Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	A01	Common Supported Gable	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:36   Page: 1
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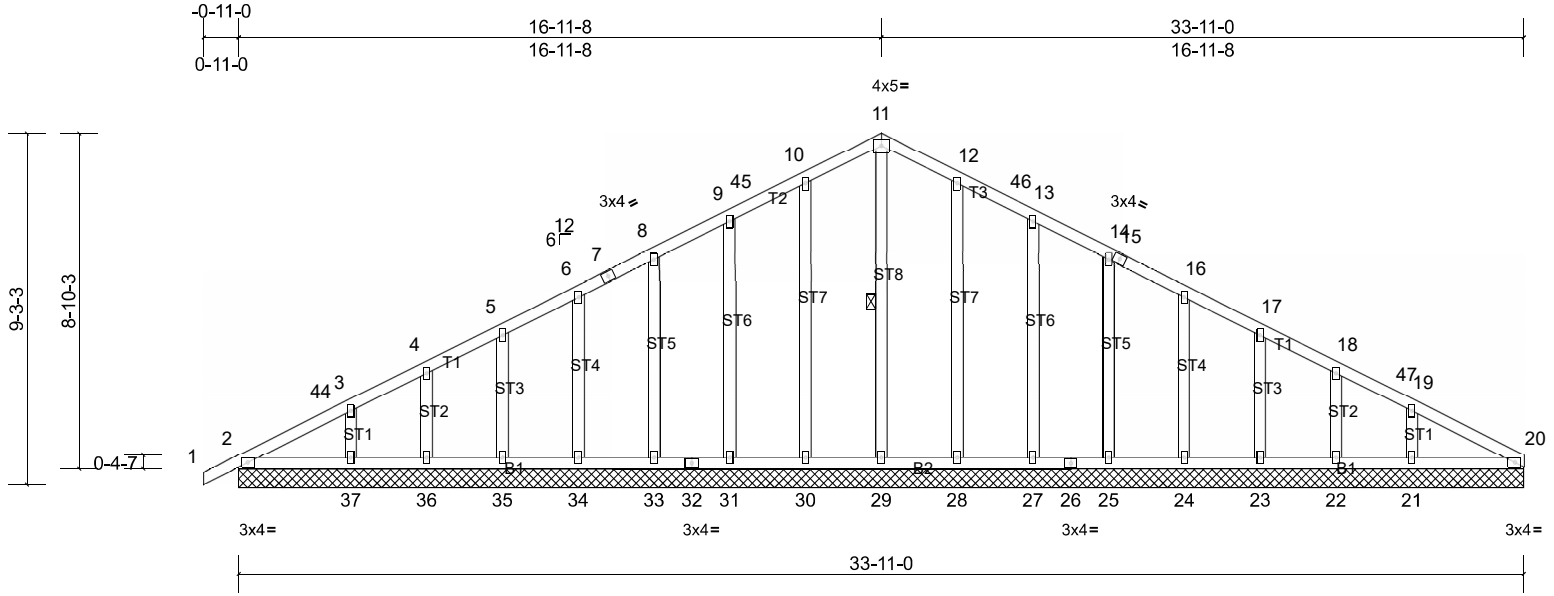
Scale = 1:60.8

Loading	(psf)	Spacing		2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL		1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL		1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr		YES	WB	0.14	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014		Matrix-AS							Weight: 211 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   11-29

REACTIONS All bearings 33-11-0.
 (lb) - Max Horiz 2=138 (LC 11), 38=138 (LC 11)
         Max Uplift All uplift 100 (lb) or less at joint(s)
                     21, 22, 23, 24, 25, 27, 28, 30, 31,
                     33, 34, 35, 36, 37
         Max Grav All reactions 250 (lb) or less at joint
                     (s) 2, 20, 21, 22, 23, 24, 25, 27, 28,
                     29, 30, 31, 33, 34, 35, 36, 37, 38,
                     41

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

NOTES
1) Unbalanced roof live loads have been considered for this
   design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust)
   Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
   B=45ft; L=34ft; eave=2ft; Cat. II; Exp B; Enclosed;
   MWFRS (directional) and C-C Corner (3) -0-11-0 to
   2-5-11, Exterior (2) 2-5-11 to 16-11-8, Corner (3) 16-11-8
   to 20-4-3, Exterior (2) 20-4-3 to 33-11-0 zone; cantilever
   left and right exposed ; end vertical left and right
   exposed;C-C for members and forces & MWFRS for
   reactions shown; Lumber DOL=1.60 plate grip
   DOL=1.60
3) 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) * This truss has been designed for a live load of 20.0psf
   on the bottom chord in all areas where a rectangle
   3-06-00 tall by 2-00-00 wide will fit between the bottom
   chord and any other members.

9) Provide mechanical connection (by others) of truss to
   bearing plate capable of withstanding 100 lb uplift at joint
   (s) 30, 31, 33, 34, 35, 36, 37, 28, 27, 25, 24, 23, 22, 21.
10) This truss is designed in accordance with the 2015
   International Residential Code sections R502.11.1 and
   R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16"
   structural wood sheathing be applied directly to the top
   chord and 1/2" gypsum sheetrock be applied directly to
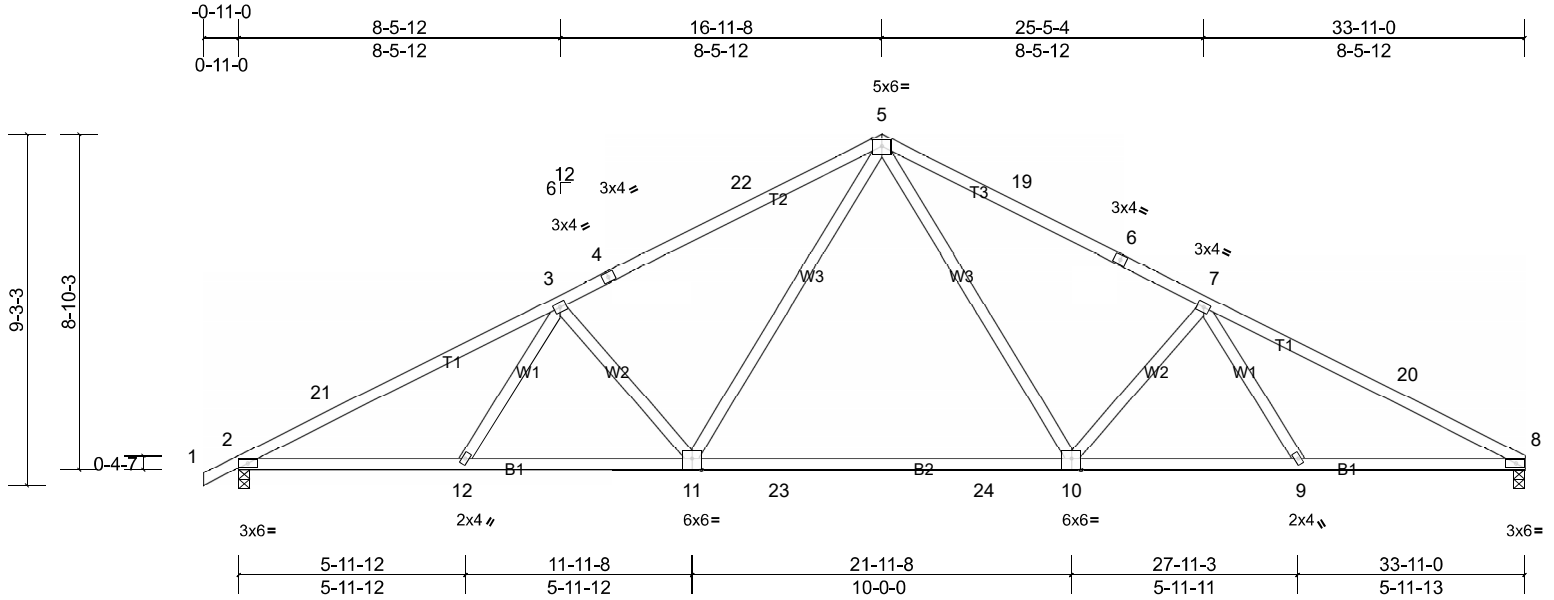   the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	A02	Common	22	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:36   Page: 1

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Scale = 1:60.8

Plate Offsets (X, Y): [10:0-3-0,Edge], [11:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.39	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.70	10-11	>580	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.09	10-11	>999	240	Weight: 167 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2 *Except* B2:2x4 SP No.1
WEBS   2x4 SP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=1412/0-3-8, (min. 0-1-11),
                          8=1356/0-3-8, (min. 0-1-10)
        Max Horiz 2=138 (LC 11)
        Max Uplift 2=-33 (LC 12), 8=-9 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
             (lb) or less except when shown.
TOP CHORD   5-19=-1918/195, 6-19=-1932/174,
             6-7=-2054/154, 7-20=-2436/146,
             8-20=-2527/118, 2-21=-2521/97,
             3-21=-2429/130, 3-4=-2052/146,
             4-22=-1930/166, 5-22=-1916/187
BOT CHORD   2-12=-36/2173, 11-12=-64/2113,
             11-23=0/1360, 23-24=0/1360, 10-24=0/1360,
             9-10=-64/2098, 8-9=-42/2179
WEBS   5-10=-9/816, 5-11=-8/814, 3-11=-602/148,
             7-10=-606/149

