ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 3466728
CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & REAR CVR'D PRCH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Stock Building Supply.

Pages or sheets covered by this seal: T30362368 thru T30362390

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

April 19,2023

ORegan, Philip

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362368
3466728	A1	Hip Supported Gable	2	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.97 S 8.63 Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Wed Apr 19 12:08:45 Page: 1
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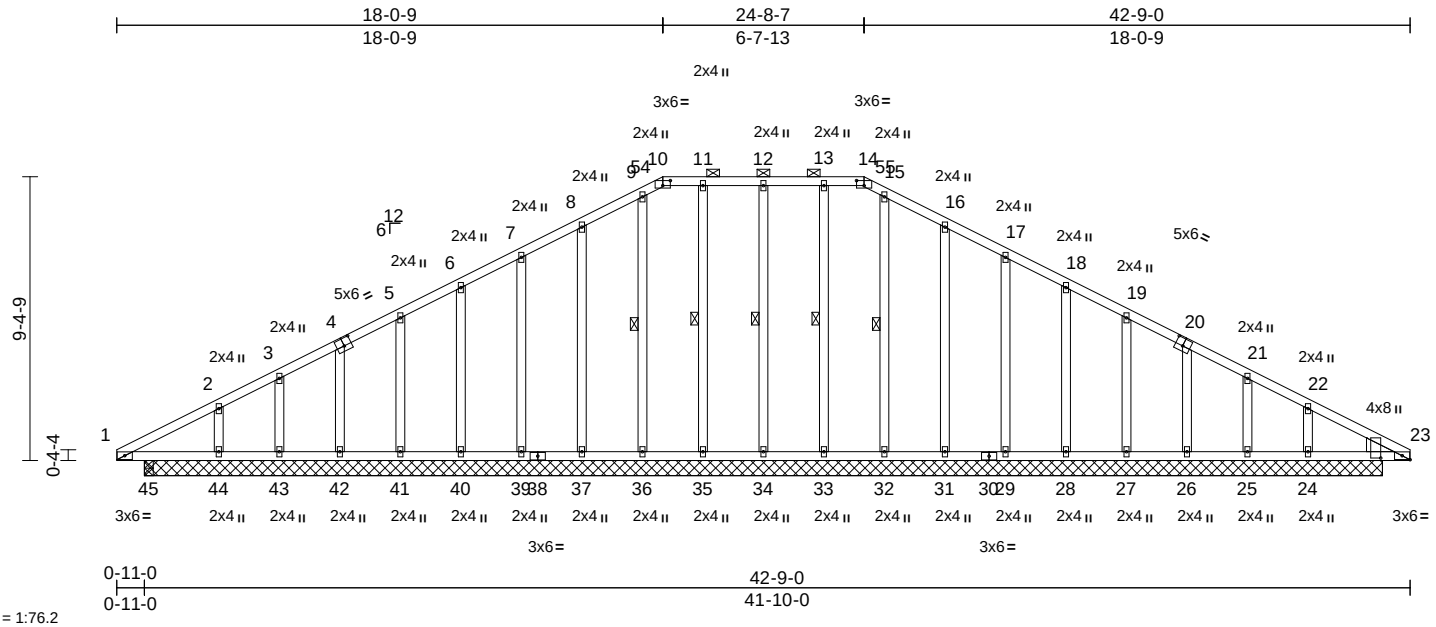

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Plate Offsets (X, Y): [4:0-3-0,0-3-0], [10:0-3-0,0-2-0], [14:0-3-0,0-2-0], [20:0-3-0,0-3-0], [23:0-0-3,Edge], [23:0-0-11,0-11-11]

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)	0.00	46	>999	240	MT20	244/190
Snow (Ps/Pf)	11.7/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	46	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	23	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 294 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Right: 2x6 SP 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.): 10-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 12-34, 11-35, 9-36, 13-33, 15-32

REACTIONS All bearings 40-11-0. except 45=0-3-8
(lb) - Max Horiz 44=118 (LC 16)
Max Uplift All uplift 100 (lb) or less at joint(s) 23, 24, 25, 26, 27, 28, 29, 31, 33, 34, 35, 37, 39, 40, 41, 42, 43, 44, 48
Max Grav All reactions 250 (lb) or less at joint (s) 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 48

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=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=11.7 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 34, 35, 37, 39, 40, 41, 42, 43, 44, 33, 31, 29, 28, 27, 26, 25, 24, 23.
12) 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.
13) 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
1) Dead + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 1-10=-20, 10-14=-20, 14-23=-20, 46-51=-20

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362369
3466728	A2	Common	5	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:17 Page: 1
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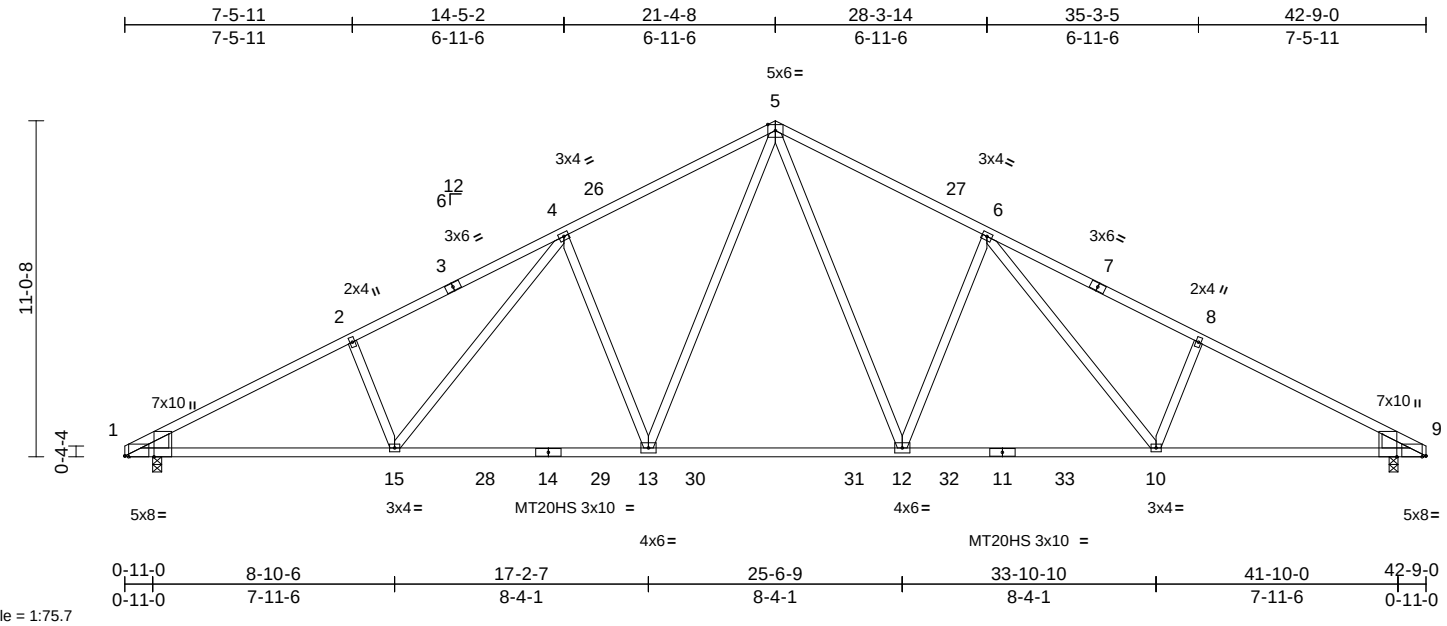

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Plate Offsets (X, Y): [1:0-1-8,Edge], [1:0-0-5,Edge], [9:0-1-8,Edge], [9:0-0-5,Edge]

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	0.92	Vert(LL)	-0.33	10-12	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.61	10-12	>840	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.12	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 233 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP SS *Except* 14-11:2x4 SP No.1
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

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

REACTIONS (size) 1=0-3-8, 9=0-3-8
Max Horiz 1=140 (LC 16)
Max Uplift 1=-48 (LC 16), 9=-48 (LC 17)
Max Grav 1=1710 (LC 2), 9=1710 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2808/366, 2-4=-2676/419, 4-5=-2279/424, 5-6=-2279/424, 6-8=-2676/419, 8-9=-2808/366
BOT CHORD 1-15=-238/2415, 13-15=-142/2145, 12-13=-14/1637, 10-12=-142/2145, 9-10=-238/2415
WEBS 5-12=-124/905, 6-12=-620/230, 6-10=-62/418, 8-10=-262/164, 5-13=-124/905, 4-13=-620/230, 4-15=-61/418, 2-15=-262/164

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1 and 48 lb uplift at joint 9.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362370
3466728	A3	Roof Special	3	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:17 Page: 1

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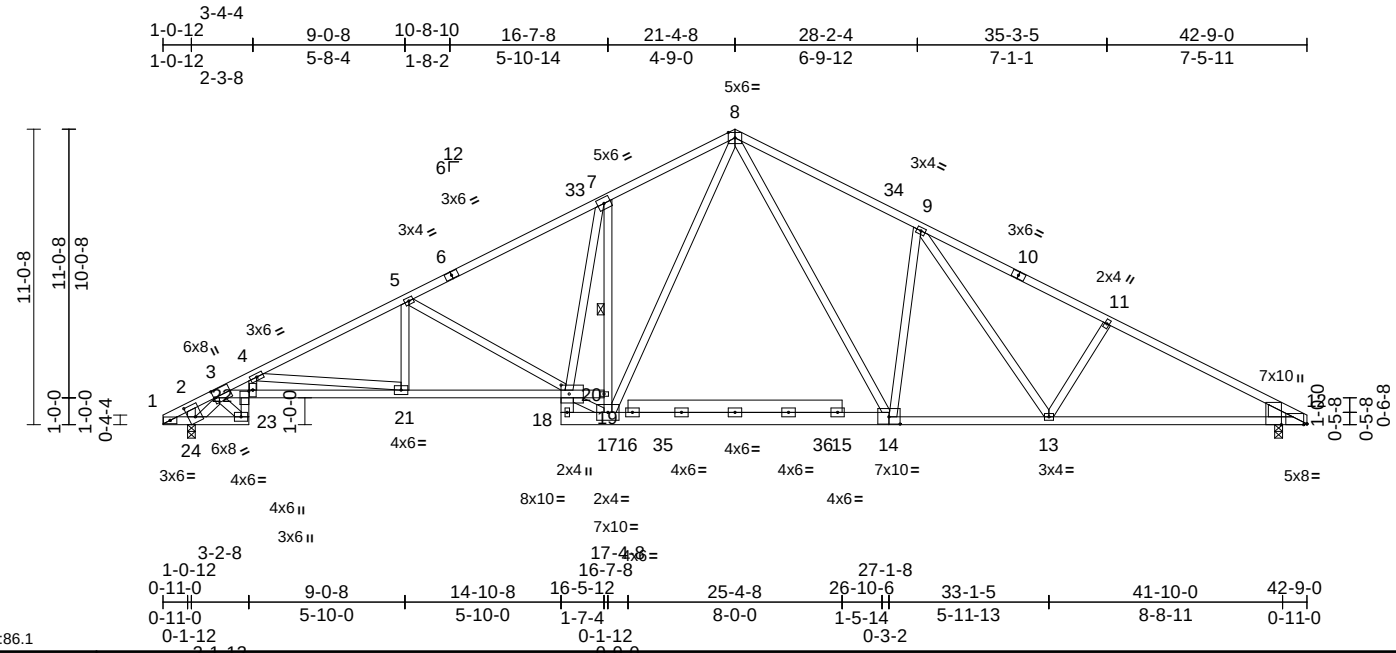

