MiTek®

RE: 241116-A
Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr

MiTek, Inc.
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571

Site Information:

Customer: Premier Building Supply
Lot/Block: 82
Address: 1531 SW Arbor Valley
City: Lee's Summit
Project Name: 241116-A
Model:
Subdivision:
State: MO

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

Design Code: IRC2018/TPI2014
Wind Code: ASCE 7-16
Roof Load: 45.0 psf
Design Program: MiTek 20/20 8.8
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 54 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	R85980223	A2	12/27/2024	21	R85980243	LG1	12/27/2024
2	R85980224	A3	12/27/2024	22	R85980244	A15	12/27/2024
3	R85980225	A4	12/27/2024	23	R85980245	A14	12/27/2024
4	R85980226	A5	12/27/2024	24	R85980246	A13	12/27/2024
5	R85980227	A6	12/27/2024	25	R85980247	A12	12/27/2024
6	R85980228	B3	12/27/2024	26	R85980248	A11	12/27/2024
7	R85980229	C2	12/27/2024	27	R85980249	A10	12/27/2024
8	R85980230	B1	12/27/2024	28	R85980250	A9	12/27/2024
9	R85980231	B2	12/27/2024	29	R85980251	J8	12/27/2024
10	R85980232	CG1	12/27/2024	30	R85980252	D1	12/27/2024
11	R85980233	J1	12/27/2024	31	R85980253	D2	12/27/2024
12	R85980234	J2	12/27/2024	32	R85980254	D3	12/27/2024
13	R85980235	J3	12/27/2024	33	R85980255	CG2	12/27/2024
14	R85980236	J4	12/27/2024	34	R85980256	CG3	12/27/2024
15	R85980237	J5	12/27/2024	35	R85980257	LG6	12/27/2024
16	R85980238	J6	12/27/2024	36	R85980258	E2	12/27/2024
17	R85980239	LG5	12/27/2024	37	R85980259	E3	12/27/2024
18	R85980240	E1	12/27/2024	38	R85980260	V1	12/27/2024
19	R85980241	CG4	12/27/2024	39	R85980261	D4	12/27/2024
20	R85980242	J7	12/27/2024	40	R85980262	V2	12/27/2024

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc under my direct supervision based on the parameters provided by Direct Lumber of Colorado.

Truss Design Engineer's Name: Sevier, Scott

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

Missouri COA: 001193

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. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek 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.

December 27, 2024

Sevier, Scott

MiTek®

RE: 241116-A - Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr

MiTek, Inc.
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571

Site Information:

Project Customer: Premier Building Supply Project Name: 241116-A
Lot/Block: 82 Subdivision:
Address: 1531 SW Arbor Valley
City, County: Lee's Summit State: MO

No.	Seal#	Truss Name	Date
41	R85980263	V3	12/27/2024
42	R85980264	V4	12/27/2024
43	R85980265	V5	12/27/2024
44	R85980266	V6	12/27/2024
45	R85980267	V7	12/27/2024
46	R85980268	A7	12/27/2024
47	R85980269	A8	12/27/2024
48	R85980270	LG3	12/27/2024
49	R85980271	LG2	12/27/2024
50	R85980272	LG9	12/27/2024
51	R85980273	LG8	12/27/2024
52	R85980274	C1	12/27/2024
53	R85980275	J9	12/27/2024
54	R85980276	J10	12/27/2024

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A2	Hip	1	1	Job Reference (optional) R85980223

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:39 Page: 1
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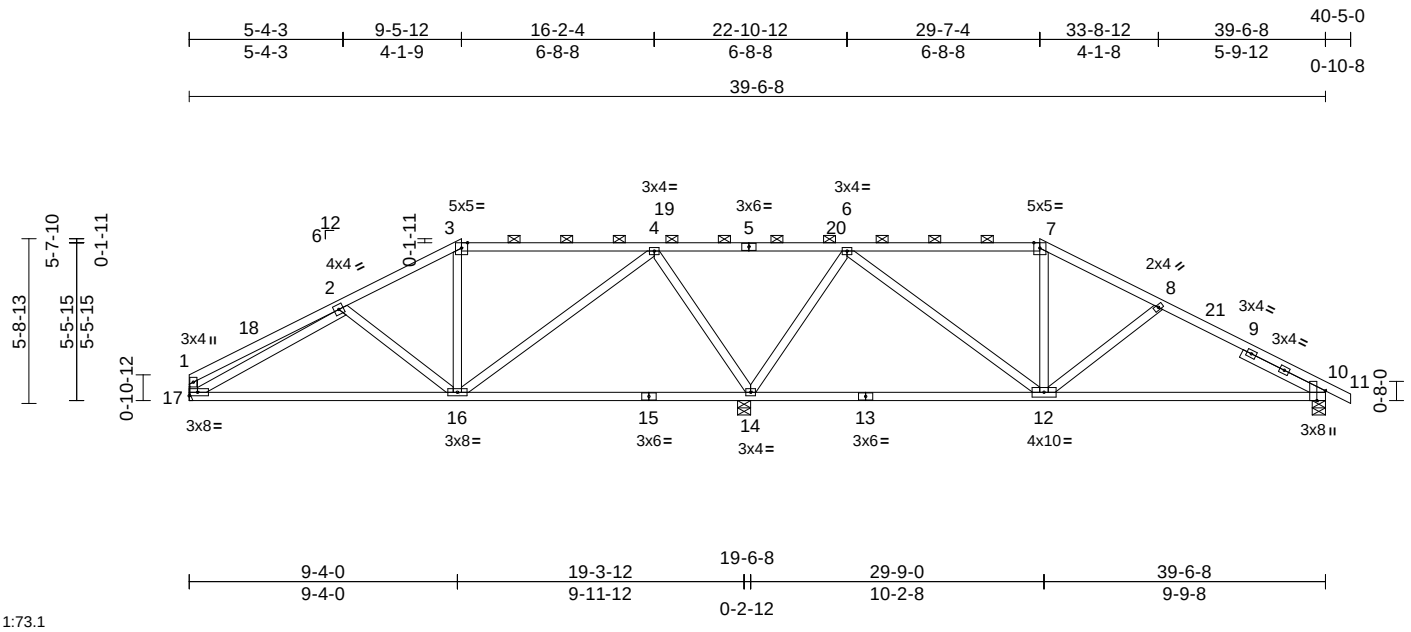

Scale = 1:73.1

Plate Offsets (X, Y): [10:0-4-1,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	0.69	Vert(LL)	-0.19	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.40	10-12	>606	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 160 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 -- 3-2-10

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

REACTIONS (size) 10=0-5-8, 14=0-5-8, 17= Mechanical
Max Horiz 17=-105 (LC 13)
Max Uplift 10=-169 (LC 13), 14=-315 (LC 9), 17=-121 (LC 12)
Max Grav 10=808 (LC 26), 14=2134 (LC 1), 17=712 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-349/78, 2-3=-710/171, 3-4=-581/176, 4-6=-56/670, 6-7=-627/192, 7-8=-760/181, 8-10=-1069/254, 10-11=0/6, 1-17=-291/101
BOT CHORD 16-17=-182/785, 14-16=-80/112, 12-14=-69/85, 10-12=-131/872
WEBS 3-16=-83/99, 4-16=-66/744, 7-12=-73/116, 2-17=-638/145, 2-16=-270/208, 8-12=-320/218, 4-14=-1135/284, 6-14=-1161/270, 6-12=-71/780

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) 0-1-12 to 5-2-11, Interior (1) 5-2-11 to 9-5-12, Exterior(2R) 9-5-12 to 16-6-10, Interior (1) 16-6-10 to 29-7-4, Exterior(2R) 29-7-4 to 36-8-2, Interior (1) 36-8-2 to 40-5-0 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
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 14 SPF No.2 , Joint 10 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 17, 169 lb uplift at joint 10 and 315 lb uplift at joint 14.
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

December 27,2024

MiTek®
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Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A3	Hip	1	1	Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
R85980224
LEE'S SUMMIT, MISSOURI
01/07/2025

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:40 Page: 1
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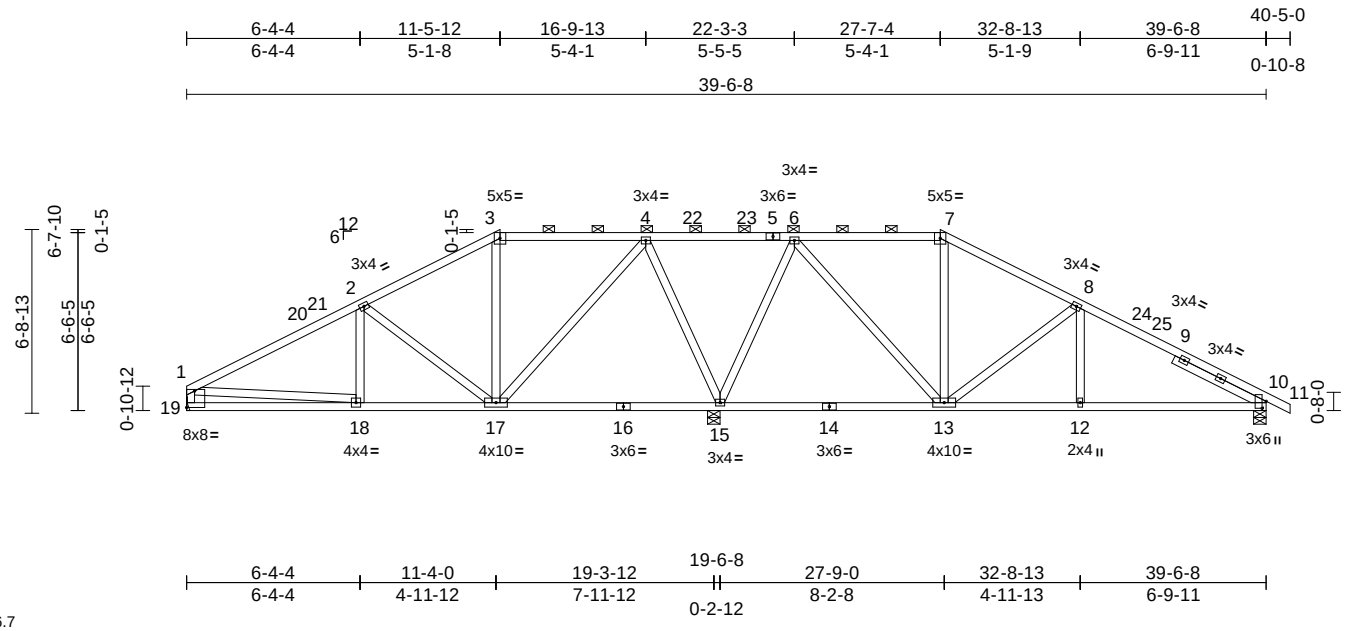

Scale = 1:76.7

Plate Offsets (X, Y): [10:0-3-1,0-1-13], [19:Edge,0-7-4]

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	0.48	Vert(LL)	-0.08	13-15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.16	13-15	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 WW Stud -- 3-8-15

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 10=0-5-8, 15=0-5-8, 19= Mechanical
Max Horiz 19=-124 (LC 13)
Max Uplift 10=-191 (LC 13), 15=-235 (LC 9), 19=-138 (LC 12)
Max Grav 10=807 (LC 26), 15=2160 (LC 1), 19=704 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-953/200, 2-3=-518/186, 3-4=-387/200, 4-6=0/602, 6-7=-429/233, 7-8=-564/222, 8-10=-1071/265, 10-11=0/6, 1-19=-641/173
BOT CHORD 18-19=-151/281, 17-18=-189/773, 15-17=-177/127, 13-15=-172/104, 12-13=-130/864, 10-12=-130/864
WEBS 2-18=0/187, 2-17=-497/206, 3-17=-148/57, 7-13=-139/62, 8-13=-556/218, 8-12=0/239, 1-18=-56/523, 4-15=-1070/228, 4-17=-97/769, 6-15=-1090/224, 6-13=-89/795

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 11-5-12, Exterior(2R) 11-5-12 to 18-6-10, Interior (1) 18-6-10 to 27-7-4, Exterior(2R) 27-7-4 to 34-8-2, Interior (1) 34-8-2 to 40-5-0 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
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 15 SPF No.2 , Joint 10 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 19, 191 lb uplift at joint 10 and 235 lb uplift at joint 15.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980225
241116-A	A4	Hip	1	1	Job Reference (optional)

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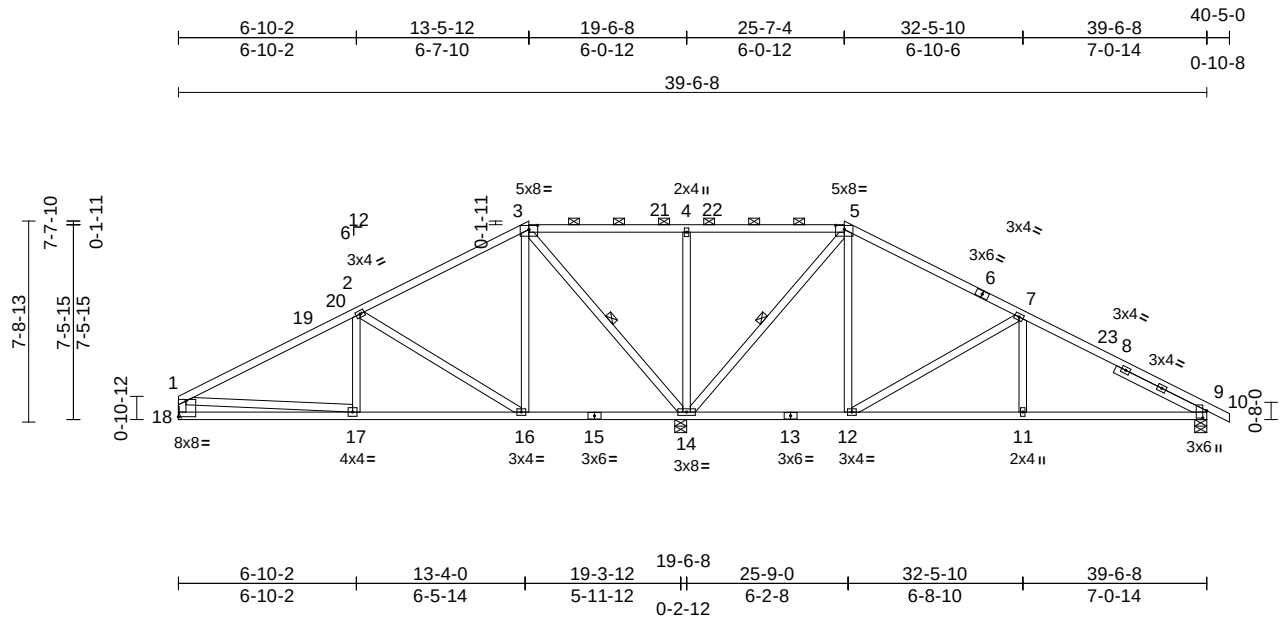

Scale = 1:80.7

Plate Offsets (X, Y): [3:0-4-0,0-1-15], [5:0-4-0,0-1-15], [9:0-3-5,0-1-13], [18:Edge,0-7-4]

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	0.61	Vert(LL)	-0.06	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.13	9-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.75	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 177 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 WW Stud -- 3-10-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 3-14

REACTIONS (size) 9=0-5-8, 14=0-5-8, 18= Mechanical
Max Horiz 18=-142 (LC 17)
Max Uplift 9=-189 (LC 13), 14=-170 (LC 9), 18=-136 (LC 12)
Max Grav 9=788 (LC 26), 14=2226 (LC 1), 18=688 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-923/195, 2-3=-331/150, 3-4=0/575, 4-5=0/575, 5-7=-366/190, 7-9=-1038/263, 9-10=0/6, 1-18=-625/172
BOT CHORD 17-18=-173/298, 16-17=-200/743, 14-16=-34/202, 12-14=-7/212, 11-12=-127/838, 9-11=-127/838
WEBS 2-17=0/258, 2-16=-656/249, 3-16=-57/470, 5-14=-1078/159, 5-12=-55/485, 7-12=-720/264, 7-11=0/300, 1-17=-37/485, 3-14=-1052/170, 4-14=-477/224

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 13-5-12, Exterior(2R) 13-5-12 to 20-6-10, Interior (1) 20-6-10 to 25-7-4, Exterior(2R) 25-7-4 to 32-5-10, Interior (1) 32-5-10 to 40-5-0 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
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 14 SPF No.2 , Joint 9 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 18, 189 lb uplift at joint 9 and 170 lb uplift at joint 14.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A5	Hip	1	1	Job Reference (optional) R85980226

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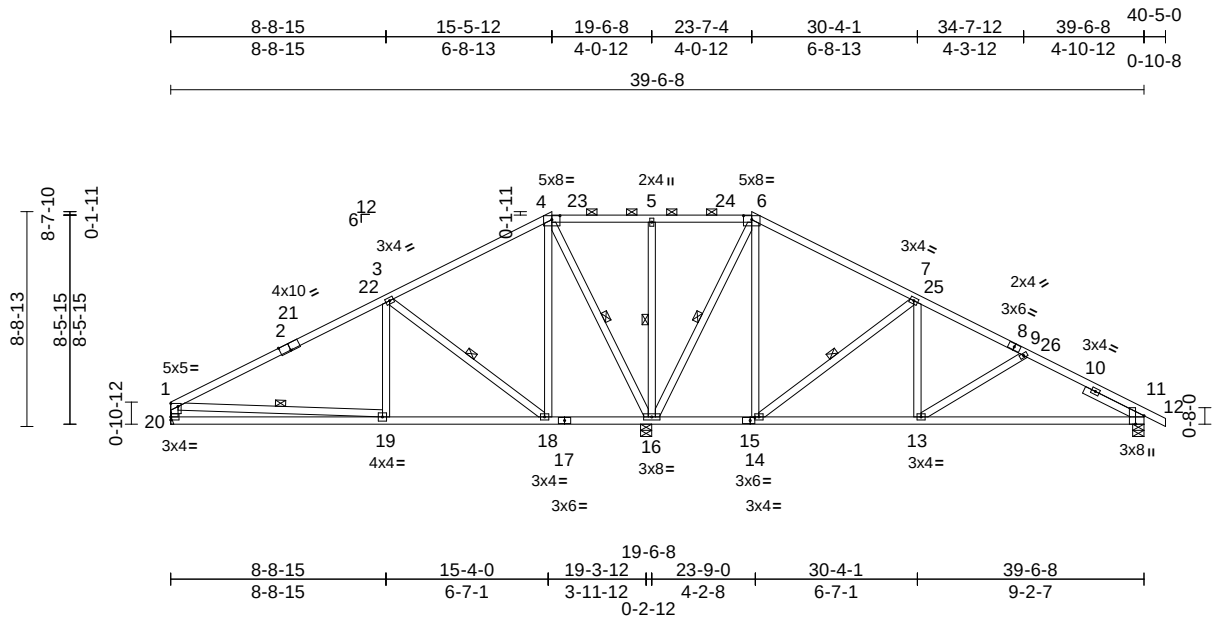

Scale = 1:84.7

Plate Offsets (X, Y): [1:Edge,0-1-8], [2:0-5-0,Edge], [4:0-4-0,0-1-15], [6:0-4-0,0-1-15], [11:0-4-1,Edge], [15:0-2-4,0-1-8]

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	0.87	Vert(LL)	-0.18	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.36	11-13	>665	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 190 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 WW Stud -- 2-8-1

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-18, 6-16, 7-14, 1-19, 5-16, 4-16

REACTIONS (size) 11=0-5-8, 16=0-5-8, 20= Mechanical
Max Horiz 20=-161 (LC 13)
Max Uplift 11=-174 (LC 13), 16=-198 (LC 12), 20=-132 (LC 12)
Max Grav 11=761 (LC 26), 16=2295 (LC 1), 20=684 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-828/166, 3-4=-142/226, 4-5=0/611, 5-6=0/611, 6-7=-102/246, 7-9=-726/210, 9-11=-1003/272, 11-12=0/6, 1-20=-604/179
BOT CHORD 19-20=-253/458, 18-19=-166/631, 16-18=-187/267, 14-16=-148/187, 13-14=-17/604, 11-13=-155/817
WEBS 3-19=0/340, 3-18=-787/282, 4-18=-109/563, 6-16=-1090/194, 6-14=-94/551, 7-14=-774/253, 7-13=0/408, 1-19=-84/193, 5-16=-300/147, 4-16=-1061/196, 9-13=-260/162

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 15-5-12, Exterior(2R) 15-5-12 to 22-6-10, Interior (1) 22-6-10 to 23-7-4, Exterior(2R) 23-7-4 to 30-8-2, Interior (1) 30-8-2 to 40-5-0 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
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 16 SPF No.2 , Joint 11 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 20, 174 lb uplift at joint 11 and 198 lb uplift at joint 16.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980227
241116-A	A6	Hip	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:41 Page: 1
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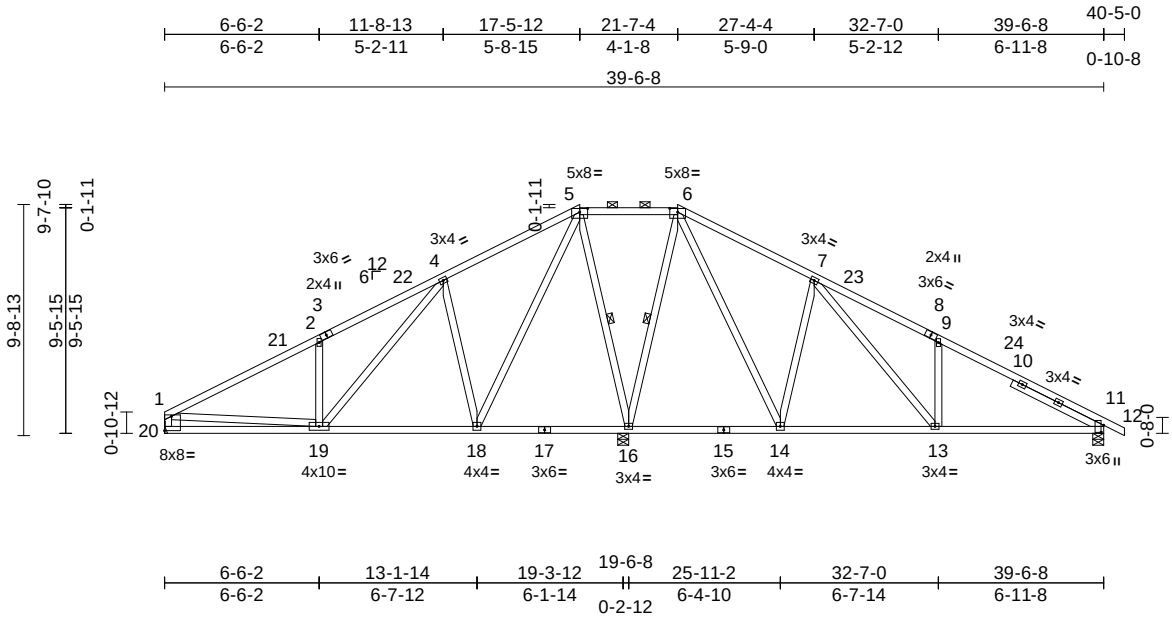

