ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: CCP
Mattamy - Glades

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I57322060 thru I57322082

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

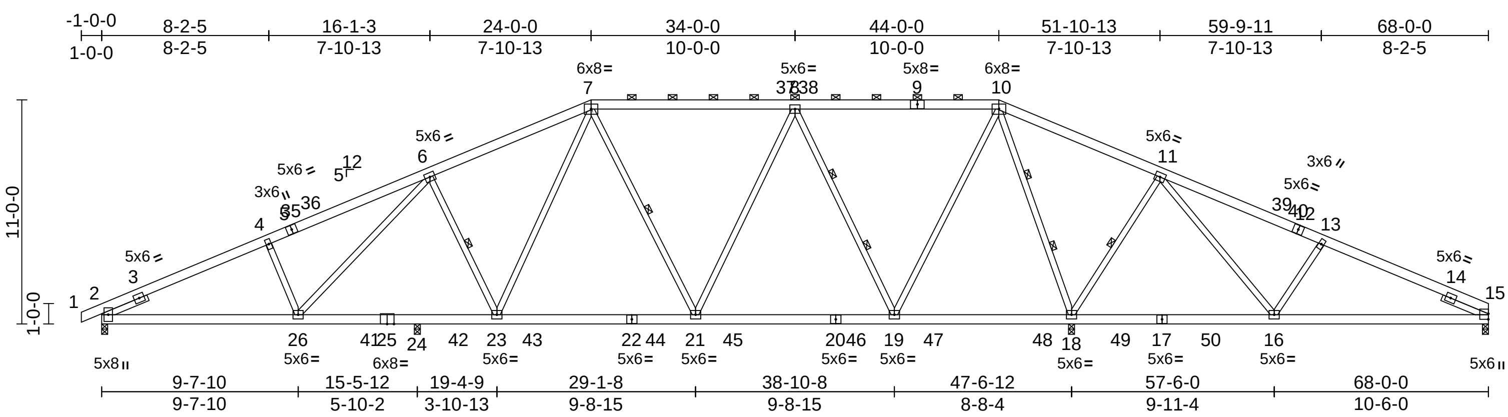
North Carolina COA: C-0844

March 22,2023

Johnson, Andrew

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	Mattamy - Glades
CCP	A01	Piggyback Base	1	1	I57322060 Job Reference (optional)



Scale = 1:113

Plate Offsets (X, Y): [2:0-4-9,0-1-6]

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	0.69	Vert(LL)	-0.20	21-23	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.37	21-23	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.06	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 499 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 7-9:2x6 SP DSS
BOT CHORD 2x6 SP No.2 *Except* 25-22:2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 18-10:2x4 SP No.1
SLIDER Left 2x4 SP No.3 -- 2-5-0, Right 2x4 SP No.3 -- 2-5-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-11 oc purlins, except 2-0-0 oc purlins (5-9-2 max.): 7-10.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-23, 7-21, 11-18
WEBS 2 Rows at 1/3 pts 8-19, 10-18

REACTIONS (size) 2=0-3-8, 15=0-3-8, 18=0-3-8, (req. 0-3-15), 24=0-3-8
Max Horiz 2=142 (LC 16)
Max Uplift 2=-110 (LC 16), 15=-66 (LC 17), 18=-55 (LC 17), 24=-13 (LC 16)
Max Grav 2=1449 (LC 54), 15=522 (LC 55), 18=3352 (LC 45), 24=669 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/38, 2-4=-2479/346, 4-6=-2365/386, 6-7=-1894/366, 7-8=-1624/290, 8-10=-855/203, 10-11=0/1180, 11-13=-427/284, 13-15=-535/185
BOT CHORD 2-26=-254/2230, 24-26=-165/1912, 23-24=-165/1912, 21-23=-57/1580, 19-21=-1/1490, 18-19=-286/176, 16-18=-510/128, 15-16=-96/542
WEBS 4-26=-384/185, 6-26=-55/333, 6-23=-888/239, 7-23=-83/637, 7-21=-451/201, 8-21=-8/800, 8-19=-1513/222, 10-19=-100/1801, 10-18=-2506/249, 11-18=-1142/247, 11-16=-63/798, 13-16=-490/199

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
8) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
11) WARNING: Required bearing size at joint(s) 18 greater than input bearing size.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 2, 55 lb uplift at joint 18, 66 lb uplift at joint 15 and 13 lb uplift at joint 24.
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)

March 22,2023

Continued on page 2

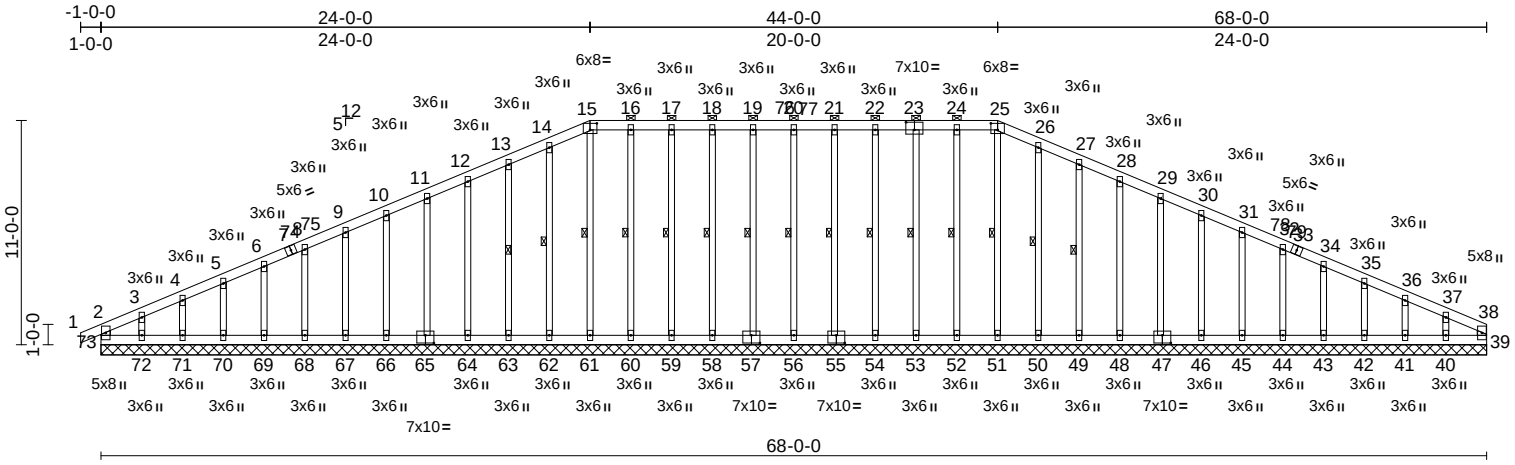
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Vert: 1-7=-52, 7-10=-60, 10-15=-52, 27-31=-20

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A01G	Piggyback Base Supported Gable	1	1	I57322061
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:34 Page: 1
ID:?oCUXIPsimHMarokW6_TzezZ3Hn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:113.1

Plate Offsets (X, Y): [15:0-4-0,0-3-13], [23:0-5-0,0-4-8], [25:0-4-0,0-3-13], [47:0-5-0,0-4-8], [55:0-5-0,0-4-8], [57:0-5-0,0-4-8], [65:0-5-0,0-4-8]

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
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	39	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 664 lb	FT = 20%

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

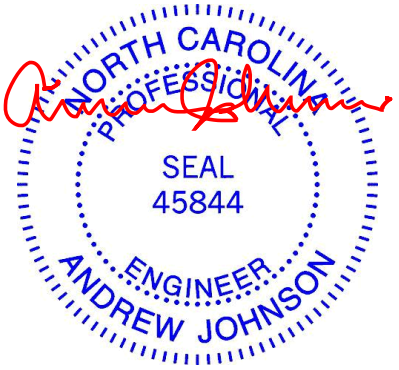
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-25.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 25-51, 24-52, 23-53, 22-54, 21-55, 20-56, 19-57, 18-58, 17-59, 16-60, 15-61, 14-62, 13-63, 26-50, 27-49

REACTIONS (size) 39=68-0-0, 40=68-0-0, 41=68-0-0, 42=68-0-0, 43=68-0-0, 44=68-0-0, 45=68-0-0, 46=68-0-0, 47=68-0-0, 48=68-0-0, 49=68-0-0, 50=68-0-0, 51=68-0-0, 52=68-0-0, 53=68-0-0, 54=68-0-0, 55=68-0-0, 56=68-0-0, 57=68-0-0, 58=68-0-0, 59=68-0-0, 60=68-0-0, 61=68-0-0, 62=68-0-0, 63=68-0-0, 64=68-0-0, 65=68-0-0, 66=68-0-0, 67=68-0-0, 68=68-0-0, 69=68-0-0, 70=68-0-0, 71=68-0-0, 72=68-0-0, 73=68-0-0
Max Horiz 73=127 (LC 16)

Max Uplift 40=-80 (LC 17), 41=-11 (LC 17), 42=-26 (LC 17), 43=-22 (LC 17), 44=-23 (LC 17), 45=-23 (LC 17), 46=-24 (LC 17), 47=-22 (LC 17), 48=-23 (LC 17), 49=-27 (LC 17), 50=-14 (LC 17), 52=-5 (LC 13), 53=-15 (LC 12), 54=-13 (LC 13), 55=-13 (LC 12), 56=-11 (LC 12), 57=-13 (LC 13), 58=-14 (LC 12), 59=-15 (LC 13), 60=-4 (LC 12), 62=-16 (LC 16), 63=-26 (LC 16), 64=-23 (LC 16), 65=-22 (LC 16), 66=-24 (LC 16), 67=-23 (LC 16), 68=-23 (LC 16), 69=-22 (LC 16), 70=-26 (LC 16), 71=-8 (LC 16), 72=-98 (LC 16), 73=-10 (LC 17)
Max Grav 39=94 (LC 33), 40=164 (LC 55), 41=160 (LC 2), 42=160 (LC 55), 43=160 (LC 2), 44=195 (LC 39), 45=226 (LC 39), 46=222 (LC 39), 47=223 (LC 39), 48=224 (LC 39), 49=225 (LC 39), 50=227 (LC 39), 51=158 (LC 38), 52=248 (LC 38), 53=243 (LC 38), 54=233 (LC 38), 55=239 (LC 38), 56=242 (LC 38), 57=239 (LC 38), 58=238 (LC 38), 59=243 (LC 38), 60=243 (LC 38), 61=157 (LC 38), 62=227 (LC 39), 63=225 (LC 39), 64=224 (LC 39), 65=223 (LC 39), 66=222 (LC 39), 67=226 (LC 39), 68=195 (LC 39), 69=160 (LC 2), 70=159 (LC 54), 71=167 (LC 2), 72=128 (LC 54), 73=201 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-73=-175/24, 1-2=0/47, 2-3=-177/55, 3-4=-135/60, 4-5=-111/68, 5-6=-90/76, 6-8=-71/92, 8-9=-65/107, 9-10=-51/123, 10-11=-58/138, 11-12=-70/157, 12-13=-80/187, 13-14=-91/218, 14-15=-101/245, 15-16=-91/239, 16-17=-91/239, 17-18=-91/239, 18-19=-91/239, 19-20=-92/239, 20-21=-92/239, 21-22=-91/239, 22-24=-91/239, 24-25=-91/238, 25-26=-100/245, 26-27=-91/218, 27-28=-80/187, 28-29=-69/157, 29-30=-58/126, 30-31=-47/96, 31-32=-42/66, 32-34=-34/42, 34-35=-48/29, 35-36=-63/23, 36-37=-87/30, 37-38=-123/44, 38-39=-66/0



March 22,2023

Continued on page 2

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

BOT CHORD 72-73=-38/108, 71-72=-38/108, 70-71=-38/108, 69-70=-38/108, 68-69=-38/108, 67-68=-38/108, 66-67=-38/108, 64-66=-38/108, 63-64=-37/107, 62-63=-37/107, 61-62=-37/107, 60-61=-37/107, 59-60=-37/107, 58-59=-37/107, 56-58=-37/107, 54-56=-37/107, 53-54=-37/107, 52-53=-38/108, 51-52=-38/108, 50-51=-38/108, 49-50=-38/108, 48-49=-38/108, 46-48=-38/108, 45-46=-38/108, 44-45=-38/108, 43-44=-38/108, 42-43=-38/108, 41-42=-38/108, 40-41=-38/108, 39-40=-38/108

