MiTek®

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

RE: P240859-01 - Roof - HM Lot 155

Site Information:

Project Customer: Clayton Properties Project Name: Woodbridge - Modern Prairie 3car

Lot/Block: 155 Subdivision: Highland Meadows

Model:

Address: 2721 SW 12th St

City: Lee's Summit State: MO

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6

Wind Code: ASCE 7-16 Wind Speed: 115 mph Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Roof Load: 45.0 psf Floor Load: N/A psf

Mean Roof Height (feet): 35 Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I67527067	A1	8/15/24	35	I67527101	J14	8/15/24
2	I67527068	A2	8/15/24	36	I67527102	J15	8/15/24
3	I67527069	A3	8/15/24	37	I67527103	LAY01	8/15/24
4	I67527070	A4	8/15/24	38	I67527104	LAY02	8/15/24
5	I67527071	A5	8/15/24	39	I67527105	LAY03	8/15/24
6	I67527072	A6	8/15/24	40	I67527106	LAY04	8/15/24
7	I67527073	A7	8/15/24	41	I67527107	TG1	8/15/24
8	I67527074	A8	8/15/24	42	I67527108	TG2	8/15/24
9	I67527075	A9	8/15/24	43	I67527109	TG3	8/15/24
10	I67527076	A10	8/15/24	44	I67527110	V1	8/15/24
11	I67527077	A11	8/15/24	45	I67527111	V2	8/15/24
12	I67527078	CG1	8/15/24	46	I67527112	V3	8/15/24
13	I67527079	CG2	8/15/24	47	I67527113	V4	8/15/24
14	I67527080	CG4	8/15/24				
15	I67527081	E1	8/15/24				
16	I67527082	H1	8/15/24				
17	I67527083	H2	8/15/24				
18	I67527084	H3	8/15/24				
19	I67527085	H4	8/15/24				
20	I67527086	H5	8/15/24				
21	I67527087	H6	8/15/24				
22	I67527088	J1	8/15/24				
23	I67527089	J2	8/15/24				
24	I67527090	J3	8/15/24				
25	I67527091	J4	8/15/24				
26	I67527092	J5	8/15/24				
27	I67527093	J6	8/15/24				
28	I67527094	J7	8/15/24				
29	I67527095	J8	8/15/24				
30	I67527096	J9	8/15/24				
31	I67527097	J10	8/15/24				
32	I67527098	J11	8/15/24				
33	I67527099	J12	8/15/24				
34	I67527100	J13	8/15/24				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott

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

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.

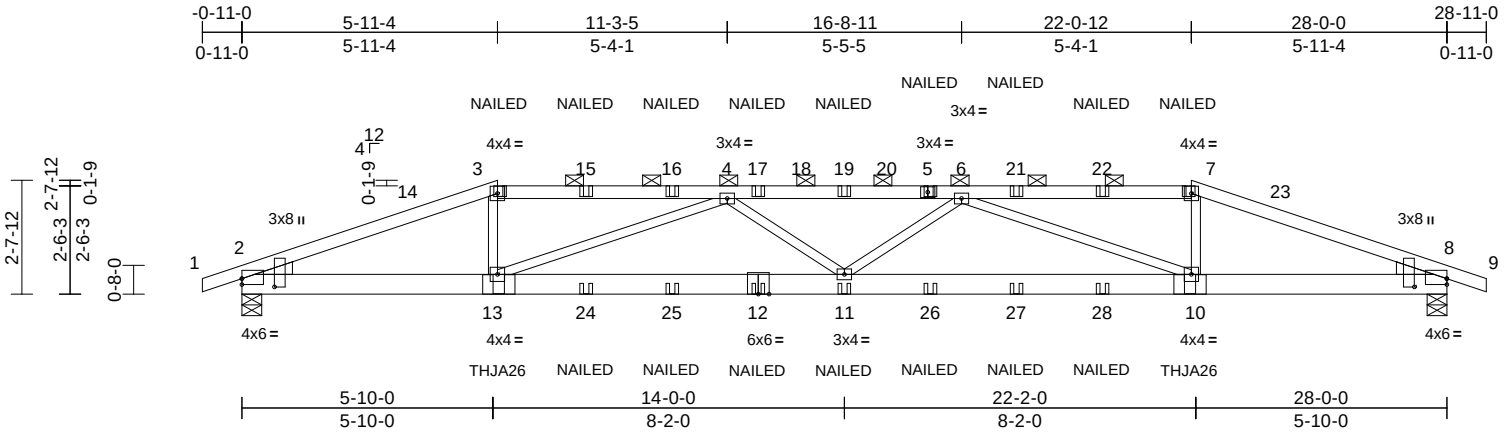
August 15,2024

Sevier, Scott

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A1	Hip Girder	1	2	I67527067

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:50 Page: 1
ID:58PIRvWyxFoJ8fZwELHY5xzZlru-RfC?PsB70Hq3NSgPqnL8w3uITXbGKVrCDoi7J4ZJC?T



Scale = 1:53.5

Plate Offsets (X, Y): [2:Edge,0-1-10], [2:0-2-5,0-9-1], [8:Edge,0-1-10], [8:0-2-5,0-9-1]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.30	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.53	11	>620	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 232 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x3 SPF No.2
WEDGE Left: 2x4 SP No.2
Right: 2x4 SP No.2

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

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=42 (LC 33)
Max Uplift 2=-701 (LC 8), 8=-701 (LC 9)
Max Grav 2=2462 (LC 1), 8=2461 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/2, 2-3=-6017/1723, 3-4=-5474/1630, 4-6=-8178/2294, 6-7=-5472/1635, 7-8=-6016/1719, 8-9=0/2
BOT CHORD 2-13=-1522/5545, 11-13=-2325/7974, 10-11=-2323/7971, 8-10=-1528/5544
WEBS 3-13=-317/1625, 7-10=-314/1625, 4-13=-2779/880, 6-10=-2778/879, 6-11=0/551, 4-11=0/550

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: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 22-0-12, Exterior(2E) 22-0-12 to 28-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 701 lb uplift at joint 2 and 701 lb uplift at joint 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 5-11-10 from the left end to connect truss(es) to front face of bottom chord.
12) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 22-0-6 from the left end to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-7=-70, 7-9=-70, 2-8=-20
Concentrated Loads (lb)
Vert: 3=-131 (F), 5=-131 (F), 12=-39 (F), 7=-131 (F), 13=-419 (F), 10=-419 (F), 11=-39 (F), 15=-131 (F), 16=-131 (F), 17=-131 (F), 19=-131 (F), 21=-131 (F), 22=-131 (F), 24=-39 (F), 25=-39 (F), 26=-39 (F), 27=-39 (F), 28=-39 (F)

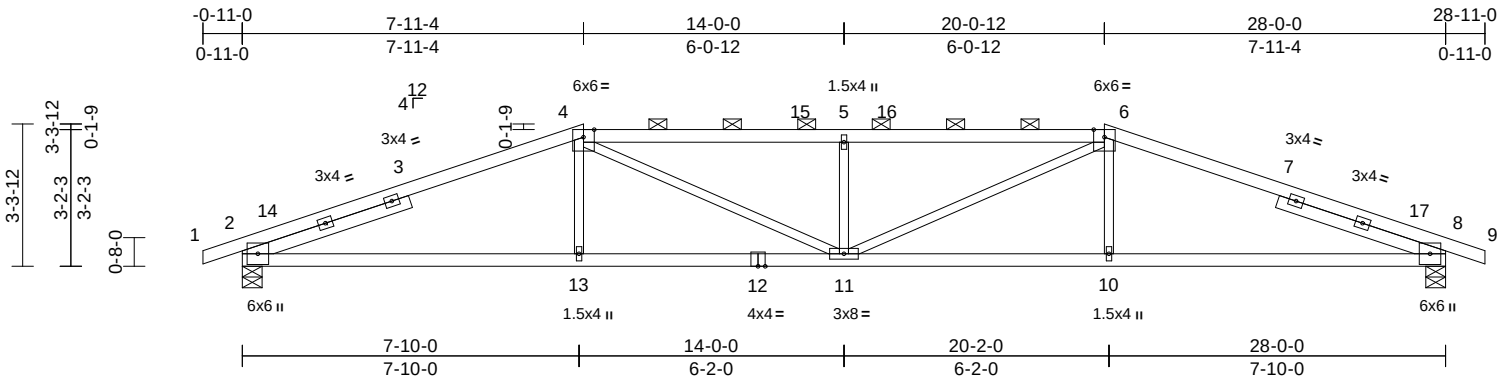
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527068
P240859-01	A2	Hip	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 2024 Page: 1
ID:G_21BsSBLP19Qk5mu5B8rhzZls_-RfC?PsB70Hq3NSgPqnL8w3uITXbGhWrCDoi794z3C?I



Scale = 1:53.6

Plate Offsets (X, Y): [2:0-3-13,0-1-5], [8:0-3-13,0-1-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.20	11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.38	10-11	>893	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-1-2, Right 2x4 SP No.2 -- 4-1-2

BRACING

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

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=54 (LC 12)
Max Uplift 2=-300 (LC 8), 8=-300 (LC 9)
Max Grav 2=1324 (LC 1), 8=1324 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-4/0, 2-4=-2726/707, 4-5=-3137/892, 5-6=-3137/892, 6-8=-2726/707, 8-9=-4/0
BOT CHORD	2-13=-574/2480, 11-13=-577/2474, 10-11=-570/2474, 8-10=-567/2480
WEBS	4-13=0/303, 4-11=-221/905, 5-11=-558/247, 6-11=-221/905, 6-10=0/303

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 20-0-12, Exterior(2R) 20-0-12 to 27-1-10, Interior (1) 27-1-10 to 28-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 300 lb uplift at joint 2 and 300 lb uplift at joint 8.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

August 15,2024

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

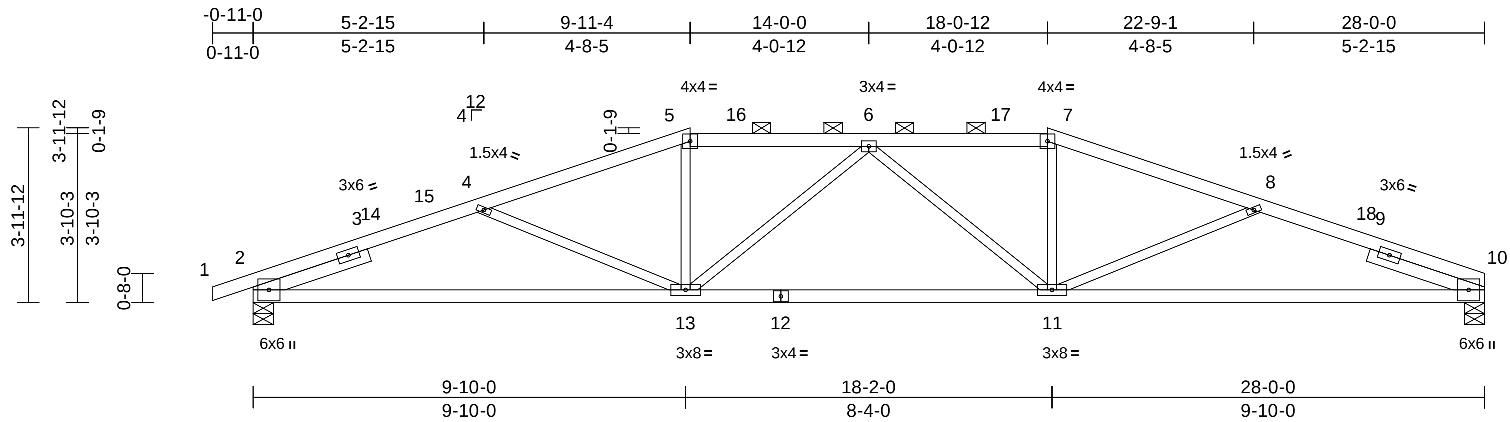
RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A3	Hip	1	1	I67527069 Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 Page: 1

ID:G_21BsSBLP19Qk5mu5B8rhzZls_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:52.4

Plate Offsets (X, Y): [2:0-3-13,0-1-5], [2:Edge,0-0-0], [10:0-3-13,0-1-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.25	10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.53	10-11	>629	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.11	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP 1650F 1.5E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-9-2, Right 2x4 SP No.2 -- 2-9-2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except 2-0-0 oc purlins (3-8-12 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 8-3-8 oc bracing.

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-69 (LC 13)
Max Uplift 2=-290 (LC 8), 10=-247 (LC 9)
Max Grav 2=1325 (LC 1), 10=1259 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2737/845, 4-5=-2444/701, 5-6=-2282/697, 6-7=-2285/689, 7-8=-2448/692, 8-10=-2745/840
BOT CHORD 2-13=-719/2476, 11-13=-619/2487, 10-11=-720/2486
WEBS 5-13=-64/440, 7-11=-71/441, 4-13=-235/231, 8-11=-242/236, 6-13=-414/162, 6-11=-411/156

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 18-0-12, Exterior(2R) 18-0-12 to 25-1-10, Interior (1) 25-1-10 to 28-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SP 1650F 1.5E crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 247 lb uplift at joint 10 and 290 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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

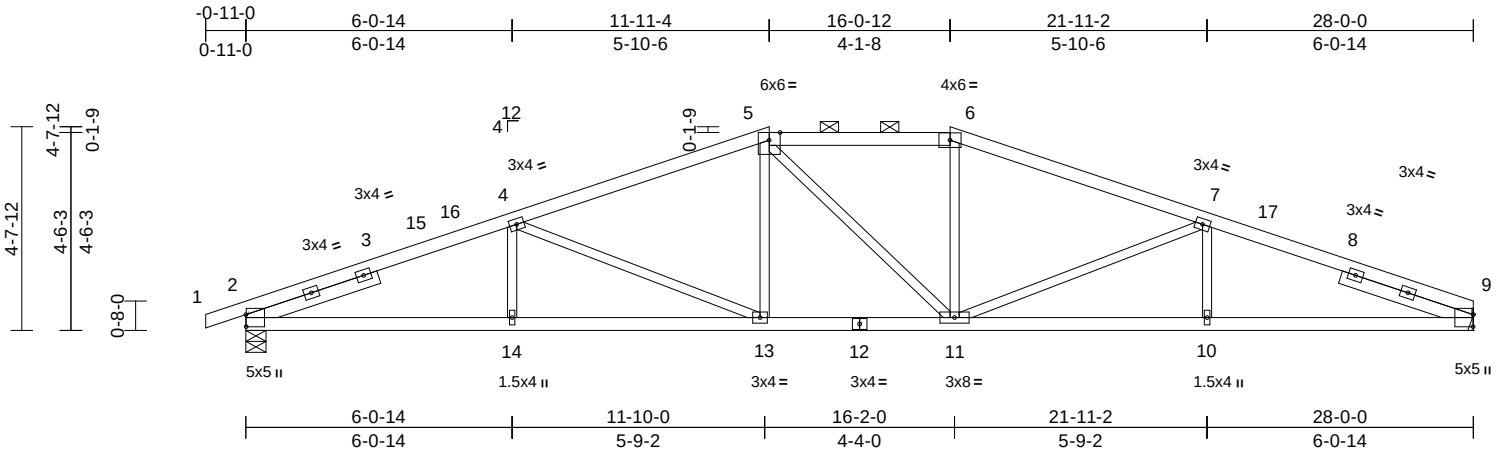
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527070
P240859-01	A4	Hip	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 2024 Page: 1
ID:KbwGmAQxponRBQxOmg8gmGzZls0-RfC?PsB70Hq3NSgPqnL8w3ulTXoGKWrCDof75428C4



Scale = 1:52.6

Plate Offsets (X, Y): [2:0-3-5,0-0-1], [9:0-3-5,0-0-1]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.17	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.32	13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 121 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-2-0, Right 2x4 SP No.2 -- 3-2-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-11-12 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 7-3-3 oc bracing.

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=-82 (LC 13)
Max Uplift 2=-278 (LC 8), 9=-235 (LC 9)
Max Grav 2=1325 (LC 1), 9=1259 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2793/754, 4-5=-2217/650, 5-6=-2045/668, 6-7=-2219/663, 7-9=-2803/768
BOT CHORD 2-14=-635/2539, 13-14=-635/2539, 11-13=-450/2044, 10-11=-653/2548, 9-10=-653/2548
WEBS 4-14=0/241, 5-13=-23/331, 4-13=-573/209, 6-11=-40/331, 7-10=0/243, 7-11=-581/213, 5-11=-195/198

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 11-11-4, Exterior(2E) 11-11-4 to 16-0-12, Exterior(2R) 16-0-12 to 23-1-10, Interior (1) 23-1-10 to 28-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 3x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 235 lb uplift at joint 9 and 278 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

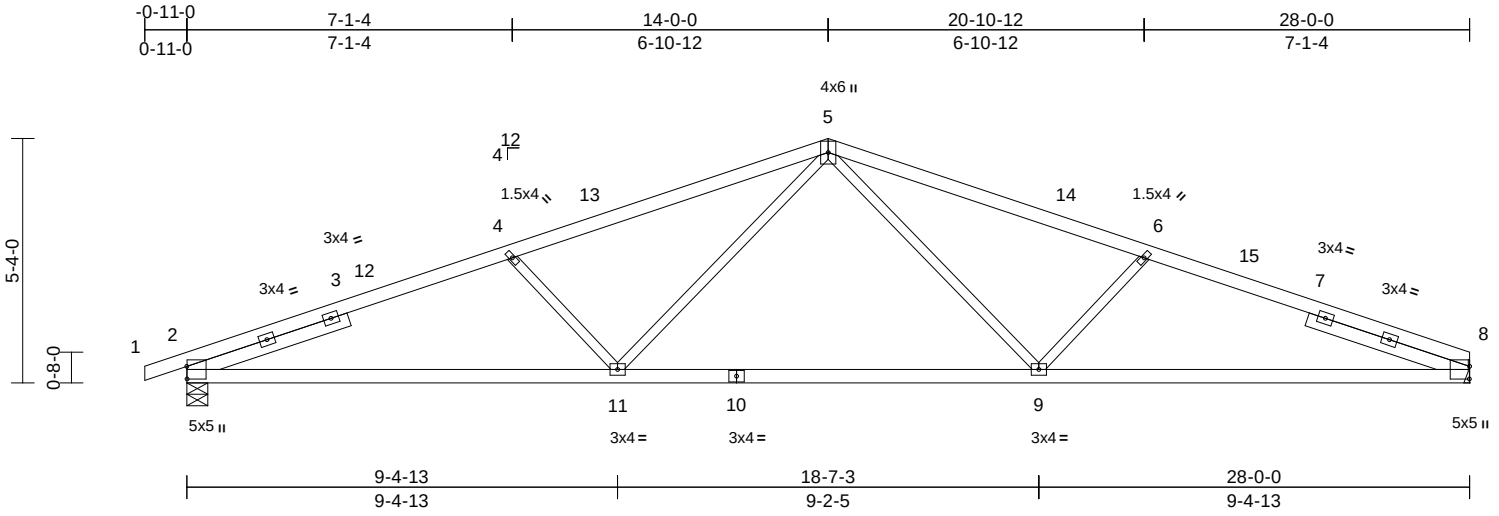
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A5	Common	5	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I67527071
08/29/2024