Scale = 1:88.7

Plate Offsets (X, Y): [5:0-4-0,0-1-15], [6:0-4-0,0-1-15], [11:0-3-9,0-1-5], [20:Edge,0-7-4]

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	0.50	Vert(LL)	-0.06	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.13	11-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 193 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 -- 4-3-5

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-3 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-16, 5-16

REACTIONS (size) 11=0-5-8, 16=0-5-8, 20= Mechanical
Max Horiz 20=-180 (LC 17)
Max Uplift 11=-201 (LC 13), 16=-225 (LC 12), 20=-136 (LC 12)
Max Grav 11=774 (LC 26), 16=2304 (LC 1), 20=669 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-884/185, 2-4=-875/329, 4-5=-266/240, 5-6=0/563, 6-7=-305/311, 7-9=-968/418, 9-11=-992/272, 11-12=0/6, 1-20=-609/169
BOT CHORD 19-20=-222/319, 18-19=-88/292, 16-18=-323/240, 14-16=-319/195, 13-14=-62/335, 11-13=-133/792
WEBS 1-19=-8/445, 6-16=-1119/224, 5-16=-1103/256, 7-14=-683/322, 6-14=-260/869, 7-13=-236/740, 9-13=-418/264, 2-19=-424/260, 4-19=-225/675, 4-18=-652/317, 5-18=-256/842

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 17-5-12, Exterior(2E) 17-5-12 to 21-7-4, Exterior(2R) 21-7-4 to 28-8-2, Interior (1) 28-8-2 to 40-5-0 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
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 16 SPF No.2 , Joint 11 SPF No.2 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 20, 201 lb uplift at joint 11 and 225 lb uplift at joint 16.
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

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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	B3	Common	1	1	R85980228

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.82 E Sep 25 2024 Print: 8.820 E Sep 25 2024 MiTek Industries, Inc. Fri Dec 27 12:27:39 Page: 1
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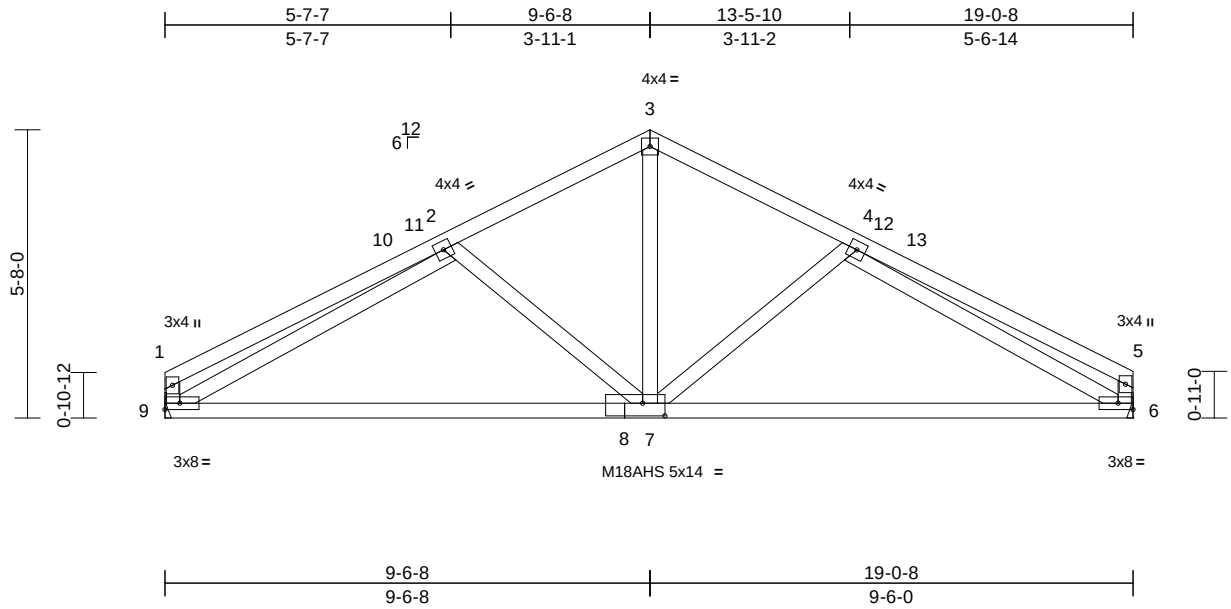

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Plate Offsets (X, Y): [8:0-5-4,0-3-0]

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	0.29	Vert(LL)	-0.15	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.31	7-9	>715	180	M18AHS	142/136
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=844/ Mechanical, 9=844/ Mechanical
Max Horiz 9=92 (LC 9)
Max Uplift 6=-126 (LC 13), 9=-126 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-386/97, 10-11=-273/111, 2-11=-268/113, 2-3=-945/299, 3-4=-945/299, 4-12=-256/111, 12-13=-260/109, 5-13=-371/95, 1-9=-315/130, 5-6=-307/128
BOT CHORD 8-9=-278/988, 7-8=-278/988, 6-7=-258/984
WEBS 3-7=-143/551, 2-9=-841/250, 4-6=-852/253, 2-7=-301/227, 4-7=-295/225

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 9-6-8, Exterior(2R) 9-6-8 to 14-6-8, Interior (1) 14-6-8 to 18-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
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 126 lb uplift at joint 9 and 126 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.

LOAD CASE(S) Standard

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	C2	Half Hip	1	1	Job Reference (optional) R85980229

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:47 Page: 1
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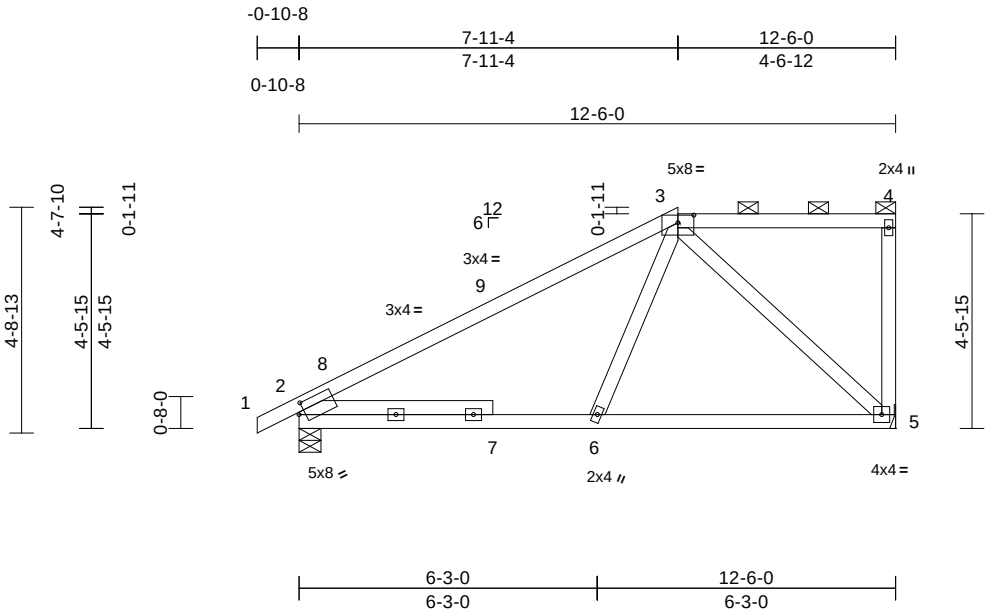

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Plate Offsets (X, Y): [2:0-1-8,0-2-8], [3:0-4-0,0-1-15]

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	0.72	Vert(LL)	0.05	2-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.07	2-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 4-0-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals, and 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) 2=0-5-8, 5= Mechanical
Max Horiz 2=188 (LC 9)
Max Uplift 2=-113 (LC 12), 5=-109 (LC 9)
Max Grav 2=619 (LC 1), 5=554 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-705/172, 3-4=-96/96, 4-5=-149/84
BOT CHORD 2-6=-289/496, 5-6=-300/410
WEBS 3-6=0/330, 3-5=-554/337

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 12-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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 .
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 5 and 113 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.

LOAD CASE(S) Standard

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	B1	Hip Girder	1	2	Job Reference (optional) R85980230

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:46 Page: 1
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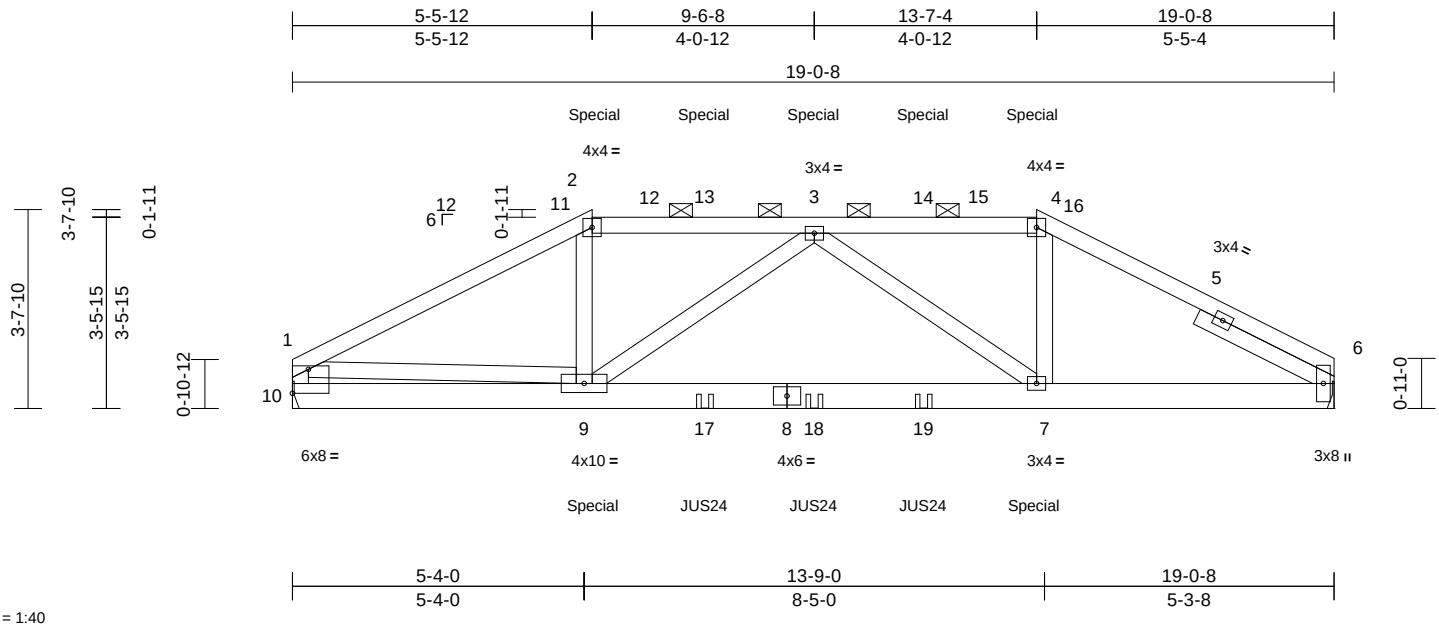

Scale = 1:40

Plate Offsets (X, Y): [6:0-5-9,0-0-13], [10:Edge,0-5-4]

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	0.75	Vert(LL)	0.06	7-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.13	7-9	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 168 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Right 2x4 WW Stud -- 2-9-7

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

REACTIONS (size) 6= Mechanical, 10= Mechanical
Max Horiz 10=-62 (LC 17)
Max Uplift 6=-469 (LC 13), 10=-473 (LC 12)
Max Grav 6=1637 (LC 1), 10=1646 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2764/902, 2-3=-2377/851, 3-4=-2343/849, 4-6=-2840/930, 1-10=-1589/545
BOT CHORD 9-10=-214/451, 7-9=-972/2836, 6-7=-711/2382
WEBS 2-9=-131/775, 4-7=-182/955, 1-9=-560/1967, 3-9=-650/362, 3-7=-696/375

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: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 5-1-12, Interior (1) 5-1-12 to 5-5-12, Exterior(2R) 5-5-12 to 12-6-10, Interior (1) 12-6-10 to 13-7-4, Exterior(2E) 13-7-4 to 19-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 469 lb uplift at joint 6 and 473 lb uplift at joint 10.
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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 7-6-8 from the left end to 11-6-8 to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 136 lb up at 5-5-12, 131 lb down and 136 lb up at 7-6-8, 131 lb down and 136 lb up at 9-6-8, and 131 lb down and 136 lb up at 11-6-8, and 155 lb down and 136 lb up at 13-7-4 on top chord, and 406 lb down and 125 lb up at 5-5-12, and 406 lb down and 125 lb up at 13-6-8 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, 2-4=-70, 4-6=-70, 6-10=-20
Concentrated Loads (lb)
Vert: 2=-131 (F), 4=-131 (F), 9=-406 (F), 7=-406 (F), 3=-131 (F), 13=-131 (F), 14=-131 (F), 17=-39 (F), 18=-39 (F), 19=-39 (F)

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980231
241116-A	B2	Hip	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:46 Page: 1
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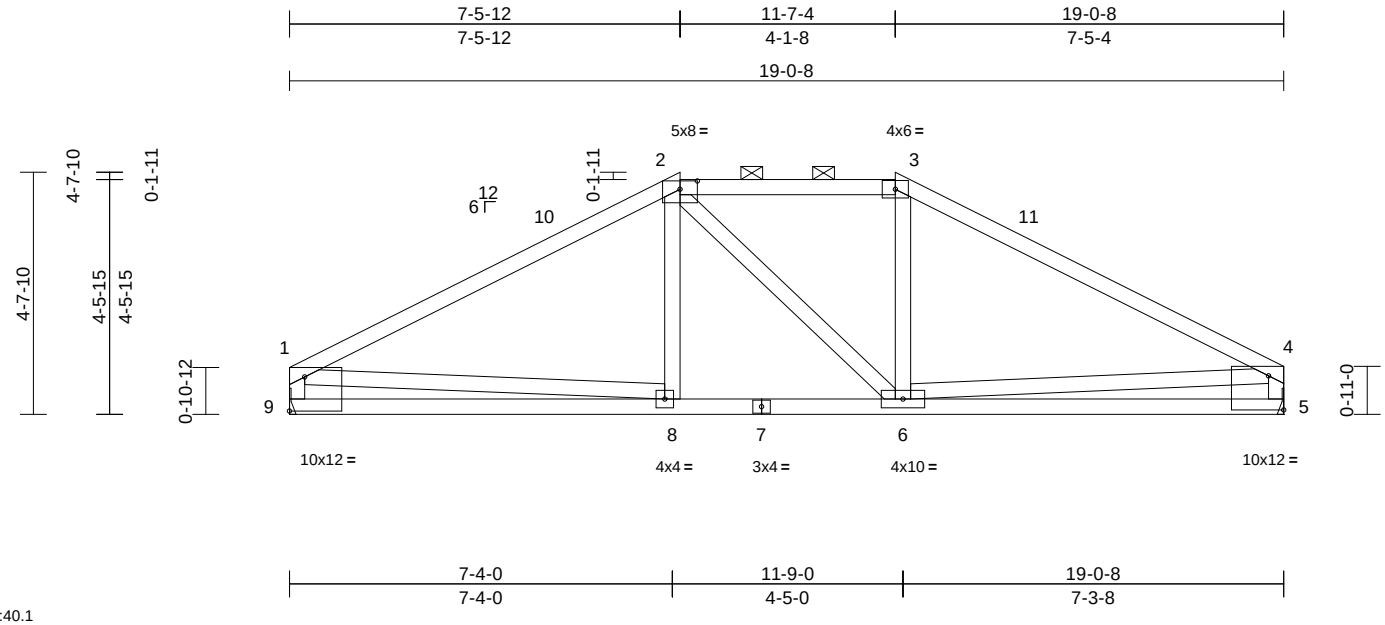

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Plate Offsets (X, Y): [2:0-4-0,0-1-15], [5:Edge,0-7-13], [9:Edge,0-7-13]

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	0.89	Vert(LL)	-0.08	8-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.16	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 78 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-13 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 9= Mechanical
Max Horiz 9=77 (LC 9)
Max Uplift 5=-110 (LC 13), 9=-110 (LC 12)
Max Grav 5=844 (LC 1), 9=844 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1157/278, 2-3=-929/317, 3-4=-1154/277, 1-9=-772/244, 4-5=-772/243
BOT CHORD 8-9=-208/410, 6-8=-183/931, 5-6=-155/393
WEBS 2-8=0/202, 2-6=-141/135, 3-6=-21/200, 1-8=-46/535, 4-6=-49/542

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) 0-1-12 to 5-1-12, Interior (1) 5-1-12 to 7-5-12, Exterior(2E) 7-5-12 to 18-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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 110 lb uplift at joint 9 and 110 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.

LOAD CASE(S) Standard

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	CG1	Diagonal Hip Girder	5	1	Job Reference (optional) R85980232

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:47 Page: 1
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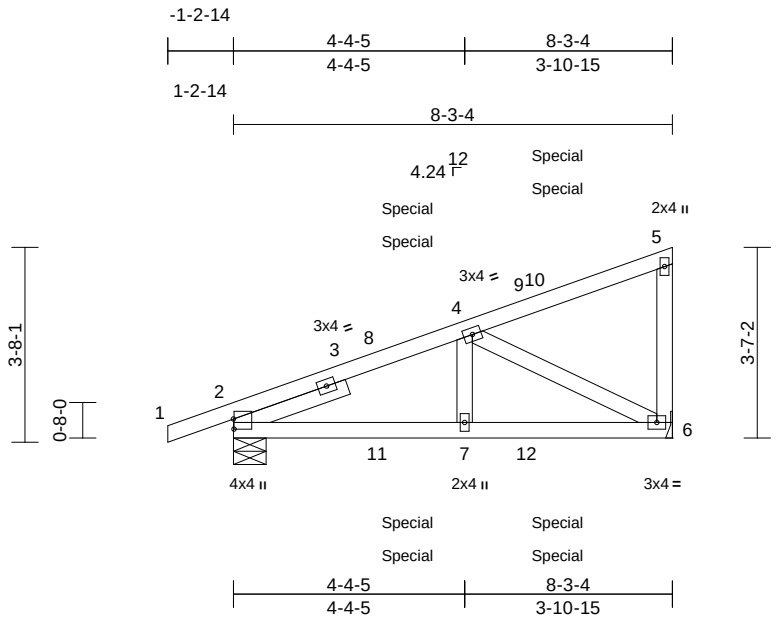

Scale = 1:27.2

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

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	0.27	Vert(LL)	-0.01	2-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	2-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.17	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 2-3-1

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-3-15 oc bracing.

