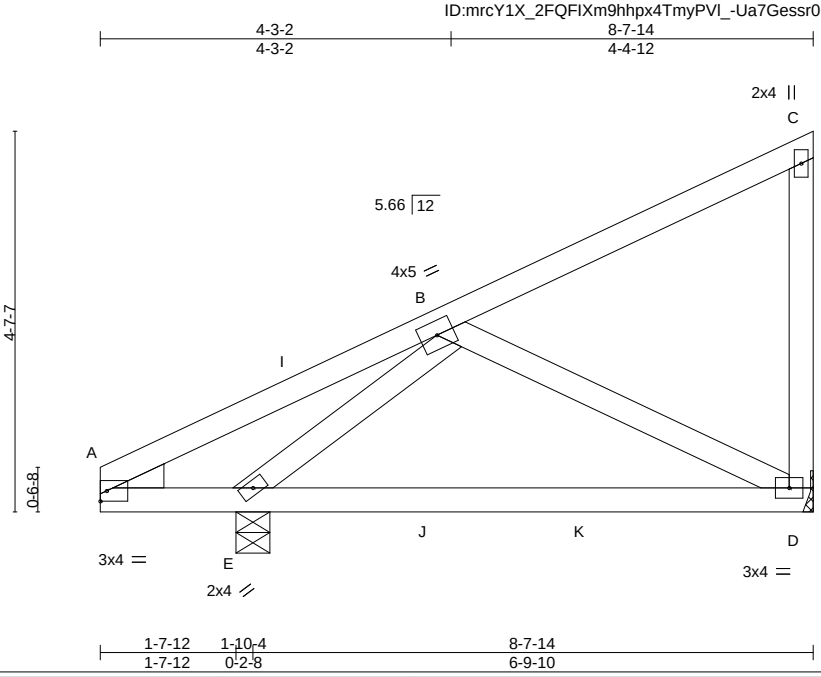

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.20	D-E	>411	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.22	D-E	>372	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 46 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) D=Mechanical, E=0-4-15
Max Horz E=151(LC 11)
Max Uplift D=-222(LC 12), E=-203(LC 12)
Max Grav D=526(LC 18), E=545(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-263/489
BOT CHORD A-E=-349/278, D-E=-213/320
WEBS B-D=-359/302, B-E=-508/364

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(3) 0-0-0 to 4-2-0, Exterior(2R) 4-2-0 to 8-6-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) except (jt=lb) D=222, E=203.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 344 lb up at 4-0-6, and 104 lb down and 76 lb up at 4-0-6 on top chord, and 273 lb up at 4-0-6, 55 lb up at 4-0-6, and 99 lb down and 81 lb up at 5-11-0, and 195 lb down and 77 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-C=-70, D-F=-20
Concentrated Loads (lb)
Vert: B=88(F) J=137(F=108, B=29) K=-294(F=-195, B=-99)

November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975037
242042	60	Jack-Closed	3	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:51 2024 Page 1
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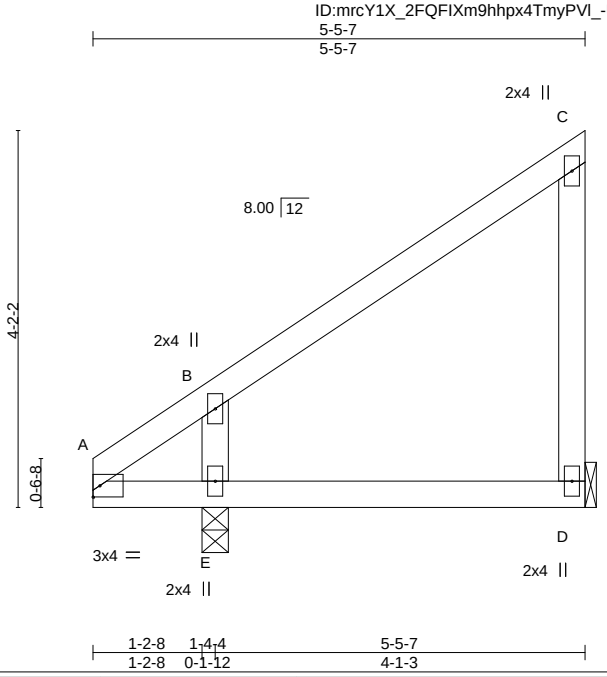

Scale = 1:25.5

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	0.02	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.03	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 25 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=140(LC 11)
Max Uplift D=-64(LC 9), E=-18(LC 12)
Max Grav D=239(LC 18), E=488(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-478/243

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 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) D, E.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	61	Jack-Open	3	1	I69975038

Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:52 2024 Page 1
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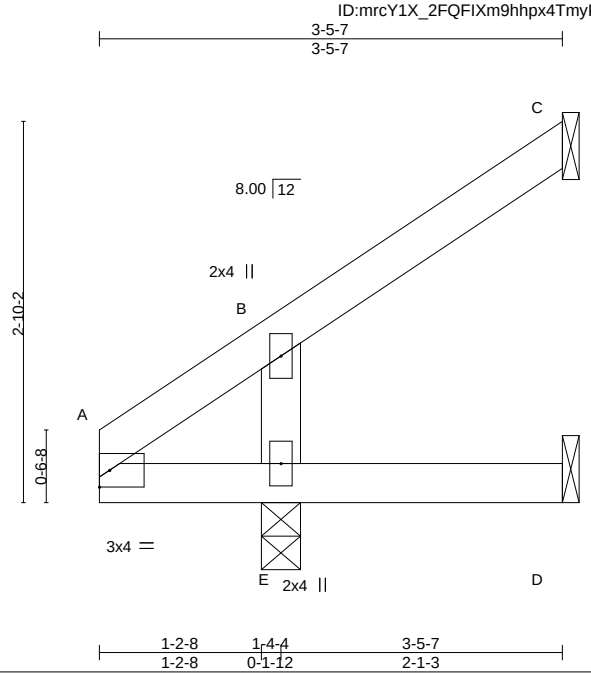

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%
BCDL	10.0											

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 3-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=88(LC 12)
Max Uplift C=-55(LC 12), D=-12(LC 12)
Max Grav C=76(LC 18), D=24(LC 5), E=364(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-269/114

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 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) 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	62	Jack-Open	3	1	I69975039

Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:52 2024 Page 1
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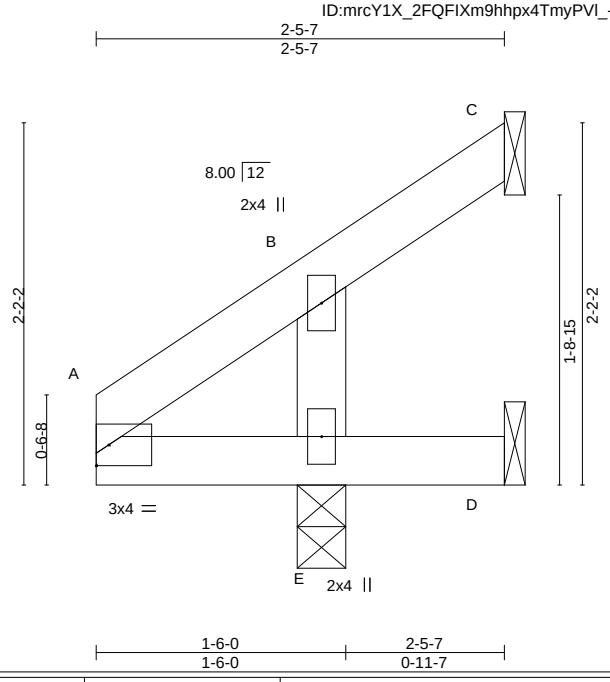

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.13	Vert(CT)	0.00	E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%
BCDL	10.0											

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 2-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=62(LC 12)
Max Uplift C=-37(LC 12), D=-46(LC 18)
Max Grav C=14(LC 10), D=5(LC 8), E=339(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) 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) 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975940
242042	63	Jack-Closed	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:53 2024 Page 1
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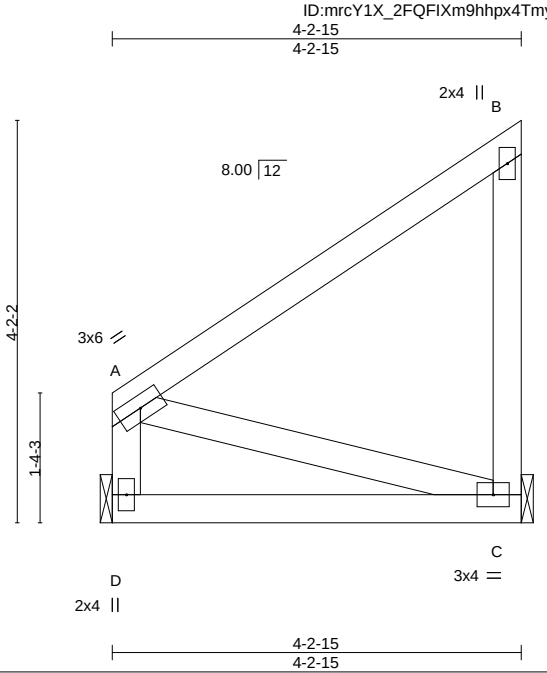

LOADING (psf)
TCLL 25.0
(Roof Snow=25.0)
TCDL 10.0
BCLL 0.0
BCDL 10.0

SPACING- 2-0-0
Plate Grip DOL 1.15
Lumber DOL 1.15
Rep Stress Incr YES
Code IRC2018/TPI2014

CSI.
TC 0.56
BC 0.19
WB 0.05
Matrix-MP

DEFL.	in	(loc)	l/defl	L/d
Vert(LL)	-0.01	C-D	>999	240
Vert(CT)	-0.03	C-D	>999	180
Horz(CT)	0.00	C	n/a	n/a

PLATES MT20 **GRIP** 244/190

Weight: 26 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 4-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, C=Mechanical
Max Horz D=141(LC 11)
Max Uplift D=-2(LC 12), C=-64(LC 9)
Max Grav D=261(LC 18), C=261(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) 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) D, 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875941
242042	64	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:53 2024 Page 1
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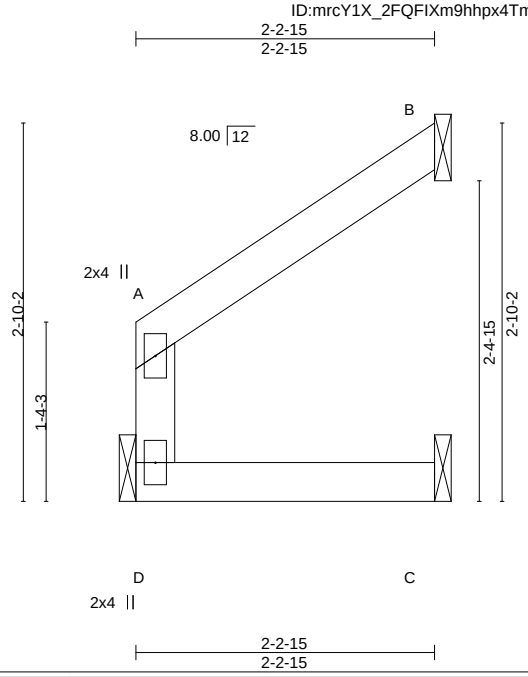

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.00	C-D	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.00	C-D	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	B	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%
BCDL	10.0											

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 2-2-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, B=Mechanical, C=Mechanical
Max Horz D=53(LC 9)
Max Uplift B=-53(LC 12), C=-5(LC 12)
Max Grav D=122(LC 18), B=96(LC 18), C=40(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 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) B, 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875942
242042	65	Jack-Closed	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:53 2024 Page 1
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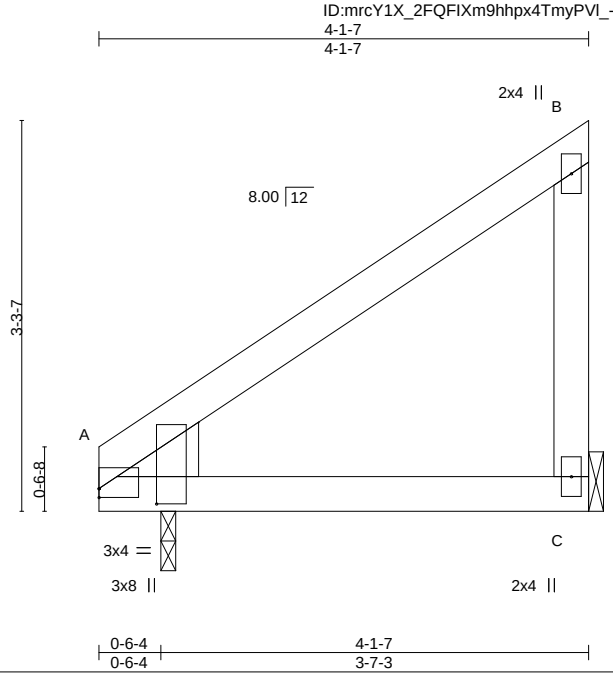

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Plate Offsets (X,Y)-- [A:0-0-0,0-0-14], [A:0-1-9,0-5-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	C-H	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.02	C-H	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	A	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 19 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, A=0-1-8
Max Horz A=107(LC 11)
Max Uplift C=-49(LC 12), A=-11(LC 12)
Max Grav C=223(LC 18), A=302(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) 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 at joint(s) A.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, A.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875943
242042	66	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:54 2024 Page 1
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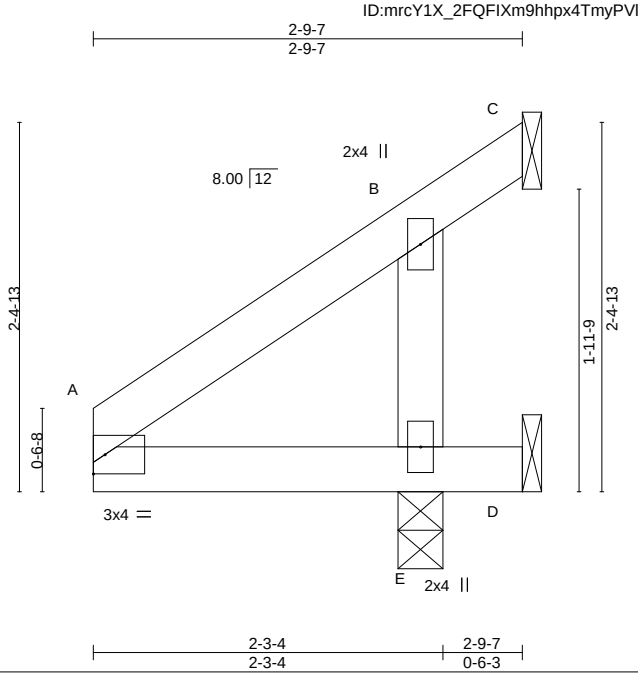

