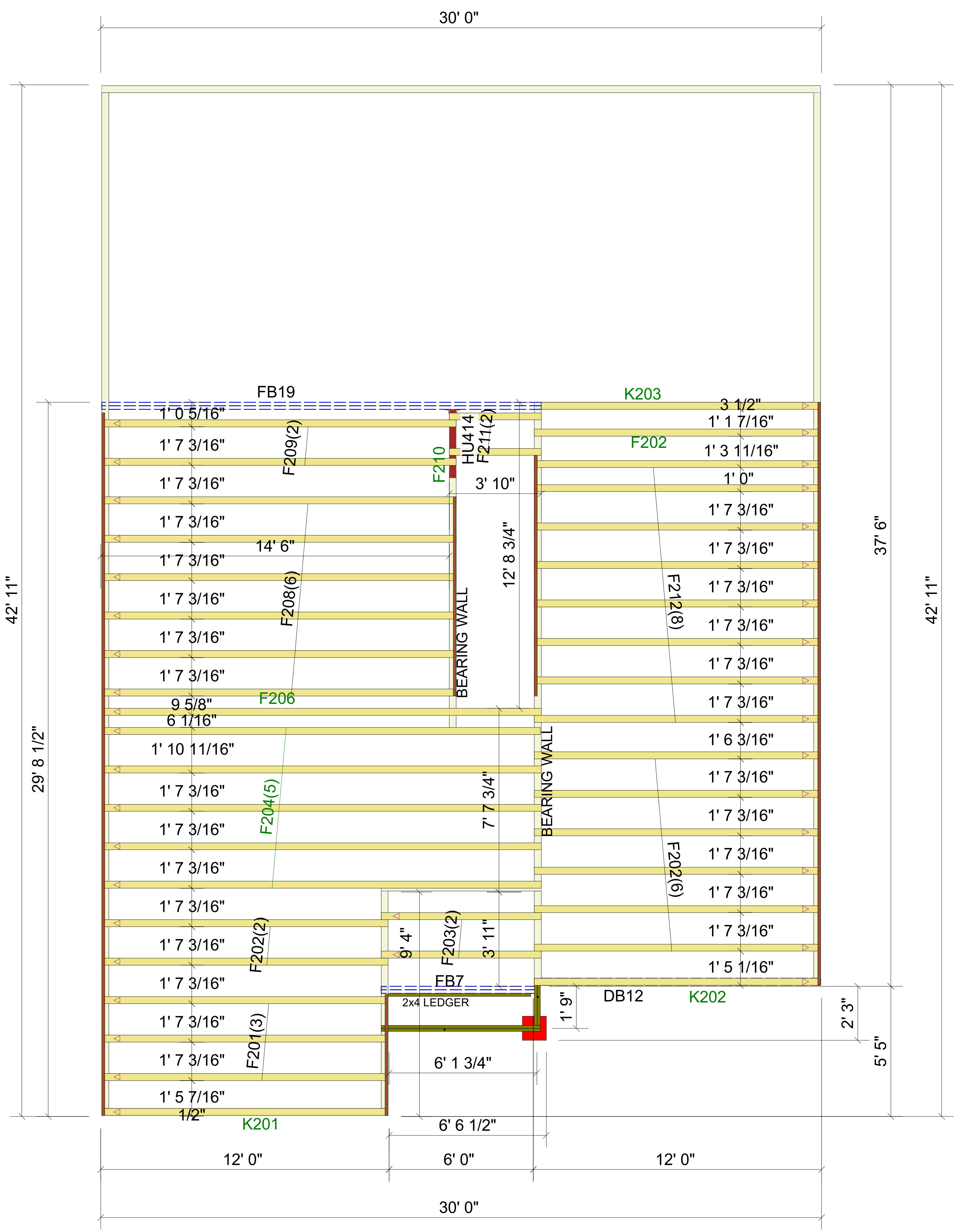

Products				
PlotID	Length	Product	Plies	Net Qty
DB12	12' 0"	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2	2
FB7	7' 0"	1-3/4X14 LP-LVL 2900Fb-2.0E	2	2
FB19	19' 0"	1-3/4X18 LP-LVL 2900Fb-2.0E	2	2

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HU414	1

EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING.
SHEATHING IS FLUSH TO FACE OF FOUNDATION.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

REVIEWED BY:

APPROVED BY:

DATE:

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

Carolina Structural Systems
Roof Trusses • Floor Trusses • EWP
Carolina Structural Systems
P.O. Box 157, Ether, NC 27247
225 Frame Shop Rd., Star, NC 27356
910-491-9004

QUALITY AUDITED by: IBC 1704.2 IBC 2303.4 ANSI/TPI 1-2002 ANSI/TPI 1-2007 ANSI/TPI 1-2014
CAROLINA STRUCTURAL SYSTEMS, LLC
Star, NC - Plant E30-437
910-491-9004

Job #: Q2200850 FORGET ME NOT

Plan: FLOOR GARAGE RIGHT

Customer: GARMAN HOMES

Date: 2/6/2023

Site Address:

Sales Rep: RW

City, ST, ZIP:

Designer: JSP

ROOF DATA

Roof Area: 1721.46 SF

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Q2200850
Garman Homes - Forget Me Not B Floor