REACTIONS (size) 2=0-7-6, 6= Mechanical
Max Horiz 2=157 (LC 9)
Max Uplift 2=-151 (LC 8), 6=-132 (LC 12)
Max Grav 2=477 (LC 1), 6=395 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-4=-593/282, 4-5=-122/87, 5-6=-116/128
BOT CHORD 2-7=-400/483, 6-7=-400/483
WEBS 4-6=-541/403, 4-7=0/219

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 Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 8-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 6 and 151 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 29 lb down and 54 lb up at 2-8-7, 35 lb down and 66 lb up at 2-8-7, and 75 lb down and 93 lb up at 5-6-6, and 97 lb down and 110 lb up at 5-6-6 on top chord, and 4 lb down and 8 lb up at 2-8-7, 1 lb down at 2-8-7, and 16 lb down at 5-6-6, and 21 lb down at 5-6-6 on bottom chord. The design/selection of such connection device (s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-30 (F=-26, B=-4), 11=-2 (B), 12=-22 (F=-10, B=-12)

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J1	Jack-Open	28	1	Job Reference (optional) R85980233

Direct Lumber of Colorado, Denver, CO - 80221,

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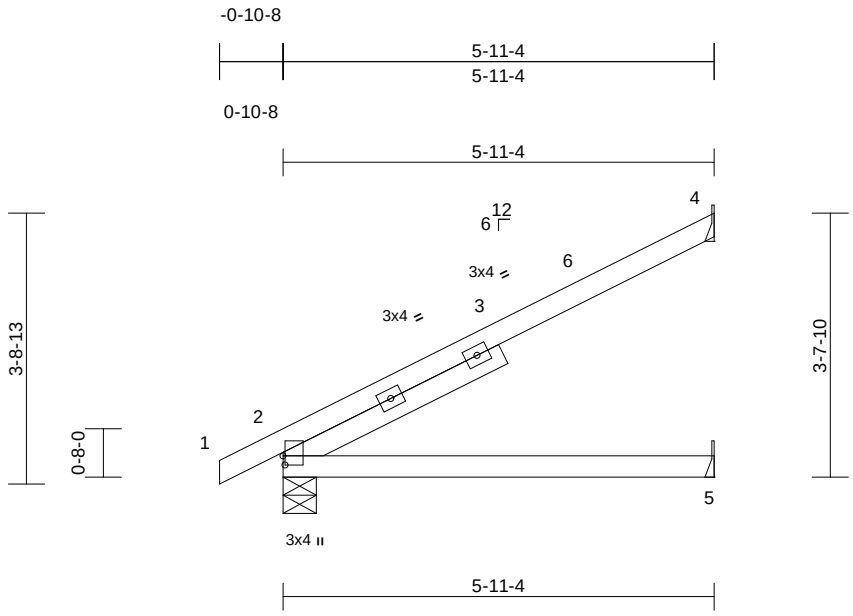

Scale = 1:25.6

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	0.66	Vert(LL)	-0.07	2-5	>987	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.37	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: 19 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 3-4-1

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=147 (LC 12)
Max Uplift 2=-41 (LC 12), 4=-132 (LC 12)
Max Grav 2=330 (LC 1), 4=201 (LC 1), 5=117 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-141/72
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 4 and 41 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J2	Jack-Open	10	1	Job Reference (optional) R85980234

Direct Lumber of Colorado, Denver, CO - 80221,

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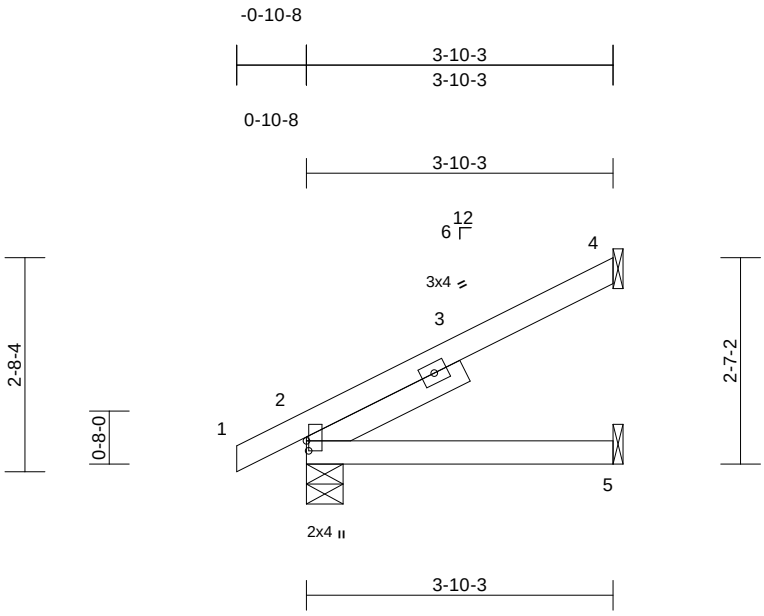

Scale = 1:21.5

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	0.26	Vert(LL)	-0.01	2-5	>999	240	MT20	169/123
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)	-0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 2-2-1

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=101 (LC 12)
Max Uplift 2=-33 (LC 12), 4=-87 (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=0/6, 2-4=-95/49
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4 and 33 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J3	Jack-Open	11	1	Job Reference (optional) R85980235

Direct Lumber of Colorado, Denver, CO - 80221,

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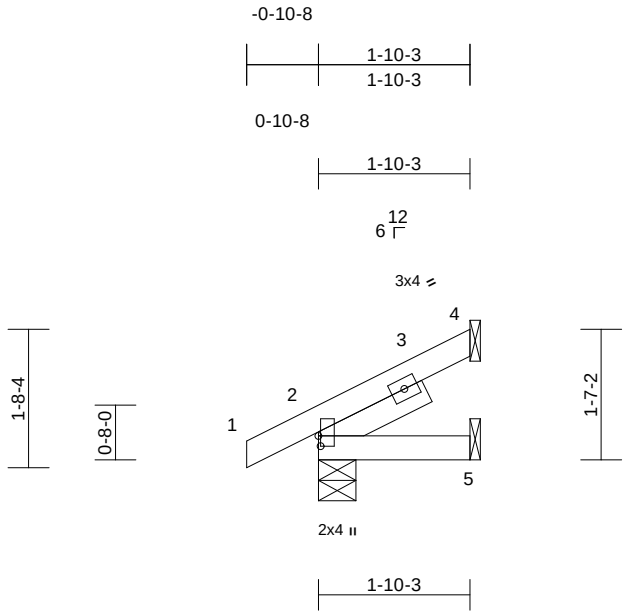

Scale = 1:17.6

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	0.05	Vert(LL)	0.00	2-5	>999	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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: 7 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 1-5-2

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=59 (LC 12)
Max Uplift 2=-26 (LC 12), 4=-43 (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=0/6, 2-4=-53/25
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 43 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J4	Jack-Open	1	1	R85980236

Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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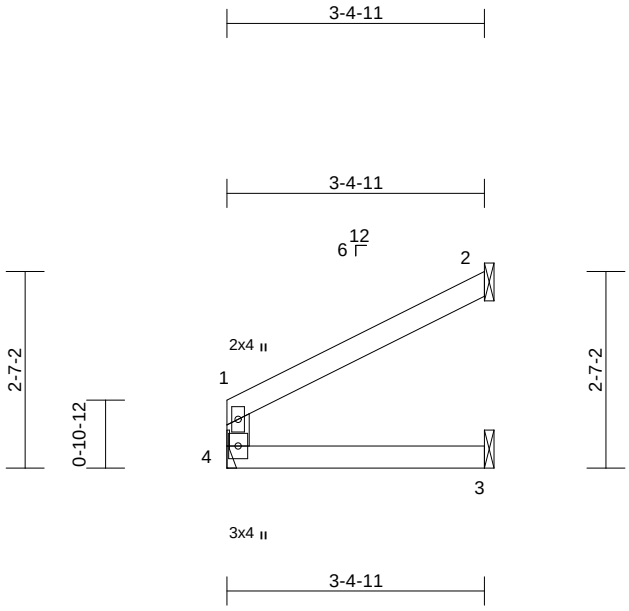

Scale = 1:29.1

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	0.16	Vert(LL)	0.01	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 9 lb	FT = 20%

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

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

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 4=60 (LC 12)
Max Uplift 2=-65 (LC 12), 4=-1 (LC 12)
Max Grav 2=103 (LC 1), 3=61 (LC 3), 4=143 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-120/76, 1-2=-74/38
BOT CHORD 3-4=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4 and 65 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J5	Jack-Open	1	1	Job Reference (optional) R85980237

Direct Lumber of Colorado, Denver, CO - 80221,

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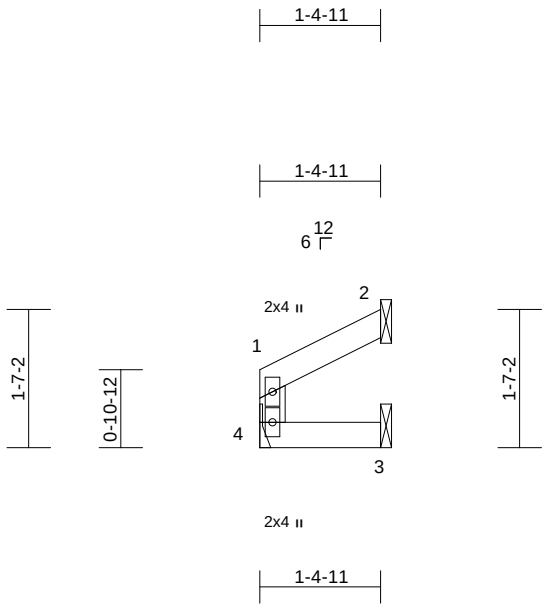

Scale = 1:25.4

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	0.04	Vert(LL)	0.00	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 4 lb	FT = 20%

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

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

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 4=32 (LC 9)
Max Uplift 2=-30 (LC 12), 3=-1 (LC 9)
Max Grav 2=41 (LC 1), 3=24 (LC 3), 4=55 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-45/22, 1-2=-34/18
BOT CHORD 3-4=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 3 and 30 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J6	Jack-Open	1	1	R85980238

Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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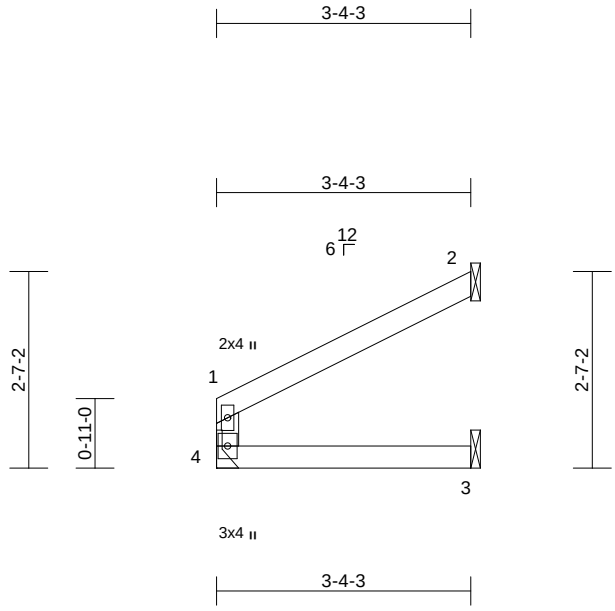

Scale = 1:29.1

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	0.15	Vert(LL)	0.01	3-4	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	3-4	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 9 lb	FT = 20%

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

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

REACTIONS (size) 2= Mechanical, 3= Mechanical, 4= Mechanical
Max Horiz 4=58 (LC 12)
Max Uplift 2=-65 (LC 12)
Max Grav 2=102 (LC 1), 3=60 (LC 3), 4=141 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-118/74, 1-2=-73/38
BOT CHORD 3-4=0/0

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Refer to girder(s) for truss to truss connections.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	LG5	Lay-In Gable	1	1	Job Reference (optional) R85980239

Direct Lumber of Colorado, Denver, CO - 80221,

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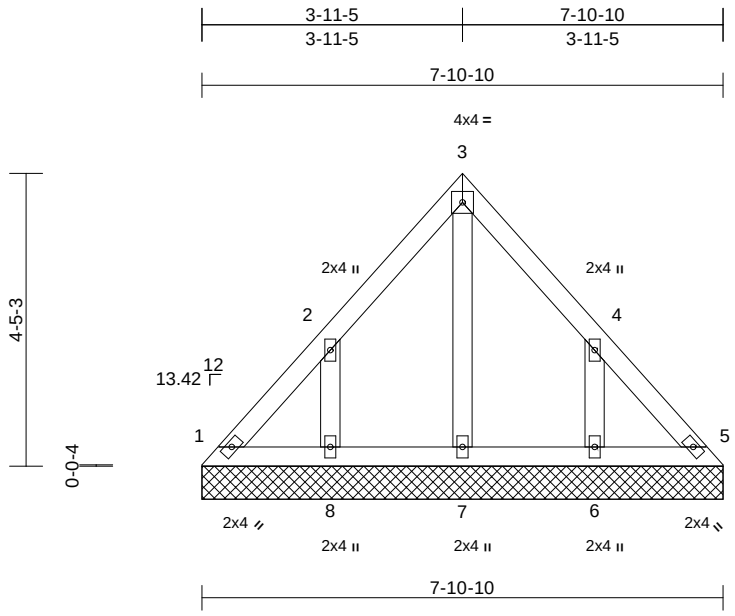

Scale = 1:26.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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: 30 lb	FT = 20%

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

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

REACTIONS (size) 1=7-10-10, 5=7-10-10, 6=7-10-10, 7=7-10-10, 8=7-10-10
Max Horiz 1=-117 (LC 8)
Max Uplift 1=-30 (LC 8), 5=-11 (LC 9), 6=-170 (LC 13), 8=-170 (LC 12)
Max Grav 1=104 (LC 21), 5=95 (LC 22), 6=235 (LC 20), 7=124 (LC 22), 8=235 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-130/99, 2-3=-103/85, 3-4=-100/81, 4-5=-114/82
BOT CHORD 1-8=-70/102, 7-8=-70/102, 6-7=-70/102, 5-6=-70/102
WEBS 2-8=-245/195, 3-7=-84/28, 4-6=-245/194

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1, 11 lb uplift at joint 5, 170 lb uplift at joint 8 and 170 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

December 27,2024

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400 Sunrise Ave., Suite 270
Roseville, CA 95661
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/07/2025

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980240
241116-A	E1	Hip Girder	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:49 2024 Page: 1
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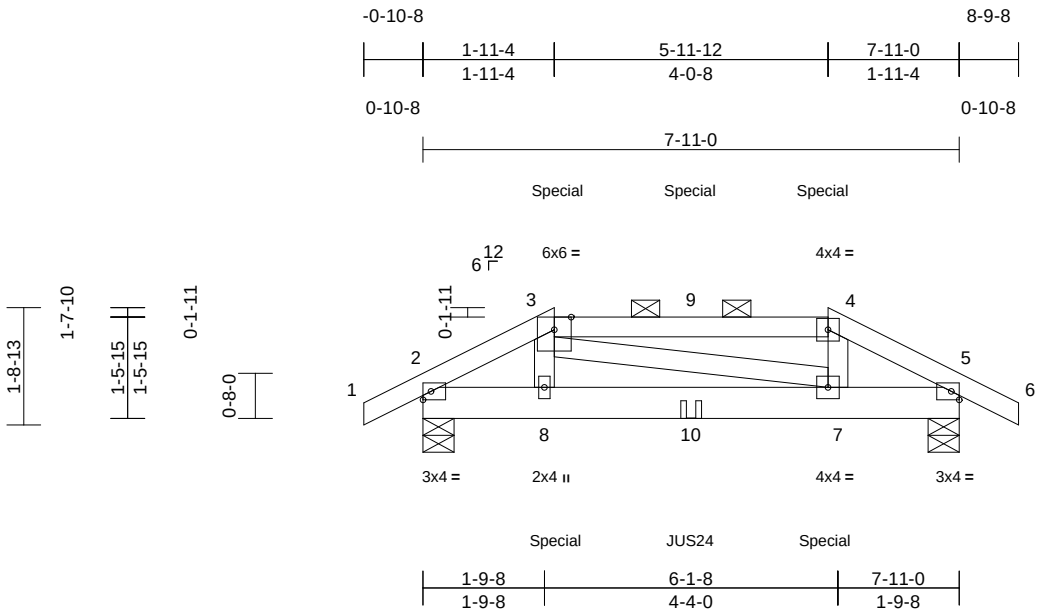

Scale = 1:23.1

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	0.37	Vert(LL)	-0.01	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	7-8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.5E
WEBS 2x4 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.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 5=0-5-8
Max Horiz 2=-25 (LC 34)
Max Uplift 2=-137 (LC 12), 5=-137 (LC 13)
Max Grav 2=474 (LC 1), 5=474 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-581/253, 3-4=-409/224, 4-5=-561/239, 5-6=0/11
BOT CHORD 2-8=-149/447, 7-8=-150/432, 5-7=-134/422
WEBS 3-8=0/154, 3-7=-34/24, 4-7=0/157

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 1650F 1.5E .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 2 and 137 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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent at 3-11-8 from the left end to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 62 lb up at 1-11-4, and 18 lb down and 62 lb up at 3-11-8, and 18 lb down and 62 lb up at 5-11-12 on top chord, and 61 lb down and 40 lb up at 1-11-4, and 61 lb down and 40 lb up at 5-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 8=-61 (F), 7=-61 (F)

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980241
241116-A	CG4	Diagonal Hip Girder	2	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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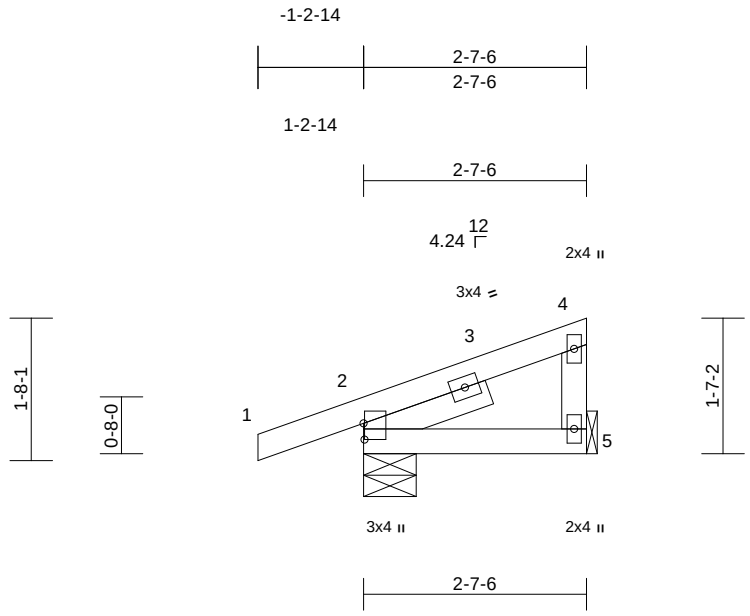

Scale = 1:17.5

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

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	0.13	Vert(LL)	0.00	2-5	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	2-5	>999	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: 10 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 1-6-7

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-6 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=61 (LC 9)
Max Uplift 2=-89 (LC 8), 5=-23 (LC 12)
Max Grav 2=219 (LC 1), 5=89 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-4=-67/45, 4-5=-84/111
BOT CHORD 2-5=-26/28

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 Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 5 and 89 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

December 27,2024

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/07/2025

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	J7	Jack-Open	3	1	Job Reference (optional) R85980242

Direct Lumber of Colorado, Denver, CO - 80221,

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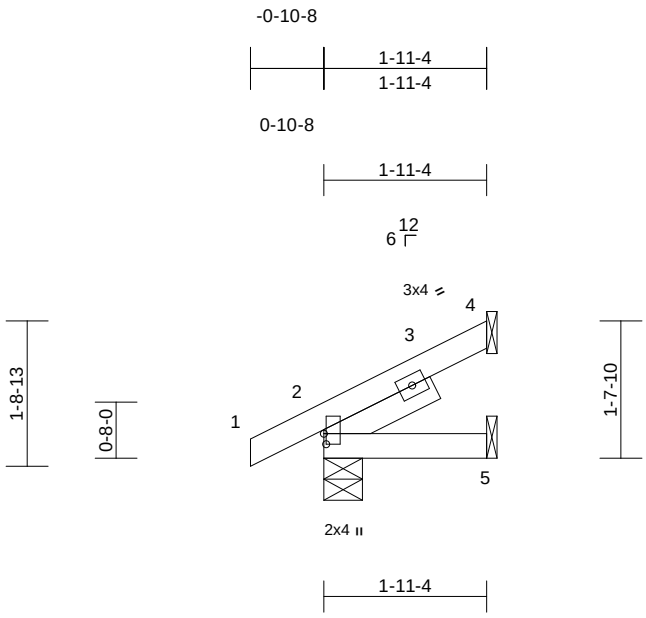

Scale = 1:17.8

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	0.05	Vert(LL)	0.00	2-5	>999	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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: 7 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 1-5-3

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-4 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=61 (LC 12)
Max Uplift 2=-26 (LC 12), 4=-45 (LC 12)
Max Grav 2=162 (LC 1), 4=53 (LC 1), 5=39 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-55/27
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 45 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

December 27,2024

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Roseville, CA 95661
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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980243
241116-A	LG1	Lay-In Gable	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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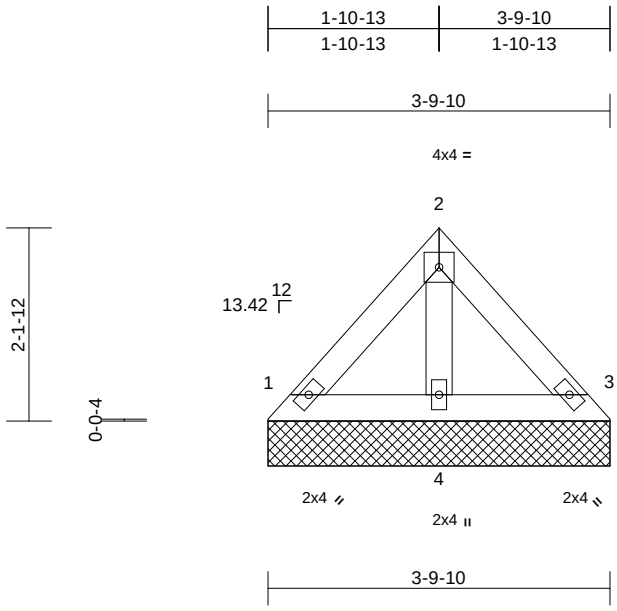

Scale = 1:17.8

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

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

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

REACTIONS (size) 1=3-9-10, 3=3-9-10, 4=3-9-10
Max Horiz 1=-51 (LC 10)
Max Uplift 1=-27 (LC 13), 3=-23 (LC 13)
Max Grav 1=90 (LC 1), 3=90 (LC 1), 4=108 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-71/37, 2-3=-63/30
BOT CHORD 1-4=-18/35, 3-4=-18/35
WEBS 2-4=-68/19

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 2-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 23 lb uplift at joint 3.
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

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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-15 31 SW Arbor Valley Dr
241116-A	A15	Hip Girder	1	2	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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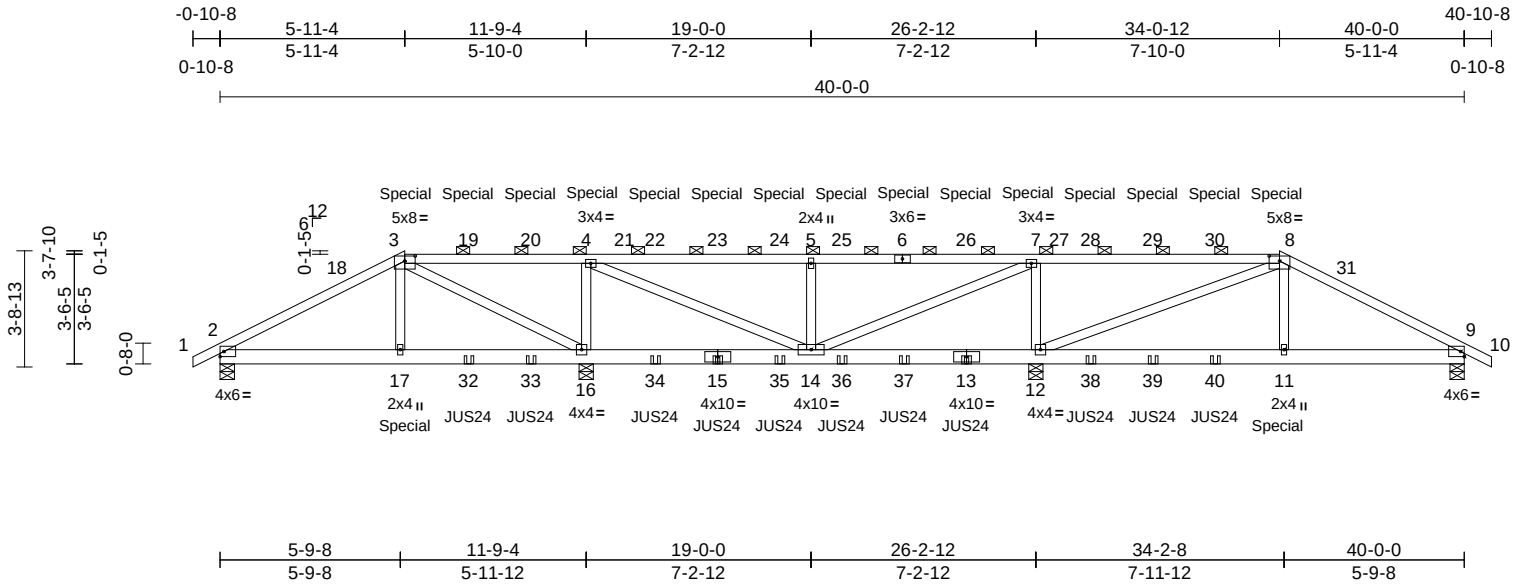

