ENGINEERING BY
TRENCO
A MiTek Affiliate

RE: 191203RT1
FREEDOM FAMILY HOMES

Trenco
818 Soundside Rd
Edenton, NC 27932

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

Design Code: IRC2015/TPI2014
Design Program: MiTek 20/20 8.2
Wind Code: ASCE 7-10
Wind Speed: 130 mph
Roof Load: 40.0 psf
Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E13668181	a01	10/22/2019
2	E13668182	a02	10/22/2019
3	E13668183	a03	10/22/2019
4	E13668184	a04	10/22/2019
5	E13668185	a05	10/22/2019
6	E13668186	a06	10/22/2019
7	E13668187	b01	10/22/2019
8	E13668188	b02	10/22/2019
9	E13668189	b03	10/22/2019
10	E13668190	c01	10/22/2019
11	E13668191	c02	10/22/2019
12	E13668192	v01	10/22/2019
13	E13668193	v02	10/22/2019
14	E13668194	v03	10/22/2019
15	E13668195	v04	10/22/2019

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.

Truss Design Engineer's Name: Lassiter, Frank

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

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

October 22, 2019

Lassiter, Frank

ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 191203RT1
FREEDOM FAMILY HOMES

Trenco
818 Soundside Rd
Edenton, NC 27932

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

Design Code: IRC2015/TPI2014
Design Program: MiTek 20/20 8.2
Wind Code: ASCE 7-10
Wind Speed: 130 mph
Roof Load: 40.0 psf
Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E13668181	a01	10/22/2019
2	E13668182	a02	10/22/2019
3	E13668183	a03	10/22/2019
4	E13668184	a04	10/22/2019
5	E13668185	a05	10/22/2019
6	E13668186	a06	10/22/2019
7	E13668187	b01	10/22/2019
8	E13668188	b02	10/22/2019
9	E13668189	b03	10/22/2019
10	E13668190	c01	10/22/2019
11	E13668191	c02	10/22/2019
12	E13668192	v01	10/22/2019
13	E13668193	v02	10/22/2019
14	E13668194	v03	10/22/2019
15	E13668195	v04	10/22/2019

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.

Truss Design Engineer's Name: Lassiter, Frank

My license renewal date for the state of South Carolina is June 30, 2020.

South Carolina COA: C01451

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

October 22, 2019

Lassiter, Frank

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	A01	FINK	7	1	E13668181
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:33 2019 Page 1
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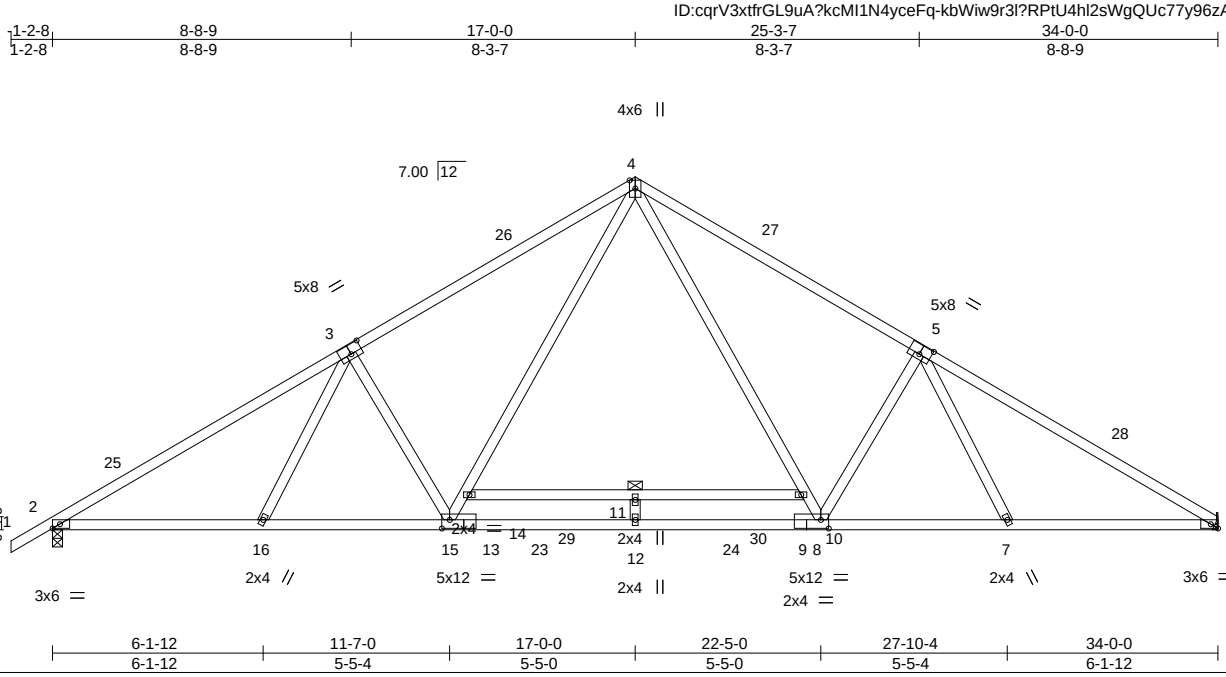


Plate Offsets (X,Y)-- [3:0-4-0,0-3-4], [5:0-4-0,0-3-4], [6:0-2-9,Edge], [8:0-2-12,0-3-0], [9:0-0-0,0-1-12], [13:0-2-12,0-3-0], [13:0-0-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.54	11	>751	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.96	11	>425	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 193 lb	FT = 20%

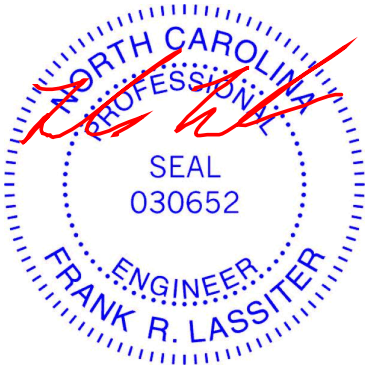
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP DSS *Except*
10-14: 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 10-14

REACTIONS. (lb/size) 2=1534/0-3-8, 6=1459/Mechanical
Max Horz 2=209(LC 10)
Max Uplift 2=-61(LC 11), 6=-21(LC 11)
Max Grav 2=1570(LC 16), 6=1503(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2524/117, 3-4=-2270/185, 4-5=-2273/193, 5-6=-2534/135
BOT CHORD 2-16=-3/2232, 15-16=-11/2205, 12-15=0/1539, 8-12=0/1539, 7-8=-12/2062, 6-7=-9/2093
WEBS 3-15=-562/222, 14-15=-55/921, 4-14=-8/1091, 4-10=-9/1096, 8-10=-56/925, 5-8=-565/225

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 2-2-5, Interior(1) 2-2-5 to 17-0-0, Exterior(2) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 34-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2 and 21 lb uplift at joint 6.