WEBS 25-51=-118/0, 24-52=-209/29, 23-53=-203/41, 22-54=-195/38, 21-55=-199/38, 20-56=-200/38, 19-57=-199/38, 18-58=-199/38, 17-59=-203/41, 16-60=-203/28, 15-61=-117/0, 14-62=-187/43, 13-63=-186/59, 12-64=-183/55, 11-65=-183/54, 10-66=-183/55, 9-67=-186/54, 8-68=-155/54, 6-69=-120/54, 5-70=-119/55, 4-71=-125/53, 3-72=-94/86, 26-50=-187/43, 27-49=-186/59, 28-48=-183/55, 29-47=-183/54, 30-46=-183/55, 31-45=-186/54, 32-44=-155/54, 34-43=-120/54, 35-42=-120/55, 36-41=-120/51, 37-40=-121/78

NOTES

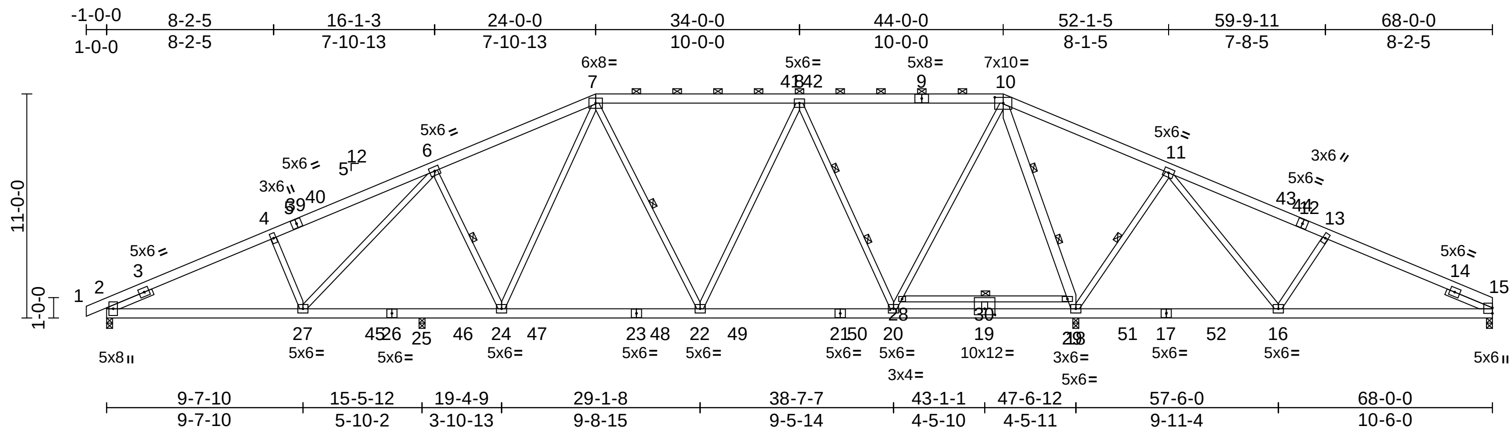
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and 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=15.8 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
9) Provide adequate drainage to prevent water ponding.
10) Gable requires continuous bottom chord bearing.
11) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
12) Gable studs spaced at 2-0-0 oc.
13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
14) * 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.
15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 73, 5 lb uplift at joint 52, 15 lb uplift at joint 53, 13 lb uplift at joint 54, 13 lb uplift at joint 55, 11 lb uplift at joint 56, 13 lb uplift at joint 57, 14 lb uplift at joint 58, 15 lb uplift at joint 59, 4 lb uplift at joint 60, 16 lb uplift at joint 62, 26 lb uplift at joint 63, 23 lb uplift at joint 64, 22 lb uplift at joint 65, 24 lb uplift at joint 66, 23 lb uplift at joint 67, 23 lb uplift at joint 68, 22 lb uplift at joint 69, 26 lb uplift at joint 70, 8 lb uplift at joint 71, 98 lb uplift at joint 72, 14 lb uplift at joint 50, 27 lb uplift at joint 49, 23 lb uplift at joint 48, 22 lb uplift at joint 47, 24 lb uplift at joint 46, 23 lb uplift at joint 45, 23 lb uplift at joint 44, 22 lb uplift at joint 43, 26 lb uplift at joint 42, 11 lb uplift at joint 41 and 80 lb uplift at joint 40.
16) 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.
17) 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: 1-2=-52, 2-15=-52, 15-25=-60, 25-38=-52, 39-73=-20

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A01H	Piggyback Base	7	1	I57322062 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,   Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:38   Page: 1
ID:bAO3Dj9pqi7z3qc1rN?rjozZ3AM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:113

Plate Offsets (X, Y): [2:0-4-9,0-1-6], [10:0-5-0,0-3-7], [30:0-6-0,0-3-8]

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	0.70	Vert(LL)	-0.22	22-24	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.40	22-24	>960	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.07	18	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 520 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 7-9:2x6 SP DSS
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 20-10:2x4 SP No.2, 18-10:2x6 SP No.2
SLIDER Left 2x4 SP No.3 -- 2-5-0, Right 2x4 SP No.3 -- 2-5-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-8 oc purlins, except 2-0-0 oc purlins (5-9-13 max.): 7-10.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS 1 Row at midpt 6-24, 7-22, 11-18, 28-29
WEBS 2 Rows at 1/3 pts 8-20, 10-18

REACTIONS (size) 2=0-3-8, 15=0-3-8, 18=0-3-8, (req. 0-3-14), 25=0-3-8
Max Horiz 2=142 (LC 16)
Max Uplift 2=-113 (LC 16), 15=-69 (LC 17), 18=-50 (LC 17), 25=-7 (LC 16)
Max Grav 2=1479 (LC 54), 15=492 (LC 55), 18=3302 (LC 39), 25=589 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/38, 2-4=-2556/356, 4-6=-2441/396, 6-7=-1920/374, 7-8=-1580/291, 8-10=-841/204, 10-11=-[illegible]/128, 11-13=-367/358, 13-15=-527/261
BOT CHORD 2-27=-260/2300, 25-27=-170/1959, 24-25=-170/1959, 22-24=-59/1565, 20-22=0/1459, 19-20=-241/191, 18-19=-241/191, 16-18=-588/131, 15-16=-165/486

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

WEBS 4-27=-379/184, 6-27=-58/349, 6-24=-899/240, 7-24=-93/715, 7-22=-507/144, 8-22=-12/871, 8-20=-1540/225, 20-28=-105/1730, 10-28=-108/1791, 10-29=-2575/263, 18-29=-2601/263, 11-18=-1147/247, 11-16=-59/794, 13-16=-481/195, 28-30=-148/10, 29-30=-148/10, 19-30=-11/8

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
8) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
11) WARNING: Required bearing size at joint(s) 18 greater than input bearing size.

March 22,2023

Continued on page 2

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

12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 2, 50 lb uplift at joint 18, 69 lb uplift at joint 15 and 7 lb uplift at joint 25.
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.

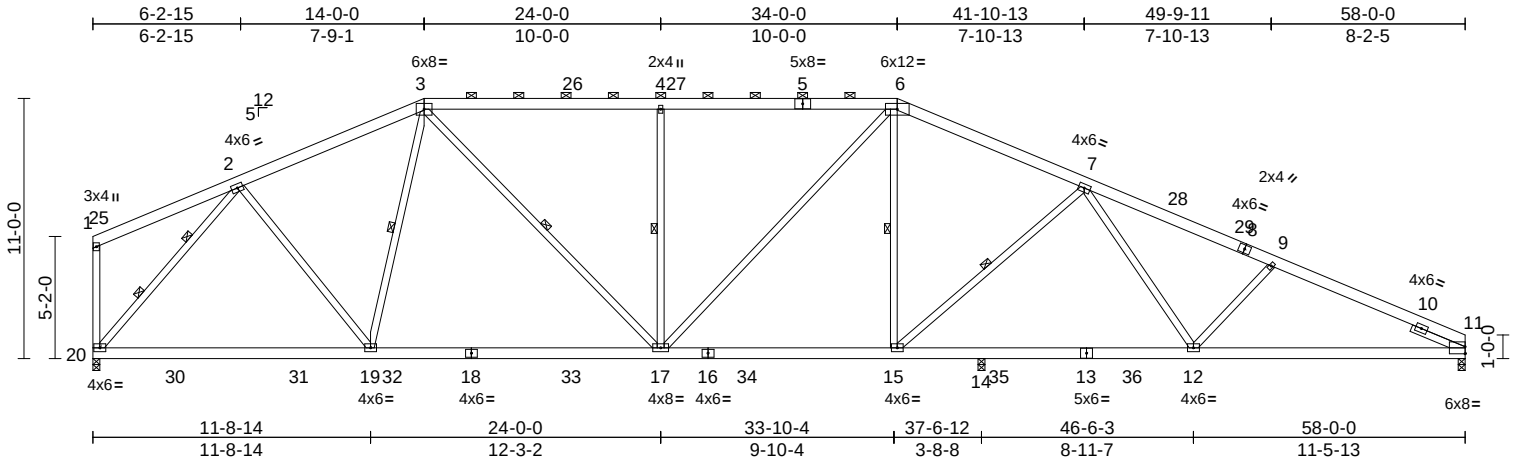
LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-7=-52, 7-10=-60, 10-15=-52, 31-35=-20

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A02	Piggyback Base	2	1	I57322063 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:39 Page: 1
ID:UmDsmXpJtc299HJbZQUlSPzZ39V-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:97.4

Plate Offsets (X, Y): [11:Edge,0-3-9]

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	0.96	Vert(LL)	-0.28	15-17	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.52	15-17	>860	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.11	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 437 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 3-5:2x6 SP DSS
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 2-5-0

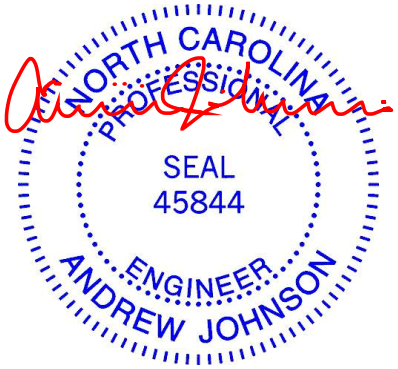
BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-19, 3-17, 4-17, 6-15, 7-15
WEBS 2 Rows at 1/3 pts 2-20

REACTIONS (size) 11=0-3-8, 14=0-3-8, 20=0-3-8
Max Horiz 20=-138 (LC 21)
Max Uplift 11=-122 (LC 17), 20=-71 (LC 16)
Max Grav 11=1916 (LC 38), 14=833 (LC 44), 20=2304 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-125/110, 2-3=-2447/371, 3-4=-3042/473, 4-6=-3042/473, 6-7=-2699/465, 7-9=-3453/498, 9-11=-3688/521, 1-20=-210/85
BOT CHORD 19-20=-88/1654, 17-19=-65/2290, 15-17=-128/2452, 14-15=-295/2974, 12-14=-295/2974, 11-12=-400/3330
WEBS 2-20=-2557/337, 3-19=-524/128, 2-19=0/1024, 3-17=-119/1173, 4-17=-1167/213, 6-17=-65/860, 6-15=-138/305, 7-15=-1011/225, 7-12=0/392, 9-12=-347/183

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 71 lb uplift at joint 20 and 122 lb uplift at joint 11.
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) 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: 1-3=-52, 3-6=-60, 6-11=-52, 20-21=-20



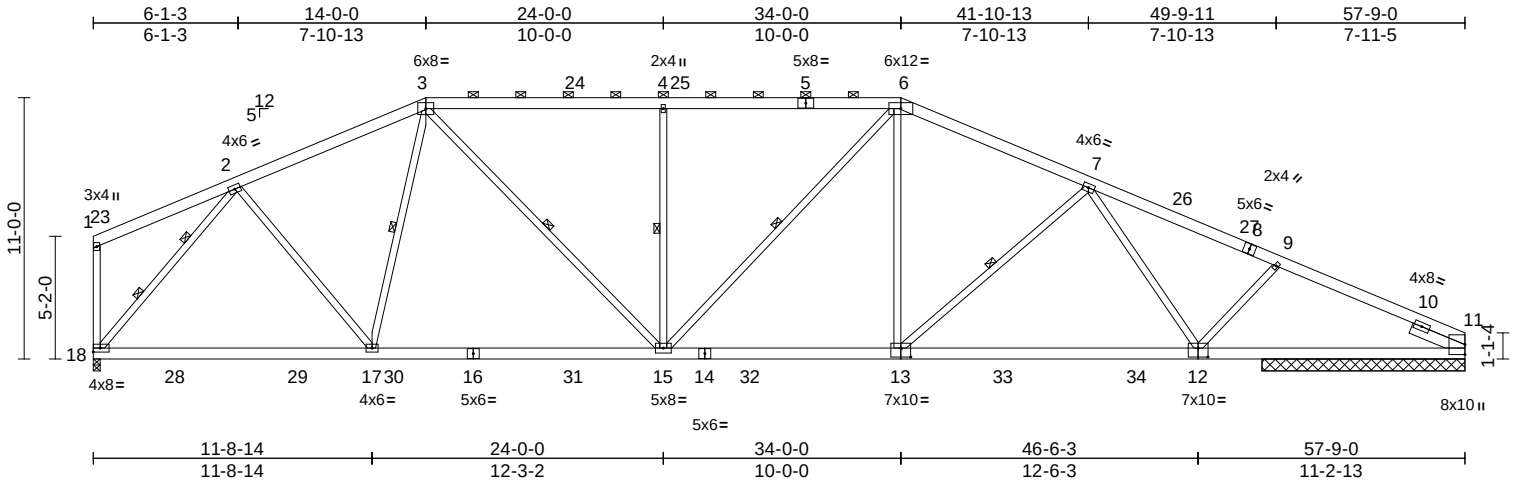
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A03	Piggyback Base	1	1	I57322064 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:40 Page: 1
ID:rXc0WgVRhp6DtubMrBUtjDzZ38d-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:97