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 2024 Page: 1
ID:ze7NjTMo_G994f3Qz7ZV3CzZls5-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7342JC?f



Scale = 1:50.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.21	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.45	8-9	>744	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-8-8, Right 2x4 SP No.2 -- 3-8-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8= Mechanical
Max Horiz 2=-96 (LC 13)
Max Uplift 2=-263 (LC 8), 8=-220 (LC 9)
Max Grav 2=1325 (LC 1), 8=1259 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2737/678, 4-5=-2422/603, 5-6=-2427/622, 6-8=-2742/700
BOT CHORD 2-11=-551/2495, 9-11=-316/1773, 8-9=-563/2502
WEBS 5-9=-120/723, 6-9=-456/275, 5-11=-118/717, 4-11=-452/272

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2R) 14-0-0 to 19-0-0, Interior (1) 19-0-0 to 28-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 220 lb uplift at joint 8 and 263 lb uplift at joint 2.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

August 15,2024

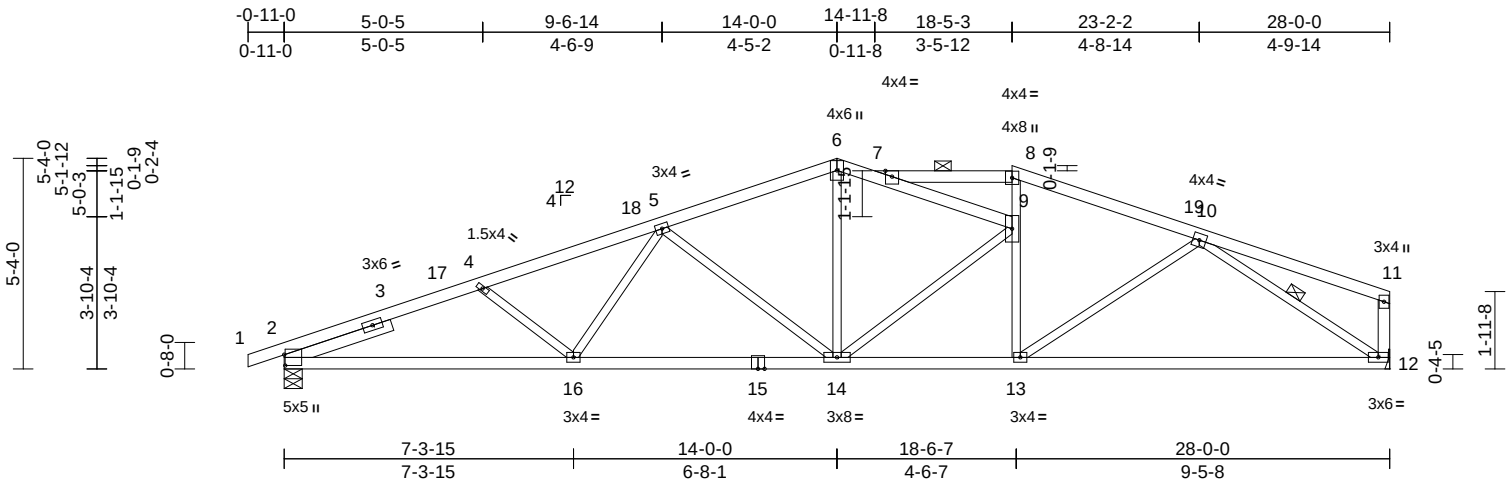
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527072
P240859-01	A6	Roof Special	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 2024 Page: 1
ID:KbwGmAQxponRBQxOmg8gmGzZls0-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCDof75428C4



Scale = 1:58.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.22	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.47	12-13	>705	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 130 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 12-11:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-10-3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-8 max.): 7-9, 7-8.
BOT CHORD Rigid ceiling directly applied or 7-0-10 oc bracing.
WEBS 1 Row at midpt 10-12

REACTIONS (size) 2=0-5-8, 12= Mechanical
Max Horiz 2=99 (LC 16)
Max Uplift 2=-255 (LC 8), 12=-222 (LC 9)
Max Grav 2=1319 (LC 1), 12=1252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2748/680, 4-5=-2539/635, 5-6=-1915/565, 6-7=-1691/524, 7-9=-235/85, 7-8=-1637/500, 8-10=-1809/513, 10-11=-149/68, 11-12=-184/97
BOT CHORD 2-16=-688/2485, 14-16=-612/2232, 13-14=-409/1678, 12-13=-461/1497
WEBS 6-14=-51/387, 9-13=0/176, 8-9=-14/270, 10-13=0/265, 10-12=-1708/531, 4-16=-179/160, 5-16=-6/336, 5-14=-629/207, 9-14=-94/225

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 14-0-0, Exterior(2E) 14-0-0 to 14-11-3, Interior (1) 14-11-3 to 18-5-3, Exterior(2R) 18-5-3 to 23-2-2, Interior (1) 23-2-2 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 255 lb uplift at joint 2 and 222 lb uplift at joint 12.
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.

LOAD CASE(S) Standard

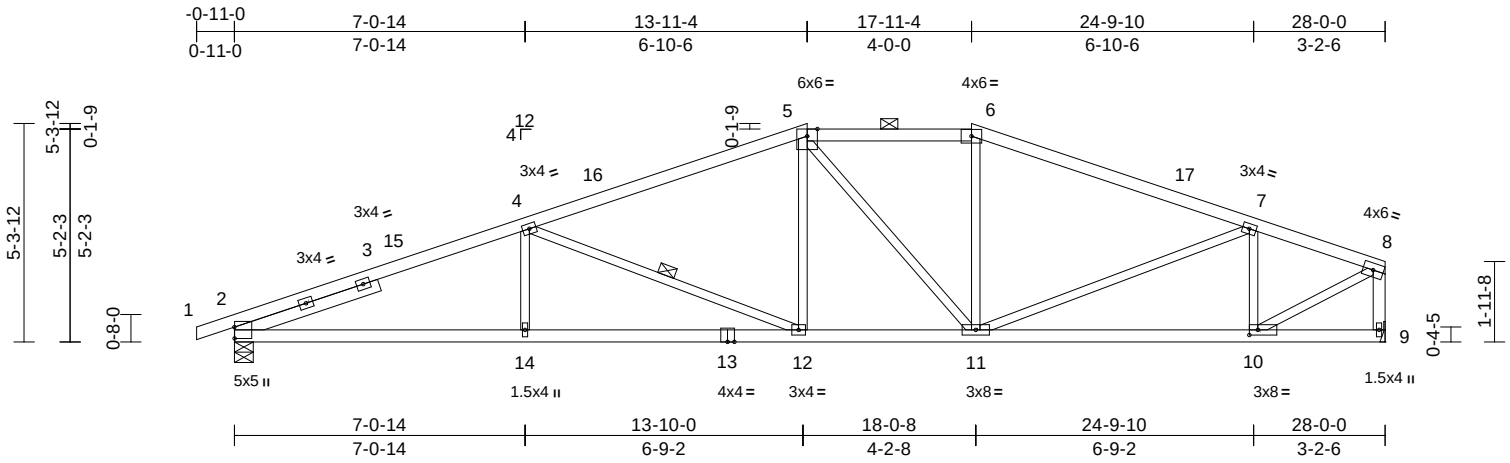
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A7	Hip	1	1	Job Reference (optional) I67527073

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:51 Page: 1
ID:KbwGmAQxponRBQxOmg8gmGzZls0-RfC?PsB70Hq3NSgPqnL8w3ulTXoGKWrCDol75428C4f



Scale = 1:56.1

Plate Offsets (X, Y): [2:0-3-5,0-0-1], [10:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.14	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.29	12-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-5:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-8:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-8-5

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-6 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 7-1-3 oc bracing.
WEBS 1 Row at midpt 4-12

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=97 (LC 12)
Max Uplift 2=-286 (LC 8), 9=-222 (LC 9)
Max Grav 2=1319 (LC 1), 9=1252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2753/684, 4-5=-1973/568, 5-6=-1645/551, 6-7=-1813/535, 7-8=-1435/408, 8-9=-1234/352
BOT CHORD 2-14=-680/2509, 12-14=-680/2509, 11-12=-471/1796, 10-11=-399/1361, 9-10=-31/41
WEBS 4-14=0/294, 4-12=-787/257, 5-12=-37/402, 5-11=-376/109, 6-11=-5/259, 7-11=-57/421, 7-10=-648/286, 8-10=-425/1551

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 13-11-4, Exterior(2E) 13-11-4 to 17-11-4, Exterior(2R) 17-11-4 to 22-11-4, Interior (1) 22-11-4 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 286 lb uplift at joint 2 and 222 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

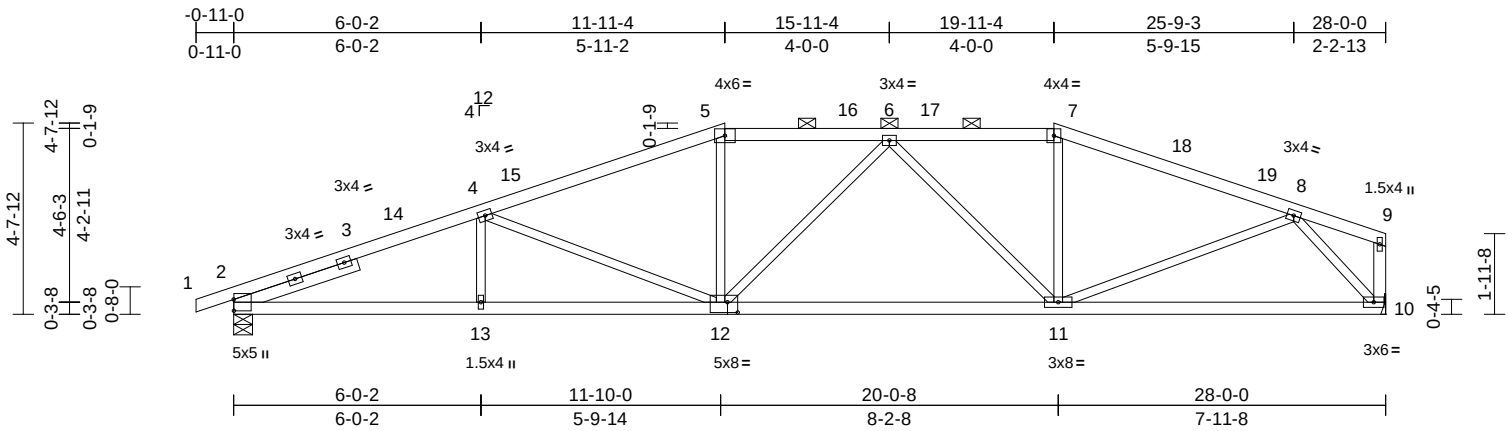
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A8	Hip	1	1	Job Reference (optional) I67527074

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:31 Page: 1
ID:ooUezWRZa6vIoaWaKNfvITzZls?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J42JC?f



Scale = 1:56

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.15	12-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.29	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 123 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2 *Except* 10-9:2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -- 3-2-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-12 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied or 7-0-3 oc bracing.

REACTIONS (size) 2=0-5-8, 10= Mechanical
Max Horiz 2=84 (LC 16)
Max Uplift 2=-296 (LC 8), 10=-237 (LC 9)
Max Grav 2=1319 (LC 1), 10=1252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-4/0, 2-4=-2774/700, 4-5=-2211/605, 5-6=-2039/611, 6-7=-1696/514, 7-8=-1853/511, 8-9=-70/21, 9-10=-32/2
BOT CHORD	2-13=-704/2522, 11-13=-704/2522, 10-11=-369/1060
WEBS	4-13=0/217, 4-12=-537/219, 5-12=-28/349, 7-11=0/297, 8-11=-73/732, 6-11=-566/187, 6-12=-172/101, 8-10=-1563/553

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 11-11-4, Exterior(2R) 11-11-4 to 16-11-4, Interior (1) 16-11-4 to 19-11-4, Exterior(2R) 19-11-4 to 24-11-4, Interior (1) 24-11-4 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 296 lb uplift at joint 2 and 237 lb uplift at joint 10.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

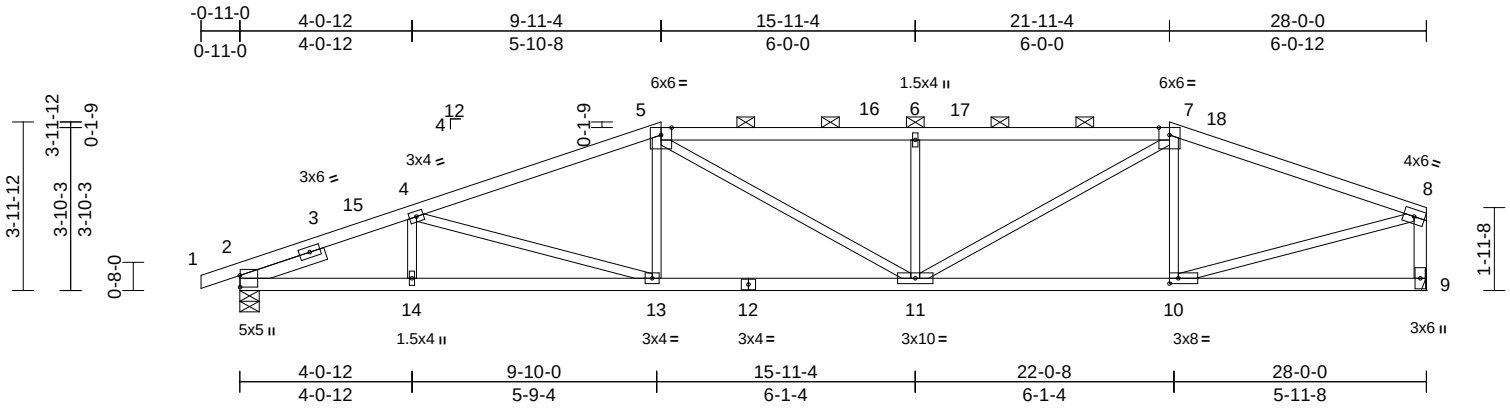
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527075
P240859-01	A9	Hip	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:52 Page: 1
ID:ooUezWRZa6vIoaWaKNfvITzZls?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J42JC?f



Scale = 1:54.4

Plate Offsets (X, Y): [2:0-3-5,0-0-1], [10:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.17	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.32	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 121 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-8:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-1-4

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 6-8-2 oc bracing.

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=72 (LC 16)
Max Uplift 2=-304 (LC 8), 9=-249 (LC 9)
Max Grav 2=1319 (LC 1), 9=1252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2775/754, 4-5=-2432/677, 5-6=-2478/749, 6-7=-2478/749, 7-8=-1798/514, 8-9=-1196/400
BOT CHORD 2-14=-774/2513, 13-14=-774/2513, 11-13=-631/2265, 10-11=-481/1660, 9-10=-68/101
WEBS 5-13=0/300, 5-11=-114/433, 6-11=-515/248, 7-11=-253/1030, 7-10=-332/199, 8-10=-424/1616, 4-13=-270/181, 4-14=0/173

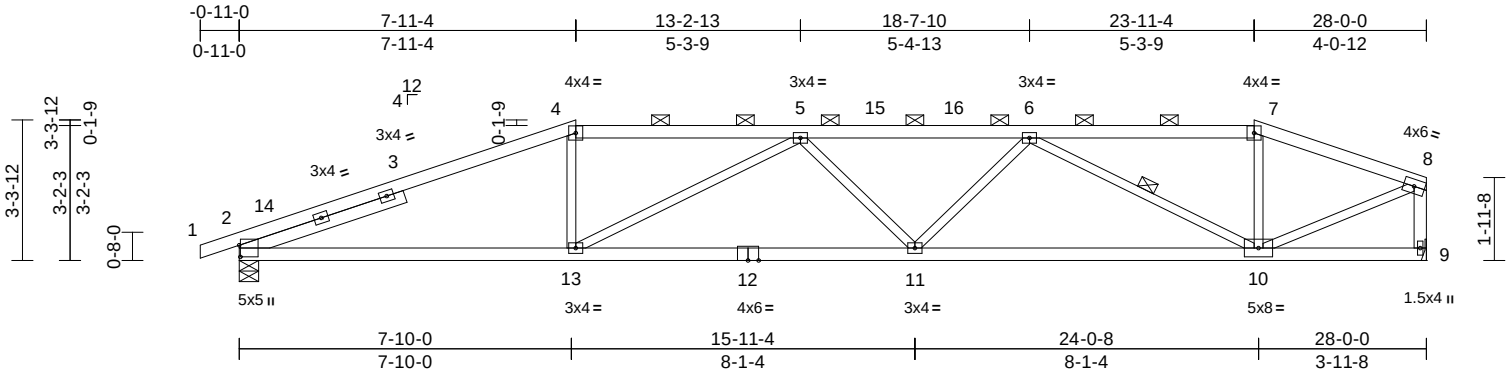
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-0-12, Interior (1) 4-0-12 to 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 21-11-4, Exterior(2E) 21-11-4 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 304 lb uplift at joint 2 and 249 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A10	Hip	1	1	Job Reference (optional) I67527076



Scale = 1:54.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.20	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.41	11-13	>819	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 117 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-4:2x4 SP 1650F 1.5E
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2 *Except* 9-8:2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 4-1-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-5 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-10

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=63 (LC 9)
Max Uplift 2=-310 (LC 8), 9=-259 (LC 9)
Max Grav 2=1319 (LC 1), 9=1252 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-2712/676, 4-5=-2452/676, 5-6=-2953/756, 6-7=-1456/429, 7-8=-1571/419, 8-9=-1229/366
BOT CHORD 2-13=-653/2466, 11-13=-808/3047, 10-11=-767/2707, 9-10=-48/50
WEBS 4-13=-10/551, 7-10=0/240, 8-10=-395/1555, 5-11=-155/155, 5-13=-836/228, 6-11=-15/399, 6-10=-1457/404

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 7-11-4, Exterior(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 23-11-4, Exterior(2E) 23-11-4 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 310 lb uplift at joint 2 and 259 lb uplift at joint 9.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