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-5-11, Interior (1) 2-5-11 to 16-11-8, Exterior (2) 16-11-8 to 20-4-3, Interior (1) 20-4-3 to 33-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 8 and 33 lb uplift at joint 2.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
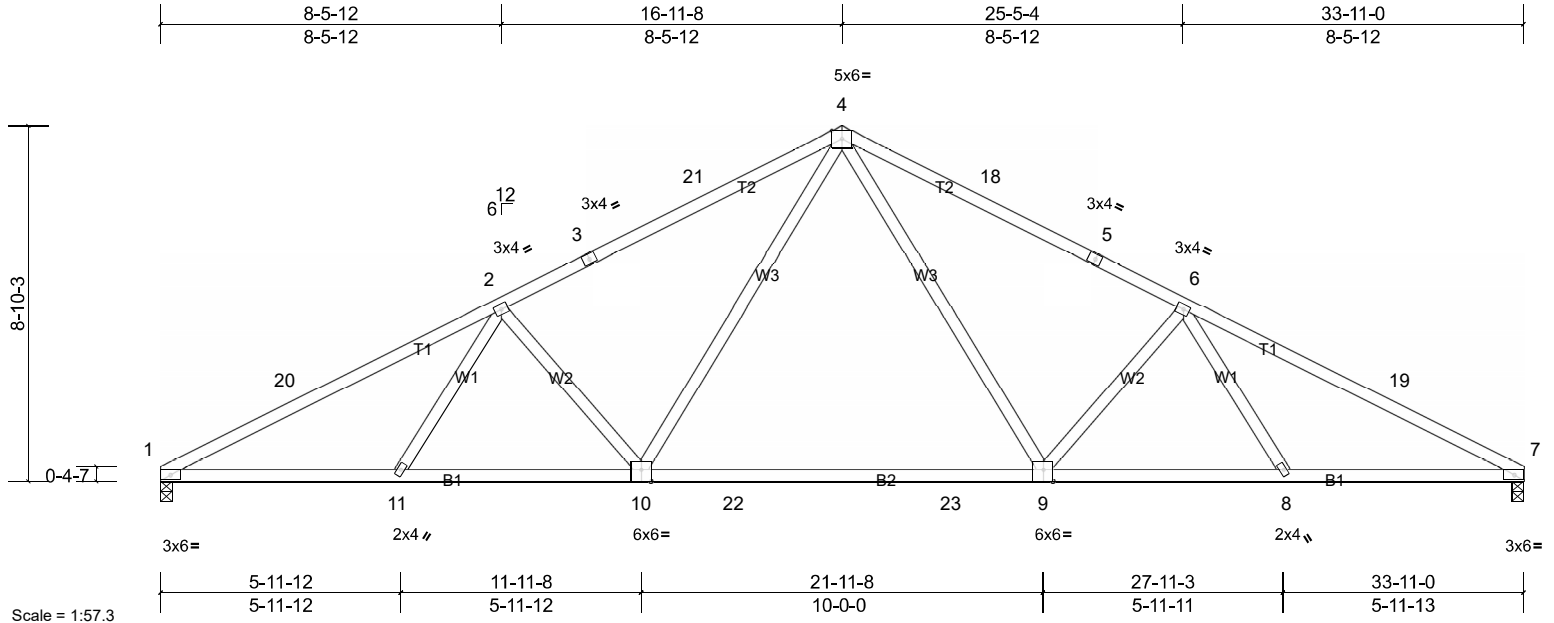
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	A03	Common	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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Scale = 1:57.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	-0.39	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.70	9-10	>580	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.09	9-10	>999	240	Weight: 166 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2 *Except* B2:2x4 SP No.1
WEBS   2x4 SP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   1=1357/0-3-8, (min. 0-1-10),
                          7=1357/0-3-8, (min. 0-1-10)
     Max Horiz 1=132 (LC 11)
     Max Uplift 1=-10 (LC 12), 7=-10 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
             (lb) or less except when shown.
TOP CHORD   4-18=-1919/196, 5-18=-1933/174,
             5-6=-2056/155, 6-19=-2438/146,
             7-19=-2529/119, 1-20=-2529/119,
             2-20=-2438/146, 2-3=-2056/155,
             3-21=-1933/174, 4-21=-1919/196
BOT CHORD   1-11=-48/2180, 10-11=-65/2117,
             10-22=0/1362, 22-23=0/1362, 9-23=0/1362,
             8-9=-65/2099, 7-8=-42/2180
WEBS   4-9=-9/817, 4-10=-9/817, 2-10=-606/149,
             6-9=-606/149

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-4-11, Interior (1) 3-4-11 to 16-11-8, Exterior (2) 16-11-8 to 20-4-3, Interior (1) 20-4-3 to 33-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 10 lb uplift at joint 7.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
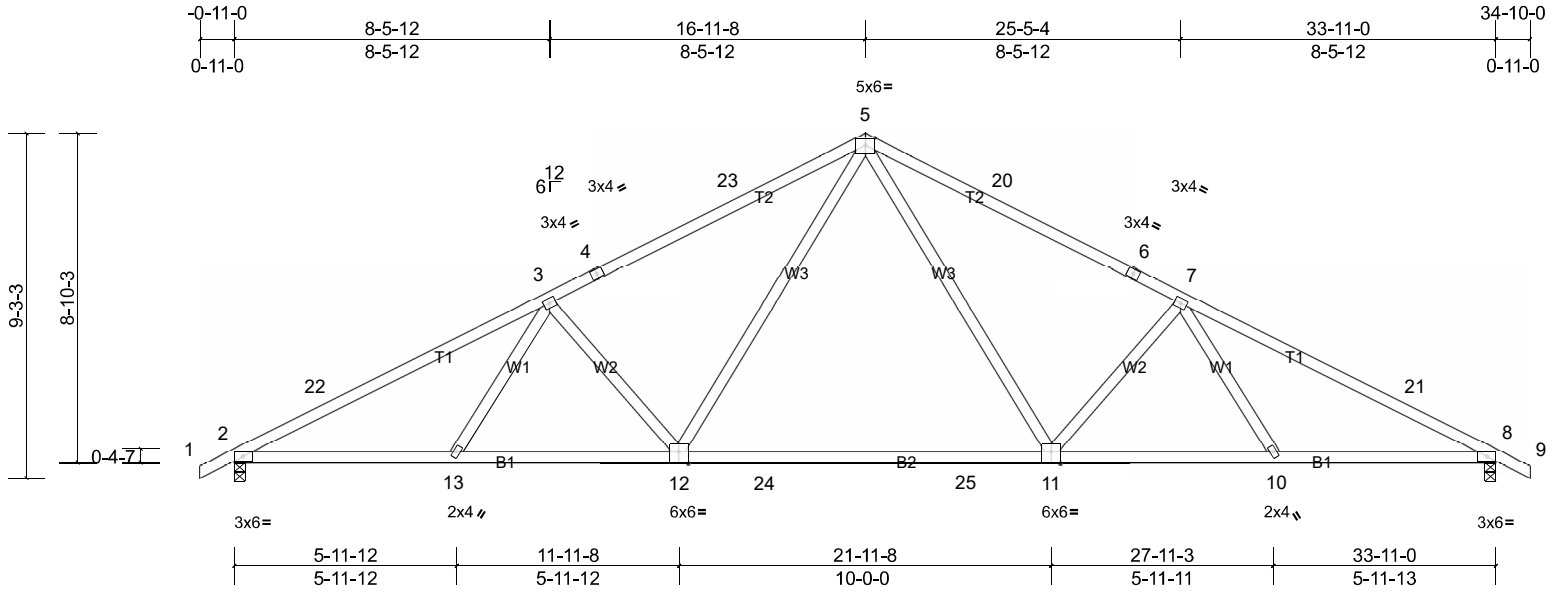
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	A04	Common	5	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:37   Page: 1

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Scale = 1:61.9

Plate Offsets (X, Y): [11:0-3-0,Edge], [12:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	-0.37	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.67	11-12	>605	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.08	11-12	>999	240	Weight: 169 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=1412/0-3-8, (min. 0-1-11),
                    8=1412/0-3-8, (min. 0-1-11)
        Max Horiz 2=140 (LC 11)
        Max Uplift 2=-33 (LC 12), 8=-33 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
        (lb) or less except when shown.
TOP CHORD   5-20=-1915/187, 6-20=-1929/165,
        6-7=-2051/146, 7-21=-2428/130,
        8-21=-2521/98, 2-22=-2521/98,
        3-22=-2428/130, 3-4=-2051/146,
        4-23=-1929/165, 5-23=-1915/187
BOT CHORD   2-13=-16/2173, 12-13=-41/2116,
        12-24=0/1365, 24-25=0/1365, 11-25=0/1365,
        10-11=-50/2092, 8-10=-23/2172
WEBS   5-11=-8/814, 5-12=-8/814, 3-12=-601/148,
        7-11=-601/148