Plate Offsets (X, Y): [12:0-5-0,0-4-8], [13:0-5-0,0-4-8]

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	0.71	Vert(LL)	-0.41	12-13	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.74	12-13	>939	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.87	Horz(CT)	0.18	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 438 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP DSS *Except* 1-3,6-8:2x6 SP No.2
BOT CHORD 2x6 SP DSS *Except* 16-14:2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 18-2:2x4 SP No.2
SLIDER Right 2x6 SP No.2 -- 2-5-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 3-15, 4-15, 6-15, 7-13
WEBS 2 Rows at 1/3 pts 2-18

REACTIONS (size) 11=8-6-8, 18=0-3-8
Max Horiz 18=-137 (LC 14)
Max Uplift 11=-102 (LC 17), 18=-46 (LC 16)
Max Grav 11=2373 (LC 38), 18=2589 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-120/109, 2-3=-2813/375, 3-4=-3627/482, 4-6=-3627/482, 6-7=-3741/483, 7-9=-4586/513, 9-11=-4720/532, 1-18=-198/81
BOT CHORD 17-18=-94/1869, 15-17=-74/2651, 11-15=-409/4231
WEBS 2-18=-2928/343, 3-17=-619/132, 2-17=0/1218, 3-15=-123/1457, 4-15=-1165/212, 6-15=-289/422, 6-13=-19/1124, 7-13=-1098/224, 7-12=0/463, 9-12=-178/191

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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 46 lb uplift at joint 18 and 102 lb uplift at joint 11.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

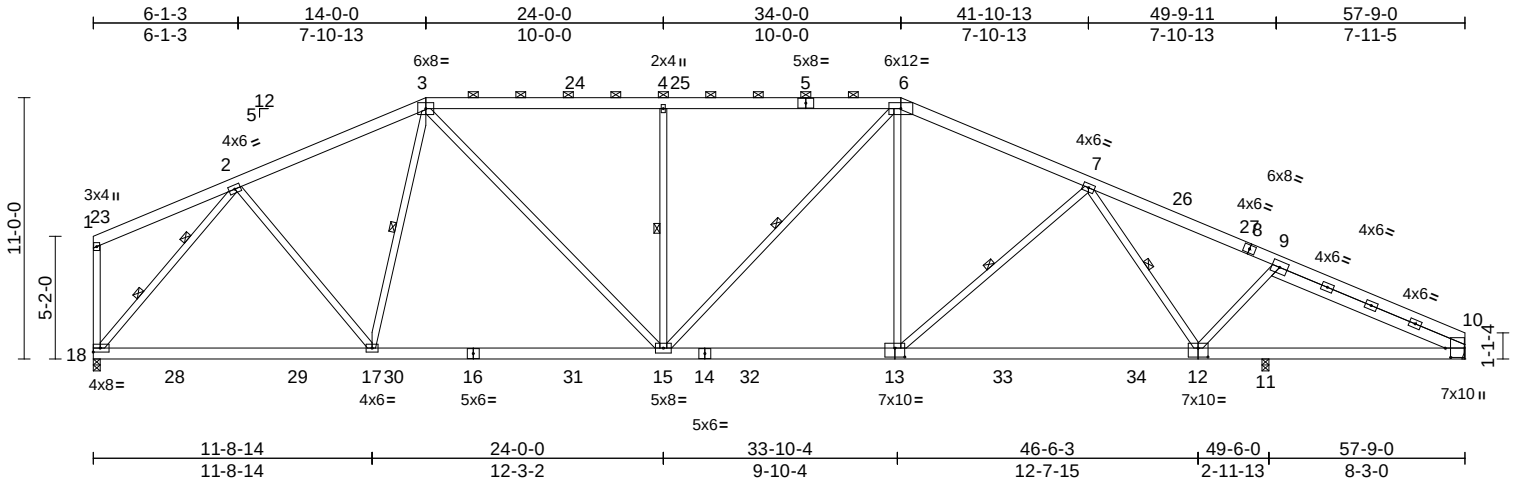
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-3=-52, 3-6=-60, 6-11=-52, 18-19=-20

March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A04	Piggyback Base	2	1	I57322065
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:41 Page: 1
ID:cugKurCSoxYrSycio42jcfzZ37i-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:97

Plate Offsets (X, Y): [10:0-4-12,0-2-12], [12:0-5-0,0-4-8], [13:0-5-0,0-4-8]

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	0.58	Vert(LL)	-0.39	12-13	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.72	12-13	>819	180		
TCDL	10.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.14	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 453 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP DSS *Except* 1-3,6-8:2x6 SP No.2
BOT CHORD 2x6 SP DSS *Except* 16-14:2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Right 2x6 SP No.2 -- 8-8-3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-4-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-10 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 4-15, 6-15, 7-13, 7-12
WEBS 2 Rows at 1/3 pts 2-18

REACTIONS (size) 10= Mechanical, 11=0-3-8, 18=0-3-8
Max Horiz 18=-137 (LC 14)
Max Uplift 10=-90 (LC 17), 11=-14 (LC 17), 18=-52 (LC 16)
Max Grav 10=1861 (LC 44), 11=654 (LC 38), 18=2500 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-120/108, 2-3=-2707/364, 3-4=-3440/464, 4-6=-3440/464, 6-7=-3453/453, 7-9=-3772/435, 9-10=-865/146, 1-18=-199/81
BOT CHORD 17-18=-87/1797, 15-17=-63/2543, 11-15=-331/3466, 10-11=-331/3466
WEBS 2-18=-2814/333, 3-17=-574/129, 2-17=0/1167, 3-15=-112/1336, 4-15=-1164/211, 6-15=-194/518, 6-13=0/917, 7-13=-717/190, 7-12=-326/88, 9-12=-194/173

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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) Provide adequate drainage to prevent water ponding.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 18, 90 lb uplift at joint 10 and 14 lb uplift at joint 11.
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) 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: 1-3=-52, 3-6=-60, 6-10=-52, 18-19=-20

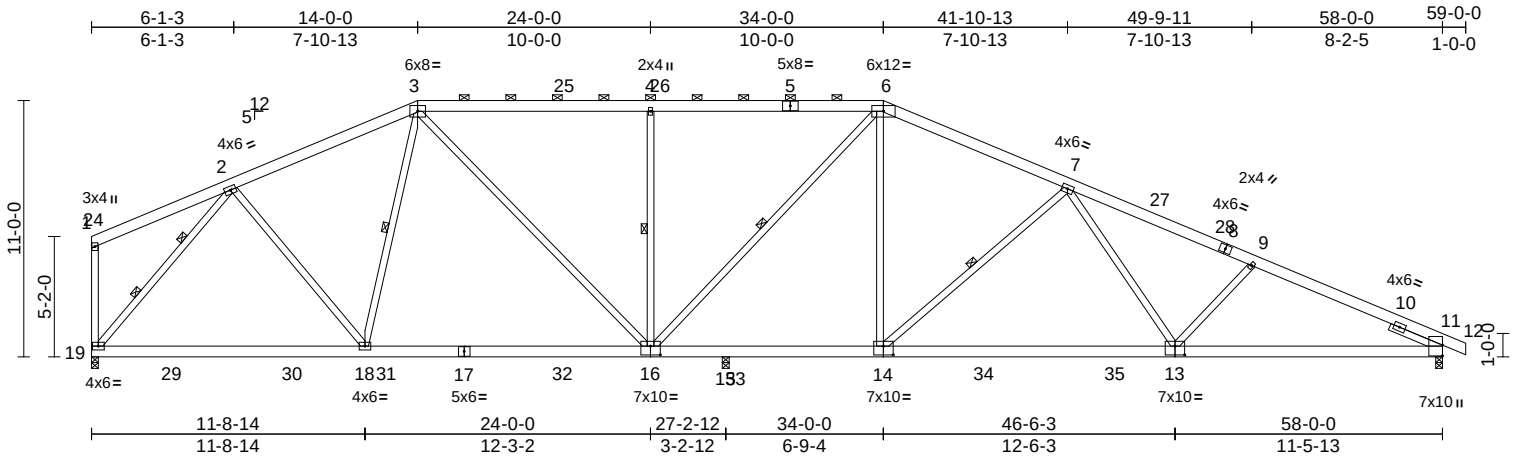
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A05	Piggyback Base	6	1	I57322066
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:42 ID:opQmv2yLC_L2uULdR59F7kzZ36k-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:98.9

Plate Offsets (X, Y): [13:0-5-0,0-4-8], [14:0-5-0,0-4-8], [16:0-5-0,0-4-8]

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	0.87	Vert(LL)	-0.41	13-14	>897	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.74	13-14	>499	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.13	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 440 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 3-5,8-12:2x6 SP DSS
BOT CHORD	2x6 SP DSS
WEBS	2x4 SP No.3
SLIDER	Right 2x4 SP No.3 -- 2-5-0

BRACING

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

REACTIONS (size) 11=0-3-8, 15=0-3-8, 19=0-3-8
Max Horiz 19=-149 (LC 21)
Max Uplift 11=-110 (LC 17), 15=-17 (LC 17), 19=-57 (LC 16)
Max Grav 11=2073 (LC 39), 15=829 (LC 44), 19=2168 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-116/114, 2-3=-2262/323, 3-4=-2594/383, 4-6=-2594/383, 6-7=-2768/389, 7-9=-3851/439, 9-11=-4028/462, 11-12=0/38, 1-19=-195/81
BOT CHORD	18-19=-36/1537, 15-18=-37/2515, 11-15=-324/3625
WEBS	2-19=-2407/295, 3-18=-342/186, 2-18=0/952, 3-16=-92/810, 4-16=-1171/213, 6-16=-448/230, 6-14=0/899, 7-14=-1199/234, 7-13=0/613, 9-13=-285/186

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= varies (min. roof snow=15.8 psf Lumber DOL=1.15 Plate DOL=1.00) see load cases; 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 19, 110 lb uplift at joint 11 and 17 lb uplift at joint 15.
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) 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: 1-3=-52, 3-6=-60, 6-12=-52, 19-20=-20

March 22,2023

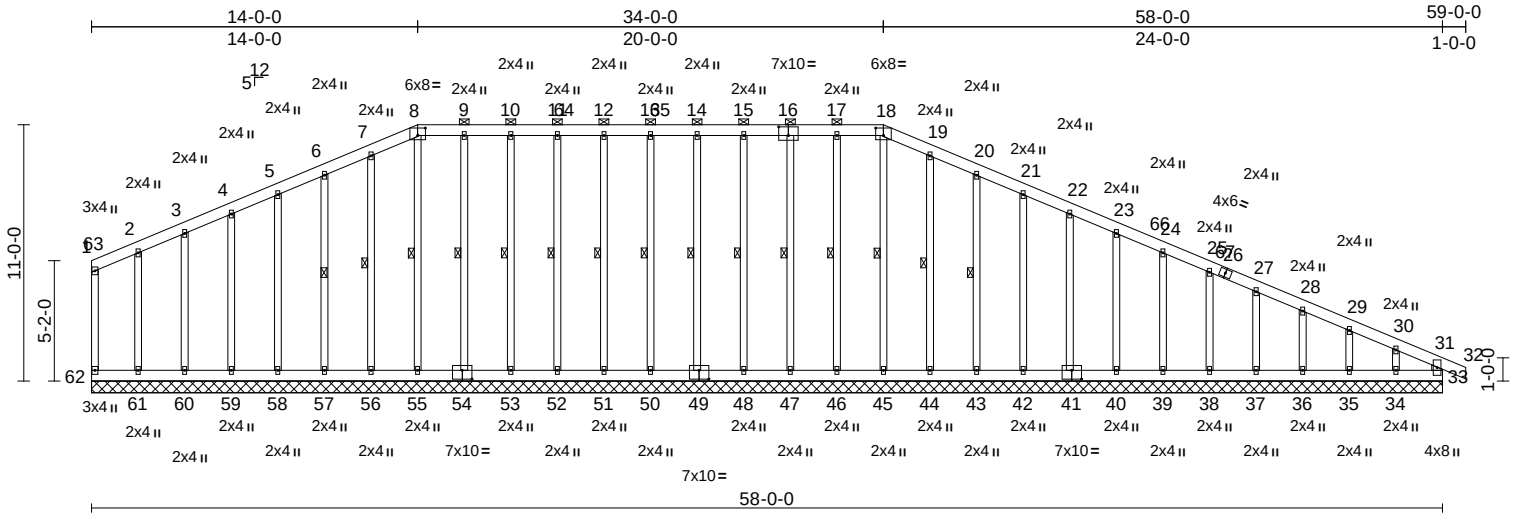
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	A05G	Piggyback Base Supported Gable	1	1	I57322067
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:43 ID:Kiz5zymMQaoXRnzVsgszLszZ35h-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:98.9