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.00	E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.35	Vert(CT)	0.00	E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.05	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%
BCDL	10.0											

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 2-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz D=71(LC 12)
Max Uplift C=-189(LC 18), D=-244(LC 18)
Max Grav E=774(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-412/141

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 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) except (jt=lb) C=189, D=244.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975944
242042	67	Jack-Closed Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:54 2024 Page 1
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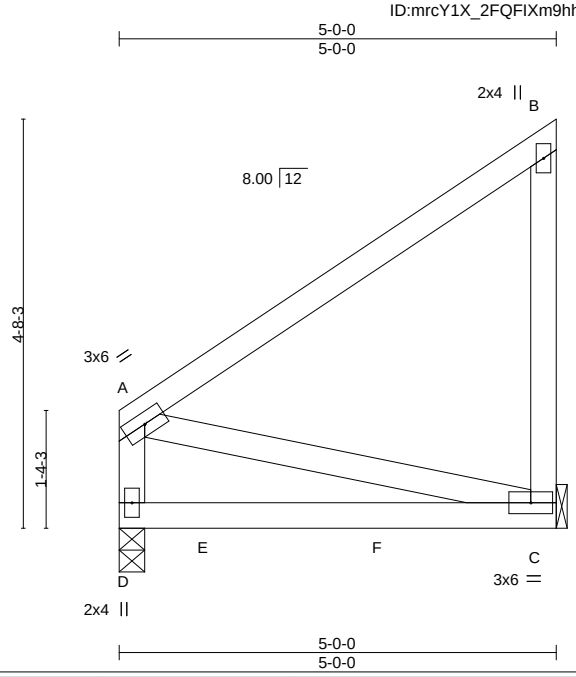


Scale = 1:26.4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.10	C-D	>567	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.16	C-D	>357	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%
BCDL	10.0											

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

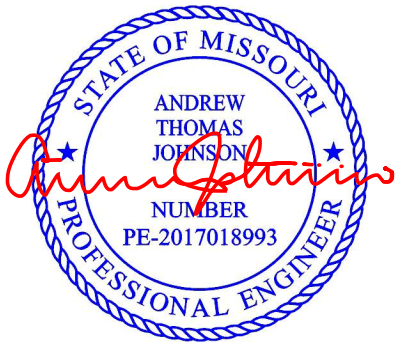
BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=0-3-8, C=Mechanical
Max Horz D=160(LC 9)
Max Uplift C=-75(LC 9)
Max Grav D=495(LC 18), C=490(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-D=-273/82, B-C=-273/99

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 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) 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.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down at 1-0-12, and 241 lb down and 22 lb up at 3-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-70, C-D=-20
Concentrated Loads (lb)
Vert: E=-103(B) F=-241(B)



November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975945
242042	68	Jack-Closed	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:54 2024 Page 1
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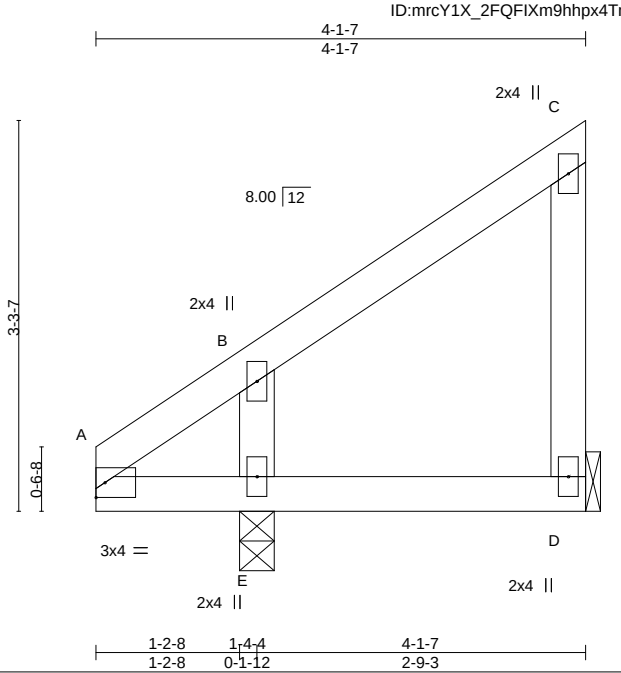


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 19 lb	FT = 20%
BCDL	10.0											

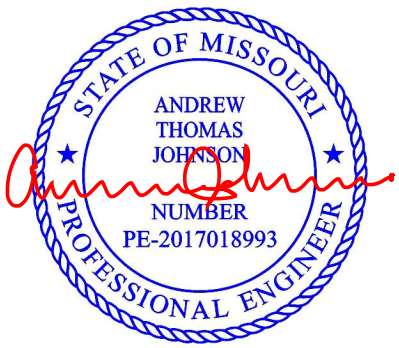
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=107(LC 11)
Max Uplift D=-58(LC 9), E=-14(LC 12)
Max Grav D=127(LC 18), E=399(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-324/168

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 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) D, E.
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.



November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975946
242042	69	Jack-Closed	5	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:55 2024 Page 1
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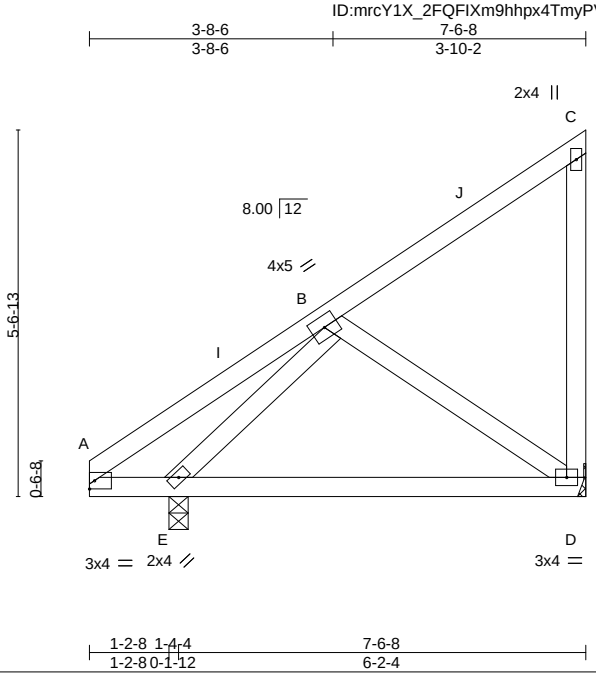

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.05	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.09	D-E	>810	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 44 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=193(LC 11)
Max Uplift D=-76(LC 9), E=-21(LC 12)
Max Grav D=409(LC 18), E=493(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD D-E=-112/263
WEBS B-D=-318/174, B-E=-383/187

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 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) D, E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975947
242042	70	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:55 2024 Page 1
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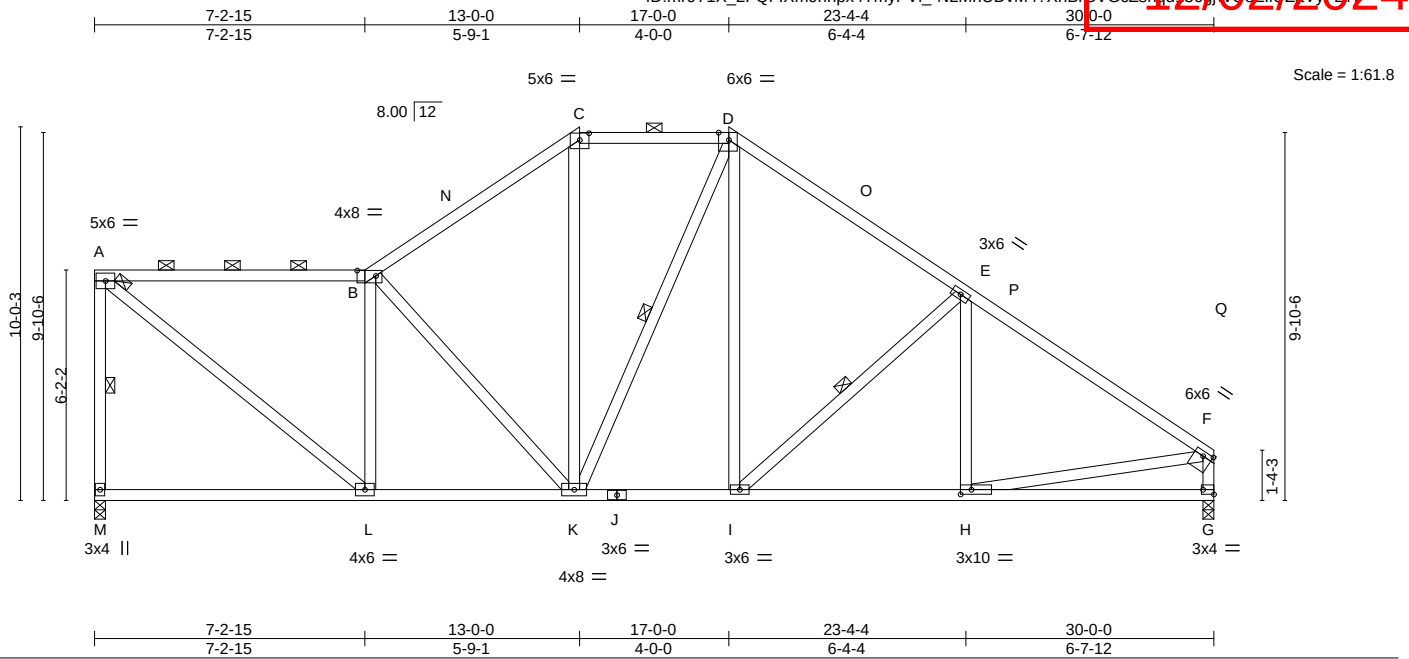

Plate Offsets (X,Y)-- [B:0-6-0,0-1-12], [C:0-3-0,0-2-3], [D:0-3-5,Edge], [F:0-3-0,0-1-8], [G:Edge,0-1-8], [H:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.10	H-I	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.18	L-M	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.04	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 210 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 1650F 1.5E *Except*
A-B: 2x4 SP 2400F 2.0E, C-D: 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
A-M: 2x4 SP No.2

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

REACTIONS. (size) M=0-3-8, G=0-3-8
Max Horz M=-315(LC 8)
Max Uplift M=-146(LC 12), G=-114(LC 13)
Max Grav M=1574(LC 33), G=1878(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-M=-1503/194, A-B=-1553/118, B-C=-1743/201, C-D=-1287/218, D-E=-1845/218, E-F=-2372/164, F-G=-1812/148
BOT CHORD L-M=-209/264, K-L=-66/1525, I-K=0/1320, H-I=-52/1827
WEBS A-L=-221/1982, B-L=-1109/236, B-K=-438/83, C-K=-48/415, D-I=-75/546, E-I=-664/207, F-H=-11/1619

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 10-0-0, Exterior(2R) 10-0-0 to 20-0-0 , Interior(1) 20-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) M=146, G=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.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975948
242042	71	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:56 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-rYw9hZw_qJfYp?nnpK45E2AC_W_yYrdiXME76xyf2JH

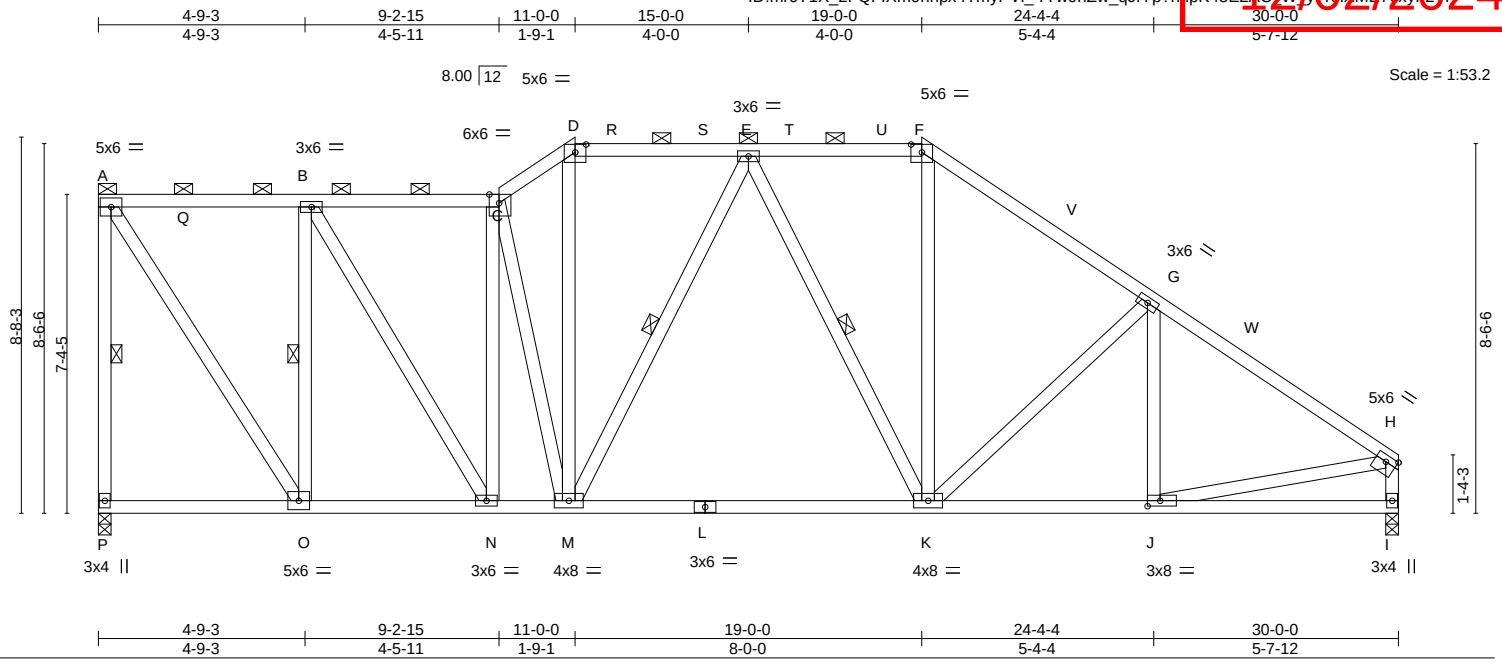

Plate Offsets (X,Y)-- [C:0-2-11,Edge], [D:0-3-0,0-2-3], [F:0-3-0,0-2-3], [H:Edge,0-1-12], [J:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.12	K-M	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.26	K-M	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 234 lb	FT = 20%
BCDL	10.0											