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-5-11, Interior (1) 2-5-11 to 16-11-8, Exterior (2) 16-11-8 to 20-4-3, Interior (1) 20-4-3 to 34-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 2 and 33 lb uplift at joint 8.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	A05	Common	7	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH
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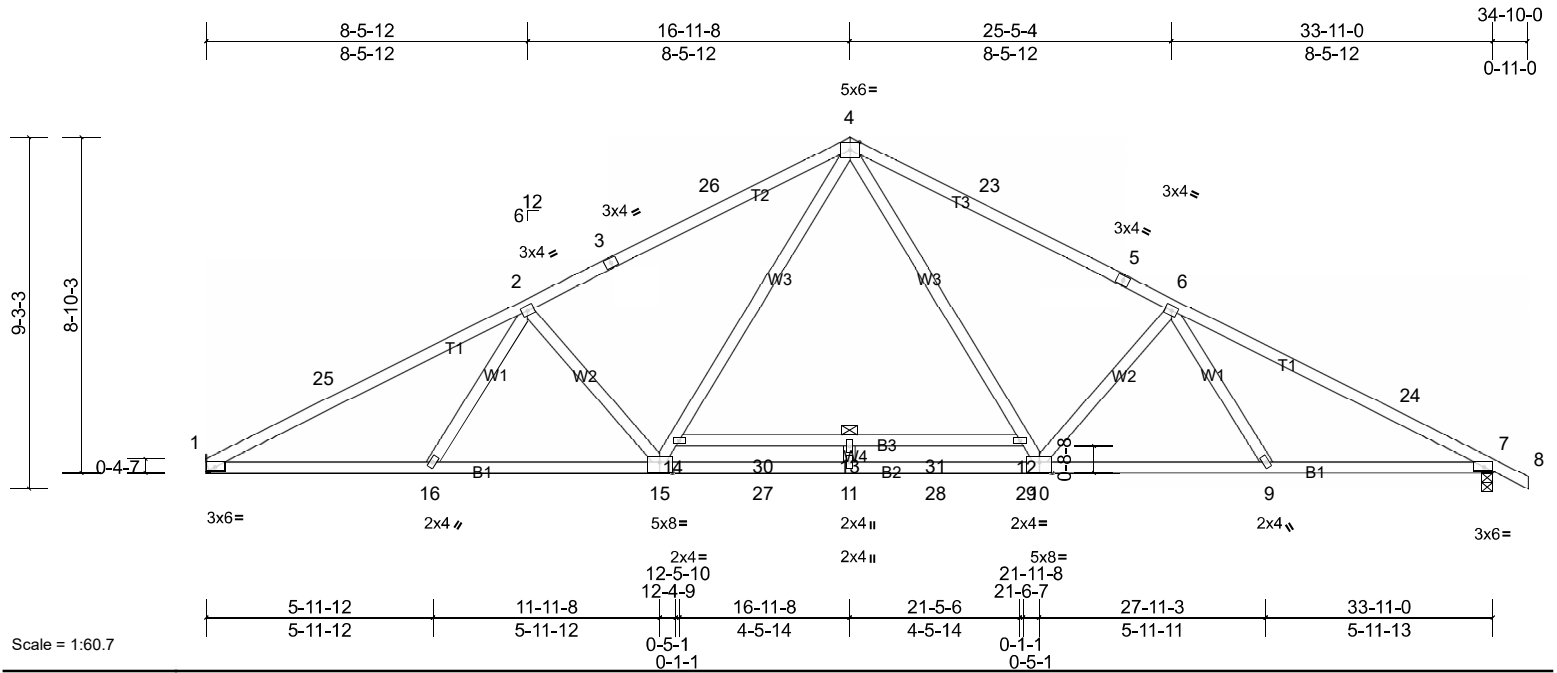ID:MRnG_FzV7WtDtH23w8g8M?yrPxz-c?5WX?0olssfswLRfY0Tbg71eZA2kOSb_2ARoEyqbZO

Scale = 1:60.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	-0.42	13	>961	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.82	13	>498	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.53	Horz(CT)	-0.09	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.08	11	>999	240	Weight: 182 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.1 *Except* B3:2x4 SP No.2,
B2:2x4 SP DSS
WEBS   2x4 SP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied. Except:
6-0-0 oc bracing: 12-14

REACTIONS (lb/size)   1=1449/ Mechanical, (min. 0-1-8),
7=1506/0-3-8, (min. 0-1-12)
Max Horiz 7=-138 (LC 10)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.
TOP CHORD   4-23=-2241/58, 5-23=-2252/37,
5-6=-2354/17, 6-24=-2642/12, 7-24=-2721/0,
1-25=-2727/1, 2-25=-2649/28, 2-3=-2356/25,
3-26=-2253/45, 4-26=-2242/66
BOT CHORD   1-16=-15/2359, 15-16=0/2312, 15-27=0/1685,
11-27=0/1685, 11-28=0/1685, 28-29=0/1685,
10-29=0/1685, 9-10=0/2407, 7-9=0/2452
WEBS   4-12=0/992, 10-12=0/839, 14-15=0/841,
4-14=0/994, 2-15=-596/156, 6-10=-592/154

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-4-11, Interior (1) 3-4-11 to 16-11-8, Exterior (2) 16-11-8 to 20-4-3, Interior (1) 20-4-3 to 34-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.

6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
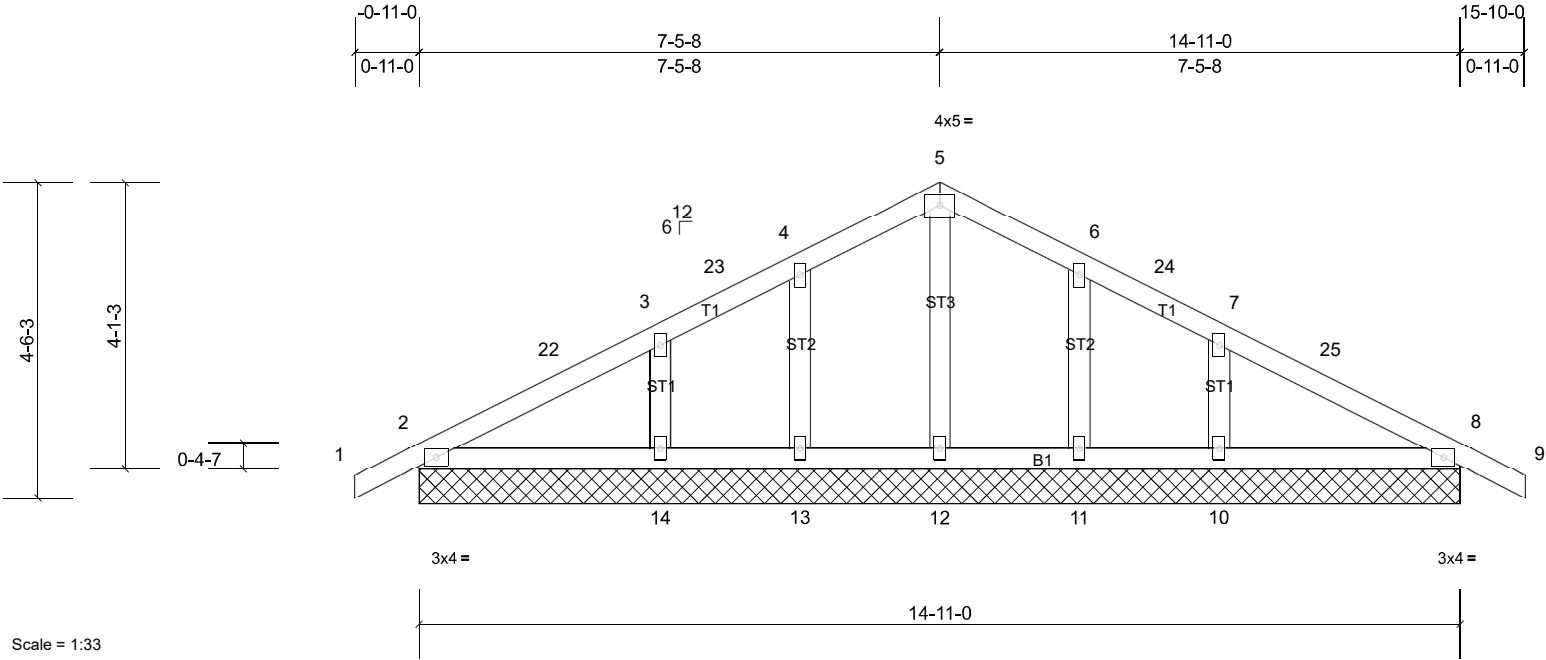
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	B01	Common Supported Gable	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:37   Page: 1

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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 68 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 14-11-0.
    (lb) - Max Horiz 2=57 (LC 11), 15=57 (LC 11)
            Max Uplift All uplift 100 (lb) or less at joint(s)
                        2, 8, 10, 11, 13, 14, 15, 19
            Max Grav All reactions 250 (lb) or less at joint
                        (s) 2, 8, 11, 12, 13, 15, 19 except
                        10=258 (LC 1), 14=258 (LC 1)

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

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 7-5-8, Corner (3) 7-5-8 to 10-5-8, Exterior (2) 10-5-8 to 15-10-0 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 8, 13, 14, 11, 10, 2, 8.