Plate Offsets (X, Y): [8:0-4-0,0-3-13], [16:0-5-0,0-4-8], [18:0-4-0,0-3-13], [41:0-5-0,0-4-8], [49:0-5-0,0-4-8], [54:0-5-0,0-4-8]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01	33	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 601 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 33-31:2x6 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, and 2-0-0 oc purlins (6-0-0 max.): 8-18.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 18-45, 17-46, 16-47, 15-48, 14-49, 13-50, 12-51, 11-52, 10-53, 9-54, 8-55, 7-56, 6-57, 19-44, 20-43

REACTIONS (size) 33=58-0-0, 34=58-0-0, 35=58-0-0, 36=58-0-0, 37=58-0-0, 38=58-0-0, 39=58-0-0, 40=58-0-0, 41=58-0-0, 42=58-0-0, 43=58-0-0, 44=58-0-0, 45=58-0-0, 46=58-0-0, 47=58-0-0, 48=58-0-0, 49=58-0-0, 50=58-0-0, 51=58-0-0, 52=58-0-0, 53=58-0-0, 54=58-0-0, 55=58-0-0, 56=58-0-0, 57=58-0-0, 58=58-0-0, 59=58-0-0, 60=58-0-0, 61=58-0-0, 62=58-0-0

Max Horiz 62=-149 (LC 12)

Max Uplift 34=-102 (LC 17), 35=-7 (LC 17), 36=-26 (LC 17), 37=-22 (LC 17), 38=-23 (LC 17), 39=-22 (LC 17), 40=-25 (LC 17), 41=-22 (LC 17), 42=-23 (LC 17), 43=-26 (LC 17), 44=-17 (LC 17), 46=-9 (LC 12), 47=-15 (LC 13), 48=-13 (LC 12), 49=-12 (LC 13), 50=-12 (LC 12), 51=-13 (LC 13), 52=-13 (LC 13), 53=-14 (LC 13), 54=-8 (LC 12), 56=-16 (LC 16), 57=-26 (LC 16), 58=-23 (LC 16), 59=-22 (LC 16), 60=-26 (LC 16), 61=-22 (LC 16), 62=-14 (LC 17)

Max Grav 33=202 (LC 22), 34=132 (LC 55), 35=166 (LC 2), 36=159 (LC 55), 37=160 (LC 2), 38=195 (LC 39), 39=226 (LC 39), 40=222 (LC 39), 41=223 (LC 39), 42=224 (LC 39), 43=225 (LC 39), 44=228 (LC 39), 45=161 (LC 38), 46=249 (LC 38), 47=243 (LC 38), 48=233 (LC 38), 49=239 (LC 38), 50=241 (LC 38), 51=239 (LC 38), 52=239 (LC 38), 53=244 (LC 38), 54=244 (LC 38), 55=159 (LC 38), 56=228 (LC 39), 57=225 (LC 39), 58=222 (LC 39), 59=222 (LC 39), 60=225 (LC 39), 61=230 (LC 39), 62=87 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-62=-73/59, 1-2=-69/83, 2-3=-76/107, 3-4=-87/138, 4-5=-97/168, 5-6=-108/198, 6-7=-119/229, 7-8=-128/256, 8-9=-117/249, 9-10=-117/249, 10-11=-117/249, 11-12=-117/249, 12-13=-117/249, 13-14=-117/249, 14-15=-117/249, 15-17=-117/249, 17-18=-116/248, 18-19=-128/255, 19-20=-119/229, 20-21=-107/198, 21-22=-97/167, 22-23=-85/137, 23-24=-75/107, 24-25=-69/77, 25-27=-84/52, 27-28=-103/62, 28-29=-121/73, 29-30=-143/82, 30-31=-187/99, 31-32=0/47, 31-33=-175/30

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

March 22,2023

Continued on page 2

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

BOT CHORD 61-62=-99/196, 60-61=-99/196, 59-60=-99/196, 58-59=-99/196, 57-58=-99/196, 56-57=-99/196, 55-56=-99/196, 53-55=-99/196, 52-53=-98/195, 51-52=-98/195, 50-51=-98/195, 48-50=-99/196, 47-48=-99/196, 46-47=-99/196, 45-46=-99/196, 44-45=-99/196, 43-44=-99/196, 42-43=-99/196, 40-42=-100/197, 39-40=-100/197, 38-39=-100/197, 37-38=-100/197, 36-37=-100/197, 35-36=-100/197, 34-35=-100/197, 33-34=-100/197

WEBS 18-45=-121/0, 17-46=-209/33, 16-47=-203/41, 15-48=-195/38, 14-49=-199/38, 13-50=-200/38, 12-51=-199/38, 11-52=-199/38, 10-53=-203/41, 9-54=-204/32, 8-55=-121/0, 7-56=-187/47, 6-57=-185/59, 5-58=-182/55, 4-59=-182/54, 3-60=-185/56, 2-61=-187/62, 19-44=-187/47, 20-43=-185/59, 21-42=-183/55, 22-41=-183/54, 23-40=-183/55, 24-39=-186/54, 25-38=-155/54, 27-37=-120/54, 28-36=-119/55, 29-35=-125/53, 30-34=-96/97

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=15.8 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) Gable requires continuous bottom chord bearing.
10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
11) Gable studs spaced at 2-0-0 oc.
12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
13) * 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.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 62, 9 lb uplift at joint 46, 15 lb uplift at joint 47, 13 lb uplift at joint 48, 12 lb uplift at joint 49, 12 lb uplift at joint 50, 13 lb uplift at joint 51, 13 lb uplift at joint 52, 14 lb uplift at joint 53, 8 lb uplift at joint 54, 16 lb uplift at joint 56, 26 lb uplift at joint 57, 23 lb uplift at joint 58, 22 lb uplift at joint 59, 26 lb uplift at joint 60, 22 lb uplift at joint 61, 17 lb uplift at joint 44, 26 lb uplift at joint 43, 23 lb uplift at joint 42, 22 lb uplift at joint 41, 25 lb uplift at joint 40, 22 lb uplift at joint 39, 23 lb uplift at joint 38, 22 lb uplift at joint 37, 26 lb uplift at joint 36, 7 lb uplift at joint 35 and 102 lb uplift at joint 34.
15) 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.
16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

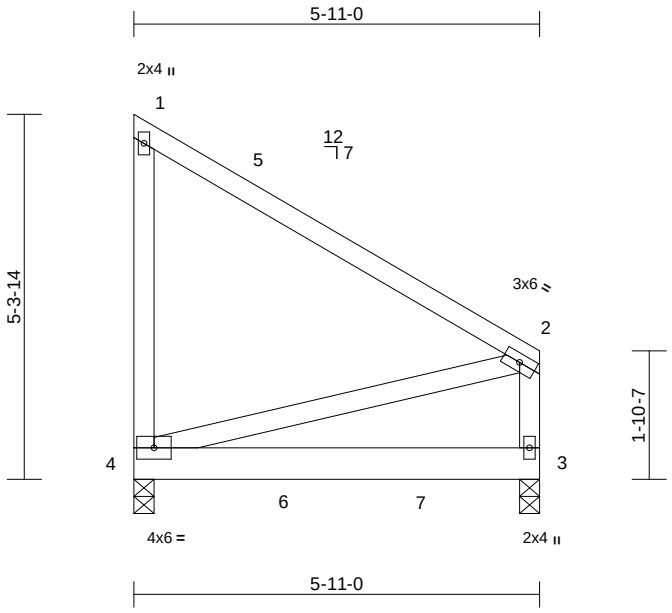
LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 1-8=-52, 8-18=-60, 18-31=-52, 31-32=-52, 33-62=-20

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	B01	Roof Special Girder	1	2	I57322068
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:46 ID:tbWQ1taOe9E1z4bNHEZgZ_zZ34e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.6

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	0.37	Vert(LL)	-0.13	3-4	>509	240	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.25	3-4	>267	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 82 lb	FT = 20%

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

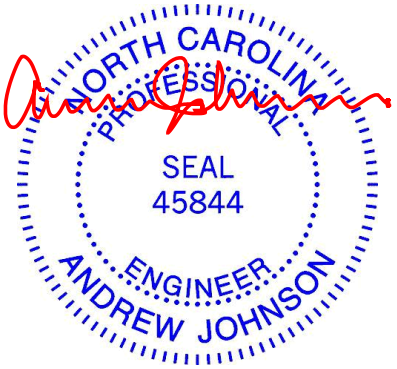
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=0-3-8, 4=0-3-8
Max Horiz 4=-141 (LC 8)
Max Uplift 3=-105 (LC 13), 4=-136 (LC 8)
Max Grav 3=2160 (LC 6), 4=1869 (LC 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-179/59, 1-2=-113/87, 2-3=-169/28
BOT CHORD 3-4=-16/12
WEBS 2-4=-72/102

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 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) 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
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=13.2 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) 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 105 lb uplift at joint 3 and 136 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.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1841 lb down and 102 lb up at 2-2-4, and 1841 lb down and 102 lb up at 4-2-4 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: 1-2=-46, 3-4=-20
Concentrated Loads (lb)
Vert: 6=-1793 (B), 7=-1793 (B)



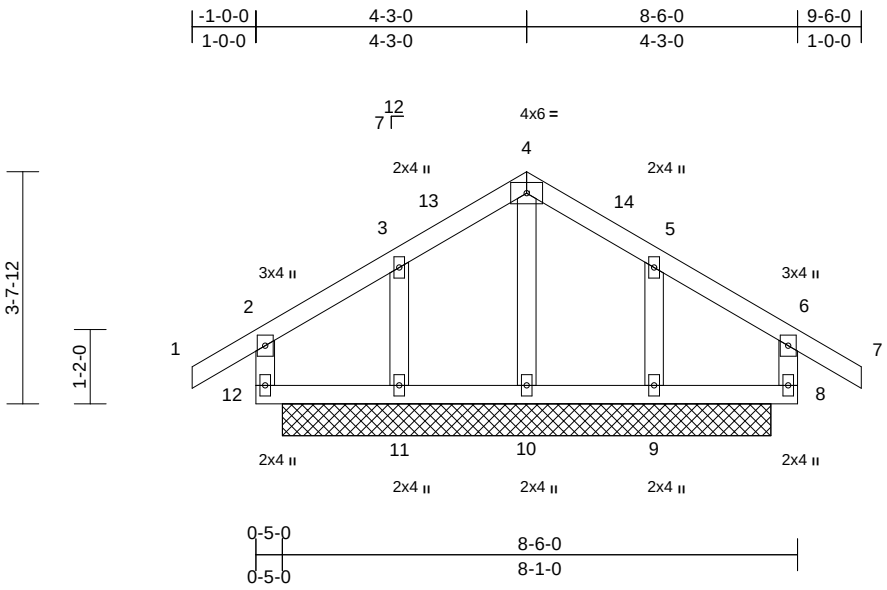
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades	I57322069
CCP	B01G	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:46 Page: 1
ID:_0hdU3wubGIqtduoZB4nqOzZ35V-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 44 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 or 8-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 9=7-8-0, 10=7-8-0, 11=7-8-0
Max Horiz 11=-86 (LC 14)
Max Uplift 9=-66 (LC 17), 11=-66 (LC 16)
Max Grav 9=365 (LC 35), 10=177 (LC 2), 11=365 (LC 34)