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 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-3 max.): A-C, D-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt A-P, B-O, E-M, E-K

REACTIONS. (size) P=0-3-8, I=0-3-8
Max Horz P=-295(LC 8)
Max Uplift P=-179(LC 8), I=-100(LC 13)
Max Grav P=1890(LC 34), I=1685(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-P=-1847/192, A-B=-1061/87, B-C=-1557/111, C-D=-1785/151, D-E=-1469/144, E-F=-1341/197, F-G=-1663/187, G-H=-2040/145, H-I=-1624/130
BOT CHORD O-P=-175/316, N-O=-115/1061, M-N=-99/1570, K-M=-77/1554, J-K=-50/1557
WEBS A-O=-195/1919, B-O=-1504/246, B-N=-151/942, C-N=-811/118, C-M=-411/85, D-M=-45/736, E-M=-337/113, E-K=-483/165, F-K=0/587, G-K=-491/180, H-J=-17/1407

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 9-2-15, Exterior(2R) 9-2-15 to 14-0-0 , Interior(1) 14-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 22-0-0, Interior(1) 22-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) P=179, I=100.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975949
242042	72	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:57 2024 Page 1
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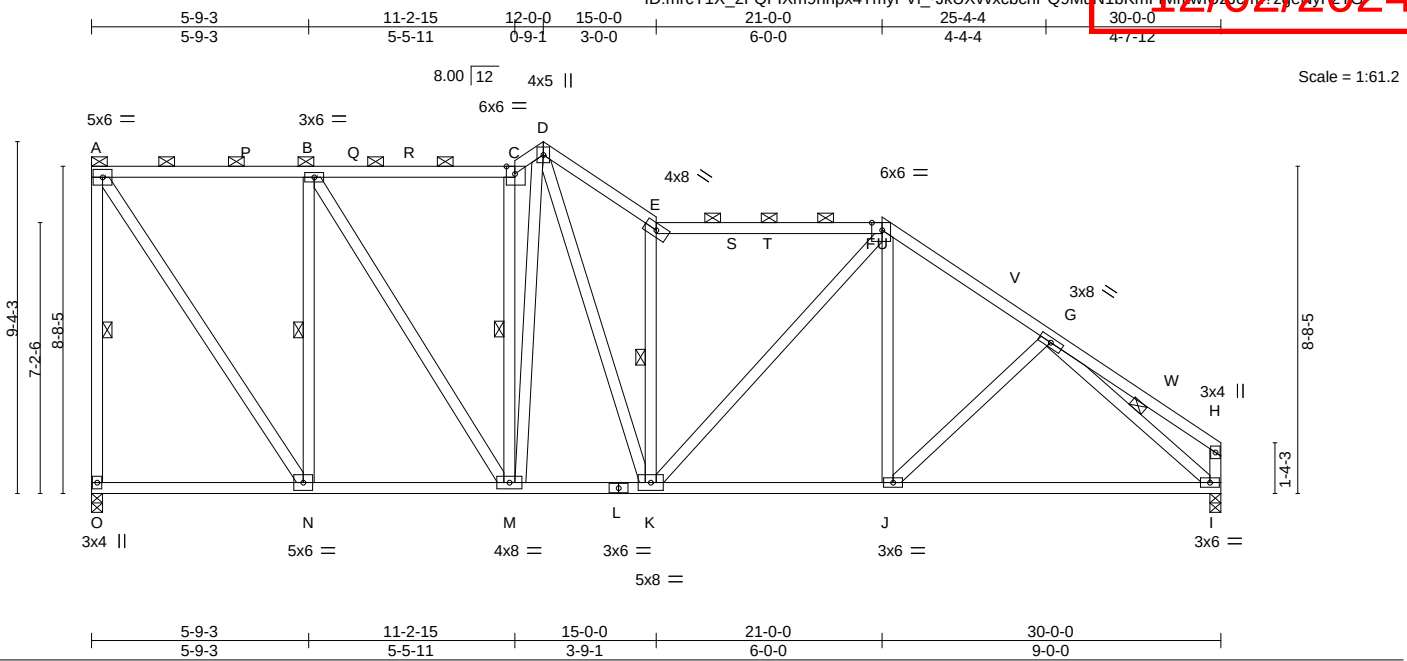

Scale = 1:61.2

Plate Offsets (X,Y)-- [C:0-2-11,Edge], [F:0-3-5,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.15	I-J	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.31	I-J	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.05	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 237 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* E-F: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* A-O: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-1 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): A-C, E-F.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt A-O, B-N, C-M, E-K, G-I

REACTIONS. (size) O=0-3-8, I=0-3-8
Max Horz O=-331(LC 8)
Max Uplift O=-171(LC 12), I=-156(LC 13)
Max Grav O=1864(LC 36), I=1658(LC 37)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-O=-1812/190, A-B=-1031/142, B-C=-1384/205, C-D=-1748/257, D-E=-2161/334, E-F=-1778/231, F-G=-1747/241, G-H=-346/68, H-I=-365/76
BOT CHORD N-O=-185/373, M-N=-80/1031, K-M=-22/1318, J-K=-31/1434, I-J=-141/1485
WEBS A-N=-195/1832, B-N=-1403/256, B-M=-137/752, C-M=-1309/164, D-M=-73/850, D-K=-282/1411, E-K=-1654/306, F-K=-63/520, F-J=0/343, G-J=-252/220, G-I=-1785/189

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 11-2-15, Exterior(2R) 11-2-15 to 12-0-0, Exterior(2E) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) O=171, I=156.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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16023 Swingley Ridge Rd.
Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975950
242042	73	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:38:58 2024 Page 1
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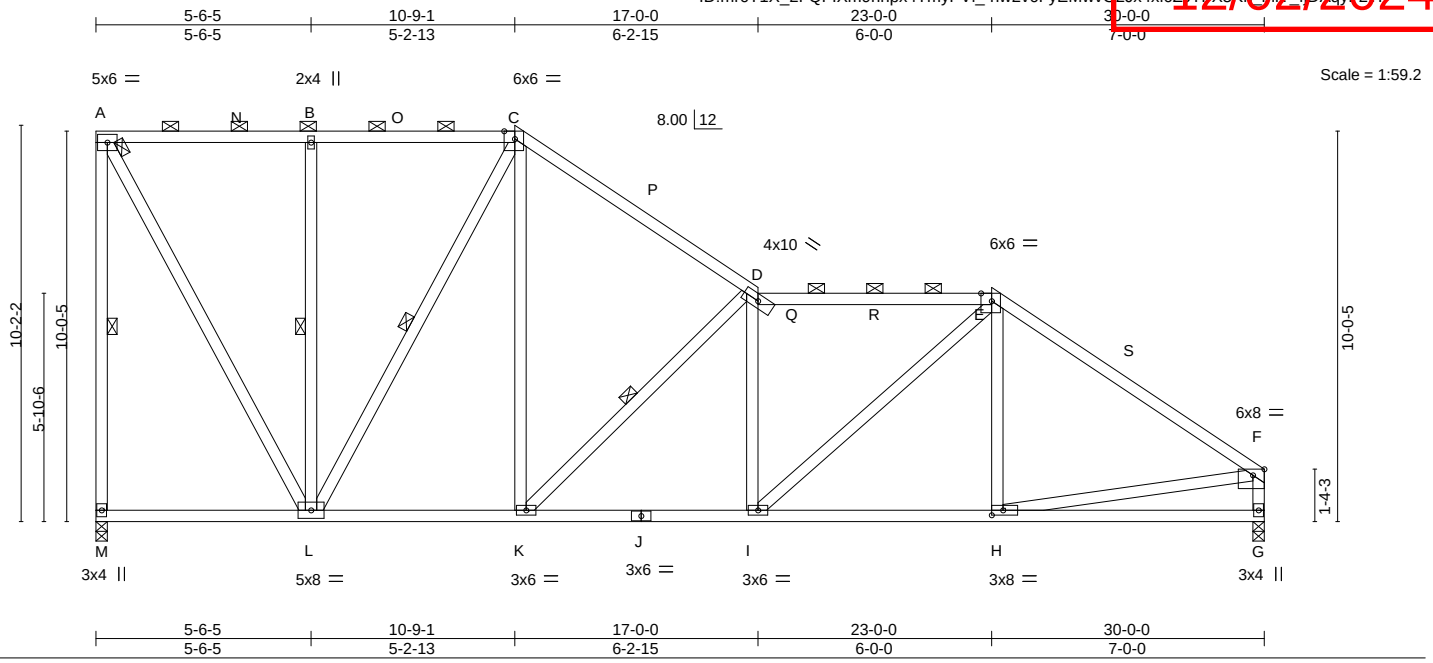

Plate Offsets (X,Y)-- [C:0-3-5,Edge], [E:0-3-5,Edge], [F:0-3-8,Edge], [H:0-3-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.11	I	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.19	I-K	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.05	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 219 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E *Except*
A-C: 2x4 SP No.2, C-D: 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
A-M: 2x4 SP 1650F 1.5E, F-G: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-11 max.): A-C, D-E.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt A-M, B-L, C-L, D-K

REACTIONS. (size) M=0-3-8, G=0-3-8
Max Horz M=-367(LC 8)
Max Uplift M=-179(LC 8), G=-159(LC 13)
Max Grav M=1799(LC 34), G=1638(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-M=-1748/227, A-B=-821/152, B-C=-824/153, C-D=-1445/194, D-E=-2051/257, E-F=-1958/206, F-G=-1572/194
BOT CHORD L-M=-197/442, K-L=-65/1121, I-K=-95/2040, H-I=-83/1470, G-H=-81/335
WEBS A-L=-234/1677, B-L=-798/180, C-L=-878/189, C-K=-106/953, D-K=-1243/262, D-I=-413/98, E-I=-39/787, F-H=-38/1374

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 7-9-1, Exterior(2R) 7-9-1 to 13-9-1, Interior(1) 13-9-1 to 20-0-0, Exterior(2R) 20-0-0 to 26-0-0, Interior(1) 26-0-0 to 26-10-4, Exterior(2E) 26-10-4 to 29-10-4 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) M=179, G=159.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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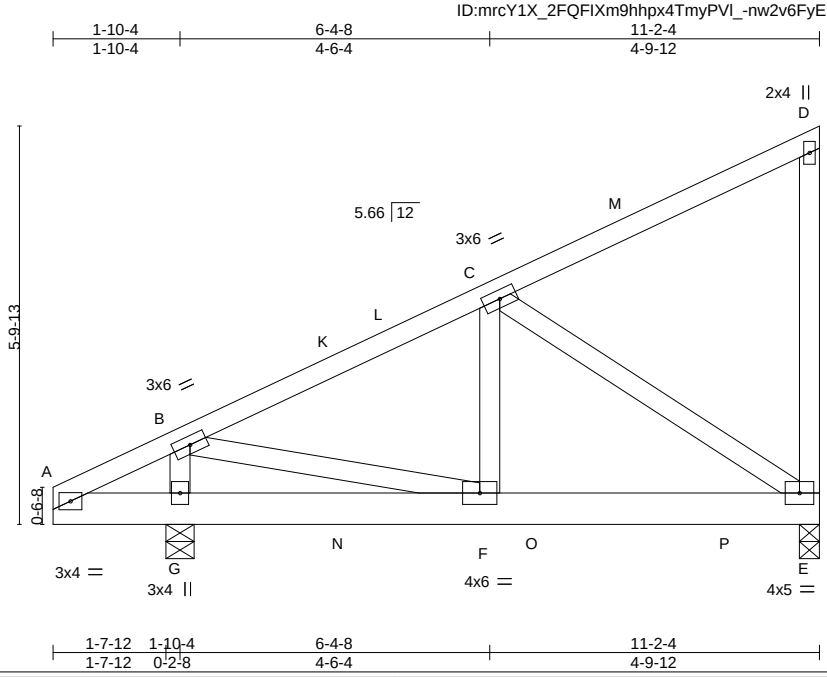
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975951
242042	74	Roof Special Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:58 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-nw2v6FyEMwvG2Jx4xl6Z_TFevkg4idL2_fjDAgyF2TF



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.06	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 72 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) G=0-4-15, E=0-3-8
Max Horz G=187(LC 11)
Max Uplift G=-178(LC 12), E=-325(LC 12)
Max Grav G=907(LC 18), E=1350(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-999/309
BOT CHORD F-G=-202/252, E-F=-258/849
WEBS B-G=-878/369, B-F=-227/904, C-F=-156/508, C-E=-995/404

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 11-0-8 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) G=178, E=325.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down and 76 lb up at 4-2-13, and 97 lb down and 76 lb up at 4-2-13 on top chord, and 12 lb down and 22 lb up at 4-2-13, 12 lb down and 22 lb up at 4-2-13, 169 lb down and 90 lb up at 7-0-12, 169 lb down and 90 lb up at 7-0-12, and 344 lb down and 101 lb up at 9-10-11, and 344 lb down and 101 lb up at 9-10-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: O=-339(F=-169, B=-169) P=-688(F=-344, B=-344)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975952
242042	75	Roof Special Girder	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:59 2024 Page 1
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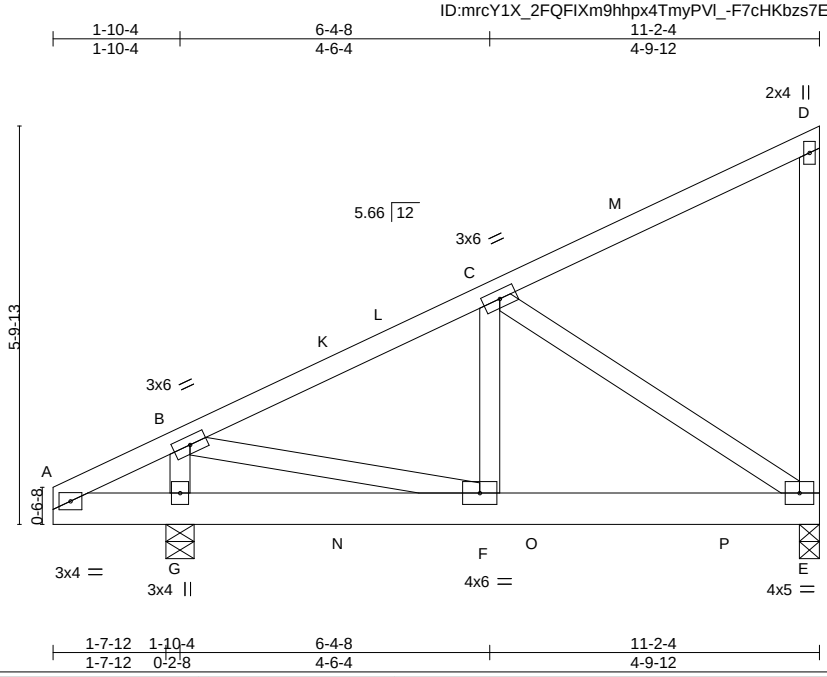