August 15,2024

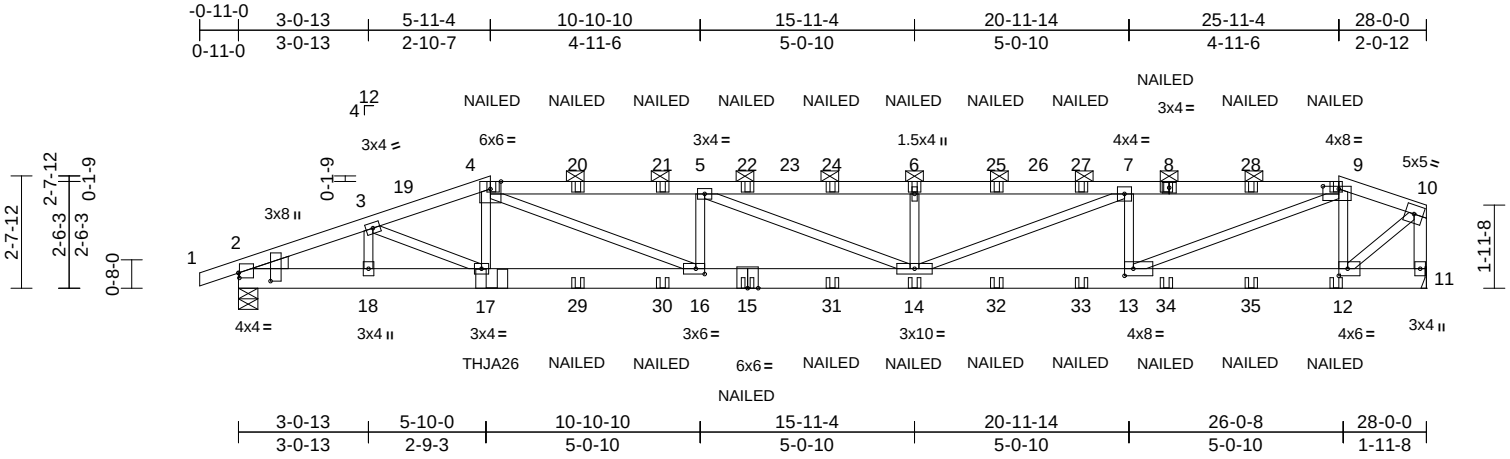
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	A11	Hip Girder	1	2	Job Reference (optional) I67527077

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:52 Page: 1
ID:58PIRvWyxFoJ8fZwELHY5xzZlru-RfC?PsB70Hq3NSgPqnL8w3uITXbGKVrCDoiTJ4ZJC?I



Scale = 1:54.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.31	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.55	14-16	>600	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.73	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 252 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-10:2x4 SP No.2
WEDGE Left: 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-1 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 11= Mechanical
Max Horiz 2=70 (LC 9)
Max Uplift 2=-695 (LC 8), 11=-645 (LC 9)
Max Grav 2=2431 (LC 1), 11=2378 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/2, 2-3=-5029/1453, 3-4=-5754/1690, 4-5=-7768/2273, 5-6=-7894/2261, 6-7=-7894/2261, 7-9=-6030/1731, 9-10=-2154/622, 10-11=-2432/692
BOT CHORD 2-18=-1388/4521, 17-18=-1388/4521, 16-17=-1619/5472, 14-16=-2231/7763, 13-14=-1747/6029, 12-13=-634/2131, 11-12=-40/48
WEBS 4-17=0/350, 9-12=-1529/573, 10-12=-761/2698, 4-16=-700/2566, 9-13=-1218/4271, 5-16=-891/424, 5-14=-39/201, 6-14=-658/351, 7-14=-582/2029, 7-13=-1593/637, 3-18=-207/99, 3-17=-317/1176

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: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 25-11-4, Exterior(2E) 25-11-4 to 27-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 695 lb uplift at joint 2 and 645 lb uplift at joint 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 5-11-10 from the left end to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-9=-70, 9-10=-70, 2-11=-20
Concentrated Loads (lb)
Vert: 4=-131 (B), 8=-131 (B), 15=-39 (B), 17=-419 (B), 12=-39 (B), 9=-131 (B), 14=-39 (B), 6=-131 (B), 20=-131 (B), 21=-131 (B), 22=-131 (B), 24=-131 (B), 25=-131 (B), 27=-131 (B), 28=-131 (B), 29=-39 (B), 30=-39 (B), 31=-39 (B), 32=-39 (B), 33=-39 (B), 34=-39 (B), 35=-39 (B)

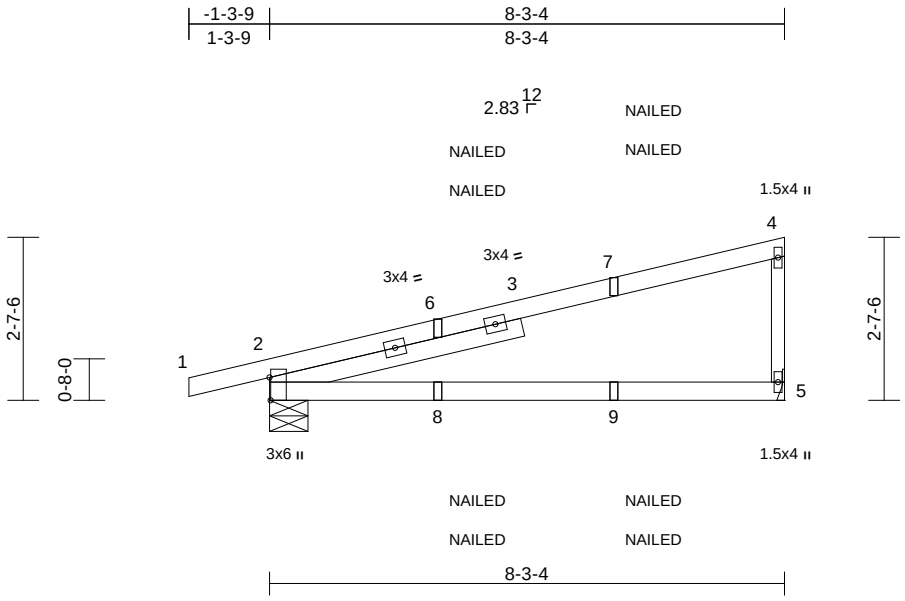
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527078
P240859-01	CG1	Diagonal Hip Girder	3	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:52 Page: 1
ID:ooUezWRZa6vIoaWaKNfvITzZls?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J42JC?f



Scale = 1:37

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.22	2-5	>454	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.43	2-5	>227	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-1-15

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

REACTIONS (size) 2=0-7-6, 5= Mechanical
Max Horiz 2=103 (LC 9)
Max Uplift 2=-152 (LC 8), 5=-114 (LC 12)
Max Grav 2=488 (LC 1), 5=408 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-140/82, 4-5=-314/305
BOT CHORD 2-5=-47/51

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-3-9 to 5-9-5, Exterior(2R) 5-9-5 to 8-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 5 and 152 lb uplift at joint 2.
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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 7=-52 (F=-26, B=-26), 9=-19 (F=-10, B=-10)

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

August 15,2024

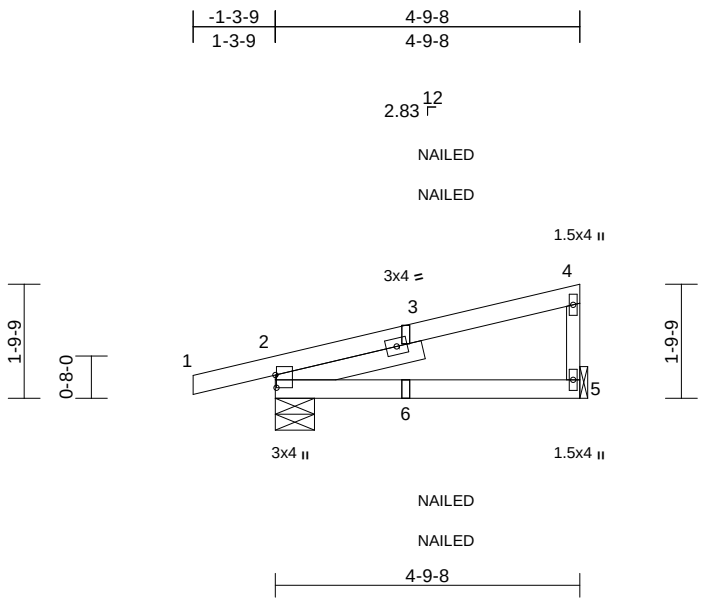
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	CG2	Diagonal Hip Girder	2	1	Job Reference (optional) I67527079

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:52 Page: 1
ID:9RizLT5sxS0XndvBrCTxOMzWRWk-RfC?PsB70Hq3NSgPqnL8w3uITXb0KWrCDon7J42JC?F



Scale = 1:36.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.03	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.06	2-5	>971	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-4-7

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-7-6, 5= Mechanical
Max Horiz 2=66 (LC 9)
Max Uplift 2=-122 (LC 8), 5=-57 (LC 12)
Max Grav 2=314 (LC 1), 5=198 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-133/52, 4-5=-152/198
BOT CHORD 2-5=-30/33

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 5 and 122 lb uplift at joint 2.
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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20

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

August 15,2024

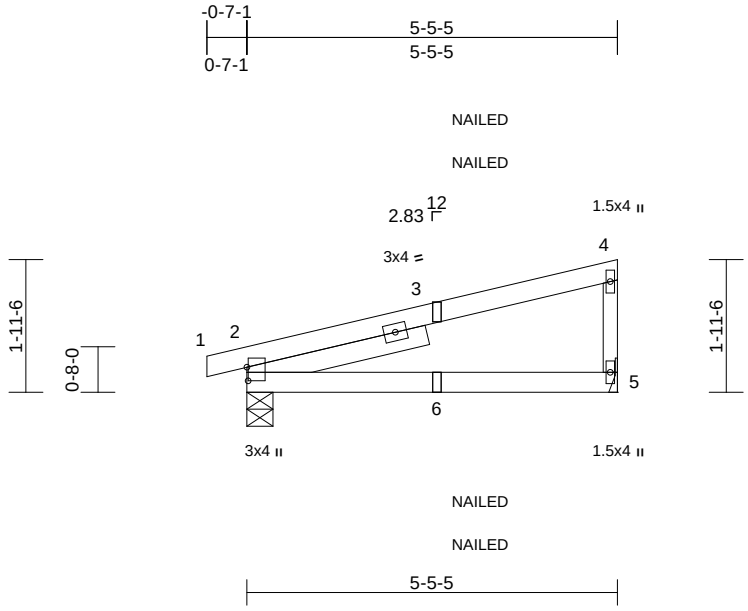
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	CG4	Diagonal Hip Girder	1	1	Job Reference (optional) I67527080

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:53 Page: 1
ID:ooUezWRZa6vIoaWaKNfvITzZls?-RfC?PsB70Hq3NSgPqnL8w3uITXbGK?WrCDoi7J42JC?f



Scale = 1:33.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.05	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.10	2-5	>657	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-8-8

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

REACTIONS (size) 2=0-4-9, 5= Mechanical
Max Horiz 2=69 (LC 28)
Max Uplift 2=-76 (LC 8), 5=-57 (LC 12)
Max Grav 2=284 (LC 1), 5=238 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-15/0, 2-4=-98/60, 4-5=-185/232
BOT CHORD 2-5=-34/36

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 5 and 76 lb uplift at joint 2.
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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20

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

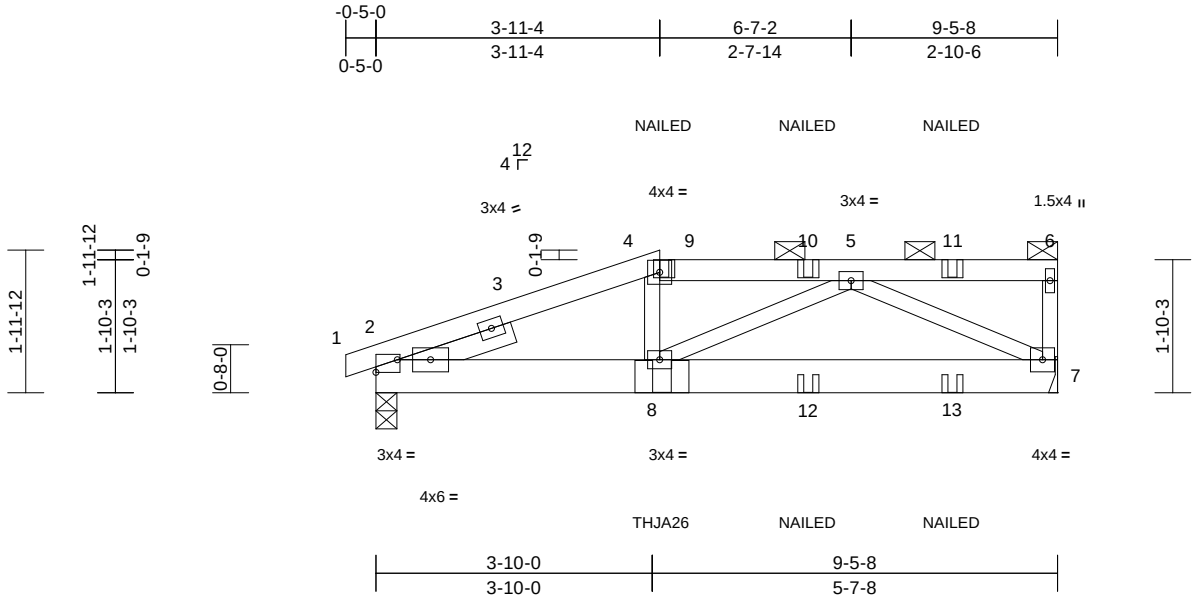
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	E1	Half Hip Girder	1	1	Job Reference (optional) I67527081

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:33 Page: 1
ID:ZKzgfFXahZwAmo77o3pnd9zZlrt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKVrCDoi7J4zJC?f



Scale = 1:32

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.04	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 41 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-7-13

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 7= Mechanical
Max Horiz 2=66 (LC 11)
Max Uplift 2=-195 (LC 8), 7=-185 (LC 8)
Max Grav 2=672 (LC 1), 7=654 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-10/0, 2-4=-1247/491, 4-5=-1100/498, 5-6=-46/40, 6-7=-112/88
BOT CHORD 2-8=-493/1109, 7-8=-478/887
WEBS 4-8=0/236, 5-8=-20/274, 5-7=-966/507

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 7 and 195 lb uplift at joint 2.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 3-11-10 from the left end to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 4-6=-70, 2-7=-20
Concentrated Loads (lb)
Vert: 4=-64 (F), 8=-228 (F), 10=-64 (F), 11=-64 (F), 12=-19 (F), 13=-19 (F)

August 15,2024

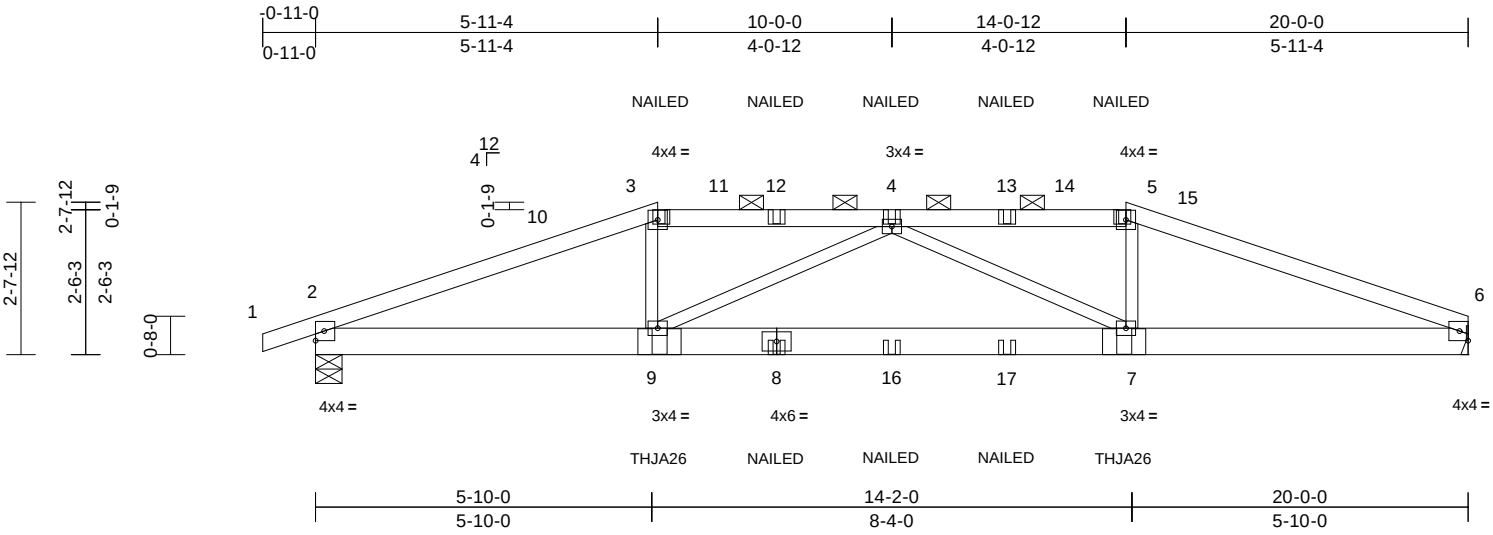
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	H1	Hip Girder	1	2	Job Reference (optional) I67527082

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:53 Page: 1
ID:AzlpT5WBxvIisrVjqL4vmXzWRWC-RfC?PsB70Hq3NSgPqnL8w3uITXbGHWrCDoi7942OC?I



Scale = 1:40

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.10	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.21	7-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 157 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 6= Mechanical
Max Horiz 2=42 (LC 16)
Max Uplift 2=-513 (LC 8), 6=-454 (LC 9)
Max Grav 2=1787 (LC 1), 6=1689 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/2, 2-3=-4156/1278, 3-4=-3761/1230, 4-5=-3827/1266, 5-6=-4205/1308
BOT CHORD 2-9=-1112/3805, 7-9=-1471/4467, 6-7=-1147/3870
WEBS 3-9=-179/1044, 5-7=-152/1016, 4-9=-898/425, 4-7=-839/392

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: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 14-0-12, Exterior(2E) 14-0-12 to 19-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Bearings are assumed to be: Joint 2 SPF No.2 crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 454 lb uplift at joint 6 and 513 lb uplift at joint 2.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 5-11-10 from the left end to connect truss(es) to front face of bottom chord.
13) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 14-0-6 from the left end to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 5-6=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-131 (F), 5=-131 (F), 8=-39 (F), 9=-425 (F), 7=-425 (F), 4=-131 (F), 12=-131 (F), 13=-131 (F), 16=-39 (F), 17=-39 (F)