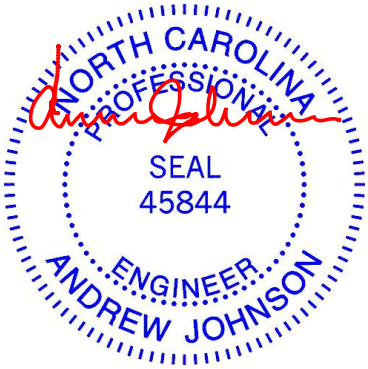
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-12=-35/36, 1-2=0/58, 2-3=-28/190, 3-4=-1/164, 4-5=-2/164, 5-6=-28/190, 6-7=0/58, 6-8=-35/36
BOT CHORD	11-12=-143/76, 10-11=-143/76, 9-10=-143/76, 8-9=-143/76
WEBS	4-10=-199/0, 3-11=-218/99, 5-9=-218/99

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=13.2 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 11 and 66 lb uplift at joint 9.
13) Non Standard bearing condition. Review required.
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

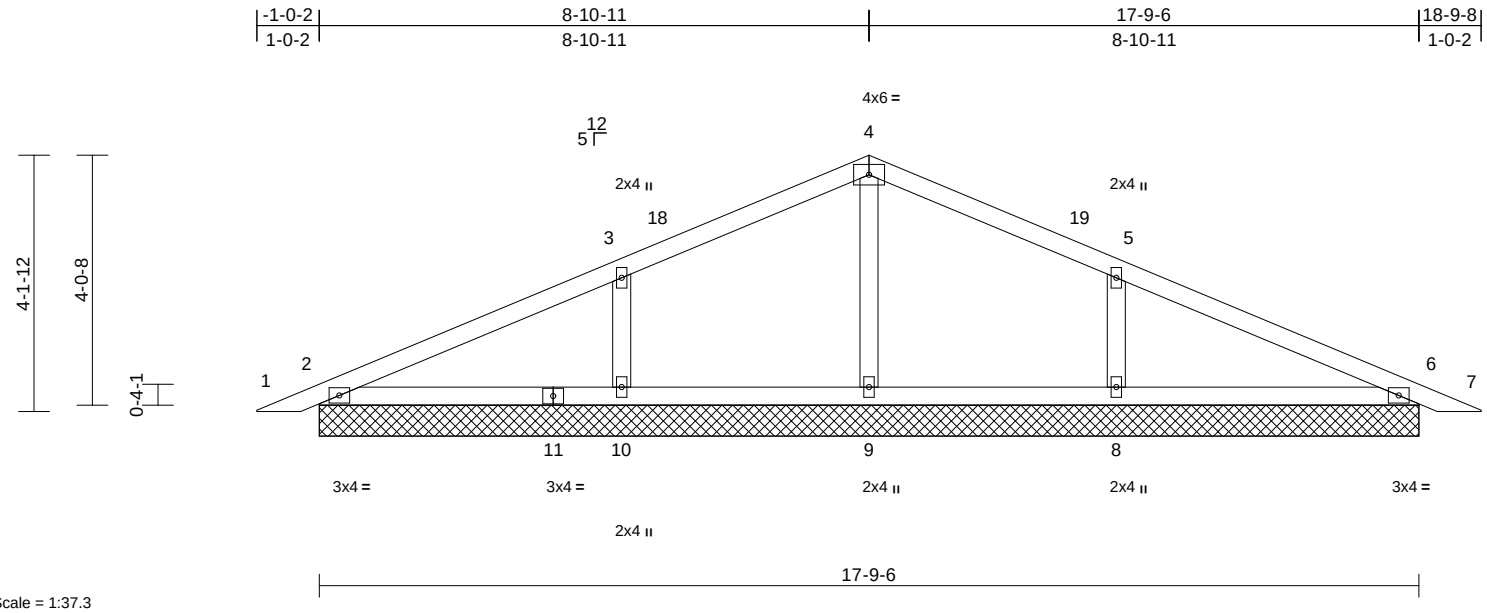


March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	PB01	Piggyback	19	1	I57322070 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:46 Page: 1
ID:nyr4cvksoZ8lnkCtyDyFQqzZ3G3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.3

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 69 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) 2=17-9-6, 6=17-9-6, 8=17-9-6, 9=17-9-6, 10=17-9-6, 12=17-9-6, 15=17-9-6
Max Horiz 2=52 (LC 20), 12=52 (LC 20)
Max Uplift 2=-8 (LC 16), 6=-17 (LC 17), 8=-65 (LC 17), 10=-66 (LC 16), 12=-8 (LC 16), 15=-17 (LC 17)
Max Grav 2=214 (LC 2), 6=214 (LC 2), 8=432 (LC 35), 9=215 (LC 2), 10=432 (LC 34), 12=214 (LC 2), 15=214 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-74/46, 3-4=-94/89, 4-5=-94/89, 5-6=-74/33, 6-7=0/25
BOT CHORD 2-10=-9/63, 9-10=0/52, 8-9=0/52, 6-8=0/62
WEBS 4-9=-163/14, 3-10=-306/126, 5-8=-306/126

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=15.8 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 2, 17 lb uplift at joint 6, 66 lb uplift at joint 10, 65 lb uplift at joint 8, 8 lb uplift at joint 2 and 17 lb uplift at joint 6.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

March 22,2023

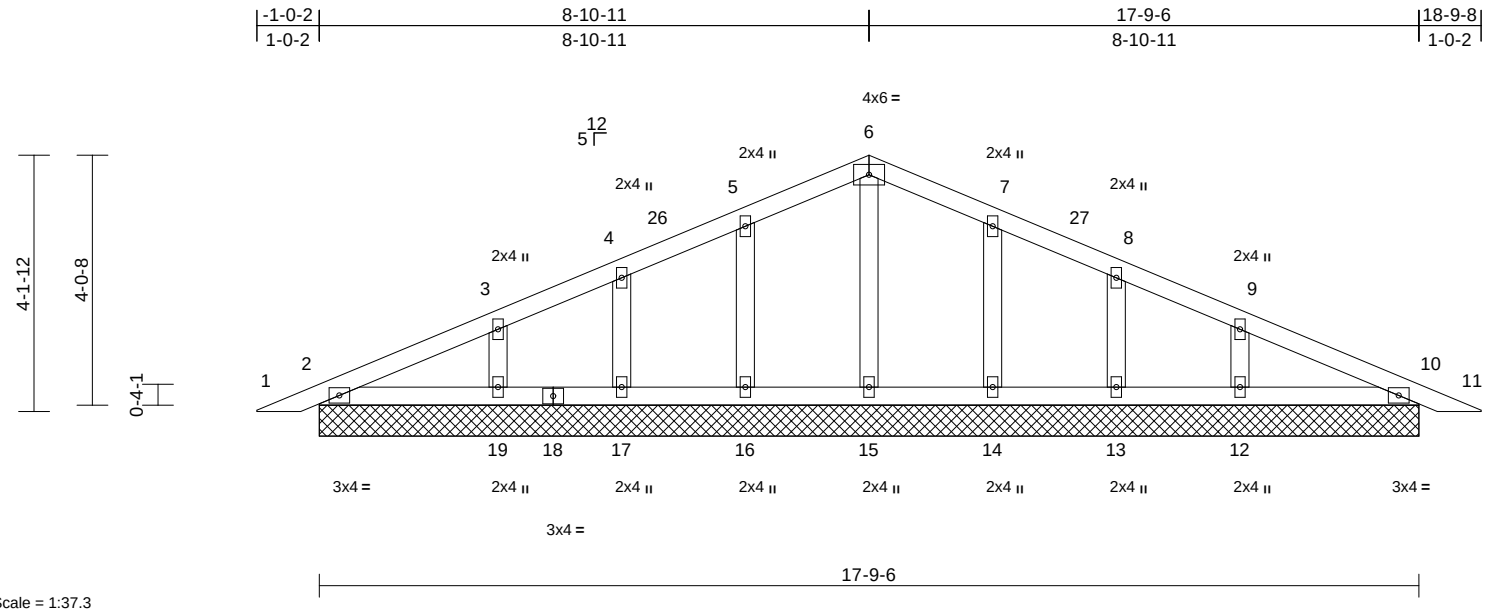
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	PB01G	Piggyback	2	1	I57322071 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:47 ID:eqObTbLjtEe3U3wnjZOHGazZ3Hs-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.3

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										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 or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

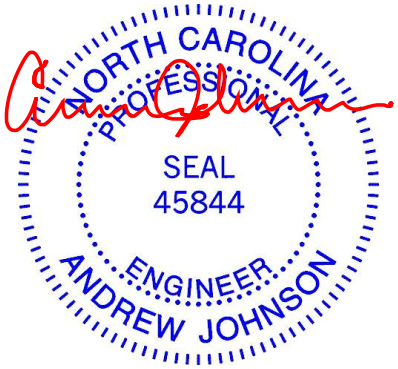
REACTIONS (size) 2=17-9-6, 10=17-9-6, 12=17-9-6, 13=17-9-6, 14=17-9-6, 15=17-9-6, 16=17-9-6, 17=17-9-6, 19=17-9-6, 20=17-9-6, 23=17-9-6
Max Horiz 2=-52 (LC 17), 20=-52 (LC 17)
Max Uplift 2=-5 (LC 12), 10=-8 (LC 17), 12=-33 (LC 17), 13=-20 (LC 17), 14=-26 (LC 17), 16=-26 (LC 16), 17=-19 (LC 16), 19=-33 (LC 16), 20=-5 (LC 12), 23=-8 (LC 17)
Max Grav 2=144 (LC 2), 10=144 (LC 2), 12=230 (LC 35), 13=134 (LC 2), 14=194 (LC 24), 15=136 (LC 2), 16=194 (LC 23), 17=134 (LC 2), 19=230 (LC 34), 20=144 (LC 2), 23=144 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-3=-49/39, 3-4=-43/45, 4-5=-34/61, 5-6=-43/90, 6-7=-43/90, 7-8=-34/59, 8-9=-39/30, 9-10=-38/25, 10-11=0/25
BOT CHORD 2-19=-9/46, 17-19=-9/46, 16-17=-9/46, 15-16=-9/46, 14-15=-9/46, 13-14=-9/46, 12-13=-9/46, 10-12=-9/46
WEBS 6-15=-98/0, 5-16=-151/56, 4-17=-107/52, 3-19=-156/63, 7-14=-151/56, 8-13=-107/52, 9-12=-156/63

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=15.8 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) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 2, 26 lb uplift at joint 16, 19 lb uplift at joint 17, 33 lb uplift at joint 19, 26 lb uplift at joint 14, 20 lb uplift at joint 13, 33 lb uplift at joint 12, 8 lb uplift at joint 10, 5 lb uplift at joint 2 and 8 lb uplift at joint 10.
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



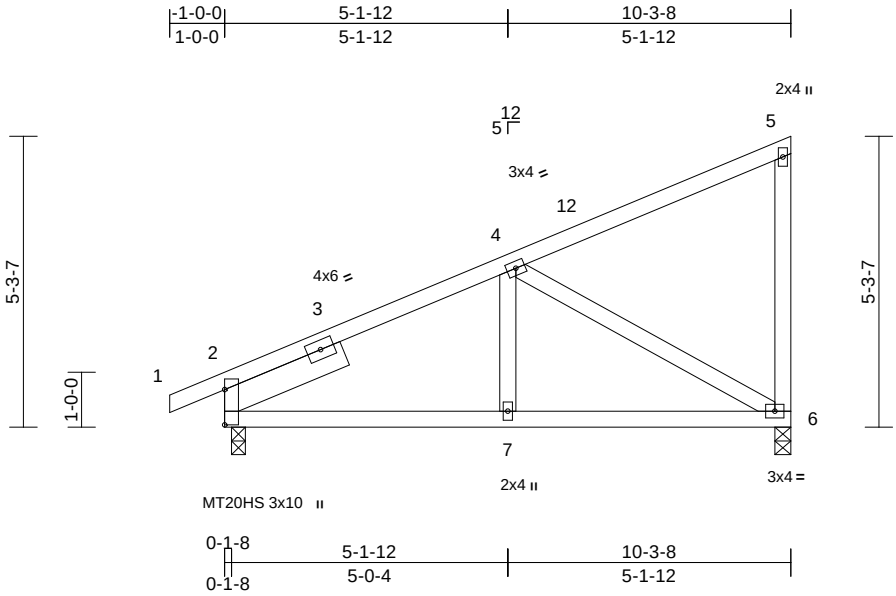
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	SP01	Monopitch	11	1	I57322072 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:47 Page: 1
ID:_HD33t7ZbUSQQEh33Gum0zzZ35E-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.9