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	E-F	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.06	E-F	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.60	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 72 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) G=0-4-15, E=0-3-8
Max Horz G=187(LC 11)
Max Uplift G=-178(LC 12), E=-325(LC 12)
Max Grav G=907(LC 18), E=1350(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-999/309
BOT CHORD F-G=-202/252, E-F=-258/849
WEBS B-G=-878/369, B-F=-227/904, C-F=-156/508, C-E=-995/404

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(3) 0-0-0 to 4-2-15, Exterior(2R) 4-2-15 to 11-0-8 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) G=178, E=325.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down and 76 lb up at 4-2-13, and 97 lb down and 76 lb up at 4-2-13 on top chord, and 12 lb down and 22 lb up at 4-2-13, 12 lb down and 22 lb up at 4-2-13, 169 lb down and 90 lb up at 7-0-12, 169 lb down and 90 lb up at 7-0-12, and 344 lb down and 101 lb up at 9-10-11, and 344 lb down and 101 lb up at 9-10-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-D=-70, E-H=-20
Concentrated Loads (lb)
Vert: O=-339(F=-169, B=-169) P=-688(F=-344, B=-344)

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975953
242042	76	Monopitch	7	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:59 2024 Page 1
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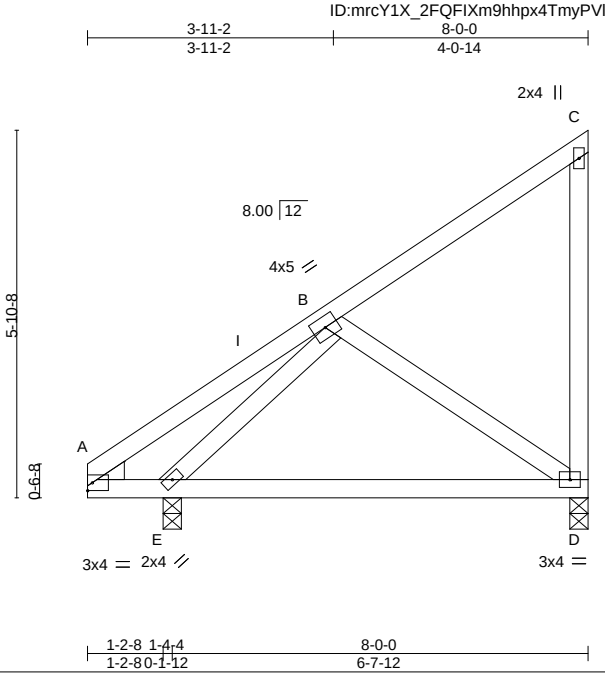

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.06	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.12	D-E	>657	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 47 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) D=0-3-8, E=0-3-8
Max Horz E=205(LC 11)
Max Uplift D=-93(LC 12), E=-25(LC 12)
Max Grav D=437(LC 18), E=506(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD D-E=-117/299
WEBS B-D=-342/208, B-E=-385/204

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 4-10-4, Exterior(2E) 4-10-4 to 7-10-4 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 a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, E.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975954
242042	77	Jack-Closed	4	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:36:59 2024 Page 1
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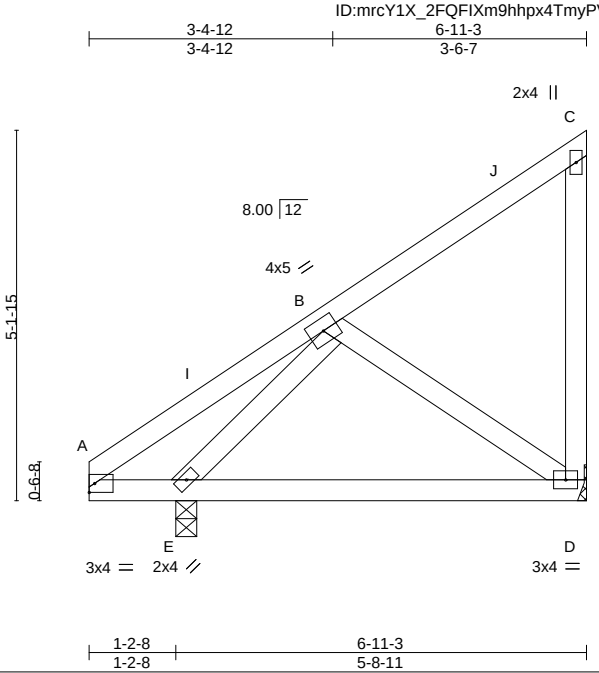

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.03	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 40 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=178(LC 11)
Max Uplift D=-75(LC 12), E=-17(LC 12)
Max Grav D=369(LC 18), E=478(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-D=-284/163, B-E=-378/174

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) 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) D, E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975955
242042	78	Jack-Closed	4	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:00 2024 Page 1
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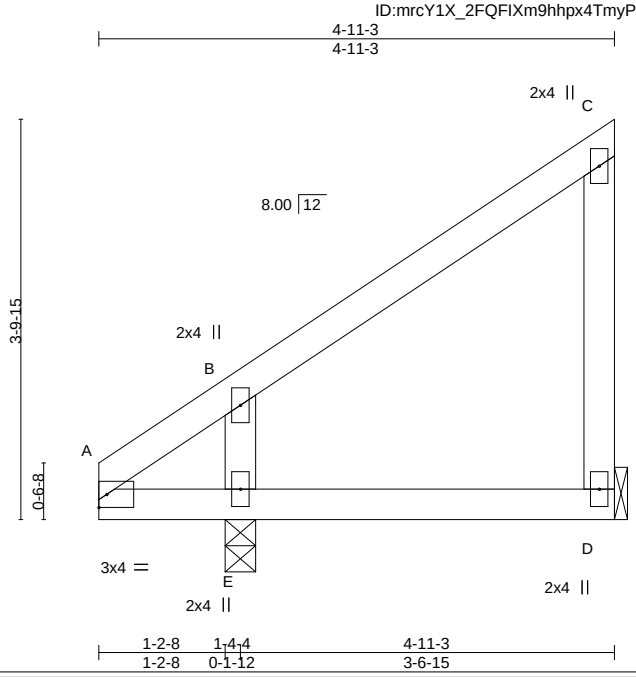

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.01	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.02	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 23 lb	FT = 20%
BCDL	10.0											

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

REACTIONS. (size) D=Mechanical, E=0-3-8
Max Horz E=127(LC 11)
Max Uplift D=-62(LC 9), E=-16(LC 12)
Max Grav D=198(LC 18), E=455(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-417/211

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 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) D, E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	79	Jack-Open	4	1	I69975956

Job Reference (optional)

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:00 2024 Page 1
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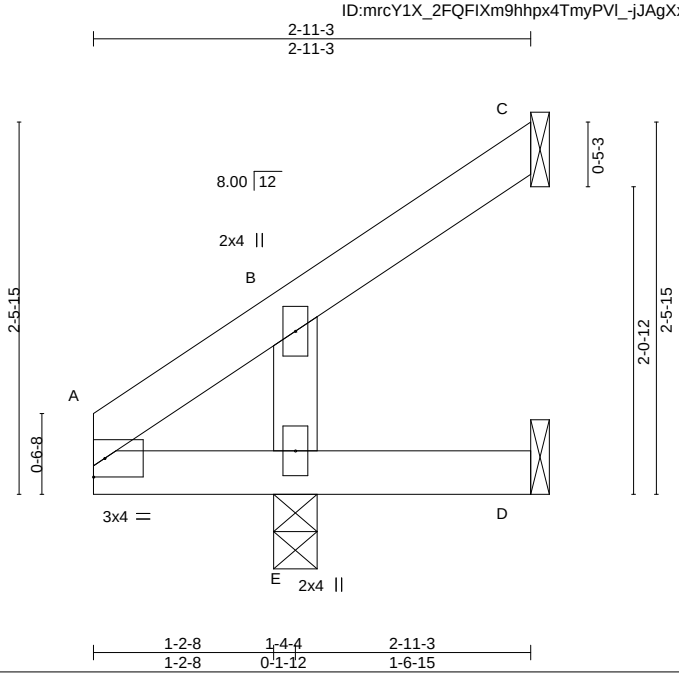


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.01	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 11 lb	FT = 20%
BCDL	10.0											

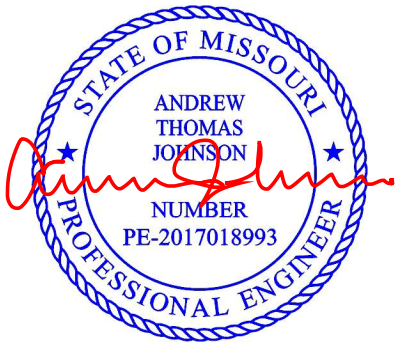
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-3-8
Max Horz E=74(LC 12)
Max Uplift C=-46(LC 12), D=-21(LC 18)
Max Grav C=40(LC 18), D=14(LC 10), E=342(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) 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) 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.



November 27,2024

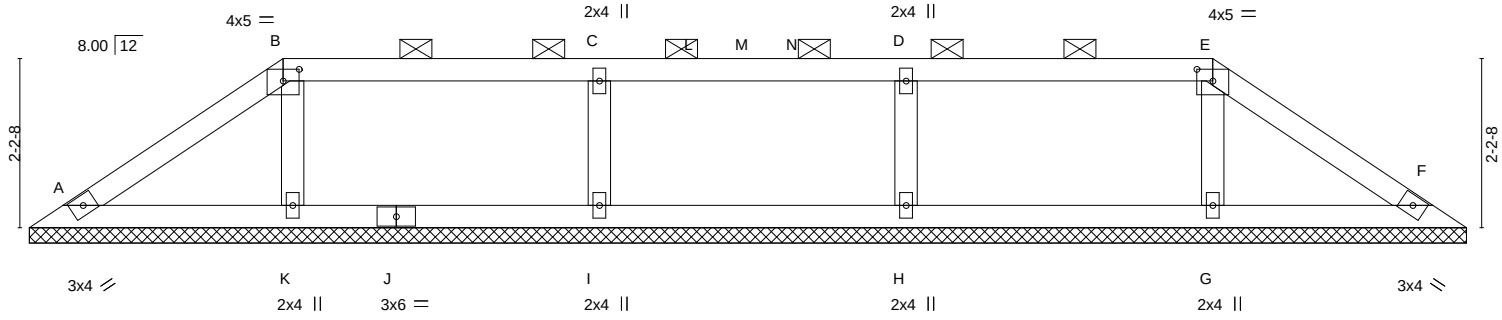
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975957
242042	80	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:01 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-BVj2lG_7frHqvngfctfGx5tDbXqtvHfFdqdktp9yF27C

3-3-11 | 15-5-3 | 18-8-15
3-3-11 | 12-1-8 | 3-3-11

Scale = 1:30.0



18-8-15
18-8-15

Plate Offsets (X,Y)-- [B:0-2-8,0-1-13], [E:0-2-8,0-1-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 66 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 18-8-15.
(lb) - Max Horz A=-47(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) A, F, G, H, I, K
Max Grav All reactions 250 lb or less at joint(s) A, F except G=355(LC 31), H=618(LC 31), I=631(LC 31), K=353(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS E-G=-279/86, D-H=-537/117, C-I=-550/119, B-K=-276/95

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) 0-5-12 to 3-3-11, Exterior(2R) 3-3-11 to 7-5-3, Interior(1) 7-5-3 to 11-2-5, Exterior(2R) 11-2-5 to 15-5-3, Exterior(2E) 15-5-3 to 18-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) 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) A, F, G, H, I, K.
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.