Scale = 1:73.2

Plate Offsets (X, Y): [3:0-4-0,0-1-15], [8:0-4-0,0-1-15]

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)	0.02	14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.05	11-12	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 342 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.5E
WEBS 2x4 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.): 3-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 9=0-5-8, 12=0-5-8, 16=0-5-8
Max Horiz 2=-63 (LC 34)
Max Uplift 2=-203 (LC 12), 9=-274 (LC 13), 12=-902 (LC 8), 16=-862 (LC 9)
Max Grav 2=733 (LC 25), 9=959 (LC 26), 12=2660 (LC 26), 16=2546 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-960/272, 3-4=-151/545, 4-5=-823/305, 5-7=-823/305, 7-8=-118/438, 8-9=-1462/412, 9-10=0/11
BOT CHORD 2-17=-200/750, 16-17=-199/726, 14-16=-543/248, 12-14=-436/216, 11-12=-277/1173, 9-11=-276/1200
WEBS 3-17=-29/564, 8-11=0/675, 4-16=-1560/776, 3-16=-1446/455, 7-12=-1669/855, 8-12=-1737/533, 7-14=-447/1372, 5-14=-931/562, 4-14=-481/1484

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: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 34-0-12, Exterior(2E) 34-0-12 to 40-10-8 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
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 1650F 1.5E .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 203 lb uplift at joint 2, 862 lb uplift at joint 16, 902 lb uplift at joint 12 and 274 lb uplift at joint 9.
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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 4-0-0 oc max. starting at 8-0-0 from the left end to 32-0-0 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 136 lb up at 5-11-4, 131 lb down and 136 lb up at 8-0-0, 131 lb down and 136 lb up at 10-0-0, 131 lb down and 136 lb up at 12-0-0, 131 lb down and 136 lb up at 14-0-0, 131 lb down and 136 lb up at 16-0-0, 131 lb down and 136 lb up at 18-0-0, 131 lb down and 136 lb up at 20-0-0, 131 lb down and 136 lb up at 22-0-0, 131 lb down and 136 lb up at 24-0-0, 131 lb down and 136 lb up at 26-0-0, 131 lb down and 136 lb up at 28-0-0, 131 lb down and 136 lb up at 30-0-0, and 131 lb down and 136 lb up at 32-0-0, and 155 lb down and 136 lb up at 34-0-12 on top chord, and 394 lb down and 110 lb up at 5-11-4, and 394 lb down and 110 lb up at 34-0-0 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: 1-3=-70, 3-8=-70, 8-10=-70, 2-9=-20
Concentrated Loads (lb)

December 27,2024

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A15	Hip Girder	1	**2**	Job Reference (optional) R85980244

Vert: 3=-131 (B), 6=-131 (B), 15=-39 (B), 17=-394 (B), 11=-394 (B), 4=-131 (B), 7=-131 (B), 8=-131 (B), 13=-39 (B), 19=-131 (B), 20=-131 (B), 22=-131 (B), 23=-131 (B), 24=-131 (B), 25=-131 (B), 26=-131 (B), 28=-131 (B), 29=-131 (B), 30=-131 (B), 32=-39 (B), 33=-39 (B), 34=-39 (B), 35=-39 (B), 36=-39 (B), 37=-39 (B), 38=-39 (B), 39=-39 (B), 40=-39 (B)

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A14	Hip	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:44 Page: 1
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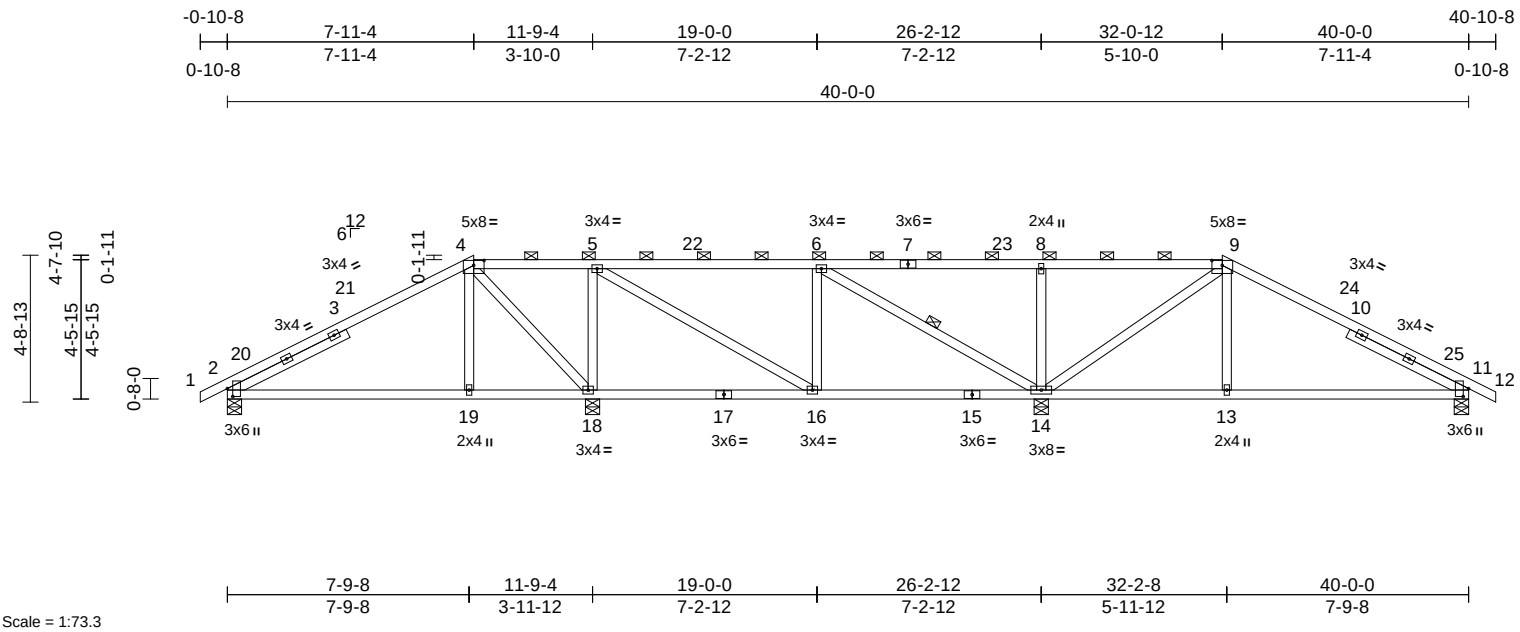


Scale = 1:73.3

Plate Offsets (X, Y): [2:0-3-1,0-2-1], [4:0-4-0,0-1-15], [9:0-4-0,0-1-15], [11:0-3-1,0-2-1]

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	0.91	Vert(LL)	-0.10	2-19	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.22	2-19	>653	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.04	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 159 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 4-3-9, Right 2x4 WW Stud -- 4-3-9

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-7-8 oc purlins, except 2-0-0 oc purlins (5-9-4 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-14

REACTIONS (size) 2=0-5-8, 11=0-5-8, 14=0-5-8, 18=0-5-8
Max Horiz 2=-82 (LC 13)
Max Uplift 2=-223 (LC 12), 11=-205 (LC 13), 14=-271 (LC 9), 18=-166 (LC 8)
Max Grav 2=677 (LC 1), 11=697 (LC 1), 14=1345 (LC 25), 18=1093 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-755/309, 4-5=-300/368, 5-6=-801/377, 6-8=-151/318, 8-9=-152/319, 9-11=-769/262, 11-12=0/6
BOT CHORD 2-19=-227/544, 18-19=-229/539, 16-18=-254/298, 14-16=-205/801, 13-14=-110/576, 11-13=-108/582
WEBS 4-19=0/270, 4-18=-369/0, 9-14=-575/27, 9-13=0/303, 5-18=-790/275, 8-14=-487/222, 6-14=-913/238, 6-16=-214/174, 5-16=-157/732

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(2R) 7-11-4 to 15-0-2, Interior (1) 15-0-2 to 32-0-12, Exterior(2R) 32-0-12 to 39-1-10, Interior (1) 39-1-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 223 lb uplift at joint 2, 166 lb uplift at joint 18, 271 lb uplift at joint 14 and 205 lb uplift at joint 11.
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

December 27,2024

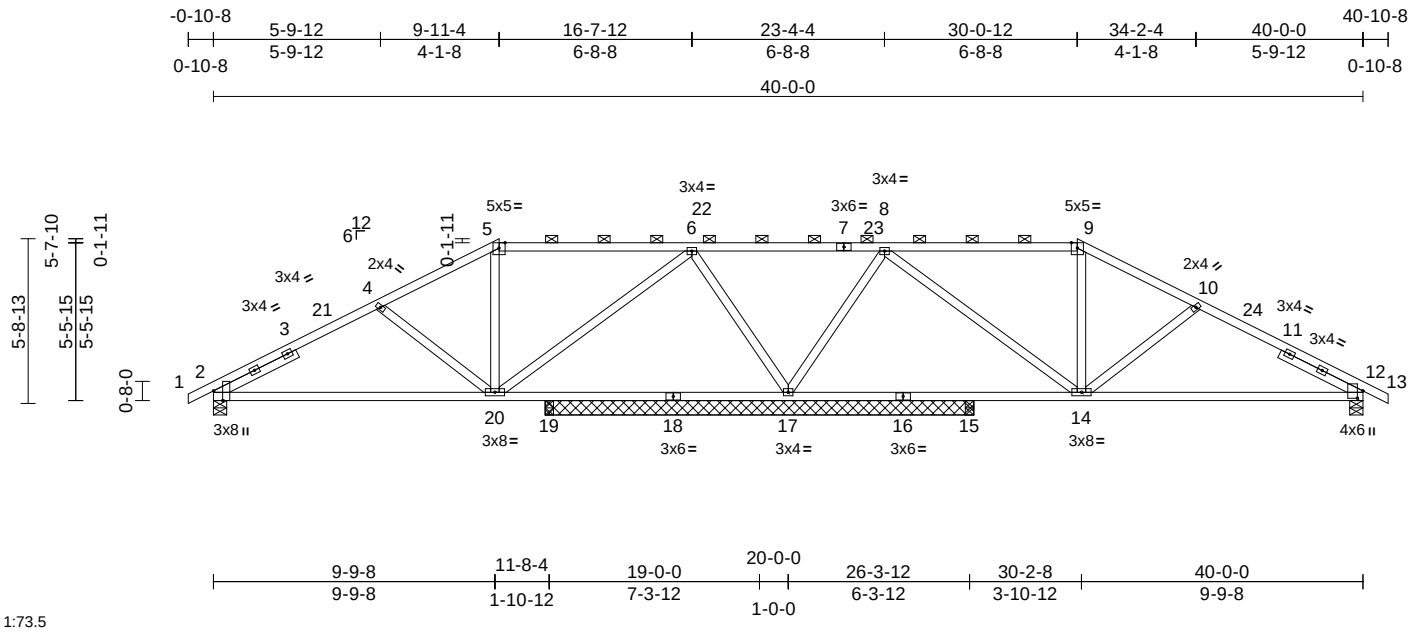
MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/07/2025

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980246
241116-A	A13	Hip	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:44 Page: 1
ID:R9_IDuEPT6RdVxCqv?cGd_zXLW?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDofJ423C?f



Scale = 1:73.5

Plate Offsets (X, Y): [2:0-4-1,Edge], [12:0-3-1,0-2-5]

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	0.68	Vert(LL)	-0.23	12-14	>704	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.48	12-14	>343	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 158 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 3-2-10, Right 2x4 WW Stud -- 3-2-4

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

REACTIONS (size) 2=0-5-8, 12=0-5-8, 15=0-3-8, 17=14-11-0, 19=0-3-8
Max Horiz 2=-101 (LC 13)
Max Uplift 2=-162 (LC 12), 12=-175 (LC 13), 17=-360 (LC 9)
Max Grav 2=781 (LC 25), 12=798 (LC 26), 15=109 (LC 3), 17=2032 (LC 1), 19=134 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-1006/249, 4-5=-693/197, 5-6=-566/201, 6-8=-64/636, 8-9=-599/208, 9-10=-730/199, 10-12=-1041/270, 12-13=0/6
BOT CHORD 2-20=-221/818, 19-20=-70/108, 17-19=-70/108, 15-17=-55/77, 14-15=-55/77, 12-14=-145/849
WEBS 5-20=-97/77, 6-20=-92/704, 8-14=-85/732, 9-14=-83/95, 4-20=-328/218, 10-14=-325/215, 6-17=-1106/301, 8-17=-1126/285

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 9-11-4, Exterior(2R) 9-11-4 to 17-0-2, Interior (1) 17-0-2 to 30-0-12, Exterior(2R) 30-0-12 to 37-1-10, Interior (1) 37-1-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 2, 175 lb uplift at joint 12 and 360 lb uplift at joint 17.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A12	Hip	1	1	R85980247

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:43 2024 Page: 1
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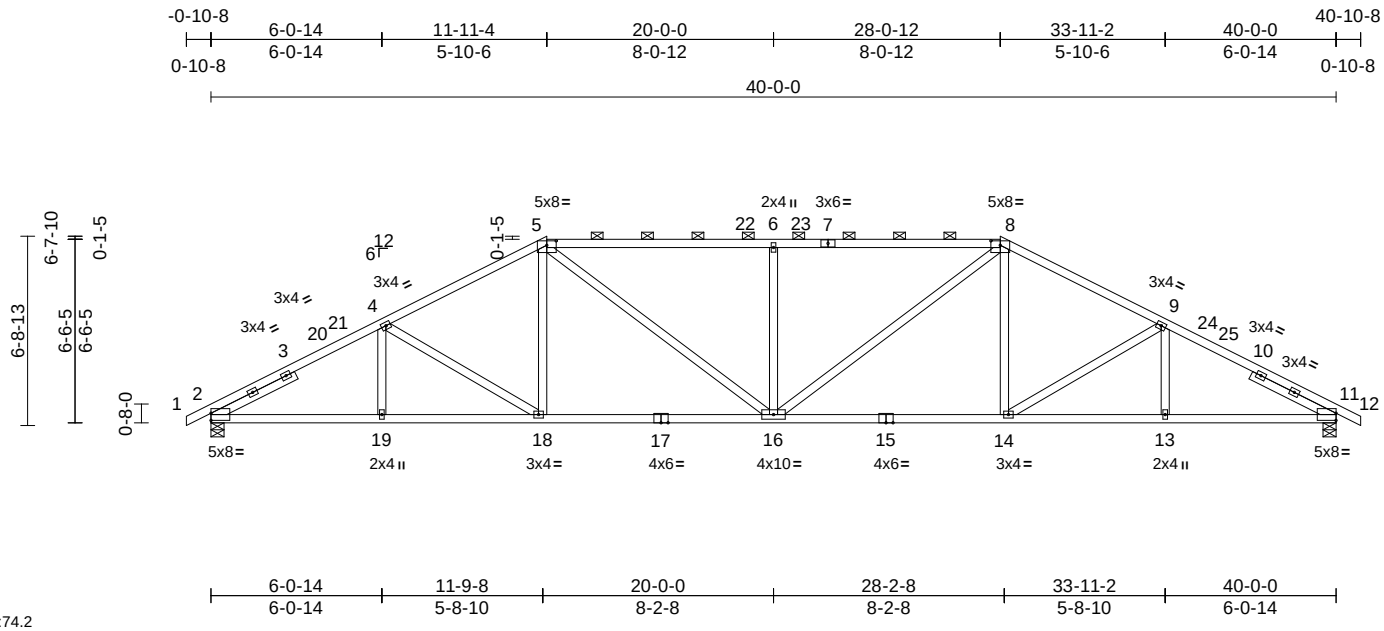

Scale = 1:74.2

Plate Offsets (X, Y): [2:Edge,0-3-1], [5:0-4-0,0-1-15], [8:0-4-0,0-1-15], [11:Edge,0-3-1]

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	0.88	Vert(LL)	-0.22	16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.45	14-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 169 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 5-7,7-8:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 3-4-0, Right 2x4 SPF No.2 -- 3-4-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-5-13 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 9-7-8 oc bracing.

REACTIONS (size) 2=0-5-8, 11=0-5-8
Max Horiz 2=-120 (LC 17)
Max Uplift 2=-220 (LC 12), 11=-220 (LC 13)
Max Grav 2=1861 (LC 1), 11=1861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-3239/505, 4-5=-2806/488, 5-6=-2981/559, 6-8=-2980/558, 8-9=-2807/488, 9-11=-3239/505, 11-12=0/6
BOT CHORD 2-19=-371/2749, 18-19=-371/2749, 16-18=-274/2435, 14-16=-238/2436, 13-14=-367/2748, 11-13=-367/2748
WEBS 4-19=0/216, 4-18=-372/216, 5-18=-27/399, 5-16=-214/842, 6-16=-682/304, 8-16=-214/841, 8-14=-27/398, 9-14=-370/216, 9-13=0/216

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 11-11-4, Exterior(2R) 11-11-4 to 19-0-2, Interior (1) 19-0-2 to 28-0-12, Exterior(2R) 28-0-12 to 35-1-10, Interior (1) 35-1-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 220 lb uplift at joint 2 and 220 lb uplift at joint 11.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-15531 SW Arbor Valley Dr
241116-A	A11	Hip	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:43 Page: 1
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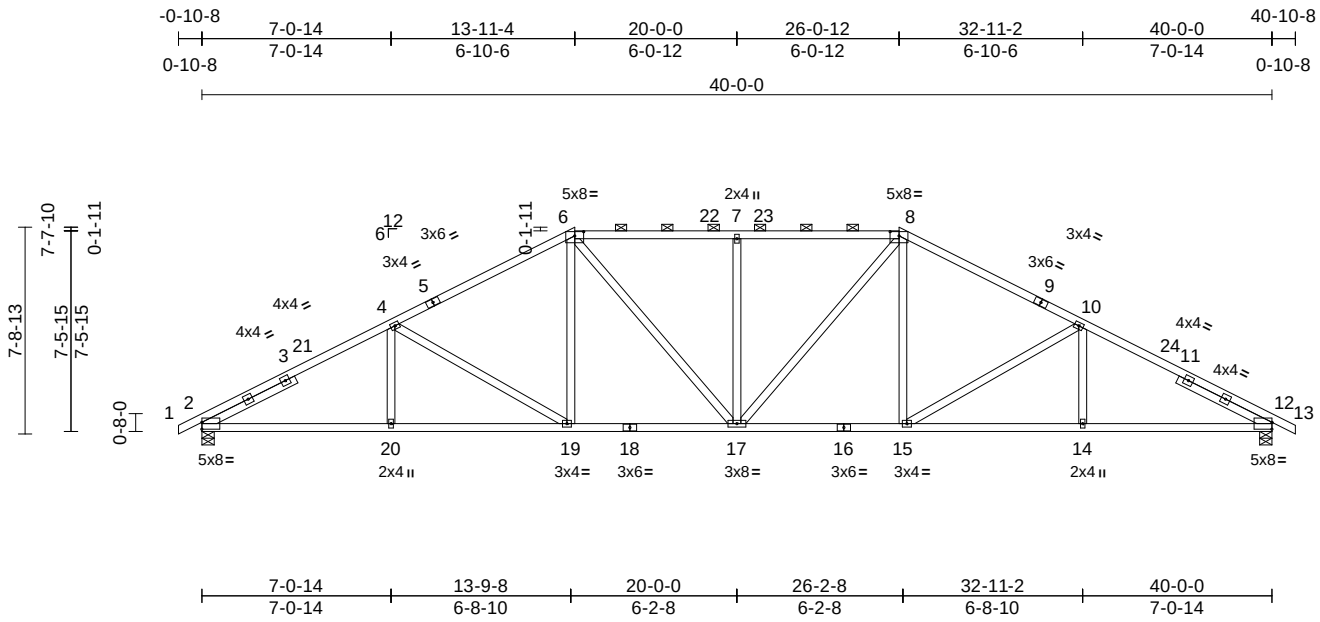

Scale = 1:78.2

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

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	0.79	Vert(LL)	-0.20	17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.38	17-19	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.17	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 175 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 5-6,8-9:2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 3-10-12, Right 2x4 WW Stud -- 3-10-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-1-14 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 9-8-14 oc bracing.