October 22,2019

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	A02	Common Supported Gable	1	1	E13668182
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:35 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-g_eTLrsKHch76oD4tTv_IrZAIxrxaxTtZYvjv4yR3lM

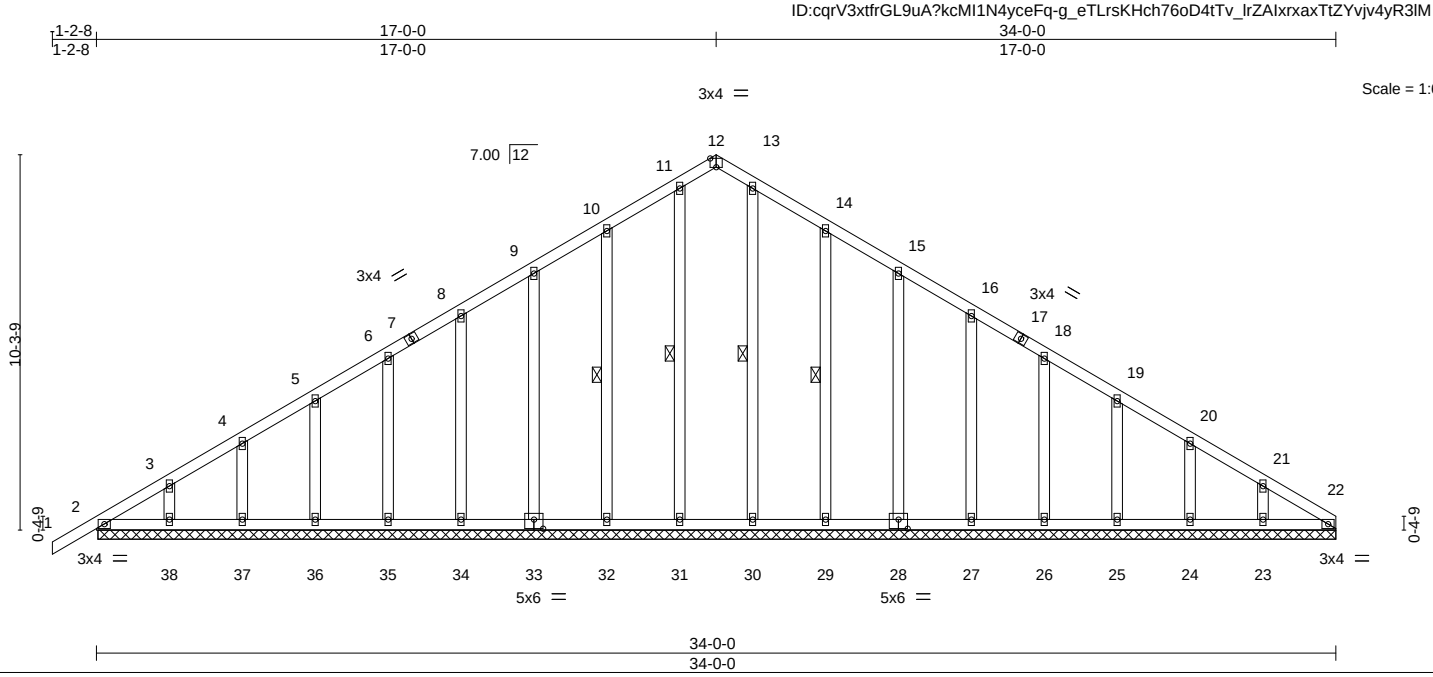


Plate Offsets (X,Y)-- [12:0-2-0,Edge], [28:0-3-0,0-3-0], [33:0-3-0,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 233 lb	FT = 20%

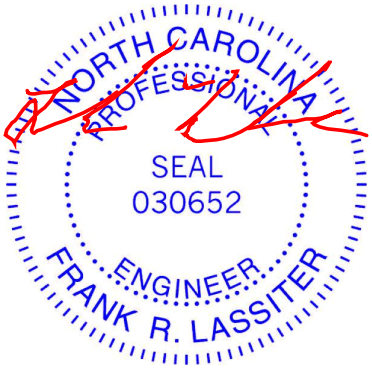
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-31, 10-32, 13-30, 14-29

REACTIONS. All bearings 33-11-8.
(lb) - Max Horz 2=209(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23, 2
Max Grav All reactions 250 lb or less at joint(s) 22, 31, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24, 23, 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 2-0-0, Exterior(2) 2-0-0 to 17-0-0, Corner(3) 17-0-0 to 20-4-13, Exterior(2) 20-4-13 to 34-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) * 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23, 2.
8) Non Standard bearing condition. Review required.



October 22,2019

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

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	A03	FINK	2	1	E13668183
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:36 2019 Page 1
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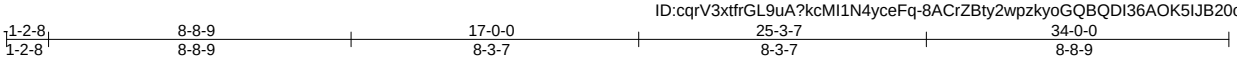

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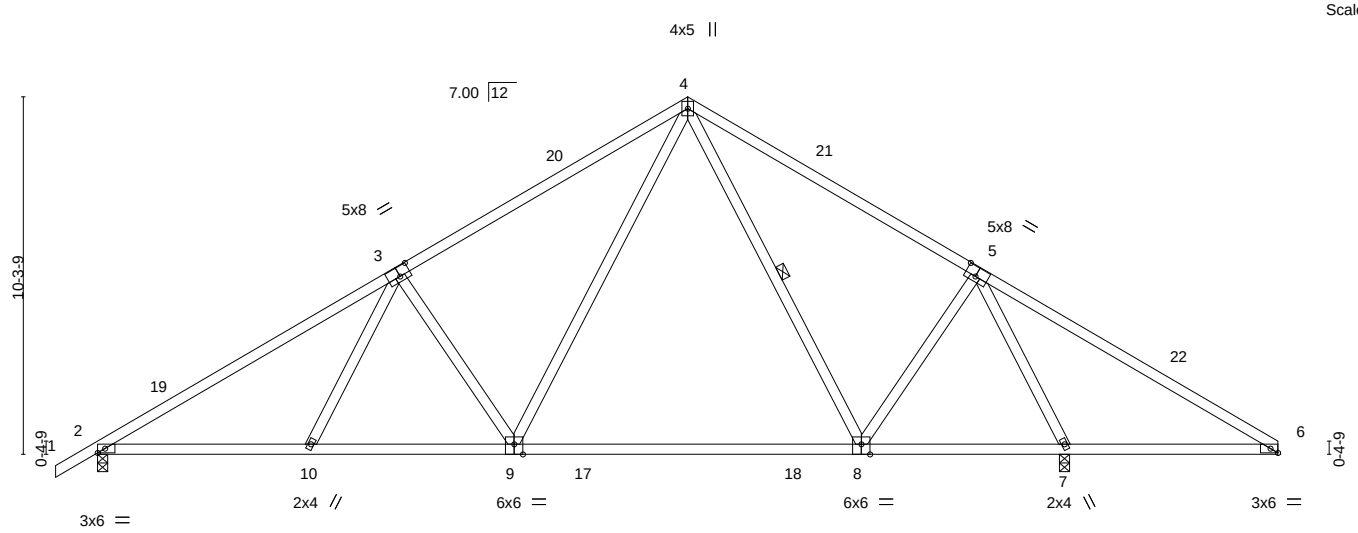


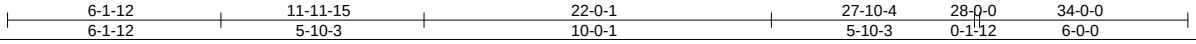


Plate Offsets (X,Y)-- [3:0-3-12,0-3-4], [5:0-3-12,0-3-4], [6:0-2-9,Edge], [8:0-3-0,Edge], [9:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.32	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.51	8-9	>655	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 178 lb	FT = 20%

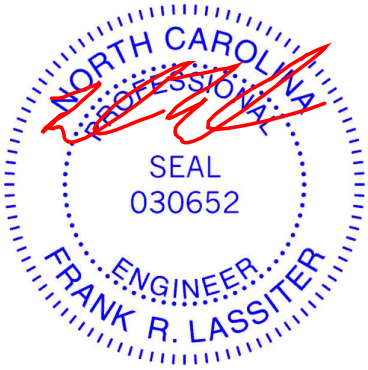
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP DSS
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 6-7.
WEBS 1 Row at midpt 4-8

REACTIONS. (lb/size) 2=1138/0-3-8, 7=1654/0-3-8
Max Horz 2=209(LC 10)
Max Uplift 2=-104(LC 11), 7=-99(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1697/133, 3-4=-1329/207, 4-5=-870/177, 5-6=-269/596
BOT CHORD 2-10=-16/1496, 9-10=-36/1439, 8-9=0/755, 7-8=0/407, 6-7=-393/293
WEBS 3-9=-587/211, 4-9=-78/845, 5-8=0/520, 5-7=-1635/341

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 2-2-5, Interior(1) 2-2-5 to 17-0-0, Exterior(2) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 34-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=104.