November 27,2024

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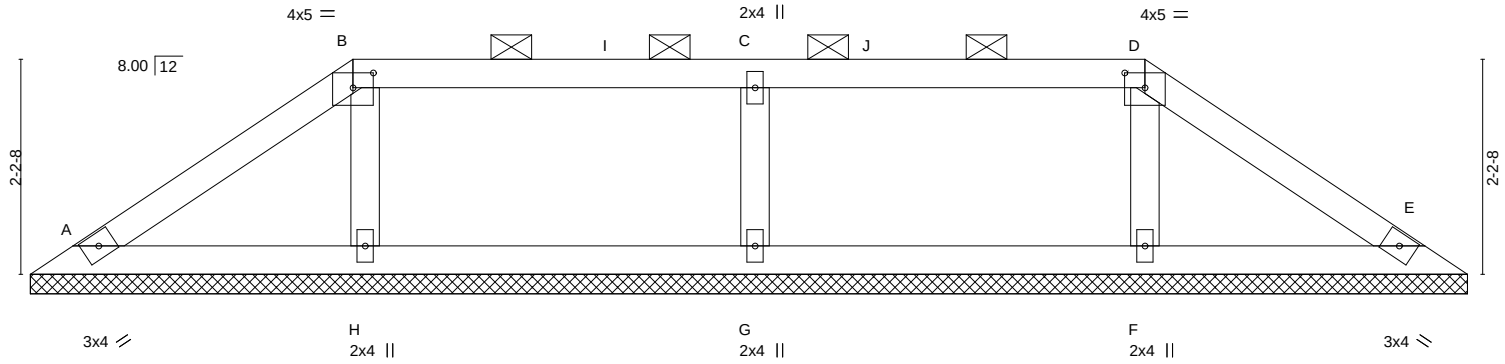
Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975958
242042	81	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:01 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-BVj2lG_7frHqvngfctfGx5tAPXopVHUPdqktn9yf27C

3-3-11 | 11-5-3 | 14-8-15
3-3-11 | 8-1-8 | 3-3-11

Scale = 1:23.6



14-8-15
14-8-15

Plate Offsets (X,Y)-- [B:0-2-8,0-1-13], [D:0-2-8,0-1-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 52 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 14-8-15.
(lb) - Max Horz A=-47(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) A, E, F, G, H
Max Grav All reactions 250 lb or less at joint(s) A, E except F=337(LC 31), G=685(LC 31), H=339(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS D-F=-261/88, C-G=-603/129, B-H=-263/96

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) 0-5-12 to 3-3-11, Exterior(2R) 3-3-11 to 11-5-3, Exterior(2E) 11-5-3 to 14-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) 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) A, E, F, G, 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.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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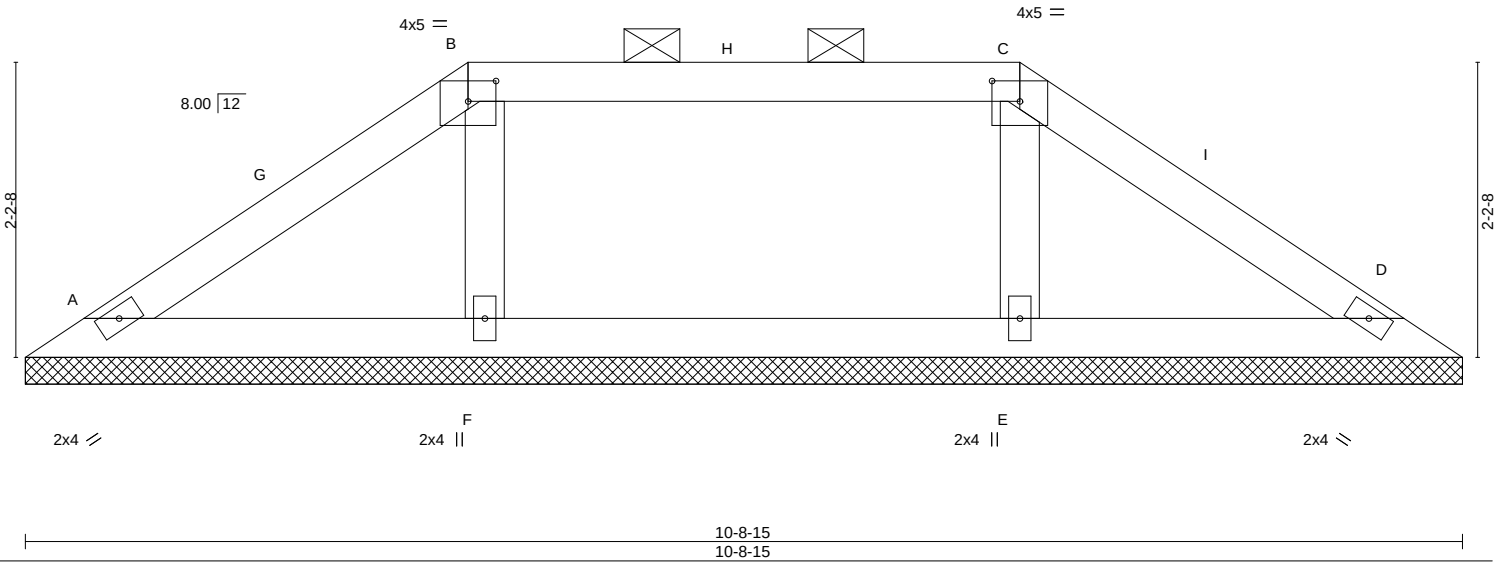
Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975959
242042	82	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:02 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVI_-giHQyc?lQ9PhXwEAbBVTJQLJxAPekeayHhRJbyf27B

3-3-11 | 7-5-3 | 10-8-15
3-3-11 | 4-1-8 | 3-3-11

Scale = 1:17.2



10-8-15
10-8-15

Plate Offsets (X,Y)-- [B:0-2-8,0-1-13], [C:0-2-8,0-1-13]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 10-8-15.
(lb) - Max Horz A=-47(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) A, D, E, F
Max Grav All reactions 250 lb or less at joint(s) A, D except E=406(LC 19), F=395(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS C-E=-324/100, B-F=-312/96

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) 0-5-12 to 3-3-11, Exterior(2R) 3-3-11 to 7-5-3, Exterior(2E) 7-5-3 to 10-3-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) 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) A, D, E, 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975960
242042	83	Valley	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:02 2024 Page 1
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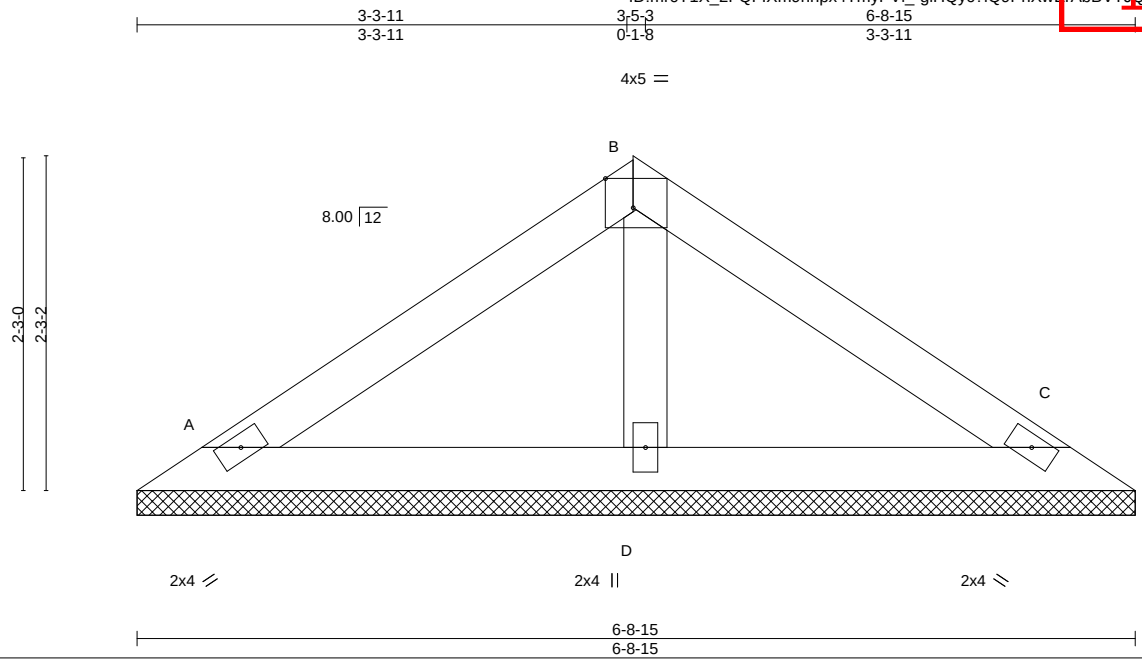

Plate Offsets (X,Y)-- [B:0-2-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) A=6-8-15, C=6-8-15, D=6-8-15
Max Horz A=-48(LC 8)
Max Uplift A=-28(LC 12), C=-35(LC 13)
Max Grav A=197(LC 18), C=192(LC 19), D=238(LC 19)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) 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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975961
242042	84	Jack-Open	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:16:02 2024 Page 1
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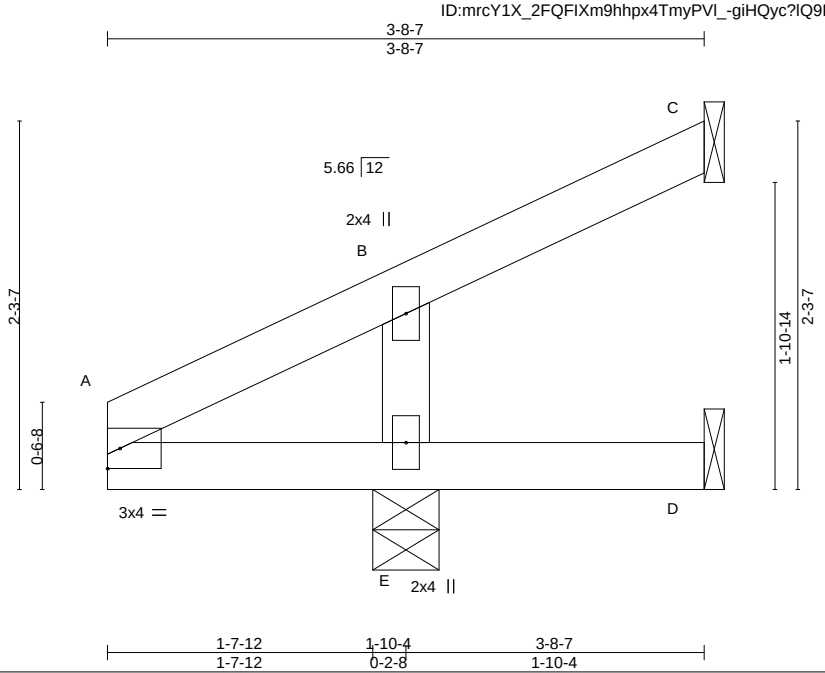

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.00	D-E	>999	240	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.22	Vert(CT)	0.00	D-E	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.03	C	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 13 lb	FT = 20%
BCDL	10.0											

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 3-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) C=Mechanical, D=Mechanical, E=0-4-15
Max Horz E=67(LC 12)
Max Uplift C=-36(LC 12), D=-37(LC 18), E=-15(LC 12)
Max Grav C=29(LC 18), D=8(LC 8), E=460(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-E=-307/158

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(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) 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) C, D, E.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875952
242042	85	Piggyback	3	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:03 2024 Page 1
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6-0-0
6-0-0
11-11-15
6-0-0

Scale = 1:24.8

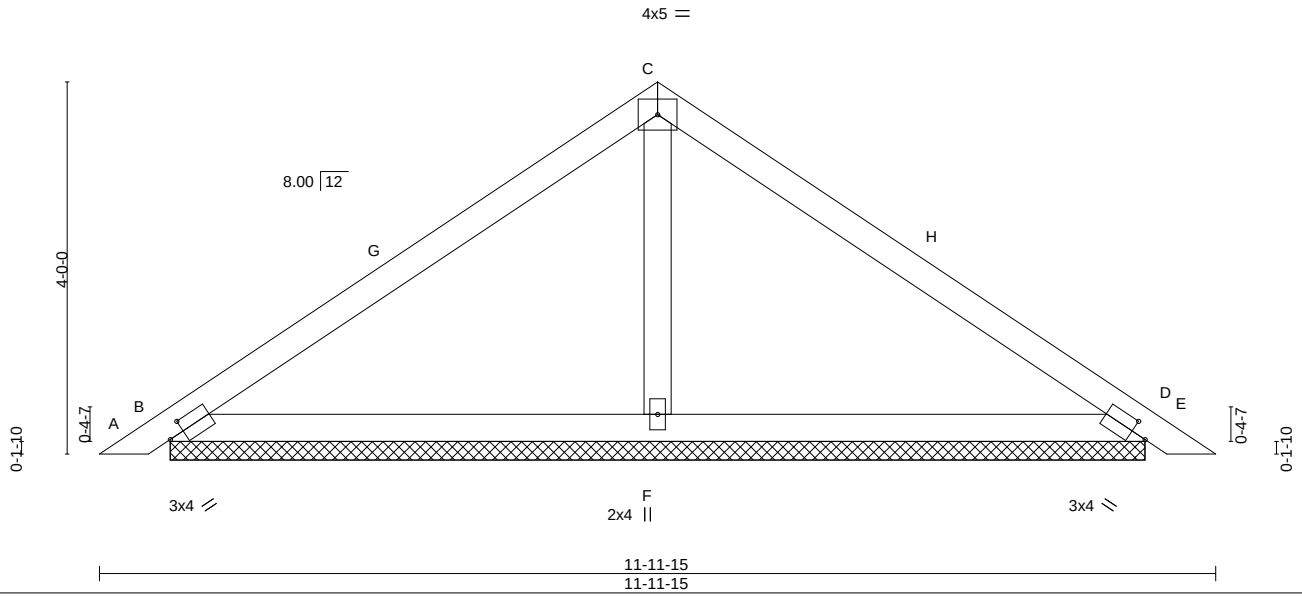

Plate Offsets (X,Y)-- [B:0-2-0,0-1-8], [D:0-2-0,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.01	E	n/r	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.00	E	n/r	90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	D	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) B=10-5-11, D=10-5-11, F=10-5-11
Max Horz B=-95(LC 10)
Max Uplift B=-50(LC 12), D=-62(LC 13), F=-15(LC 12)
Max Grav B=393(LC 19), D=393(LC 20), F=505(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS C-F=-332/102