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Plate Offsets (X, Y): [2:0-5-9,0-3-0], [3:0-0-8,0-3-4], [12:0-1-8,Edge], [12:0-0-5,Edge], [14:0-5-0,0-3-4], [20:0-3-10,0-4-0], [22:0-0-8,0-1-12]

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	0.88	Vert(LL)	-0.26	20-21	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.52	20-21	>967	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.27	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 288 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.2 *Except* 1-23,23-22:2x4 SP No.2, 3-19,14-12:2x4 SP SS
WEBS 2x4 SP No.3
WEDGE Right: 2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-10-10 oc bracing: 21-22
6-0-0 oc bracing: 18-20.
WEBS 1 Row at midpt 7-17

REACTIONS (size) 12=0-3-8, 24=0-3-8
Max Horiz 24=140 (LC 16)
Max Uplift 12=-49 (LC 17), 24=-50 (LC 16)
Max Grav 12=1704 (LC 2), 24=1713 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-85/4, 2-3=-304/32, 3-4=-5108/540, 4-5=-3429/428, 5-7=-2623/384, 7-8=-2251/468, 8-9=-2313/471, 9-11=-2582/401, 11-12=-2761/375
BOT CHORD 1-24=0/150, 23-24=-155/1365, 22-23=-138/1336, 3-22=-420/4237, 21-22=-457/4415, 20-21=-272/3037, 19-20=-15/113, 18-20=-234/0, 17-18=-56/205, 13-17=-134/2064, 12-13=-245/2367
WEBS 5-21=0/445, 5-20=-909/185, 9-13=-53/357, 11-13=-273/161, 4-22=-16/780, 4-21=-1389/206, 2-24=-520/93, 3-24=-1736/218, 3-23=-1615/179, 8-14=-170/911, 9-14=-640/243, 17-19=-1587/282, 7-19=-1628/276, 8-17=-166/980, 17-20=-29/1967, 7-20=-97/1423

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 24 and 49 lb uplift at joint 12.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362371
3466728	A4	Roof Special	4	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.97 S 8.63 Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Wed Apr 19 12:10:02 Page: 1

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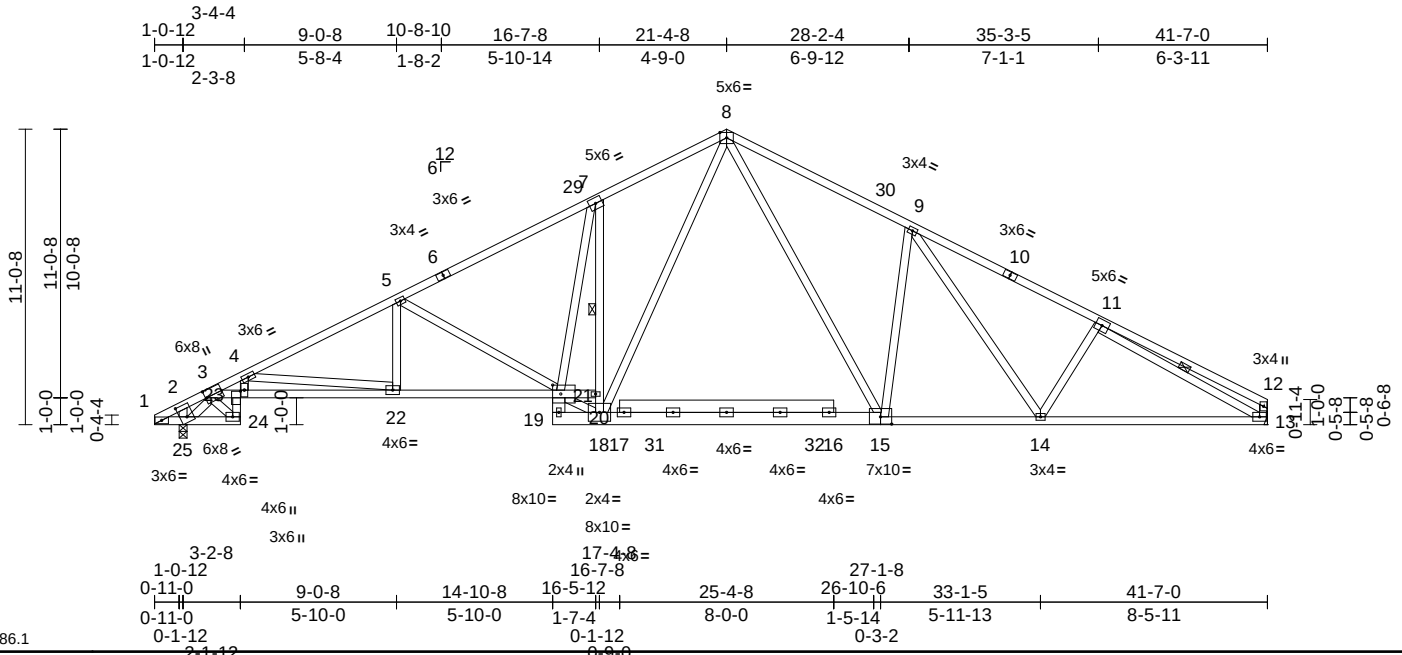

Scale = 1:86.1

Plate Offsets (X, Y): [2:0-5-9,0-3-0], [3:0-0-8,0-3-4], [15:0-5-0,0-3-4], [21:0-3-10,0-4-0], [23:0-0-8,0-1-12]

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	0.79	Vert(LL)	-0.24	21-22	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.49	21-22	>982	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.28	13	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 293 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 10-12,6-1:2x4 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 3-20:2x4 SP SS, 21-19,19-15,17-16:2x6 SP No.2

WEBS 2x4 SP No.3 *Except* 12-13:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-3-4 oc bracing: 22-23
6-0-0 oc bracing: 19-21.

WEBS 1 Row at midpt 7-18, 11-13

REACTIONS (lb/size) 13=1391/ Mechanical, 25=1464/0-3-8
Max Horiz 25=141 (LC 20)
Max Uplift 13=-41 (LC 17), 25=-51 (LC 16)
Max Grav 13=1614 (LC 2), 25=1698 (LC 2)

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

TOP CHORD 2-3=-275/29, 3-4=-5073/578, 4-5=-3391/432, 5-6=-2587/348, 6-29=-2484/382, 7-29=-2389/384, 7-8=-2221/465, 8-30=-2139/463, 9-30=-2243/430, 9-10=-2443/393, 10-11=-2535/373, 11-12=-453/95, 12-13=-338/91

BOT CHORD 24-25=-167/1364, 23-24=-146/1334, 3-23=-479/4212, 22-23=-519/4390, 21-22=-306/3000, 17-18=-46/1525, 17-31=-46/1525, 31-32=-46/1525, 16-32=-46/1525, 15-16=-49/1521, 14-15=-157/2001, 13-14=-265/2267

WEBS 5-22=0/447, 5-21=-903/189, 9-14=-47/369, 4-23=-15/766, 4-22=-1401/215, 2-25=-487/92, 3-25=-1757/220, 3-24=-1613/191, 8-15=-163/856, 9-15=-626/238, 18-20=-1567/296, 7-20=-1607/291, 8-18=-167/987, 18-21=-56/1943, 7-21=-113/1398, 11-13=-2267/285

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 25 and 41 lb uplift at joint 13.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362372
3466728	A5	Common	2	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:18 Page: 1
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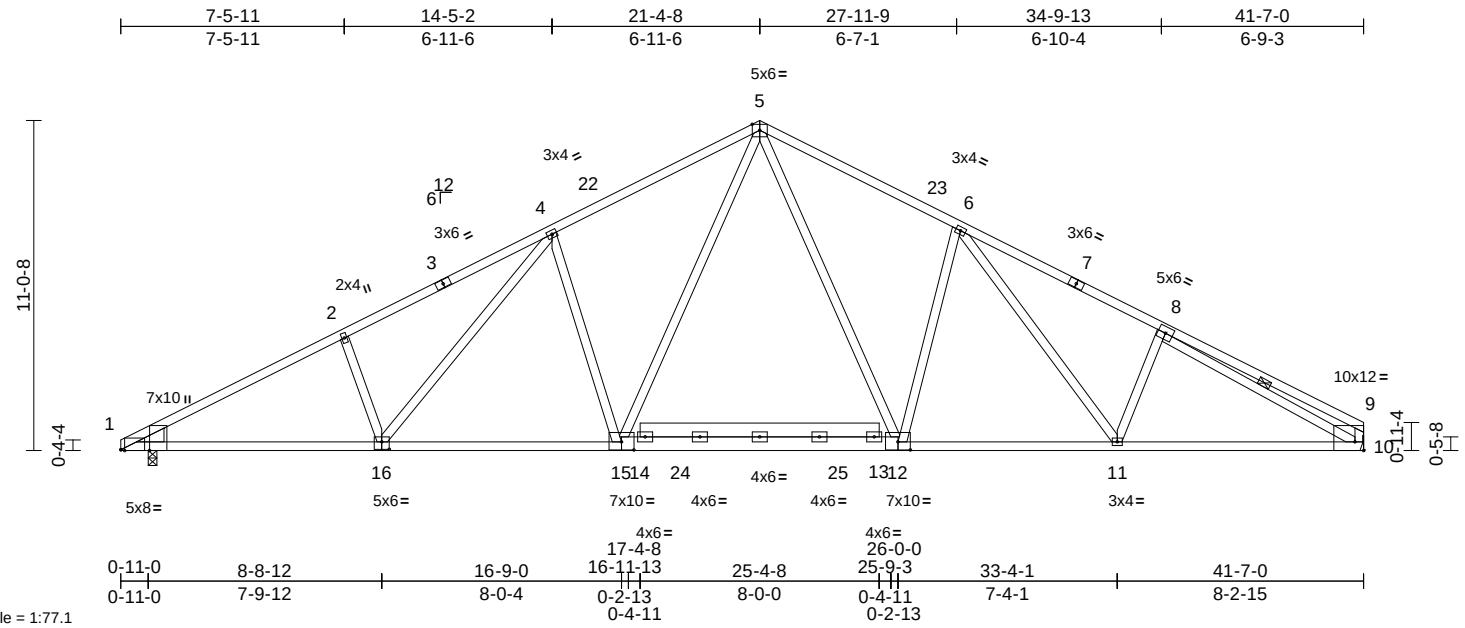