October 22,2019

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES	
191203RT1	A04	FINK	9	1	Job Reference (optional)	E13668184

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:37 2019 Page 1
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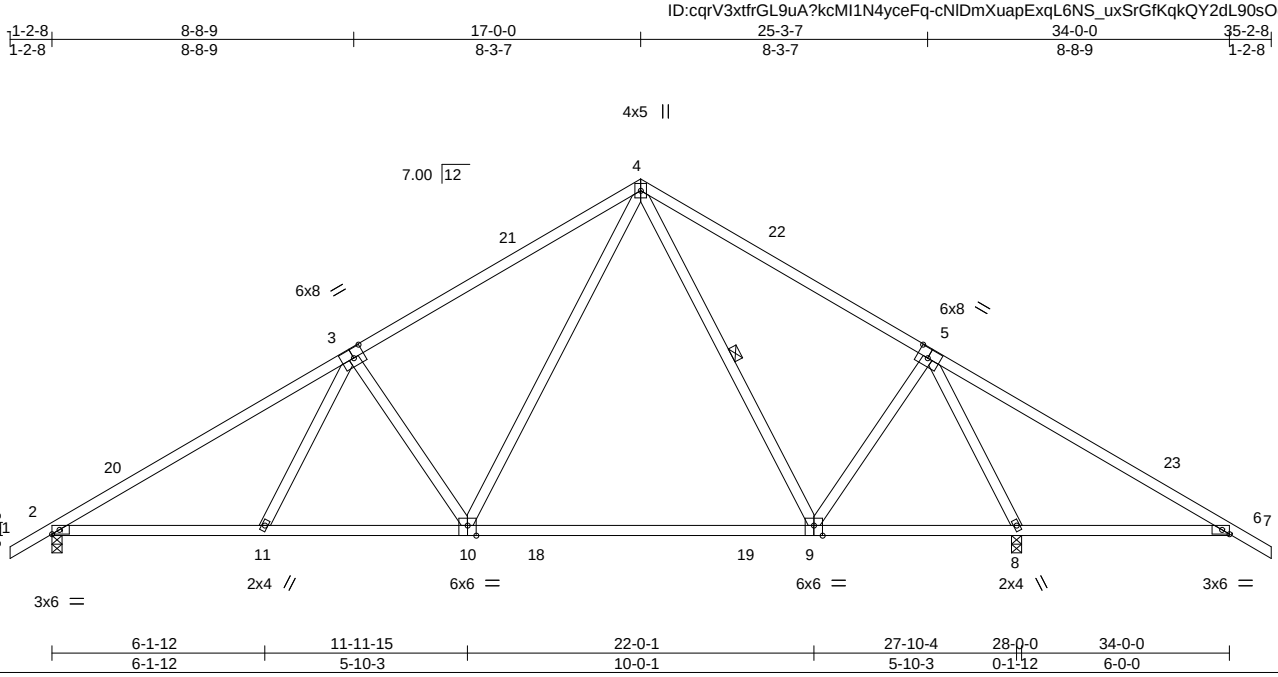


Plate Offsets (X,Y)-- [3:0-3-12,0-3-4], [5:0-3-12,0-3-4], [6:0-2-9,Edge], [9:0-3-0,Edge], [10:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	-0.32	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.51	9-10	>656	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 180 lb	FT = 20%

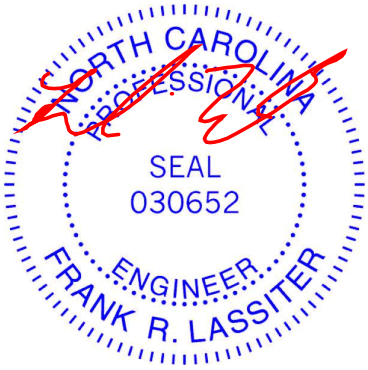
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP DSS
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 6-8.
WEBS 1 Row at midpt 4-9

REACTIONS. (lb/size) 2=1121/0-3-8, 8=1744/0-3-8
Max Horz 2=-213(LC 9)
Max Uplift 2=-94(LC 11), 8=-147(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1663/125, 3-4=-1307/200, 4-5=-822/143, 5-6=-379/751
BOT CHORD 2-11=0/1485, 10-11=-0/1428, 9-10=0/744, 8-9=0/344, 6-8=-527/425
WEBS 3-10=-587/211, 4-10=-78/845, 4-9=-262/138, 5-9=0/559, 5-8=-1742/415

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=34ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 2-2-5, Interior(1) 2-2-5 to 17-0-0, Exterior(2) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 35-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=147.



October 22,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	A05	FINK	11	1	E13668185
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:38 2019 Page 1
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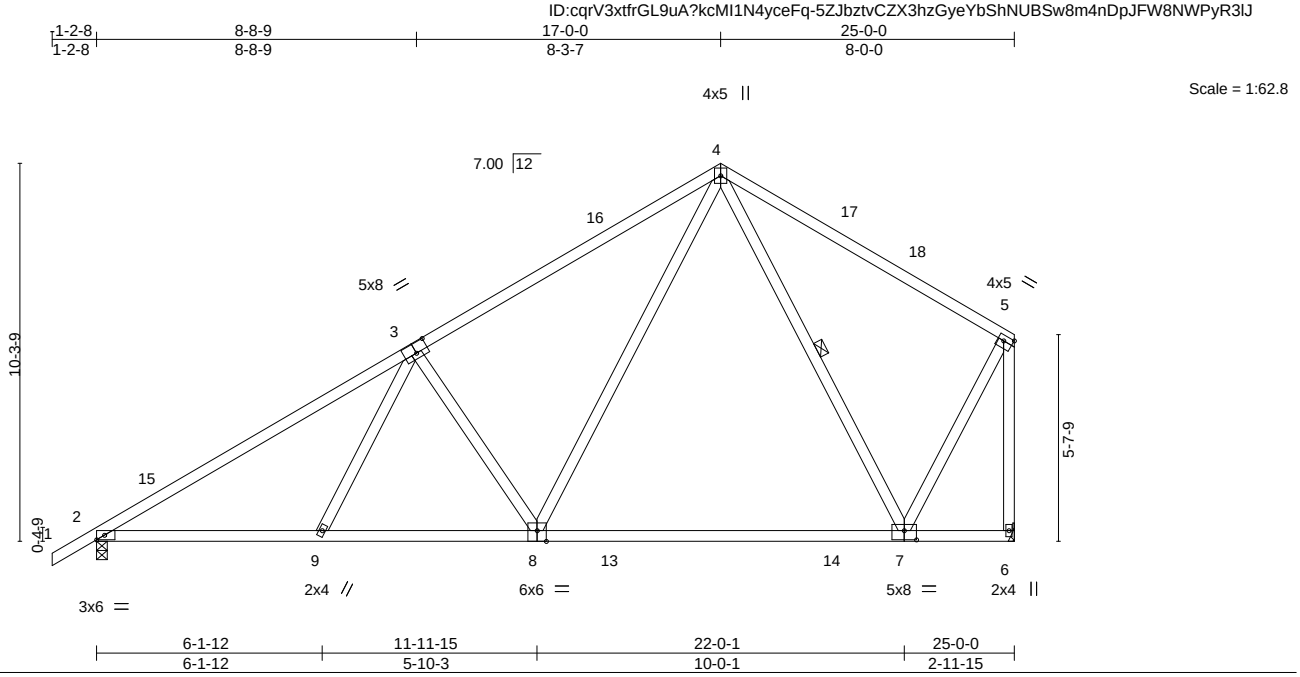


Plate Offsets (X,Y)-- [3:0-4-0,0-3-4], [5:Edge,0-1-12], [7:0-4-0,0-3-0], [8:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.99	Vert(LL)	-0.28	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.46	7-8	>645	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 148 lb	FT = 20%

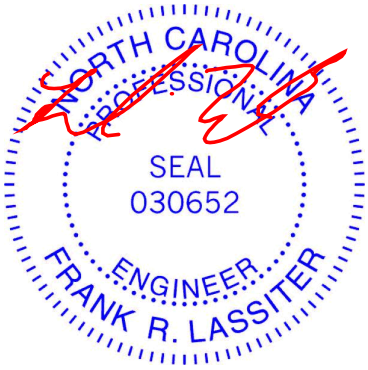
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP DSS
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-7

REACTIONS. (lb/size) 2=1068/0-3-8, 6=992/Mechanical
Max Horz 2=290(LC 10)
Max Uplift 2=-96(LC 11), 6=-62(LC 11)
Max Grav 2=1068(LC 1), 6=1018(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1563/166, 3-4=-1166/240, 4-5=-570/178, 5-6=-1101/106
BOT CHORD 2-9=-258/1352, 8-9=-274/1291, 7-8=-129/612
WEBS 3-8=-586/207, 4-8=-71/832, 4-7=-458/137, 5-7=0/824

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 17-0-0, Exterior(2) 17-0-0 to 20-0-0, Interior(1) 20-0-0 to 24-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * 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.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.