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) 0-3-2 to 3-3-2, Exterior(2R) 3-3-2 to 8-8-13, Exterior(2E) 8-8-13 to 11-8-13 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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975963
242042	86	Piggyback	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:03 2024 Page 1
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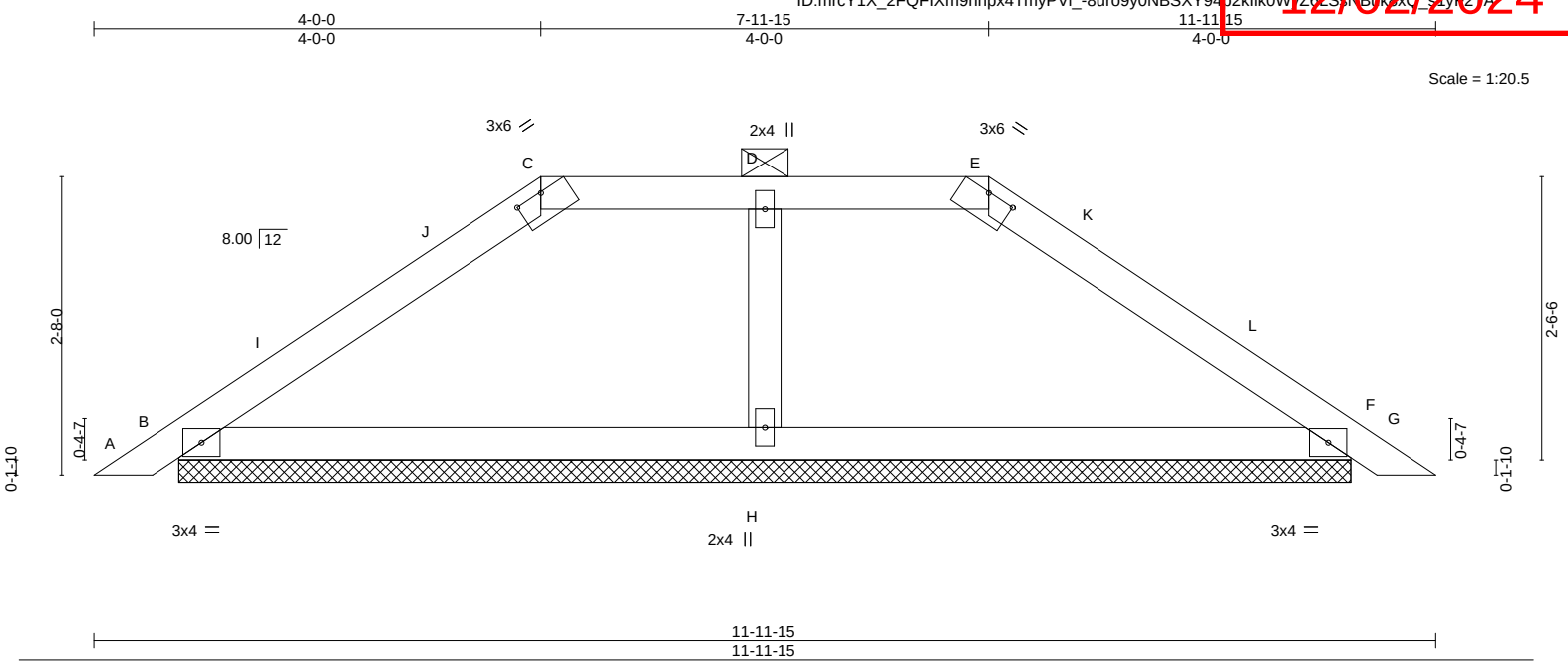

Plate Offsets (X,Y)-- [C:0-3-0,0-0-2], [E:0-3-0,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	G	n/r	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.00	G	n/r	90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 39 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) B=10-5-11, F=10-5-11, H=10-5-11
Max Horz B=-63(LC 10)
Max Uplift B=-78(LC 12), F=-80(LC 13)
Max Grav B=545(LC 33), F=545(LC 33), H=441(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-550/151, C-D=-356/160, D-E=-356/160, E-F=-550/151
BOT CHORD B-H=-49/356, F-H=-49/356
WEBS D-H=-312/70

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) 0-3-2 to 3-3-2, Exterior(2R) 3-3-2 to 8-8-13, Exterior(2E) 8-8-13 to 11-8-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975954
242042	87	Piggyback	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:40:04 2024 Page 1
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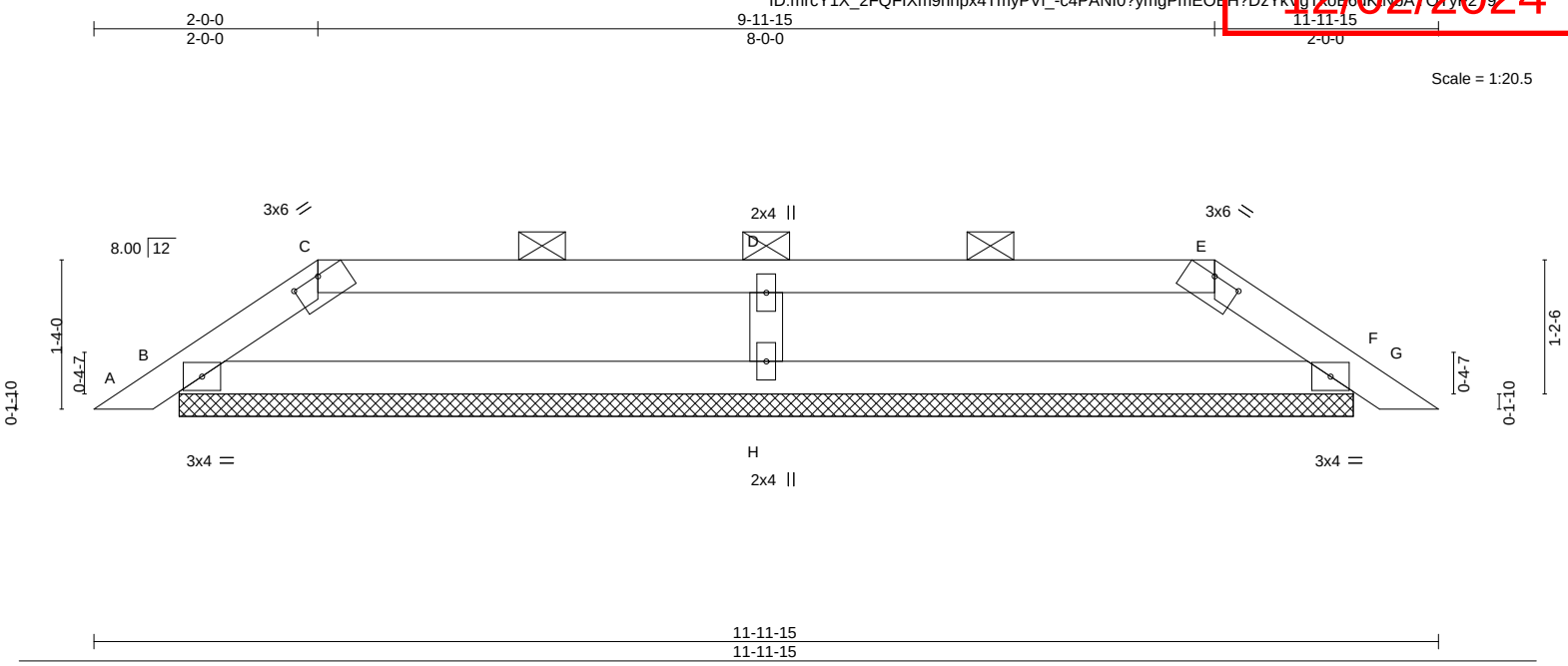

Plate Offsets (X,Y)-- [C:0-3-0,0-0-2], [E:0-3-0,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.00	G	n/r	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.00	G	n/r	90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) B=10-5-11, F=10-5-11, H=10-5-11
Max Horz B=-30(LC 10)
Max Uplift B=-58(LC 12), F=-58(LC 13), H=-57(LC 9)
Max Grav B=319(LC 33), F=319(LC 33), H=727(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-444/117, C-D=-369/106, D-E=-369/106, E-F=-444/117
BOT CHORD B-H=-57/369, F-H=-57/369
WEBS D-H=-603/156

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) 0-3-2 to 2-0-0, Exterior(2R) 2-0-0 to 9-11-15, Exterior(2E) 9-11-15 to 11-8-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F, H.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	88	Roof Special	1	1	I69975965 Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/02/2024

Heartland Truss, Inc., Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:49:04 2024 Page 1
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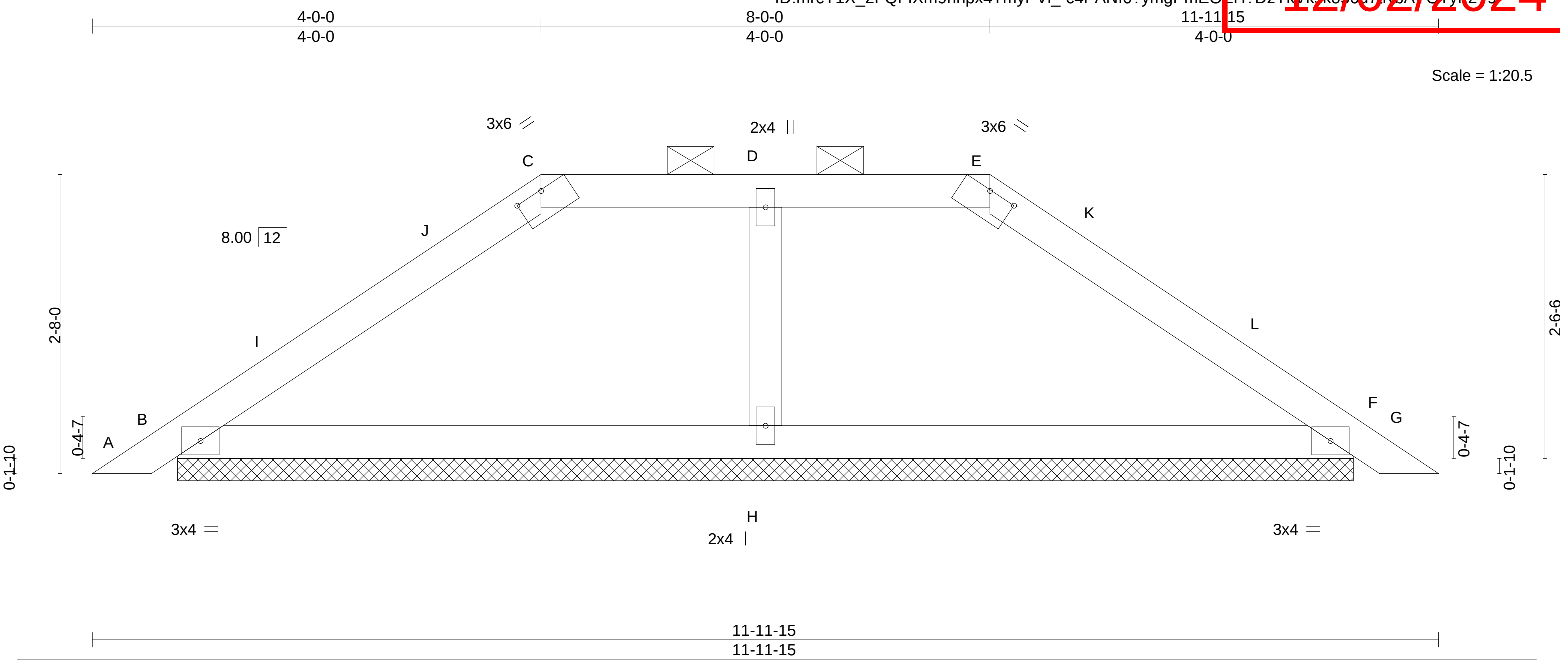

Plate Offsets (X,Y)-- [C:0-3-0,0-0-2], [E:0-3-0,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.01	G	n/r	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.00	G	n/r	90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01	F	n/a	n/a		
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S								
BCDL	10.0										Weight: 39 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, except 2-0-0 oc purlins (6-0-0 max.): C-E.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) B=10-5-11, F=10-5-11, H=10-5-11
Max Horz B=-63(LC 10)
Max Uplift B=-78(LC 12), F=-80(LC 13)
Max Grav B=545(LC 33), F=545(LC 33), H=441(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-550/151, C-D=-356/160, D-E=-356/160, E-F=-550/151
BOT CHORD B-H=-49/356, F-H=-49/356
WEBS D-H=-312/70

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) 0-3-2 to 3-3-2, Exterior(2R) 3-3-2 to 8-8-13, Exterior(2E) 8-8-13 to 11-8-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975956
242042	89	Roof Special	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:05 2024 Page 1
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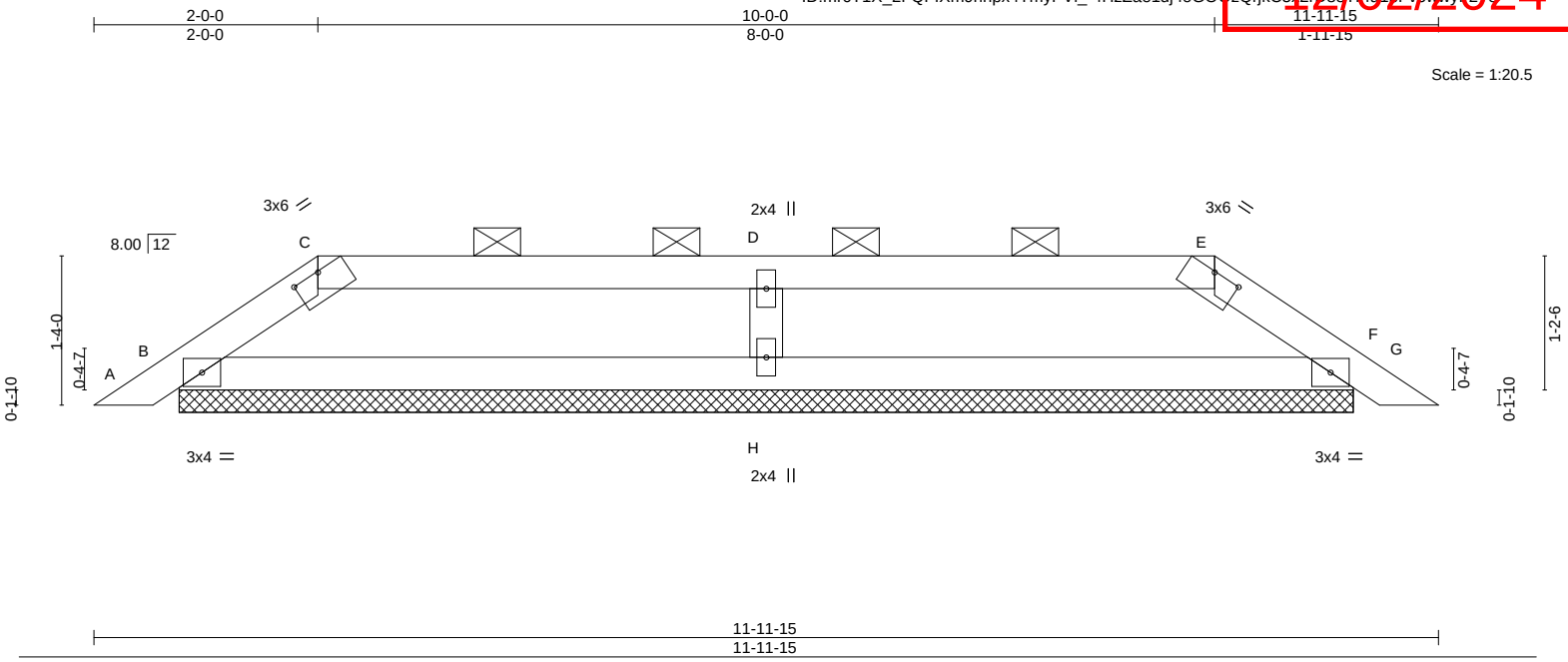