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)	-0.02	6-7	>999	240	MT20	244/190
Snow (Ps/Pf)	15.8/20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.04	6-7	>999	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 58 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 6=0-3-8
Max Horiz 2=158 (LC 15)
Max Uplift 2=-28 (LC 16), 6=-49 (LC 16)
Max Grav 2=469 (LC 2), 6=423 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-4=-408/95, 4-5=-112/69, 5-6=-157/81
BOT CHORD 2-7=-259/412, 6-7=-193/412
WEBS 4-7=0/211, 4-6=-459/169

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=15.8 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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 28 lb uplift at joint 2 and 49 lb uplift at joint 6.
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

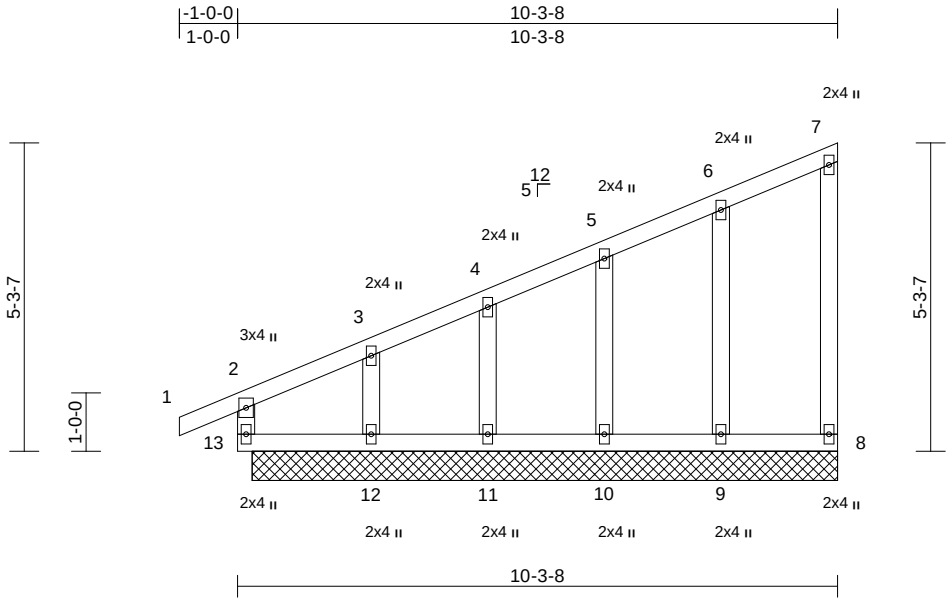
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	SP01G	Monopitch Supported Gable	1	1	I57322073 Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:48 Page: 1
ID:hTLGj6SUEnrb9OFG8Rt5cgzZ34p-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.5

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)	15.8/20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 57 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=10-0-8, 9=10-0-8, 10=10-0-8, 11=10-0-8, 12=10-0-8, 13=10-0-8
Max Horiz 13=164 (LC 13)
Max Uplift 8=-17 (LC 13), 9=-20 (LC 16), 10=-27 (LC 16), 11=-9 (LC 16), 12=-74 (LC 16)
Max Grav 8=70 (LC 23), 9=196 (LC 23), 10=163 (LC 23), 11=160 (LC 2), 12=159 (LC 2), 13=188 (LC 22)

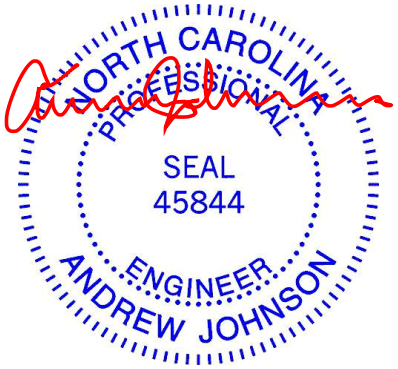
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-13=-162/28, 1-2=0/44, 2-3=-227/126, 3-4=-163/98, 4-5=-135/90, 5-6=-99/78, 6-7=-67/59, 7-8=-54/34
BOT CHORD	12-13=-64/69, 11-12=-64/69, 10-11=-64/69, 9-10=-64/69, 8-9=-64/69
WEBS	6-9=-154/80, 5-10=-123/74, 4-11=-121/59, 3-12=-116/140

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=15.8 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 greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 8, 20 lb uplift at joint 9, 27 lb uplift at joint 10, 9 lb uplift at joint 11 and 74 lb uplift at joint 12.
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.

LOAD CASE(S) Standard



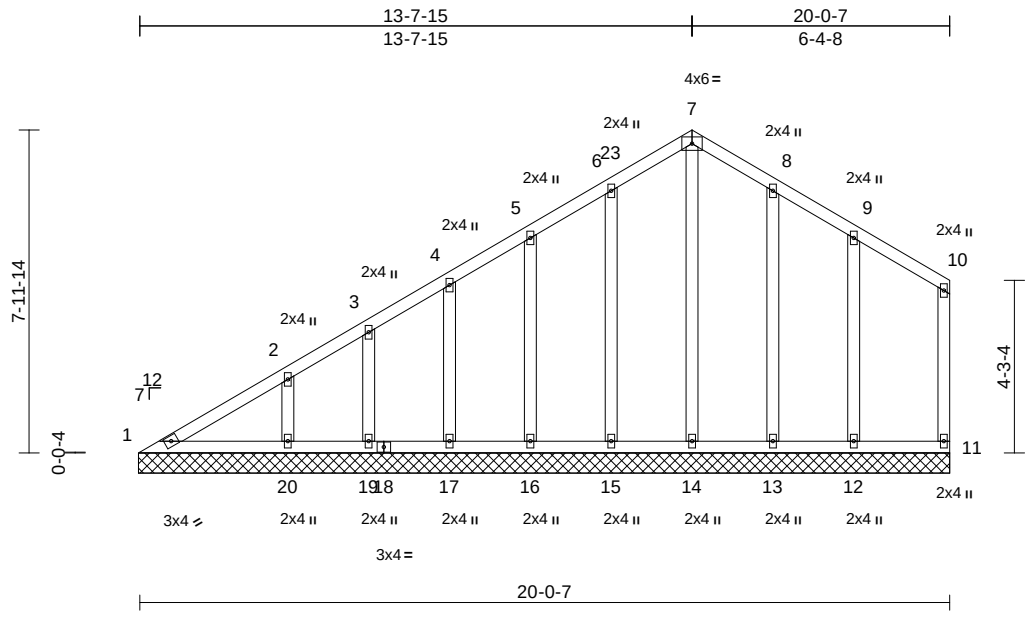
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades	I57322074
CCP	V01	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:48 Page: 1
ID:61y_hxMMeXmw5DVzHHvWpozZ3Hr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:57

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)	13.2/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 127 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

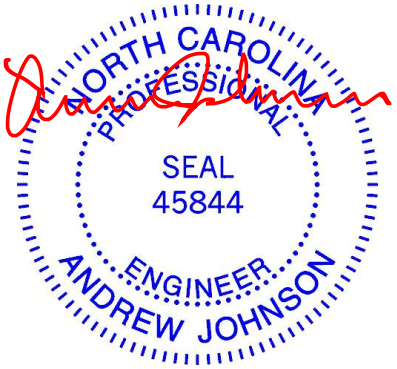
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=20-0-14, 11=20-0-14, 12=20-0-14, 13=20-0-14, 14=20-0-14, 15=20-0-14, 16=20-0-14, 17=20-0-14, 19=20-0-14, 20=20-0-14
Max Horiz 1=192 (LC 13)
Max Uplift 1=-19 (LC 12), 11=-15 (LC 16), 12=-40 (LC 17), 13=-32 (LC 17), 14=-10 (LC 15), 15=-32 (LC 16), 16=-34 (LC 16), 17=-34 (LC 16), 19=-29 (LC 16), 20=-46 (LC 16)
Max Grav 1=154 (LC 30), 11=94 (LC 30), 12=193 (LC 30), 13=199 (LC 23), 14=169 (LC 29), 15=172 (LC 29), 16=157 (LC 29), 17=176 (LC 29), 19=109 (LC 29), 20=300 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-249/157, 2-3=-161/125, 3-4=-142/126, 4-5=-134/122, 5-6=-123/130, 6-7=-150/166, 7-8=-150/166, 8-9=-120/130, 9-10=-85/91, 10-11=-85/63
BOT CHORD 1-20=-66/175, 19-20=-47/53, 17-19=-47/53, 16-17=-47/53, 15-16=-47/53, 14-15=-47/53, 13-14=-47/53, 12-13=-47/53, 11-12=-47/53
WEBS 7-14=-129/54, 6-15=-131/57, 5-16=-119/58, 4-17=-128/58, 3-19=-96/53, 2-20=-192/70, 8-13=-161/53, 9-12=-139/73

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=13.2 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 requires continuous bottom chord bearing.
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 15 lb uplift at joint 11, 19 lb uplift at joint 1, 10 lb uplift at joint 14, 32 lb uplift at joint 15, 34 lb uplift at joint 16, 34 lb uplift at joint 17, 29 lb uplift at joint 19, 46 lb uplift at joint 20, 32 lb uplift at joint 13 and 40 lb uplift at joint 12.
12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
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.

LOAD CASE(S) Standard



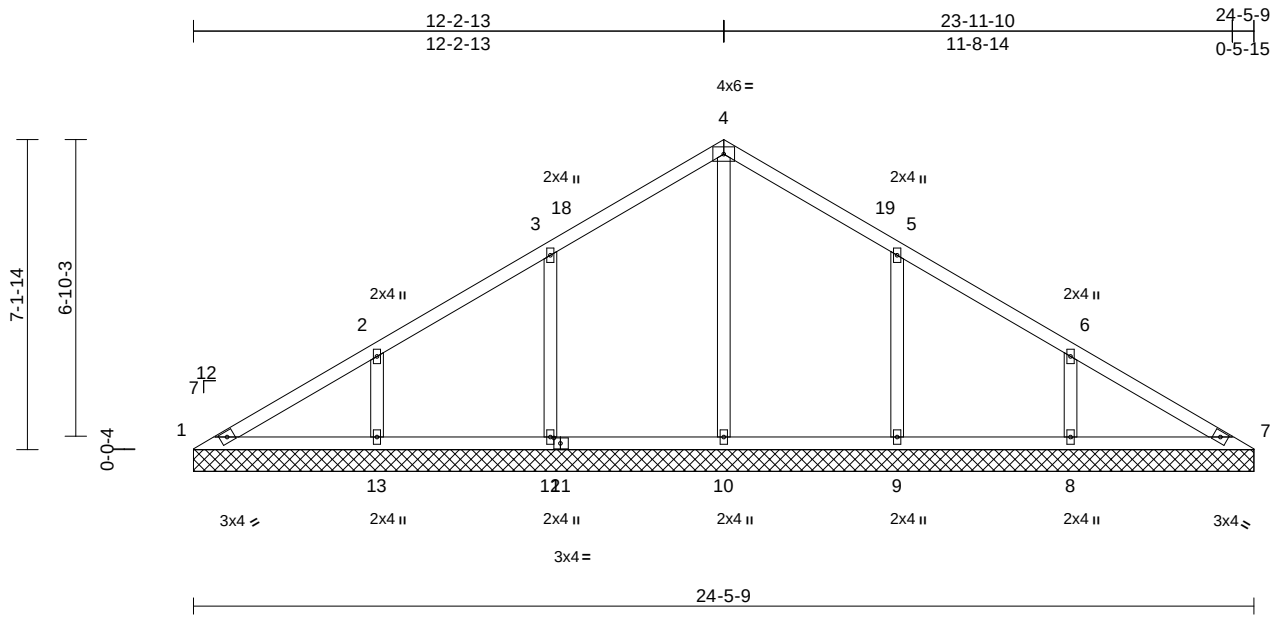
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V02	Valley	1	1	I57322075
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:49 Page: 1
ID:?y98nVzgpGYRUOKw?tAlRlzYQks-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:53.2

Plate Offsets (X, Y): [11:0-1-13,0-1-8]

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 105 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 6-0-0 oc bracing.