October 22,2019

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

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	A06	GABLE	1	1	E13668186
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:39 2019 Page 1
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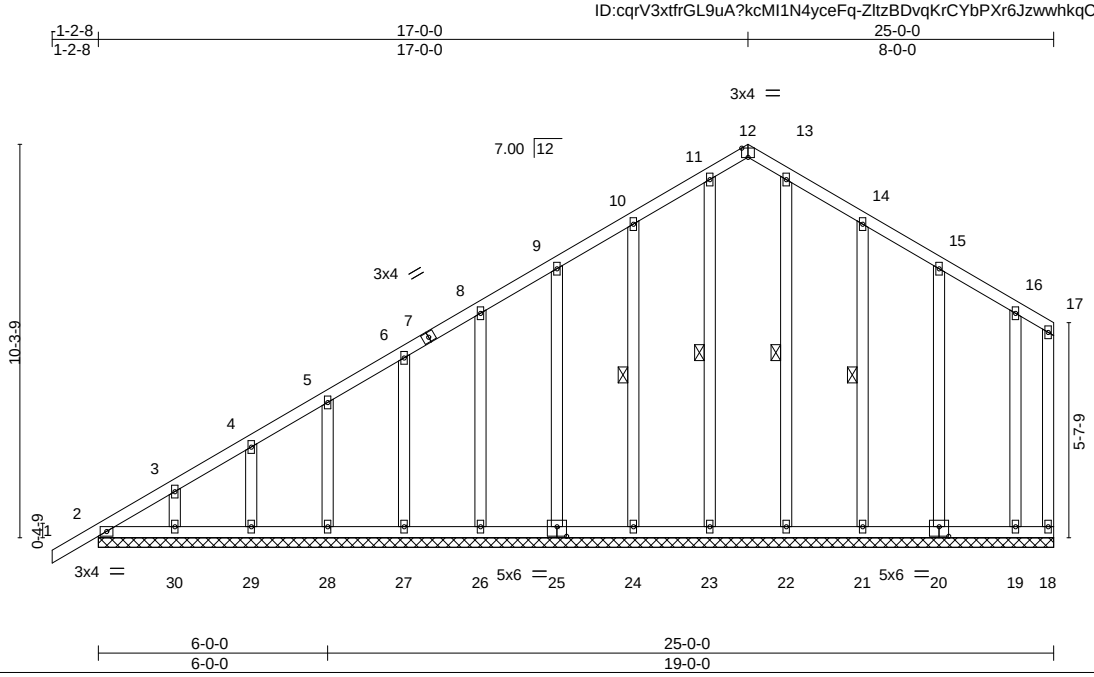


Plate Offsets (X,Y)-- [12:0-2-0,Edge], [20:0-3-0,0-3-0], [25:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	18	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 195 lb	FT = 20%

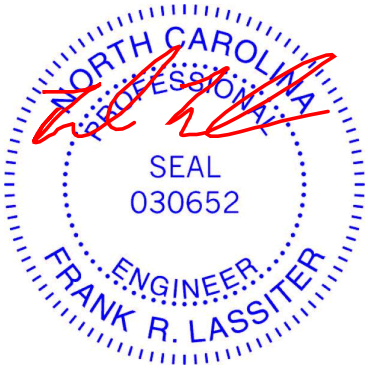
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-23, 10-24, 13-22, 14-21

REACTIONS. All bearings 25-0-0.
(lb) - Max Horz 2=290(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 23, 24, 25, 26, 27, 28, 29, 30, 21, 20, 19
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 23, 24, 25, 26, 27, 28, 29, 30, 22, 21, 20, 19

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-266/251, 10-11=-233/270, 13-14=-233/270

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=25ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 2-0-0, Exterior(2) 2-0-0 to 17-0-0, Corner(3) 17-0-0 to 20-0-0, Exterior(2) 20-0-0 to 24-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) * This truss has been designed for a 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, 18, 23, 24, 25, 26, 27, 28, 29, 30, 21, 20, 19.



October 22,2019

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

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	B01	FINK	6	1	E13668187
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:40 2019 Page 1
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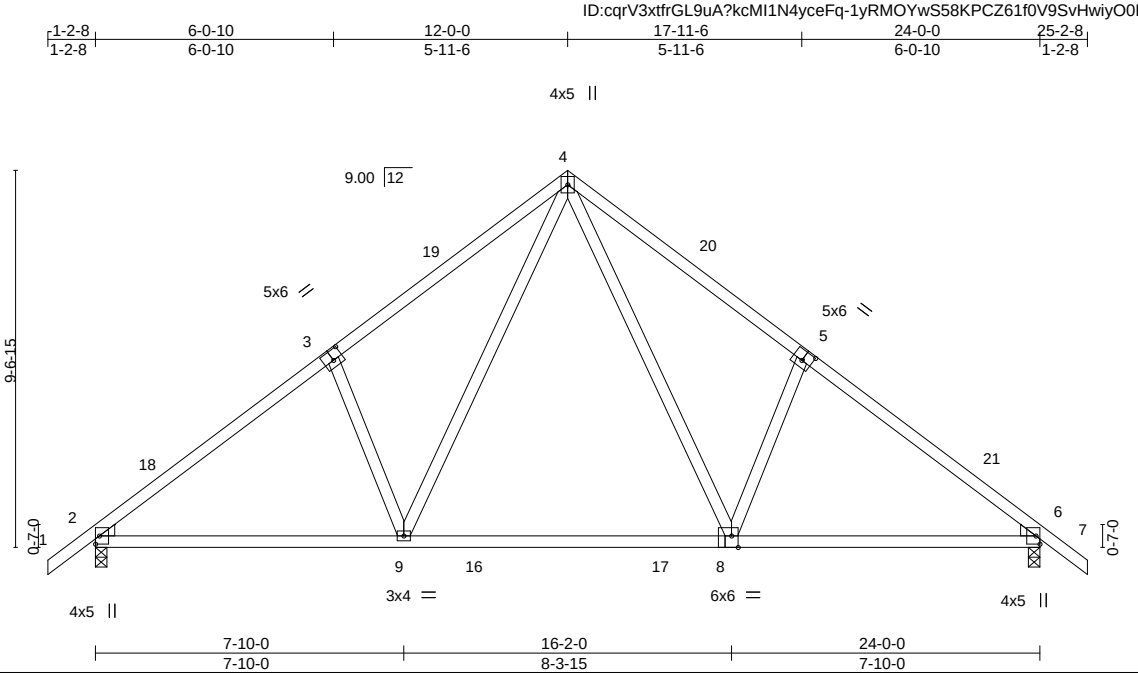

Plate Offsets (X,Y)-- [2:0-0-7,0-0-10], [2:0-0-15,0-4-5], [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-0-15,0-4-5], [6:0-0-7,0-0-10], [8:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.24	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.33	8-9	>886	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 130 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=1033/0-3-8, 6=1033/0-3-8
Max Horz 2=202(LC 10)
Max Uplift 2=-96(LC 11), 6=-96(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1263/160, 3-4=-1160/252, 4-5=-1148/247, 5-6=-1261/161
BOT CHORD 2-9=-7/1061, 8-9=0/694, 6-8=-16/945
WEBS 3-9=-363/193, 4-9=-95/601, 4-8=-88/597, 5-8=-361/191

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 12-0-0, Exterior(2) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 25-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.