REACTIONS (size) 2=0-5-8, 12=0-5-8
Max Horiz 2=138 (LC 16)
Max Uplift 2=-243 (LC 12), 12=-243 (LC 13)
Max Grav 2=1861 (LC 1), 12=1861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-3215/505, 4-6=-2652/486, 6-7=-2537/522, 7-8=-2537/522, 8-10=-2652/486, 10-12=-3214/505, 12-13=0/6
BOT CHORD 2-20=-362/2741, 19-20=-362/2741, 17-19=-213/2275, 15-17=-210/2275, 14-15=-358/2741, 12-14=-358/2741
WEBS 4-20=0/284, 4-19=-550/254, 6-19=-51/431, 6-17=-156/575, 7-17=-513/227, 8-17=-156/575, 8-15=-51/431, 10-15=-550/254, 10-14=0/284

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 13-11-4, Exterior(2R) 13-11-4 to 21-0-2, Interior (1) 21-0-2 to 26-0-12, Exterior(2R) 26-0-12 to 32-11-2, Interior (1) 32-11-2 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 243 lb uplift at joint 2 and 243 lb uplift at joint 12.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A10	Hip	1	1	Job Reference (optional) R85980249

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:43 Page: 1
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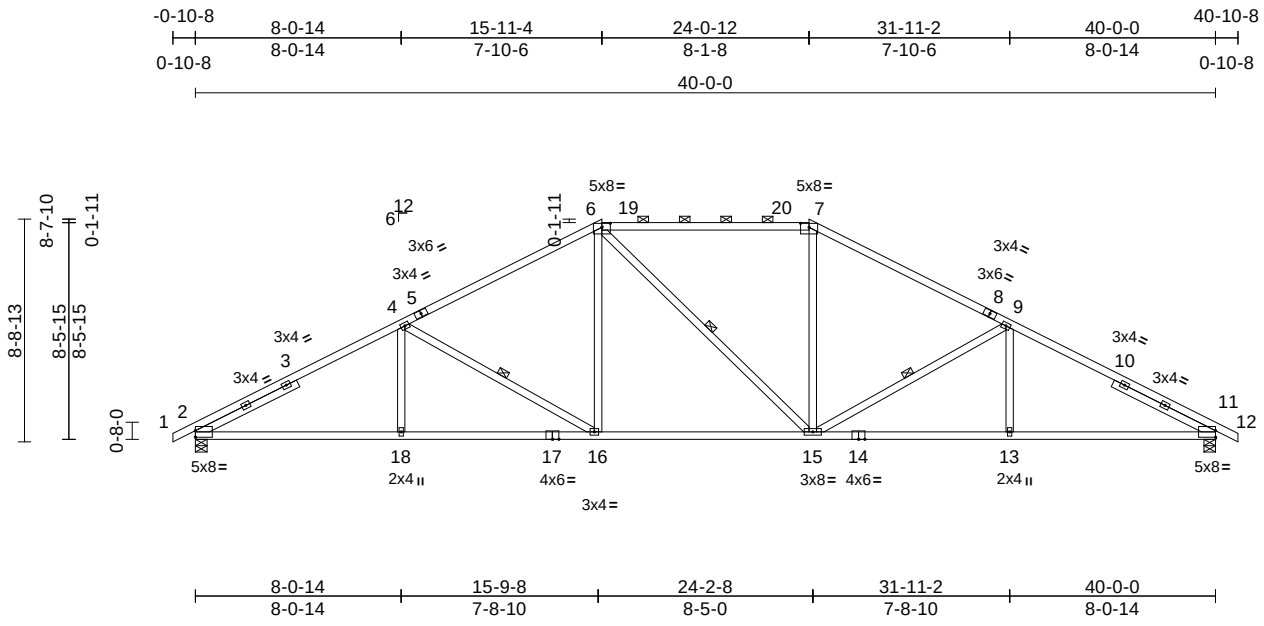

Scale = 1:82.2

Plate Offsets (X, Y): [2:Edge,0-3-1], [6:0-4-0,0-1-15], [7:0-4-0,0-1-15], [11:Edge,0-3-1]

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	0.88	Vert(LL)	-0.17	16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.39	15-16	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 168 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 1-5,8-12:2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 4-5-7, Right 2x4 SPF No.2 -- 4-5-7

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 9-3-11 oc bracing.
WEBS 1 Row at midpt 4-16, 6-15, 9-15

REACTIONS (size) 2=0-5-8, 11=0-5-8
Max Horiz 2=-157 (LC 13)
Max Uplift 2=-263 (LC 12), 11=-263 (LC 13)
Max Grav 2=1861 (LC 1), 11=1861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-3184/506, 4-6=-2503/482, 6-7=-2126/490, 7-9=-2503/482, 9-11=-3184/506, 11-12=0/6
BOT CHORD 2-18=-395/2713, 16-18=-395/2713, 15-16=-185/2126, 13-15=-350/2713, 11-13=-350/2713
WEBS 4-18=0/324, 4-16=-687/296, 6-16=-49/538, 6-15=-237/238, 7-15=-16/538, 9-15=-687/297, 9-13=0/323

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 15-11-4, Exterior(2R) 15-11-4 to 23-0-2, Interior (1) 23-0-2 to 24-0-12, Exterior(2R) 24-0-12 to 31-1-10, Interior (1) 31-1-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 263 lb uplift at joint 2 and 263 lb uplift at joint 11.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A9	Hip	1	1	Job Reference (optional) R85980250

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:42 Page: 1
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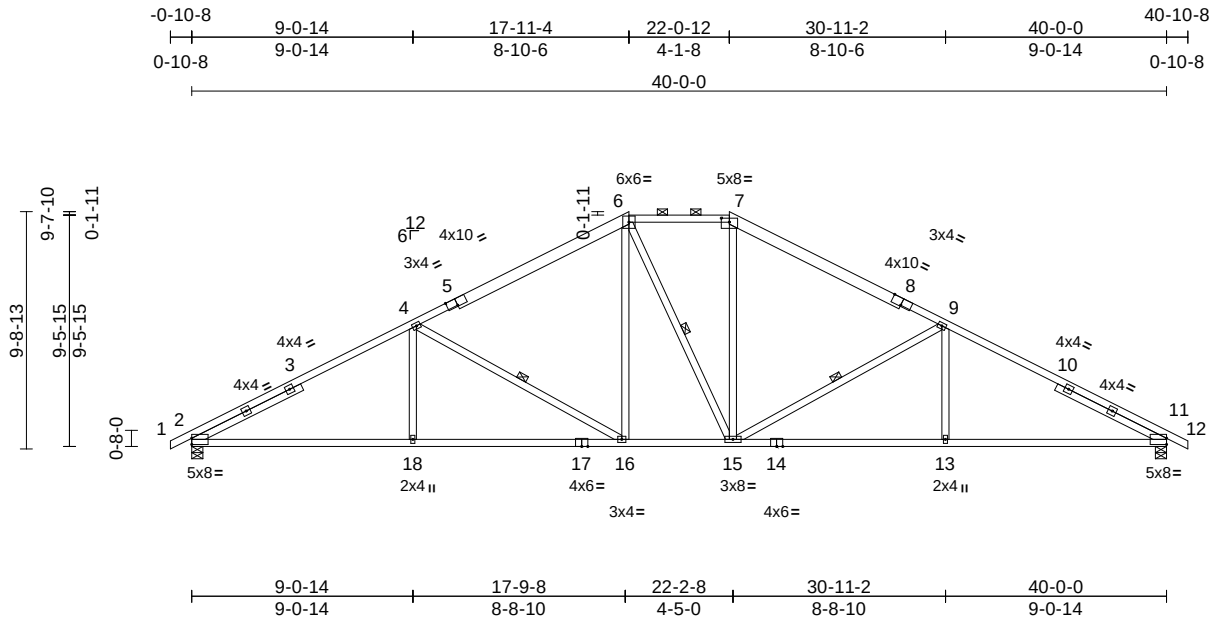

Scale = 1:86.2

Plate Offsets (X, Y): [2:Edge,0-3-1], [5:0-5-0,Edge], [7:0-4-0,0-2-0], [8:0-5-0,Edge], [11:Edge,0-3-1]

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	0.69	Vert(LL)	-0.17	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.40	16-18	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 183 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SPF 1650F 1.5E *Except* 6-7:2x4 SPF No.2, 1-5,8-12:2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 5-0-2, Right 2x4 WW Stud -- 5-0-2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 8-11-11 oc bracing.
WEBS 1 Row at midpt 4-16, 6-15, 9-15

REACTIONS (size) 2=0-5-8, 11=0-5-8
Max Horiz 2=175 (LC 16)
Max Uplift 2=-280 (LC 12), 11=-280 (LC 13)
Max Grav 2=1861 (LC 1), 11=1861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-3143/473, 4-6=-2327/453, 6-7=-1952/464, 7-9=-2328/453, 9-11=-3142/473, 11-12=0/6
BOT CHORD 2-18=-418/2670, 16-18=-418/2670, 15-16=-131/1950, 13-15=-310/2670, 11-13=-310/2670
WEBS 4-18=0/392, 4-16=-844/327, 6-16=-84/532, 6-15=-238/242, 7-15=-63/520, 9-15=-842/328, 9-13=0/392

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 17-11-4, Exterior(2E) 17-11-4 to 22-0-12, Exterior(2R) 22-0-12 to 29-1-10, Interior (1) 29-1-10 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 280 lb uplift at joint 2 and 280 lb uplift at joint 11.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980251
241116-A	J8	Jack-Open	2	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:51 Page: 1
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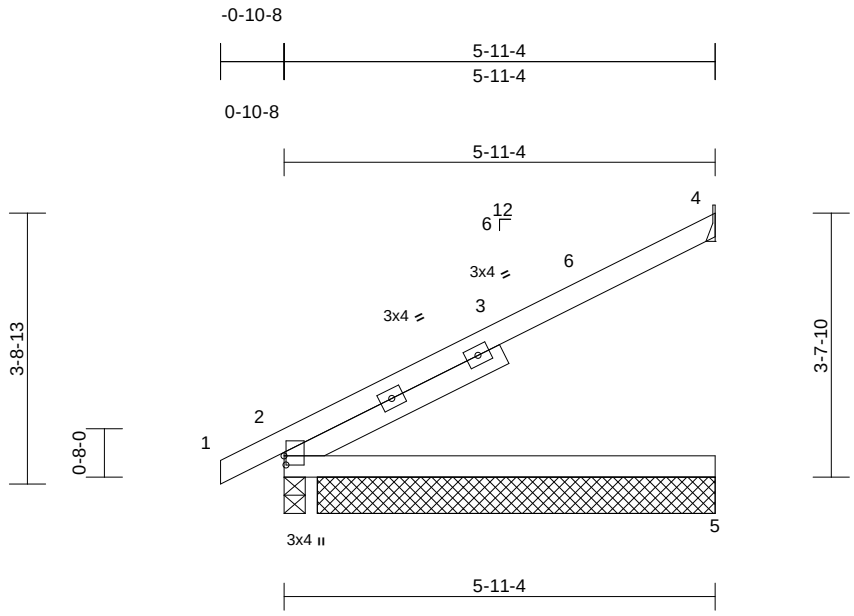

Scale = 1:25.6

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	0.66	Vert(LL)	-0.07	2-5	>956	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.15	2-5	>478	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: 19 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 3-4-1

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=5-5-12
Max Horiz 2=147 (LC 12)
Max Uplift 2=-41 (LC 12), 4=-132 (LC 12)
Max Grav 2=331 (LC 1), 4=201 (LC 1), 5=119 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-141/72
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 SPF No.2 , Joint 5 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 4 and 41 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	D1	Hip Girder	1	2	Job Reference (optional) R85980252

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:48 Page: 1
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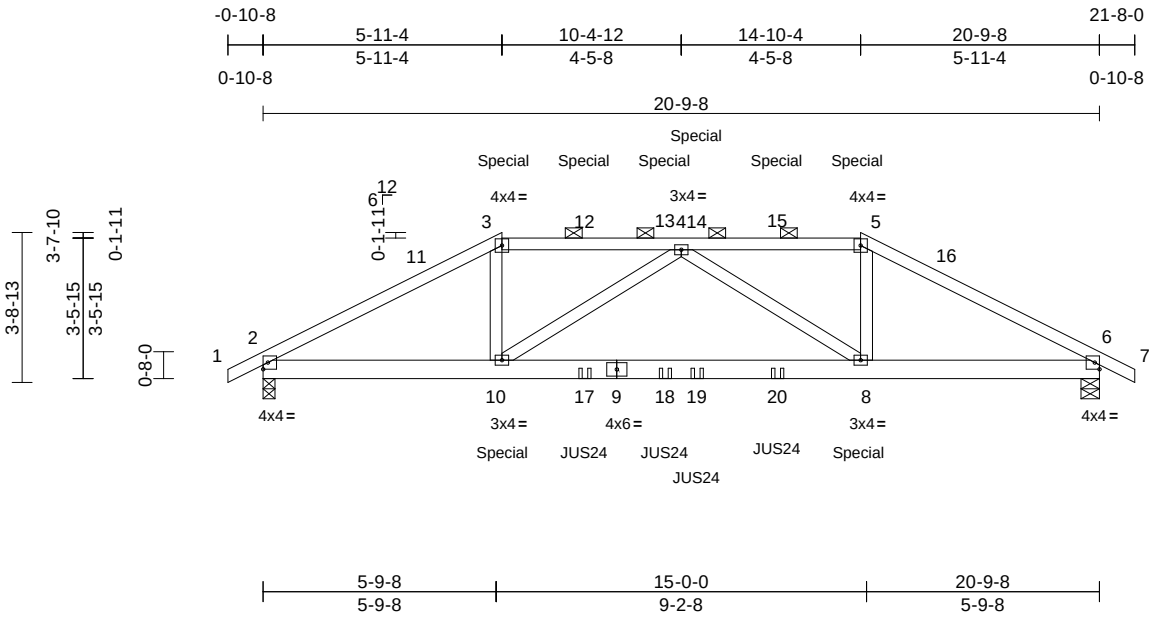

Scale = 1:50.3

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	0.53	Vert(LL)	-0.07	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.16	8-10	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 167 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.5E
WEBS 2x4 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) 2=0-3-8, 6=0-5-8
Max Horiz 2=63 (LC 16)
Max Uplift 2=-560 (LC 12), 6=-565 (LC 13)
Max Grav 2=1876 (LC 1), 6=1889 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-3399/1068, 3-4=-2842/979, 4-5=-2819/972, 5-6=-3384/1063, 6-7=0/11
BOT CHORD 2-10=-845/2888, 8-10=-1179/3429, 6-8=-832/2865
WEBS 3-10=-229/1123, 5-8=-233/1136, 4-10=-798/468, 4-8=-823/474

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: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 14-10-4, Exterior(2E) 14-10-4 to 21-8-0 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 1650F 1.5E .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 560 lb uplift at joint 2 and 565 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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-0 from the left end to 12-9-8 to connect truss(es) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 136 lb up at 5-11-4, 131 lb down and 136 lb up at 8-0-0, 131 lb down and 136 lb up at 10-0-0, 131 lb down and 136 lb up at 10-9-8, and 131 lb down and 136 lb up at 12-9-8, and 155 lb down and 136 lb up at 14-10-4 on top chord, and 419 lb down and 135 lb up at 5-11-4, and 419 lb down and 135 lb up at 14-9-8 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: 1-3=-70, 3-5=-70, 5-7=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 3=-131 (B), 5=-131 (B), 10=-419 (B), 8=-419 (B), 12=-131 (B), 13=-131 (B), 14=-131 (B), 15=-131 (B), 17=-39 (B), 18=-39 (B), 19=-39 (B), 20=-39 (B)

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	D2	Hip	1	1	Job Reference (optional) R85980253

Direct Lumber of Colorado, Denver, CO - 80221,

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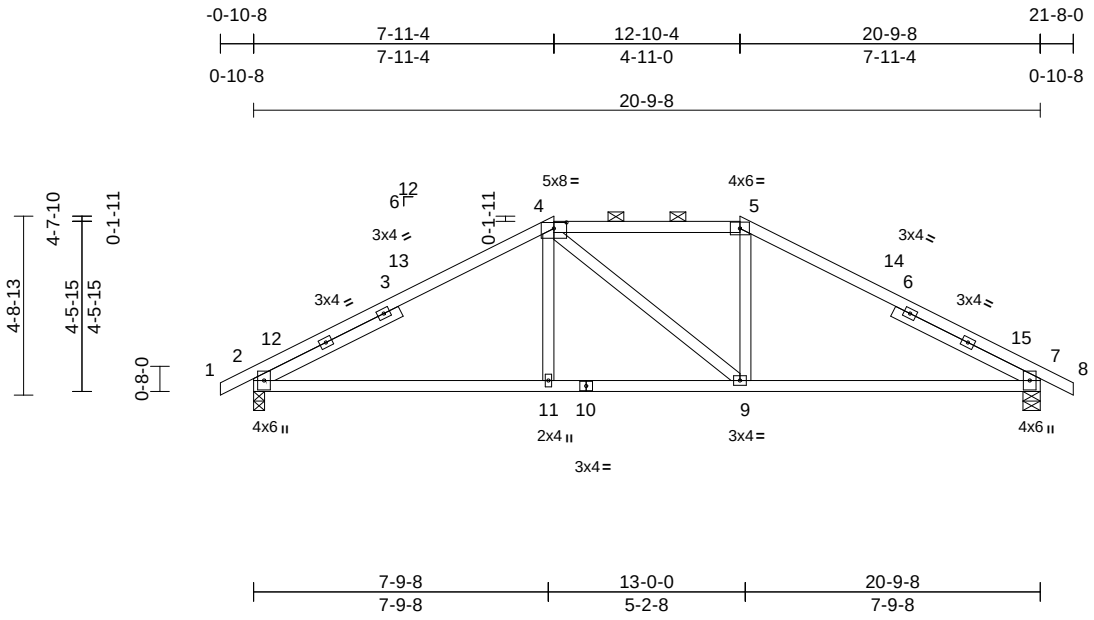

Scale = 1:54.3

Plate Offsets (X, Y): [2:0-3-9,0-1-5], [4:0-4-0,0-1-15], [7:0-3-9,0-1-5]

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	0.87	Vert(LL)	-0.11	2-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23	2-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 77 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 4-3-9, Right 2x4 WW Stud -- 4-3-9

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

REACTIONS (size) 2=0-3-8, 7=0-5-8
Max Horiz 2=82 (LC 12)
Max Uplift 2=-144 (LC 12), 7=-144 (LC 13)
Max Grav 2=997 (LC 1), 7=997 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-1389/296, 4-5=-1124/333, 5-7=-1389/296, 7-8=0/6
BOT CHORD 2-11=-153/1129, 9-11=-155/1124, 7-9=-141/1129
WEBS 4-11=0/269, 4-9=-164/164, 5-9=0/269

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 12-10-4, Exterior(2R) 12-10-4 to 19-11-2, Interior (1) 19-11-2 to 21-8-0 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 SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2 and 144 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	D3	Hip	1	1	Job Reference (optional) R85980254

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:48 Page: 1
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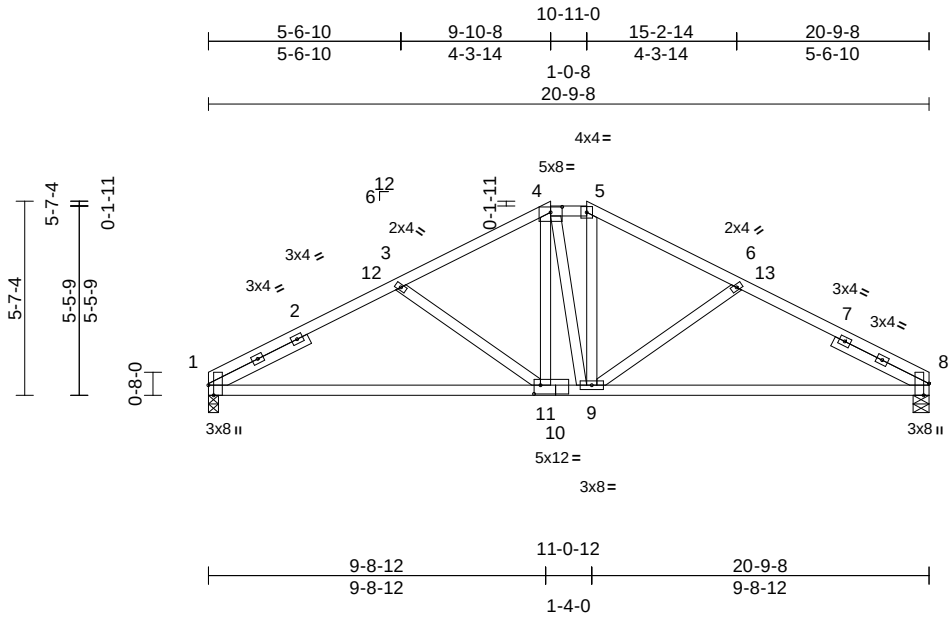

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Plate Offsets (X, Y): [1:0-3-8,Edge], [4:0-4-0,0-1-15], [8:0-4-1,Edge], [10:0-2-4,0-3-0]

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	0.30	Vert(LL)	-0.22	1-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.45	1-11	>555	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 85 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 3-2-7, Right 2x4 WW Stud -- 3-0-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-13 oc purlins, except 2-0-0 oc purlins (5-10-6 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 8=0-5-8
Max Horiz 1=-99 (LC 13)
Max Uplift 1=-138 (LC 12), 8=-138 (LC 13)
Max Grav 1=936 (LC 1), 8=936 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1465/341, 3-4=-1162/272, 4-5=-971/271, 5-6=-1159/272, 6-8=-1466/343
BOT CHORD 1-11=-232/1222, 9-11=-64/977, 8-9=-227/1221
WEBS 4-11=-58/299, 4-9=-182/116, 5-9=-86/342, 3-11=-316/219, 6-9=-324/223