REACTIONS (size) 1=24-5-9, 7=24-5-9, 8=24-5-9, 9=24-5-9, 10=24-5-9, 12=24-5-9, 13=24-5-9
Max Horiz 1=-135 (LC 12)
Max Uplift 1=-3 (LC 12), 8=-66 (LC 17), 9=-74 (LC 17), 12=-74 (LC 16), 13=-67 (LC 16)
Max Grav 1=119 (LC 30), 7=116 (LC 34), 8=366 (LC 2), 9=386 (LC 30), 10=479 (LC 29), 12=379 (LC 29), 13=366 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-174/183, 2-3=-58/156, 3-4=-62/155, 4-5=-62/145, 5-6=-13/120, 6-7=-156/141
BOT CHORD 1-13=-106/162, 12-13=-106/88, 10-12=-106/88, 9-10=-106/88, 8-9=-106/88, 7-8=-106/130
WEBS 4-10=-278/0, 3-12=-257/124, 2-13=-254/107, 5-9=-257/124, 6-8=-254/106

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1, 74 lb uplift at joint 12, 67 lb uplift at joint 13, 74 lb uplift at joint 9 and 66 lb uplift at joint 8.
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

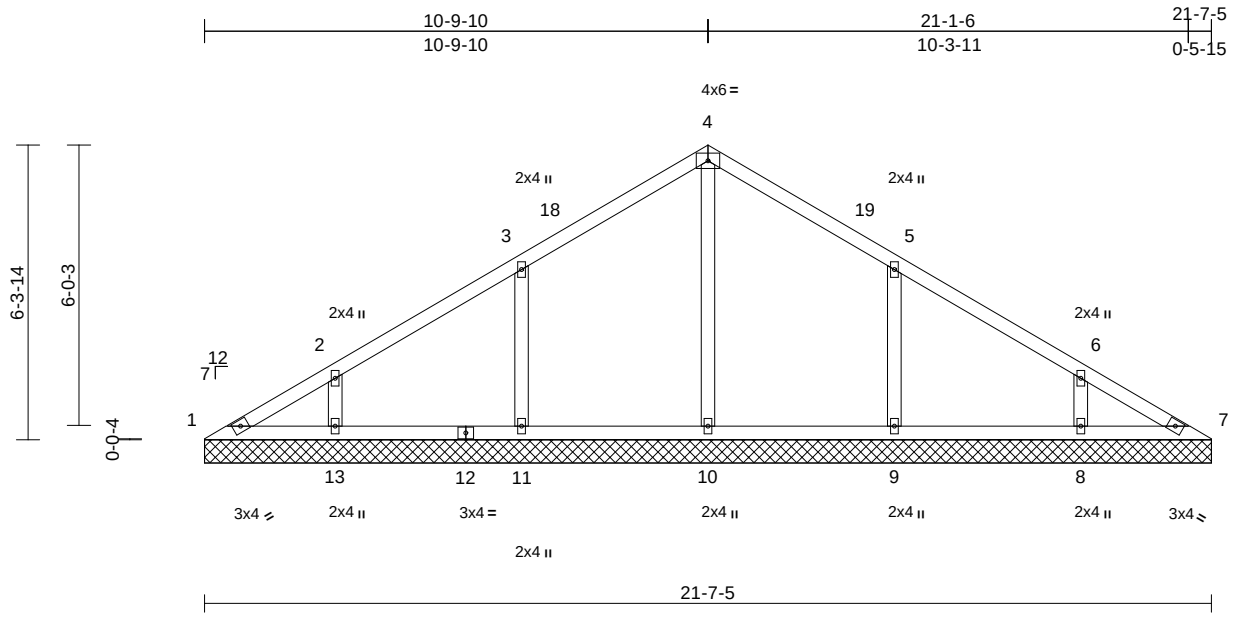
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V03	Valley	1	1	I57322076
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:49 Page: 1
ID:q5WP1Y1RP6IbCJn3L8HAh0zYQkm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.4

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 90 lb	FT = 20%

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

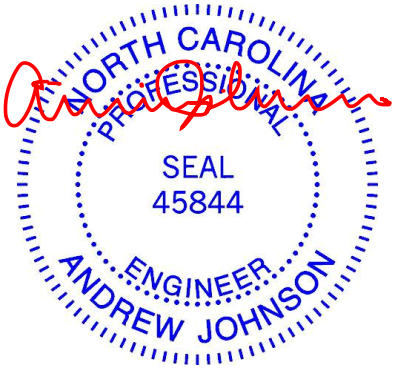
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=21-7-5, 7=21-7-5, 8=21-7-5, 9=21-7-5, 10=21-7-5, 11=21-7-5, 13=21-7-5
Max Horiz 1=119 (LC 13)
Max Uplift 1=-10 (LC 12), 8=-49 (LC 17), 9=-78 (LC 17), 11=-78 (LC 16), 13=-51 (LC 16)
Max Grav 1=99 (LC 30), 7=84 (LC 2), 8=298 (LC 2), 9=406 (LC 30), 10=406 (LC 29), 11=406 (LC 29), 13=298 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-142/105, 2-3=-103/95, 3-4=-108/118, 4-5=-108/112, 5-6=-67/63, 6-7=-107/66
BOT CHORD 1-13=-47/119, 11-13=-47/74, 10-11=-47/74, 9-10=-47/74, 8-9=-47/74, 7-8=-47/90
WEBS 4-10=-204/0, 3-11=-267/127, 2-13=-215/93, 5-9=-267/127, 6-8=-215/92

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 78 lb uplift at joint 11, 51 lb uplift at joint 13, 78 lb uplift at joint 9 and 49 lb uplift at joint 8.
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



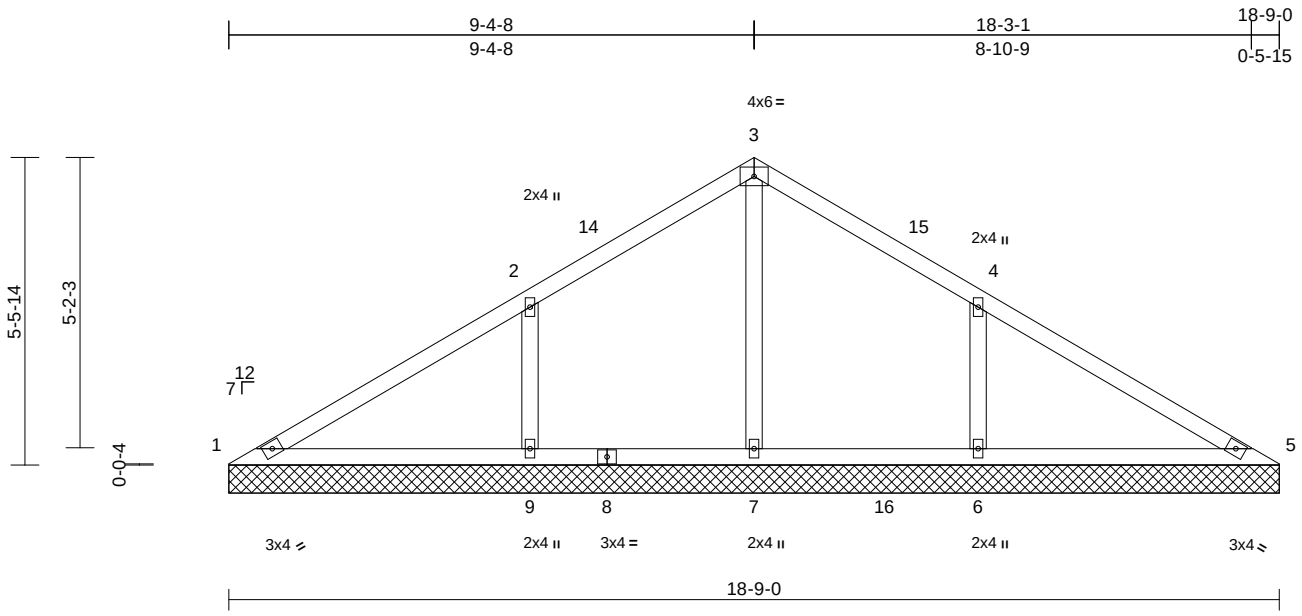
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V04	Valley	1	1	I57322077
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:49 Page: 1
ID:A3KI4F5aDewtI4f18htLO3zYQkh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:41.1

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 73 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 (size) 1=18-9-0, 5=18-9-0, 6=18-9-0, 7=18-9-0, 9=18-9-0
Max Horiz 1=-103 (LC 12)
Max Uplift 6=-92 (LC 17), 9=-93 (LC 16)
Max Grav 1=104 (LC 33), 5=104 (LC 34), 6=469 (LC 30), 7=515 (LC 29), 9=477 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-125/296, 2-3=0/251, 3-4=0/251, 4-5=-125/287
BOT CHORD 1-9=-200/113, 7-9=-200/75, 6-7=-200/75, 5-6=-200/104
WEBS 3-7=-392/0, 2-9=-317/136, 4-6=-317/135

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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, with BCDL = 10.0psf.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 9 and 92 lb uplift at joint 6.
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

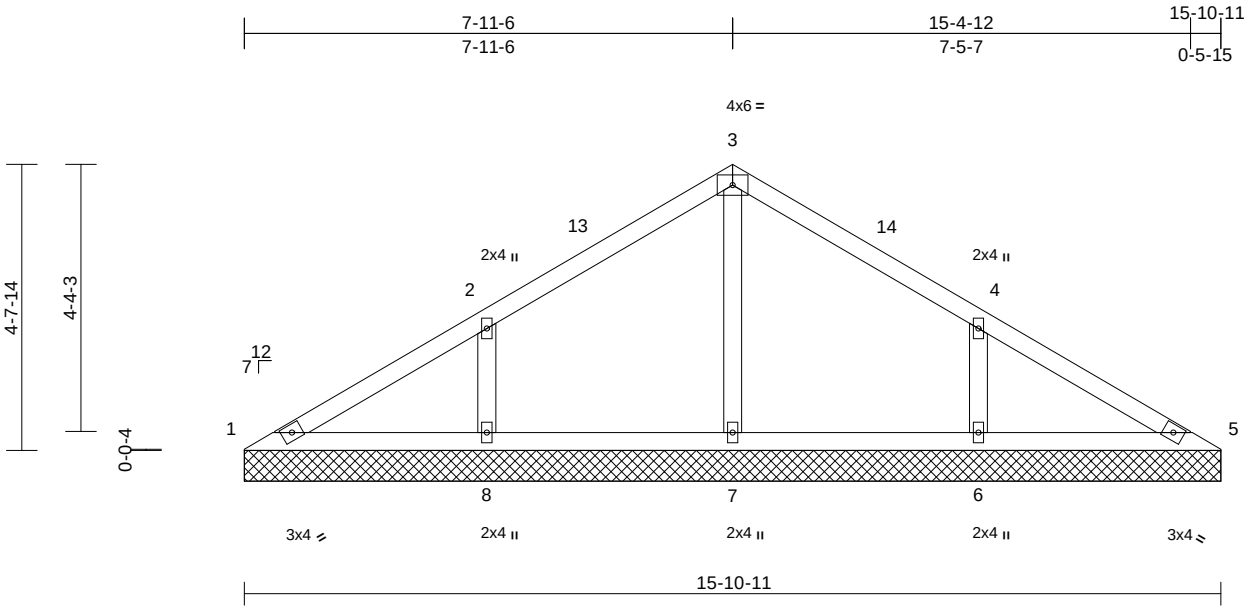
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V05	Valley	1	1	I57322078
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:50 Page: 1
ID:X17B8z9j2BZAPsY_xETW57zYQkc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.5

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	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 61 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 (size) 1=15-10-11, 5=15-10-11, 6=15-10-11, 7=15-10-11, 8=15-10-11
Max Horiz 1=-87 (LC 12)
Max Uplift 1=-2 (LC 17), 6=-76 (LC 17), 8=-77 (LC 16)
Max Grav 1=99 (LC 33), 5=99 (LC 34), 6=373 (LC 34), 7=349 (LC 2), 8=373 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-126/160, 2-3=-18/134, 3-4=-16/123, 4-5=-126/132
BOT CHORD 1-8=-90/122, 7-8=-90/54, 6-7=-90/54, 5-6=-90/103
WEBS 3-7=-281/4, 2-8=-268/117, 4-6=-268/116

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 2 lb uplift at joint 1, 77 lb uplift at joint 8 and 76 lb uplift at joint 6.
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