October 22,2019

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818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	B02	Common Supported Gable	1	1	E13668188
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:42 2019 Page 1
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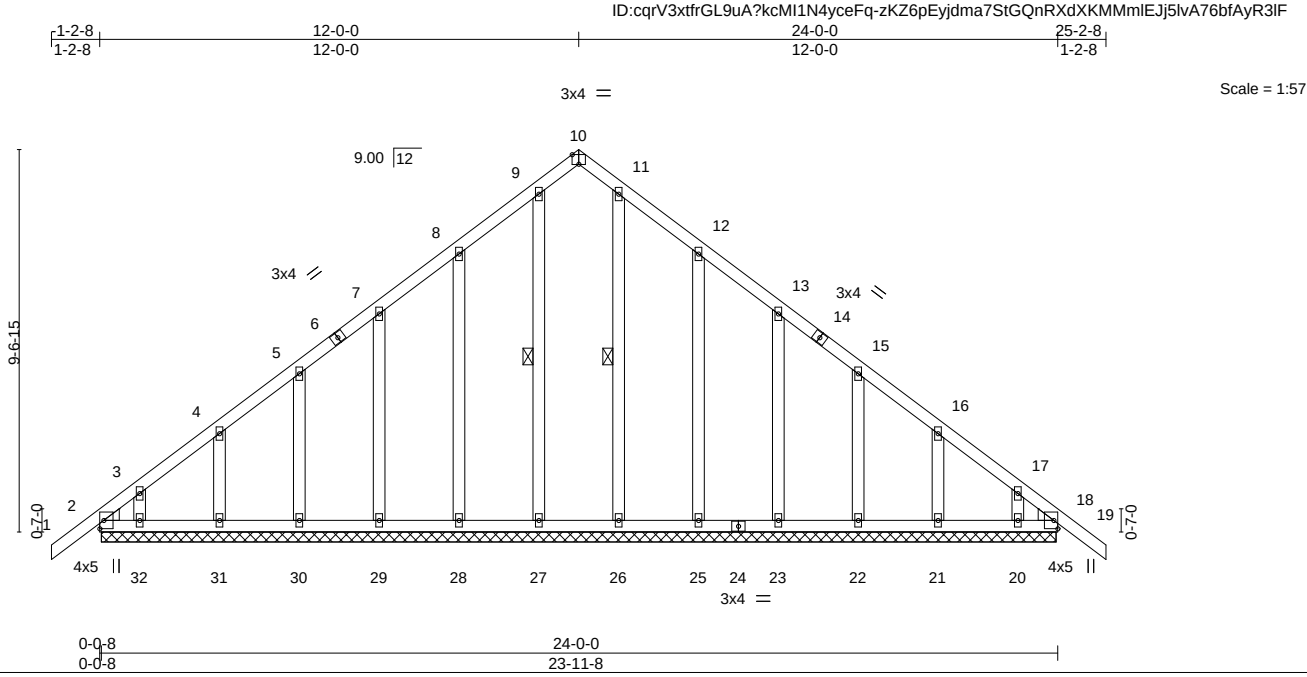


Plate Offsets (X,Y)-- [2:0-0-15,0-4-5], [2:0-0-7,0-0-10], [10:0-2-0,Edge], [18:0-0-7,0-0-10], [18:0-0-15,0-4-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	-0.00	19	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.01	19	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 167 lb	FT = 20%

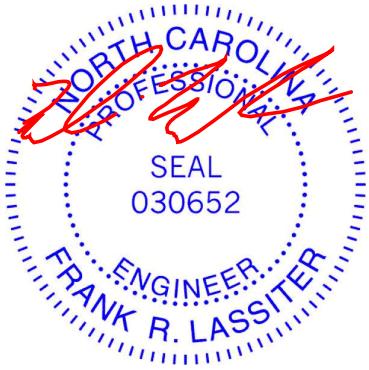
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

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.
WEBS 1 Row at midpt 9-27, 11-26

REACTIONS. All bearings 23-11-0.
(lb) - Max Horz 2=-202(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 18, 28, 29, 30, 31, 32, 25, 23, 22, 21, 20, 2
Max Grav All reactions 250 lb or less at joint(s) 18, 27, 28, 29, 30, 31, 32, 26, 25, 23, 22, 21, 20, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-259/225, 17-18=-263/233

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 1-9-8, Exterior(2) 1-9-8 to 12-0-0, Corner(3) 12-0-0 to 15-0-0, Exterior(2) 15-0-0 to 25-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) * This truss has been designed for a 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 28, 29, 30, 31, 32, 25, 23, 22, 21, 20, 2.
8) Non Standard bearing condition. Review required.



October 22,2019

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

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	B03	FINK	6	1	E13668189
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:43 2019 Page 1
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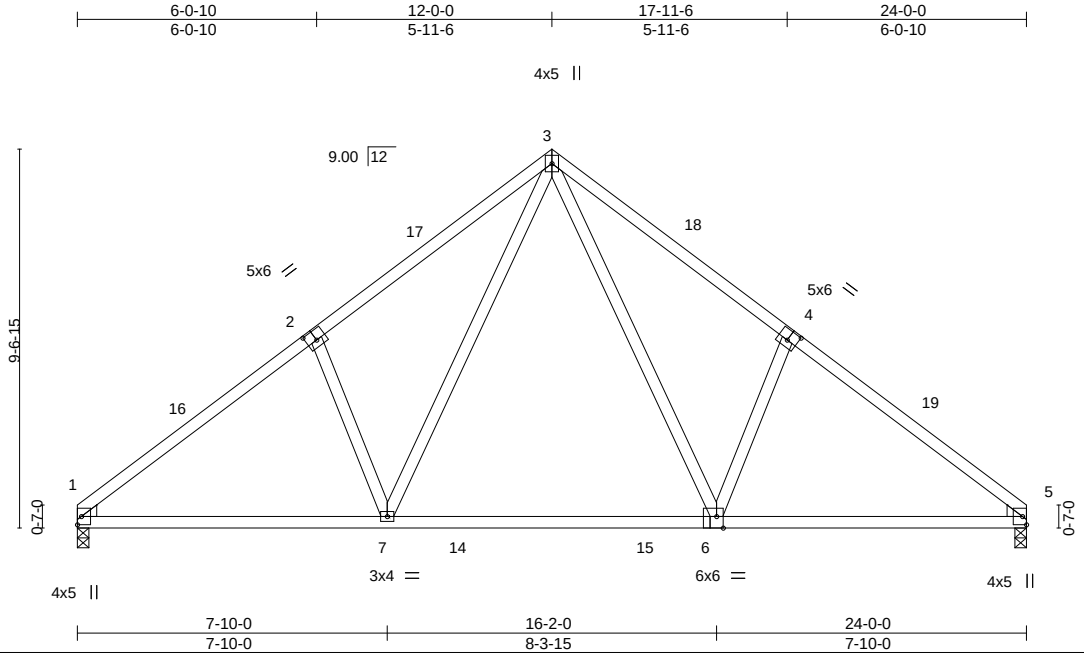


Plate Offsets (X,Y)-- [1:0-0-7,0-0-10], [1:0-0-15,0-4-5], [2:0-3-0,0-3-0], [4:0-3-0,0-3-0], [5:0-0-15,0-4-5], [5:0-0-7,0-0-10], [6:0-2-0,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.24	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.32	6-7	>895	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 126 lb	FT = 20%

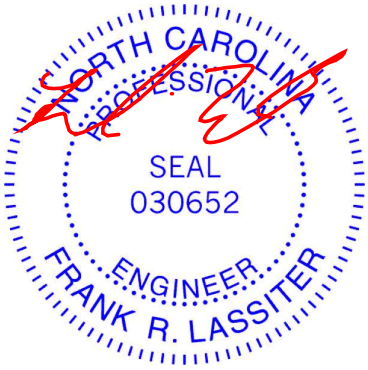
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2, Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=960/0-3-8, 5=960/0-3-8
Max Horz 1=-184(LC 9)
Max Uplift 1=-58(LC 11), 5=-58(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1273/172, 2-3=-1170/266, 3-4=-1158/261, 4-5=-1271/173
BOT CHORD 1-7=-44/1059, 6-7=0/688, 5-6=-45/948
WEBS 2-7=-363/195, 3-7=-97/609, 3-6=-91/605, 4-6=-361/193

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 12-0-0, Exterior(2) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 24-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a 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.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.