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 9-10-8, Exterior(2E) 9-10-8 to 10-11-0, Exterior(2R) 10-11-0 to 17-11-14, Interior (1) 17-11-14 to 20-9-8 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 SPF No.2 .
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 1 and 138 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980255
241116-A	CG2	Diagonal Hip Girder	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:47 Page: 1
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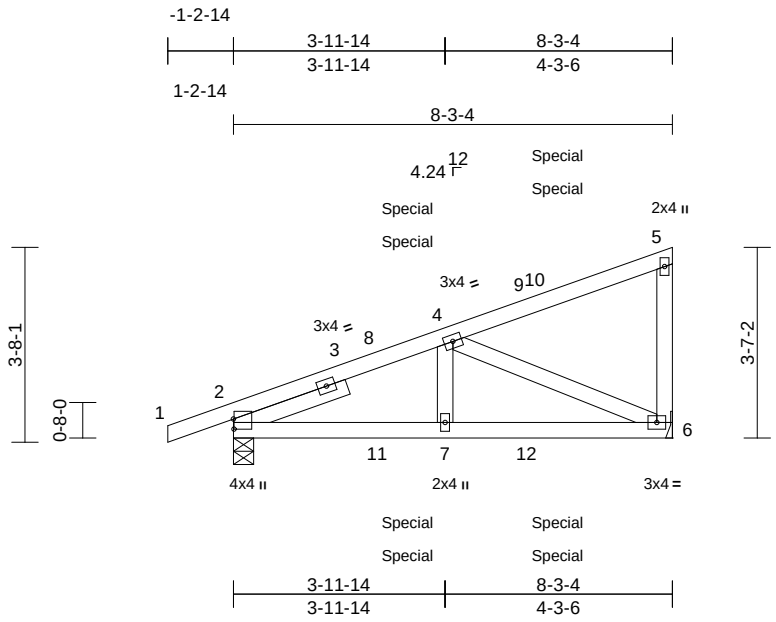

Scale = 1:27.2

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

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	0.40	Vert(LL)	-0.01	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.03	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 2-3-1

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

REACTIONS (size) 2=0-4-9, 6= Mechanical
Max Horiz 2=157 (LC 9)
Max Uplift 2=-151 (LC 8), 6=-141 (LC 12)
Max Grav 2=482 (LC 1), 6=408 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-4=-641/294, 4-5=-130/90, 5-6=-139/147
BOT CHORD 2-7=-416/533, 6-7=-416/533
WEBS 4-7=0/229, 4-6=-580/409

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 Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 8-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 6 and 151 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 35 lb down and 66 lb up at 2-8-7, 35 lb down and 66 lb up at 2-8-7, and 97 lb down and 110 lb up at 5-6-6, and 97 lb down and 110 lb up at 5-6-6 on top chord, and 1 lb down at 2-8-7, 1 lb down at 2-8-7, and 21 lb down at 5-6-6, and 21 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-53 (F=-26, B=-26), 12=-19 (F=-10, B=-10)

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980256
241116-A	CG3	Diagonal Hip Girder	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:47 Page: 1
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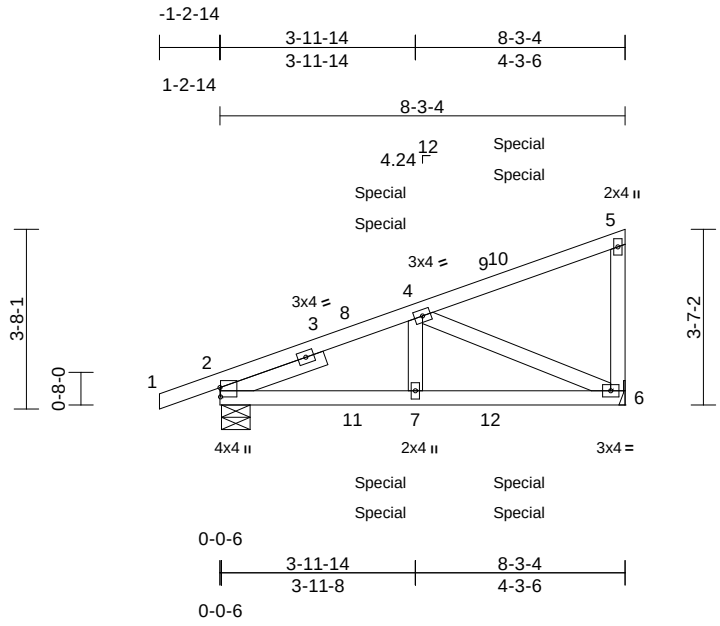

Scale = 1:28.9

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

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	0.40	Vert(LL)	-0.01	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.03	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%

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

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

REACTIONS (size) 2=0-7-0, 6= Mechanical
Max Horiz 2=157 (LC 9)
Max Uplift 2=-151 (LC 8), 6=-141 (LC 12)
Max Grav 2=482 (LC 1), 6=408 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-4=-642/293, 4-5=-130/90, 5-6=-139/147
BOT CHORD 2-7=-416/533, 6-7=-416/533
WEBS 4-7=0/229, 4-6=-580/409

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 Corner (3) -1-2-14 to 5-10-0, Exterior(2R) 5-10-0 to 8-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: Joint 2 SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 6 and 151 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 35 lb down and 66 lb up at 2-8-7, 35 lb down and 66 lb up at 2-8-7, and 97 lb down and 110 lb up at 5-6-6, and 97 lb down and 110 lb up at 5-6-6 on top chord, and 1 lb down at 2-8-7, 1 lb down at 2-8-7, and 21 lb down at 5-6-6, and 21 lb down at 5-6-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 9=-53 (F=-26, B=-26), 12=-19 (F=-10, B=-10)

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980257
241116-A	LG6	Lay-In Gable	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:52 Page: 1
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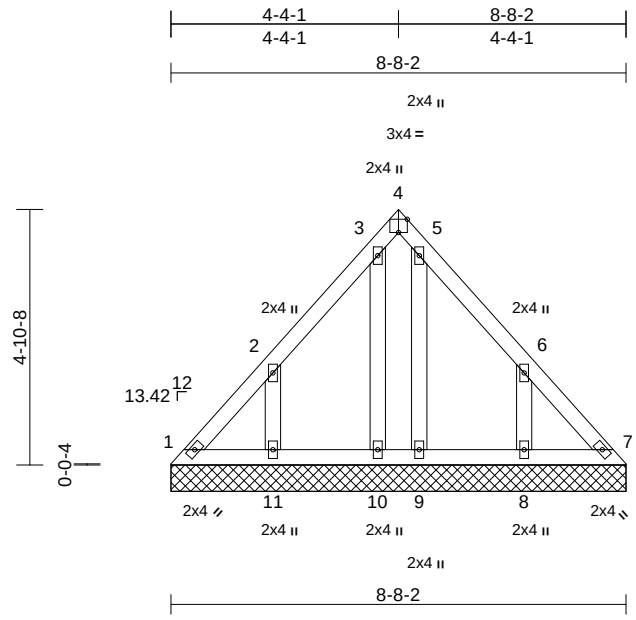

Scale = 1:28.1

Plate Offsets (X, Y): [4:Edge,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)	n/a	-	n/a	999	MT20	197/144
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-P							Weight: 36 lb	FT = 20%

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

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

REACTIONS (size) 1=8-8-2, 7=8-8-2, 8=8-8-2, 9=8-8-2, 10=8-8-2, 11=8-8-2
Max Horiz 1=-130 (LC 8)
Max Uplift 1=-45 (LC 10), 7=-35 (LC 11), 8=-172 (LC 13), 9=-62 (LC 13), 10=-71 (LC 12), 11=-170 (LC 12)
Max Grav 1=157 (LC 12), 7=151 (LC 13), 8=230 (LC 20), 9=143 (LC 20), 10=153 (LC 19), 11=227 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-229/211, 2-3=-73/80, 3-4=-21/17, 4-5=-21/20, 5-6=-65/68, 6-7=-220/211
BOT CHORD 1-11=-154/172, 10-11=-154/172, 9-10=-154/172, 8-9=-154/172, 7-8=-154/172
WEBS 2-11=-244/196, 3-10=-127/86, 5-9=-117/78, 6-8=-244/198

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) zone; 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1, 35 lb uplift at joint 7, 170 lb uplift at joint 11, 71 lb uplift at joint 10, 62 lb uplift at joint 9 and 172 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.

LOAD CASE(S) Standard

December 27,2024

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Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	E2	Common	1	1	Job Reference (optional) R85980258

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:49 Page: 1
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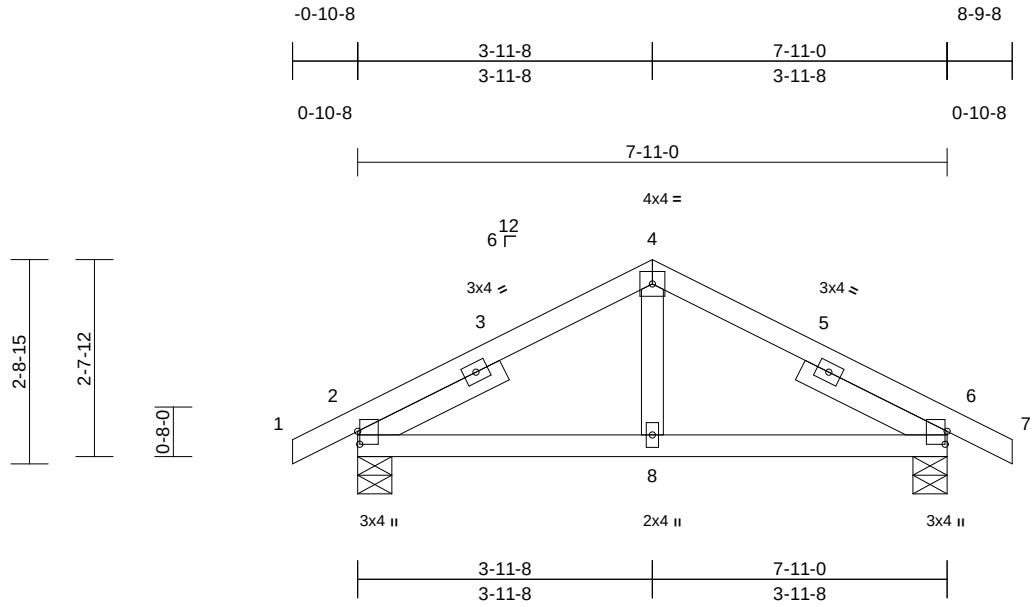

Scale = 1:23.1

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

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	0.26	Vert(LL)	-0.01	2-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	2-8	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 28 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 2-1-13, Right 2x4 WW Stud -- 2-1-13

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) 2=0-5-8, 6=0-5-8
Max Horiz 2=-46 (LC 17)
Max Uplift 2=-76 (LC 12), 6=-76 (LC 13)
Max Grav 2=417 (LC 1), 6=418 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-438/190, 4-6=-438/207, 6-7=0/6
BOT CHORD 2-8=-74/307, 6-8=-74/307
WEBS 4-8=0/195

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 76 lb uplift at joint 6.
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

December 27,2024

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980259
241116-A	E3	Common	1	1	Job Reference (optional)

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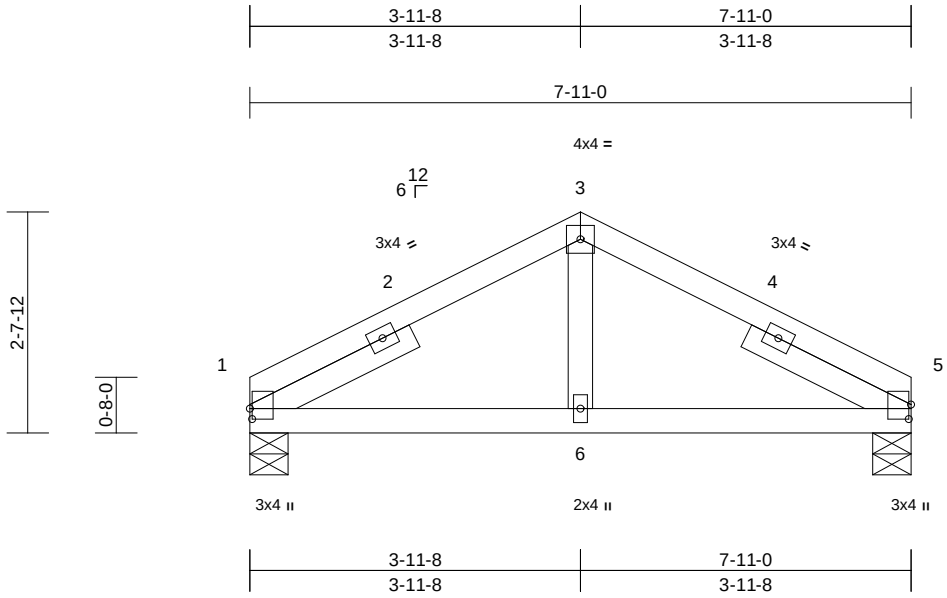

Scale = 1:20.5

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

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	0.28	Vert(LL)	-0.01	1-6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.02	1-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 2-1-13, Right 2x4 SPF No.2 -- 2-1-13

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=0-5-8, 5=0-5-8
Max Horiz 1=-44 (LC 17)
Max Uplift 1=-53 (LC 12), 5=-53 (LC 13)
Max Grav 1=356 (LC 1), 5=356 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-433/200, 3-5=-432/217
BOT CHORD 1-6=-91/318, 5-6=-91/318
WEBS 3-6=0/195

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SPF No.2 .
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 1 and 53 lb uplift at joint 5.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 27,2024

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Roseville, CA 95661
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/07/2025

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980260
241116-A	V1	Valley	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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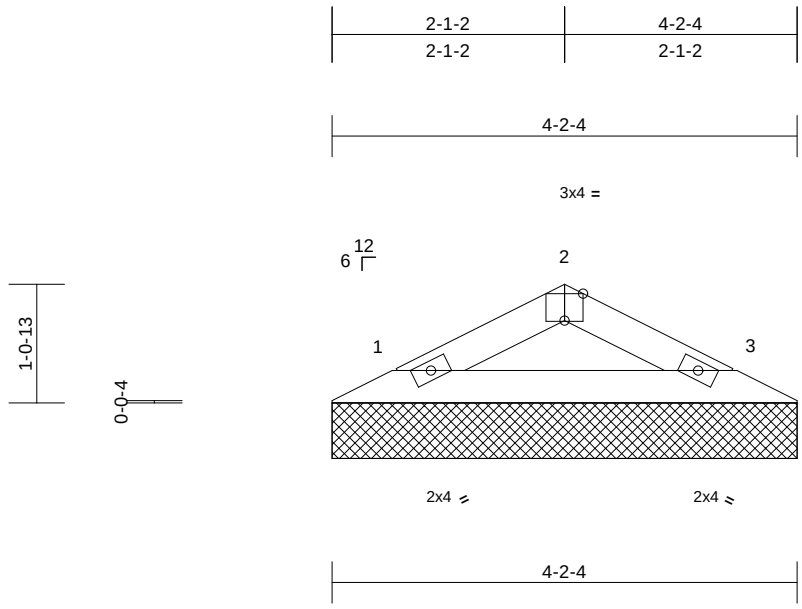

Scale = 1:13.7

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	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

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

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

REACTIONS (size) 1=4-2-4, 3=4-2-4
Max Horiz 1=14 (LC 12)
Max Uplift 1=-21 (LC 12), 3=-21 (LC 13)
Max Grav 1=136 (LC 1), 3=136 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-136/121, 2-3=-136/129
BOT CHORD 1-3=-83/105

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 21 lb uplift at joint 3.
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

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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/07/2025

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980261
241116-A	D4	Roof Special Girder	1	3	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:49 Page: 1
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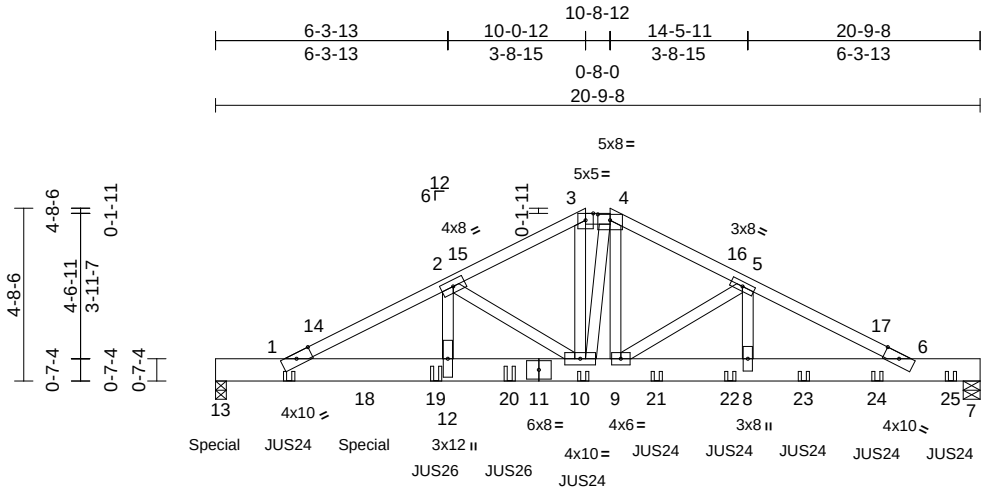
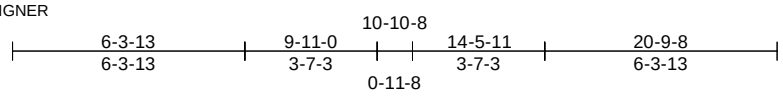


OFF JOINT BEARINGS SHALL BE REVIEWED
AND APPROVED BY THE BUILDING DESIGNER



Scale = 1:56

Plate Offsets (X, Y): [4:0-4-0,0-1-15]

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	0.61	Vert(LL)	-0.20	1-12	>999	240	MT20	137/130
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.35	1-12	>708	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 337 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 1-1/2x 7-1/4 2.0E 2900Fb PWT LVL
WEBS 2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-12 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) 7=0-5-8, 13=0-3-8
Max Horiz 13=79 (LC 12)
Max Uplift 7=-904 (LC 13), 13=-924 (LC 12)
Max Grav 7=4550 (LC 1), 13=4480 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-11011/2500, 2-3=-6692/1545, 3-4=-5876/1389, 4-5=-6492/1504, 5-6=-9974/2256
BOT CHORD 1-13=-79/77, 1-12=-2168/9706, 10-12=-2168/9706, 9-10=-1195/5758, 8-9=-1942/8789, 6-8=-1942/8789, 6-7=0/0
WEBS 3-10=-730/3132, 4-10=-126/617, 4-9=-408/1679, 2-10=-4464/1108, 2-12=-951/4344, 5-9=-3551/883, 5-8=-743/3499

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 0-6-0 oc.
Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=1.00; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-10-8 to 6-10-8, Interior (1) 6-10-8 to 10-0-12, Exterior(2E) 10-0-12 to 10-8-12, Exterior(2R) 10-8-12 to 17-9-10, Interior (1) 17-9-10 to 18-11-0 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 LVL 2.0E 2900Fb 2.0E 2900Fb .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 924 lb uplift at joint 13 and 904 lb uplift at joint 7.
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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 8-0-0 oc max. starting at 2-0-0 from the left end to 20-0-0 to connect truss(es) to front face of bottom chord.
12) Use MiTek JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 6-0-0 from the left end to 8-0-0 to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 50 lb down at 0-1-12, and 1606 lb down and 497 lb up at 4-0-13 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: 1-3=-70, 3-4=-70, 4-6=-70, 1-13=-90, 1-6=-20, 6-7=-90
Concentrated Loads (lb)
Vert: 1=-90 (F), 13=-37 (F), 10=-672 (F), 18=-1606 (F), 19=-804 (F), 20=-804 (F), 21=-664 (F), 22=-648 (F), 23=-644 (F), 24=-628 (F), 25=-596 (F)

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980262
241116-A	V2	Valley	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:53 Page: 1
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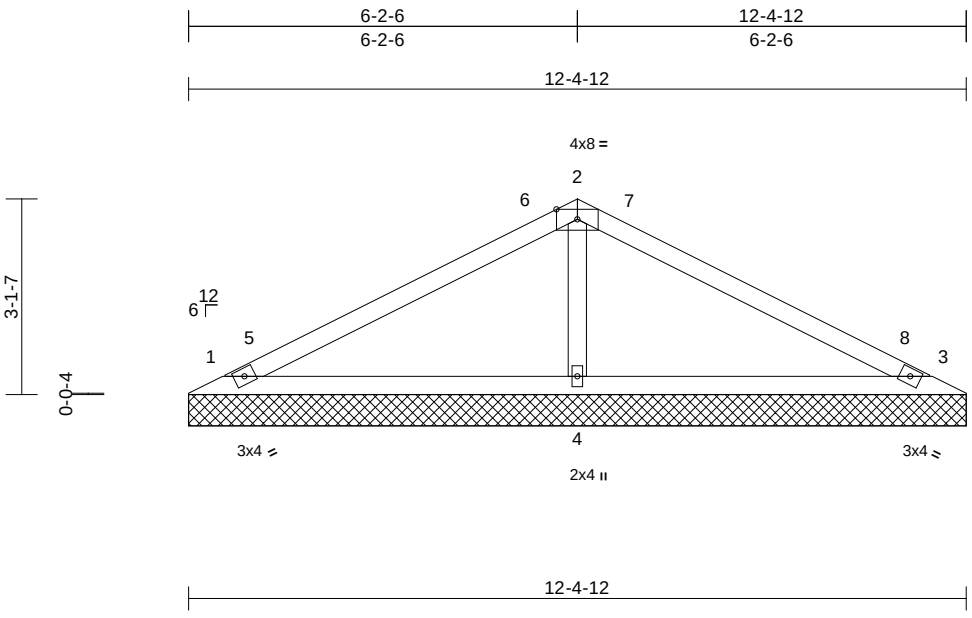

Scale = 1:32.9

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	0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 31 lb	FT = 20%

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

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

REACTIONS (size) 1=12-4-12, 3=12-4-12, 4=12-4-12
Max Horiz 1=53 (LC 16)
Max Uplift 1=-54 (LC 12), 3=-64 (LC 13), 4=-46 (LC 12)
Max Grav 1=233 (LC 25), 3=233 (LC 26), 4=550 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-130/92, 2-3=-130/82
BOT CHORD 1-4=0/52, 3-4=0/52
WEBS 2-4=-380/237