10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	B02	Common	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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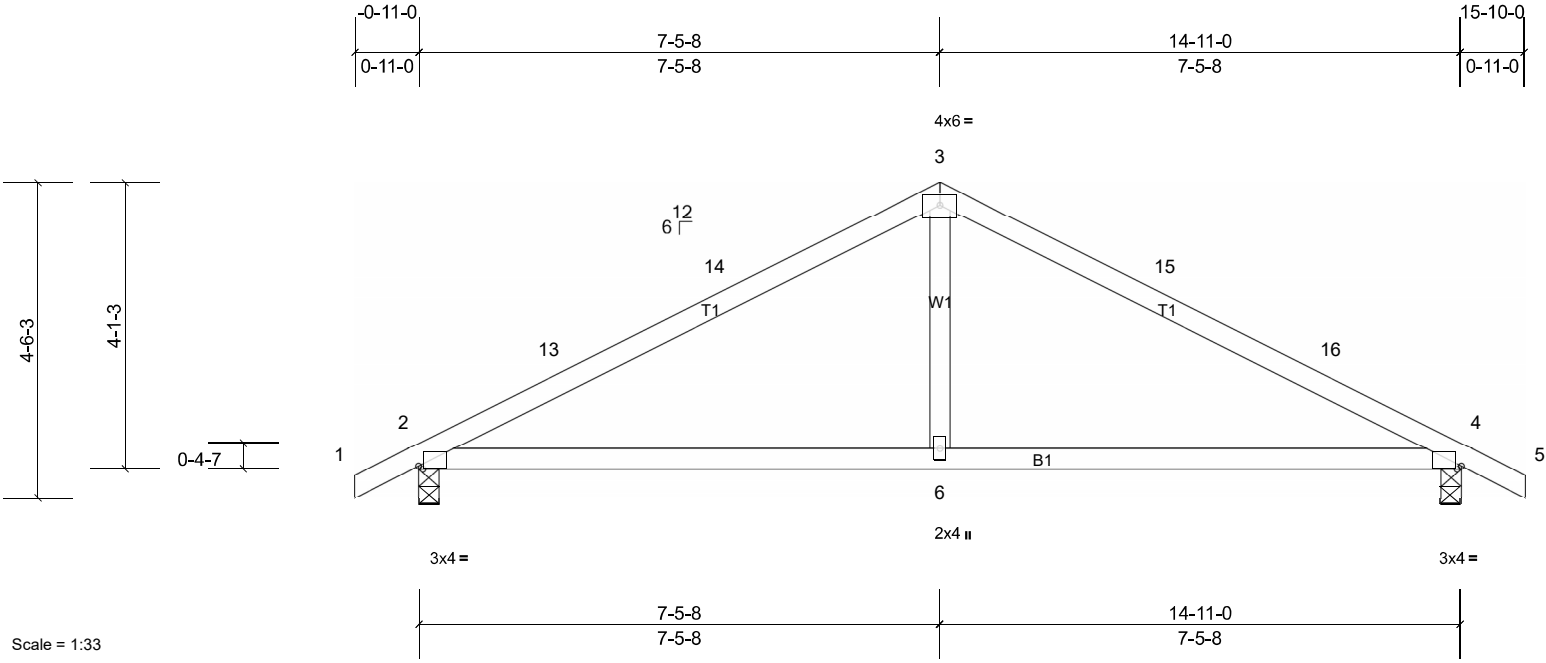ID:EsNe_Y?hCdgifqMVhdj9avyrPzE-c?5WX?0olssfswLRfY0Tbg74jZGkkUeb_2ARoEyqbZO

Scale = 1:33

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.09	6-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.17	6-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.04	6-9	>999	240	Weight: 56 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=652/0-3-8, (min. 0-1-8),
                          4=652/0-3-8, (min. 0-1-8)
           Max Horiz 2=59 (LC 11)
           Max Uplift 2=-27 (LC 12), 4=-27 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
             (lb) or less except when shown.
TOP CHORD   2-13=-854/65, 13-14=-771/74, 3-14=-748/94,
            3-15=-748/94, 15-16=-771/74, 4-16=-854/65
BOT CHORD   2-6=-4/690, 4-6=0/690
WEBS   3-6=0/340

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 7-5-8, Exterior (2) 7-5-8 to 10-5-8, Interior (1) 10-5-8 to 15-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 2 and 27 lb uplift at joint 4.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	B03	Common Girder	1	3	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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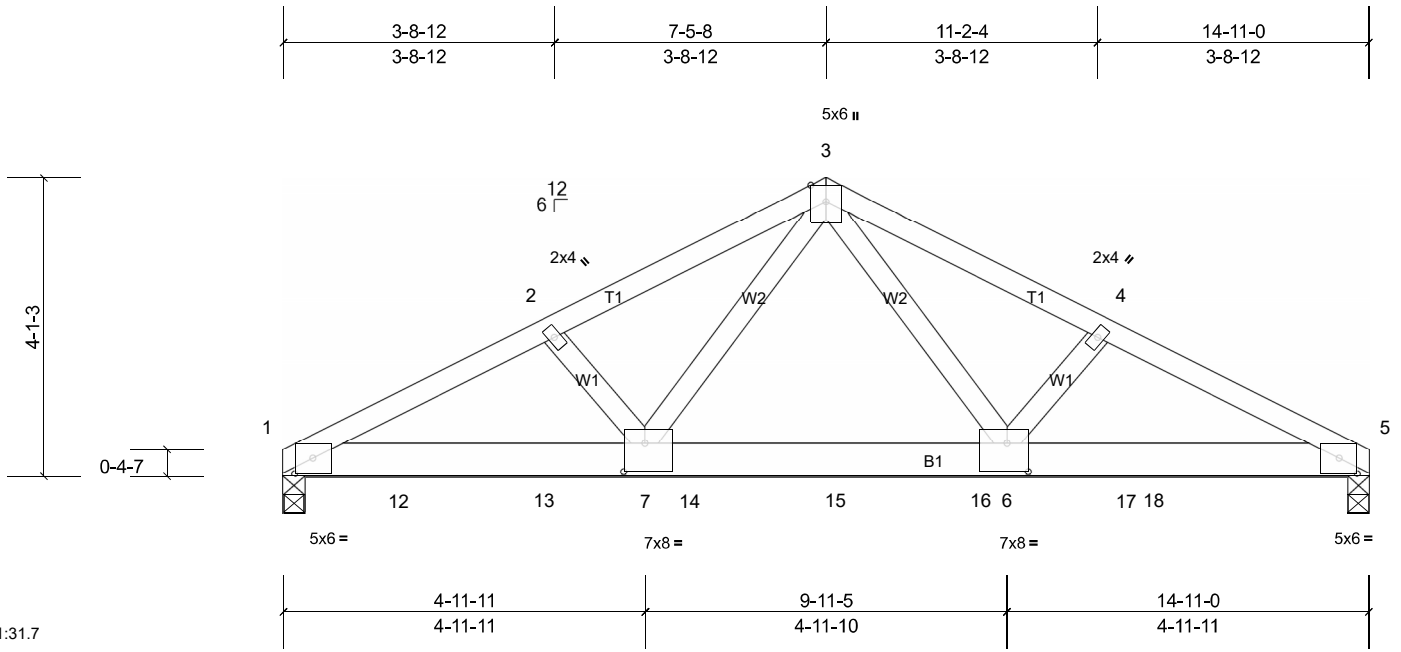ID:?QpCEdc22t8WO3kigelRq2yrPW1-c?5WX?0olssfswLRfY0Tbg74NZFpkJdb_2ARoEyqbZO

Plate Offsets (X, Y): [1:0-3-0,0-2-9], [5:0-3-0,0-2-9], [6:0-3-8,0-4-12], [7:0-3-8,0-4-12]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.08	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.17	6-7	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.01	6-11	>999	240	Weight: 235 lb	FT = 20%

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

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

REACTIONS (lb/size)   1=5728/0-3-8, (min. 0-1-15),
5=6775/0-3-8, (min. 0-2-4)
Max Horiz 1=-51 (LC 6)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-10285/0, 2-3=-9975/0, 3-4=-10768/0, 4-5=-10900/0
BOT CHORD   1-12=0/9053, 12-13=0/9053, 7-13=0/9053, 7-14=0/6224, 14-15=0/6224, 15-16=0/6224, 6-16=0/6224, 6-17=0/9790, 17-18=0/9790, 5-18=0/9790
WEBS   3-6=0/6048, 4-6=-342/46, 3-7=0/4795, 2-7=-276/41

NOTES
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) This truss is designed in accordance with the 2015 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) 1430 lb down at 1-7-0, 1430 lb down at 3-7-0, 1430 lb down at 5-7-0, 1430 lb down at 7-7-0, 1430 lb down at 9-7-0, 1430 lb down at 11-7-0, and 1430 lb down at 11-11-9, and 1339 lb down and 19 lb up at 14-2-9 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=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-58, 3-5=-58, 1-5=-19
Concentrated Loads (lb)
Vert: 11=-1339 (B), 12=-1430 (B), 13=-1430 (B), 14=-1430 (B), 15=-1430 (B), 16=-1430 (B), 17=-1430 (B), 18=-1430 (B)
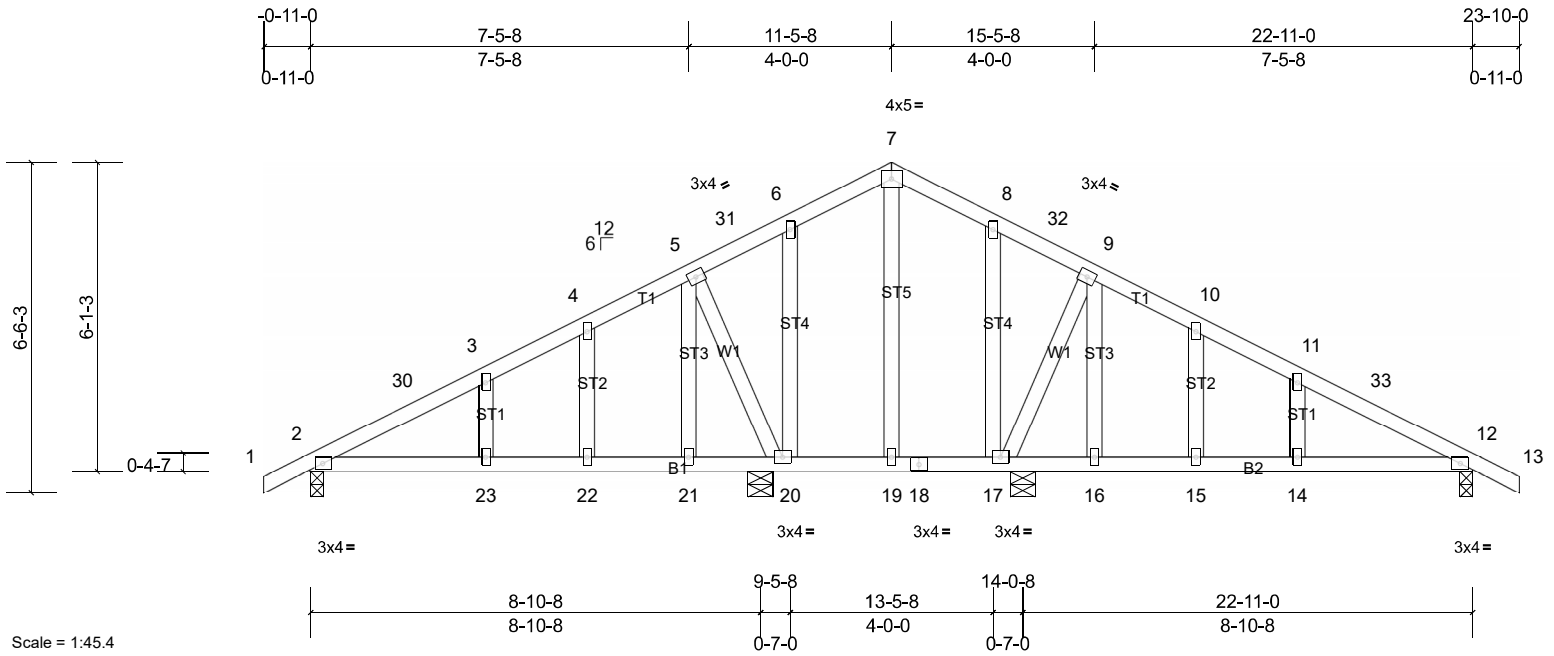
Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	C01	Common Structural Gable	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH
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Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.09	23	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	23-26	>594	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.12	23	>946	240	Weight: 132 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 0-3-0. except 20=0-6-0, 17=0-6-0
(lb) -   Max Horiz 2=-84 (LC 10)
        Max Uplift All uplift 100 (lb) or less at joint(s)
                    except 2=-106 (LC 12), 12=-106
                    (LC 12), 17=-113 (LC 12), 20=-113
                    (LC 12)
        Max Grav   All reactions 250 (lb) or less at joint
                    (s) except 2=467 (LC 1), 12=467
                    (LC 1), 17=475 (LC 1), 20=475 (LC
                    1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
              (lb) or less except when shown.
TOP CHORD   2-30=-435/182, 3-30=-385/187,
            3-4=-385/198, 4-5=-353/206, 9-10=-353/209,
            10-11=-385/201, 11-33=-385/191,
            12-33=-435/185
BOT CHORD   2-23=-105/345, 22-23=-105/345,
            21-22=-105/345, 20-21=-105/345,
            16-17=-104/345, 15-16=-104/345,
            14-15=-104/345, 12-14=-104/345
WEBS   5-21=-190/269, 9-16=-191/269,
            5-20=-552/331, 9-17=-552/332