October 22,2019

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	C01	FINK	1	2	E13668190
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:44 2019 Page 1
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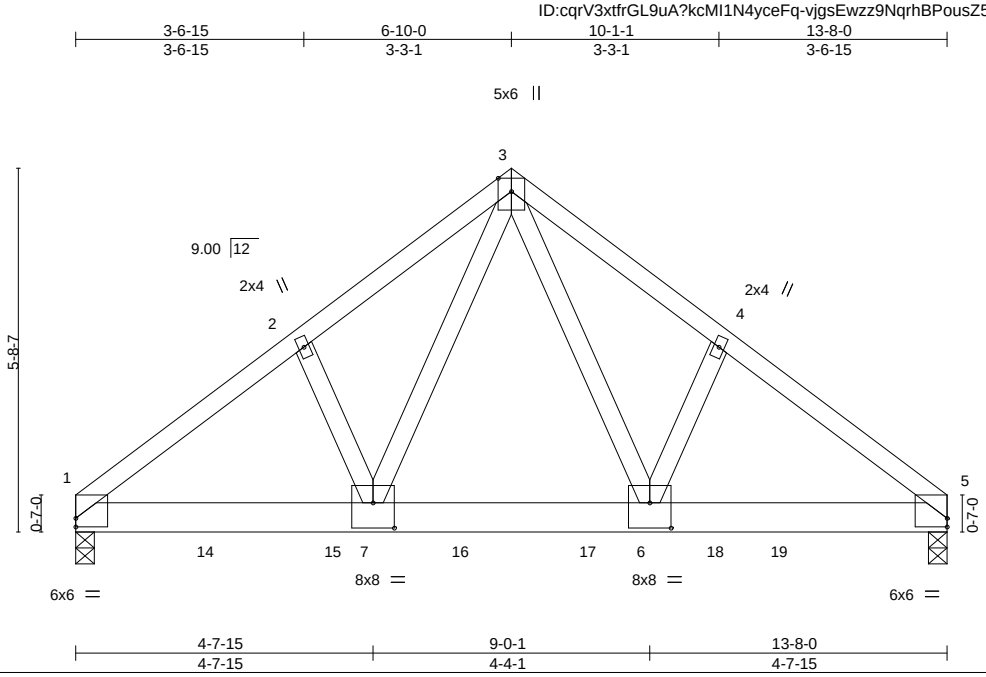


Plate Offsets (X,Y)-- [1:0-0-0,0-1-10], [5:0-0-0,0-1-10], [6:0-4-0,0-4-12], [7:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.05	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.12	6-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 164 lb	FT = 20%

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

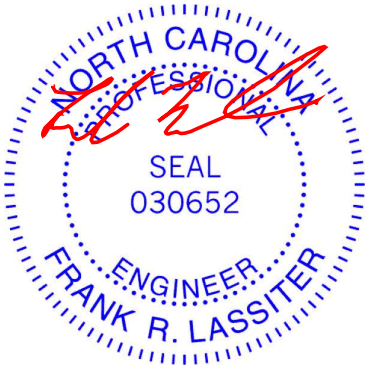
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-6-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4832/0-3-8, 5=6338/0-3-8
Max Horz 1=105(LC 23)
Max Uplift 1=-132(LC 7), 5=-164(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6295/199, 2-3=-6215/248, 3-4=-6583/256, 4-5=-6656/208
BOT CHORD 1-7=-111/4998, 6-7=-29/3576, 5-6=-118/5301
WEBS 3-7=-120/3618, 3-6=-137/4389

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.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) * This truss has been designed for a 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=132, 5=164.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1439 lb down and 41 lb up at 2-1-4, 1439 lb down and 41 lb up at 4-1-4, 1439 lb down and 41 lb up at 6-1-4, 1439 lb down and 41 lb up at 8-1-4, 1439 lb down and 41 lb up at 10-1-4, and 1439 lb down and 41 lb up at 11-1-4, and 1443 lb down and 37 lb up at 13-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (plf)
Vert: 8-11=-20, 1-3=-60, 3-5=-60
Concentrated Loads (lb)
Vert: 13=-1443(B) 14=-1439(B) 15=-1439(B) 16=-1439(B) 17=-1439(B) 18=-1439(B) 19=-1439(B)



October 22,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	C02	Common Supported Gable	1	1	E13668191 Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:45 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-NvEFRG_bwhyiJK_?Sa4K9y_t1zFJwUxLs5KFGVyR3lC

-1-2-8 1-2-8 | 6-10-0 6-10-0 | 13-8-0 6-10-0 | 14-10-8 1-2-8

Scale = 1:35.0

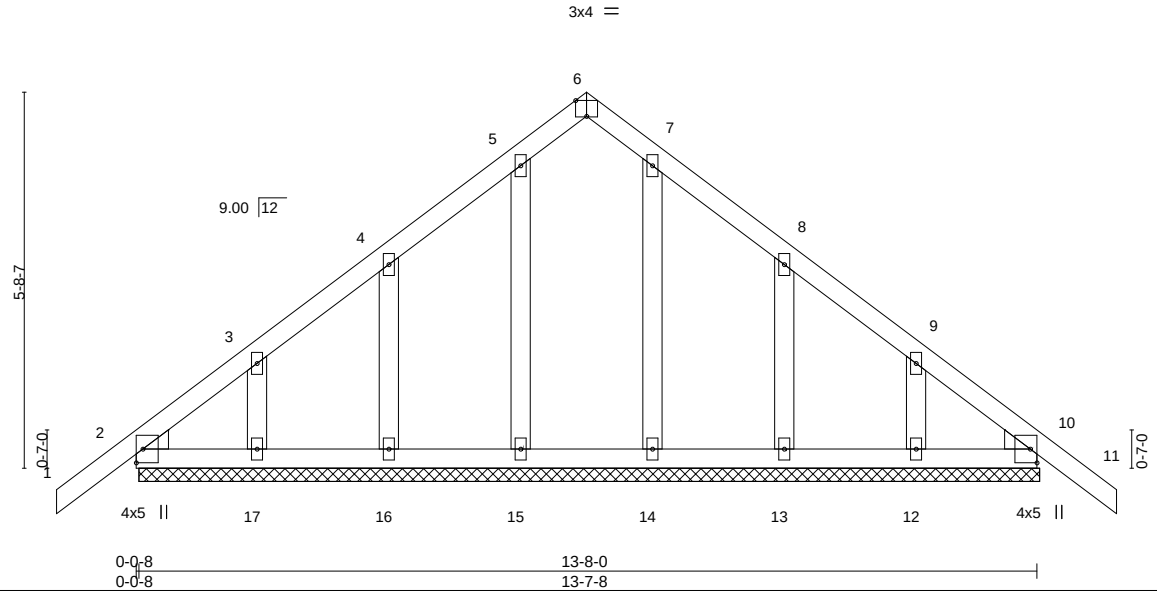

Plate Offsets (X,Y)-- [2:0-0-15,0-4-5], [2:0-0-7,0-0-10], [6:0-2-0,Edge], [10:0-0-7,0-0-10], [10:0-0-15,0-4-5]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	-0.00	11	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 78 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3, Right: 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. All bearings 13-8-0.
(lb) - Max Horz 2=-123(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 14, 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 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 1-10-0, Exterior(2) 1-10-0 to 6-10-0, Corner(3) 6-10-0 to 9-10-0, Exterior(2) 9-10-0 to 14-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) * This truss has been designed for a 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, 16, 17, 13, 12.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