Plate Offsets (X,Y)-- [C:0-3-0,0-0-2], [E:0-3-0,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.00	G	n/r	120	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.00	G	n/r	90		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	F	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (size) B=10-5-11, F=10-5-11, H=10-5-11
Max Horz B=-30(LC 10)
Max Uplift B=-58(LC 12), F=-58(LC 13), H=-57(LC 9)
Max Grav B=319(LC 33), F=319(LC 33), H=727(LC 32)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD B-C=-444/117, C-D=-369/106, D-E=-369/106, E-F=-444/117
BOT CHORD B-H=-57/369, F-H=-57/369
WEBS D-H=-603/156

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) 0-3-2 to 2-0-0, Exterior(2R) 2-0-0 to 10-0-0, Exterior(2E) 10-0-0 to 11-8-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 25.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F, H.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975957
242042	LAY01	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:05 2024 Page 1
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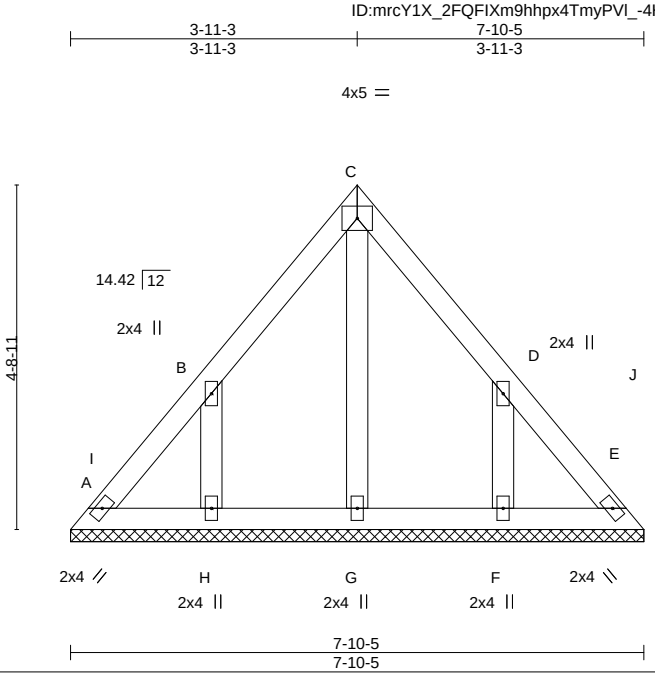

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 40 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 7-10-5.
(lb) - Max Horz A=-114(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) A, E except H=-163(LC 12), F=-162(LC 13)
Max Grav All reactions 250 lb or less at joint(s) A, E, G except H=318(LC 18), F=318(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-H=-277/187, D-F=-277/187

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) 0-3-12 to 3-3-12, Exterior(2R) 3-3-12 to 4-6-10, Exterior(2E) 4-6-10 to 7-6-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) TCLL: ASCE 7-16; Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, E except (jt=lb) H=163, F=162.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975958
242042	LAY02	Lay-In Gable	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:40:06 2024 Page 1
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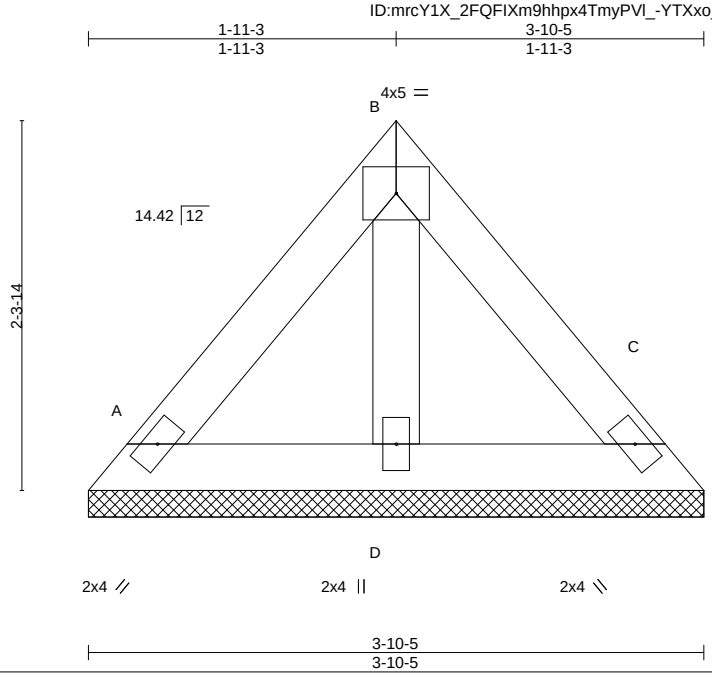

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	C	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 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 3-10-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) A=3-10-5, C=3-10-5, D=3-10-5
Max Horz A=-51(LC 8)
Max Uplift A=-24(LC 13), C=-19(LC 12)
Max Grav A=123(LC 18), C=123(LC 19), D=105(LC 19)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=20ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) 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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975959
242042	LAY03	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:06 2024 Page 1
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8-0-11 22-5-0
8-0-11 14-4-5

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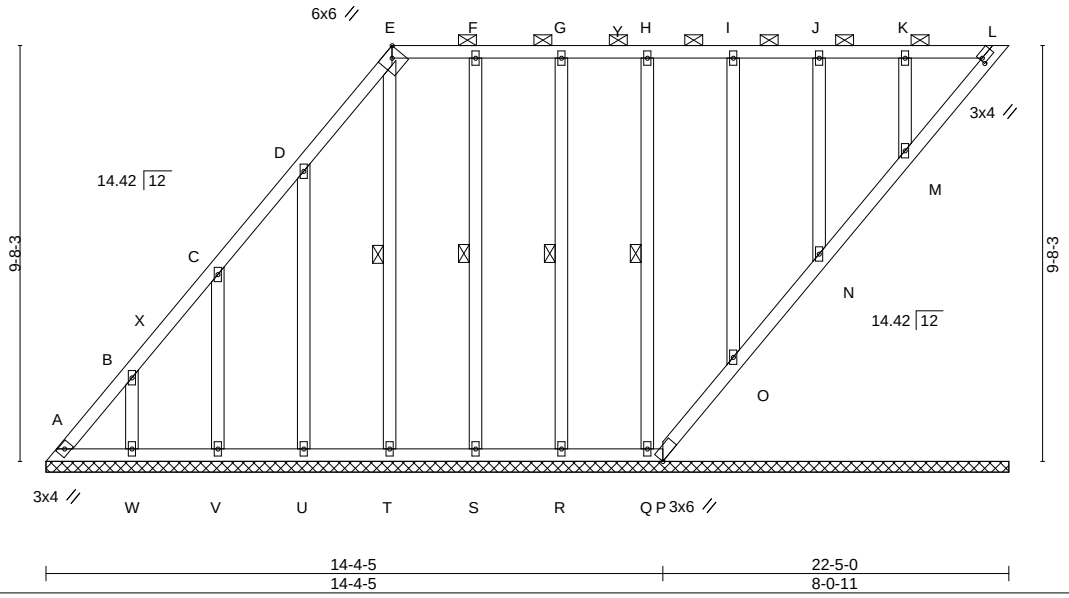

14-4-5 22-5-0
14-4-5 8-0-11

Plate Offsets (X,Y)-- [E:0-2-11,Edge], [L:0-0-11,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	-0.00	L	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S								
BCDL	10.0										Weight: 173 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, except 2-0-0 oc purlins (6-0-0 max.): E-L.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt E-T, F-S, G-R, H-Q

REACTIONS. All bearings 22-5-0.
(lb) - Max Horz A=365(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) A, L, P, S, R, Q, O, N, M except W=-146(LC 12), V=-140(LC 12), U=-156(LC 12)
Max Grav All reactions 250 lb or less at joint(s) L, P, T except A=315(LC 12), W=342(LC 29), V=326(LC 29), U=358(LC 29), S=346(LC 28), R=334(LC 28), Q=323(LC 28), O=336(LC 28), N=318(LC 28), M=388(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-424/326, B-C=-283/214
WEBS B-W=-292/163, C-V=-288/165, D-U=-318/180, F-S=-306/59, G-R=-293/55, H-Q=-290/53, I-O=-295/54, J-N=-282/52, K-M=-333/60

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 5-0-11, Exterior(2R) 5-0-11 to 11-0-11, Interior(1) 11-0-11 to 19-1-4, Exterior(2E) 19-1-4 to 22-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, L, P, S, R, Q, O , N, M except (jt=lb) W=146, V=140, U=156.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) L, O, N, M.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975070
242042	LAY04	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:07 2024 Page 1
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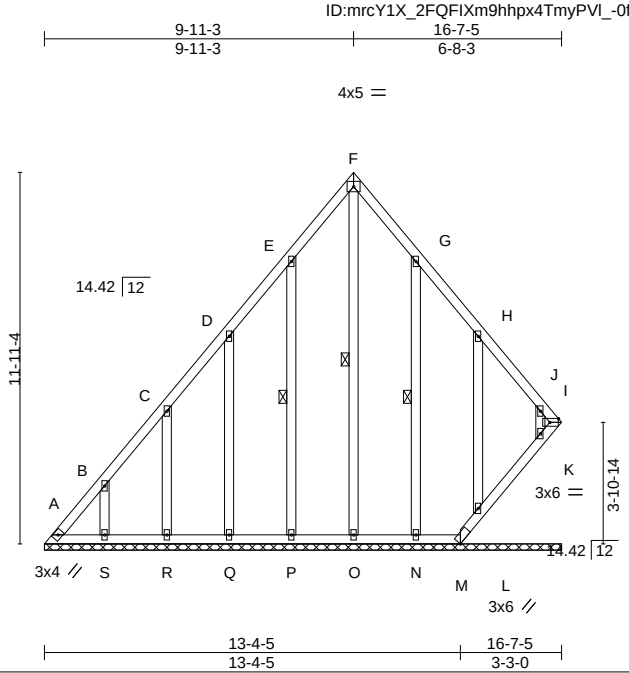

Plate Offsets (X,Y)-- [J:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.01	J	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 138 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: J-K.
WEBS 1 Row at midpt F-O, E-P, G-N

REACTIONS. All bearings 16-7-5.
(lb) - Max Horz A=287(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except A=-156(LC 10), J=-258(LC 11), M=-227(LC 13), P=-140(LC 12), Q=-146(LC 12), R=-142(LC 12), S=-143(LC 12), N=-142(LC 13), L=-133(LC 13), K=-121(LC 13)
Max Grav All reactions 250 lb or less at joint(s) M, O, Q, R, S, L, K except A=356(LC 12), J=444(LC 13), P=329(LC 18), N=325(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-475/329, B-C=-338/214, I-J=-294/195
BOT CHORD L-M=-175/299, K-L=-184/286, J-K=-183/273
WEBS E-P=-289/164, G-N=-288/162

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 6-11-3, Exterior(2R) 6-11-3 to 12-11-3, Interior(1) 12-11-3 to 13-5-1, Exterior(2E) 13-5-1 to 16-5-1 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint A, 258 lb uplift at joint J, 227 lb uplift at joint M, 140 lb uplift at joint P, 146 lb uplift at joint Q, 142 lb uplift at joint R, 143 lb uplift at joint S, 142 lb uplift at joint N, 133 lb uplift at joint L and 121 lb uplift at joint K.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) J, L, K.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59975071
242042	LAY05	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:08 2024 Page 1
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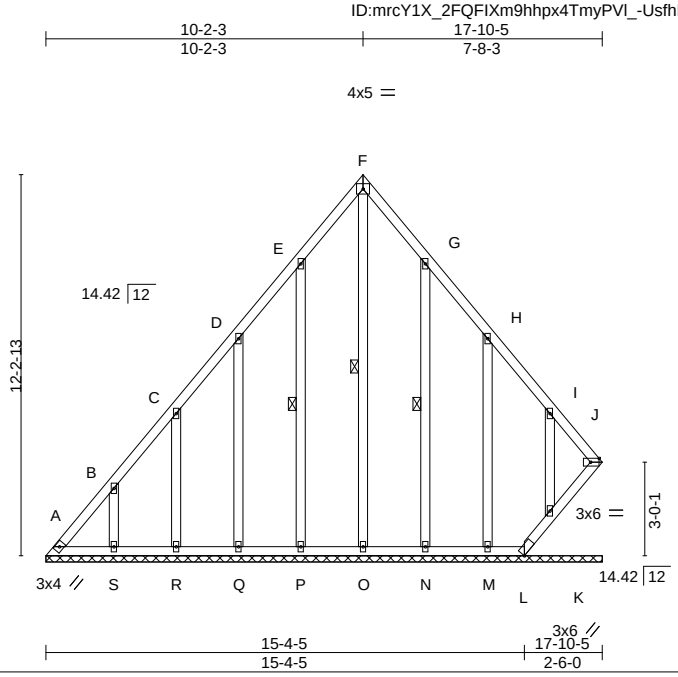

Plate Offsets (X,Y)-- [J:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	J	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 149 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt F-O, E-P, G-N

REACTIONS. All bearings 17-10-5.
(lb) - Max Horz A=299(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except A=-156(LC 10), J=-226(LC 11), L=-262(LC 13), P=-139(LC 12), Q=-147(LC 12), R=-139(LC 12), S=-155(LC 12), N=-136(LC 13), M=-155(LC 13), K=-126(LC 13)
Max Grav All reactions 250 lb or less at joint(s) L, O, Q, R, S, M, K except A=353(LC 12), J=474(LC 13), P=328(LC 18), N=329(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-475/320, B-C=-325/207, I-J=-294/191
BOT CHORD K-L=-221/350, J-K=-227/342
WEBS E-P=-289/163, G-N=-288/161