NOTES
1) Unbalanced roof live loads have been considered for this
   design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust)
   Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
   B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
   MWFRS (directional) and C-C Exterior (2) -0-11-0 to
   2-1-0, Interior (1) 2-1-0 to 11-5-8, Exterior (2) 11-5-8 to
   14-5-8, Interior (1) 14-5-8 to 23-10-0 zone; cantilever left
   and right exposed ; end vertical left and right exposed;
   porch exposed 0-1-8 to 8-10-8 ; porch exposed 8-10-8 to
   14-0-8 ; porch exposed 14-0-8 to 22-9-8 ;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 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) * This truss has been designed for a live load of 20.0psf
   on the bottom chord in all areas where a rectangle
   3-06-00 tall by 2-00-00 wide will fit between the bottom
   chord and any other members.
8) Provide mechanical connection (by others) of truss to
   bearing plate capable of withstanding 105 lb uplift at joint
   2, 105 lb uplift at joint 12, 112 lb uplift at joint 20 and 112
   lb uplift at joint 17.
9) This truss is designed in accordance with the 2015
   International Residential Code sections R502.11.1 and
   R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16"
   structural wood sheathing be applied directly to the top
   chord and 1/2" gypsum sheetrock be applied directly to
   the bottom chord.
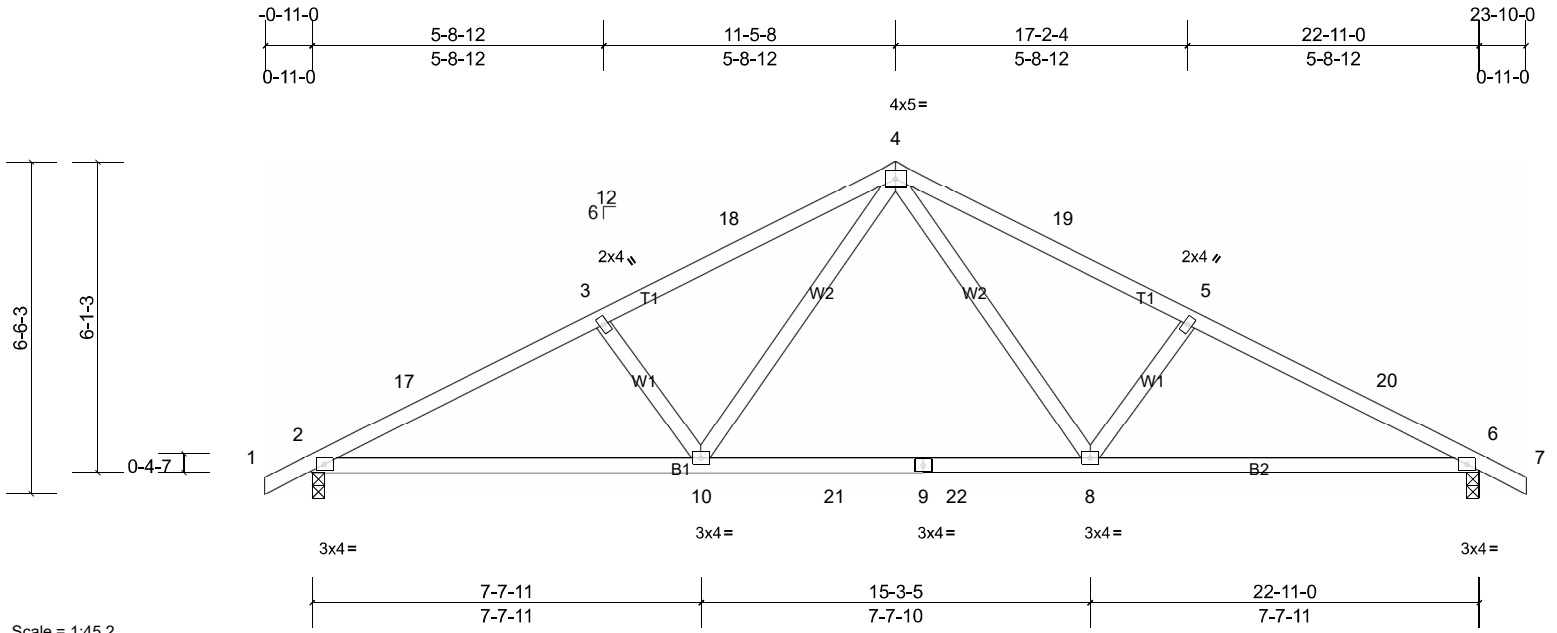
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	C02	Common	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.12	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.12	10-13	>999	240	Weight: 105 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=972/0-3-0, (min. 0-1-8),
                           6=972/0-3-0, (min. 0-1-8)
Max Horiz 2=-87 (LC 10)
Max Uplift 2=-224 (LC 12), 6=-224 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.
TOP CHORD   2-17=-1602/788, 3-17=-1562/808,
            3-18=-1429/799, 4-18=-1347/821,
            4-19=-1347/821, 5-19=-1429/799,
            5-20=-1562/808, 6-20=-1602/788
BOT CHORD   2-10=-656/1397, 10-21=-380/915,
            9-21=-380/915, 9-22=-380/915,
            8-22=-380/915, 6-8=-668/1397
WEBS   4-8=-378/540, 5-8=-350/140, 4-10=-378/540,
            3-10=-350/140

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 11-5-8, Exterior (2) 11-5-8 to 14-5-8, Interior (1) 14-5-8 to 23-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2 and 224 lb uplift at joint 6.