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) 0-7-9 to 5-7-9, Interior (1) 5-7-9 to 6-2-14, Exterior(2R) 6-2-14 to 11-2-14, Interior (1) 11-2-14 to 11-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 1, 64 lb uplift at joint 3 and 46 lb uplift at joint 4.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-15531 SW Arbor Valley Dr R85980263
241116-A	V3	Valley	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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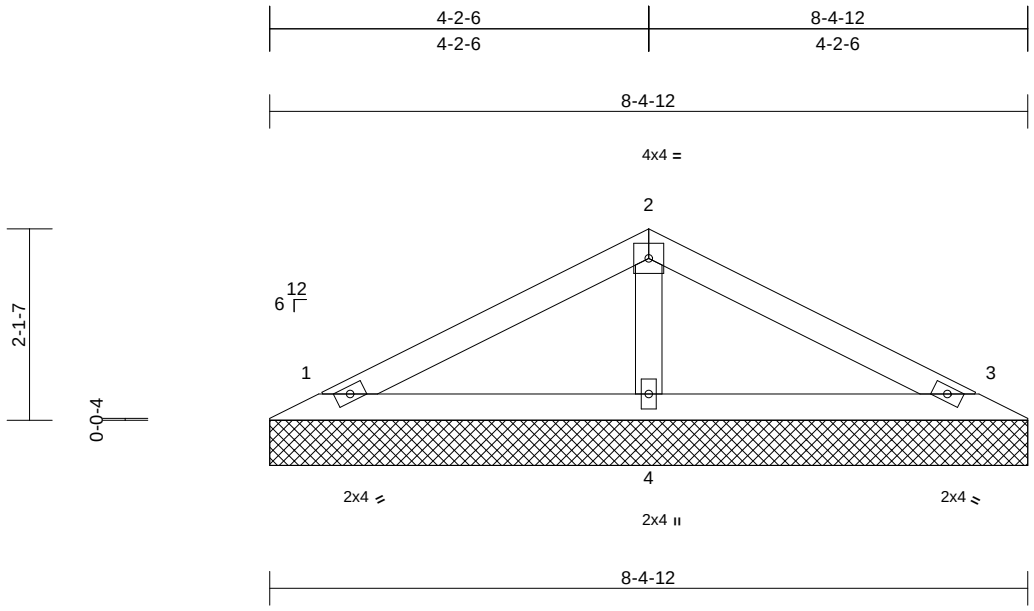

Scale = 1:18.3

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 1=8-4-12, 3=8-4-12, 4=8-4-12
Max Horiz 1=34 (LC 16)
Max Uplift 1=-43 (LC 12), 3=-49 (LC 13), 4=-13 (LC 12)
Max Grav 1=165 (LC 1), 3=165 (LC 1), 4=319 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-72/54, 2-3=-72/60
BOT CHORD 1-4=0/31, 3-4=0/31
WEBS 2-4=-229/178

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1, 49 lb uplift at joint 3 and 13 lb uplift at joint 4.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	V4	Valley	1	1	Job Reference (optional) R85980264

Direct Lumber of Colorado, Denver, CO - 80221,

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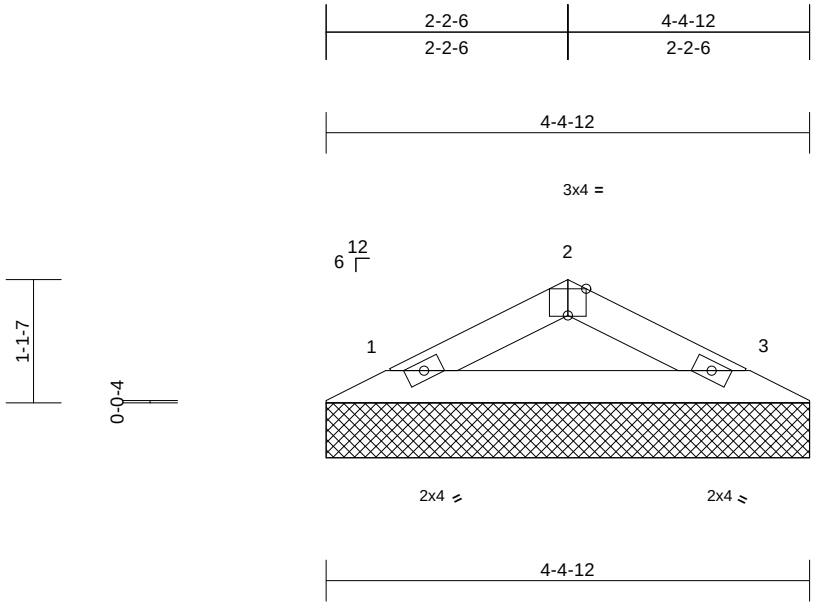

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-4-12, 3=4-4-12
Max Horiz 1=-15 (LC 13)
Max Uplift 1=-22 (LC 12), 3=-22 (LC 13)
Max Grav 1=145 (LC 1), 3=145 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-146/130, 2-3=-146/138
BOT CHORD 1-3=-89/112

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 22 lb uplift at joint 3.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	V5	Valley	1	1	Job Reference (optional) R85980265

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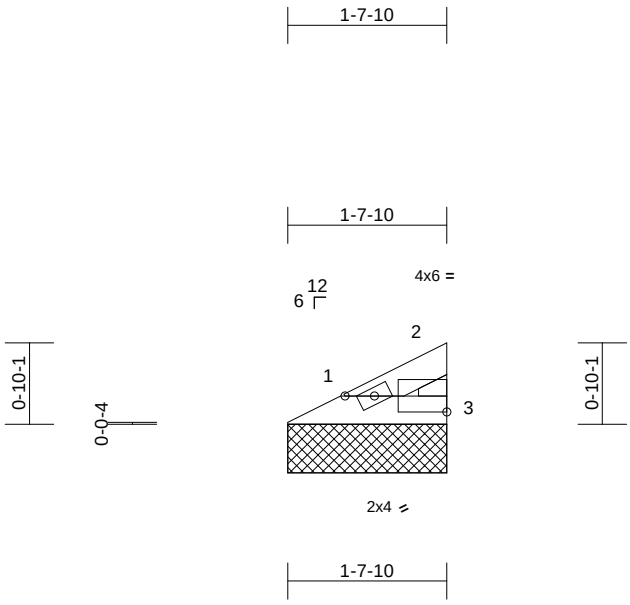

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Plate Offsets (X, Y): [2:Edge,0-2-0]

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	0.01	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 3 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=1-7-10, 3=1-7-10
Max Horiz 1=20 (LC 9)
Max Uplift 1=-6 (LC 12), 3=-11 (LC 12)
Max Grav 1=41 (LC 1), 3=41 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-29/19, 2-3=-32/41
BOT CHORD 1-3=-9/10

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 11 lb uplift at joint 3.
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

December 27,2024

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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	V6	Valley	1	1	R85980266

Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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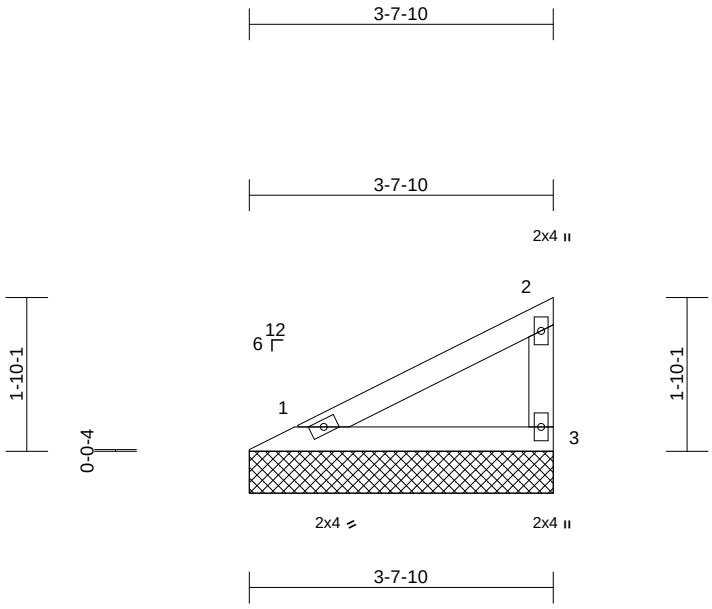

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-7-10, 3=3-7-10
Max Horiz 1=65 (LC 9)
Max Uplift 1=-20 (LC 12), 3=-37 (LC 12)
Max Grav 1=131 (LC 1), 3=131 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-92/62, 2-3=-102/131
BOT CHORD 1-3=-30/33

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 37 lb uplift at joint 3.
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

December 27,2024

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400 Sunrise Ave., Suite 270
Roseville, CA 95661
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Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	V7	Valley	1	1	R85980267

Direct Lumber of Colorado, Denver, CO - 80221,

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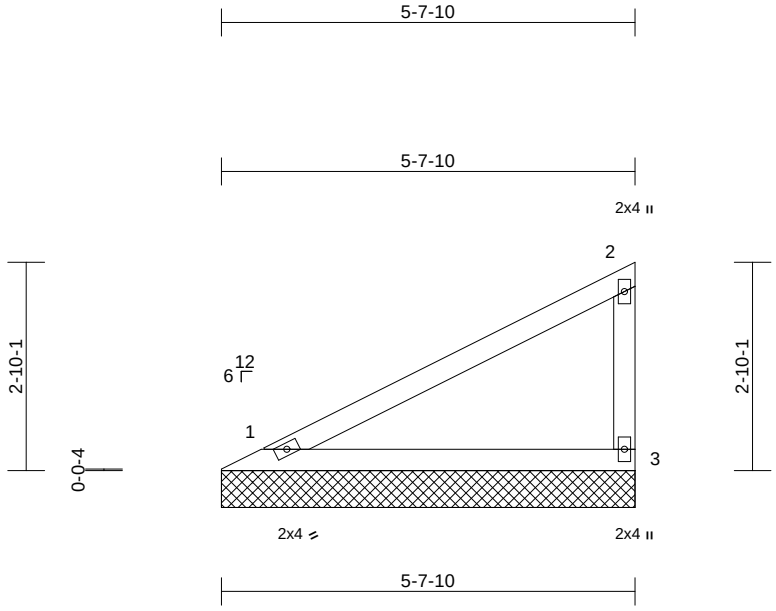

Scale = 1:30.1

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	0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb	FT = 20%

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

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

REACTIONS (size) 1=5-7-10, 3=5-7-10
Max Horiz 1=109 (LC 9)
Max Uplift 1=-34 (LC 12), 3=-62 (LC 12)
Max Grav 1=221 (LC 1), 3=221 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-153/103, 2-3=-172/217
BOT CHORD 1-3=-51/55

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 4-0-0 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 SPF No.2 .
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 62 lb uplift at joint 3.
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

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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr
241116-A	A7	Common	1	1	Job Reference (optional) R85980268

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:42 Page: 1
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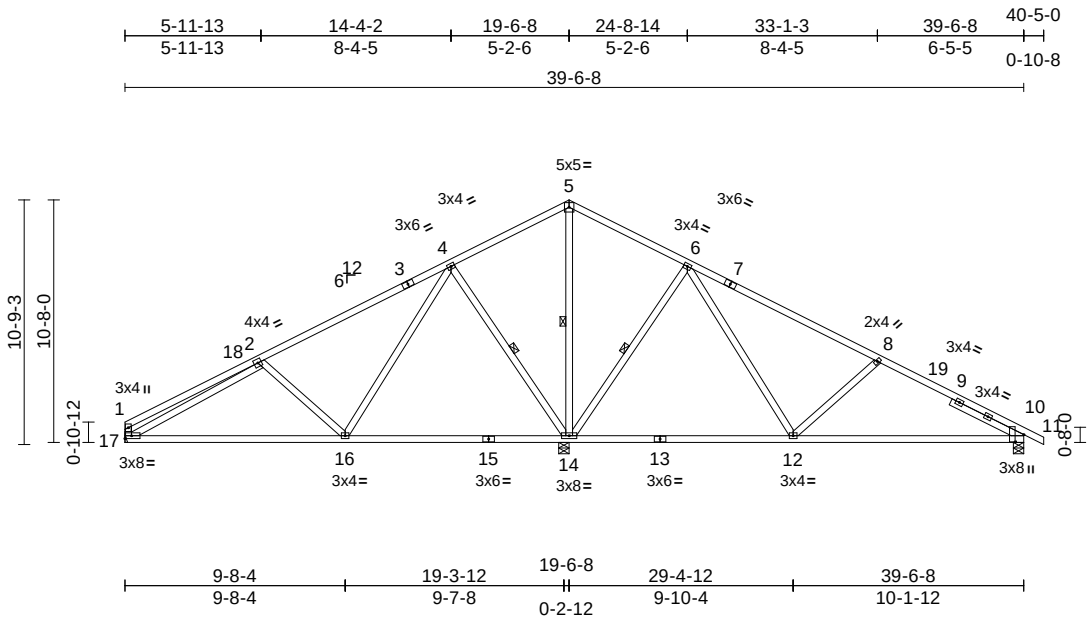

Scale = 1:92.8

Plate Offsets (X, Y): [10:0-3-13,0-4-9]

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	0.75	Vert(LL)	-0.23	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.48	10-12	>503	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 172 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 WW Stud -- 3-6-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-9-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 4-14, 6-14

REACTIONS (size) 10=0-5-8, 14=0-5-8, 17= Mechanical
Max Horiz 17=-201 (LC 17)
Max Uplift 10=-162 (LC 13), 14=-332 (LC 12), 17=-97 (LC 12)
Max Grav 10=730 (LC 26), 14=2408 (LC 1), 17=651 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-312/52, 2-4=-549/120, 4-5=-12/709, 5-6=0/709, 6-8=-553/191, 8-10=-923/258, 10-11=0/6, 1-17=-258/80
BOT CHORD 16-17=-257/718, 14-16=-245/284, 12-14=-209/154, 10-12=-134/755
WEBS 2-17=-585/131, 5-14=-824/63, 2-16=-489/309, 4-16=-98/626, 4-14=-827/350, 6-14=-849/353, 6-12=-100/664, 8-12=-524/316

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) 0-7-4 to 5-7-4, Interior (1) 5-7-4 to 20-0-0, Exterior(2R) 20-0-0 to 25-2-6, Interior (1) 25-2-6 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearings are assumed to be: , Joint 14 SPF No.2 , Joint 10 SPF No.2 .
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 10, 97 lb uplift at joint 17 and 332 lb uplift at joint 14.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980269
241116-A	A8	Common	7	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:42 Page: 1
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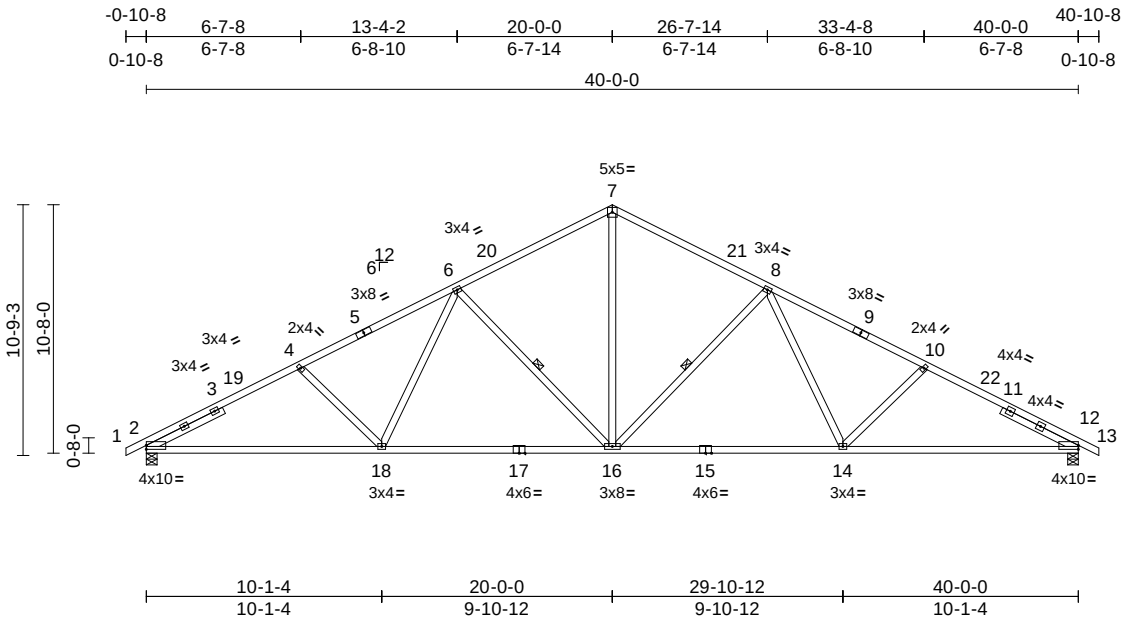

Scale = 1:90.3

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

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	0.76	Vert(LL)	-0.24	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.52	12-14	>924	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.16	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 168 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except* 17-15:2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 3-8-0, Right 2x4 WW Stud -- 3-7-12

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-7-4 oc bracing.
WEBS 1 Row at midpt 6-16, 8-16

REACTIONS (size) 2=0-5-8, 12=0-5-8
Max Horiz 2=197 (LC 12)
Max Uplift 2=-296 (LC 12), 12=-296 (LC 13)
Max Grav 2=1861 (LC 1), 12=1861 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-3186/509, 4-6=-2895/488, 6-7=-2088/461, 7-8=-2088/461, 8-10=-2895/488, 10-12=-3186/509, 12-13=0/6
BOT CHORD 2-18=-540/2717, 16-18=-340/2312, 14-16=-225/2312, 12-14=-347/2717
WEBS 7-16=-212/1354, 4-18=-328/251, 6-18=-55/503, 6-16=-819/330, 8-16=-819/330, 8-14=-56/503, 10-14=-327/251

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 20-0-0, Exterior(2R) 20-0-0 to 25-0-0, Interior (1) 25-0-0 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SPF 1650F 1.5E .
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 296 lb uplift at joint 2 and 296 lb uplift at joint 12.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980270
241116-A	LG3	Lay-In Gable	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:52 Page: 1
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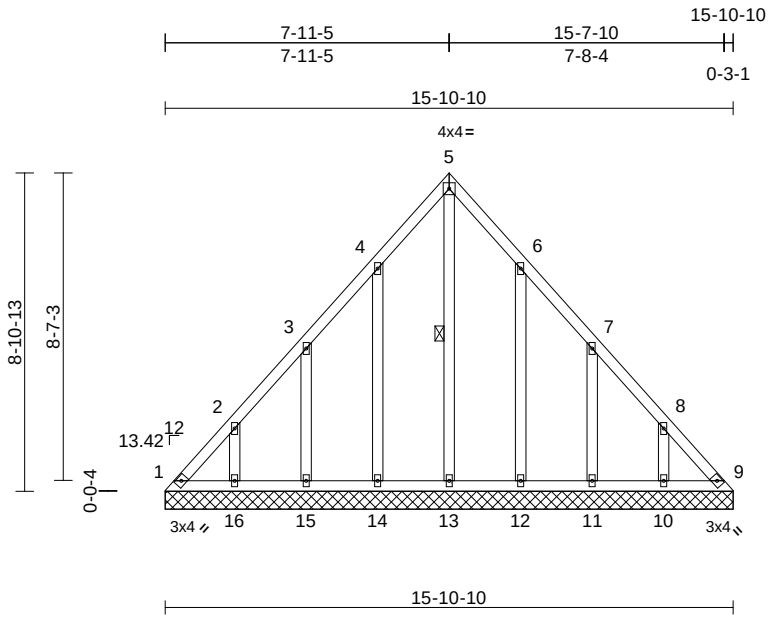

Scale = 1:57.3

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.13	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS (size) 1=15-10-10, 9=15-10-10, 10=15-10-10, 11=15-10-10, 12=15-10-10, 13=15-10-10, 14=15-10-10, 15=15-10-10, 16=15-10-10
Max Horiz 1=-246 (LC 8)
Max Uplift 1=-114 (LC 10), 9=-75 (LC 11), 10=-149 (LC 13), 11=-151 (LC 13), 12=-149 (LC 13), 14=-151 (LC 12), 15=-150 (LC 12), 16=-149 (LC 12)
Max Grav 1=235 (LC 12), 9=209 (LC 13), 10=214 (LC 20), 11=210 (LC 20), 12=221 (LC 20), 13=214 (LC 13), 14=223 (LC 19), 15=209 (LC 19), 16=214 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-333/213, 2-3=-194/158, 3-4=-147/113, 4-5=-179/180, 5-6=-179/171, 6-7=-107/68, 7-8=-160/106, 8-9=-298/207
BOT CHORD 1-16=-155/228, 15-16=-155/228, 14-15=-155/228, 13-14=-155/228, 12-13=-155/228, 11-12=-155/228, 10-11=-155/228, 9-10=-155/228
WEBS 5-13=-190/136, 4-14=-199/174, 3-15=-204/176, 2-16=-195/167, 6-12=-199/173, 7-11=-204/176, 8-10=-195/166

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) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 7-11-9, Exterior(2R) 7-11-9 to 12-11-9, Interior (1) 12-11-9 to 15-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 (||) MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 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 SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 1, 75 lb uplift at joint 9, 151 lb uplift at joint 14, 150 lb uplift at joint 15, 149 lb uplift at joint 16, 149 lb uplift at joint 12, 151 lb uplift at joint 11 and 149 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980271
241116-A	LG2	Lay-In Gable	1	1	Job Reference (optional)

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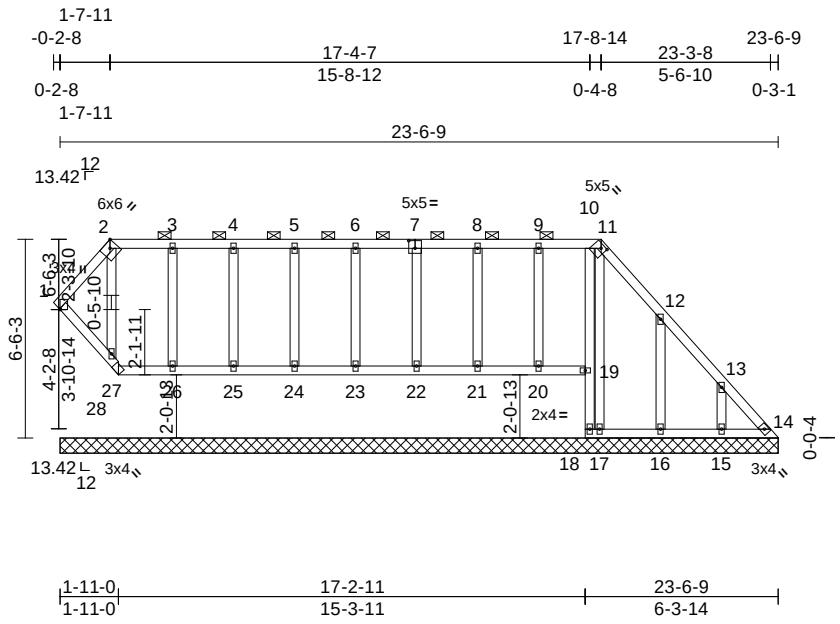