Scale = 1:77.1

Plate Offsets (X, Y): [1:0-1-8,Edge], [1:0-0-5,Edge], [9:Edge,0-3-8], [12:0-5-0,0-3-4], [15:0-5-0,0-3-4], [16:0-3-0,0-3-0]

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	0.89	Vert(LL)	-0.21	15-16	>999	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.46	15-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.11	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 265 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 7-9:2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 1-16:2x4 SP SS, 12-10,16-15:2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2

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

REACTIONS (size) 1=0-3-8, 10= Mechanical
Max Horiz 1=141 (LC 20)
Max Uplift 1=-49 (LC 16), 10=-41 (LC 17)
Max Grav 1=1695 (LC 2), 10=1620 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2751/362, 2-4=-2623/421, 4-5=-2192/431, 5-6=-2157/434, 6-8=-2572/412, 8-9=-484/121, 9-10=-365/108
BOT CHORD 1-11=-264/2357, 10-11=-256/2286
WEBS 2-16=-265/165, 4-16=-69/415, 4-15=-618/235, 5-15=-130/861, 5-12=-134/811, 6-12=-606/225, 6-11=-66/427, 8-11=-210/168, 8-10=-2255/252

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 10 and 49 lb uplift at joint 1.
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.

LOAD CASE(S) Standard

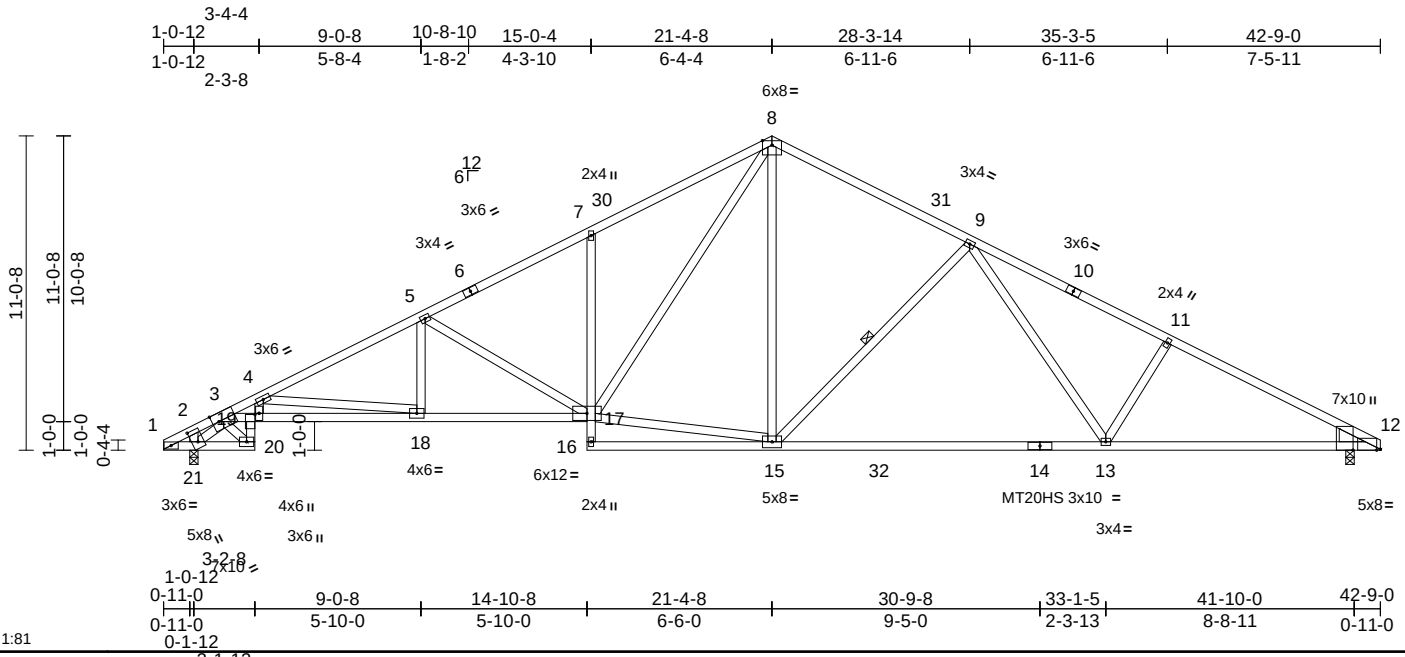
April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362373
3466728	A6	Roof Special	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:19 Page: 1

ID:lyZxRGkuTXTKIyQ3ya698TzckG5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81

Plate Offsets (X, Y): [3:0-2-12,Edge], [12:0-1-8,Edge], [12:0-0-5,Edge], [19:0-0-8,0-1-12], [21:0-5-5,0-2-8]

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	0.99	Vert(LL)	-0.65	13-15	>769	240	MT20	244/190
Snow (Ps/Pf)	14.5/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-1.19	13-15	>422	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.27	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 253 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP SS *Except* 1-20,20-19:2x4 SP No.2, 7-16:2x4 SP No.3
WEBS 2x4 SP No.3
WEDGE Right: 2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 9-15

REACTIONS (size) 12=0-3-8, 21=0-3-8
Max Horiz 21=140 (LC 16)
Max Uplift 12=-49 (LC 17), 21=-50 (LC 16)
Max Grav 12=1704 (LC 2), 21=1713 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-84/4, 2-3=-307/33, 3-4=-5141/554, 4-5=-3409/418, 5-7=-2656/390, 7-8=-2655/510, 8-9=-1876/357, 9-11=-2592/388, 11-12=-2789/363
BOT CHORD 1-21=0/151, 20-21=-153/1361, 19-20=-137/1333, 3-19=-441/4281, 18-19=-478/4458, 17-18=-259/3011, 16-17=-8/69, 7-17=-428/192, 15-16=-16/85, 13-15=-147/2041, 12-13=-236/2387
WEBS 5-18=0/446, 5-17=-824/145, 15-17=0/1511, 8-17=-248/1308, 8-15=-43/620, 9-15=-690/216, 9-13=-7/510, 11-13=-253/164, 2-21=-527/96, 3-21=-1729/215, 3-20=-1611/177, 4-19=-10/769, 4-18=-1458/236

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=14.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 21 and 49 lb uplift at joint 12.
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.

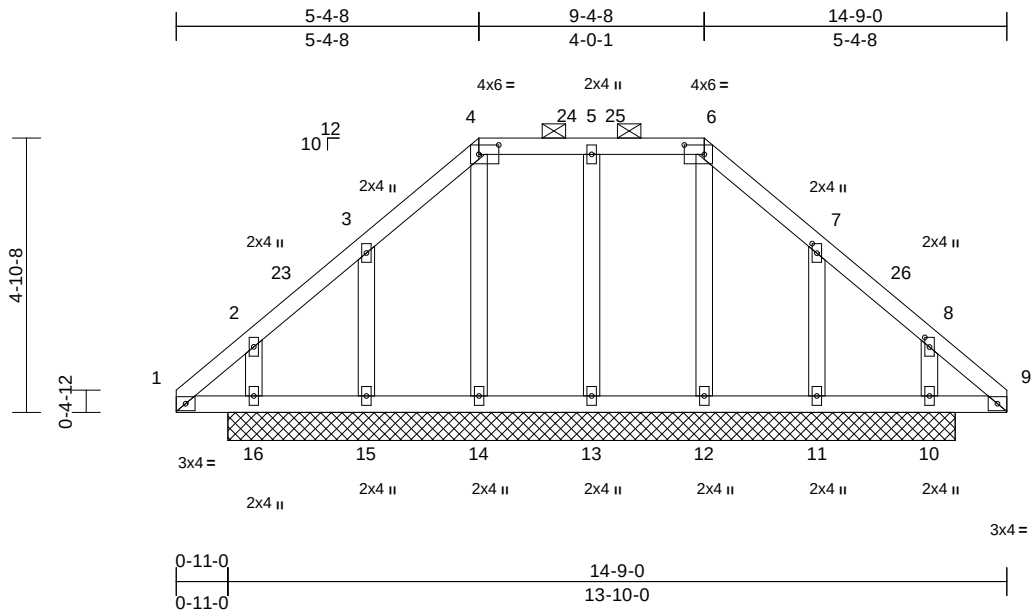
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362374
3466728	B1	Hip Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:19 Page: 1
ID:ej?uM83Zu88h_HuWzjQG2dzcxrt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.9