6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
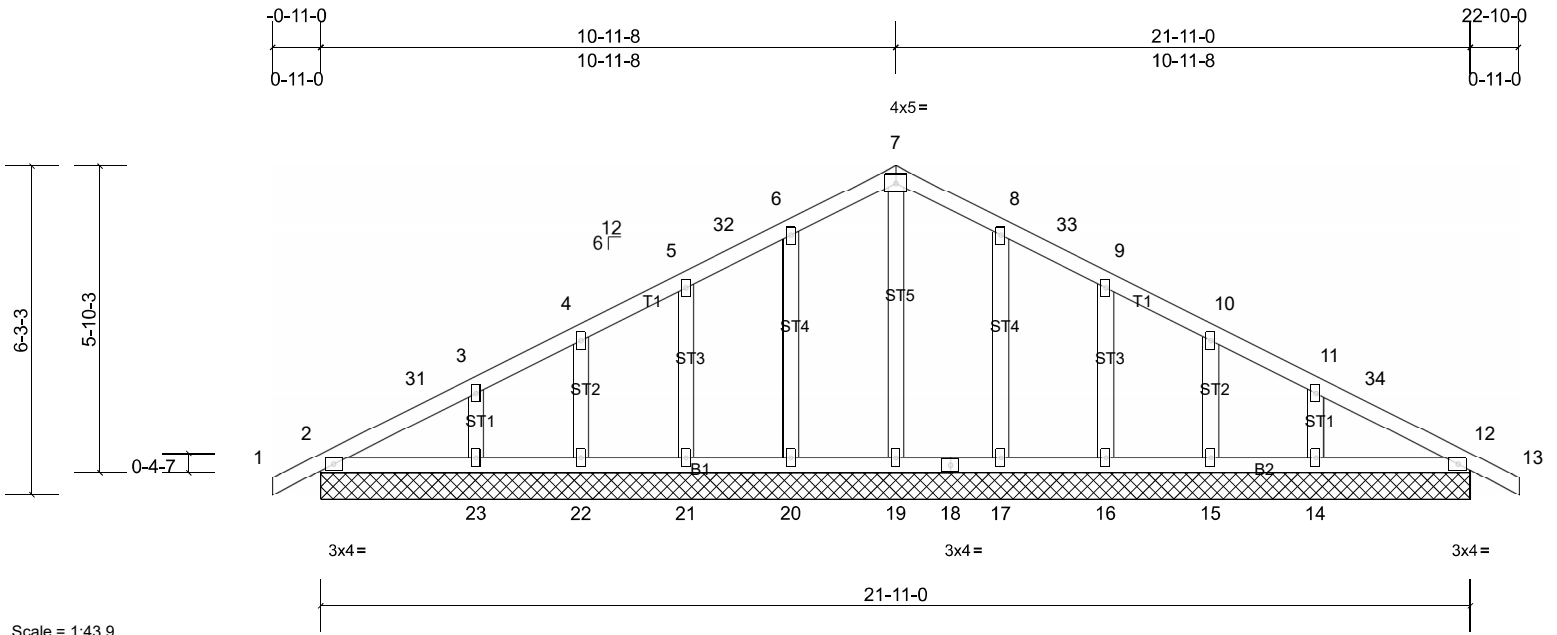
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	D01	Common Supported Gable	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	15	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 114 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS   All bearings 21-11-0.
(lb) - Max Horiz 2=81 (LC 11), 24=81 (LC 11)
Max Uplift   All uplift 100 (lb) or less at joint(s) 2, 12, 14, 15, 16, 17, 20, 21, 22, 23, 24, 28
Max Grav   All reactions 250 (lb) or less at joint(s) 2, 12, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 28

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

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 10-11-8, Corner (3) 10-11-8 to 13-11-8, Exterior (2) 13-11-8 to 22-10-0 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) 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) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 20, 21, 22, 23, 17, 16, 15, 14, 12, 2, 12.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 24.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
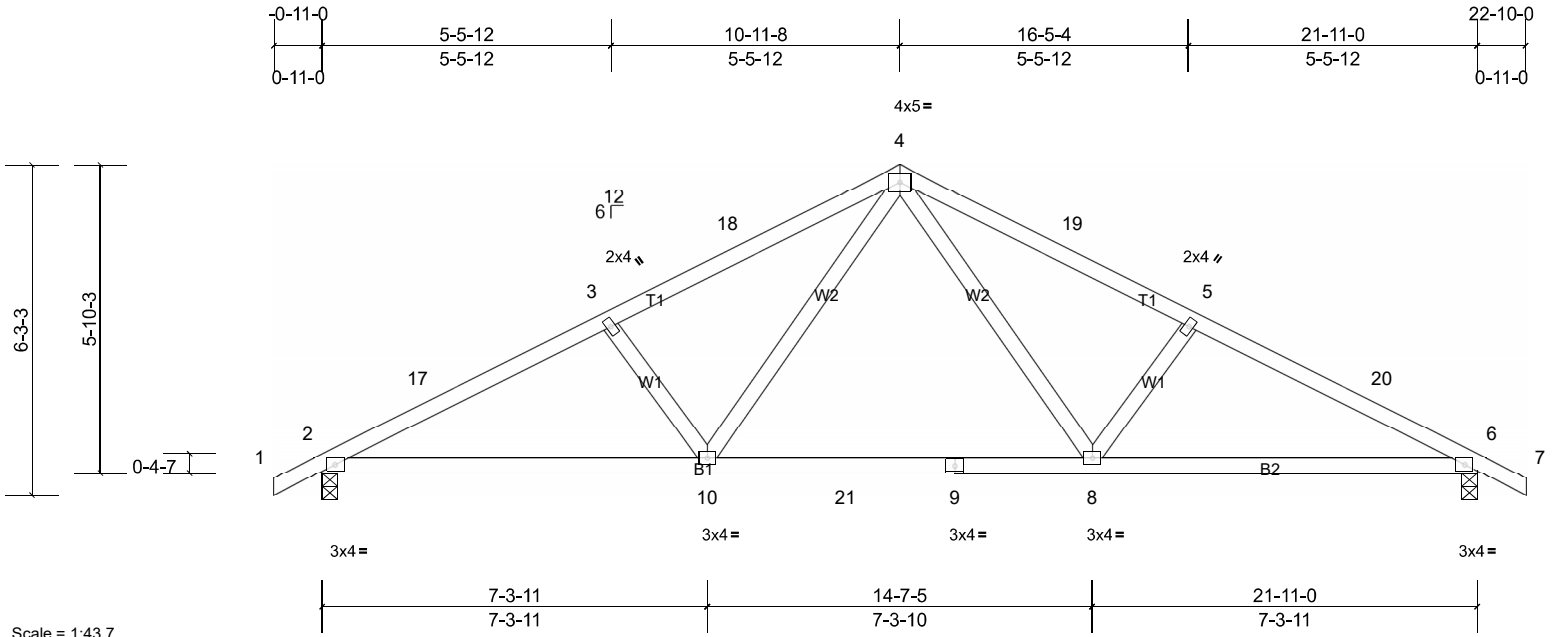
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	D02	Common	11	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.10	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.18	8-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.04	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS		Wind(LL)	0.03	10-13	>999	240	Weight: 101 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=932/0-3-8, (min. 0-1-8),
                          6=932/0-3-8, (min. 0-1-8)
         Max Horiz 2=84 (LC 11)
         Max Uplift 2=-29 (LC 12), 6=-29 (LC 12)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
             (lb) or less except when shown.
TOP CHORD   2-17=-1529/86, 3-17=-1490/110,
            3-18=-1364/110, 4-18=-1285/126,
            4-19=-1285/126, 5-19=-1364/110,
            5-20=-1490/110, 6-20=-1529/86
BOT CHORD   2-10=-25/1333, 10-21=0/875, 9-21=0/875,
            8-9=0/875, 6-8=-37/1333
WEBS   4-8=-4/522, 5-8=-334/111, 4-10=-4/522,
            3-10=-334/111

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-11-8, Exterior (2) 10-11-8 to 13-11-8, Interior (1) 13-11-8 to 22-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2 and 29 lb uplift at joint 6.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
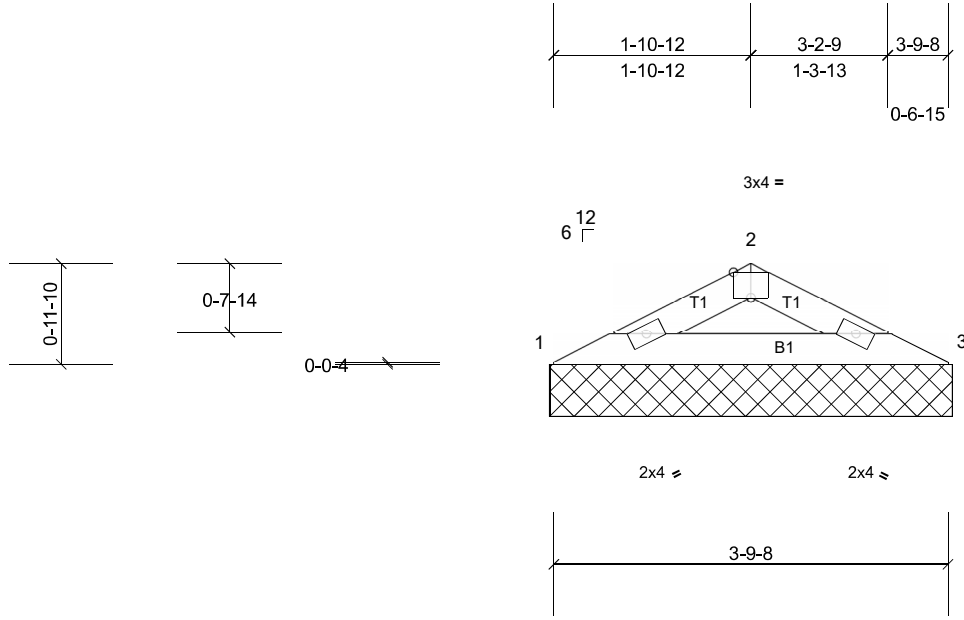7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V01	Valley	3	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH   Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:38   Page: 1
ID:gX5TpKKh01ywG1XDoQmZgWyrQ0g-4BfukL1QWA_WU4vdDFXi7tgNGzinTzulDiw_KgyqbZN

1-10-12 | 3-2-9 | 3-9-8
1-10-12 | 1-3-13

0-6-15

3x4 =

6 12

2

0-11-10

0-7-14

0-0-4

T1   T1

1   B1   3

2x4 ≈   2x4 ≈

3-9-8

Scale = 1:22.2

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)	20.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	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	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.3
BRACING
TOP CHORD   Structural wood sheathing directly applied or
3-9-8 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (lb/size)   1=155/3-10-8, (min. 0-1-8),
3=155/3-10-8, (min. 0-1-8)
Max Horiz 1=11 (LC 11)
Max Uplift 1=-1 (LC 12), 3=-1 (LC 12)
FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.
TOP CHORD   1-2=-272/86