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

Pages or sheets covered by this seal: I56500228 thru I56500240

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

North Carolina COA: C-0844

February 7,2023

Liu, Xuegang

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F201	Floor	3	1	I56500228
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:17 Page: 1
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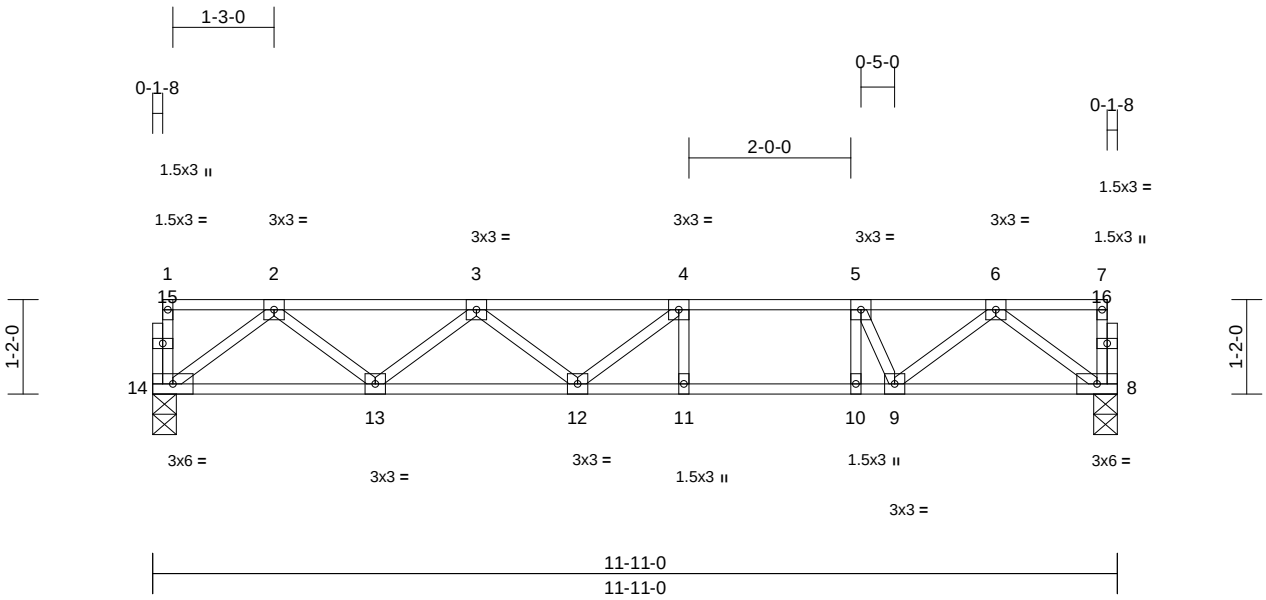


Scale = 1:28.5

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.12	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.17	11-12	>836	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS (size) 8=0-3-8, 14=0-3-8
Max Grav 8=508 (LC 1), 14=508 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-34/0, 7-8=-54/0, 1-2=-2/0, 2-3=-980/0, 3-4=-1386/0, 4-5=-1309/0, 5-6=-1033/0, 6-7=-3/0
BOT CHORD 13-14=0/614, 12-13=0/1331, 11-12=0/1309, 10-11=0/1309, 9-10=0/1309, 8-9=0/587
WEBS 6-8=-732/0, 2-14=-767/0, 6-9=0/581, 2-13=0/477, 3-13=-457/0, 3-12=0/158, 5-10=0/415, 4-12=-112/175, 4-11=-205/0, 5-9=-699/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