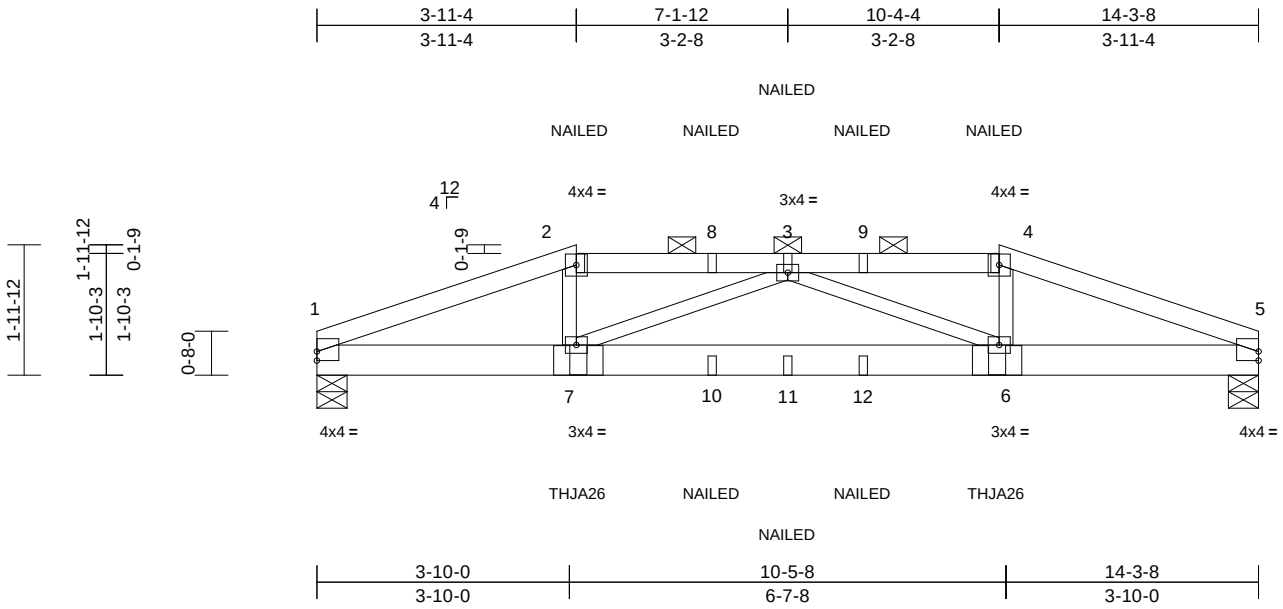
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	H2	Hip Girder	1	1	Job Reference (optional) I67527083

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:33 Page: 1
ID:9RizLT5sxS0XndvBrCTxOMzWRWk-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon7J42JC?F



Scale = 1:35

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.08	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.16	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 55 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=0-5-8, 5=0-5-8
Max Horiz 1=29 (LC 16)
Max Uplift 1=-279 (LC 8), 5=-279 (LC 9)
Max Grav 1=1018 (LC 1), 5=1018 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2298/802, 2-3=-2040/778, 3-4=-2040/778, 4-5=-2298/802
BOT CHORD 1-7=-679/2077, 6-7=-961/2551, 5-6=-679/2077
WEBS 2-7=-97/604, 4-6=-97/604, 3-7=-621/316, 3-6=-621/316

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 279 lb uplift at joint 1 and 279 lb uplift at joint 5.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Left Hand Hip) or equivalent at 3-11-10 from the left end to connect truss(es) to front face of bottom chord.
10) Use Simpson Strong-Tie THJA26 (THJA26 on 1 ply, Right Hand Hip) or equivalent at 10-3-14 from the left end to connect truss(es) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-4=-70, 4-5=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 2=-59 (F), 4=-59 (F), 7=-221 (F), 6=-221 (F), 3=-59 (F), 8=-59 (F), 9=-59 (F), 10=-19 (F), 11=-19 (F), 12=-19 (F)

August 15,2024

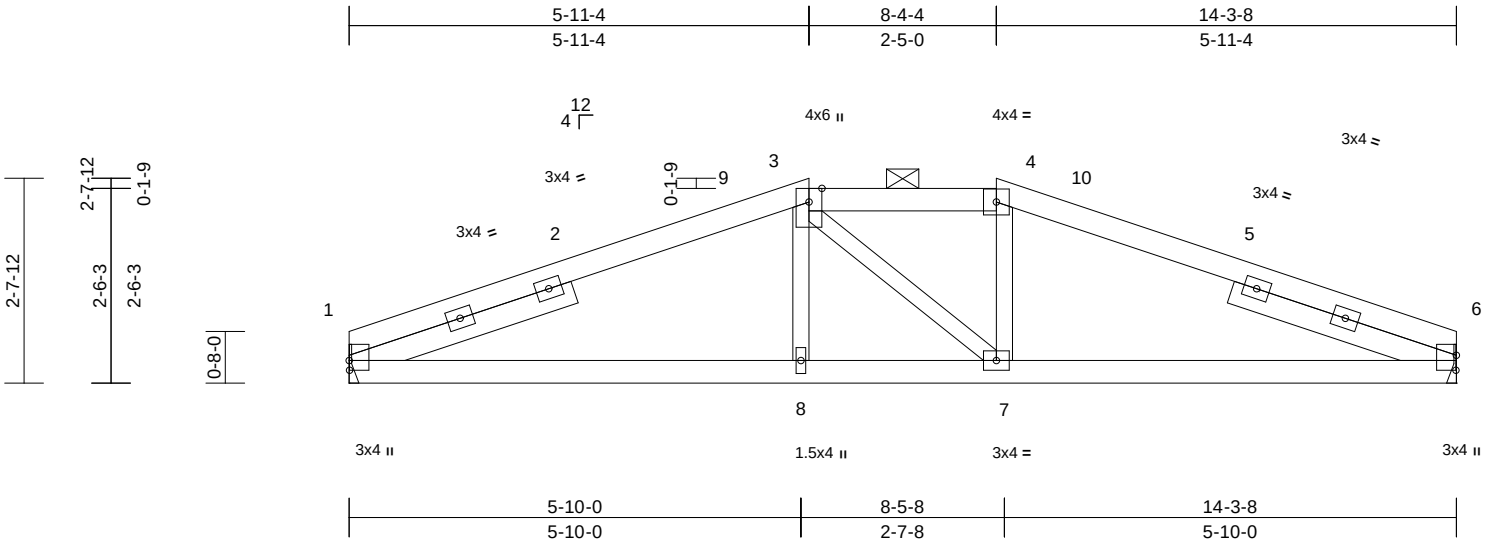
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527084
P240859-01	H3	Hip	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:33 Page: 1
ID:pTu4Im2j7wOFgr0D2ftmhJzWRWp-RfC?PsB70Hq3NSgPqnL8w3ulTXbG?WrCDoi?94z3C?f



Scale = 1:29.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.04	1-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.09	1-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 59 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 3-0-8, Right 2x4 SP No.2 -- 3-0-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except 2-0-0 oc purlins (5-9-9 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 9-0-4 oc bracing.

REACTIONS (size) 1= Mechanical, 6= Mechanical
Max Horiz 1=43 (LC 12)
Max Uplift 1=-121 (LC 8), 6=-121 (LC 9)
Max Grav 1=643 (LC 1), 6=643 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1158/554, 3-4=-1017/582, 4-6=-1158/559
BOT CHORD 1-8=-409/1021, 7-8=-411/1017, 6-7=-419/1021
WEBS 3-8=0/172, 3-7=-146/148, 4-7=0/173

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 5-11-4, Exterior(2E) 5-11-4 to 14-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 1 and 121 lb uplift at joint 6.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

August 15,2024

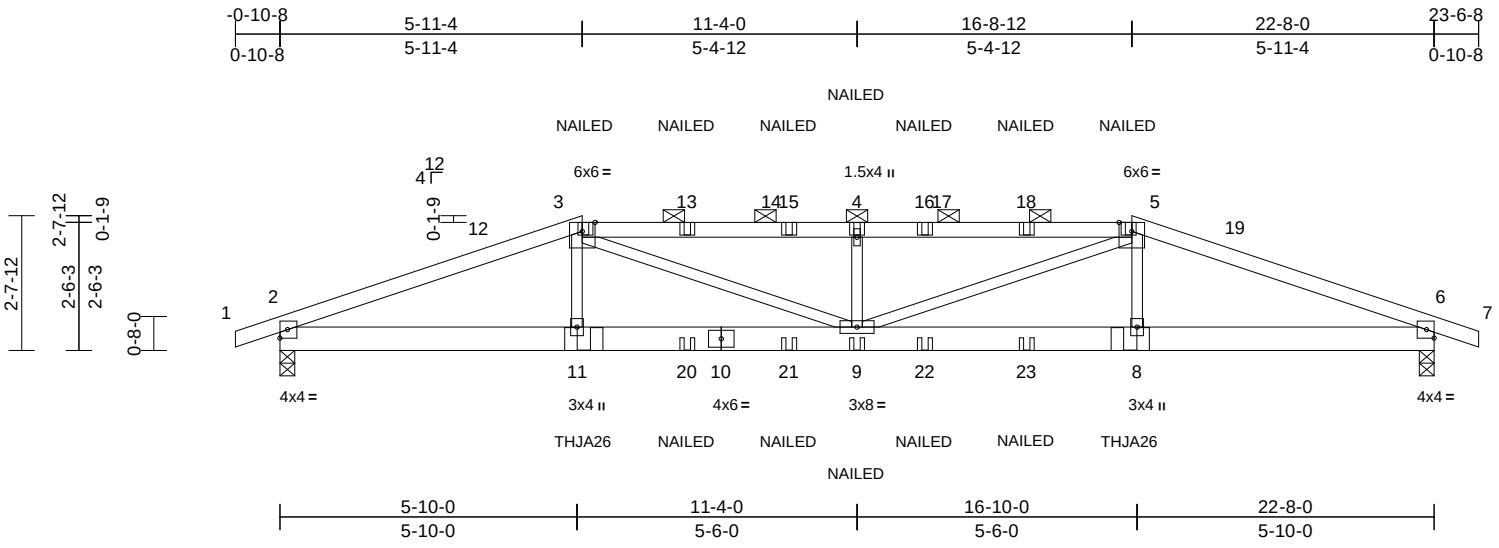
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	H4	Hip Girder	1	2	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
I67527085
08/29/2024

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:53 Page: 1
ID:hrFxA8Bo_lDh51ifOEa0n4zWQKR-RfC?PsB70Hq3NSgPqnL8w3uITXbGHWrCDol7342JC?I



Scale = 1:45.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.17	9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.30	9	>882	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 184 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-1-13 oc purlins, except 2-0-0 oc purlins (4-1-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=42 (LC 12)
Max Uplift 2=-572 (LC 8), 6=-572 (LC 9)
Max Grav 2=2030 (LC 1), 6=2030 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/1, 2-3=-4904/1460, 3-4=-5952/1835, 4-5=-5952/1835, 5-6=-4904/1465, 6-7=0/1
BOT CHORD 2-11=-1280/4515, 9-11=-1278/4487, 8-9=-1289/4487, 6-8=-1291/4515
WEBS 3-11=-37/605, 3-9=-486/1691, 4-9=-1030/531, 5-9=-486/1691, 5-8=-40/605

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: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-11-4, Exterior(2R) 5-11-4 to 13-0-2, Interior (1) 13-0-2 to 16-8-12, Exterior(2E) 16-8-12 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 572 lb uplift at joint 2 and 572 lb uplift at joint 6.
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) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 5-11-10 from the left end to connect truss(es) to front face of bottom chord.
12) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 16-8-6 from the left end to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-131 (F), 5=-131 (F), 11=-396 (F), 9=-39 (F), 4=-131 (F), 8=-396 (F), 13=-131 (F), 15=-131 (F), 16=-131 (F), 18=-131 (F), 20=-39 (F), 21=-39 (F), 22=-39 (F), 23=-39 (F)

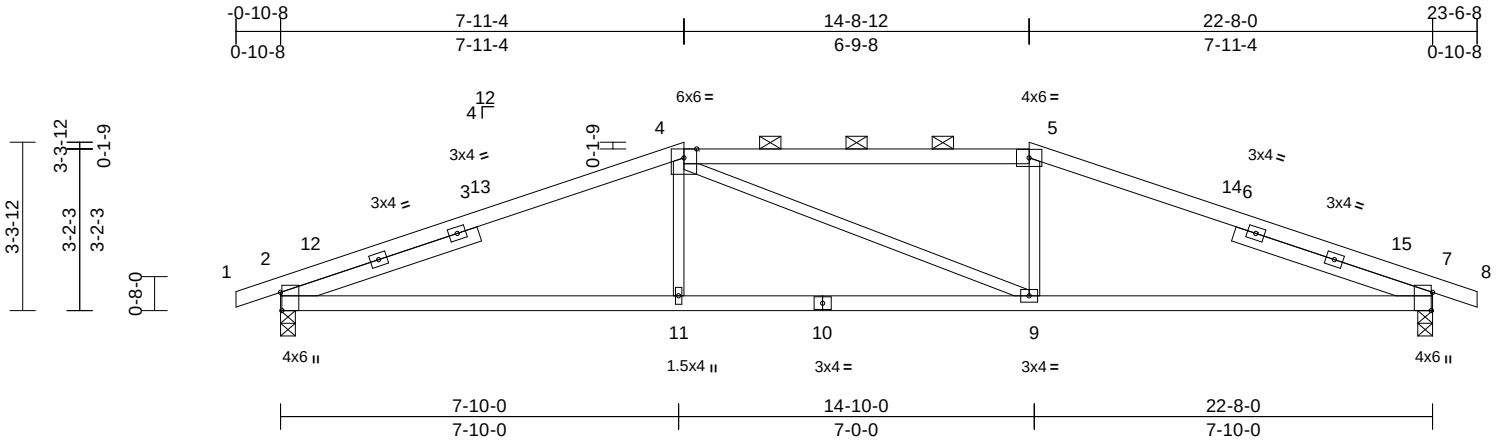
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527086
P240859-01	H5	Hip	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:wImwVP5ntIDq8o46wYQ8TOzWQKZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDuI7J42JC?f



Scale = 1:45.3

Plate Offsets (X, Y): [2:0-4-5,Edge], [7:0-4-5,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.11	2-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.25	2-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.07	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 94 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2 *Except* 4-5:2x4 SP 1650F 1.5E
BOT CHORD	2x4 SP No.2
WEBS	2x3 SPF No.2
SLIDER	Left 2x4 SP No.2 -- 4-1-2, Right 2x4 SP No.2 -- 4-1-2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-7-5 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 8-0-1 oc bracing.

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=54 (LC 12)
Max Uplift 2=-242 (LC 8), 7=-242 (LC 9)
Max Grav 2=1081 (LC 1), 7=1081 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-5/0, 2-4=-2060/639, 4-5=-1852/684, 5-7=-2060/665, 7-8=-5/0
BOT CHORD	2-11=-503/1857, 9-11=-506/1851, 7-9=-529/1857
WEBS	4-11=0/305, 4-9=-222/223, 5-9=0/305

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 7-11-4, Exterior(2E) 7-11-4 to 14-8-12, Exterior(2R) 14-8-12 to 21-9-10, Interior (1) 21-9-10 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 242 lb uplift at joint 2 and 242 lb uplift at joint 7.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

August 15,2024

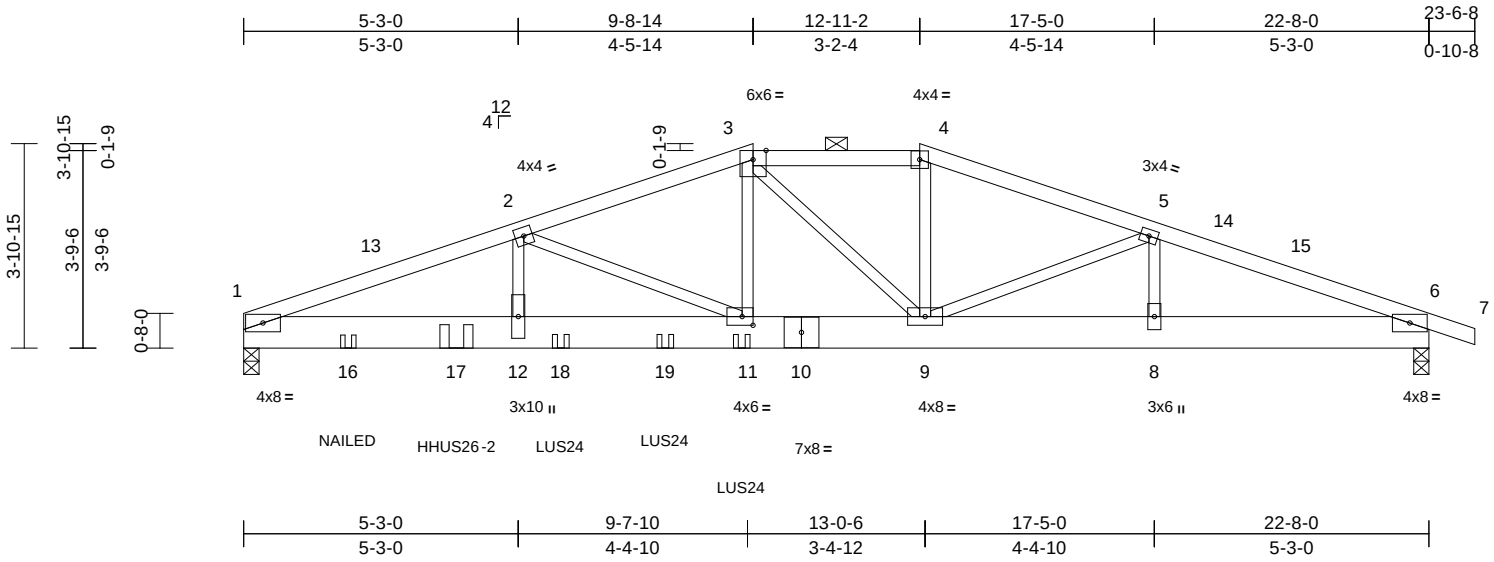
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	H6	Hip Girder	1	2	Job Reference (optional) I67527087

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:91pJOUCQl3LYjBGryx5FKIzWQKQ-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWrCDonJ423C?f