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

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 79 lb	FT = 20%

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

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

REACTIONS (size) 10=12-11-0, 11=12-11-0, 12=12-11-0, 13=12-11-0, 14=12-11-0, 15=12-11-0, 16=12-11-0
Max Horiz 16=-87 (LC 12)
Max Uplift 10=-36 (LC 16), 11=-87 (LC 17), 13=-17 (LC 13), 15=-89 (LC 16), 16=-40 (LC 17)
Max Grav 10=239 (LC 38), 11=259 (LC 48), 12=199 (LC 38), 13=310 (LC 37), 14=199 (LC 38), 15=261 (LC 46), 16=240 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-41/126, 2-3=-39/139, 3-4=-80/142, 4-5=-69/94, 5-6=-69/94, 6-7=-80/140, 7-8=-34/136, 8-9=-41/123
BOT CHORD 1-16=-74/46, 15-16=-71/43, 14-15=-71/43, 13-14=-72/43, 12-13=-72/43, 11-12=-72/43, 10-11=-72/43, 9-10=-72/43
WEBS 6-12=-156/1, 5-13=-271/41, 4-14=-156/3, 3-15=-210/98, 2-16=-177/70, 7-11=-209/97, 8-10=-176/70

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) ** TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps= varies (min. roof snow=10.1 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 13, 89 lb uplift at joint 15, 40 lb uplift at joint 16, 87 lb uplift at joint 11 and 36 lb uplift at joint 10.
12) Non Standard bearing condition. Review required.
13) 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.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

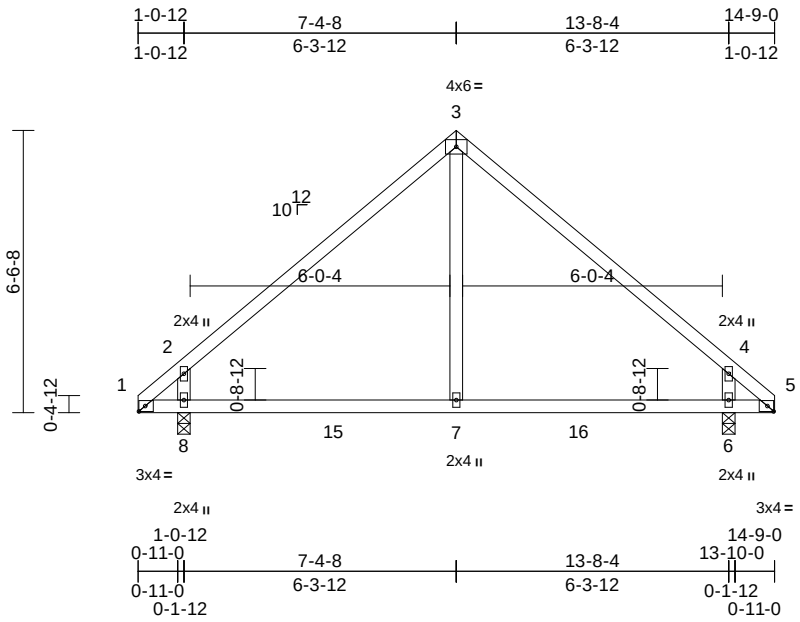
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-4=-40, 4-6=-60, 6-9=-40, 17-20=-20

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362375
3466728	B2	Common	2	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:20 Page: 1
ID:LBgXbAb9XghSG2FzYzDbqvzcxrB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:53.4

Plate Offsets (X, Y): [1:0-1-12,0-1-8], [5:0-1-12,0-1-8]

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	0.49	Vert(LL)	0.04	7-8	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.07	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 62 lb	FT = 20%

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

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

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=-119 (LC 10)
Max Uplift 6=-6 (LC 15), 8=-6 (LC 14)
Max Grav 6=605 (LC 26), 8=605 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-343/11, 2-3=-553/78, 3-4=-553/78, 4-5=-343/11
BOT CHORD 1-8=-2/360, 7-8=0/360, 6-7=0/360, 5-6=-2/360
WEBS 3-7=0/295, 2-8=-548/308, 4-6=-548/308

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
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 6 lb uplift at joint 8 and 6 lb uplift at joint 6.
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.

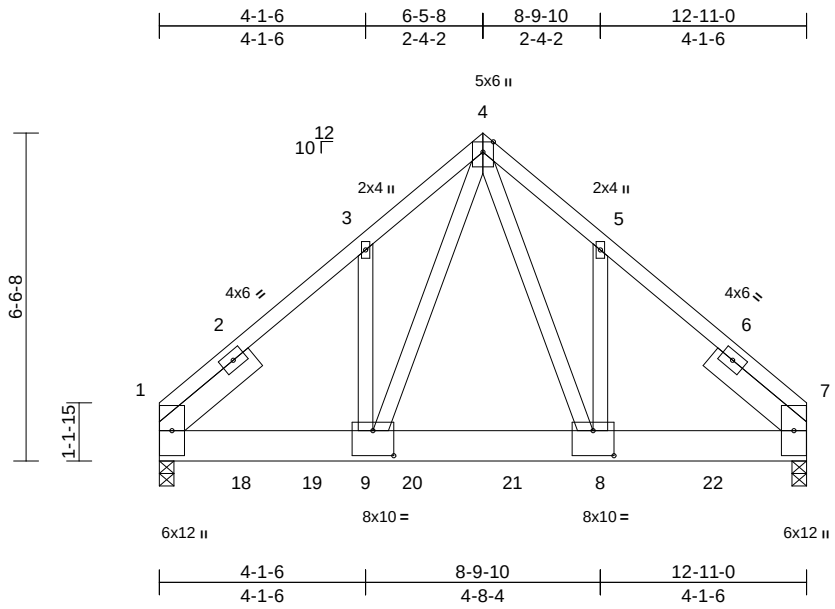
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362376
3466728	B3	Common Girder	1	**2**	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:20 Page: 1
ID:zq3Ch3gw83WQxJ_fa2AwXHzcjtf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:46

Plate Offsets (X, Y): [5:0-0-0,Edge], [7:Edge,0-0-0], [7:0-0-0,0-0-0], [8:0-5-0,0-6-0], [9:0-5-0,0-6-0]

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	0.60	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.12	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 211 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 2-5-0, Right 2x6 SP No.2 -- 2-5-0

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

REACTIONS (size) 1=0-3-8, 7=0-3-8
Max Horiz 1=-104 (LC 29)
Max Uplift 1=-168 (LC 10), 7=-151 (LC 11)
Max Grav 1=5557 (LC 2), 7=5052 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-5666/211, 3-4=-5442/292, 4-5=-5226/285, 5-7=-5456/203
BOT CHORD 1-9=-151/4222, 8-9=-70/2891, 7-8=-108/4056
WEBS 4-9=-226/3706, 3-9=-57/313, 4-8=-210/3245, 5-8=-57/324

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 5-8 2x4 - 2 rows staggered at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
6) Roof design snow load has been reduced to account for slope.
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 168 lb uplift at joint 1 and 151 lb uplift at joint 7.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1594 lb down and 53 lb up at 1-7-12, 1594 lb down and 53 lb up at 3-0-11, 1594 lb down and 53 lb up at 5-0-11, 1594 lb down and 53 lb up at 7-0-11, and 1600 lb down and 53 lb up at 9-0-11, and 1600 lb down and 53 lb up at 11-0-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

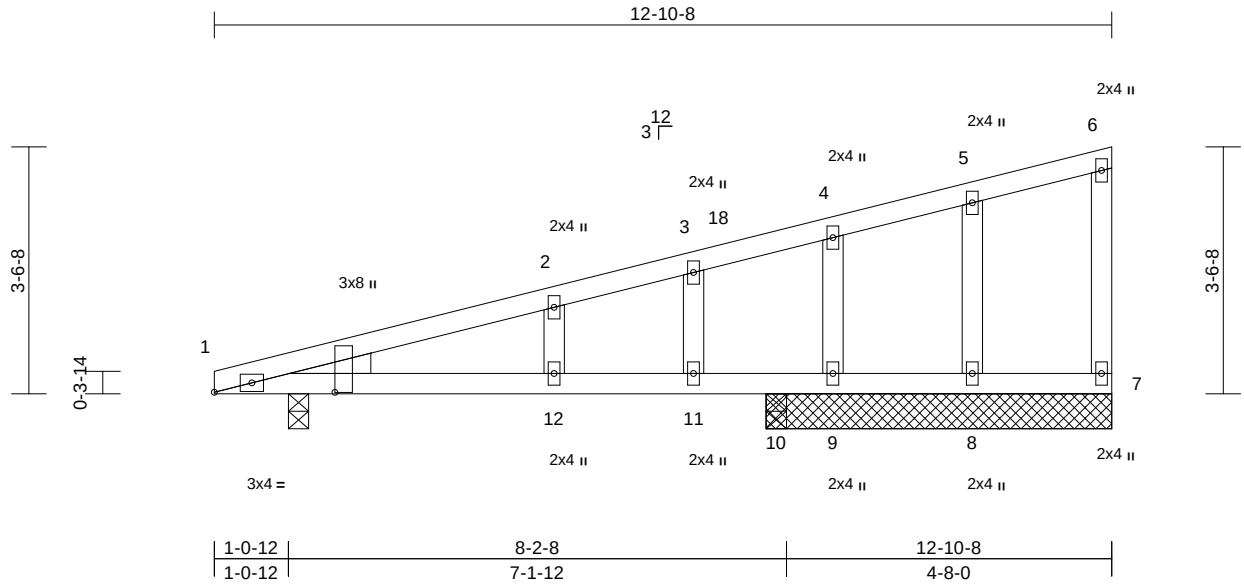
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-4=-40, 4-7=-40, 10-14=-20
Concentrated Loads (lb)
Vert: 8=-1391 (B), 18=-1386 (B), 19=-1386 (B), 20=-1386 (B), 21=-1386 (B), 22=-1391 (B)

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362377
3466728	D1	Monopitch Structural Gable	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:20 Page: 1
ID:E7FL3vvfi3JtDBg3mJMH?Vzcy3?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.1

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

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	0.38	Vert(LL)	0.10	12-17	>951	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.14	12-17	>690	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 55 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
WEDGE Left: 2x4 SP No.3

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

REACTIONS (size) 1=0-3-8, 7=4-11-8, 8=4-11-8, 9=4-11-8, 10=0-3-8
Max Horiz 1=102 (LC 15)
Max Uplift 1=-68 (LC 12), 7=-6 (LC 13), 8=-11 (LC 16), 9=-278 (LC 2), 10=-227 (LC 12)
Max Grav 1=320 (LC 2), 7=87 (LC 22), 8=168 (LC 22), 9=111 (LC 12), 10=766 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-109/59, 2-3=-108/70, 3-4=-71/48, 4-5=-57/36, 5-6=-45/41, 6-7=-73/34
BOT CHORD 1-12=-131/102, 11-12=-36/40, 10-11=-36/40, 9-10=-36/40, 8-9=-36/40, 7-8=-36/40
WEBS 5-8=-93/29, 4-9=-206/92, 3-11=-217/128, 2-12=-27/51

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 6 lb uplift at joint 7, 68 lb uplift at joint 1, 11 lb uplift at joint 8, 278 lb uplift at joint 9 and 227 lb uplift at joint 10.
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.