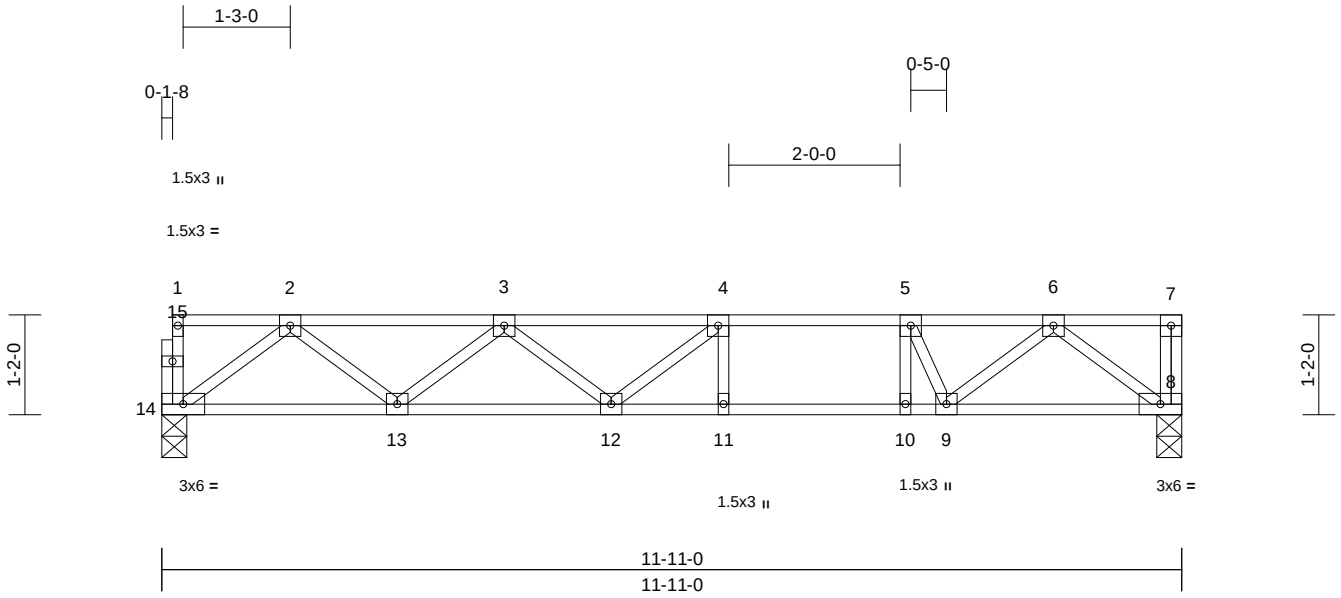
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F202	Floor	9	1	I56500229
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:19 ID:gokaYYAa02_Te1lI1M39ZCzEjDE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.12	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.17	11-12	>836	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 61 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 8=0-3-8, 14=0-3-8
Max Grav 8=513 (LC 1), 14=508 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-14=-34/0, 7-8=-56/0, 1-2=-2/0, 2-3=-980/0, 3-4=-1386/0, 4-5=-1309/0, 5-6=-1033/0, 6-7=0/0
BOT CHORD	13-14=0/614, 12-13=0/1331, 11-12=0/1309, 10-11=0/1309, 9-10=0/1309, 8-9=0/588
WEBS	6-8=-738/0, 2-14=-767/0, 6-9=0/580, 2-13=0/477, 3-13=-457/0, 3-12=0/158, 5-10=0/415, 4-12=-112/175, 4-11=-205/0, 5-9=-698/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F203	Floor	2	1	I56500230
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:20 Page: 1

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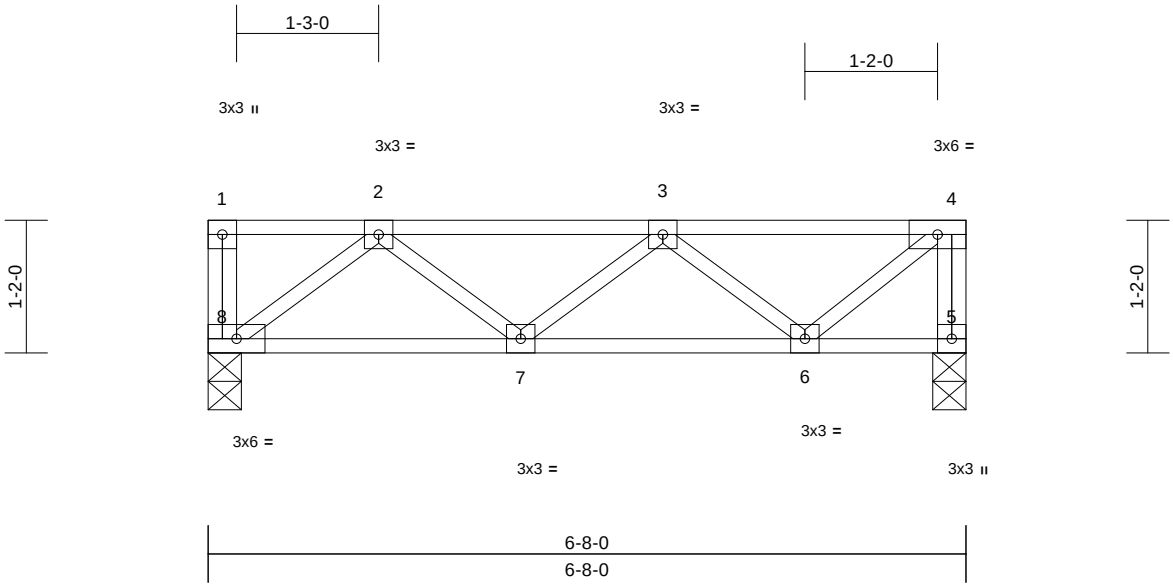

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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.01	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(CT)	-0.01	6-7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 37 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Grav 5=282 (LC 1), 8=282 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-35/0, 4-5=-278/0, 1-2=0/0, 2-3=-404/0, 3-4=-246/0
BOT CHORD 7-8=0/315, 6-7=0/465, 5-6=0/0
WEBS 2-8=-395/0, 2-7=0/116, 3-7=-80/0, 3-6=-286/0, 4-6=0/316