Scale = 1:64.2

Plate Offsets (X, Y): [2:0-2-10,Edge], [7:0-2-8,0-3-0], [10:0-1-15,0-1-7]

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	197/144
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	0.07	Horiz(TL)	0.02	14	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 114 lb	FT = 20%

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

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

REACTIONS (size) 1=23-6-9, 14=23-6-9, 15=23-6-9, 16=23-6-9, 17=23-6-9, 18=23-6-9, 19=23-6-9, 20=23-6-9, 21=23-6-9, 22=23-6-9, 23=23-6-9, 24=23-6-9, 25=23-6-9, 26=23-6-9, 27=23-6-9, 28=23-6-9
Max Horiz 1=-218 (LC 13)
Max Uplift 1=-242 (LC 13), 14=-6 (LC 13), 15=-148 (LC 13), 16=-150 (LC 13), 18=-55 (LC 11), 19=-27 (LC 9), 20=-40 (LC 9), 21=-43 (LC 8), 22=-39 (LC 9), 23=-39 (LC 8), 24=-40 (LC 9), 25=-40 (LC 8), 26=-44 (LC 9), 27=-45 (LC 13), 28=-120 (LC 11)
Max Grav 1=143 (LC 20), 14=55 (LC 1), 15=208 (LC 20), 16=221 (LC 20), 17=98 (LC 3), 18=89 (LC 13), 19=107 (LC 22), 20=174 (LC 25), 21=185 (LC 26), 22=180 (LC 25), 23=177 (LC 26), 24=181 (LC 26), 25=177 (LC 1), 26=194 (LC 26), 27=36 (LC 11), 28=275 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-257/358, 2-3=-182/233, 3-4=-183/234, 4-5=-183/234, 5-6=-183/234, 6-8=-183/234, 8-9=-181/233, 9-10=-181/233, 10-11=-190/246, 11-12=-241/298, 12-13=-123/148, 13-14=-36/46
BOT CHORD 1-28=-57/67, 27-28=-26/68, 26-27=-25/37, 25-26=-25/37, 24-25=-25/37, 23-24=-25/37, 22-23=-25/37, 21-22=-26/38, 20-21=-26/38, 19-20=-26/38, 18-19=0/0, 10-19=-100/40, 17-18=-22/31, 16-17=-23/32, 15-16=-23/32, 14-15=-23/32
WEBS 2-28=-254/139, 3-26=-154/69, 4-25=-137/64, 5-24=-141/64, 6-23=-137/62, 7-22=-140/63, 8-21=-145/65, 9-20=-133/65, 11-17=-105/52, 12-16=-197/178, 13-15=-183/166

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) 0-4-11 to 1-10-3, Exterior(2R) 1-10-3 to 8-11-1, Interior (1) 8-11-1 to 17-11-6, Exterior(2E) 17-11-6 to 23-5-6 zone; 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 2x4 (||) 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 SPF No.2 .
10) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 14, 242 lb uplift at joint 1, 45 lb uplift at joint 27, 27 lb uplift at joint 19, 55 lb uplift at joint 18, 120 lb uplift at joint 28, 44 lb uplift at joint 26, 40 lb uplift at joint 25, 40 lb uplift at joint 24, 39 lb uplift at joint 23, 39 lb uplift at joint 22, 43 lb uplift at joint 21, 40 lb uplift at joint 20, 150 lb uplift at joint 16 and 148 lb uplift at joint 15.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 27, 28, 26, 25, 24, 23, 22, 21, 20.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
14) 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980272
241116-A	LG9	Lay-In Gable	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221, Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:53 Page: 1
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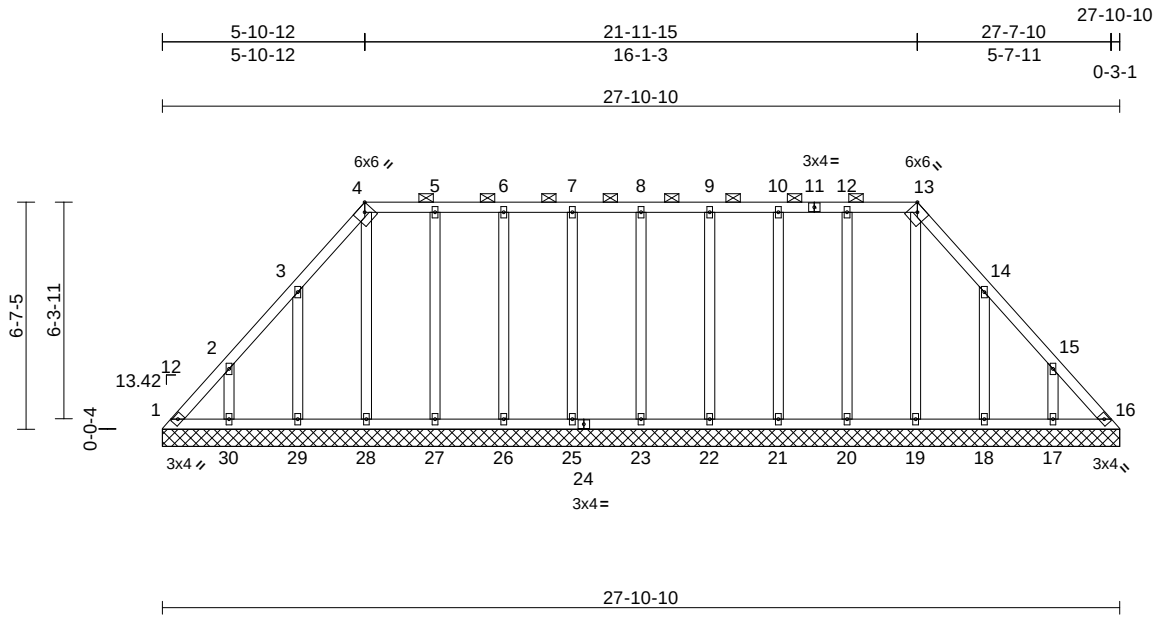

Scale = 1:60

Plate Offsets (X, Y): [4:0-2-10,Edge], [13:0-2-10,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	197/144
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	0.11	Horiz(TL)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 144 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-13.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=27-10-10, 16=27-10-10, 17=27-10-10, 18=27-10-10, 19=27-10-10, 20=27-10-10, 21=27-10-10, 22=27-10-10, 23=27-10-10, 25=27-10-10, 26=27-10-10, 27=27-10-10, 28=27-10-10, 29=27-10-10, 30=27-10-10
Max Horiz 1=-181 (LC 8)
Max Uplift 1=-88 (LC 10), 16=-31 (LC 11), 17=-149 (LC 13), 18=-157 (LC 13), 20=-46 (LC 9), 21=-39 (LC 8), 22=-39 (LC 9), 23=-39 (LC 8), 25=-39 (LC 9), 26=-39 (LC 8), 27=-44 (LC 8), 28=-33 (LC 9), 29=-158 (LC 12), 30=-149 (LC 12)
Max Grav 1=153 (LC 12), 16=121 (LC 22), 17=212 (LC 20), 18=221 (LC 20), 19=150 (LC 26), 20=192 (LC 25), 21=178 (LC 1), 22=180 (LC 25), 23=180 (LC 1), 25=180 (LC 26), 26=178 (LC 1), 27=192 (LC 26), 28=172 (LC 22), 29=221 (LC 19), 30=212 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-223/178, 2-3=-144/125, 3-4=-143/165, 4-5=-118/131, 5-6=-118/131, 6-7=-118/131, 7-8=-118/131, 8-9=-118/131, 9-10=-118/131, 10-12=-118/131, 12-13=-118/131, 13-14=-143/139, 14-15=-86/51, 15-16=-173/109
BOT CHORD 1-30=-87/145, 29-30=-87/145, 28-29=-87/145, 27-28=-87/144, 26-27=-87/144, 25-26=-87/144, 23-25=-87/144, 22-23=-87/144, 21-22=-87/144, 20-21=-87/144, 19-20=-87/144, 18-19=-87/144, 17-18=-87/144, 16-17=-87/144
WEBS 2-30=-182/167, 3-29=-195/183, 4-28=-132/57, 5-27=-152/68, 6-26=-138/63, 7-25=-140/63, 8-23=-140/63, 9-22=-140/63, 10-21=-138/63, 12-20=-152/70, 13-19=-109/2, 14-18=-195/183, 15-17=-182/167

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) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 5-10-15, Exterior(2R) 5-10-15 to 12-11-13, Interior (1) 12-11-13 to 22-0-2, Exterior(2E) 22-0-2 to 27-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 2x4 (||) 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 SPF No.2 .
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 1, 31 lb uplift at joint 16, 149 lb uplift at joint 30, 158 lb uplift at joint 29, 33 lb uplift at joint 28, 44 lb uplift at joint 27, 39 lb uplift at joint 26, 39 lb uplift at joint 25, 39 lb uplift at joint 23, 39 lb uplift at joint 22, 39 lb uplift at joint 21, 46 lb uplift at joint 20, 157 lb uplift at joint 18 and 149 lb uplift at joint 17.
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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980273
241116-A	LG8	Lay-In Gable	1	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:52 Page: 1
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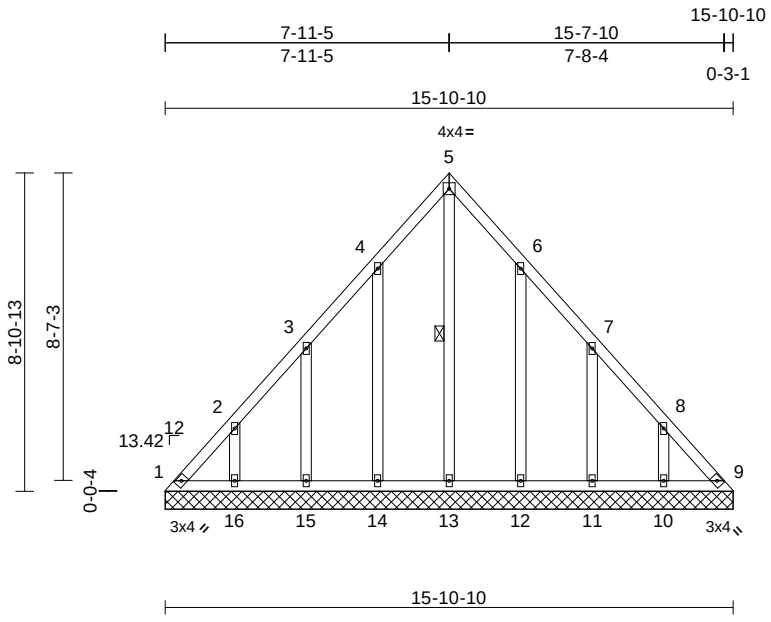

Scale = 1:57.3

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
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	0.13	Horiz(TL)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 80 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-13

REACTIONS (size) 1=15-10-10, 9=15-10-10, 10=15-10-10, 11=15-10-10, 12=15-10-10, 13=15-10-10, 14=15-10-10, 15=15-10-10, 16=15-10-10
Max Horiz 1=-246 (LC 8)
Max Uplift 1=-114 (LC 10), 9=-75 (LC 11), 10=-149 (LC 13), 11=-151 (LC 13), 12=-149 (LC 13), 14=-151 (LC 12), 15=-150 (LC 12), 16=-149 (LC 12)
Max Grav 1=235 (LC 12), 9=209 (LC 13), 10=214 (LC 20), 11=210 (LC 20), 12=221 (LC 20), 13=214 (LC 13), 14=223 (LC 19), 15=209 (LC 19), 16=214 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-333/213, 2-3=-194/158, 3-4=-147/113, 4-5=-179/180, 5-6=-179/171, 6-7=-107/68, 7-8=-160/106, 8-9=-298/207
BOT CHORD 1-16=-155/228, 15-16=-155/228, 14-15=-155/228, 13-14=-155/228, 12-13=-155/228, 11-12=-155/228, 10-11=-155/228, 9-10=-155/228
WEBS 5-13=-190/136, 4-14=-199/174, 3-15=-204/176, 2-16=-195/167, 6-12=-199/173, 7-11=-204/176, 8-10=-195/166

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) 0-3-15 to 5-3-15, Interior (1) 5-3-15 to 7-11-9, Exterior(2R) 7-11-9 to 12-11-9, Interior (1) 12-11-9 to 15-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 (||) MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 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 SPF No.2 .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 1, 75 lb uplift at joint 9, 151 lb uplift at joint 14, 150 lb uplift at joint 15, 149 lb uplift at joint 16, 149 lb uplift at joint 12, 151 lb uplift at joint 11 and 149 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980274
241116-A	C1	Half Hip Girder	1	2	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Fri Dec 27 12:58:46 Page: 1
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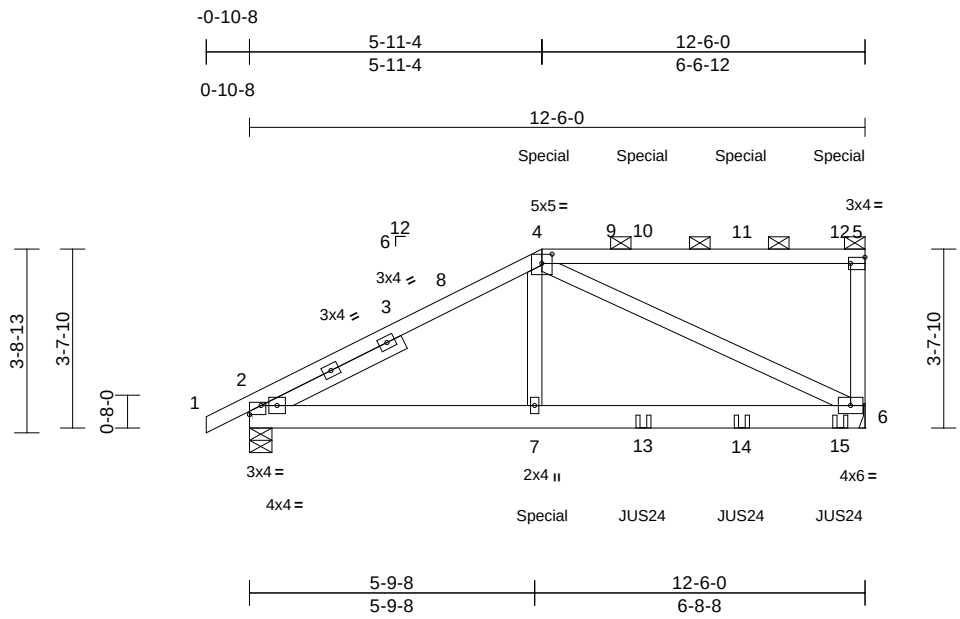

Scale = 1:38.3

Plate Offsets (X, Y): [2:0-1-15,0-2-0], [2:Edge,0-2-3], [4:0-2-8,0-2-4], [5:Edge,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	0.63	Vert(LL)	-0.02	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.04	6-7	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 114 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -- 3-2-2

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.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 6= Mechanical
Max Horiz 2=149 (LC 9)
Max Uplift 2=-288 (LC 12), 6=-415 (LC 9)
Max Grav 2=1015 (LC 1), 6=1229 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-4=-1508/519, 4-5=-114/119, 5-6=-510/326
BOT CHORD 2-7=-568/1252, 6-7=-568/1227
WEBS 4-7=-4/657, 4-6=-1263/526

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: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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(2E) 5-11-4 to 12-4-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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 1650F 1.5E .
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 415 lb uplift at joint 6 and 288 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 MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-0 from the left end to 12-0-0 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 155 lb down and 136 lb up at 5-11-4, 131 lb down and 136 lb up at 8-0-0, and 131 lb down and 136 lb up at 10-0-0, and 154 lb down and 127 lb up at 12-0-0 on top chord, and 406 lb down and 125 lb up at 5-11-4 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: 1-4=-70, 4-5=-70, 2-6=-20
Concentrated Loads (lb)
Vert: 7=-406 (B), 4=-131 (B), 10=-131 (B), 11=-131 (B), 12=-154 (B), 13=-39 (B), 14=-39 (B), 15=-45 (B)

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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980275
241116-A	J9	Jack-Open	2	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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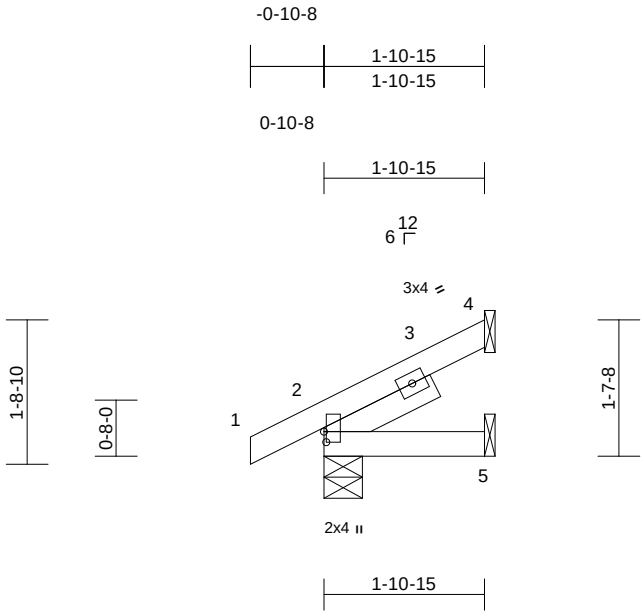

Scale = 1:17.7

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	0.05	Vert(LL)	0.00	2-5	>999	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.03	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: 7 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 1-5-3

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=0-5-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=60 (LC 12)
Max Uplift 2=-26 (LC 12), 4=-45 (LC 12)
Max Grav 2=161 (LC 1), 4=52 (LC 1), 5=38 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-54/26
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 2 and 45 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

December 27,2024

MiTek®
400 Sunrise Ave., Suite 270
Roseville, CA 95661
916.755.3571 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	Clayton Builder-P240957-Lot 82-1531 SW Arbor Valley Dr R85980276
241116-A	J10	Jack-Open	2	1	Job Reference (optional)

Direct Lumber of Colorado, Denver, CO - 80221,

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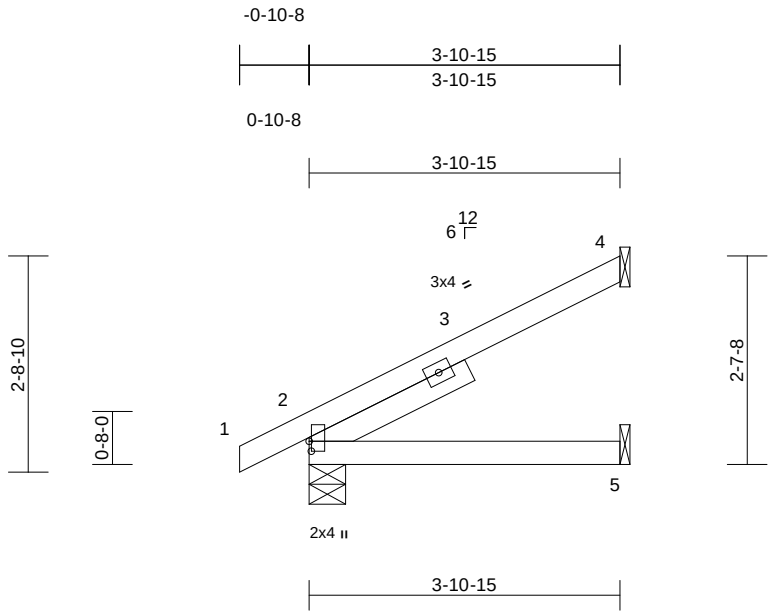

Scale = 1:21.6

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	0.27	Vert(LL)	-0.01	2-5	>999	240	MT20	169/123
TCDL	10.0	Lumber DOL	1.15	BC	0.15	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: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 WW Stud -- 2-2-8

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-10-15 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=103 (LC 12)
Max Uplift 2=-33 (LC 12), 4=-88 (LC 12)
Max Grav 2=241 (LC 1), 4=128 (LC 1), 5=77 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-4=-96/49
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 SPF No.2 .
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 4 and 33 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

December 27,2024

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Roseville, CA 95661
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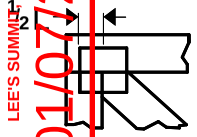
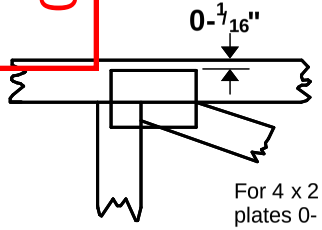
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

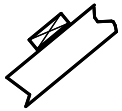
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

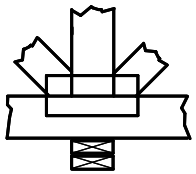
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

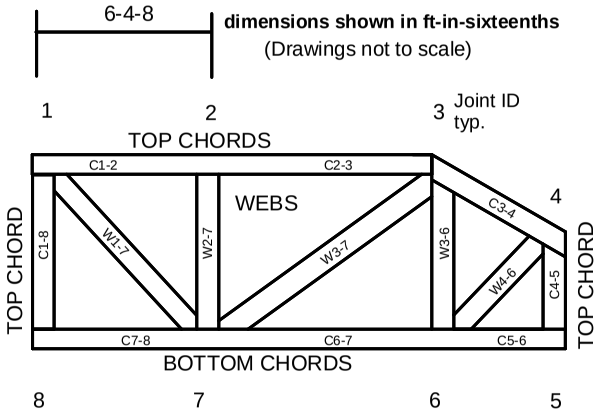


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

MiTek®

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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