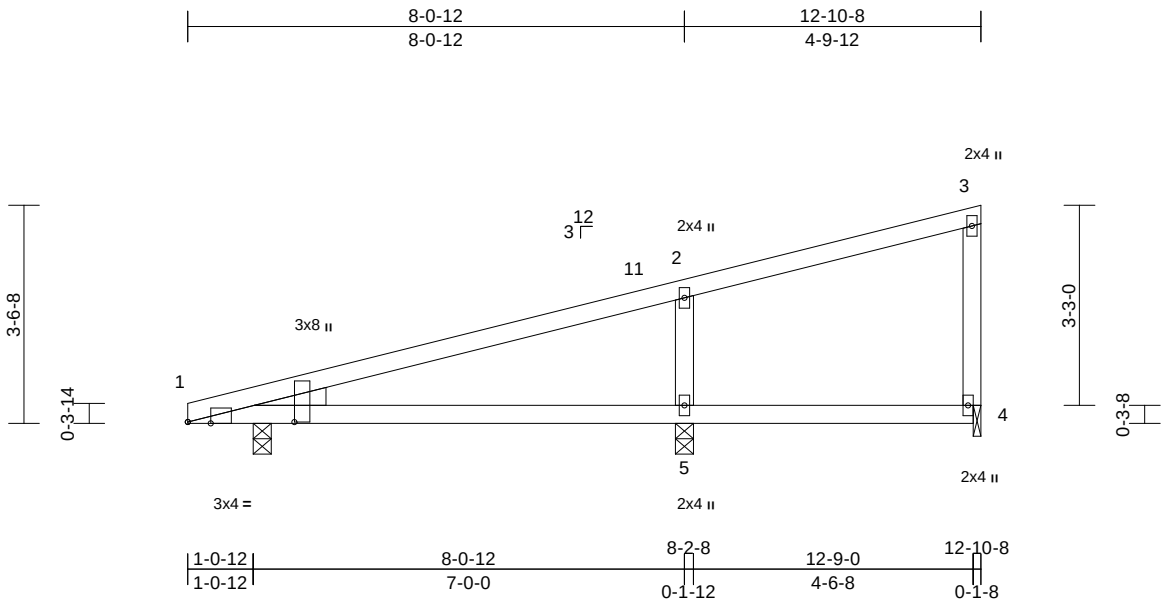
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362378
3466728	D2	Monopitch	4	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:21 Page: 1
ID:N3H5vgvnc3DK7iMzUAKDjVzcy0P-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.4

Plate Offsets (X, Y): [1:0-4-7,Edge], [1:0-0-0,1-8-12]

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	0.51	Vert(LL)	0.12	5-10	>819	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.13	5-10	>733	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 48 lb	FT = 20%

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

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

REACTIONS (size) 1=0-3-8, 4=0-1-8, 5=0-3-8
Max Horiz 1=102 (LC 15)
Max Uplift 1=-70 (LC 12), 4=-4 (LC 16), 5=-133 (LC 12)
Max Grav 1=323 (LC 2), 4=149 (LC 23), 5=620 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-120/71, 2-3=-74/35, 3-4=-127/42
BOT CHORD 1-5=-132/105, 4-5=-34/49
WEBS 2-5=-447/208

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 5, 70 lb uplift at joint 1 and 4 lb uplift at joint 4.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362379
3466728	D3	Monopitch	10	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:21 Page: 1
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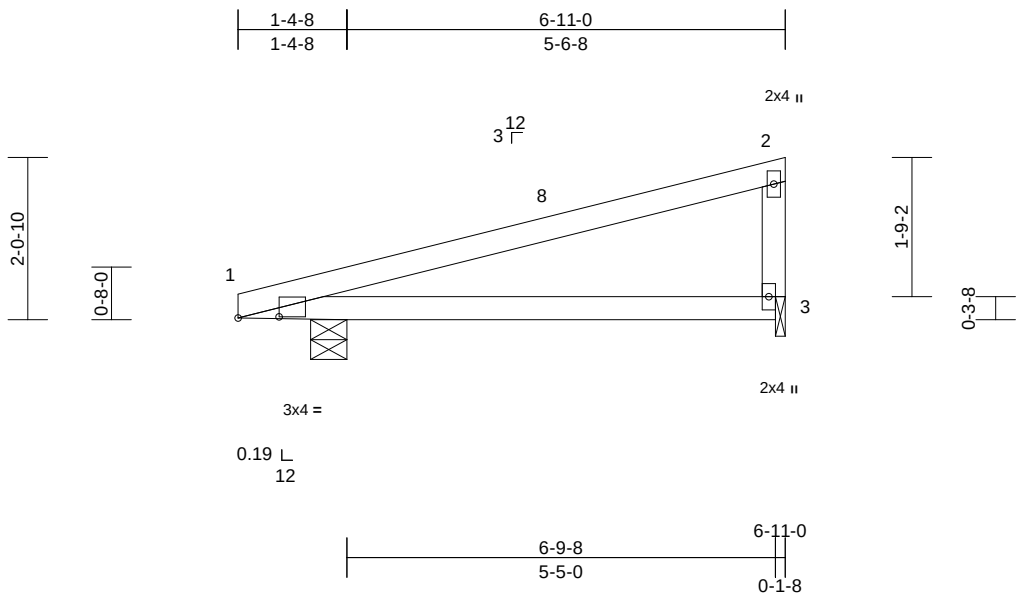

Scale = 1:29.1

Plate Offsets (X, Y): [1:0-6-3,0-0-3]

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	0.54	Vert(LL)	-0.04	3-7	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.10	3-7	>851	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 lb	FT = 20%

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

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

REACTIONS (size) 1=0-5-8, 3=0-1-8
Max Horiz 1=54 (LC 15)
Max Uplift 1=-22 (LC 12), 3=-21 (LC 16)
Max Grav 1=326 (LC 2), 3=228 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-59/39, 2-3=-165/87
BOT CHORD 1-3=-45/90

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
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) Bearing at joint(s) 1, 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 21 lb uplift at joint 3.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362380
3466728	D4	Monopitch	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:21 Page: 1
ID:SqNl1UXq3E6JCIcjLJke9lzcy_J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

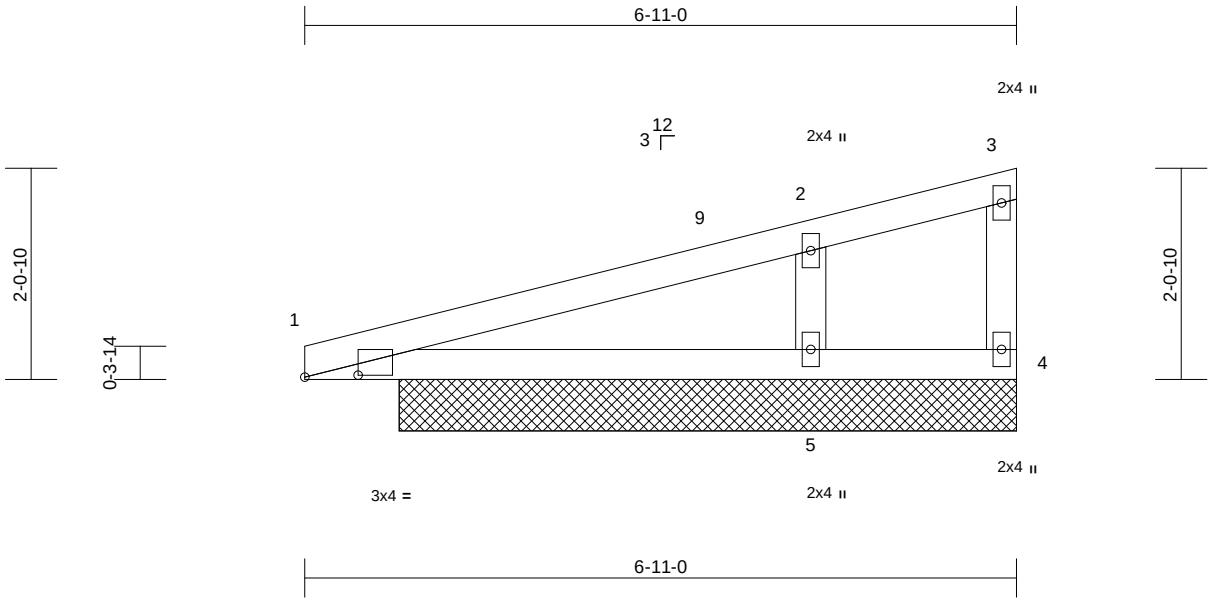

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Plate Offsets (X, Y): [1:0-6-3,0-0-4]

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 25 lb	FT = 20%

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

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

REACTIONS (size) 1=6-0-0, 4=6-0-0, 5=6-0-0, 8=6-0-0
Max Horiz 1=54 (LC 15), 8=54 (LC 15)
Max Uplift 1=-10 (LC 12), 5=-35 (LC 16), 8=-10 (LC 12)
Max Grav 1=227 (LC 2), 4=29 (LC 22), 5=301 (LC 22), 8=227 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-66/45, 2-3=-33/23, 3-4=-26/15
BOT CHORD 1-5=-25/26, 4-5=-24/26
WEBS 2-5=-220/121

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 10 lb uplift at joint 1, 35 lb uplift at joint 5 and 10 lb uplift at joint 1.
10) N/A
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362381
3466728	D5	Monopitch	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:21 Page: 1
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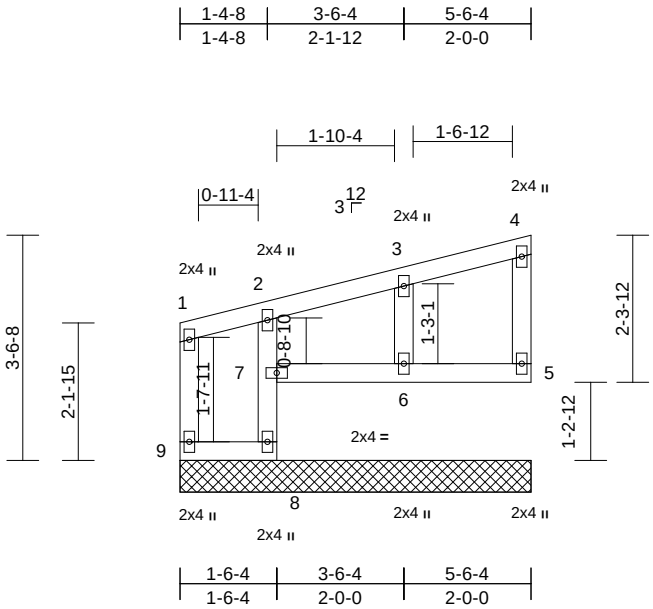

Scale = 1:36.2

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
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	-0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 27 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 1-9:2x4 SP No.2

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

REACTIONS (size) 5=5-6-4, 6=5-6-4, 7=5-6-4, 8=5-6-4, 9=5-6-4
Max Horiz 9=80 (LC 13)
Max Uplift 5=-3 (LC 16), 6=-18 (LC 16), 7=-28 (LC 16), 8=-34 (LC 13)
Max Grav 5=63 (LC 22), 6=181 (LC 22), 7=132 (LC 2), 8=26 (LC 7), 9=86 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-30/19, 2-3=-48/33, 3-4=-31/25, 4-5=-48/32, 1-9=-57/33
BOT CHORD 8-9=-81/60, 7-8=0/0, 2-7=-113/117, 6-7=-30/30, 5-6=-30/30
WEBS 3-6=-134/82

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.
11) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 5, 34 lb uplift at joint 8, 28 lb uplift at joint 7 and 18 lb uplift at joint 6.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 6.
14) 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

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362382
3466728	D6	Monopitch	4	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:22 Page: 1
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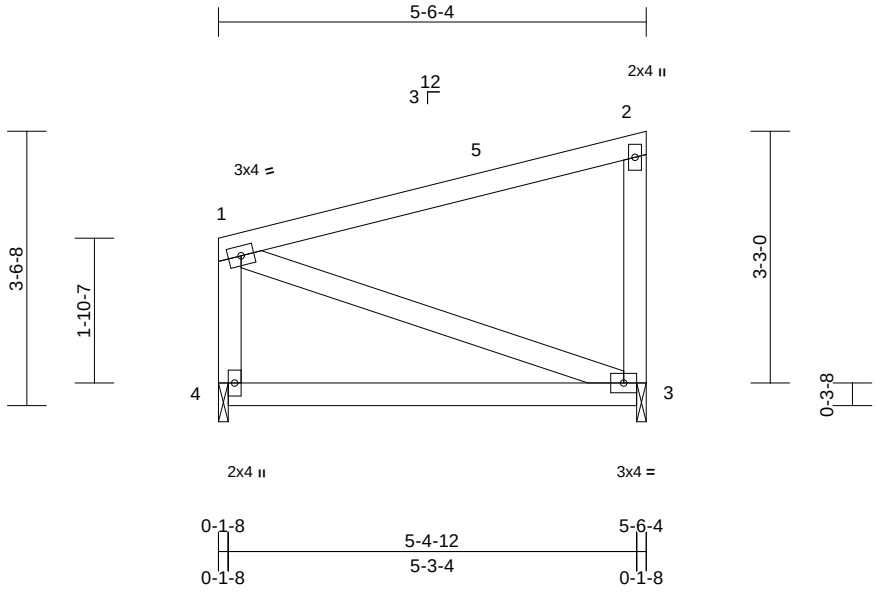


Scale = 1:29.7

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	0.54	Vert(LL)	-0.04	3-4	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.09	3-4	>700	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 31 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 1-4:2x4 SP No.2

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

REACTIONS (size) 3=0-1-8, 4=0-1-8
Max Horiz 4=95 (LC 13)
Max Uplift 3=-18 (LC 13), 4=-17 (LC 12)
Max Grav 3=212 (LC 23), 4=209 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/58, 2-3=-160/101, 1-4=-157/95
BOT CHORD 3-4=-151/119
WEBS 1-3=-89/127

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
3) Roof design snow load has been reduced to account for slope.
4) Unbalanced snow loads have been considered for this design.
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) Bearing at joint(s) 4, 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4, 3.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 18 lb uplift at joint 3.
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.

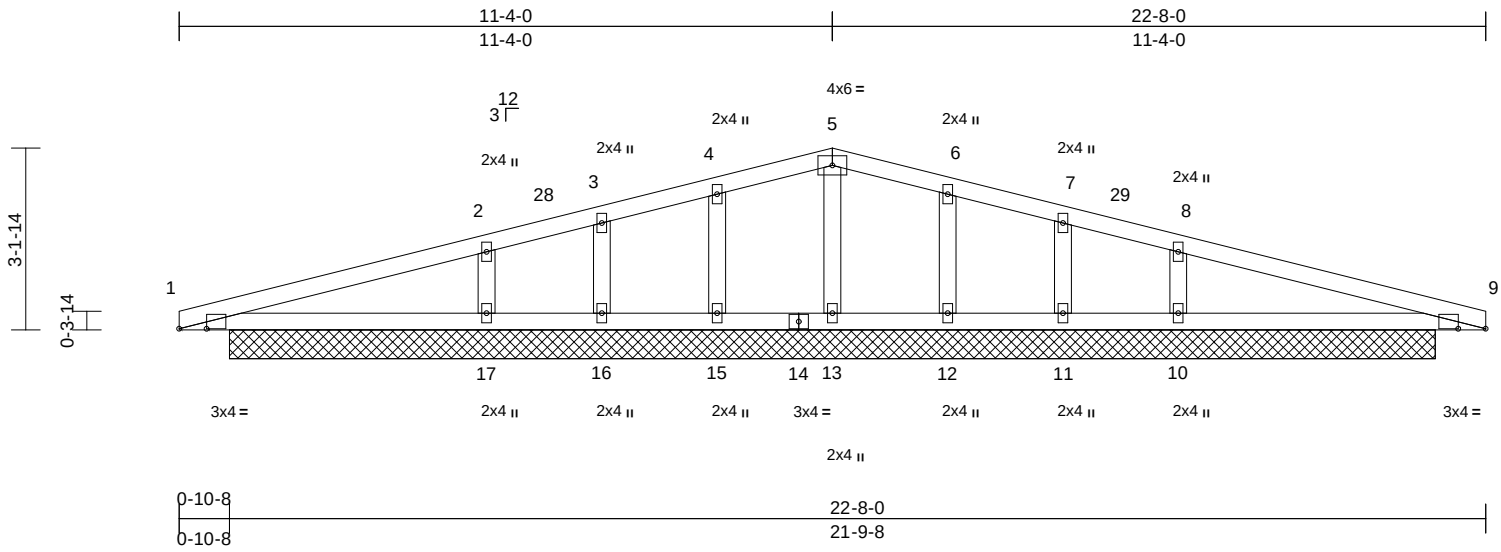
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362383
3466728	E1	Common Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:22 Page: 1
ID:Phvo0_u8dFAozTXWx2n926zPBJq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40

Plate Offsets (X, Y): [1:0-5-11,0-0-0], [9:0-5-11,0-0-0]

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	25	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 87 lb	FT = 20%

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

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

REACTIONS (size) 1=20-11-0, 9=20-11-0, 10=20-11-0, 11=20-11-0, 12=20-11-0, 13=20-11-0, 15=20-11-0, 16=20-11-0, 17=20-11-0, 20=20-11-0, 25=20-11-0
Max Horiz 1=37 (LC 16), 20=37 (LC 16)
Max Uplift 1=-12 (LC 12), 9=-15 (LC 13), 10=-39 (LC 17), 11=-6 (LC 13), 12=-21 (LC 17), 15=-21 (LC 16), 16=-5 (LC 12), 17=-41 (LC 16), 20=-12 (LC 12), 25=-15 (LC 13)
Max Grav 1=257 (LC 2), 9=257 (LC 2), 10=343 (LC 35), 11=101 (LC 23), 12=219 (LC 23), 13=90 (LC 2), 15=219 (LC 22), 16=101 (LC 22), 17=343 (LC 34), 20=257 (LC 2), 25=257 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-134/52, 2-3=-130/53, 3-4=-114/66, 4-5=-122/84, 5-6=-122/84, 6-7=-114/66, 7-8=-130/53, 8-9=-134/52
BOT CHORD 1-17=-49/102, 16-17=0/102, 15-16=0/102, 13-15=0/102, 12-13=0/102, 11-12=0/102, 10-11=0/102, 9-10=-31/102
WEBS 5-13=-54/3, 4-15=-170/53, 3-16=-91/30, 2-17=-240/87, 6-12=-170/53, 7-11=-91/30, 8-10=-240/87

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 15 lb uplift at joint 9, 21 lb uplift at joint 15, 5 lb uplift at joint 16, 41 lb uplift at joint 17, 21 lb uplift at joint 12, 6 lb uplift at joint 11, 39 lb uplift at joint 10, 12 lb uplift at joint 1 and 15 lb uplift at joint 9.
11) N/A
12) 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