Scale = 1:44.1

Plate Offsets (X, Y): [11:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.11	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.19	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 217 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SPF No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=-67 (LC 17)
Max Uplift 1=-715 (LC 8), 6=-380 (LC 9)
Max Grav 1=2966 (LC 1), 6=1623 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6439/1803, 2-3=-3967/1163, 3-4=-3159/991, 4-5=-3393/1017, 5-6=-3629/1052, 6-7=0/6
BOT CHORD 1-12=-1618/5968, 11-12=-1618/5968, 9-11=-941/3686, 8-9=-927/3327, 6-8=-927/3327
WEBS 3-11=-363/1486, 3-9=-911/267, 4-9=-176/765, 2-11=-2489/742, 2-12=-402/1767, 5-9=-226/239, 5-8=-23/122

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 0-5-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 5-3-0, Interior (1) 5-3-0 to 9-8-14, Exterior(2E) 9-8-14 to 12-11-2, Exterior(2R) 12-11-2 to 20-0-0, Interior (1) 20-0-0 to 23-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All bearings are assumed to be SPF No.2 crushing capacity of 425 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 715 lb uplift at joint 1 and 380 lb uplift at joint 6.
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) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 4-0-13 from the left end to connect truss(es) to back face of bottom chord.
12) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 9-6-5 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

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

Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-7=-70, 1-6=-20
Concentrated Loads (lb)
Vert: 11=-228 (B), 16=-150 (B), 17=-1669 (B), 18=-228 (B), 19=-228 (B)

August 15,2024

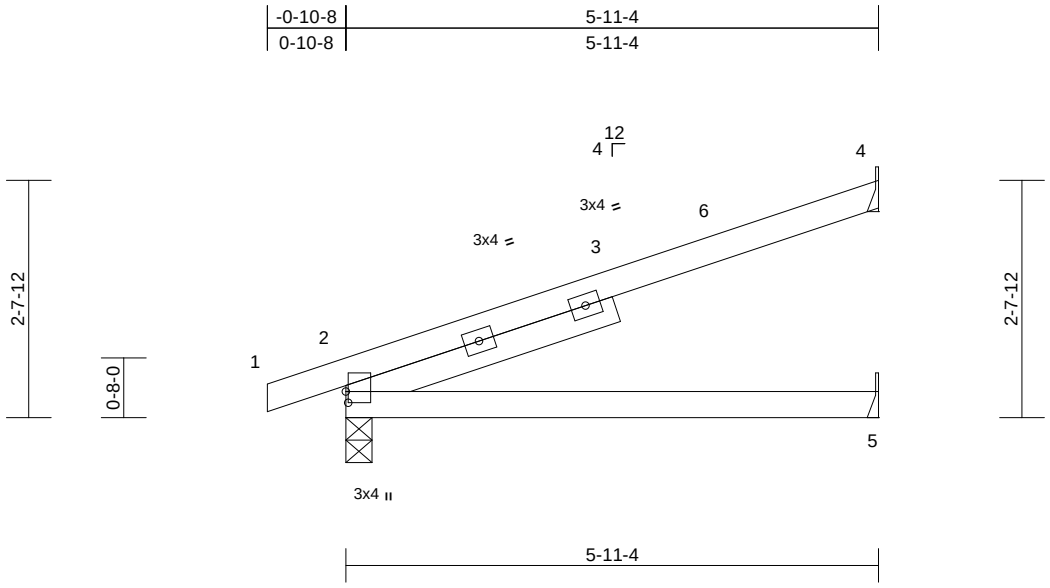
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J1	Jack-Open	12	1	Job Reference (optional)

I67527088

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:9RizLT5sxS0XndvBrCTxOMzWRWk-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon7J42JC?F



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.07	2-5	>987	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	2-5	>493	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-1-13

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=99 (LC 12)
Max Uplift 2=-81 (LC 8), 4=-111 (LC 12)
Max Grav 2=330 (LC 1), 4=201 (LC 1), 5=118 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-105/50
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 4-1-8, Interior (1) 4-1-8 to 5-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 4 and 81 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

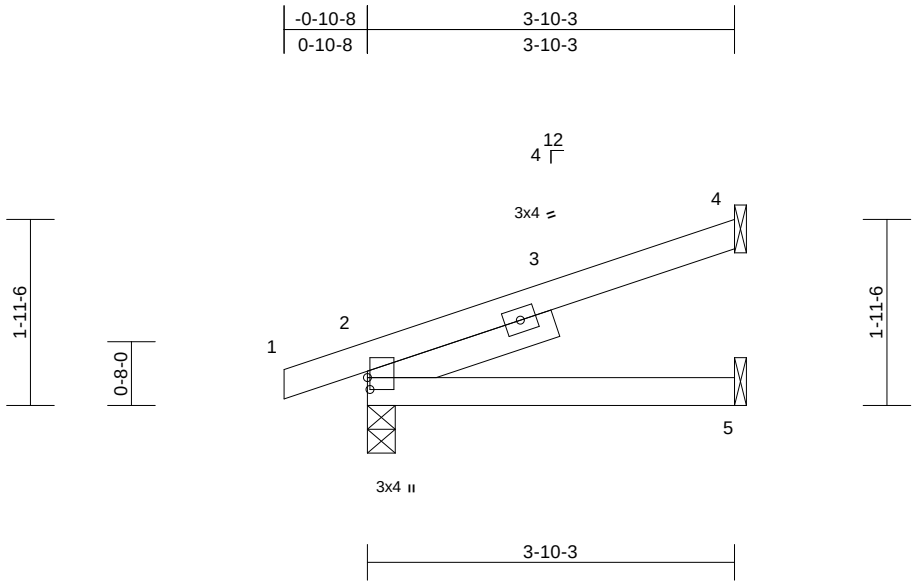
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J2	Jack-Open	6	1	Job Reference (optional)

I67527089

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCb0i7J42OC?I



Scale = 1:24.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-0-10

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=68 (LC 12)
Max Uplift 2=-67 (LC 8), 4=-73 (LC 12)
Max Grav 2=239 (LC 1), 4=125 (LC 1), 5=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-76/31
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 4 and 67 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

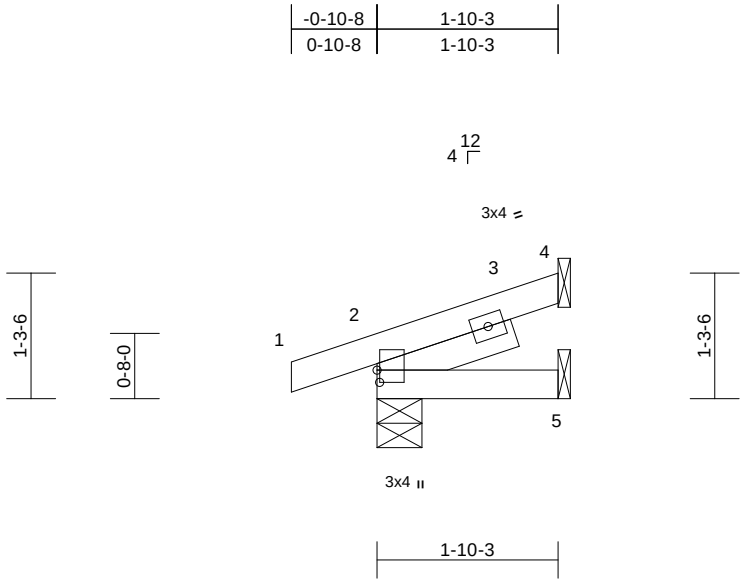
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J3	Jack-Open	8	1	Job Reference (optional)

I67527090

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCb0i7J42OC?I



Scale = 1:23.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-8

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=40 (LC 12)
Max Uplift 2=-57 (LC 8), 4=-35 (LC 12)
Max Grav 2=158 (LC 1), 4=50 (LC 1), 5=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-43/16
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 2 and 35 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

August 15,2024

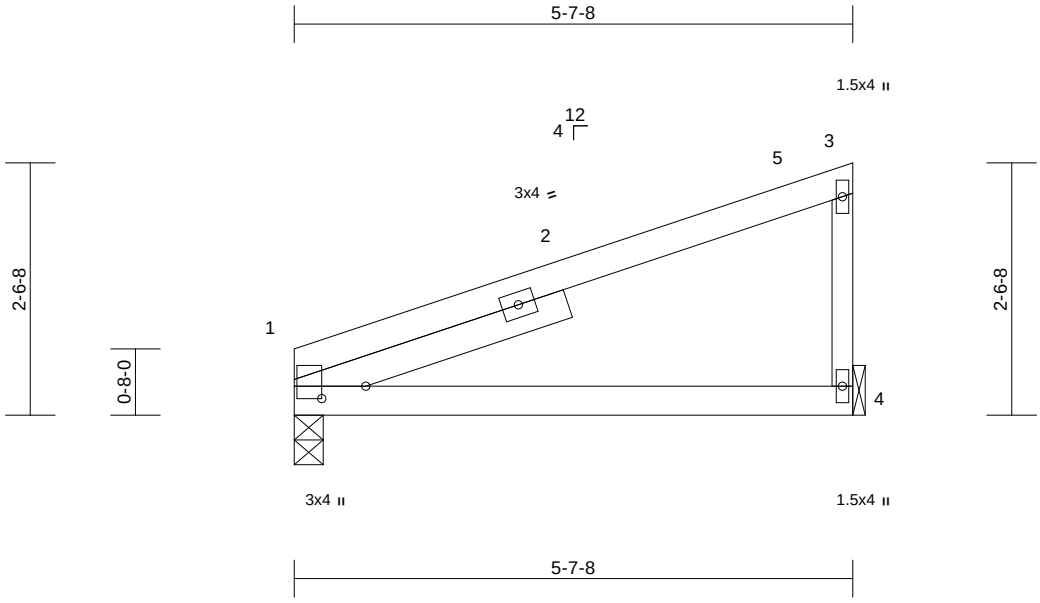
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J4	Jack-Closed	3	1	I67527091

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:v0F888O3WtPtKyDp5Xbz8dzZls3-RfC?PsB70Hq3NSgPqnL8w3uITXbGK?VrCDoi7J42JC4f



Scale = 1:23.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.06	1-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	1-4	>594	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-10-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 4= Mechanical
Max Horiz 1=105 (LC 9)
Max Uplift 1=-45 (LC 8), 4=-64 (LC 12)
Max Grav 1=248 (LC 1), 4=248 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-135/83, 3-4=-193/263
BOT CHORD 1-4=-45/49

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 5-0-0, Interior (1) 5-0-0 to 5-6-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 1 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1 and 64 lb uplift at joint 4.
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.

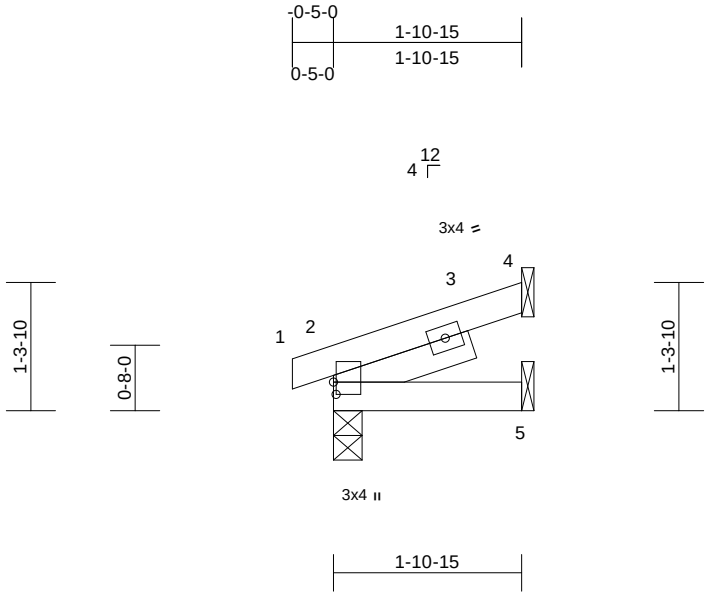
LOAD CASE(S) Standard

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

August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527092
P240859-01	J5	Jack-Open	2	1	Job Reference (optional)	



Scale = 1:23.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-8

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=35 (LC 12)
Max Uplift 2=-29 (LC 8), 4=-40 (LC 12)
Max Grav 2=118 (LC 1), 4=63 (LC 1), 5=38 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-14/0, 2-4=-51/17
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2 and 40 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

August 15,2024

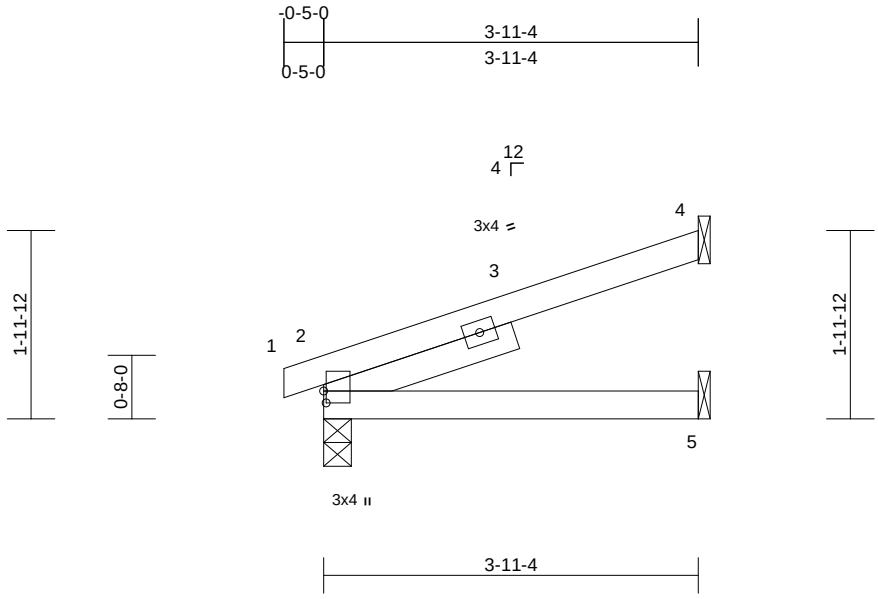
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J6	Jack-Open	3	1	Job Reference (optional) I67527093

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:54 Page: 1
ID:58PIRvWyxFoJ8fZwELHY5xzZlru-RfC?PsB70Hq3NSgPqnL8w3uITXbGKVrCDoi7J4zJC?f



Scale = 1:24.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-1-3

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

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=64 (LC 12)
Max Uplift 2=-43 (LC 8), 4=-76 (LC 12)
Max Grav 2=205 (LC 1), 4=134 (LC 1), 5=77 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-14/0, 2-4=-79/33
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 4 and 43 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

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

August 15,2024

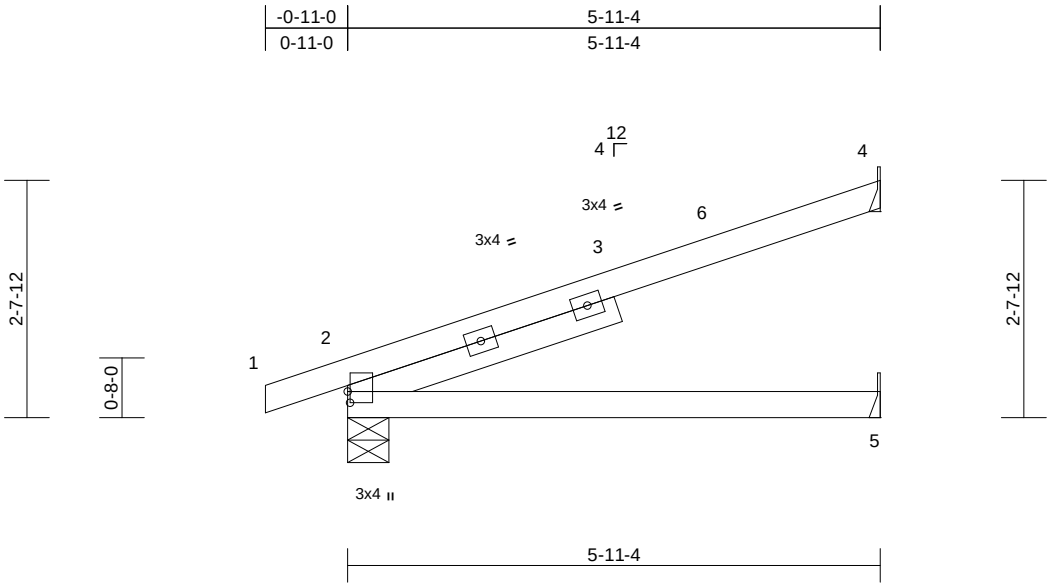
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J7	Jack-Open	20	1	Job Reference (optional) I67527094

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:58PIRvWyxFoJ8fZwELHY5xzZlru-RfC?PsB70Hq3NSgPqnL8w3uITXbGKVrCDoi7J4ZJC?f



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.07	2-5	>987	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.14	2-5	>493	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 3-1-13

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=99 (LC 12)
Max Uplift 2=-83 (LC 8), 4=-111 (LC 12)
Max Grav 2=334 (LC 1), 4=201 (LC 1), 5=118 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-105/50
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-11-0 to 4-1-0, Interior (1) 4-1-0 to 5-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 4 and 83 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
August 15,2024

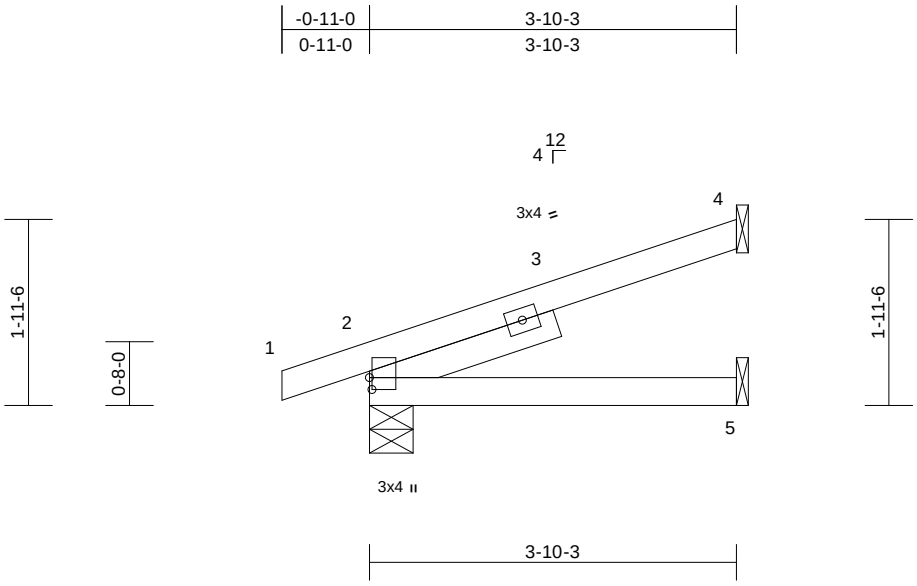
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J8	Jack-Open	7	1	Job Reference (optional)