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 7-2-3, Exterior(2R) 7-2-3 to 13-2-3, Interior(1) 13-2-3 to 14-8-1, Exterior(2E) 14-8-1 to 17-8-1 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint A, 226 lb uplift at joint J, 262 lb uplift at joint L, 139 lb uplift at joint P, 147 lb uplift at joint Q, 139 lb uplift at joint R, 155 lb uplift at joint S, 136 lb uplift at joint N, 155 lb uplift at joint M and 126 lb uplift at joint K.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) J, K.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875972
242042	LAY06	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:08 2024 Page 1
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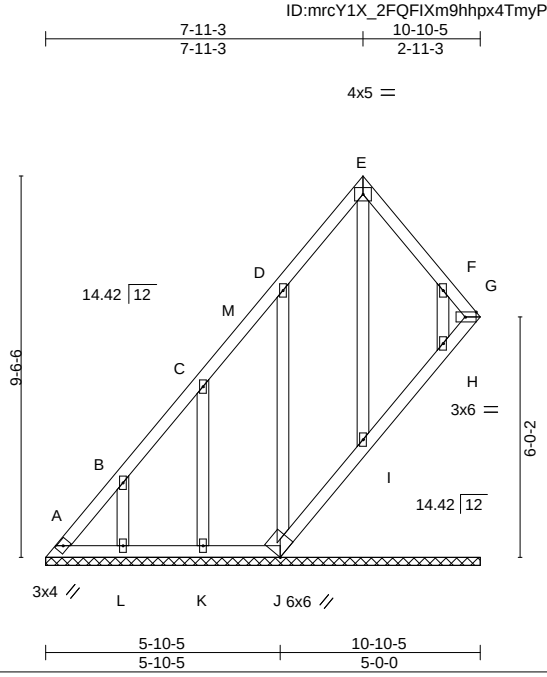

Plate Offsets (X,Y)-- [G:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 10-10-5.
(lb) - Max Horz A=284(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) except A=-103(LC 10), G=-104(LC 9), J=-129(LC 12), K=-143(LC 12), L=-143(LC 12), H=-127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) G, J, I, K, L except A=278(LC 12), H=284(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-374/288
WEBS F-H=-251/145

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 4-11-3, Exterior(2R) 4-11-3 to 7-11-3 , Exterior(2E) 7-11-3 to 10-8-1 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint A, 104 lb uplift at joint G, 129 lb uplift at joint J, 143 lb uplift at joint K, 143 lb uplift at joint L and 127 lb uplift at joint H.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) G, I, H.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69875073
242042	LAY07	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:16:09 2024 Page 1
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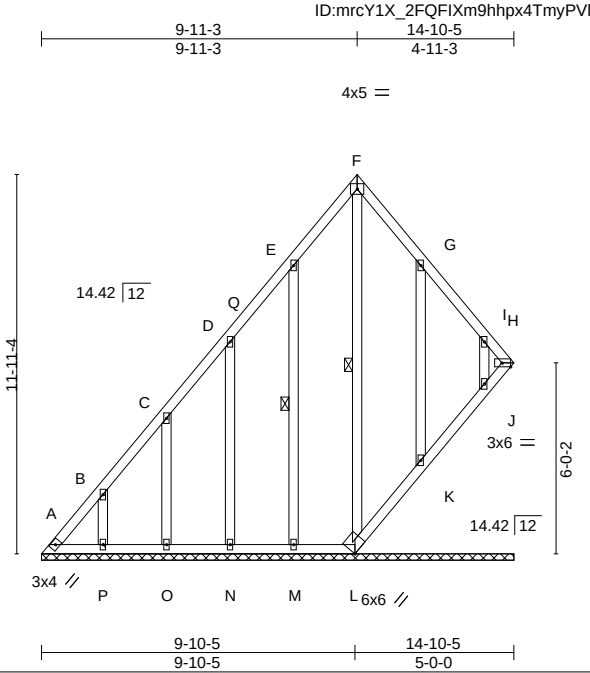

Plate Offsets (X,Y)-- [I:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	I	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 121 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt F-L, E-M

REACTIONS. All bearings 14-10-5.
(lb) - Max Horz A=324(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) L except A=-149(LC 10), I=-172(LC 11), M=-141(LC 12), N=-146(LC 12), O=-142(LC 12), P=-143(LC 12), K=-141(LC 13), J=-125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) L, N, O, P, J except A=366(LC 12), I=273(LC 13), M=325(LC 18), K=336(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-489/355, B-C=-351/239
WEBS E-M=-284/165, G-K=-291/170

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 6-11-3, Exterior(2R) 6-11-3 to 11-11-3, Exterior(2E) 11-11-3 to 14-8-1 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) L except (jt=lb) A=149, I=172, M=141, N=146, O=142, P=143, K=141, J=125.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) I, K, J.
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.

November 27,2024

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I69975974
242042	LAY08	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:46:09 2024 Page 1
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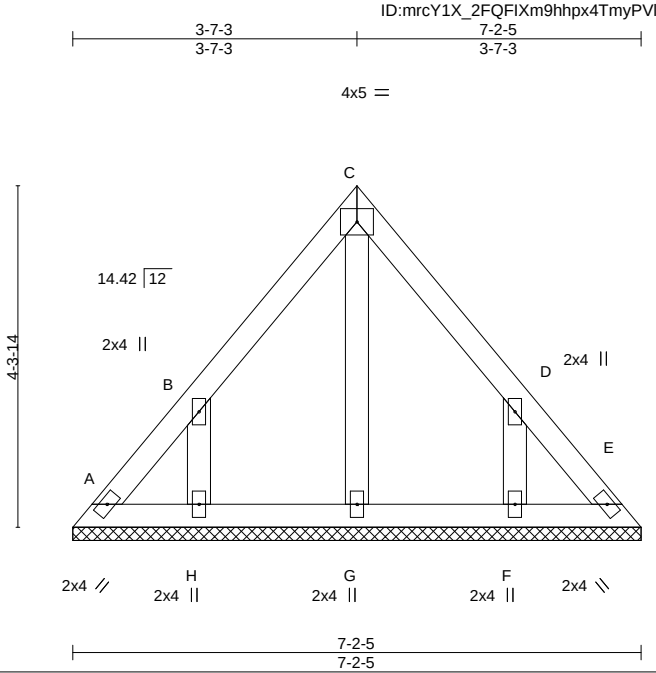

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	E	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 36 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 7-2-5.
(lb) - Max Horz A=-104(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) A, E except H=-153(LC 12), F=-152(LC 13)
Max Grav All reactions 250 lb or less at joint(s) A, E, G except H=294(LC 18), F=294(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS B-H=-257/174, D-F=-257/174

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, E except (jt=lb) H=153, F=152.
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.

November 27,2024

MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875075
242042	LAY09	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:10 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVI_-REmSdL5mXcQZU9sCeGKNo?h59dMWH3mXqsb7yh2T3

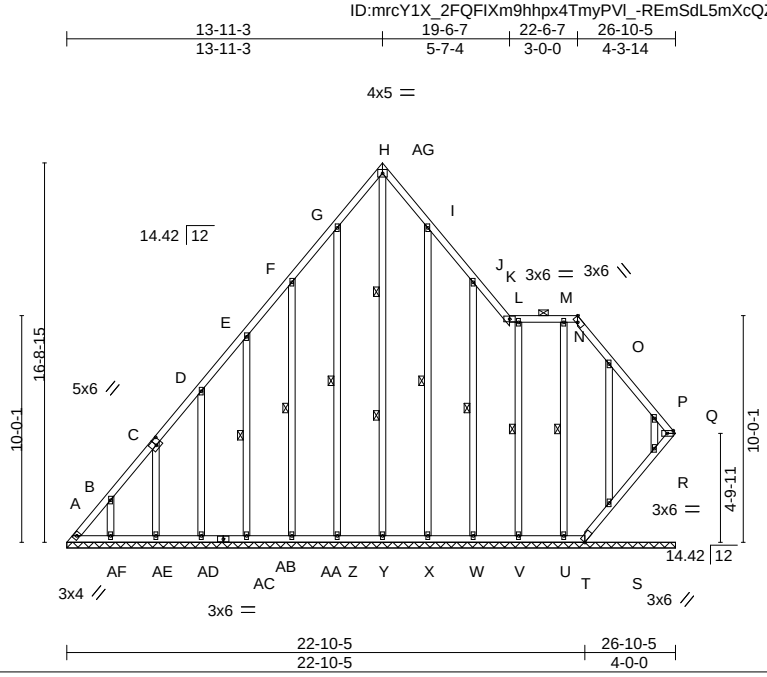

Plate Offsets (X,Y)-- [C:0-3-0,0-3-0], [N:0-2-11,Edge], [Q:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.02	Q	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 274 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): K-N.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: Q-R.
WEBS 1 Row at midpt G-Z, F-AA, E-AB, I-X, J-W, L-V, M-U
2 Rows at 1/3 pts H-Y

REACTIONS. All bearings 26-10-5.
(lb) - Max Horz A=410(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) Y, V except Q=-309(LC 11), A=-268(LC 10), T=-314(LC 13), Z=-129(LC 12), AA=-151(LC 12), AB=-140(LC 12), AD=-148(LC 12), AE=-140(LC 12), AF=-135(LC 12), X=-127(LC 13), W=-139(LC 13), U=-132(LC 13), S=-153(LC 13), R=-109(LC 13)
Max Grav All reactions 250 lb or less at joint(s) T, AA, AB, AD, AE, AF except Q=606(LC 13), A=524(LC 12), Y=355(LC 13), Z=326(LC 18), X=347(LC 34), W=340(LC 34), V=281(LC 33), U=272(LC 33), S=329(LC 46), R=288(LC 34)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD A-B=-694/433, B-C=-563/353, C-D=-421/298, D-E=-270/237, G-H=-237/269, O-P=-287/183, P-Q=-394/258
BOT CHORD A-AF=-156/253, AE-AF=-156/253, AD-AE=-160/255, AB-AD=-160/255, AA-AB=-160/255, Z-AA=-160/255, Y-Z=-160/255, X-Y=-160/255, W-X=-160/255, V-W=-160/255, U-V=-160/255, T-U=-160/255, S-T=-261/419, R-S=-266/408, Q-R=-262/398
WEBS H-Y=-331/235, G-Z=-286/153, I-X=-307/151, J-W=-301/162, O-S=-298/191, P-R=-251/130

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) 0-3-12 to 3-3-12, Interior(1) 3-3-12 to 10-11-3, Exterior(2R) 10-11-3 to 16-11-3, Interior(1) 16-11-3 to 19-6-7, Exterior(2R) 19-6-7 to 23-11-3, Exterior(2E) 23-11-3 to 26-8-1 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) Y, V except (jt=lb) Q=309, A=268, T=314, Z=129, AA=151, AB=140, AD=148, AE=140, AF=135, X=127, W=139, U=132, S=153, R=109.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) Q, S, R.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and reference standard ANSI/TPI 1.

November 27,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF
242042	LAY09	GABLE	1	1	I59875075

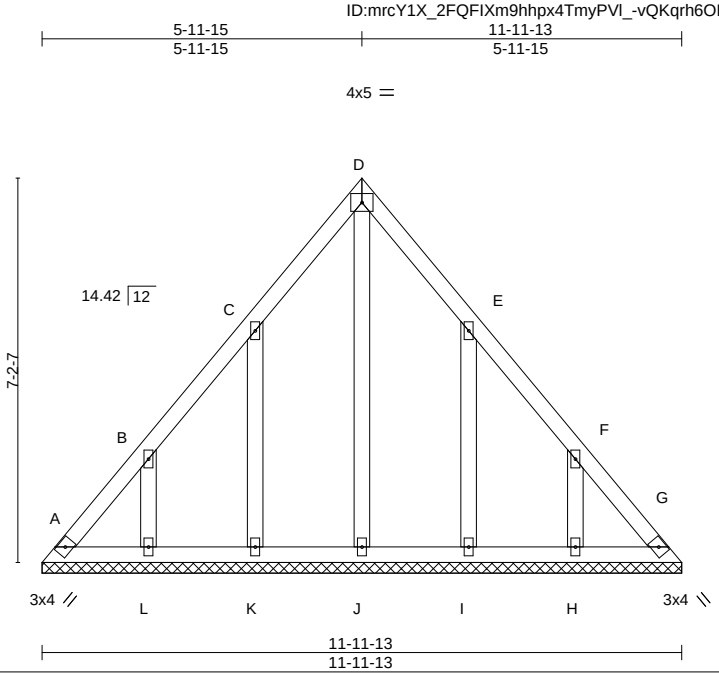
Job Reference (optional)

NOTES-

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

Job	Truss	Truss Type	Qty	Ply	GENE BOSLEY RES. / ROOF	I59875076
242042	LAY10	GABLE	1	1	Job Reference (optional)	

Heartland Truss, Inc, Plattsburg, MO - 64477, 8.730 s Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 07:10:11 2024 Page 1
ID:mrcY1X_2FQFIXm9hhpx4TmyPVl_-vQKqrh6OlwYQ6JQaC_rcKCHzBZFQF06y_BM?82yf272



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
(Roof Snow=25.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	G	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. All bearings 11-11-13.
(lb) - Max Horz A=179(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) A, G except K=-147(LC 12), L=-146(LC 12), I=-146(LC 13), H=-146(LC 13)
Max Grav All reactions 250 lb or less at joint(s) A, G, J, L, H except K=332(LC 18), I=332(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS C-K=-293/173, E-I=-293/172

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) 0-3-12 to 3-3-12, Exterior(2R) 3-3-12 to 8-8-2, Exterior(2E) 8-8-2 to 11-8-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, G except (jt=lb) K=147, L=146, I=146, H=146.
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.

November 27,2024

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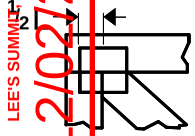
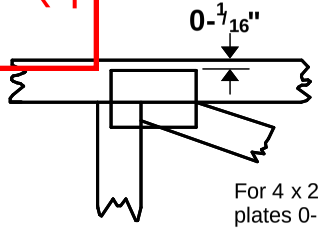
Symbols

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.

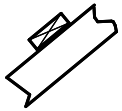
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

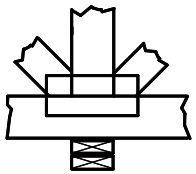
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

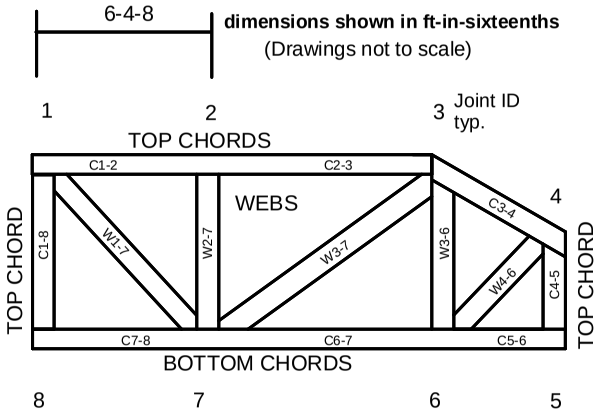


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

MiTek®

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.