NOTES

1) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

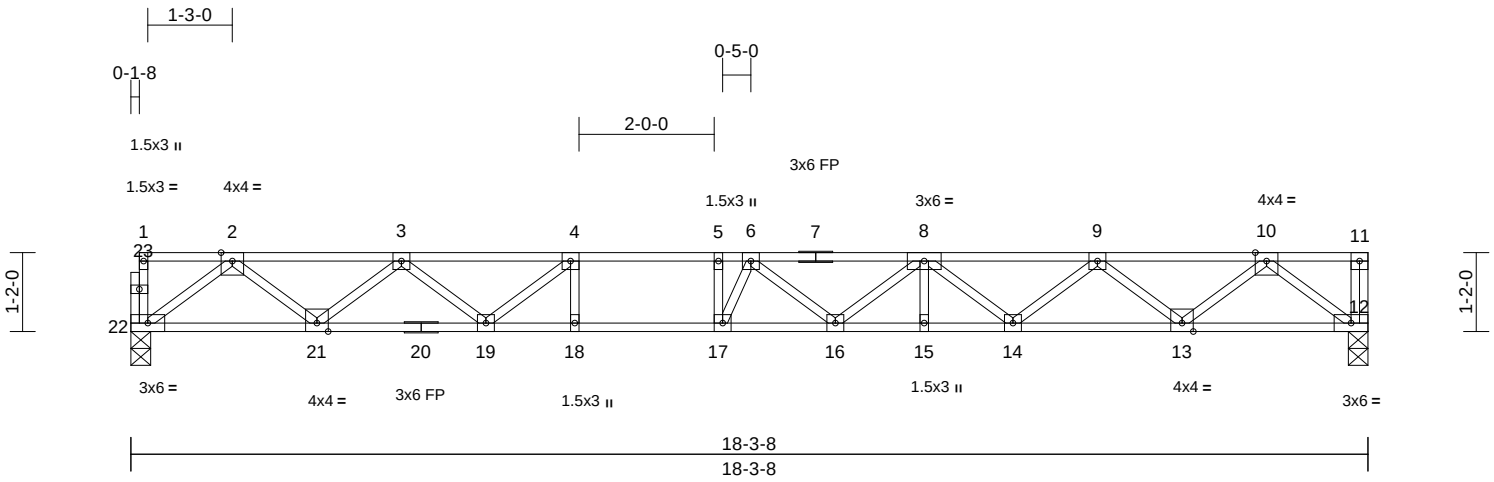
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F204	Floor	5	1	I56500231 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:20 ID:0Ll93Hv4cMoPeICXtcIsURzEioT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.28	16-17	>762	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.39	16-17	>553	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	12	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.1(flat) *Except* 7-11:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 20-12:2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.2(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 12=0-3-8, 22=0-3-8
Max Grav 12=794 (LC 1), 22=789 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-32/0, 11-12=-33/0, 1-2=-2/0, 2-3=-1681/0, 3-4=-2767/0, 4-5=-3296/0, 5-6=-3296/0, 6-8=-3348/0, 8-9=-2764/0, 9-10=-1682/0, 10-11=0/0
BOT CHORD 21-22=0/994, 19-21=0/2331, 18-19=0/3296, 17-18=0/3296, 16-17=0/3417, 15-16=0/3179, 14-15=0/3179, 13-14=0/2348, 12-13=0/990
WEBS 10-12=-1242/0, 2-22=-1245/0, 10-13=0/902, 2-21=0/894, 9-13=-866/0, 3-21=-846/0, 9-14=0/542, 3-19=0/588, 8-14=-530/0, 8-15=-28/17, 4-19=-773/0, 8-16=0/253, 4-18=-23/231, 5-17=-167/290, 6-17=-516/238, 6-16=-261/77

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F206	Floor	1	1	I56500232
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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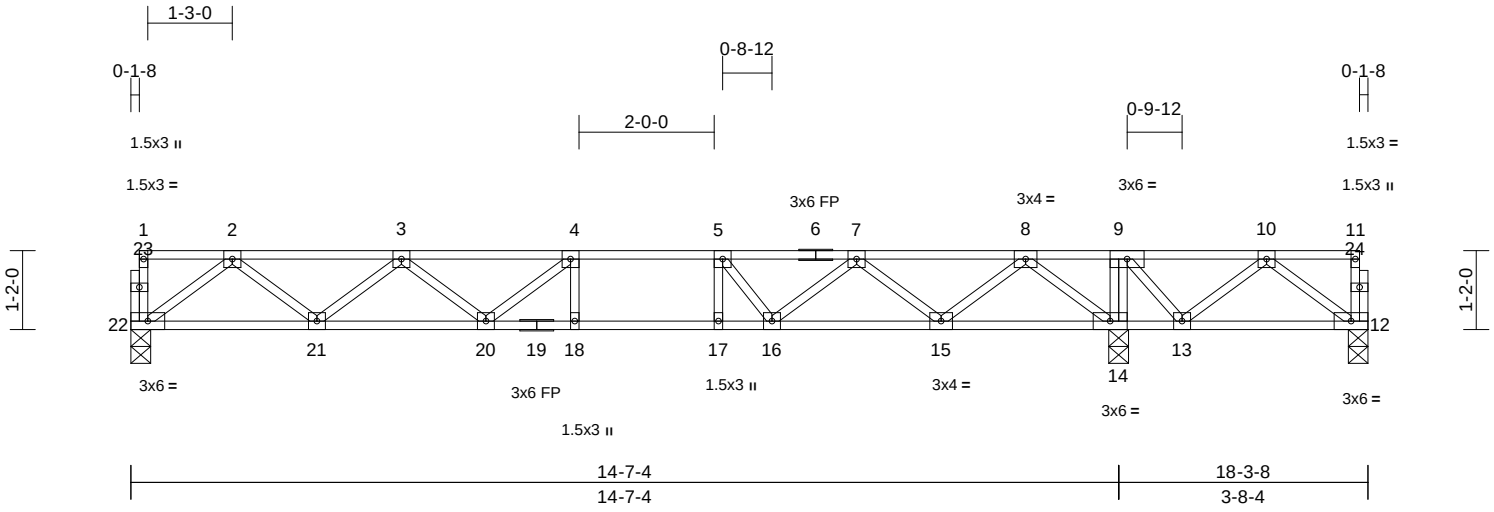