I67527095

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiY94z3C?f



Scale = 1:24.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-0-10

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=69 (LC 12)
Max Uplift 2=-69 (LC 8), 4=-72 (LC 12)
Max Grav 2=242 (LC 1), 4=125 (LC 1), 5=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-75/31
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 4 and 69 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

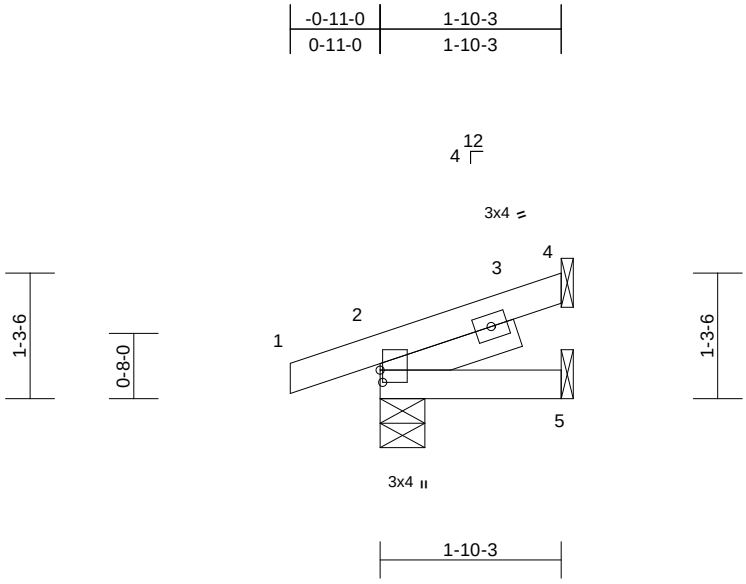
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J9	Jack-Open	9	1	Job Reference (optional)

I67527096

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiY94z3C?f



Scale = 1:23.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-8

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=40 (LC 12)
Max Uplift 2=-60 (LC 8), 4=-35 (LC 12)
Max Grav 2=163 (LC 1), 4=48 (LC 1), 5=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-43/16
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2 and 35 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

August 15,2024

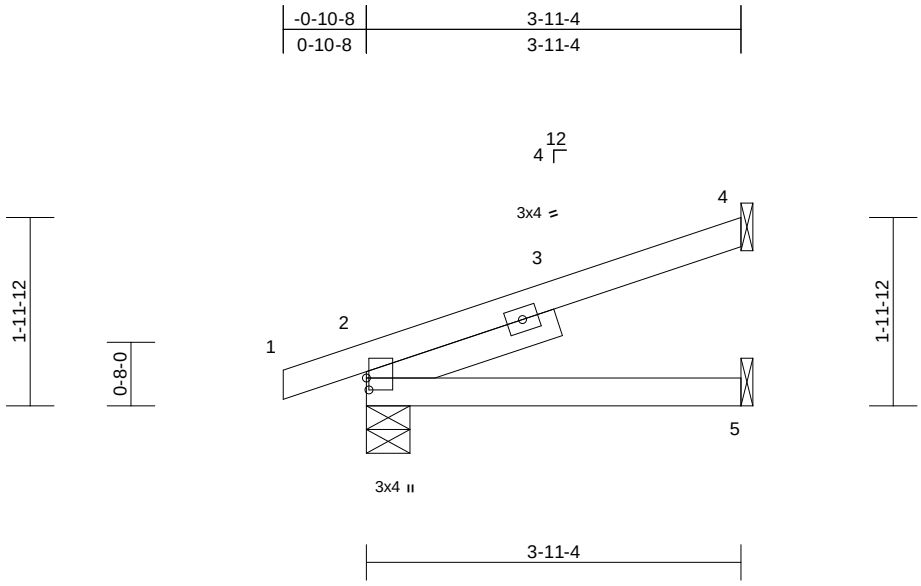
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J10	Jack-Open	5	1	Job Reference (optional)

I67527097

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCB0I7J420C?I



Scale = 1:24.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-1-3

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

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=70 (LC 12)
Max Uplift 2=-68 (LC 8), 4=-74 (LC 12)
Max Grav 2=243 (LC 1), 4=129 (LC 1), 5=78 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5/0, 2-4=-76/32
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 4 and 68 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

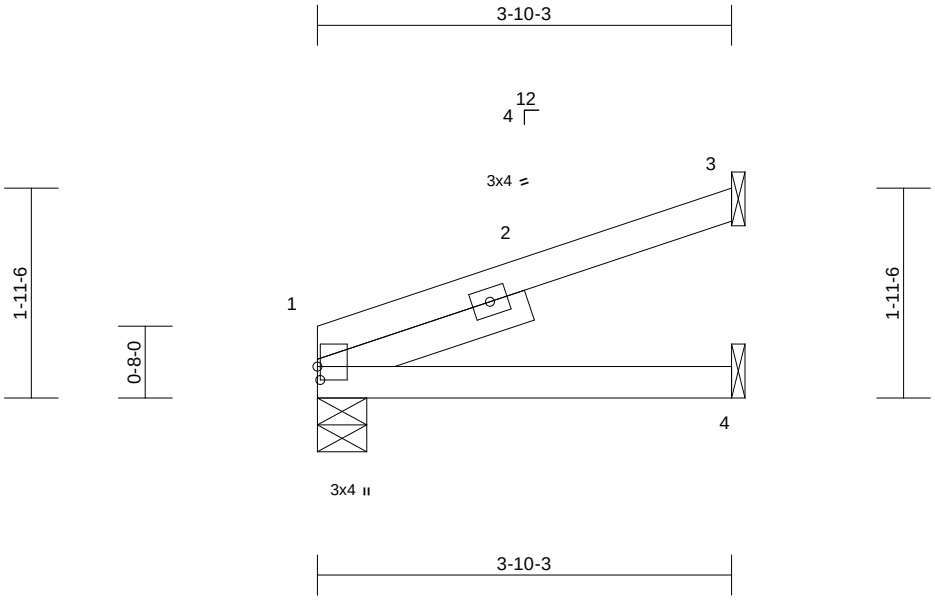
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J11	Jack-Open	1	1	Job Reference (optional) I67527098

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiY94z3C?f



Scale = 1:21.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.01	1-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	1-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 2-0-10

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

REACTIONS (size) 1=0-5-8, 3= Mechanical, 4= Mechanical
Max Horiz 1=71 (LC 8)
Max Uplift 1=-22 (LC 8), 3=-75 (LC 8)
Max Grav 1=170 (LC 1), 3=133 (LC 1), 4=76 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-78/33
BOT CHORD 1-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 75 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

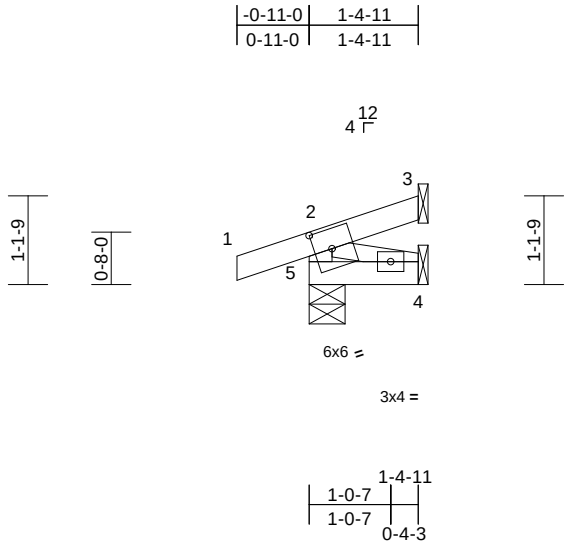
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J12	Jack-Open	4	1	Job Reference (optional) I67527099

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCb0i7J420C?I



Scale = 1:29.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 4-2:2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-4-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=31 (LC 8)
Max Uplift 3=-9 (LC 12), 4=-4 (LC 8), 5=-71 (LC 8)
Max Grav 3=11 (LC 1), 4=25 (LC 3), 5=162 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-150/173, 1-2=0/24, 2-3=-24/11
BOT CHORD 4-5=-76/15
WEBS 2-4=-15/80

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 5 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 5, 4 lb uplift at joint 4 and 9 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

August 15,2024

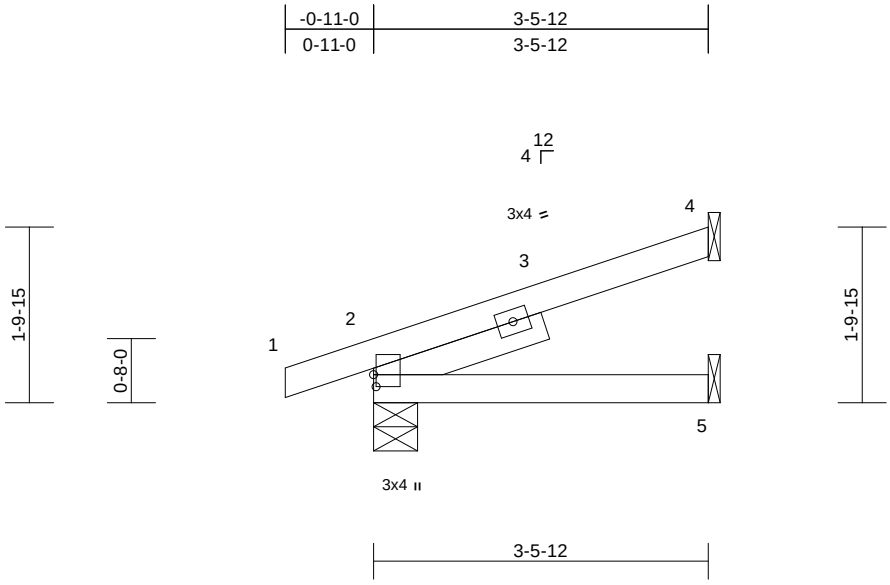
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J13	Jack-Open	4	1	Job Reference (optional)

I67527100

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCb0i75420C?I



Scale = 1:23.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.01	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.02	2-5	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-10-4

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=63 (LC 12)
Max Uplift 2=-67 (LC 8), 4=-65 (LC 12)
Max Grav 2=226 (LC 1), 4=111 (LC 1), 5=68 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4/0, 2-4=-68/28
BOT CHORD 2-5=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 4 and 67 lb uplift at joint 2.
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.

LOAD CASE(S) Standard

August 15,2024

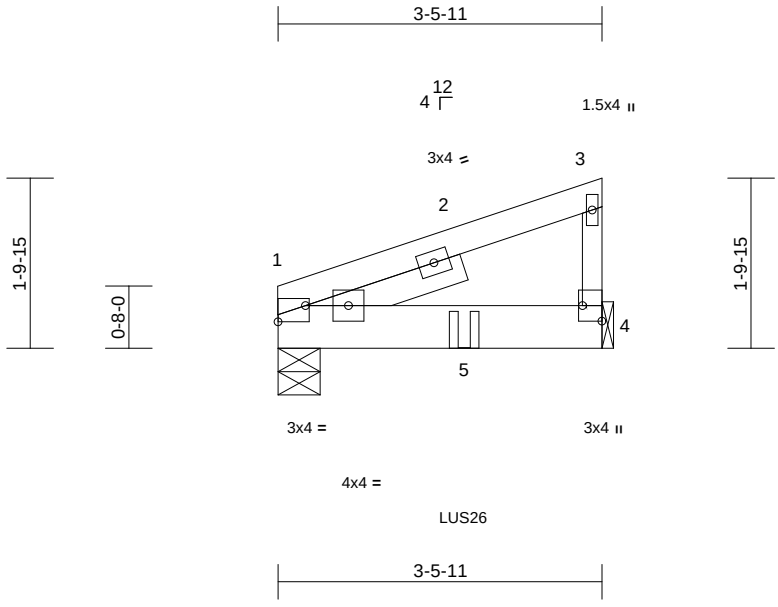
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	J14	Jack-Closed Girder	2	1	Job Reference (optional) I67527101

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:Dbe33PUxPH2?dXLKjx2Rh6zWRWE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDuI7J42JC?



Scale = 1:24.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.01	1-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.02	1-4	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 1-8-15

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-7, 4= Mechanical
Max Horiz 1=67 (LC 9)
Max Uplift 1=-82 (LC 8), 4=-113 (LC 12)
Max Grav 1=414 (LC 1), 4=492 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-86/51, 3-4=-110/160
BOT CHORD 1-4=-29/31

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 1 SPF No.2 crushing capacity of 425 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 1 and 113 lb uplift at joint 4.
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) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent at 2-0-0 from the left end to connect truss(es) to front face of bottom chord.
8) Fill all nail holes where hanger is in contact with lumber.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 1-4=-20
Concentrated Loads (lb)
Vert: 5=-623 (F)

August 15,2024

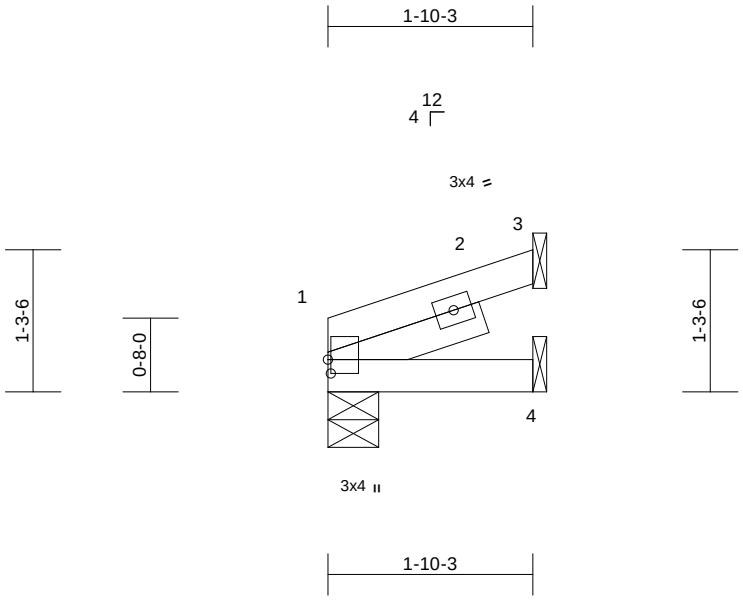
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527102
P240859-01	J15	Jack-Open	1	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:35 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiY94z9C?f



Scale = 1:20.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	1-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 8 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-5-8

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

REACTIONS (size) 1=0-5-8, 3= Mechanical, 4= Mechanical
Max Horiz 1=43 (LC 8)
Max Uplift 1=-7 (LC 8), 3=-40 (LC 8)
Max Grav 1=83 (LC 1), 3=64 (LC 1), 4=37 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-52/16
BOT CHORD 1-4=0/0

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: , Joint 1 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 40 lb uplift at joint 3.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

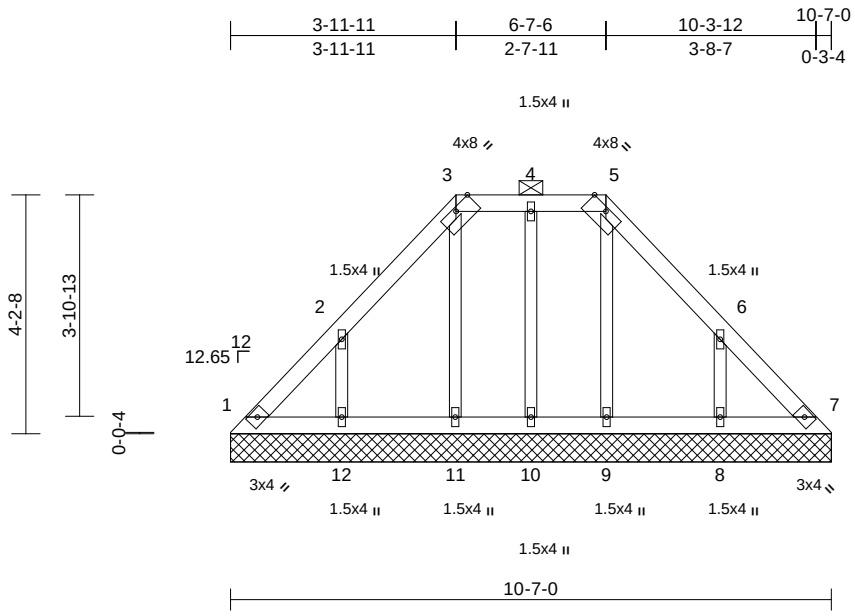
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	LAY01	Lay-In Gable	1	1	Job Reference (optional) I67527103

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:56 Page: 1
ID:9mHupg?lmrCzAaTaSsHG8jzWQKh-RfC?PsB70Hq3NSgPqnL8w3uITXb0KWrCDonJ42JG?P



Scale = 1:40.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 47 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=10-7-0, 7=10-7-0, 8=10-7-0, 9=10-7-0, 10=10-7-0, 11=10-7-0, 12=10-7-0
Max Horiz 1=-110 (LC 10)
Max Uplift 1=-37 (LC 8), 7=-12 (LC 9), 8=-149 (LC 13), 9=-1 (LC 8), 10=-30 (LC 9), 11=-23 (LC 9), 12=-150 (LC 12)
Max Grav 1=105 (LC 20), 7=89 (LC 22), 8=223 (LC 20), 9=122 (LC 26), 10=115 (LC 25), 11=122 (LC 25), 12=223 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/97, 2-3=-109/97, 3-4=-101/97, 4-5=-101/97, 5-6=-109/90, 6-7=-96/62
BOT CHORD 1-12=-46/84, 11-12=-46/84, 10-11=-46/84, 9-10=-46/84, 8-9=-46/84, 7-8=-46/84
WEBS 2-12=-210/169, 3-11=-88/45, 4-10=-93/43, 5-9=-88/22, 6-8=-210/169

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1, 12 lb uplift at joint 7, 150 lb uplift at joint 12, 23 lb uplift at joint 11, 30 lb uplift at joint 10, 1 lb uplift at joint 9 and 149 lb uplift at joint 8.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

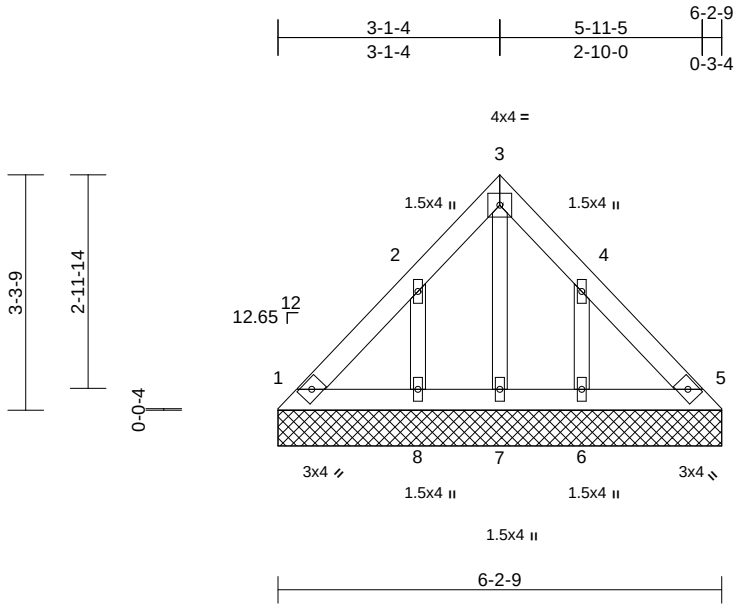
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	LAY02	Lay-In Gable	1	1	Job Reference (optional) I67527104

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:56 Page: 1
ID:LHLh4Q15McGO3iR1UyMX85zWRWq-RfC?PsB70Hq3NSgPqnL8w3uITXoGKWrCb0i7J42OC?I



Scale = 1:32.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=6-2-9, 5=6-2-9, 6=6-2-9, 7=6-2-9, 8=6-2-9
Max Horiz 1=-83 (LC 10)
Max Uplift 1=-9 (LC 8), 6=-116 (LC 13), 8=-116 (LC 12)
Max Grav 1=83 (LC 20), 5=74 (LC 19), 6=179 (LC 20), 7=64 (LC 22), 8=180 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-85/70, 2-3=-72/60, 3-4=-72/60, 4-5=-74/60
BOT CHORD 1-8=-61/80, 7-8=-61/80, 6-7=-61/80, 5-6=-61/80
WEBS 2-8=-181/138, 3-7=-59/42, 4-6=-181/138

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 0-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1, 116 lb uplift at joint 8 and 116 lb uplift at joint 6.
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.

LOAD CASE(S) Standard

August 15,2024

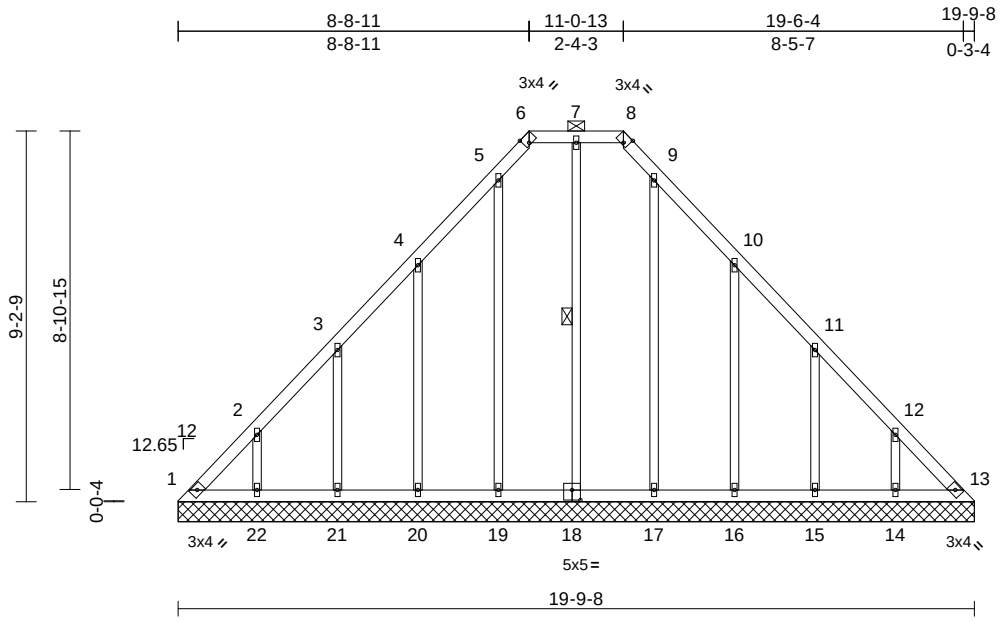
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	LAY03	Lay-In Gable	1	1	Job Reference (optional) I67527105

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:56 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGXWrCDoIY94z3C?f



Scale = 1:57.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 107 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-18

REACTIONS (size) 1=19-9-8, 13=19-9-8, 14=19-9-8, 15=19-9-8, 16=19-9-8, 17=19-9-8, 18=19-9-8, 19=19-9-8, 20=19-9-8, 21=19-9-8, 22=19-9-8
Max Horiz 1=-253 (LC 8)
Max Uplift 1=-119 (LC 10), 13=-82 (LC 11), 14=-138 (LC 13), 15=-133 (LC 13), 16=-157 (LC 13), 17=-32 (LC 13), 18=-5 (LC 9), 19=-48 (LC 12), 20=-153 (LC 12), 21=-133 (LC 12), 22=-138 (LC 12)
Max Grav 1=257 (LC 12), 13=233 (LC 13), 14=209 (LC 20), 15=205 (LC 20), 16=215 (LC 20), 17=164 (LC 20), 18=167 (LC 22), 19=177 (LC 19), 20=212 (LC 19), 21=205 (LC 19), 22=209 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-372/225, 2-3=-245/177, 3-4=-151/127, 4-5=-130/137, 5-6=-161/143, 6-7=-137/134, 7-8=-137/133, 8-9=-161/142, 9-10=-129/107, 10-11=-125/76, 11-12=-212/125, 12-13=-339/225
BOT CHORD 1-22=-169/260, 21-22=-169/260, 20-21=-169/260, 19-20=-169/260, 17-19=-169/261, 16-17=-169/261, 15-16=-169/261, 14-15=-169/261, 13-14=-169/261
WEBS 2-22=-181/156, 3-21=-183/159, 4-20=-204/177, 5-19=-140/71, 7-18=-129/39, 9-17=-123/57, 10-16=-204/180, 11-15=-183/158, 12-14=-181/156

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 8-8-14, Exterior(2E) 8-8-14 to 11-1-1, Exterior(2R) 11-1-1 to 18-1-15, Interior (1) 18-1-15 to 19-5-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 0-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint 1, 82 lb uplift at joint 13, 5 lb uplift at joint 18, 138 lb uplift at joint 22, 133 lb uplift at joint 21, 153 lb uplift at joint 20, 48 lb uplift at joint 19, 32 lb uplift at joint 17, 157 lb uplift at joint 16, 133 lb uplift at joint 15 and 138 lb uplift at joint 14.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

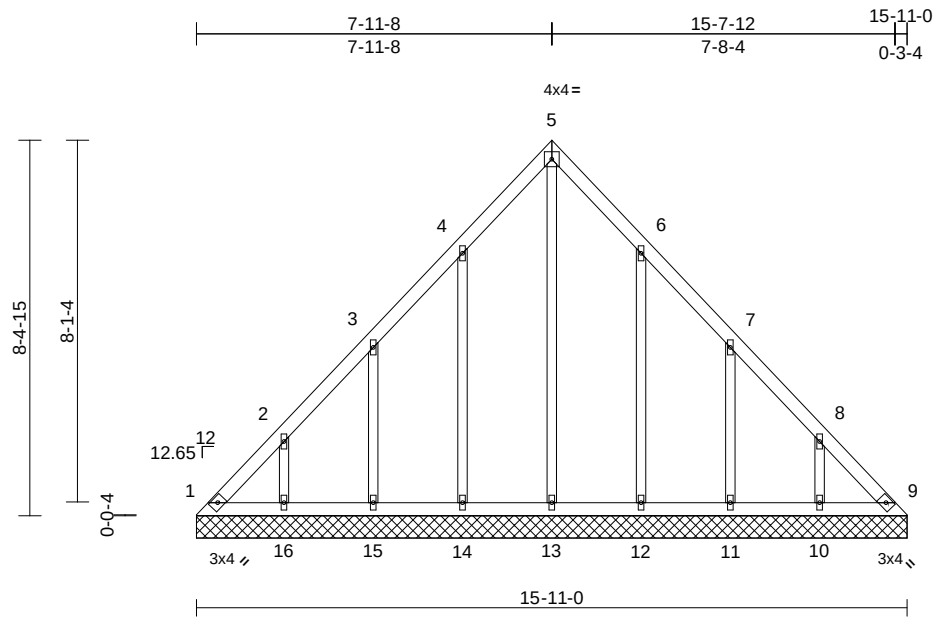
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	LAY04	Lay-In Gable	1	1	Job Reference (optional) I67527106

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:56 Page: 1
ID:NDoWLUOhHBXkx6o?fF6ChrzZls2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoiY94z3C?f



Scale = 1:51.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=15-11-0, 9=15-11-0, 10=15-11-0, 11=15-11-0, 12=15-11-0, 13=15-11-0, 14=15-11-0, 15=15-11-0, 16=15-11-0
Max Horiz 1=-228 (LC 8)
Max Uplift 1=-92 (LC 10), 9=-58 (LC 11), 10=-137 (LC 13), 11=-140 (LC 13), 12=-134 (LC 13), 14=-137 (LC 12), 15=-139 (LC 12), 16=-137 (LC 12)
Max Grav 1=211 (LC 12), 9=188 (LC 13), 10=209 (LC 20), 11=206 (LC 20), 12=214 (LC 20), 13=177 (LC 13), 14=216 (LC 19), 15=205 (LC 19), 16=209 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-309/190, 2-3=-183/140, 3-4=-143/100, 4-5=-162/158, 5-6=-162/150, 6-7=-107/58, 7-8=-155/93, 8-9=-278/190
BOT CHORD 1-16=-146/219, 15-16=-146/219, 14-15=-147/219, 13-14=-147/219, 12-13=-147/219, 11-12=-147/219, 10-11=-146/219, 9-10=-146/219
WEBS 2-16=-185/154, 3-15=-195/164, 4-14=-187/160, 5-13=-153/104, 6-12=-187/158, 7-11=-195/165, 8-10=-185/154

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-1 to 5-4-1, Interior (1) 5-4-1 to 7-11-12, Exterior(2R) 7-11-12 to 12-11-12, Interior (1) 12-11-12 to 15-7-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 0-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 1, 58 lb uplift at joint 9, 137 lb uplift at joint 16, 139 lb uplift at joint 15, 137 lb uplift at joint 14, 134 lb uplift at joint 12, 140 lb uplift at joint 11 and 137 lb uplift at joint 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

August 15,2024

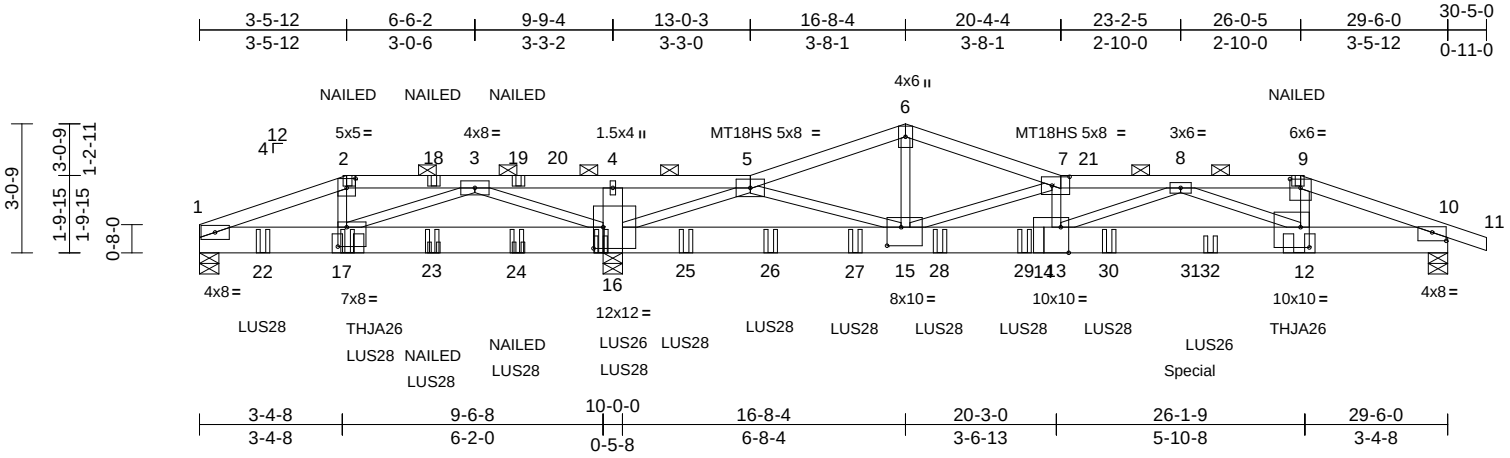
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	TG1	Roof Special Girder	1	3	Job Reference (optional) I67527107

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:56 Page: 1
ID:AzlpT5WBxvlisrVjqL4vmXzWRWC-RfC?PsB70Hq3NSgPqnL8w3uITXbGHWrCDoI7942JC?



Scale = 1:54.5

Plate Offsets (X, Y): [2:0-2-8,0-2-11], [7:0-5-0,0-2-8], [9:0-3-0,0-2-8], [10:0-4-0,0-2-6], [12:0-2-8,0-5-12], [13:0-2-4,Edge], [15:0-4-0,0-5-4], [16:0-2-12,0-6-0], [17:0-2-8,0-5-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.27	12-13	>866	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.48	12-13	>488	180	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 485 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 2-5:2x4 SP 1650F 1.5E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x3 SPF No.2 *Except* 4-16:2x6 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (3-11-2 max.): 2-5, 7-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-17.

REACTIONS (size) 1=0-5-8, 10=0-5-8, 16=0-5-8
Max Horiz 1=-52 (LC 34)
Max Uplift 1=-342 (LC 12), 10=-1204 (LC 9), 16=-2804 (LC 8)
Max Grav 1=1714 (LC 25), 10=4853 (LC 1), 16=13652 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2352/400, 2-3=-2073/390, 3-4=-2184/9453, 4-5=-2184/9453, 5-6=-9148/2019, 6-7=-9139/2019, 7-8=-18780/4421, 8-9=-11272/2841, 9-10=-12689/3147, 10-11=0/7
BOT CHORD 1-17=-378/2121, 16-17=-3557/847, 15-16=-523/2651, 13-15=-4356/18843, 12-13=-3686/15311, 10-12=-2840/11630
WEBS 2-17=-90/635, 5-16=-13142/3016, 5-15=-1394/6496, 7-13=-291/910, 9-12=-1098/4737, 6-15=-1110/5373, 7-15=-10868/2722, 8-12=-4461/1026, 8-13=-767/3832, 4-16=-613/196, 3-17=-1218/5959, 3-16=-6428/1557

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 oc.
Web connected as follows: 2x3 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 3-5-12, Exterior(2R) 3-5-12 to 8-5-12, Interior (1) 8-5-12 to 16-8-4, Exterior(2E) 16-8-4 to 20-4-4, Interior (1) 20-4-4 to 26-0-5, Exterior(2E) 26-0-5 to 30-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearings are assumed to be: Joint 1 SP 2400F 2.0E crushing capacity of 805 psi, Joint 16 SPF No.2 crushing capacity of 425 psi, Joint 10 SP 2400F 2.0E crushing capacity of 805 psi.
9) Bearing at joint(s) 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 342 lb uplift at joint 1, 1204 lb uplift at joint 10 and 2804 lb uplift at joint 16.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 3-6-2 from the left end to connect truss(es) to front face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 14-5-0 oc max. starting at 9-5-12 from the left end to 23-10-12 to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Right Hand Hip) or equivalent at 25-11-15 from the left end to connect truss(es) to front face of bottom chord.

August 15,2024

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	TG1	Roof Special Girder	1	3	Job Reference (optional) I67527107

16) Use Simpson Strong-Tie LUS28 (6-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-6-0 from the left end to 21-6-0 to connect truss(es) to back face of bottom chord.
17) Fill all nail holes where hanger is in contact with lumber.
18) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
19) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 472 lb down and 125 lb up at 9-9-4, and 1239 lb down and 232 lb up at 9-9-4, and 2358 lb down and 657 lb up at 23-5-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

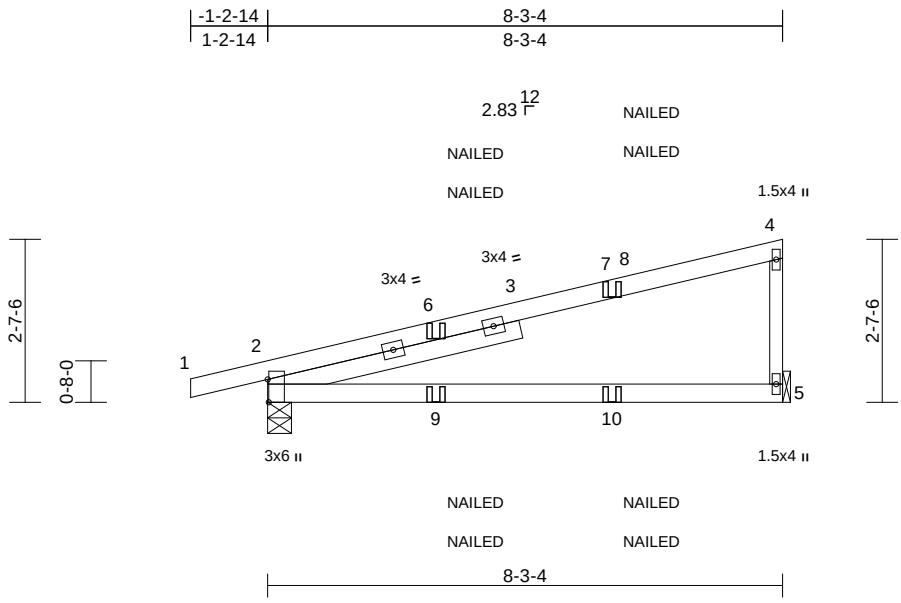
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-9=-70, 9-11=-70, 1-10=-20
   Concentrated Loads (lb)
   Vert: 2=-41 (F), 9=-41 (F), 17=-1423 (F=-184, B=-1239), 12=-184 (F), 16=-1711 (F=-472, B=-1239), 18=-41 (F), 19=-41 (F), 22=-1239 (B), 23=-1253 (F=-14, B=-1239), 24=-1253 (F=-14, B=-1239), 25=-1239 (B), 26=-1232 (B), 27=-1232 (B), 28=-1232 (B), 29=-1232 (B), 30=-1232 (B), 31=-2358 (B), 32=-472 (F)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155	I67527108
P240859-01	TG2	Diagonal Hip Girder	4	1	Job Reference (optional)	

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:9RizLT5sxS0XndvBrCTxOMzWRWk-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon7J42JC?F



Scale = 1:37

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.22	2-5	>454	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.43	2-5	>227	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 35 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SP 2400F 2.0E
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 4-1-15

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

REACTIONS (size) 2=0-4-9, 5= Mechanical
Max Horiz 2=103 (LC 9)
Max Uplift 2=-150 (LC 8), 5=-117 (LC 12)
Max Grav 2=486 (LC 1), 5=415 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-140/82, 4-5=-320/305
BOT CHORD 2-5=-47/51

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 8-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP 2400F 2.0E crushing capacity of 805 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 5 and 150 lb uplift at joint 2.
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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 7=-60 (F=-34, B=-26), 10=-19 (F=-10, B=-10)

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

August 15,2024

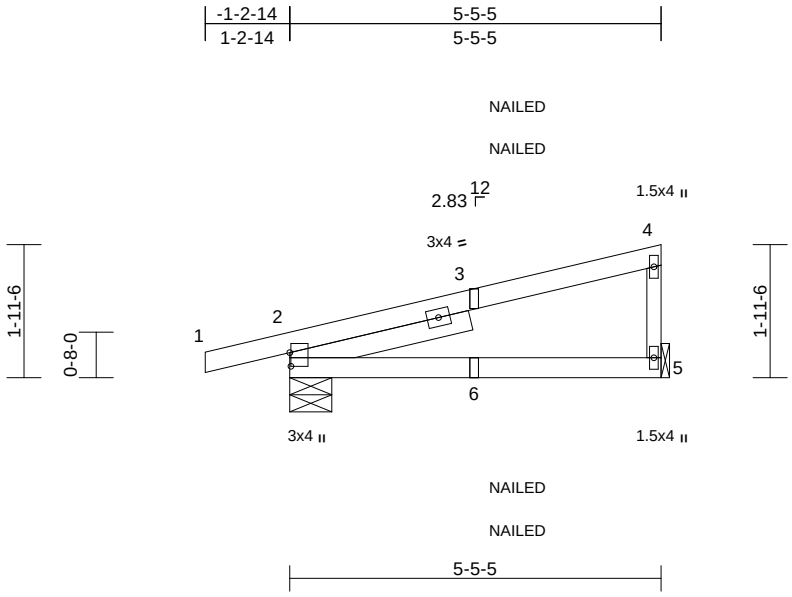
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	TG3	Diagonal Hip Girder	2	1	Job Reference (optional)

I67527109

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:9RizLT5sxS0XndvBrCTxOMzWRWk-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon7J42JC?P



Scale = 1:33.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.05	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.10	2-5	>657	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
SLIDER Left 2x4 SP No.2 -- 2-8-8

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

REACTIONS (size) 2=0-7-6, 5= Mechanical
Max Horiz 2=73 (LC 28)
Max Uplift 2=-111 (LC 8), 5=-54 (LC 12)
Max Grav 2=337 (LC 1), 5=230 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-6/0, 2-4=-95/60, 4-5=-177/225
BOT CHORD 2-5=-34/36

NOTES
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 5 and 111 lb uplift at joint 2.
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) "NAILED" indicates Girder: 3-10d (0.148" x 3") toe-nails per NDS guidelines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-70, 2-5=-20

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

August 15,2024

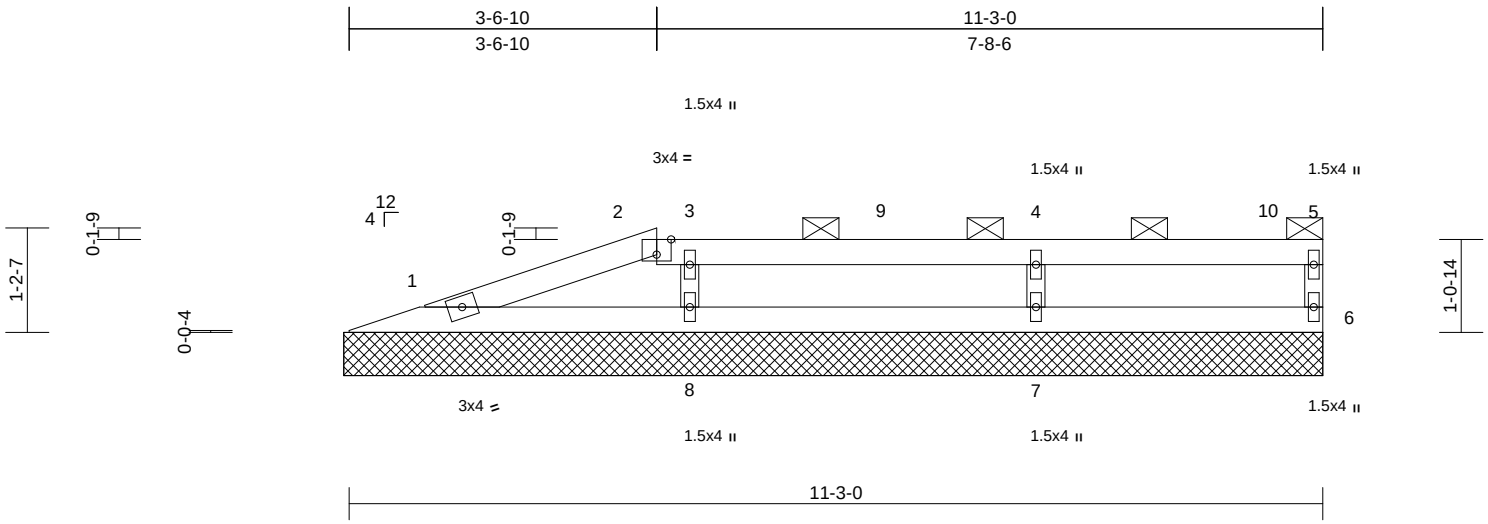
MiTek®
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
08/29/2024

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	V1	Valley	1	1	Job Reference (optional) I67527110

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:58PeEL10HSThQtdzaHKkD7zWQKf-RfC?PsB70Hq3NSgPqnL8w3uITXb0KWrCDonJ42JG?P



Scale = 1:26.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 34 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

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

REACTIONS (size) 1=11-3-12, 6=11-3-12, 7=11-3-12, 8=11-3-12
Max Horiz 1=36 (LC 9)
Max Uplift 1=-24 (LC 12), 6=-25 (LC 8), 7=-82 (LC 9), 8=-76 (LC 8)
Max Grav 1=110 (LC 1), 6=113 (LC 1), 7=373 (LC 26), 8=341 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-46/14, 2-3=-42/47, 3-4=-32/30, 4-5=-32/30, 5-6=-87/85
BOT CHORD 1-8=-29/29, 7-8=-29/29, 6-7=-29/29
WEBS 3-8=-258/231, 4-7=-293/246

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-11-5 to 3-7-6, Exterior(2R) 3-7-6 to 10-8-4, Interior (1) 10-8-4 to 11-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1, 25 lb uplift at joint 6, 76 lb uplift at joint 8 and 82 lb uplift at joint 7.
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.

LOAD CASE(S) Standard

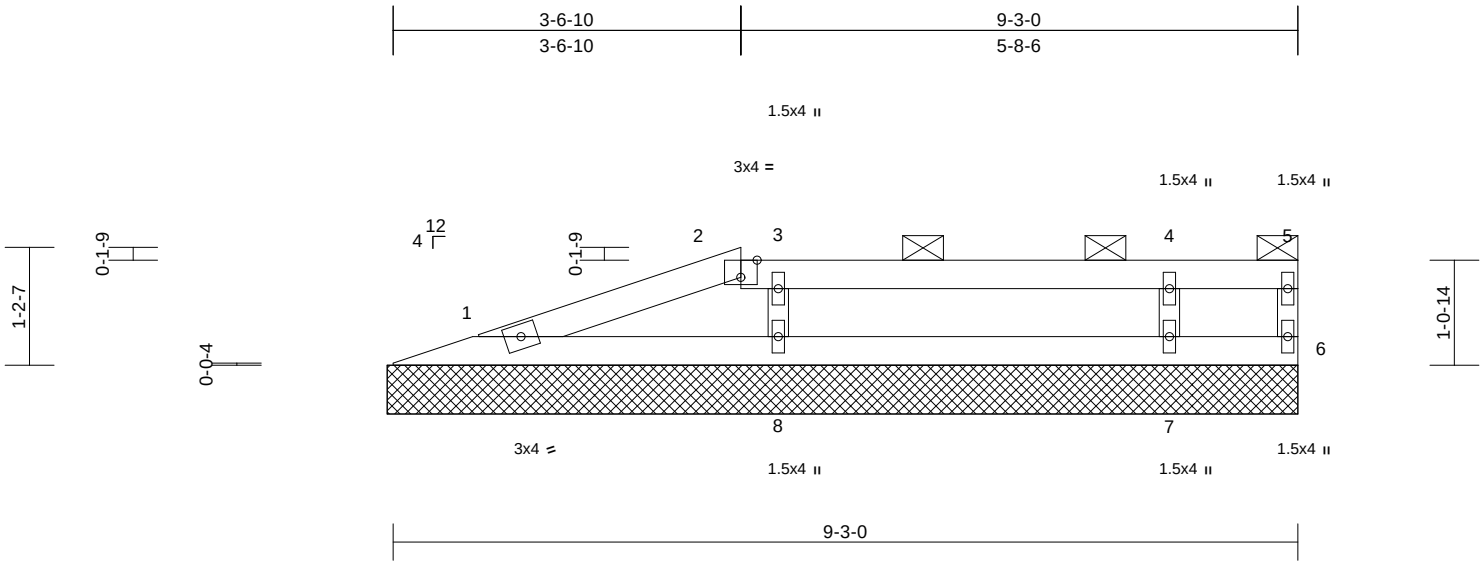
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	V2	Valley	1	1	Job Reference (optional) I67527111

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:58PeEL10HSThQtdzaHKkD7zWQKf-RfC?PsB70Hq3NSgPqnL8w3uITXb0KWrCDonJ42JG?P



Scale = 1:23.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 28 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 9-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=9-3-12, 6=9-3-12, 7=9-3-12, 8=9-3-12
Max Horiz 1=36 (LC 9)
Max Uplift 1=-25 (LC 12), 6=-50 (LC 26), 7=-77 (LC 9), 8=-79 (LC 8)
Max Grav 1=99 (LC 1), 6=12 (LC 9), 7=346 (LC 26), 8=359 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/42, 2-3=-21/32, 3-4=-18/20, 4-5=-18/20, 5-6=-28/38
BOT CHORD 1-8=-23/24, 7-8=-23/24, 6-7=-23/24
WEBS 3-8=-273/276, 4-7=-271/254

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 50 lb uplift at joint 6, 79 lb uplift at joint 8 and 77 lb uplift at joint 7.
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.

LOAD CASE(S) Standard

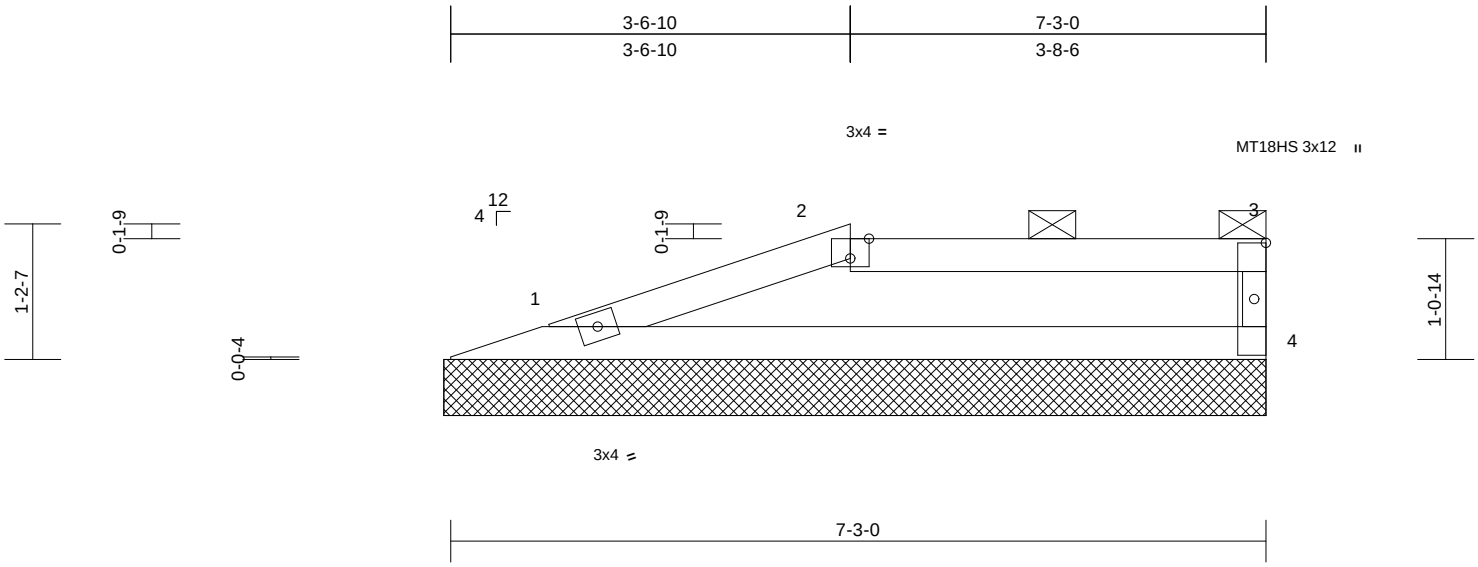
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	V3	Valley	1	1	Job Reference (optional) I67527112

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:aLz1Sh1e2mbX11C98?rzmLzWQKe-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon7J42JC?F



Scale = 1:20.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(TL)	n/a	-	n/a	999	MT18HS	197/144
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 21 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

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

REACTIONS (size) 1=7-3-12, 4=7-3-12
Max Horiz 1=36 (LC 11)
Max Uplift 1=-61 (LC 8), 4=-63 (LC 8)
Max Grav 1=282 (LC 1), 4=282 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-396/328, 2-3=-342/326, 3-4=-198/220
BOT CHORD 1-4=-315/339

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 1 and 63 lb uplift at joint 4.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

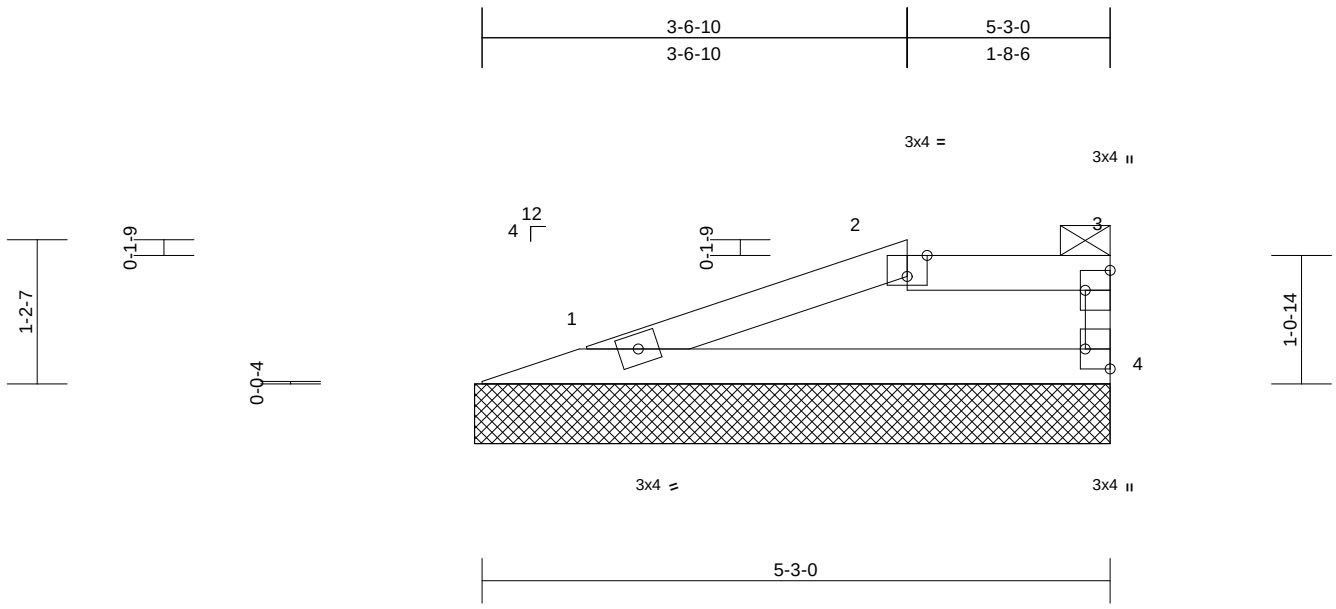
August 15,2024

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

Job	Truss	Truss Type	Qty	Ply	Roof - HM Lot 155
P240859-01	V4	Valley	1	1	Job Reference (optional) I67527113

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083,

Run: 8.63 S Jul 12 2024 Print: 8.630 S Jul 12 2024 MiTek Industries, Inc. Tue Aug 13 15:21:57 Page: 1
ID:aLz1Sh1e2mbX11C98?rzmLzWQKe-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCDon?J42JC?P



Scale = 1:19.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 15 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-3-12, 4=5-3-12
Max Horiz 1=36 (LC 9)
Max Uplift 1=-40 (LC 8), 4=-43 (LC 8)
Max Grav 1=192 (LC 1), 4=192 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-196/160, 2-3=-159/180, 3-4=-134/165
BOT CHORD 1-4=-165/154

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1 and 43 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

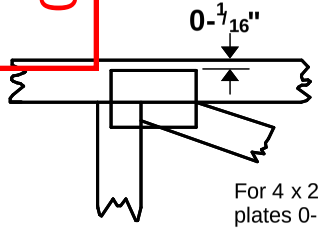
August 15,2024

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

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.

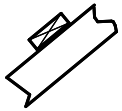
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

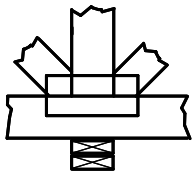
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

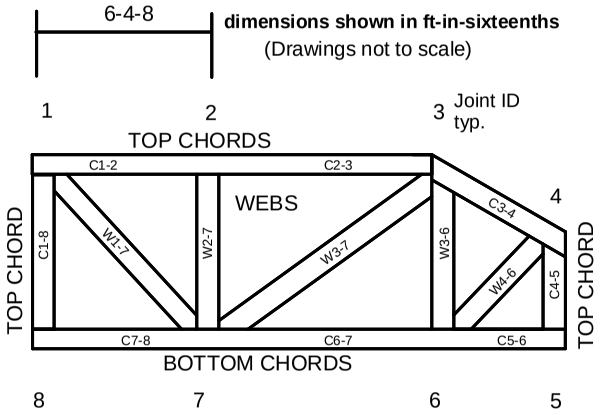


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.