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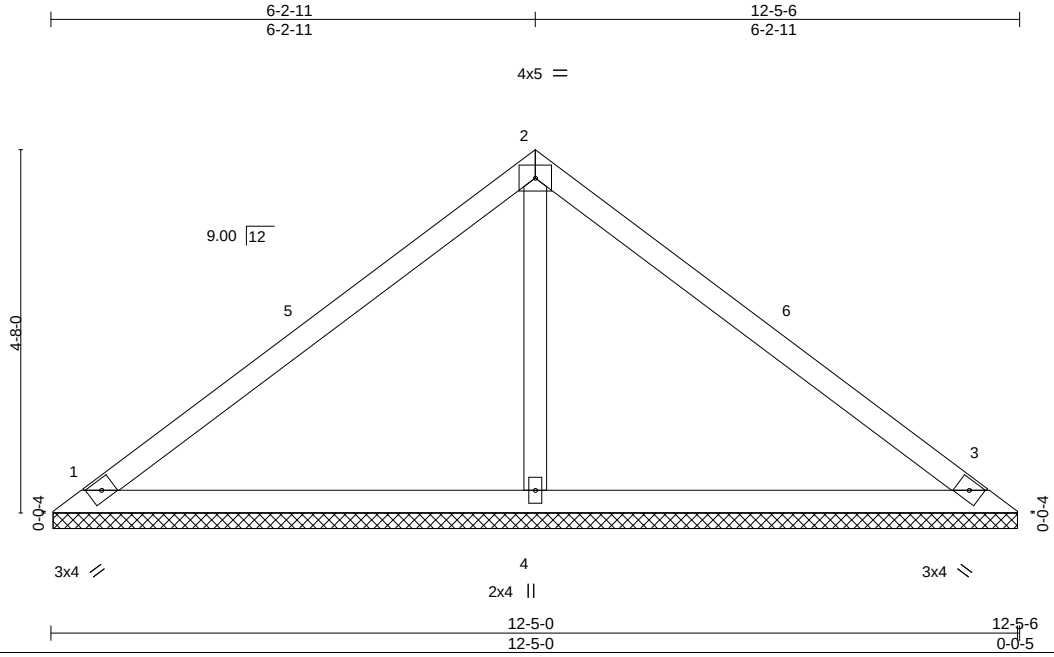
Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	V01	Valley	1	1	E13668192
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:45 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-NvEFRG_bwhyiJK_?Sa4K9y_nizC3wT5Ls5KFGVyR3lC



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.50	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 46 lb	FT = 20%

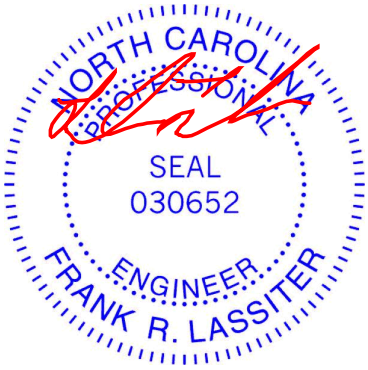
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. (lb/size) 1=234/12-4-11, 3=234/12-4-11, 4=457/12-4-11
Max Horz 1=-89(LC 9)
Max Uplift 1=-32(LC 11), 3=-32(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-286/82

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 6-2-11, Exterior(2) 6-2-11 to 9-2-11, Interior(1) 9-2-11 to 12-0-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) * This truss has been designed for a 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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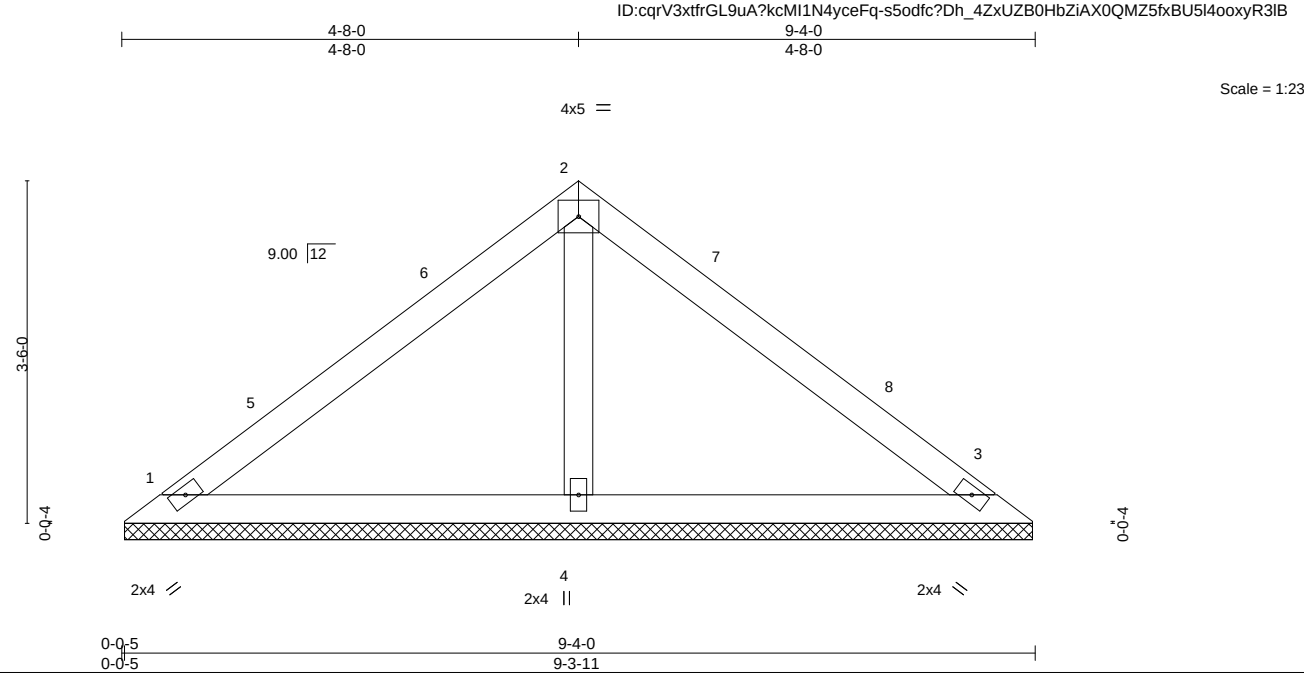
Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	V02	Valley	2	1	E13668193
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:46 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-s5odfc?Dh_4ZxUZB0HbZiAX0QMZ5fxBU5l4ooxyR3lB



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 34 lb	FT = 20%

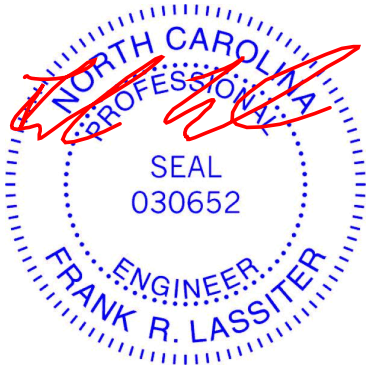
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. (lb/size) 1=171/9-3-6, 3=171/9-3-6, 4=334/9-3-6
Max Horz 1=-65(LC 9)
Max Uplift 1=-24(LC 11), 3=-24(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 4-8-0, Exterior(2) 4-8-0 to 7-8-0, Interior(1) 7-8-0 to 8-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) * 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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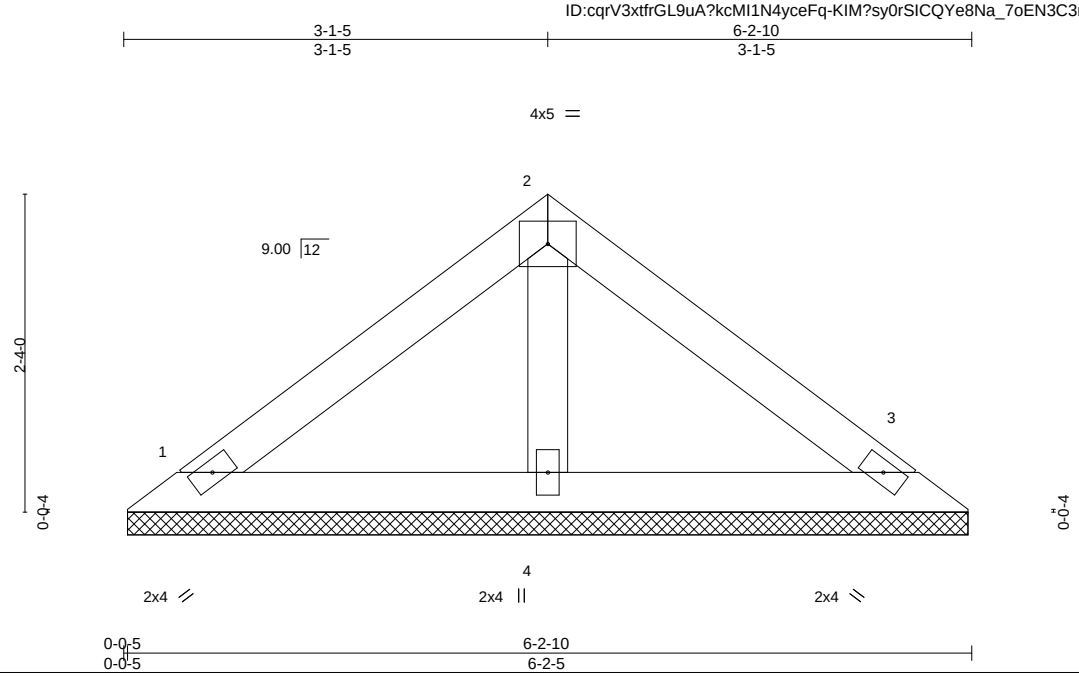
Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	V03	Valley	2	1	E13668194
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:47 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-KIM?sy0rSICQYe8Na_7oEN3C3mxfOOpeJPpLKNyR3lA



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 22 lb	FT = 20%

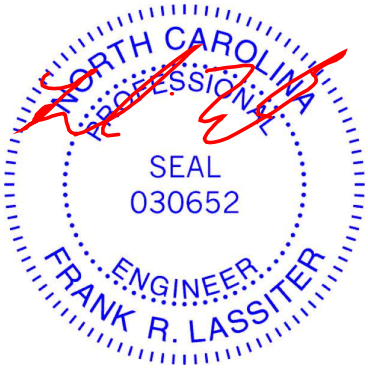
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. (lb/size) 1=118/6-1-15, 3=118/6-1-15, 4=191/6-1-15
Max Horz 1=41(LC 10)
Max Uplift 1=-21(LC 11), 3=-21(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) * This truss has been designed for a 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES
191203RT1	V04	Valley	2	1	E13668195
					Job Reference (optional)

Carolina Structural Systems, LLC, Ether, NC - 27247, 8.240 s Jul 14 2019 MiTek Industries, Inc. Mon Oct 21 21:23:47 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-KIM?sy0rSICQYe8Na_7oEN3EnmxoOO3eJPpLKNyR3lA

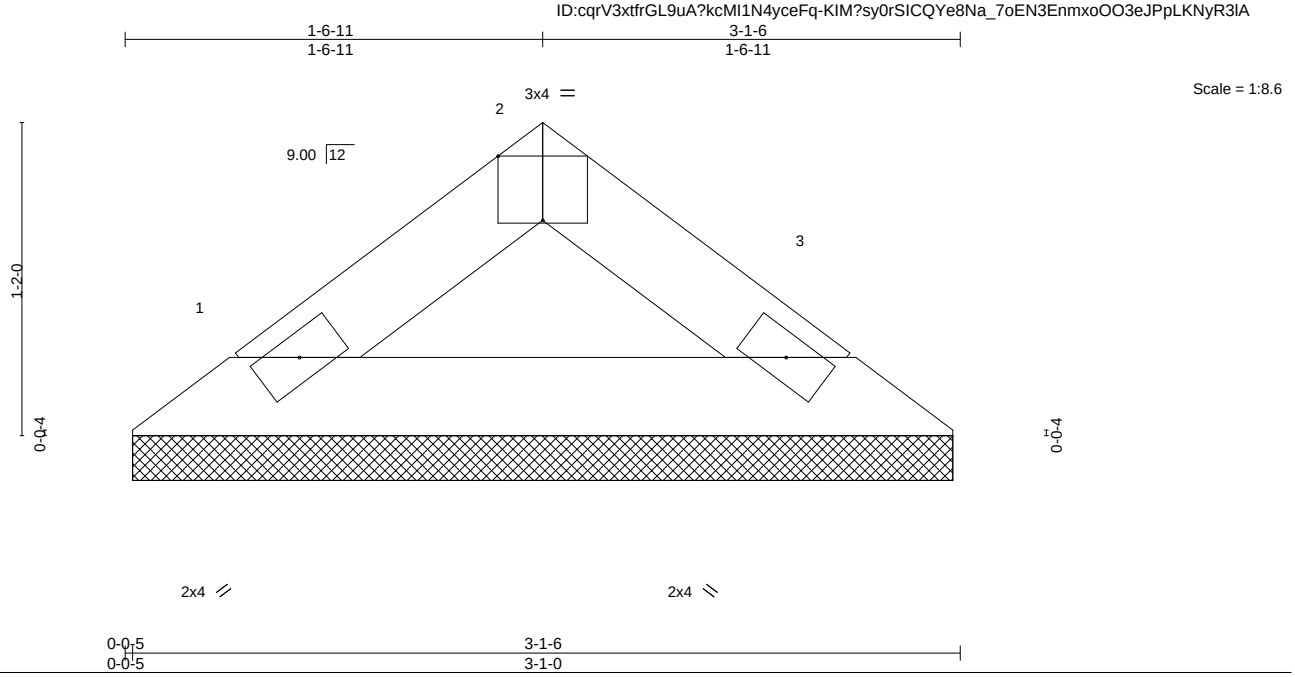

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.00	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=89/3-0-11, 3=89/3-0-11
Max Horz 1=17(LC 10)
Max Uplift 1=-5(LC 11), 3=-5(LC 11)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) * This truss has been designed for a 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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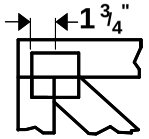
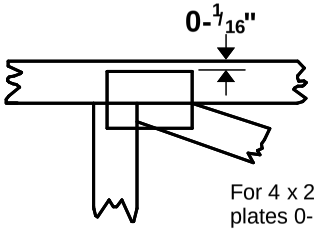
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

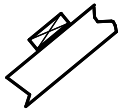
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

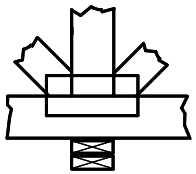
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

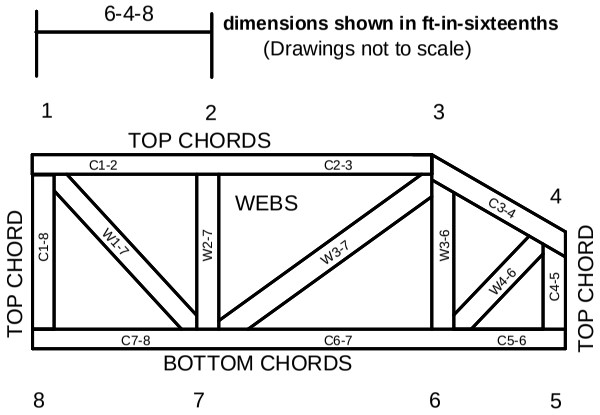


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

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.