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362384
3466728	E2	Common	6	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:22 Page: 1
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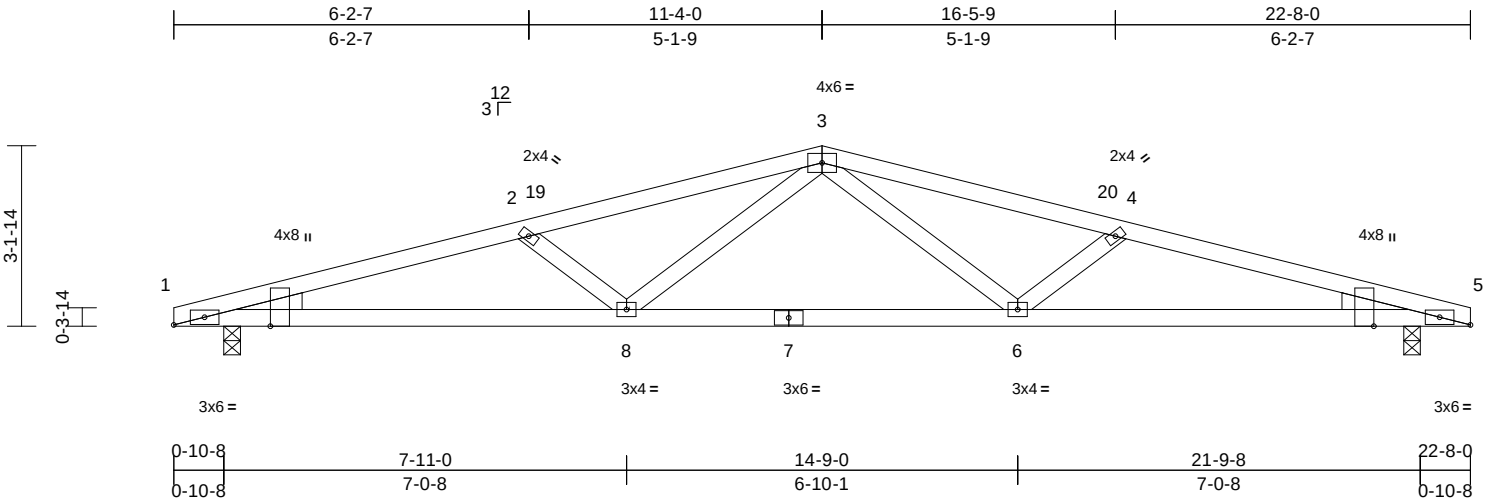

Scale = 1:40.3

Plate Offsets (X, Y): [1:0-3-7,0-0-2], [1:0-0-4,Edge], [5:0-3-7,0-0-2], [5:0-0-4,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	0.59	Vert(LL)	-0.14	6-8	>999	240	MT20	244/190
Snow (Ps/Pf)	18.7/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.30	6-8	>893	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 92 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

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

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-37 (LC 21)
Max Uplift 1=-41 (LC 12), 5=-41 (LC 13)
Max Grav 1=907 (LC 2), 5=907 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-2220/298, 2-3=-1988/238, 3-4=-1988/238, 4-5=-2220/298
BOT CHORD 1-8=-249/2122, 6-8=-151/1525, 5-6=-249/2122
WEBS 3-6=0/527, 4-6=-349/128, 3-8=0/527, 2-8=-349/128

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=18.7 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
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 41 lb uplift at joint 1 and 41 lb uplift at joint 5.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362385
3466728	S1	Common Supported Gable	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.97 S 8.63 Feb 9 2023 Print: 8.630 S Feb 9 2023 MiTek Industries, Inc. Wed Apr 19 12:13:43 Page: 1
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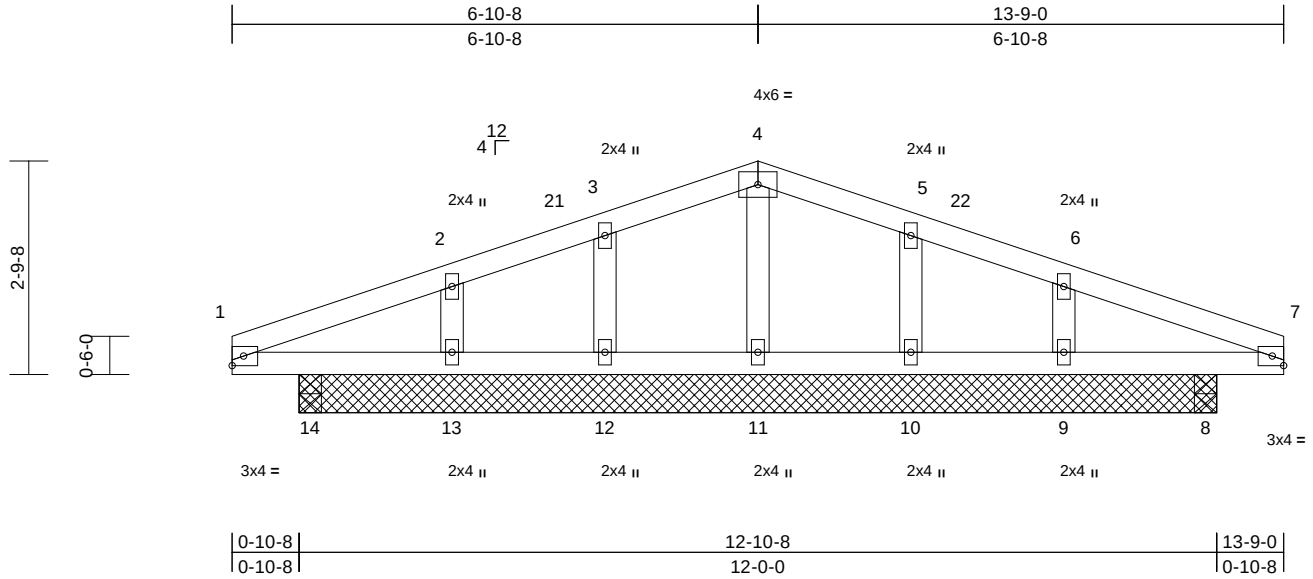

Scale = 1:30.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	0.00	8-9	>999	240	MT20	244/190
Snow (Ps/Pf)	5.5/20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 53 lb	FT = 20%

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

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

REACTIONS All bearings 12-0-0. except 8=0-3-8, 14=0-3-8 (lb) - Max Horiz 13=-30 (LC 17)
Max Uplift All uplift 100 (lb) or less at joint(s) 8, 9, 10, 12, 13, 14
Max Grav All reactions 250 (lb) or less at joint (s) 8, 9, 10, 11, 12, 13, 14

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=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=5.5 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Unbalanced snow loads have been considered for this design.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 13, 10, 9, 8, 14.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362386
3466728	S2	Common	5	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:23 Page: 1
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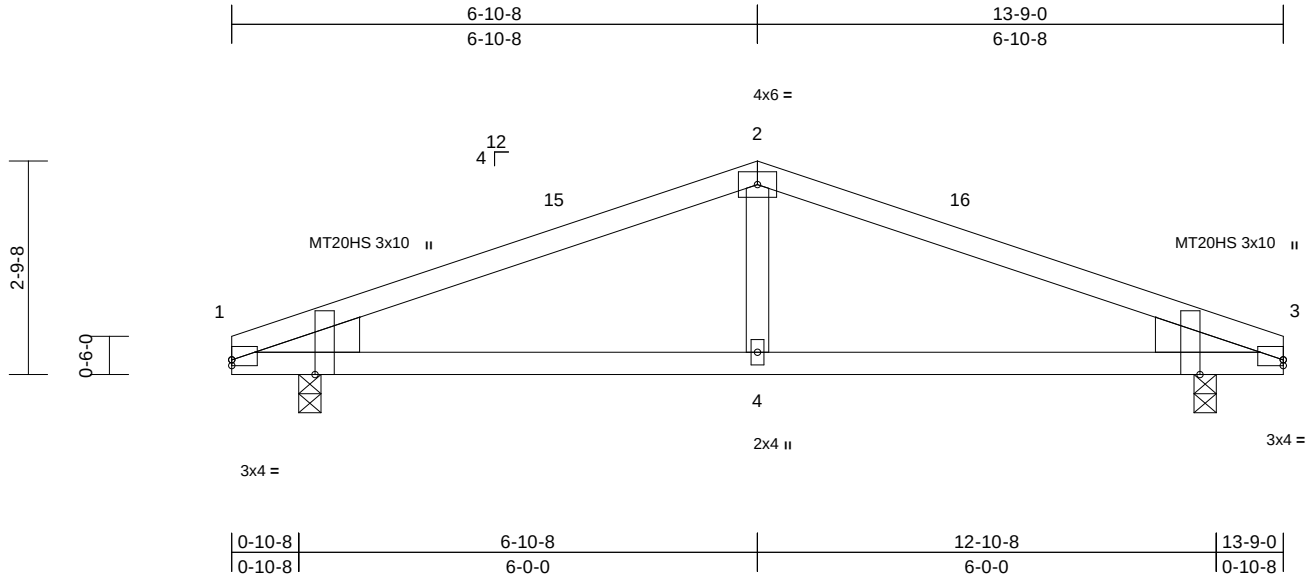

Scale = 1:30.1

Plate Offsets (X, Y): [1:Edge,0-0-14], [1:0-2-5,Edge], [3:Edge,0-0-14], [3:0-2-5,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	0.35	Vert(LL)	-0.04	4-14	>999	240	MT20	244/190
Snow (Ps/Pf)	17.2/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	4-14	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 52 lb	FT = 20%

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

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

REACTIONS (size) 1=0-3-8, 3=0-3-8
Max Horiz 1=-30 (LC 17)
Max Uplift 1=-125 (LC 12), 3=-125 (LC 13)
Max Grav 1=550 (LC 2), 3=550 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-706/454, 2-3=-706/454
BOT CHORD 1-4=-370/620, 3-4=-370/620
WEBS 2-4=-160/217

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=17.2 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
4) Roof design snow load has been reduced to account for slope.
5) Unbalanced snow loads have been considered for this design.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 125 lb uplift at joint 1 and 125 lb uplift at joint 3.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362387
3466728	VB1	Valley	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:23 Page: 1
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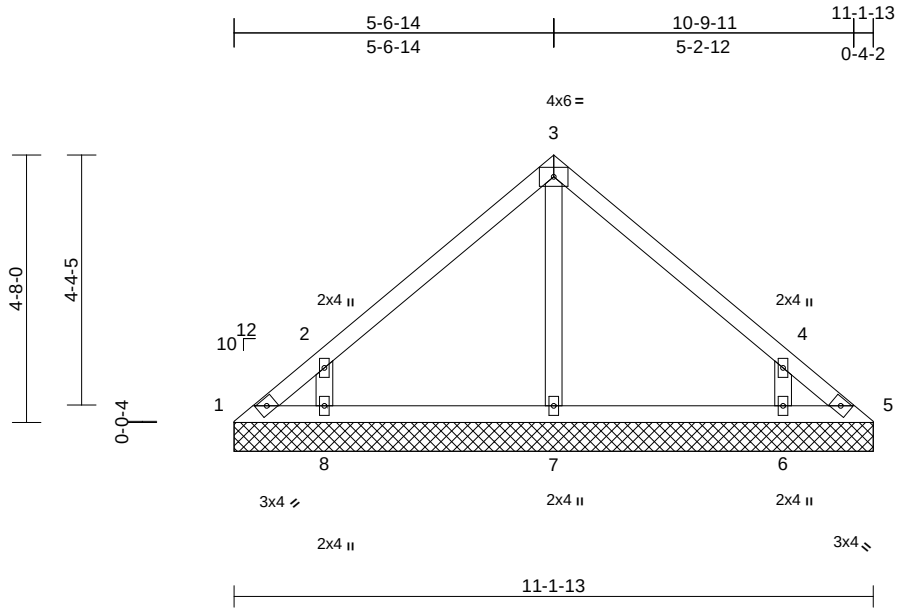

Scale = 1:40.2

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 45 lb	FT = 20%

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

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

REACTIONS (size) 1=11-1-13, 5=11-1-13, 6=11-1-13, 7=11-1-13, 8=11-1-13
Max Horiz 1=-87 (LC 10)
Max Uplift 1=-33 (LC 12), 5=-11 (LC 13), 6=-96 (LC 15), 8=-99 (LC 14)
Max Grav 1=62 (LC 26), 5=48 (LC 28), 6=310 (LC 26), 7=231 (LC 2), 8=313 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-106/85, 2-3=-146/82, 3-4=-145/78, 4-5=-87/56
BOT CHORD 1-8=-29/68, 7-8=-17/68, 6-7=-17/68, 5-6=-32/68
WEBS 3-7=-143/0, 2-8=-277/173, 4-6=-275/172

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1, 11 lb uplift at joint 5, 99 lb uplift at joint 8 and 96 lb uplift at joint 6.
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.

LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362388
3466728	VB2	Valley	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:23 Page: 1
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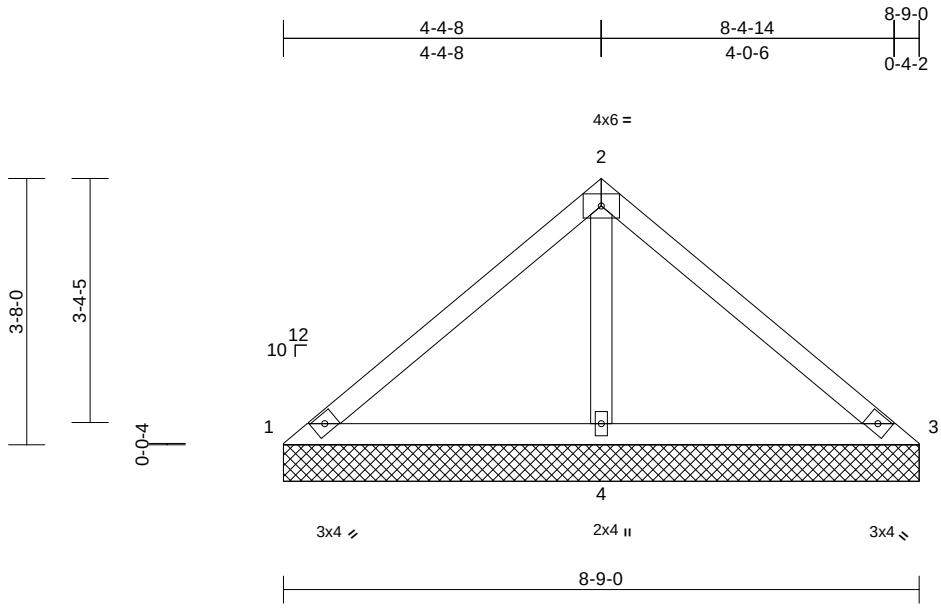


Scale = 1:31.7

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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 lb	FT = 20%

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

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

REACTIONS (size) 1=8-9-0, 3=8-9-0, 4=8-9-0
Max Horiz 1=-67 (LC 10)
Max Uplift 1=-27 (LC 30), 3=-27 (LC 29), 4=-55 (LC 14)
Max Grav 1=61 (LC 29), 3=61 (LC 30), 4=655 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-71/275, 2-3=-71/275
BOT CHORD 1-4=-213/112, 3-4=-213/112
WEBS 2-4=-485/129

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 27 lb uplift at joint 3 and 55 lb uplift at joint 4.
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.

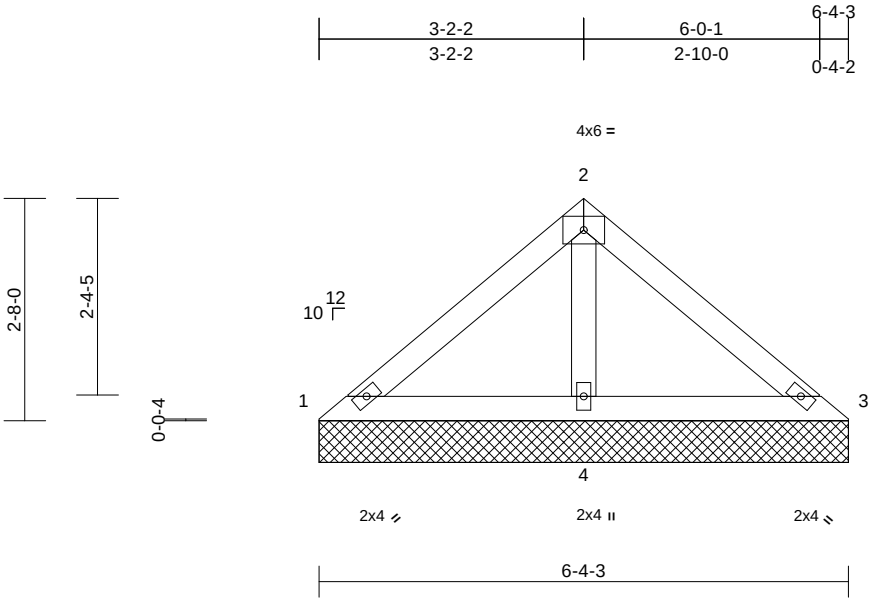
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362389
3466728	VB3	Valley	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:23 Page: 1
ID:SKJJUZk?UYcgd_l7KrwivkzcxsJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.6

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-4-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-4-3, 3=6-4-3, 4=6-4-3
Max Horiz 1=48 (LC 11)
Max Uplift 4=-25 (LC 14)
Max Grav 1=67 (LC 29), 3=67 (LC 30), 4=414 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-56/147, 2-3=-56/147
BOT CHORD 1-4=-116/68, 3-4=-116/68
WEBS 2-4=-281/68

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4.
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.

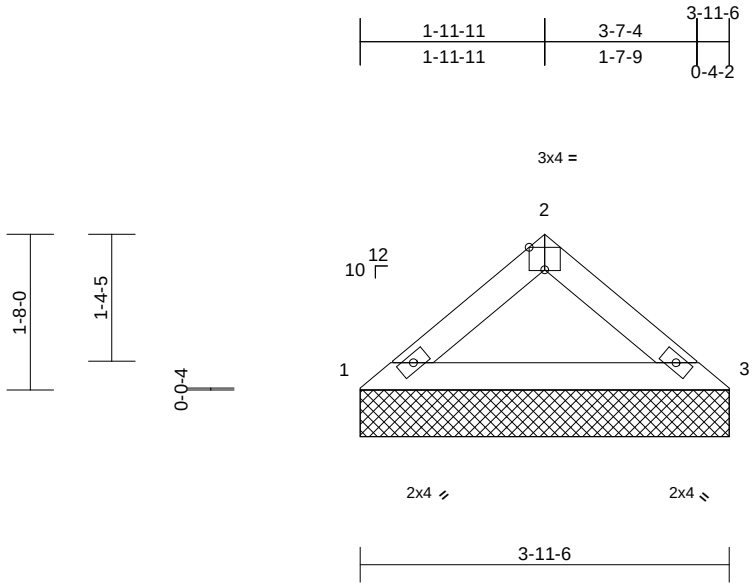
LOAD CASE(S) Standard

April 19,2023

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	CHESAPEAKE HOMES - 2343 A w/ 3rd GARAGE & T30362390
3466728	VB4	Valley	1	1	Job Reference (optional)

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Apr 19 10:33:24 Page: 1
ID:p1bnzSaTJs5NB8qqdKiuQCzcxsV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.7

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)	20.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	10.1/20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-11-6, 3=3-11-6
Max Horiz 1=-29 (LC 10)
Max Uplift 1=-2 (LC 14), 3=-2 (LC 15)
Max Grav 1=158 (LC 2), 3=158 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-212/26, 2-3=-212/26
BOT CHORD 1-3=-13/159

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone 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=1.33
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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.00); Pf=20.0 psf (flat roof snow); Ps=10.1 psf (roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp B; Fully Exp.; Ct=1.10; Unobstructed slippery surface
5) Roof design snow load has been reduced to account for slope.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1 and 2 lb uplift at joint 3.
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.

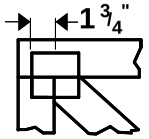
LOAD CASE(S) Standard

April 19,2023

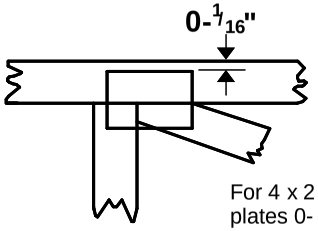
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

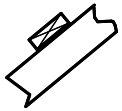
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

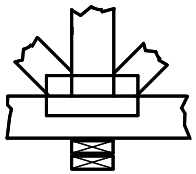
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

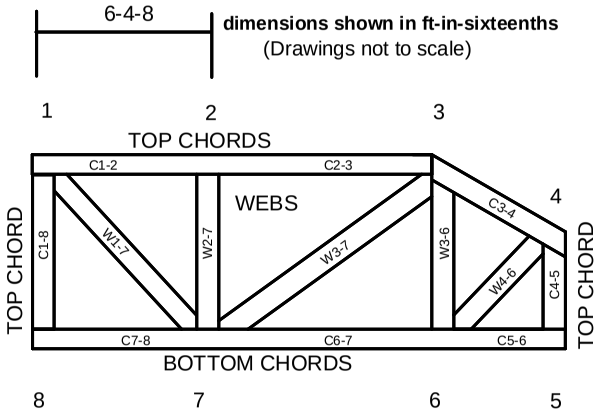


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek
ENGINEERING BY TRENCO
A MiTek Affiliate

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

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.