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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.13	18-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.17	18-20	>998	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat) *Except* 19-12:2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 12=0-3-8, 14=0-3-8, 22=0-3-8
Max Uplift 12=-299 (LC 3)
Max Grav 12=53 (LC 4), 14=1223 (LC 1), 22=548 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-22=-34/0, 11-12=-31/0, 1-2=-2/0, 2-3=-1081/0, 3-4=-1582/0, 4-5=-1589/0, 5-7=-1273/0, 7-8=-335/0, 8-9=0/1143, 9-10=0/824, 10-11=-2/0
BOT CHORD	21-22=0/668, 20-21=0/1474, 18-20=0/1589, 17-18=0/1589, 16-17=0/1589, 15-16=0/898, 14-15=-376/0, 13-14=-1143/0, 12-13=-413/20
WEBS	10-12=-22/518, 2-22=-835/0, 2-21=0/537, 3-21=-513/0, 3-20=0/190, 4-18=-168/1, 4-20=-163/90, 5-17=0/257, 9-14=-544/0, 8-14=-1111/0, 8-15=0/775, 7-15=-737/0, 7-16=0/489, 5-16=-559/0, 10-13=-615/0, 9-13=0/545

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 299 lb uplift at joint 12.
4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F208	Floor	6	1	I56500233
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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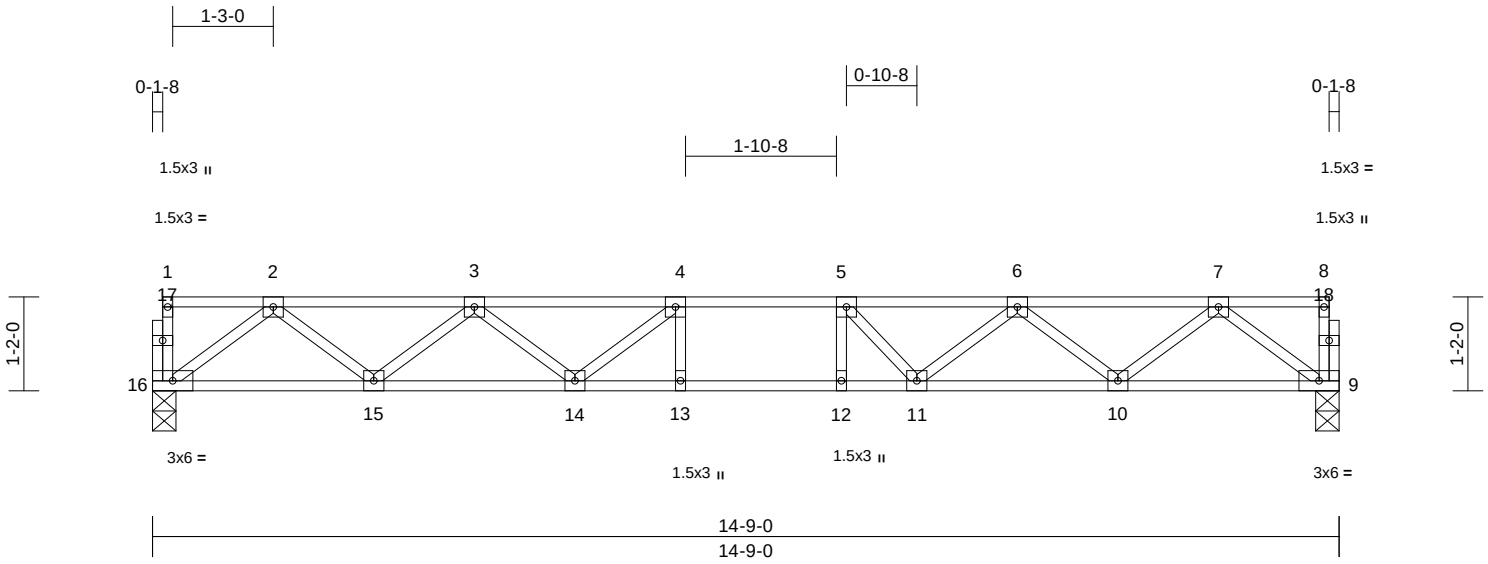


Scale = 1:28.6

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	-0.13	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.17	12-13	>998	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat) *Except* 9-18:2x4 SP No.2 (flat)