NOTES
1) Unbalanced roof live loads have been considered for this
design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust)
Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed;
MWFRS (directional) and C-C Exterior (2) zone;
cantilever left and right exposed ; end vertical left and
right exposed;C-C for members and forces & MWFRS
for reactions shown; Lumber DOL=1.60 plate grip
DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
6) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 1 lb uplift at joint 1
and 1 lb uplift at joint 3.
7) Beveled plate or shim required to provide full bearing
surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2015
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
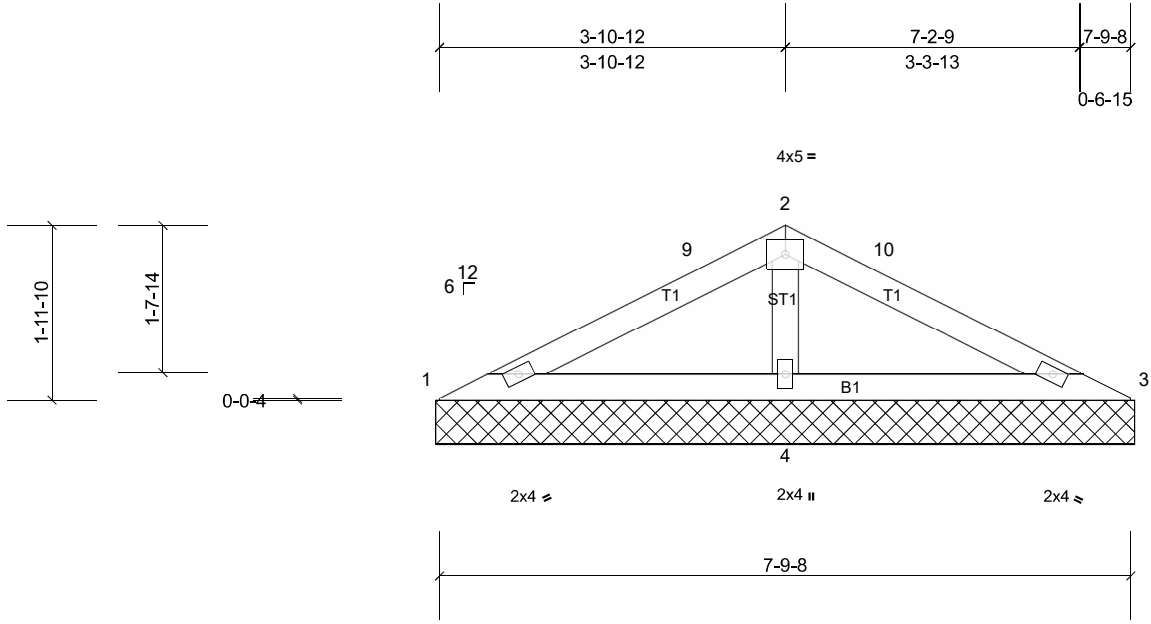
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V02	Valley	3	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:38   Page: 1

ID:NBAqLxFlft3vwyVtuS8wu2yrQ0n-4BfukL1QWA_WU4vdDFXi7tgMIzg8TyklDiw_KgyqbZN

Scale = 1:26

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 25 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   1=53/7-10-8, (min. 0-1-8),
3=53/7-10-8, (min. 0-1-8),
4=523/7-10-8, (min. 0-1-8)
Max Horiz 1=-25 (LC 10)
Max Uplift 4=-9 (LC 12)
Max Grav 1=80 (LC 21), 3=80 (LC 22), 4=523
(LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
(lb) or less except when shown.
TOP CHORD   2-9=-57/259, 2-10=-57/259
WEBS   2-4=-368/118

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 3-11-4, Exterior (2) 3-11-4 to 6-7-11, Interior (1) 6-7-11 to 7-10-8 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 4.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V03	Valley	3	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

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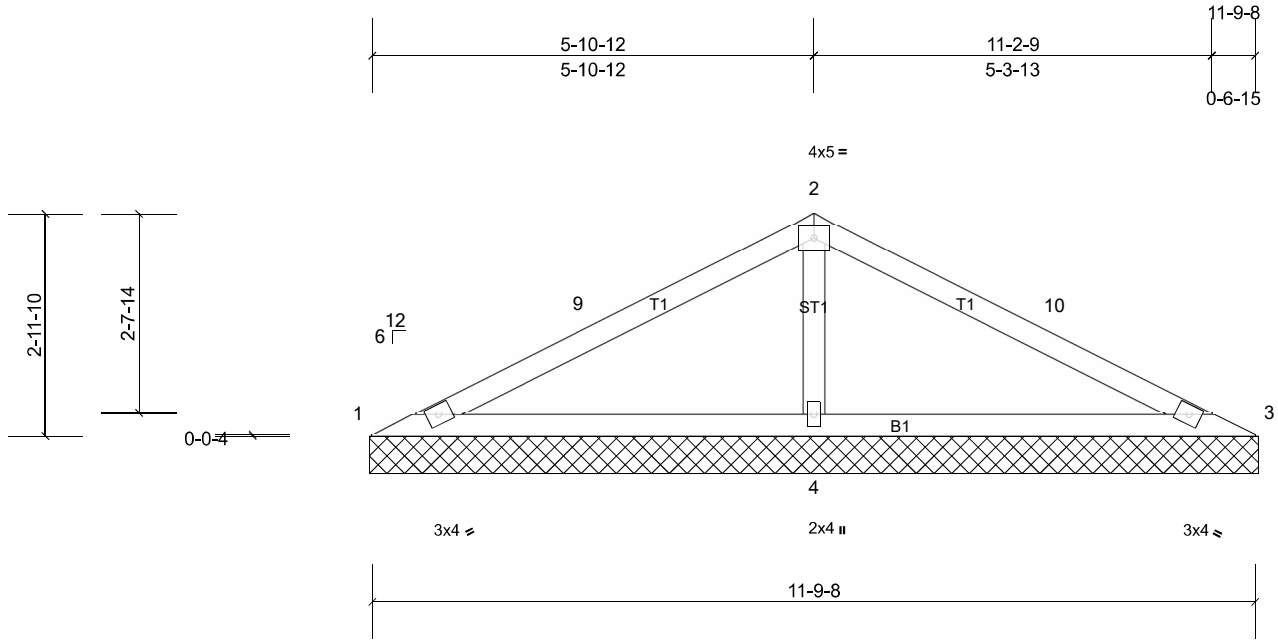
Scale = 1:30.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 39 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   1=37/11-10-8, (min. 0-1-8),
    3=37/11-10-8, (min. 0-1-8),
    4=875/11-10-8, (min. 0-1-8)
    Max Horiz   1=-40 (LC 10)
    Max Uplift   1=-31 (LC 22), 3=-31 (LC 21),
        4=-18 (LC 12)
    Max Grav   1=88 (LC 21), 3=88 (LC 22), 4=875
        (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250
    (lb) or less except when shown.
TOP CHORD   1-9=-97/390, 2-9=-62/469, 2-10=-62/469,
    3-10=-75/388
BOT CHORD   1-4=-351/105, 3-4=-351/105
WEBS   2-4=-692/160

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-11-4, Exterior (2) 5-11-4 to 8-11-4, Interior (1) 8-11-4 to 11-10-8 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 31 lb uplift at joint 3 and 18 lb uplift at joint 4.
7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
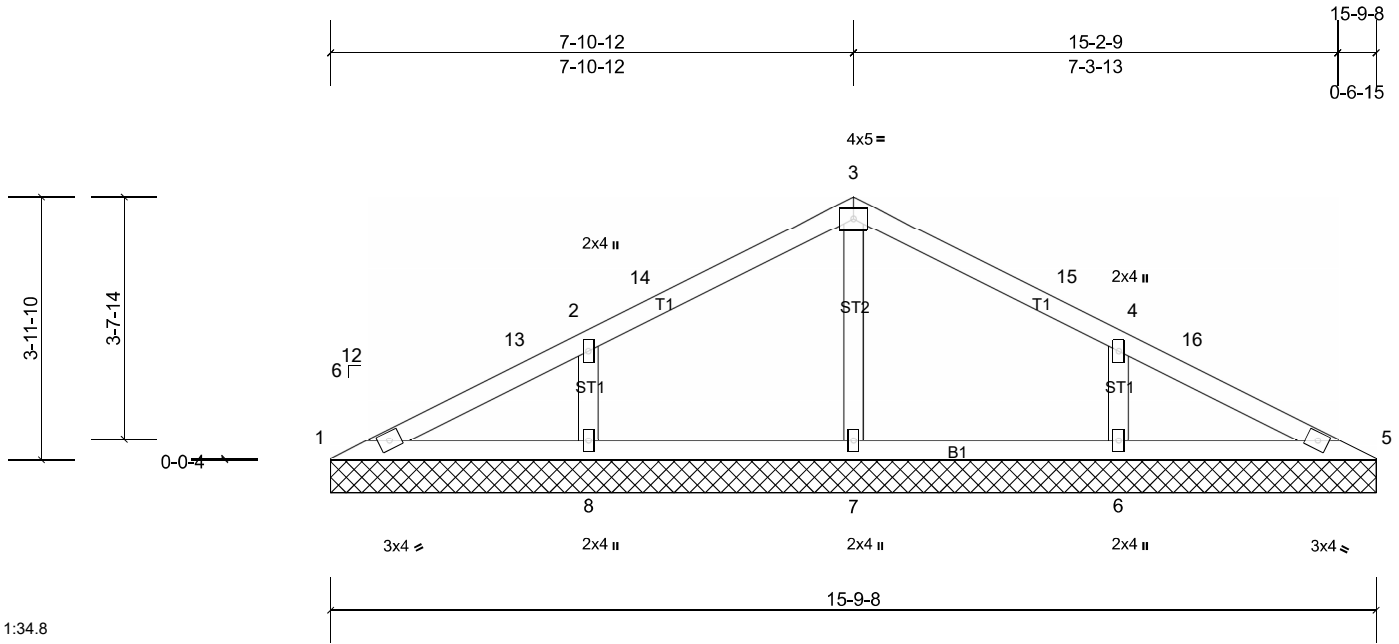
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V04	Valley	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH   Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:38   Page: 1