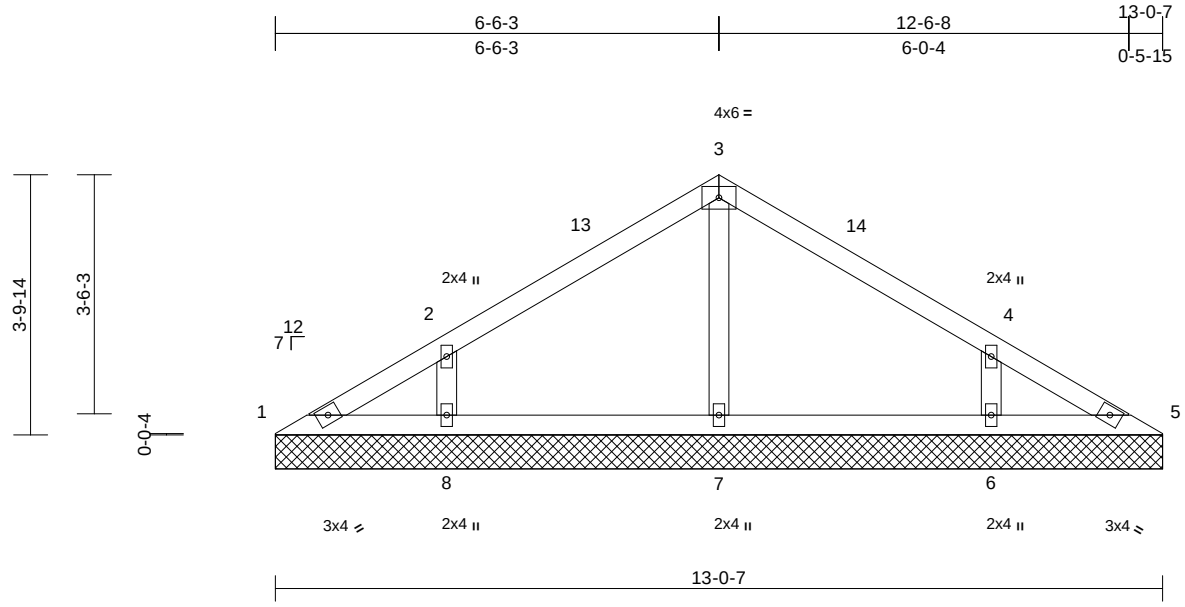
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V06	Valley	1	1	I57322079
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:50
ID:QoMizKCD6P3btTrmA4XSFzzYQkY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.9

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)	13.2/20.0	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: 48 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=13-0-7, 5=13-0-7, 6=13-0-7, 7=13-0-7, 8=13-0-7
Max Horiz 1=-71 (LC 12)
Max Uplift 1=-5 (LC 17), 6=-65 (LC 17), 8=-66 (LC 16)
Max Grav 1=75 (LC 30), 5=70 (LC 2), 6=314 (LC 34), 7=287 (LC 2), 8=314 (LC 33)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-100/69, 2-3=-91/72, 3-4=-86/67, 4-5=-83/47
BOT CHORD 1-8=-20/79, 7-8=-20/38, 6-7=-20/38, 5-6=-20/65
WEBS 3-7=-203/11, 2-8=-245/112, 4-6=-245/111

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 5 lb uplift at joint 1, 66 lb uplift at joint 8 and 65 lb uplift at joint 6.
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

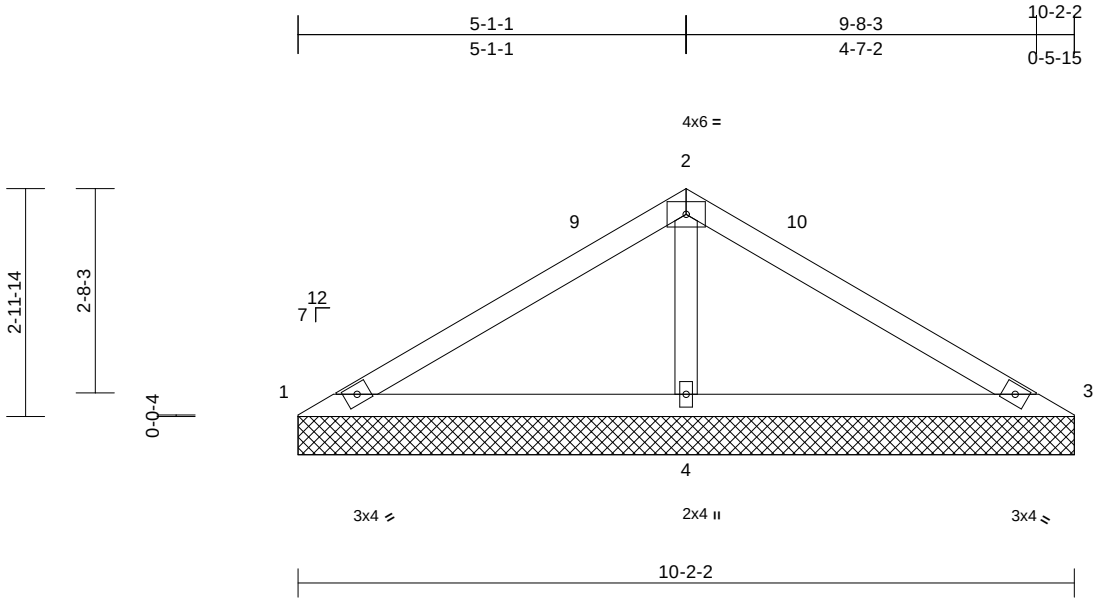
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V07	Valley	1	1	I57322080
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:51 Page: 1
ID:mlAb02GMwyhu_Ekjzd7dy0zYQkT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.2

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.27	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 34 lb	FT = 20%

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

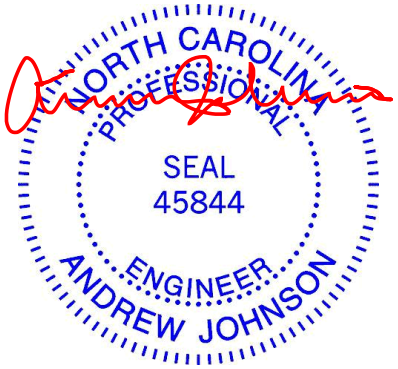
BRACING
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=10-2-2, 3=10-2-2, 4=10-2-2
Max Horiz 1=-55 (LC 12)
Max Uplift 1=-25 (LC 34), 3=-25 (LC 33), 4=-21 (LC 16)
Max Grav 1=77 (LC 33), 3=77 (LC 34), 4=745 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-69/364, 2-3=-69/364
BOT CHORD 1-4=-256/82, 3-4=-256/82
WEBS 2-4=-570/113

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 25 lb uplift at joint 1, 25 lb uplift at joint 3 and 21 lb uplift at joint 4.
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



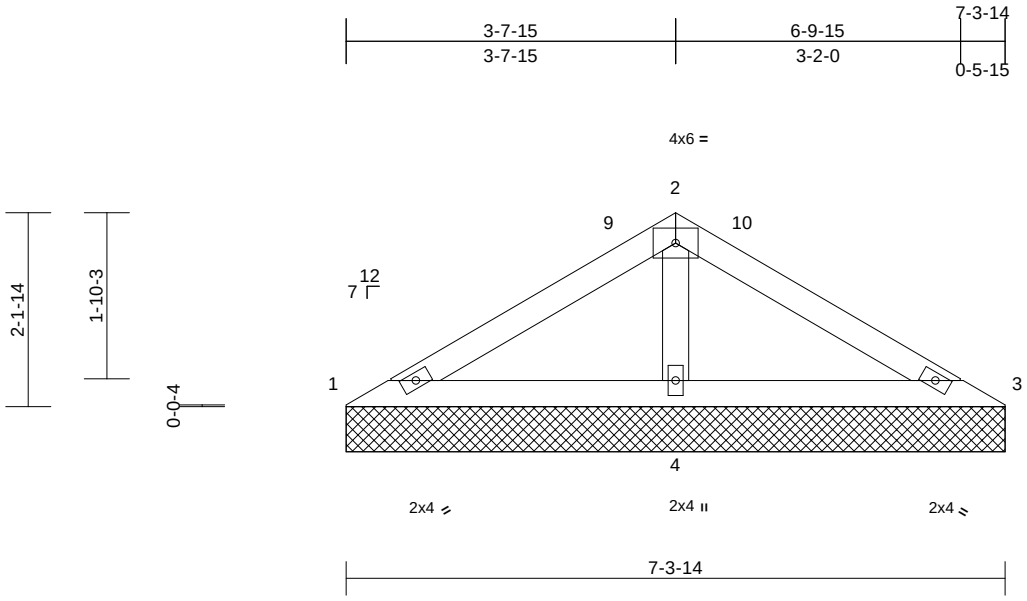
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V08	Valley	1	1	I57322081
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:51 Page: 1
ID:7jzU4lKVlUJB4?chlBjof4zYQkO-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:25.6

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 24 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 7-3-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-3-14, 3=7-3-14, 4=7-3-14
Max Horiz 1=-38 (LC 12)
Max Uplift 1=-2 (LC 16), 3=-8 (LC 17), 4=-12 (LC 16)
Max Grav 1=73 (LC 33), 3=73 (LC 34), 4=488 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-73/214, 2-3=-73/214
BOT CHORD 1-4=-162/61, 3-4=-162/61
WEBS 2-4=-338/68

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 2 lb uplift at joint 1, 8 lb uplift at joint 3 and 12 lb uplift at joint 4.
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

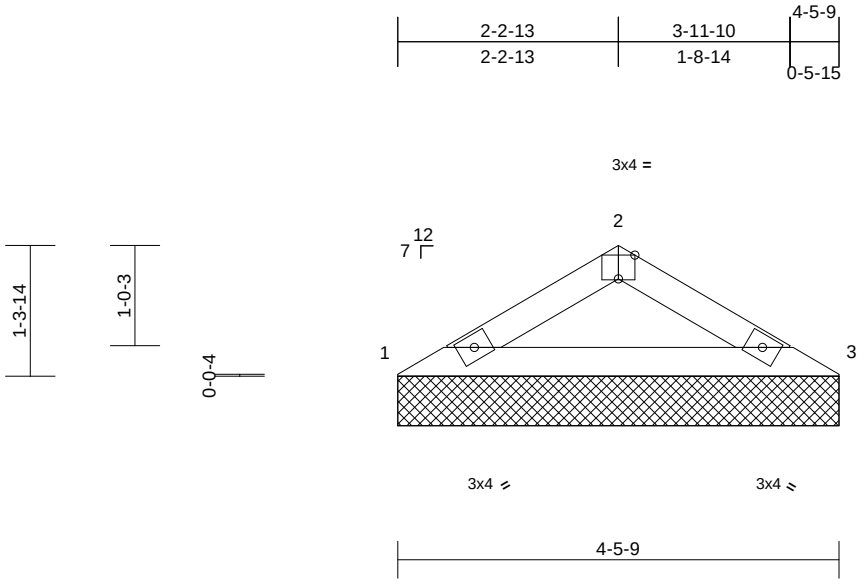
March 22,2023

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

Job	Truss	Truss Type	Qty	Ply	Mattamy - Glades
CCP	V09	Valley	1	1	I57322082
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Wed Mar 22 09:57:51 Page: 1
ID:?UD?v7N?pjqcZdwS_0nkpwzYQkK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:23.3

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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Ps/Pf)	13.2/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

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

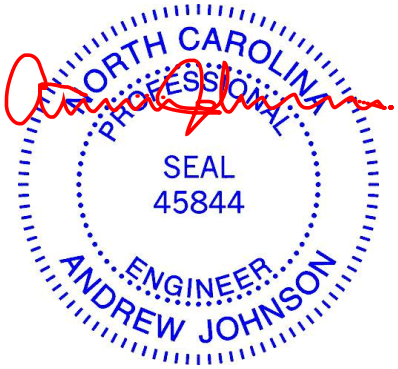
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-5-9, 3=4-5-9
Max Horiz 1=22 (LC 13)
Max Uplift 1=-5 (LC 16), 3=-5 (LC 17)
Max Grav 1=179 (LC 2), 3=179 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-291/35, 2-3=-291/35
BOT CHORD 1-3=-22/244

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=13.2 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 requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 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 5 lb uplift at joint 1 and 5 lb uplift at joint 3.
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

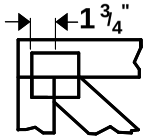


March 22,2023

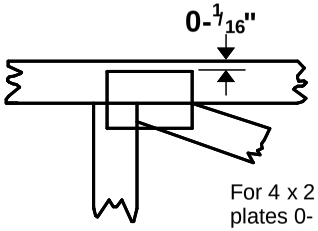
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

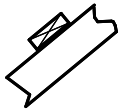
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

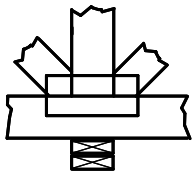
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

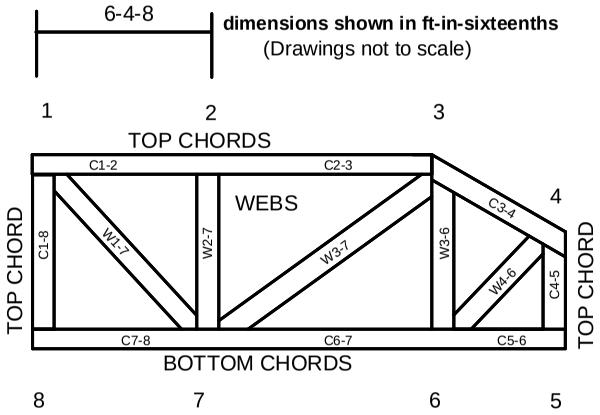


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 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.