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

REACTIONS (size) 9=0-3-8, 16=0-3-8
Max Grav 9=633 (LC 1), 16=633 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-33/0, 8-9=-31/0, 1-2=-2/0, 2-3=-1293/0, 3-4=-1998/0, 4-5=-2197/0, 5-6=-2009/0, 6-7=-1290/0, 7-8=-2/0
BOT CHORD 15-16=0/783, 14-15=0/1776, 13-14=0/2197, 12-13=0/2197, 11-12=0/2197, 10-11=0/1764, 9-10=0/787
WEBS 7-9=-985/0, 2-16=-980/0, 7-10=0/655, 2-15=0/664, 6-10=-617/0, 3-15=-630/0, 6-11=0/379, 3-14=0/338, 4-14=-399/0, 4-13=-110/103, 5-12=-99/160, 5-11=-427/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

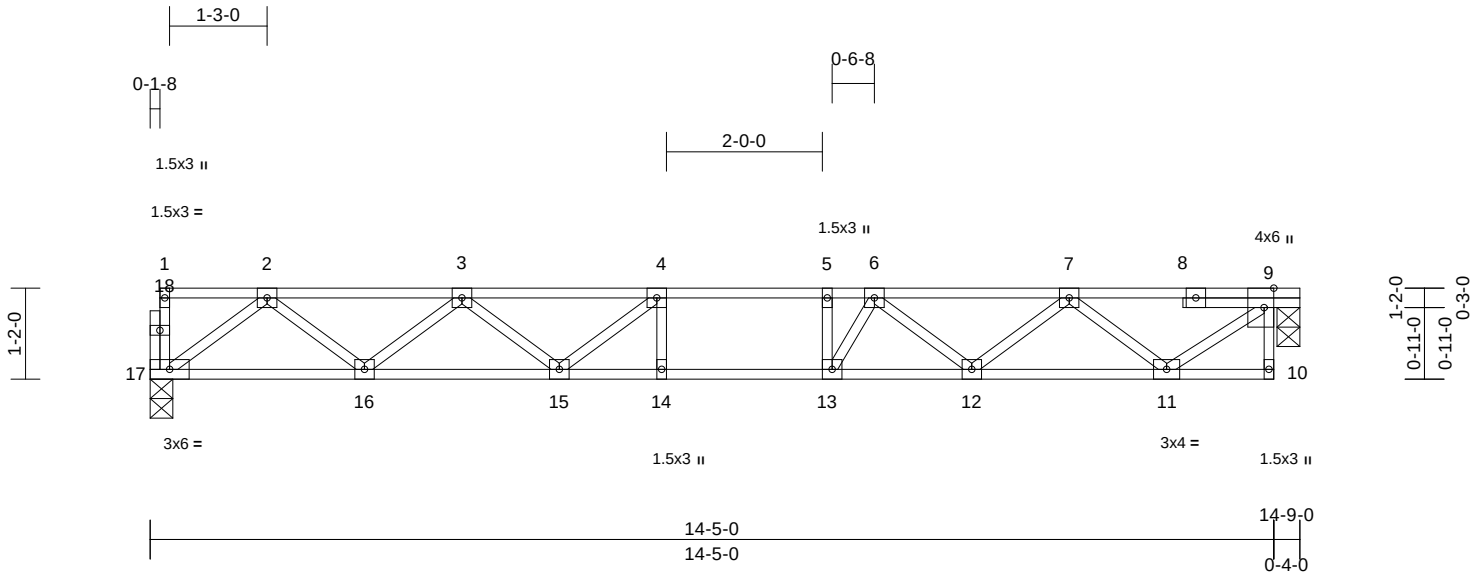
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F209	Floor	2	1	I56500234 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:21 ID:R4kjJJ6pLU_OEN4A3w0iv7zEihl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.6

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

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.13	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.18	14-15	>959	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.01	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 9=0-3-8, 17=0-3-8
Max Grav 9=626 (LC 1), 17=621 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-17=-34/0, 9-10=0/5, 1-2=-2/0, 2-3=-1263/0, 3-4=-1939/0, 4-5=-2106/0, 5-6=-2106/0, 6-7=-1643/0, 7-9=-701/0
BOT CHORD	16-17=0/766, 15-16=0/1735, 14-15=0/2106, 13-14=0/2106, 12-13=0/1990, 11-12=0/1296, 10-11=0/0
WEBS	9-11=0/870, 2-17=-959/0, 7-11=-779/0, 2-16=0/646, 7-12=0/452, 3-16=-614/0, 6-12=-452/0, 3-15=0/325, 5-13=-294/1, 4-15=-364/0, 4-14=-99/72, 6-13=-41/465

LOAD CASE(S) Standard

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
6) CAUTION, Do not erect truss backwards.