ID:nUJXO84WyaIvFoRB3WueJ5yrQ1?-4BfukL1QWA_WU4vdDFXi7tgLkzj0TyUIDiw_KgyqbZN

15-9-8

7-10-12	15-2-9
7-10-12	7-3-13

0-6-15

4x5 =
3

2x4 ∥   14   T1   15   2x4 ∥
13   2   ST2   T1   4   16
6 12
6 ⌐
ST1   ST1

1   B1   5

8   7   6

3x4 ≈   2x4 ∥   2x4 ∥   2x4 ∥   3x4 ≈

3-11-10   3-7-14
0-0-4

15-9-8

Scale = 1:34.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 57 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
REACTIONS All bearings 15-9-8.
(lb) - Max Horiz 1=54 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 6, 8
Max Grav All reactions 250 (lb) or less at joint (s) 1, 5 except 6=367 (LC 22), 7=355 (LC 1), 8=367 (LC 21)
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-285/33, 2-8=-263/98, 4-6=-263/98
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 7-11-4, Exterior (2) 7-11-4 to 10-11-4, Interior (1) 10-11-4 to 15-10-0 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) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 8, 6.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V05	Valley	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH
Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:38 Page: 1
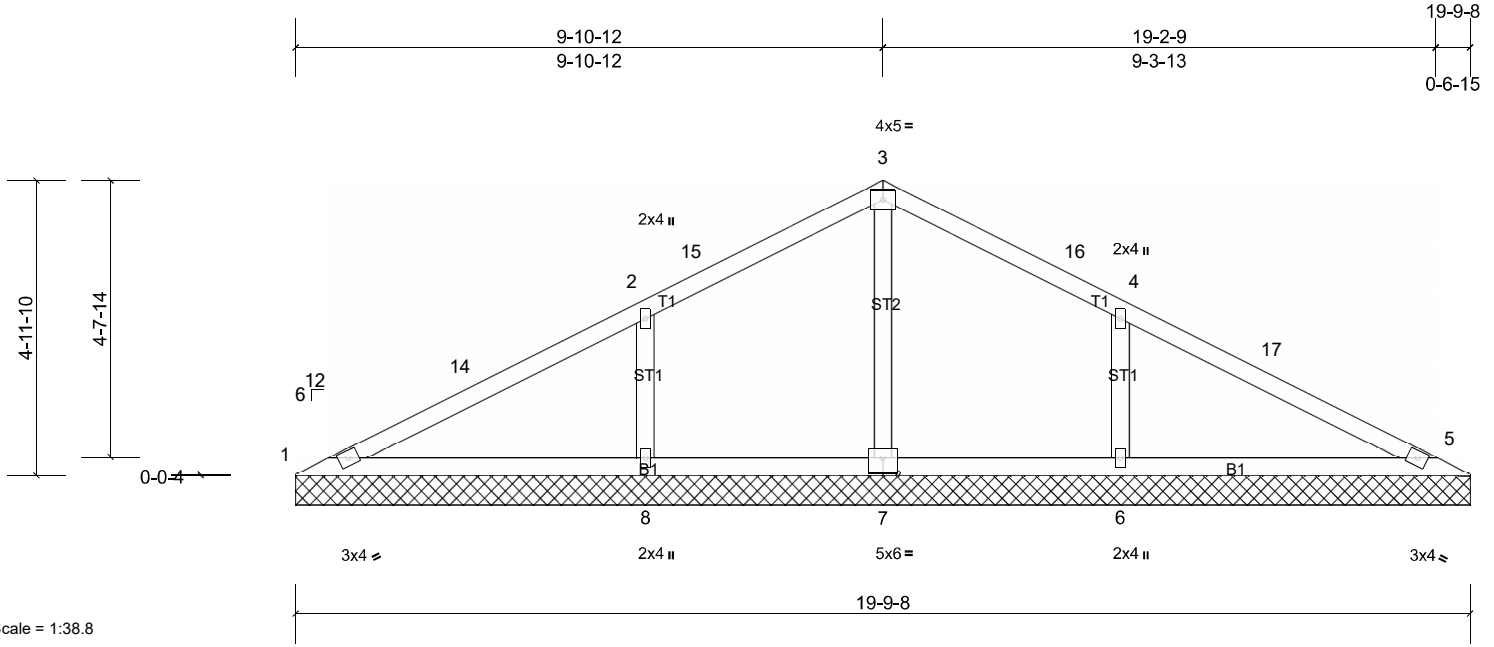ID:RXWeLR0O81gc81YDGyITc1yrQ14-4BfukL1QWA_WU4vdDFXi7tglwzgWTwLIDiw_KgyqbZN

Scale = 1:38.8

Plate Offsets (X, Y): [7:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	-0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 74 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 19-9-8.
(lb) -   Max Horiz 1=67 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 8
Max Grav All reactions 250 (lb) or less at joint(s) 1, 5, 13 except 6=474 (LC 22), 7=553 (LC 1), 8=487 (LC 21)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-14=-157/379, 2-14=-46/458, 2-15=0/357, 3-15=0/418, 3-16=0/418, 4-16=0/321, 4-17=-42/458, 5-17=-55/379
BOT CHORD   1-8=-339/136, 7-8=-339/87, 6-7=-339/87, 5-6=-339/87
WEBS   3-7=-515/43, 2-8=-339/113, 4-6=-334/114

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 9-11-4, Exterior (2) 9-11-4 to 12-11-4, Interior (1) 12-11-4 to 19-3-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 8, 6.

7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
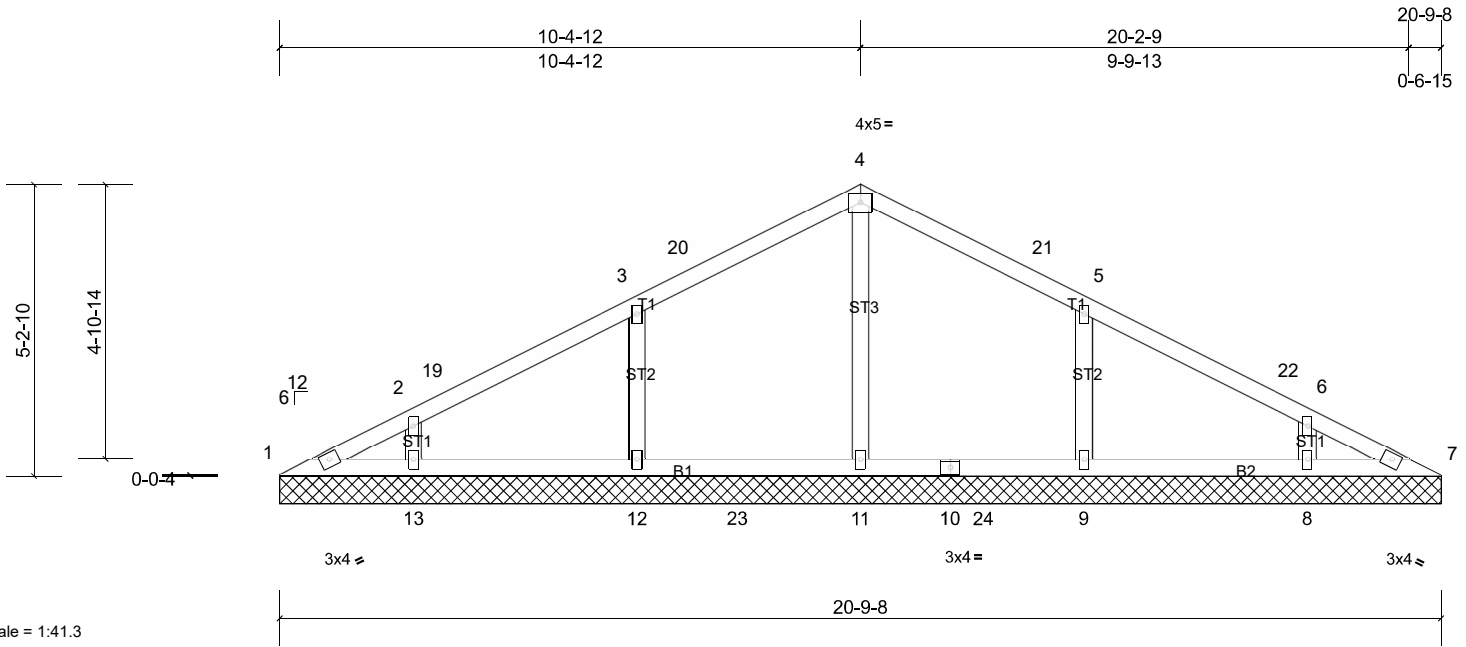
LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Value Build Homes - (AlexanderA)
Q2301219	V06	Valley	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356, JSH

Run: 8.62 S Oct 13 2022 Print: 8.620 S Oct 13 2022 MiTek Industries, Inc. Sun Aug 06 11:28:39   Page: 1

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Scale = 1:41.3

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	-0.01	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 80 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 20-9-8.
(lb) - Max Horiz 1=-69 (LC 10)
       Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7, 8, 9, 12, 13, 18
       Max Grav All reactions 250 (lb) or less at joint (s) 1 except 8=301 (LC 1), 9=317 (LC 22), 11=460 (LC 17), 12=336 (LC 21), 13=263 (LC 21)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   4-11=-310/3, 3-12=-256/102

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 10-5-4, Exterior (2) 10-5-4 to 13-5-4, Interior (1) 13-5-4 to 20-10-0 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) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 1, 12, 13, 9, 8.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard