ENGINEERING BY TRENCO
A MiTek Affiliate

RE: P21-02024 - JOB 2021-133

Site Information:
Project Customer: Project Name:
Lot/Block: Subdivision:
Model:
Address:
City: State:

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

Design Code: IRC2018/TPI2014   Design Program: MiTek 20/20 8.3
Wind Code: N/A   Wind Speed: 130 mph   Design Method: User defined
Roof Load: 40.0 psf   Floor Load: N/A psf

Mean Roof Height (feet): 12   Exposure Category: B

No.	Seal#	Truss Name	Date
1	I45276155	M01	3/19/21
2	I45276156	T01	3/19/21
3	I45276157	T01GE	3/19/21
4	I45276158	T02	3/19/21
5	I45276159	T02GE	3/19/21
6	I45276160	T03	3/19/21
7	I45276161	T03A	3/19/21
8	I45276162	T03GE	3/19/21
9	I45276163	T04	3/19/21
10	I45276164	T04GE	3/19/21
11	I45276165	T05	3/19/21
12	I45276166	T06	3/19/21
13	I45276167	T07	3/19/21
14	I45276168	V01	3/19/21
	I45276169	V02	3/19/21
16	I45276170	V03	3/19/21
17	I45276171	V04	3/19/21
18	I45276172	V05	3/19/21
19	I45276173	V06	3/19/21
20	I45276174	V07	3/19/21
21	I45276175	V08	3/19/21
22	I45276176	V09	3/19/21

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Longleaf Truss Company.

Truss Design Engineer's Name: Johnson, Andrew
My license renewal date for the state of North Carolina is December 31, 2021.

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.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ANDREW JOHNSON ENGINEER

March 19, 2021

Johnson, Andrew

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	M01	Monopitch Supported Gable	1	1		I45276155
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:26 2021 Page 1
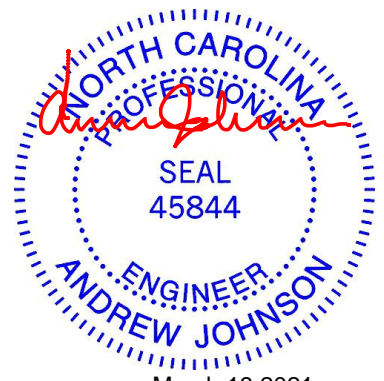ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-RZgzd8lJ9HYj4lCrRPSINIJ_MB8PCU01TTvb7JzZO5t
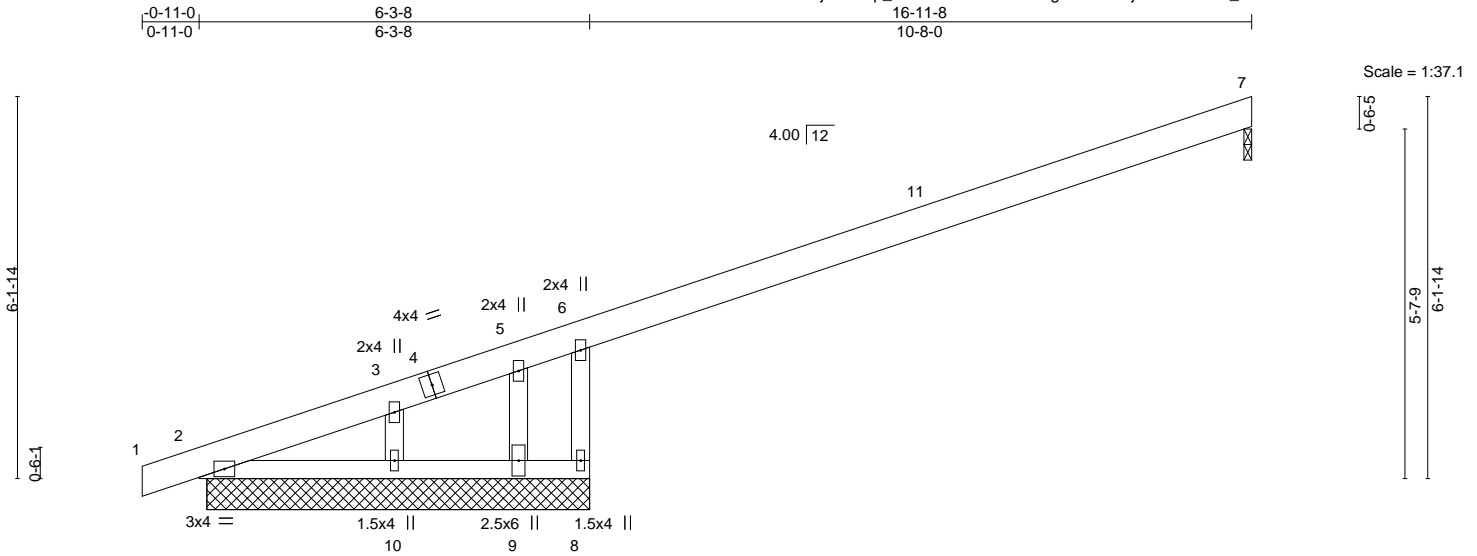
Scale = 1:37.1

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.00	2-10	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	2-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	-0.00	7	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 60 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x6 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3

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

REACTIONS. All bearings 6-2-0 except (jt=length) 7=0-1-8.
  (lb) - Max Horz 2=126(LC 9)
          Max Uplift   All uplift 100 lb or less at joint(s) 7, 10 except 8=-270(LC 12), 9=-622(LC 2)
          Max Grav   All reactions 250 lb or less at joint(s) 2, 10, 9 except 7=252(LC 2), 8=1165(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   6-8=-1156/275
WEBS   5-9=-157/644

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 10 except (jt=lb) 8=270, 9=622.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7.
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
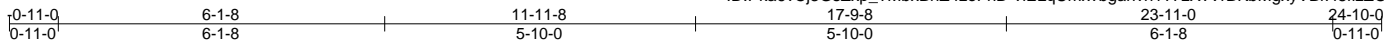
March 19,2021

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	I45276156
P21-02024	T01	Common	8	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:27 2021 Page 1
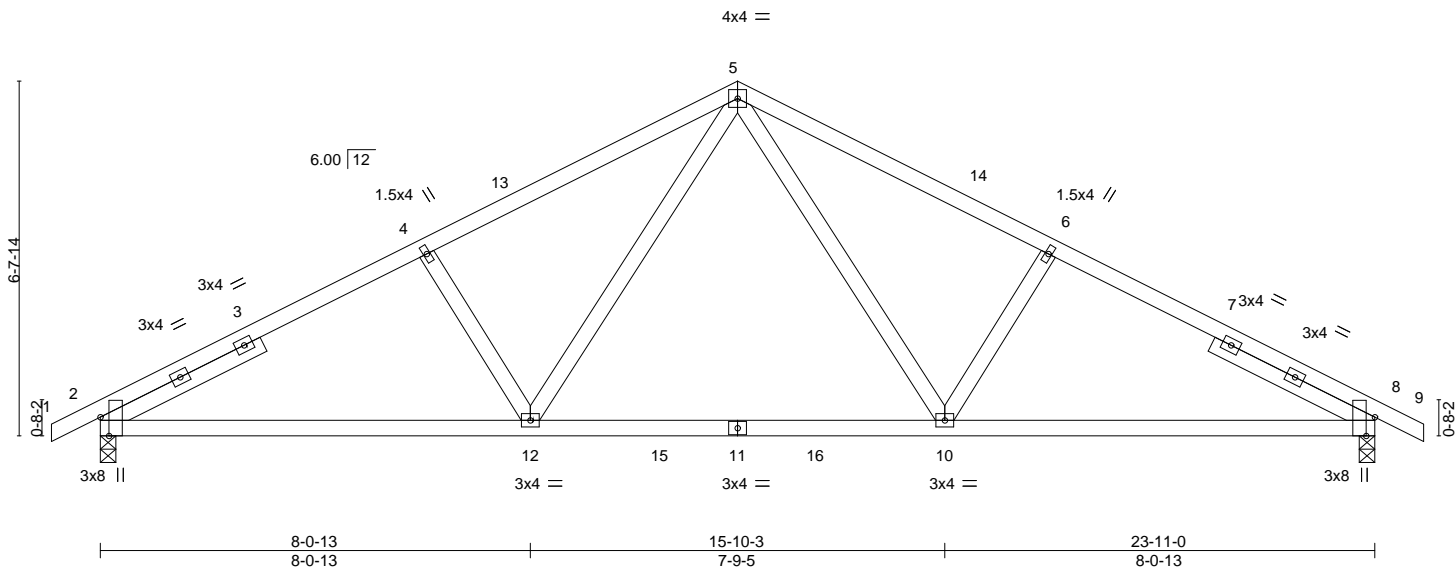ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-vlELqUmxvbgahvn1?7zXvVrBKbMgxyVBi7f8flzZO5s

0-11-0   6-1-8   11-11-8   17-9-8   23-11-0   24-10-0
0-11-0   6-1-8   5-10-0   5-10-0   6-1-8   0-11-0

Scale = 1:43.2

8-0-13   15-10-3   23-11-0
8-0-13   7-9-5   8-0-13

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.12	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.20	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 121 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 3-4-8, Right 2x4 SP No.3 -t 3-4-8

BRACING-
TOP CHORD   Sheathed or 4-8-8 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   2=0-3-8, 8=0-3-8
Max Horz   2=-111(LC 10)
Max Uplift   2=-22(LC 12), 8=-22(LC 12)
Max Grav   2=1117(LC 24), 8=1117(LC 25)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-1691/40, 4-5=-1542/64, 5-6=-1542/64, 6-8=-1691/40
BOT CHORD   2-12=0/1506, 10-12=0/1033, 8-10=0/1423
WEBS   5-10=0/641, 6-10=-303/104, 5-12=0/641, 4-12=-303/104

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ANDREW JOHNSON
ENGINEER

March 19,2021

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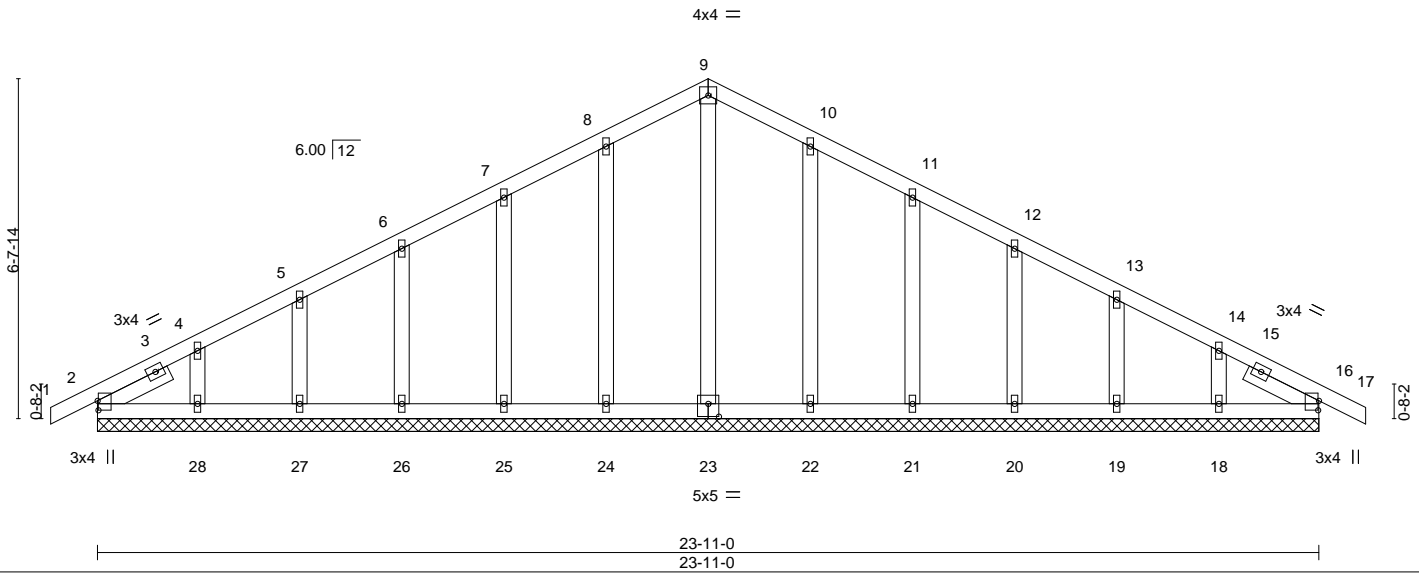A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company, West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:29 2021 Page 1
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Scale = 1:45.1

Plate Offsets (X,Y)--   [2:0-2-3,0-0-3], [16:0-2-3,0-0-3], [23:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	16	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	16	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	16	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 139 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 1-6-9, Right 2x4 SP No.3 -t 1-6-9

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

REACTIONS.   All bearings 23-11-0.
(lb) -   Max Horz   2=-111(LC 10)
Max Uplift   All uplift 100 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16
Max Grav   All reactions 250 lb or less at joint(s) 2, 23, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 24, 25, 26, 27, 28, 22, 21, 20, 19, 18, 16.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

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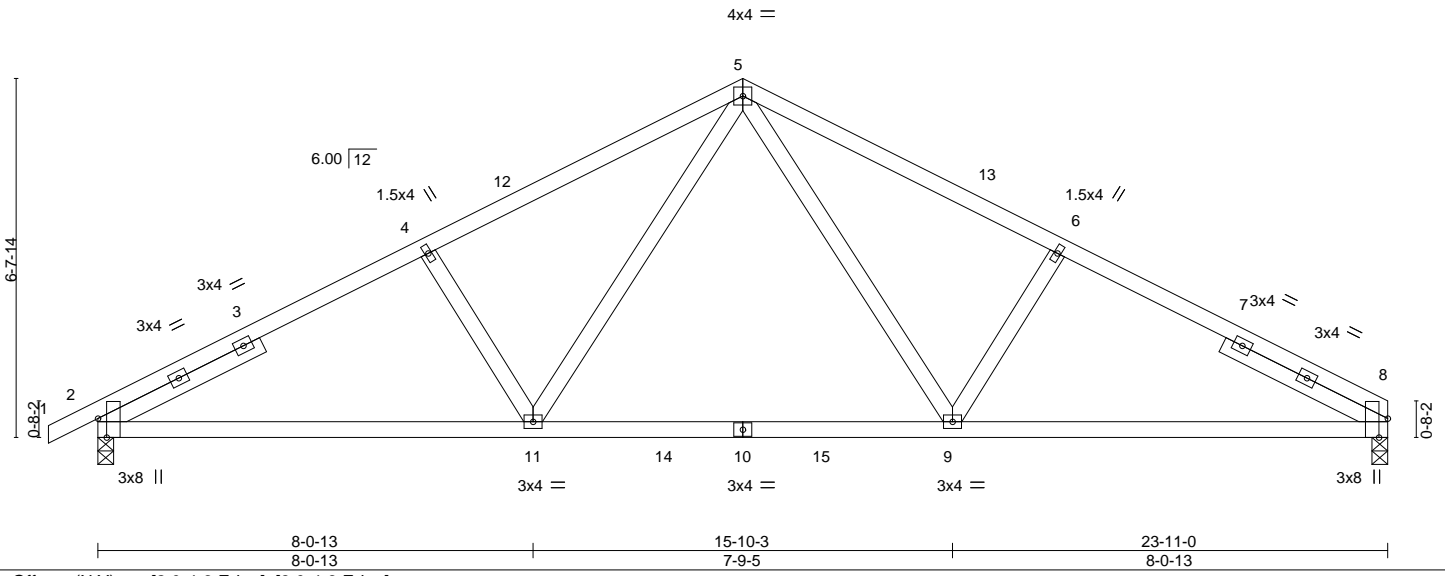| Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T02	Common	3	1	Job Reference (optional)	I45276158

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:30 2021 Page 1
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Scale = 1:42.7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.12	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.21	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 120 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 3-4-8, Right 2x4 SP No.3 -t 3-4-8

BRACING-
TOP CHORD   Sheathed or 4-8-7 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   8=0-3-8, 2=0-3-8
Max Horz 2=111(LC 11)
Max Uplift 2=-23(LC 12)
Max Grav 8=1068(LC 25), 2=1118(LC 24)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-1692/41, 4-5=-1543/65, 5-6=-1547/66, 6-8=-1696/42
BOT CHORD   2-11=0/1506, 9-11=0/1034, 8-9=0/1429
WEBS   5-9=0/645, 6-9=-306/106, 5-11=0/640, 4-11=-303/104

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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ANDREW JOHNSON

March 19,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T02GE	Common Supported Gable	1	1		I45276159
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:31 2021 Page 1
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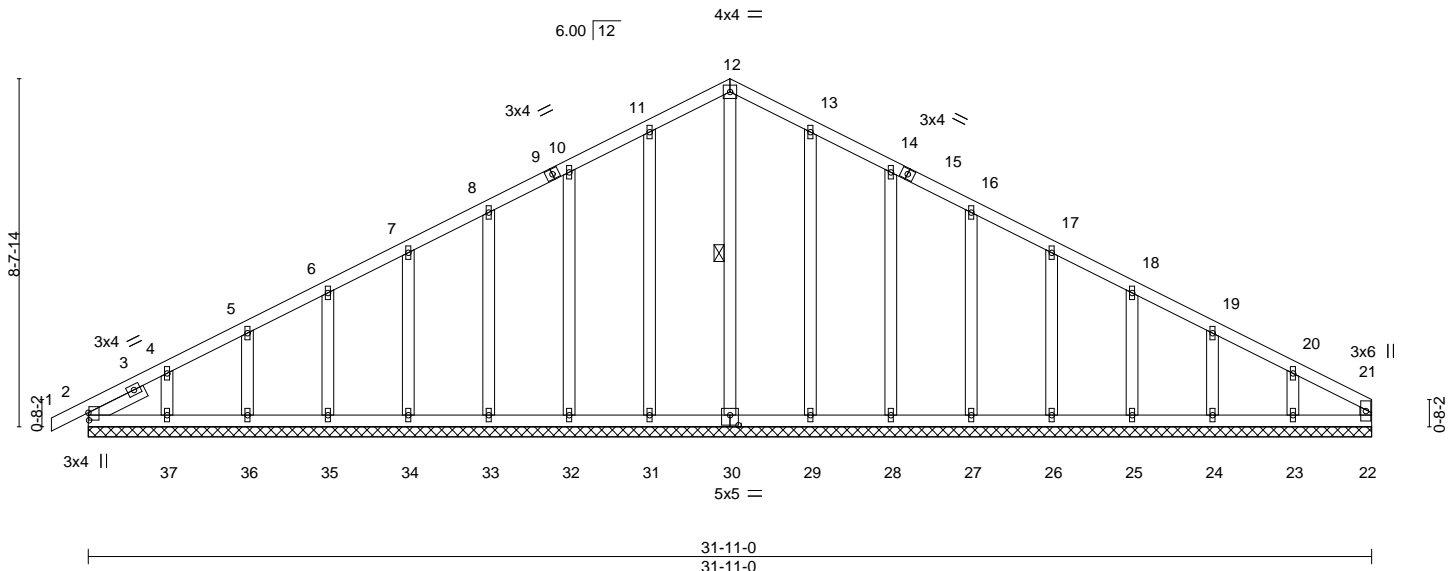
Plate Offsets (X,Y)--   [2:0-2-3,0-0-3], [30:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 203 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 1-6-9

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   12-30

REACTIONS.   All bearings 31-11-0.
(lb) - Max Horz 2=159(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 29, 28, 27, 26, 25, 24, 23
Max Grav All reactions 250 lb or less at joint(s) 22, 2, 30, 31, 32, 33, 34, 35, 36, 37, 29, 28, 27, 26, 25, 24, 23

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=32ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 29, 28, 27, 26, 25, 24, 23.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T03	Common	4	1		I45276160
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:33 2021 Page 1
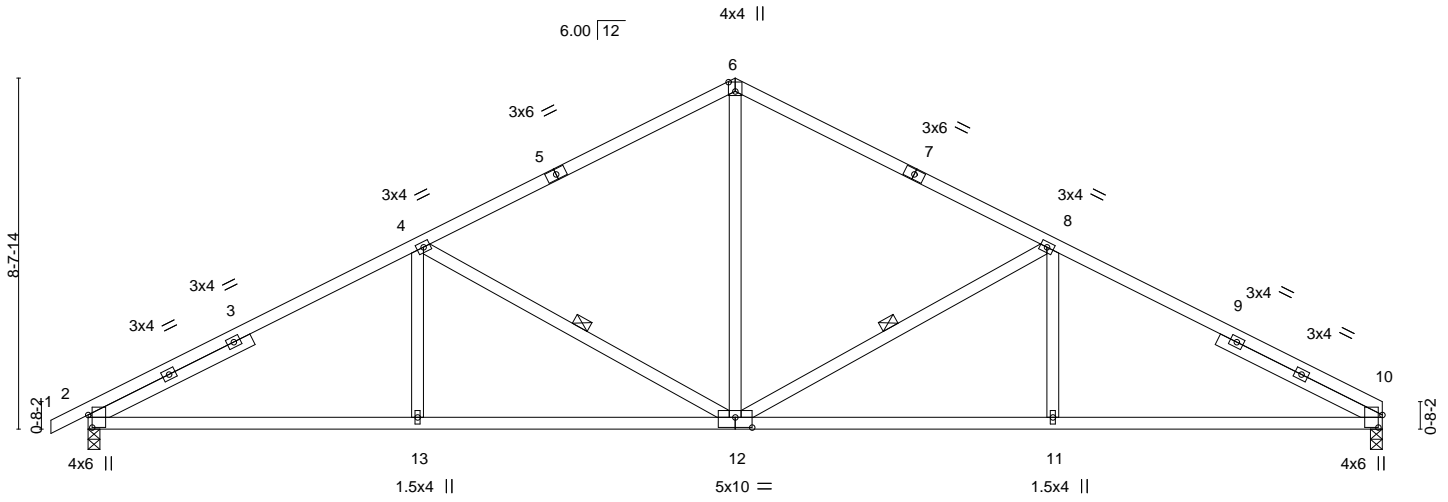ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-kvbc5XriVRQkPqFBLN4x9m5660PJLeg3426StPzZO5m

Scale = 1:56.8

Plate Offsets (X,Y)--   [2:0-3-11,0-1-3], [6:0-2-12,0-2-0], [7:0-0-0,0-0-0], [10:0-3-11,0-1-3], [12:0-5-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.11	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.24	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 166 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 4-5-14, Right 2x4 SP No.3 -t 4-5-14

BRACING-
TOP CHORD   Sheathed or 2-4-4 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   8-12, 4-12

REACTIONS.   (size)   2=0-3-8, 10=0-3-8
    Max Horz 2=154(LC 11)
    Max Uplift 2=-22(LC 12)
    Max Grav 2=1332(LC 2), 10=1276(LC 2)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-2162/32, 4-6=-1511/81, 6-8=-1511/81, 8-10=-2165/33
BOT CHORD   2-13=0/1828, 12-13=0/1828, 11-12=0/1832, 10-11=0/1832
WEBS   6-12=0/807, 8-12=-698/68, 8-11=0/339, 4-12=-693/66, 4-13=0/337

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=32ft; eave=4ft; Cat.
   II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
   plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate
   DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs
   non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
   referenced standard ANSI/TPI 1.

March 19,2021

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

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T03A	Common	8	1		I45276161
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:34 2021 Page 1
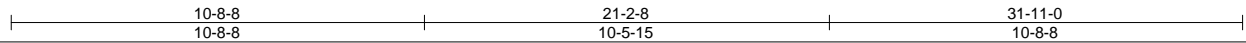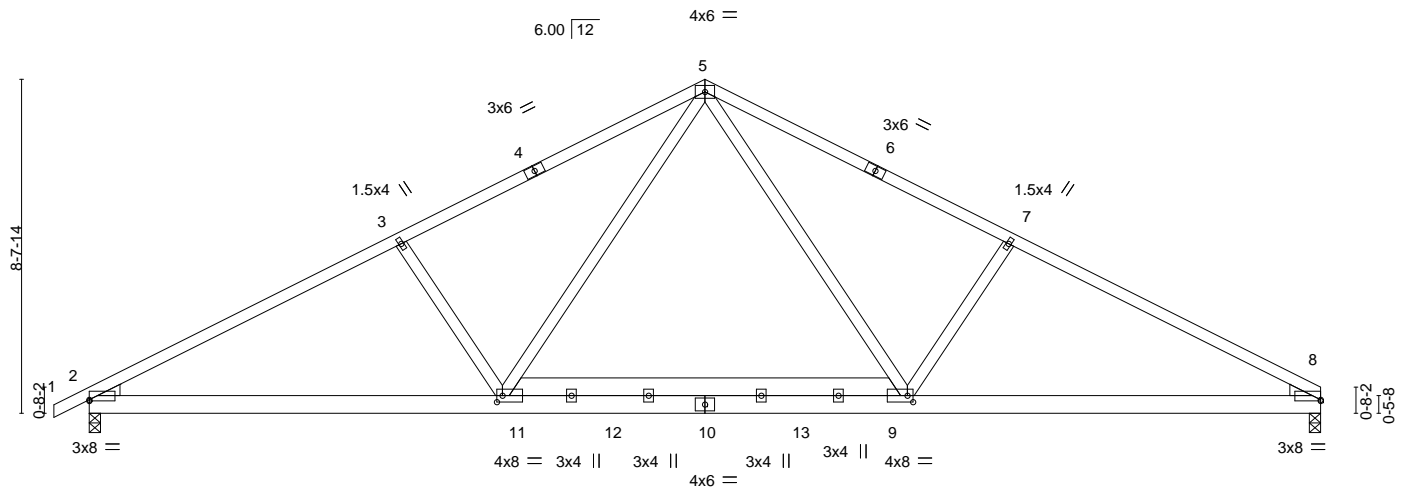ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-C59_ltrKGkYb1_pNv5bAh_eHKQj745NDJir0PrzZO5l

Scale = 1:59.7

Plate Offsets (X,Y)--   [2:0-0-0,0-0-6], [6:0-0-0,0-0-0], [8:Edge,0-0-6], [9:0-1-12,0-2-0], [11:0-1-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.14	2-11	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.28	2-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 197 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x6 SP No.1
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
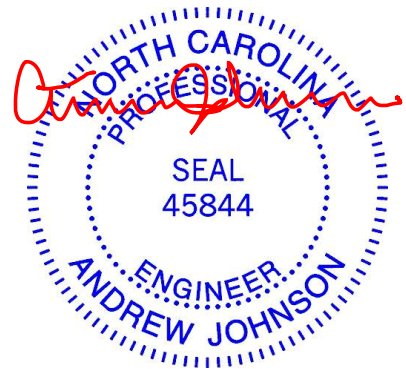TOP CHORD   Sheathed.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size) 2=0-3-8, 8=0-3-8
Max Horz 2=154(LC 11)
Max Uplift 2=-26(LC 12)
Max Grav 2=1488(LC 24), 8=1429(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-2465/53, 3-5=-2213/74, 5-7=-2211/74, 7-8=-2464/55
BOT CHORD   2-11=0/2197, 9-11=0/1455, 8-9=0/2087
WEBS   5-9=0/957, 7-9=-436/145, 5-11=0/957, 3-11=-425/140

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=32ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	I45276162
P21-02024	T03GE	Common Supported Gable	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:36 2021 Page 1
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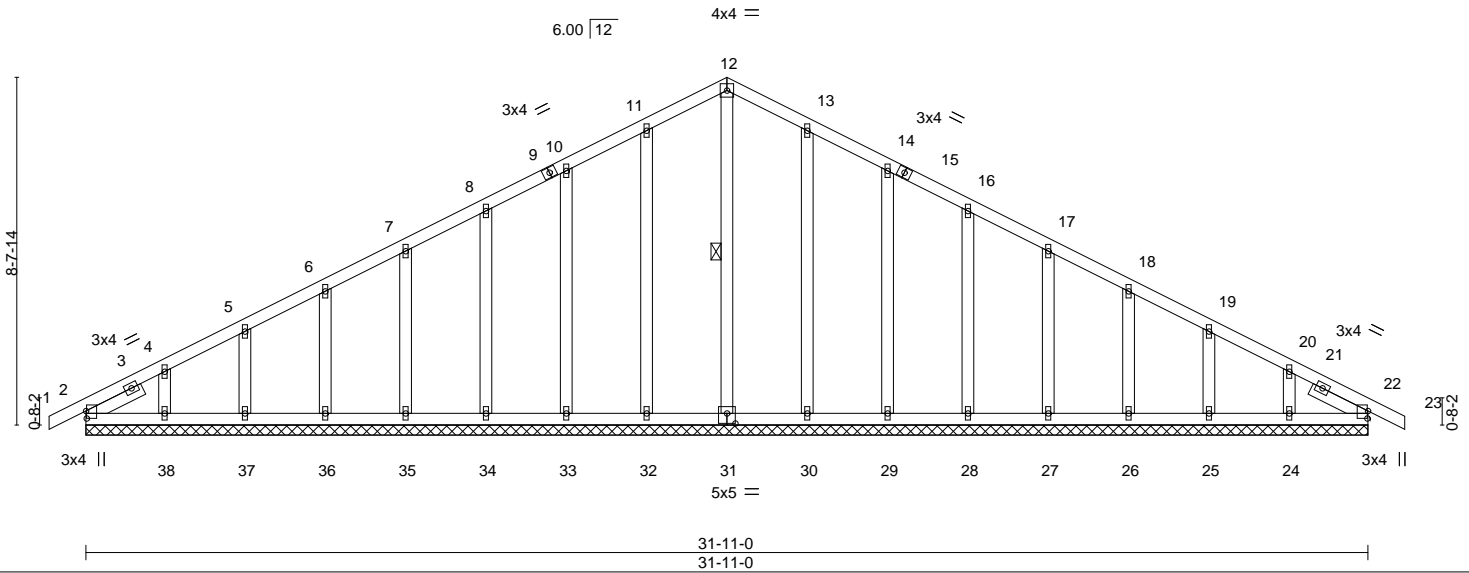| -0-11-0 | 15-11-8 | 31-11-0 | 32-10-0 |
| 0-11-0 | 15-11-8 | 15-11-8 | 0-11-0 |

Scale = 1:57.4

Plate Offsets (X,Y)--   [2:0-2-3,0-0-3], [22:0-2-3,0-0-3], [31:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	22	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	22	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 206 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 1-6-9, Right 2x4 SP No.3 -t 1-6-9

BRACING-
TOP CHORD   Sheathed or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   12-31

REACTIONS.   All bearings 31-11-0.
(lb) -   Max Horz   2=-155(LC 10)
Max Uplift   All uplift 100 lb or less at joint(s) 2, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24
Max Grav   All reactions 250 lb or less at joint(s) 2, 31, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24, 22

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=32ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 22.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

TRENCO
ENGINEERING BY
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932
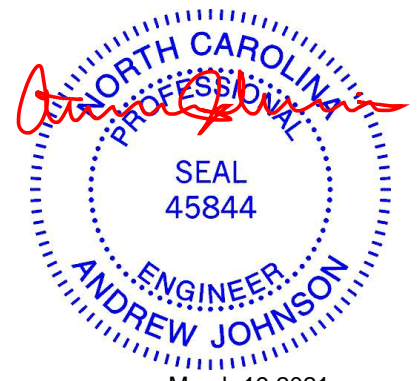
Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T04	Roof Special	1	1		I45276163
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:37 2021 Page 1
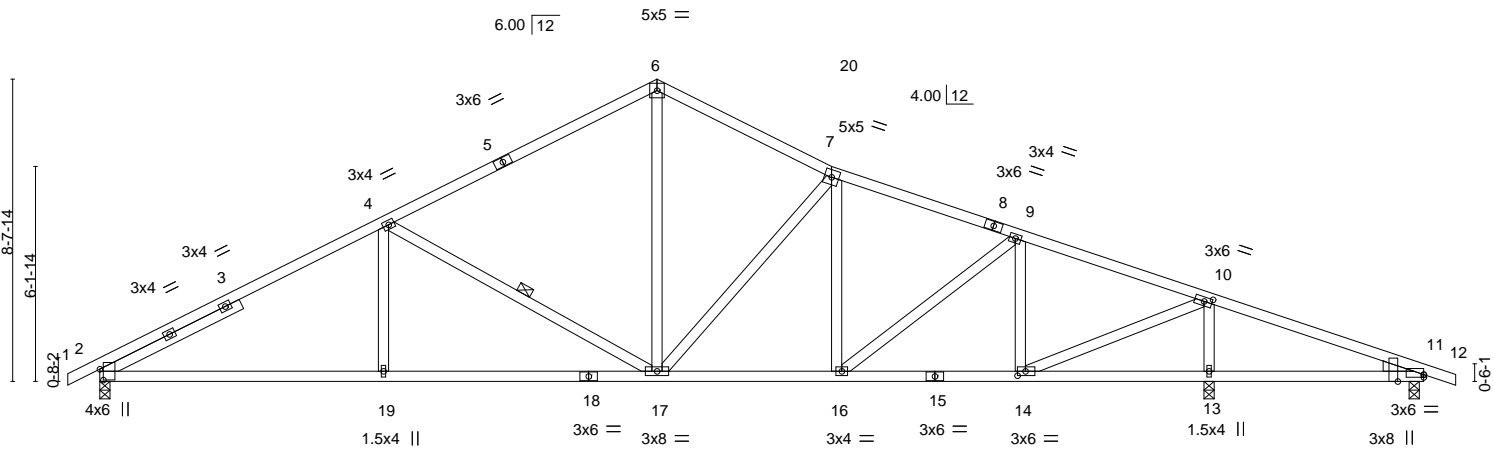ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-cgr7xvuDZfx9uRYyaD8tJcGo0dmKHMNf?g4g0AzZO5i
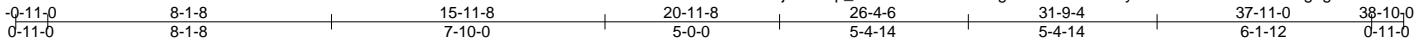
Scale = 1:66.0

Plate Offsets (X,Y)--   [2:0-3-11,0-1-3], [10:0-2-12,0-1-8], [11:Edge,0-0-15], [11:0-2-6,Edge], [14:0-2-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.10	2-19	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.22	2-19	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.05	13	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 206 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Sheathed or 3-5-2 oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 4-17

WEDGE
Right: 2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 4-5-14

REACTIONS.   (size)   2=0-3-8, 13=0-3-8, 11=0-3-8
Max Horz   2=-155(LC 10)
Max Uplift   2=-24(LC 12), 11=-37(LC 12)
Max Grav   2=1282(LC 2), 13=1787(LC 2), 11=113(LC 39)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-2061/35, 4-6=-1397/86, 6-7=-1343/91, 7-9=-1531/67, 9-10=-1270/52, 10-11=0/596
BOT CHORD   2-19=0/1740, 17-19=0/1740, 16-17=0/1403, 14-16=0/1152, 13-14=-491/5, 11-13=-491/5
WEBS   4-19=0/345, 4-17=-703/65, 6-17=0/766, 7-17=-440/52, 9-16=0/314, 9-14=-596/49,
10-14=0/1780, 10-13=-1633/58

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
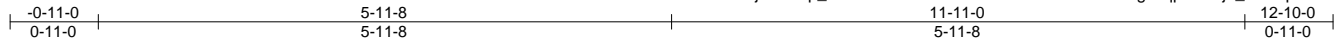
March 19,2021

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company,   West End, NC - 27376,

Scale: 1/2"=1'

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	10	n/r	120	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	10	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 60 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
OTHERS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 1-6-9, Right 2x4 SP No.3 -t 1-6-9

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

REACTIONS.   All bearings 11-8-0.
   (lb) -   Max Horz 2=59(LC 11)
            Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
            Max Grav   All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
12) Non Standard bearing condition. Review required.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	T05	Roof Special	6	1		I45276165
					Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:39 2021 Page 1
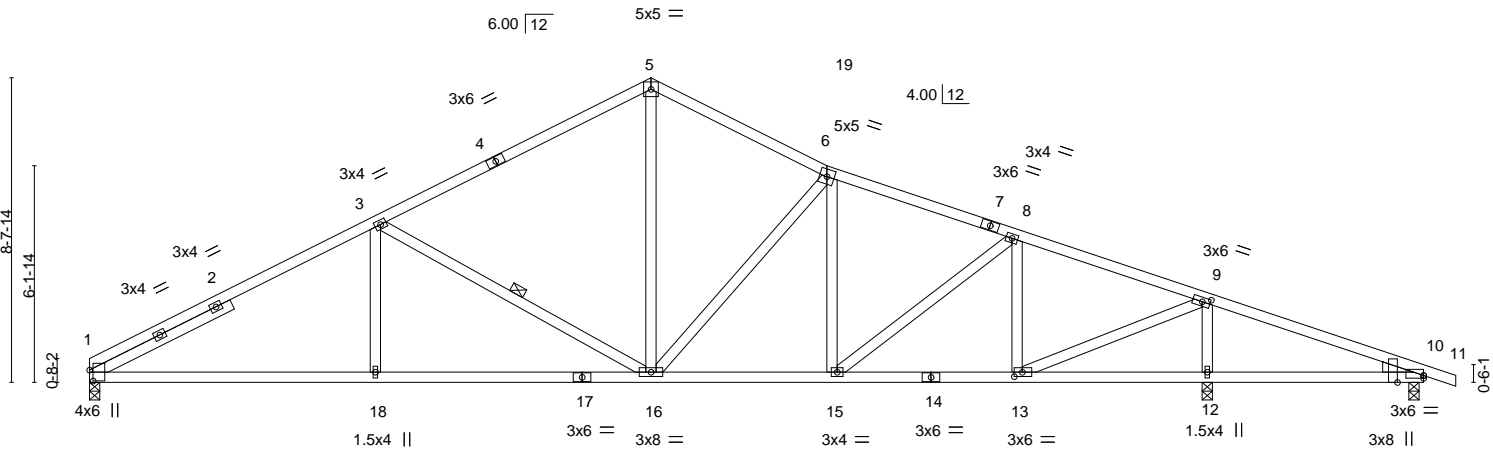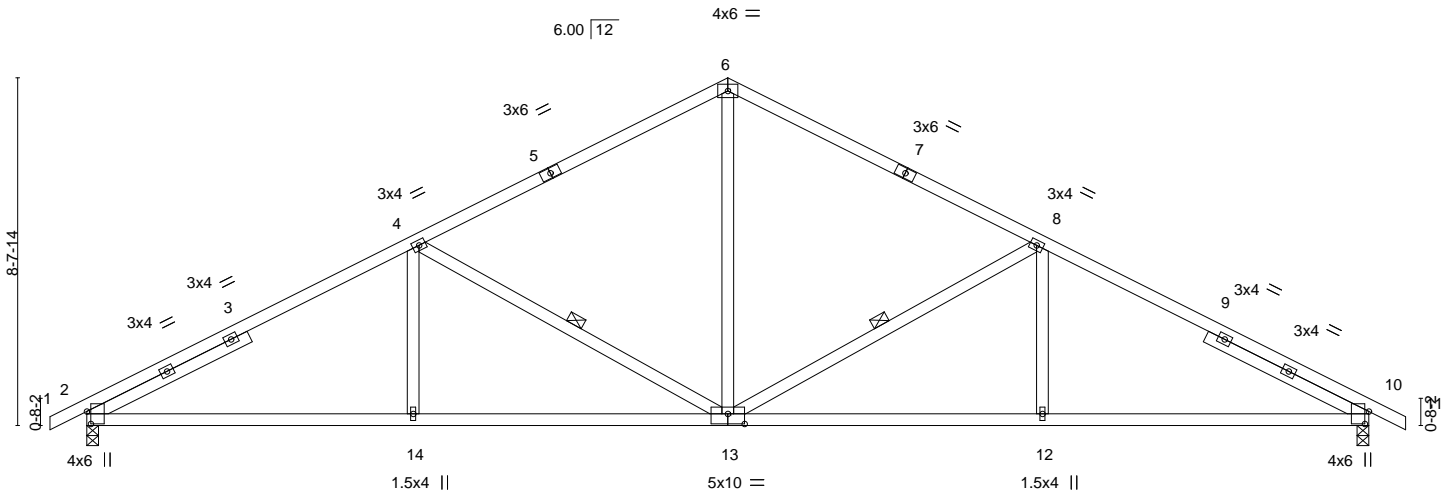ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-Z3ztMavT5HBt7liKieBLO1L8XRShlGtyT_Zn53zZO5g
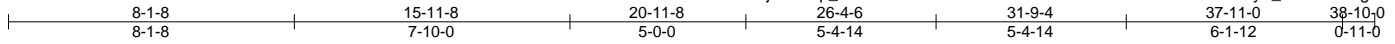
Scale = 1:65.5

Plate Offsets (X,Y)-- [1:0-3-11,0-1-3], [9:0-2-12,0-1-8], [10:Edge,0-0-15], [10:0-2-6,Edge], [13:0-2-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.10	1-18	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.22	1-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.05	12	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 204 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
WEDGE
Right: 2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 4-5-14

BRACING-
TOP CHORD   Sheathed or 3-5-2 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   3-16

REACTIONS.   (size)   1=0-3-8, 12=0-3-8, 10=0-3-8
Max Horz 1=-154(LC 10)
Max Uplift 1=-1(LC 12), 10=-38(LC 12)
Max Grav 1=1226(LC 2), 12=1788(LC 2), 10=113(LC 39)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-3=-2066/36, 3-5=-1399/87, 5-6=-1345/92, 6-8=-1533/68, 8-9=-1272/53, 9-10=0/595
BOT CHORD   1-18=0/1745, 16-18=0/1745, 15-16=0/1405, 13-15=0/1154, 12-13=-490/4, 10-12=-490/4
WEBS   3-18=0/348, 3-16=-708/67, 5-16=0/768, 6-16=-440/52, 8-15=0/315, 8-13=-596/49,
            9-13=0/1781, 9-12=-1634/58

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

(Professional Engineer seal: NORTH CAROLINA PROFESSIONAL ENGINEER, SEAL 45844, ANDREW JOHNSON)

March 19,2021

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Scale = 1:57.4

Plate Offsets (X,Y)--   [2:0-3-11,0-1-3], [10:0-3-11,0-1-3], [13:0-5-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.10	2-14	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.23	2-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 167 lb	FT = 20%
BCDL	10.0											

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.1	TOP CHORD	Sheathed or 2-4-4 oc purlins.
BOT CHORD	2x4 SP No.1	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 8-13, 4-13
SLIDER	Left 2x4 SP No.3 -t 4-5-14, Right 2x4 SP No.3 -t 4-5-14		

REACTIONS.   (size)   2=0-3-8, 10=0-3-8
             Max Horz 2=155(LC 11)
             Max Uplift 2=-22(LC 12), 10=-22(LC 12)
             Max Grav 2=1332(LC 2), 10=1332(LC 2)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-2160/31, 4-6=-1509/81, 6-8=-1509/81, 8-10=-2160/31
BOT CHORD   2-14=0/1826, 13-14=0/1826, 12-13=0/1826, 10-12=0/1826
WEBS   6-13=0/805, 8-13=-693/66, 8-12=0/336, 4-13=-693/66, 4-14=0/336

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=32ft; eave=4ft; Cat.
   II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60
   plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate
   DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs
   non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide
   will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
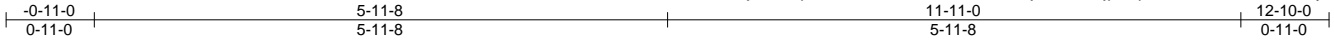   referenced standard ANSI/TPI 1.

March 19,2021

ENGINEERING BY
TRENCO
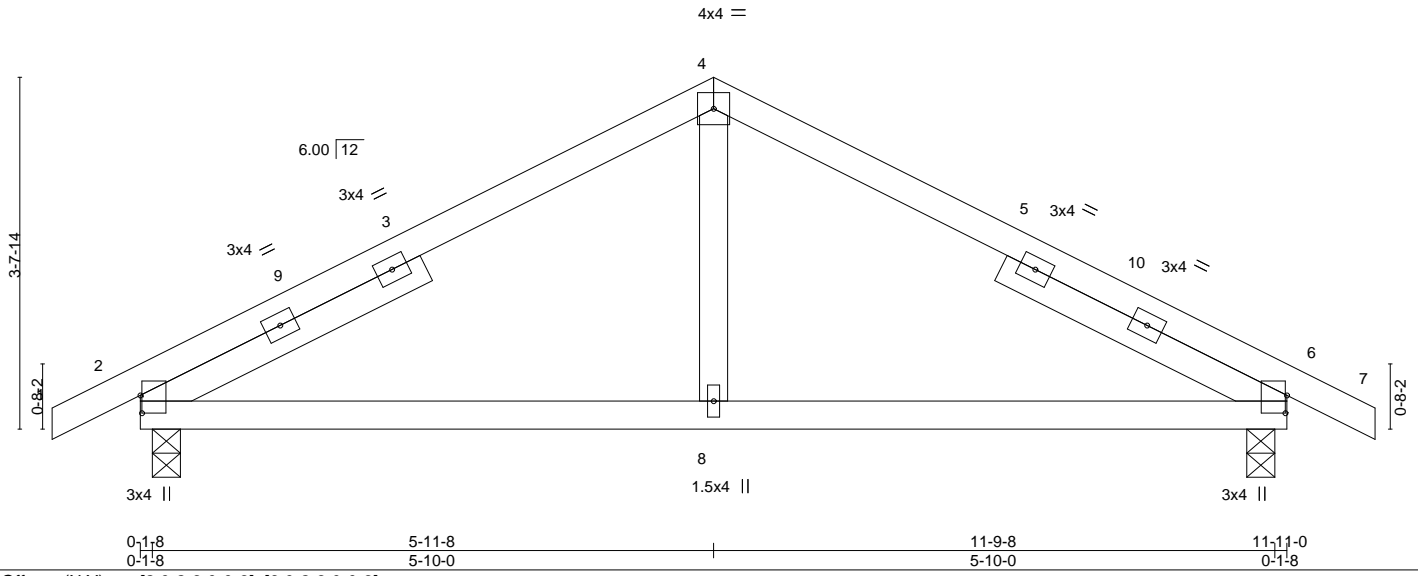A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:41 2021 Page 1
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Scale: 1/2"=1'

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	2-8	>999	240	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05	2-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 55 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1
WEBS   2x4 SP No.3
SLIDER   Left 2x4 SP No.3 -t 3-3-5, Right 2x4 SP No.3 -t 3-3-5

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

REACTIONS.   (size)   2=0-3-8, 6=0-3-8
              Max Horz 2=59(LC 11)
              Max Uplift 2=-22(LC 12), 6=-22(LC 12)
              Max Grav 2=532(LC 2), 6=532(LC 2)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-4=-630/16, 4-6=-630/16
BOT CHORD   2-8=0/471, 6-8=0/471
WEBS   4-8=0/274

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

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TRENCO
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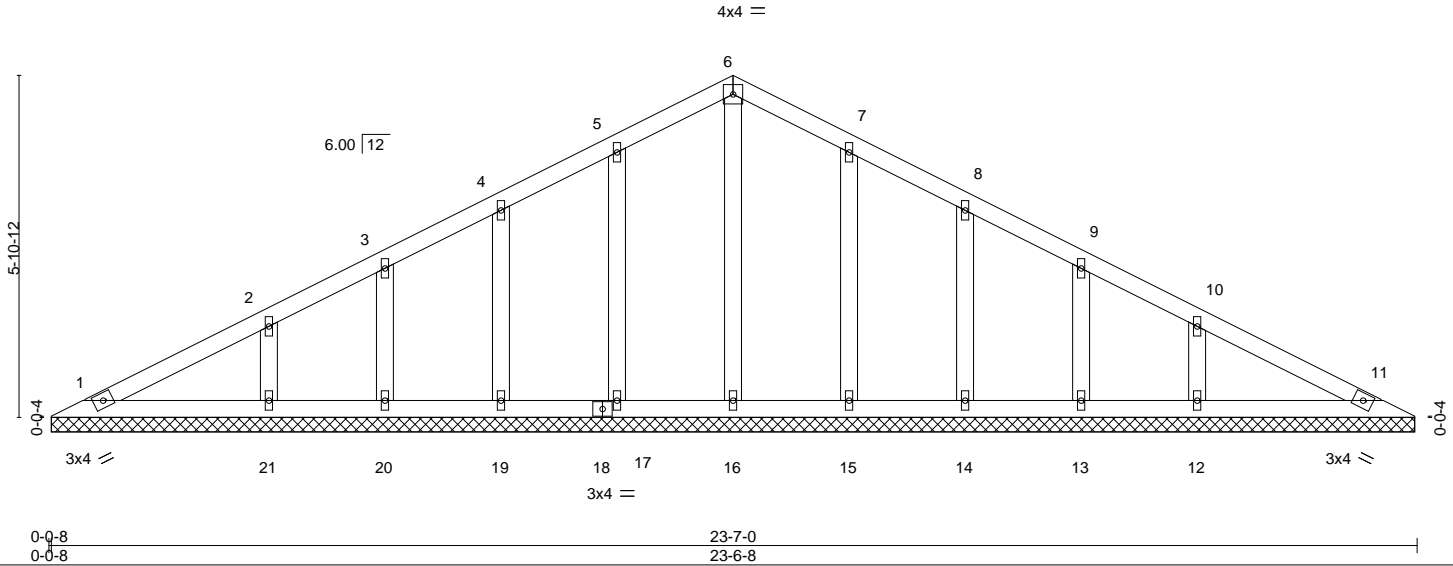| Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	I45276168
P21-02024	V01	Valley	1	1	Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:42 2021 Page 1
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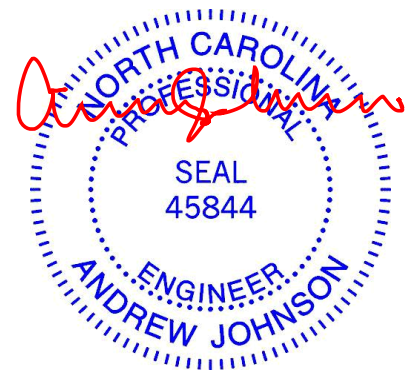
11-9-8
11-9-8
23-7-0
11-9-8

Scale = 1:39.7

4x4

6.00 12

5-10-12

0-0-4

3x4
3x4
3x4

0-0-8
0-0-8
23-7-0
23-6-8

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	11	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 114 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   All bearings 23-6-0.
(lb) - Max Horz 1=-96(LC 10)
        Max Uplift All uplift 100 lb or less at joint(s) 17, 19, 20, 21, 15, 14, 13, 12
        Max Grav   All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 19, 20, 15, 14, 13 except 21=259(LC 29),
                    12=259(LC 30)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) All plates are 1.5x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 19, 20, 21, 15, 14, 13, 12.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
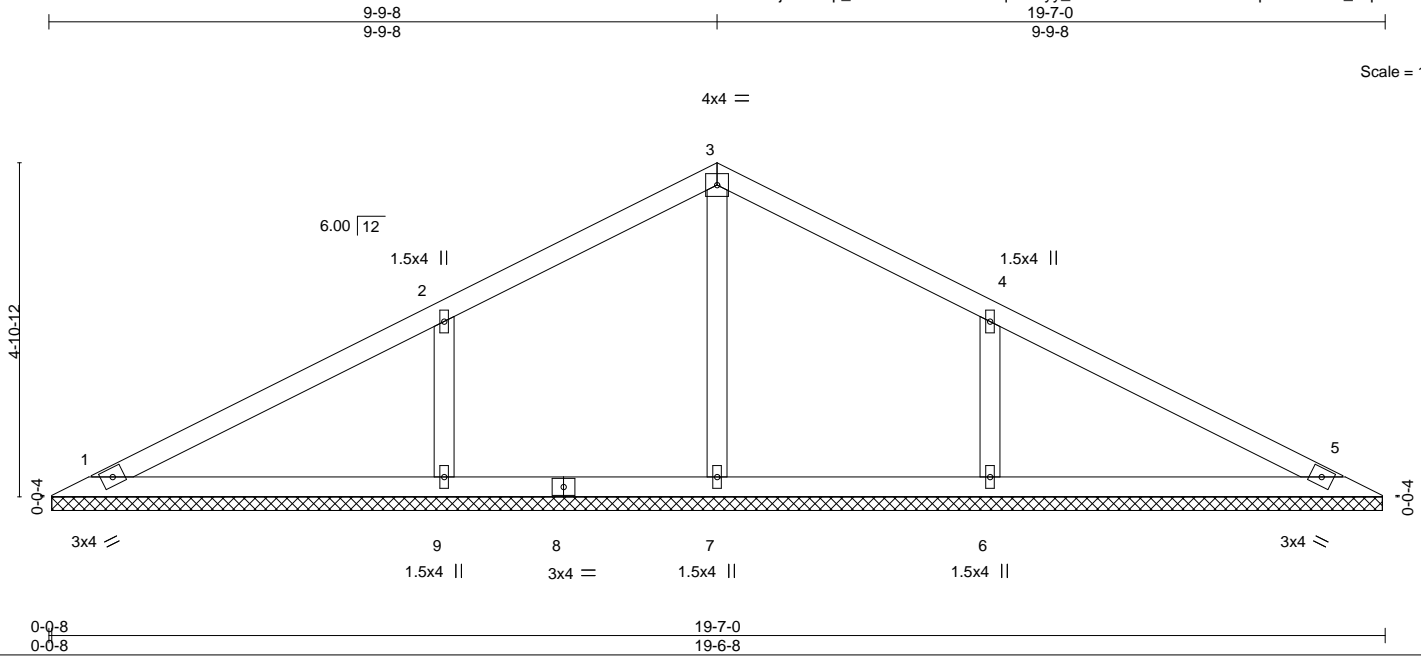
March 19,2021

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	I45276169
P21-02024	V02	Valley	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:43 2021 Page 1
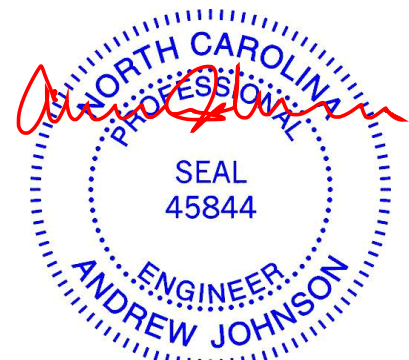ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-RqCOByy_8VhJcM?6xUFHZtWz12vphECXOcX_EqzZO5c

Scale = 1:33.8

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 73 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   All bearings 19-6-0.
(lb) - Max Horz 1=-79(LC 10)
        Max Uplift   All uplift 100 lb or less at joint(s) 9, 6
        Max Grav   All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=454(LC 29), 6=454(LC 30)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-9=-333/95, 4-6=-333/95

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

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818 Soundside Road
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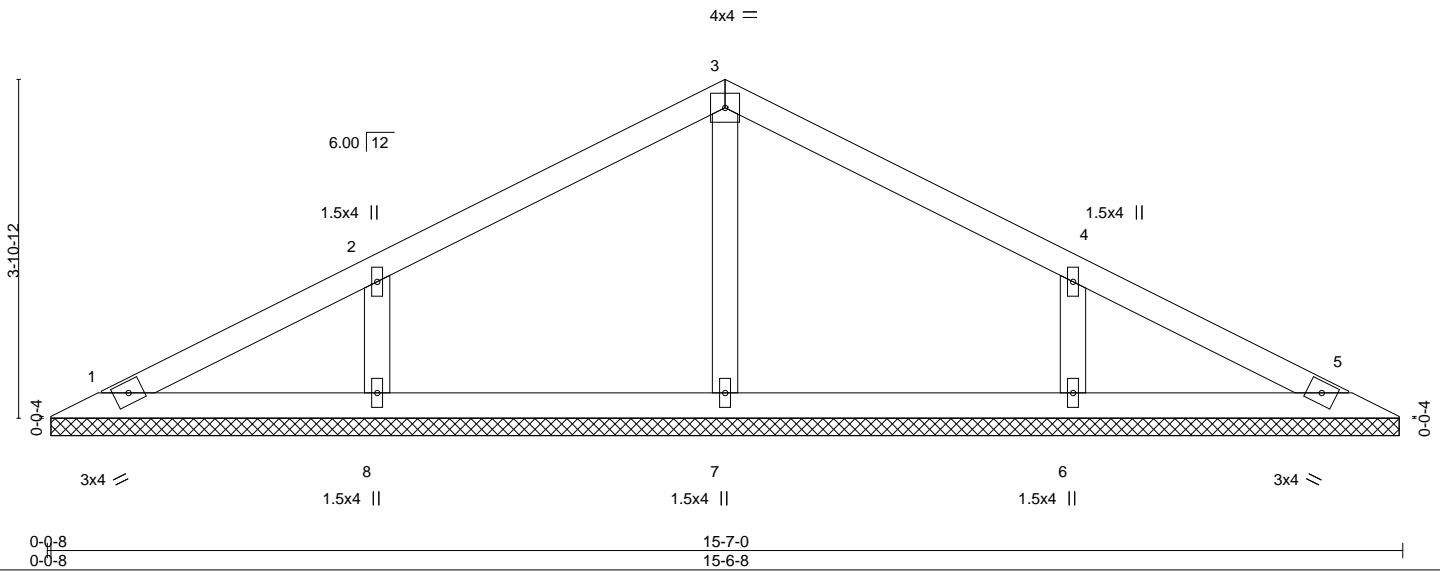
Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:44 2021 Page 1
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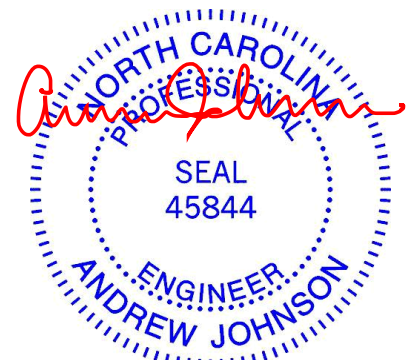

Scale = 1:26.5

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 56 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   All bearings 15-6-0.
    (lb) - Max Horz 1=62(LC 11)
        Max Uplift   All uplift 100 lb or less at joint(s) 8, 6
        Max Grav   All reactions 250 lb or less at joint(s) 1, 5 except 7=272(LC 2), 8=339(LC 29), 6=339(LC 30)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-8=-257/73, 4-6=-257/73

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

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Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:45 2021 Page 1
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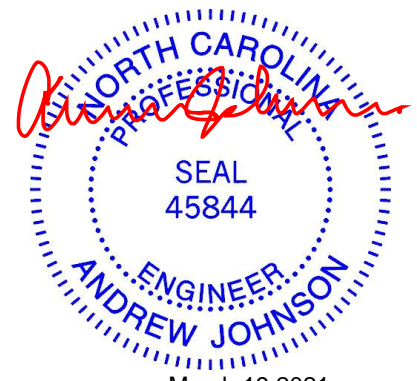
5-9-8
5-9-8
11-7-0
5-9-8

Scale = 1:20.3

0-0-8
0-0-8
11-7-0
11-6-8

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

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

REACTIONS.   All bearings 11-6-0.
      (lb) - Max Horz 1=45(LC 11)
              Max Uplift   All uplift 100 lb or less at joint(s) 8, 6
              Max Grav   All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=287(LC 16), 6=287(LC 17)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 19,2021

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:46 2021 Page 1
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Scale = 1:14.6

LOADING (psf)
TCLL (roof)   20.0
Snow (Pf/Pg) 11.6/15.0
TCDL   10.0
BCLL   0.0 *
BCDL   10.0

SPACING-   2-0-0
Plate Grip DOL   1.15
Lumber DOL   1.15
Rep Stress Incr   YES
Code IRC2018/TPI2014

CSI.
TC   0.15
BC   0.07
WB   0.03
Matrix-P

DEFL.   in   (loc)   l/defl   L/d
Vert(LL)   n/a   -   n/a   999
Vert(CT)   n/a   -   n/a   999
Horz(CT)   0.00   3   n/a   n/a

PLATES   GRIP
MT20   244/190

Weight: 24 lb   FT = 20%

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

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

REACTIONS.   (size) 1=7-6-0, 3=7-6-0, 4=7-6-0
Max Horz 1=27(LC 11)
Max Uplift 1=-10(LC 12), 3=-10(LC 12)
Max Grav 1=131(LC 16), 3=131(LC 17), 4=247(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
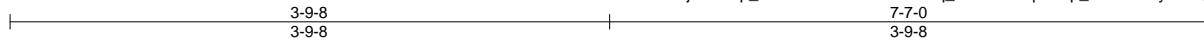
March 19,2021

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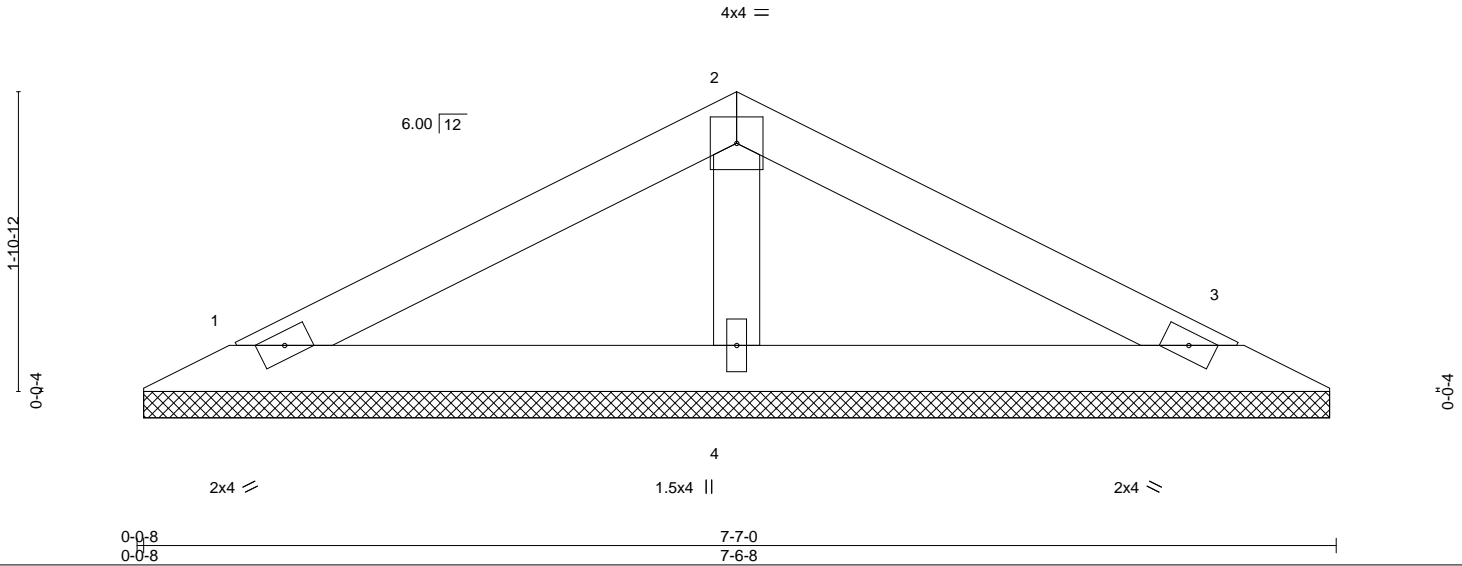| Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	V06	Valley	1	1	Job Reference (optional)	I45276173

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:47 2021 Page 1
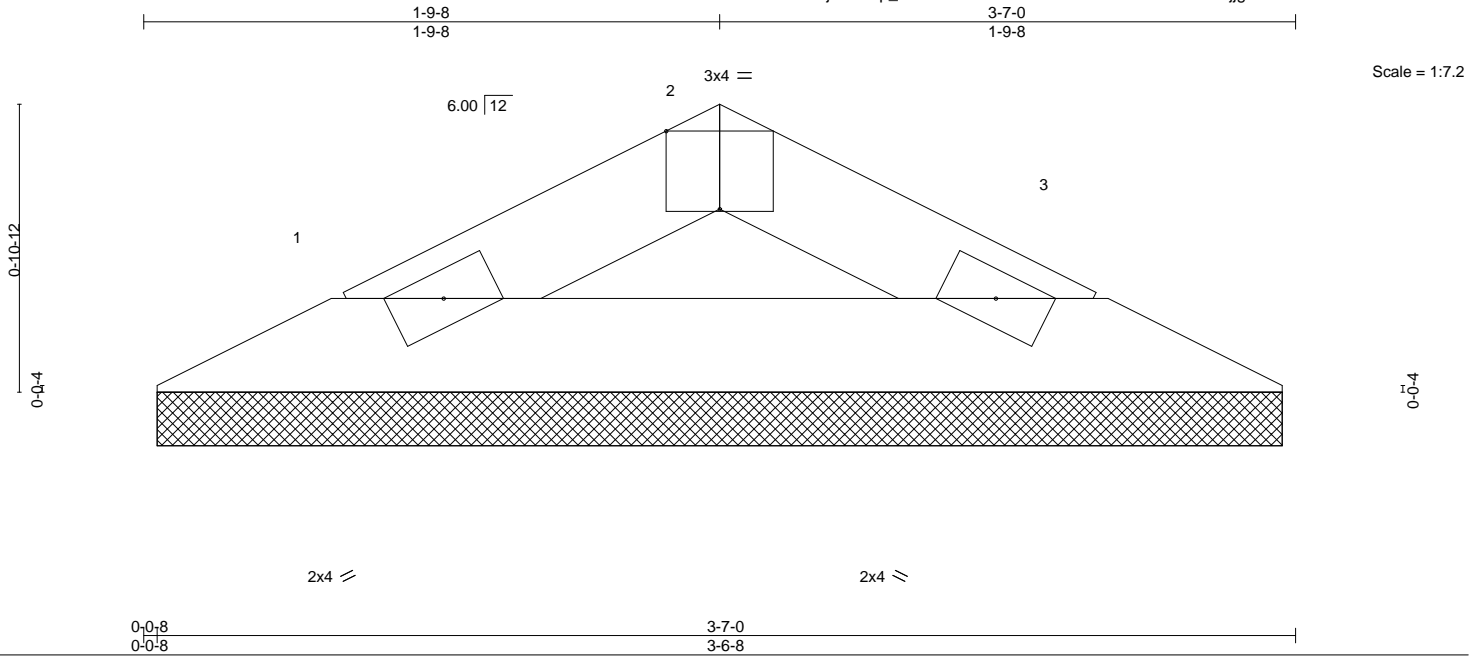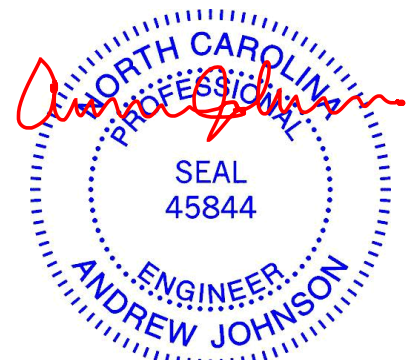ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-KbSv1K?UCkBk5zJtAJKDjjgiifISd2M7IEVCNbzZO5Y

Scale = 1:7.2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1

BRACING-
TOP CHORD   Sheathed or 3-7-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=3-6-0, 3=3-6-0
Max Horz 1=-10(LC 10)
Max Grav 1=93(LC 2), 3=93(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
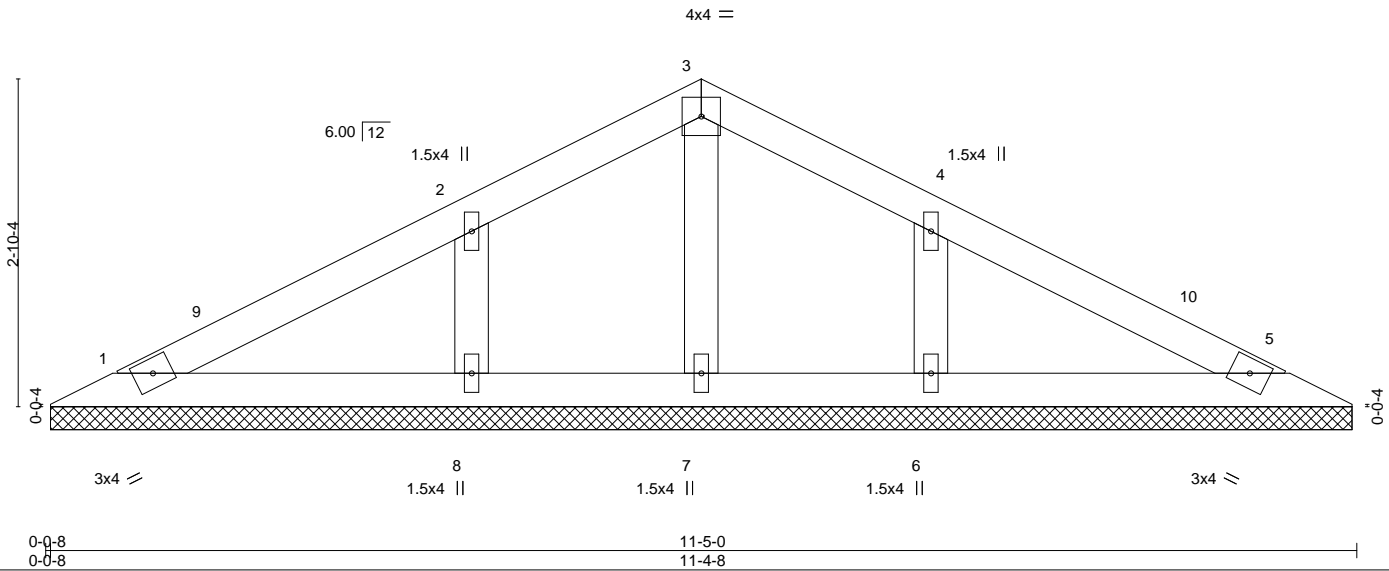
March 19,2021

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Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
P21-02024	V07	Valley	1	1		I45276174
					Job Reference (optional)	

Longleaf Truss Company, West End, NC - 27376,
8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:47 2021 Page 1
ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-KbSv1K?UCkBk5zJtAJKDjjghWfINd2i7IEVCNbzZO5Y

5-8-8
5-8-8
11-5-0
5-8-8

Scale = 1:20.1

4x4

6.00 12

1.5x4
1.5x4
1.5x4
1.5x4

3x4
1.5x4
1.5x4
1.5x4
3x4

0-0-8
0-0-8
11-5-0
11-4-8

LOADING (psf)		SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-S							Weight: 41 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   All bearings 11-4-0.
(lb) - Max Horz 1=44(LC 11)
Max Uplift   All uplift 100 lb or less at joint(s) 8, 6
Max Grav   All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=280(LC 16), 6=280(LC 17)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
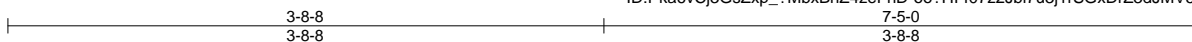
March 19,2021

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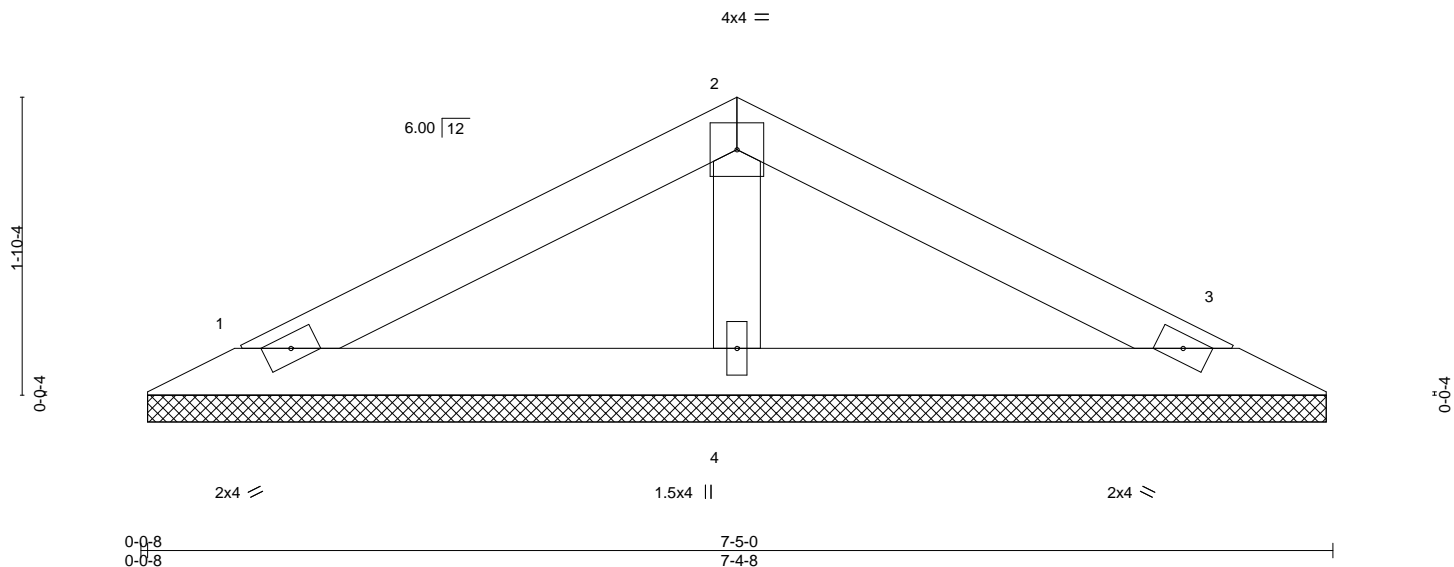| Job	Truss	Truss Type	Qty	Ply	JOB 2021-133	
						I45276175
P21-02024	V08	Valley	1	1	Job Reference (optional)	

Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:48 2021 Page 1
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3-8-8
3-8-8
7-5-0
3-8-8

Scale = 1:14.3

4x4 =

6.00 ⌐12

1-10-4

0-0-4

1

2

3

4

0-0-4

2x4 //

1.5x4 ||

2x4 \\

0-0-8
0-0-8
7-5-0
7-4-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 23 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS.   (size) 1=7-4-0, 3=7-4-0, 4=7-4-0
            Max Horz 1=27(LC 11)
            Max Uplift 1=-10(LC 12), 3=-10(LC 12)
            Max Grav 1=127(LC 16), 3=127(LC 17), 4=240(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ENGINEER
ANDREW JOHNSON

March 19,2021

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Longleaf Truss Company,   West End, NC - 27376,

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Mar 19 11:21:49 2021 Page 1
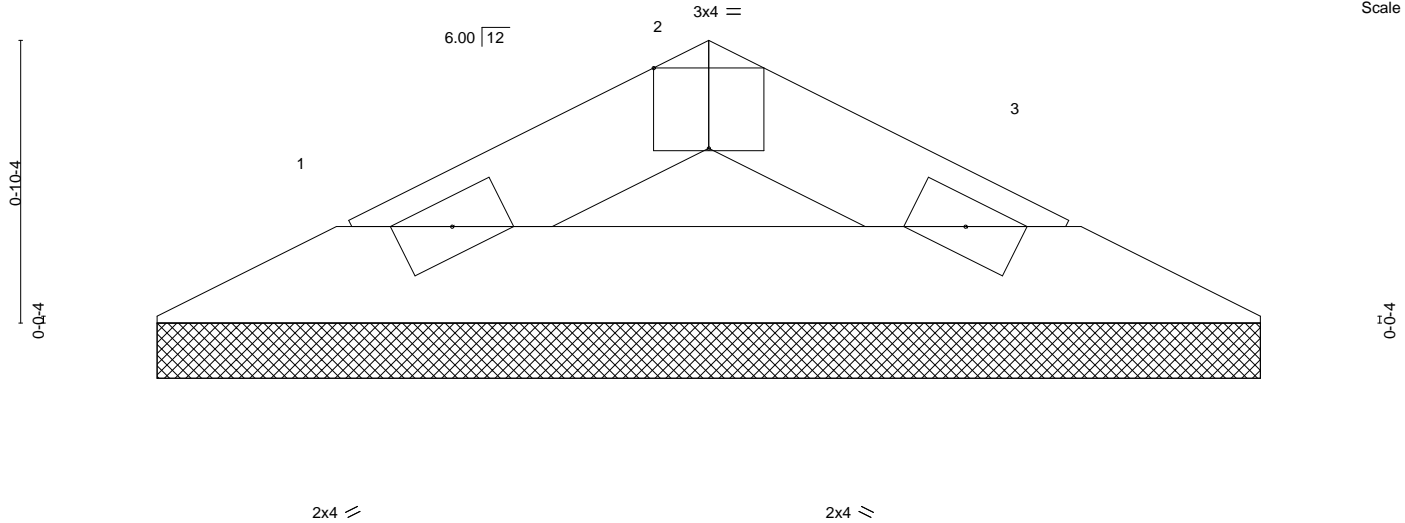ID:Pka6vCj3GsZxp_?MbxBnZ4zeFnD-G_ZfS?1lkLRSKHTFHkMho8m1ET_15ysQmY_IRUzZO5W

Scale = 1:7.0

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	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	11.6/15.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-P							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD   2x4 SP No.1
BOT CHORD   2x4 SP No.1

BRACING-
TOP CHORD   Sheathed or 3-5-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.   (size)   1=3-4-0, 3=3-4-0
Max Horz 1=-9(LC 10)
Max Grav 1=86(LC 2), 3=86(LC 2)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=12ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=15.0 psf; Pf=11.6 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
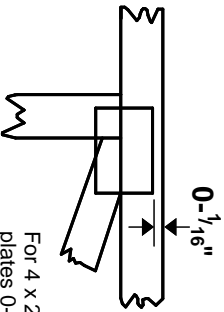
March 19,2021

TRENCO
ENGINEERING BY
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Symbols

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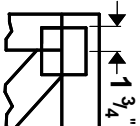
Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.

↑ 1 ³⁄₄"

0- ¹⁄₁₆"

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.
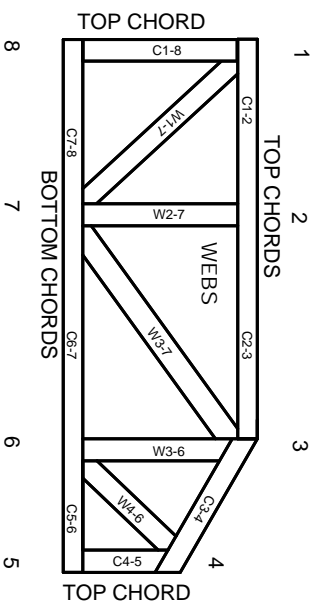
BEARING

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

dimensions shown in ft-in-sixteenths
(Drawings not to scale)

|← 6-4-8 →|

TOP CHORD

1
2 TOP CHORDS
3

C1-8
C1-2
W1-7
C2-3
W2-7 WEBS C2-3
C7-8
C6-7 W3-7
BOTTOM CHORDS
W3-6
C5-6 W4-6 C3-4
C4-5

8
7
6
5
4

TOP CHORD

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.

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⚠ 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.