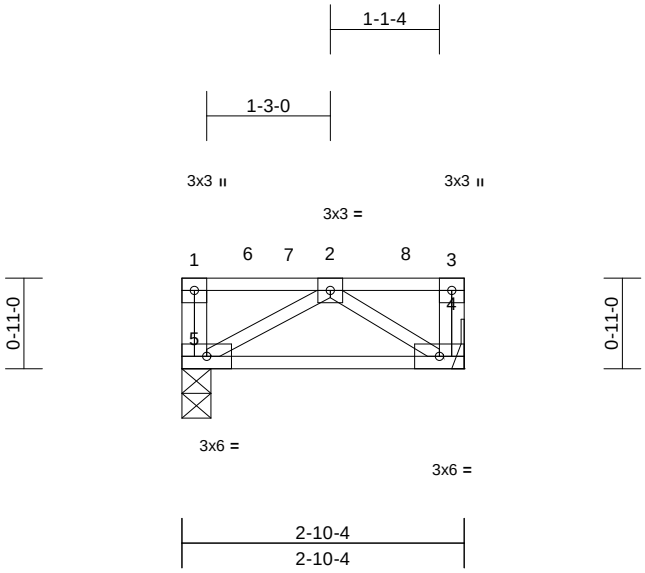
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F210	Floor Girder	1	1	I56500235 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:21 ID:PnHIq?QgpgVW6U1q6Twy0vzEidT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.81	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(CT)	-0.01	4-5	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.2(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5=0-3-8
Max Grav 4=877 (LC 1), 5=739 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-329/0, 3-4=-420/0, 1-2=0/0, 2-3=0/0
BOT CHORD 4-5=0/690
WEBS 2-5=-796/0, 2-4=-821/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 4-5=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 3=-124, 6=-559, 7=-84, 8=-563

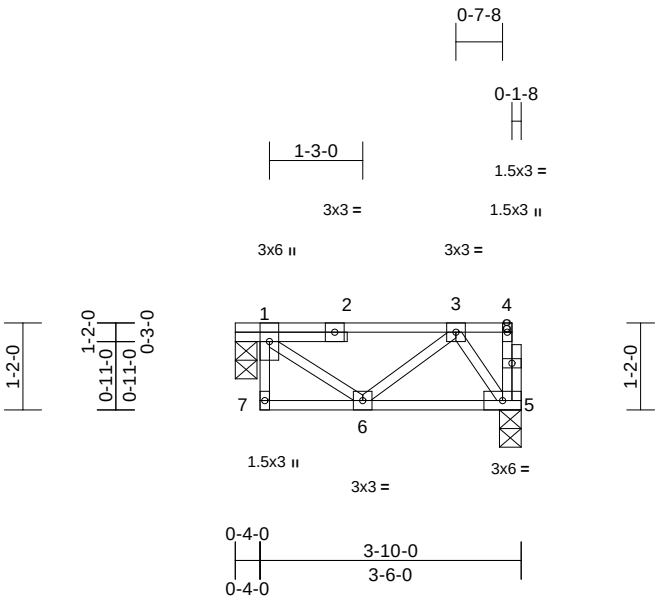
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F211	Floor	2	1	I56500236
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:21 ID:PiAbYlb1qmxAy1qm7Bi?GZzEieX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	0.00	6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(CT)	0.00	5-6	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.2(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Grav 1=182 (LC 1), 5=176 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=0/3, 4-5=0/46, 1-3=-98/0, 3-4=0/3
BOT CHORD 6-7=0/0, 5-6=0/151
WEBS 1-6=0/117, 3-6=-75/0, 3-5=-263/0

NOTES

1) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
3) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

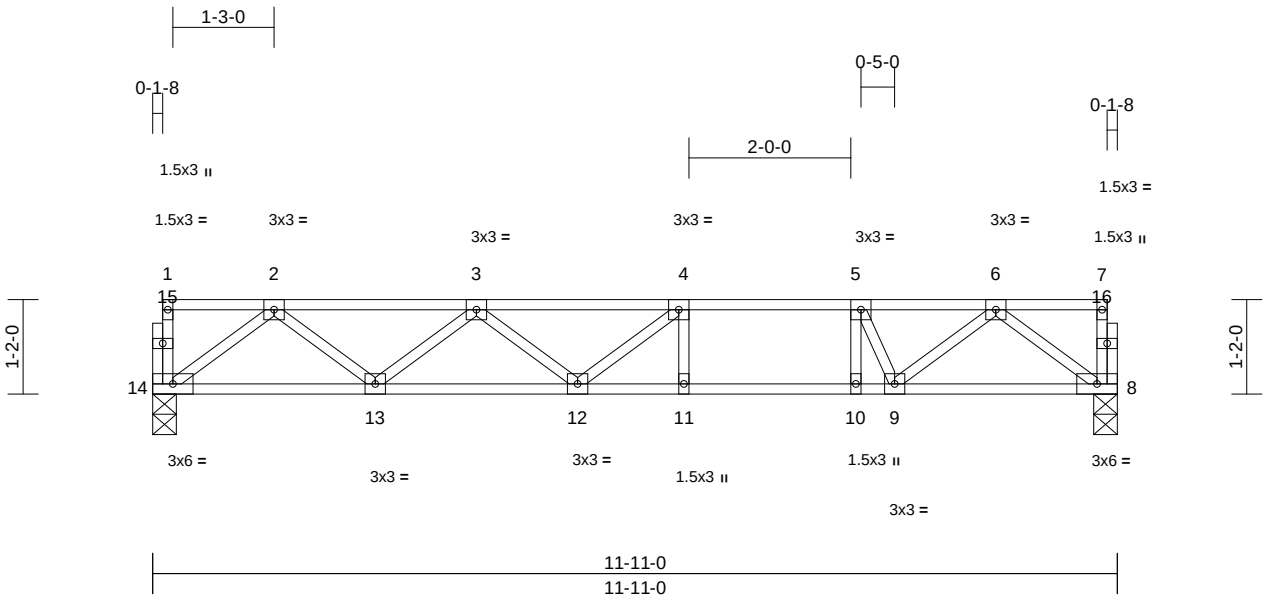
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	F212	Floor	8	1	I56500237 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:22 ID:HxMFFUECuY9QLQX?NuAz2EzEif?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.5

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.12	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.17	11-12	>836	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 8=0-3-8, 14=0-3-8
Max Grav 8=508 (LC 1), 14=508 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-34/0, 7-8=-54/0, 1-2=-2/0, 2-3=-980/0, 3-4=-1386/0, 4-5=-1309/0, 5-6=-1033/0, 6-7=-3/0
BOT CHORD 13-14=0/614, 12-13=0/1331, 11-12=0/1309, 10-11=0/1309, 9-10=0/1309, 8-9=0/587
WEBS 6-8=-732/0, 2-14=-767/0, 6-9=0/581, 2-13=0/477, 3-13=-457/0, 3-12=0/158, 4-12=-112/175, 4-11=-205/0, 5-10=0/415, 5-9=-699/0

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

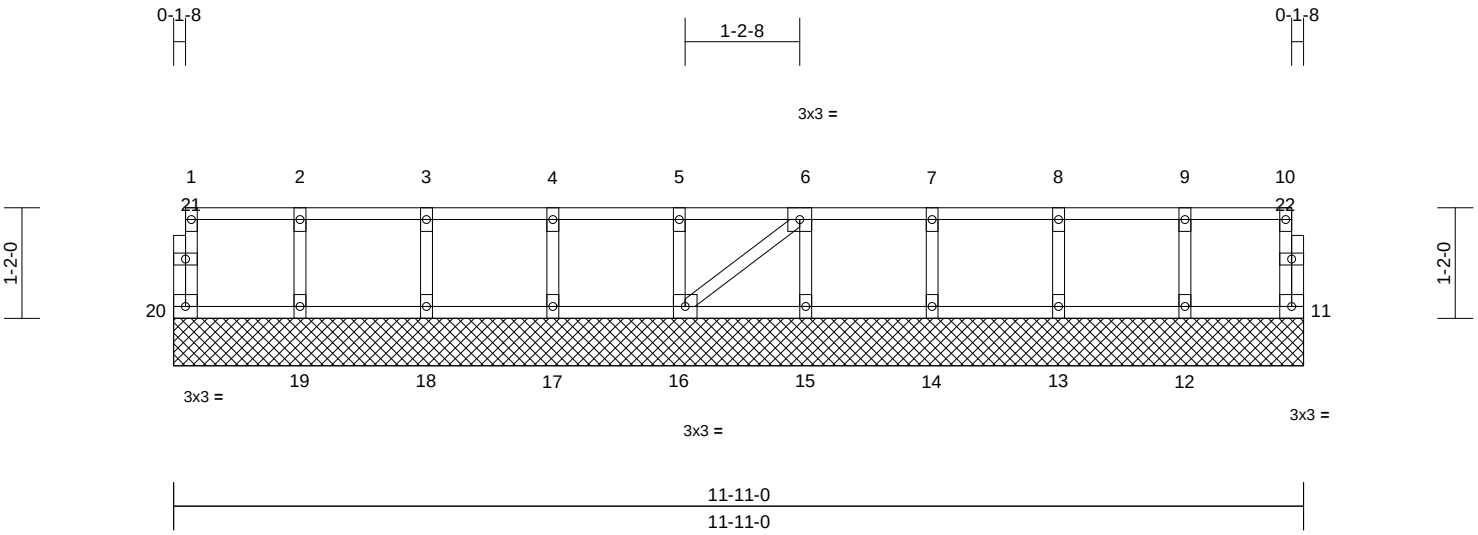
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	K201	Floor Supported Gable	1	1	I56500238 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:22 ID:Jlq_DaHoCcnqNpgGFWF15pzEjEN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.3

Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 11=11-11-0, 12=11-11-0, 13=11-11-0, 14=11-11-0, 15=11-11-0, 16=11-11-0, 17=11-11-0, 18=11-11-0, 19=11-11-0, 20=11-11-0

Max Grav 11=35 (LC 1), 12=117 (LC 1), 13=118 (LC 1), 14=117 (LC 1), 15=118 (LC 1), 16=117 (LC 1), 17=118 (LC 1), 18=117 (LC 1), 19=122 (LC 1), 20=39 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-20=-35/0, 10-11=-32/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=-2/0, 7-8=-2/0, 8-9=-2/0, 9-10=-2/0
BOT CHORD	19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2, 15-16=0/2, 14-15=0/2, 13-14=0/2, 12-13=0/2, 11-12=0/2
WEBS	2-19=-110/0, 3-18=-106/0, 4-17=-107/0, 5-16=-107/0, 6-15=-107/0, 7-14=-107/0, 8-13=-107/0, 9-12=-106/0, 6-16=0/0

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	K202	Floor Supported Gable	1	1	I56500239 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:22 Page: 1
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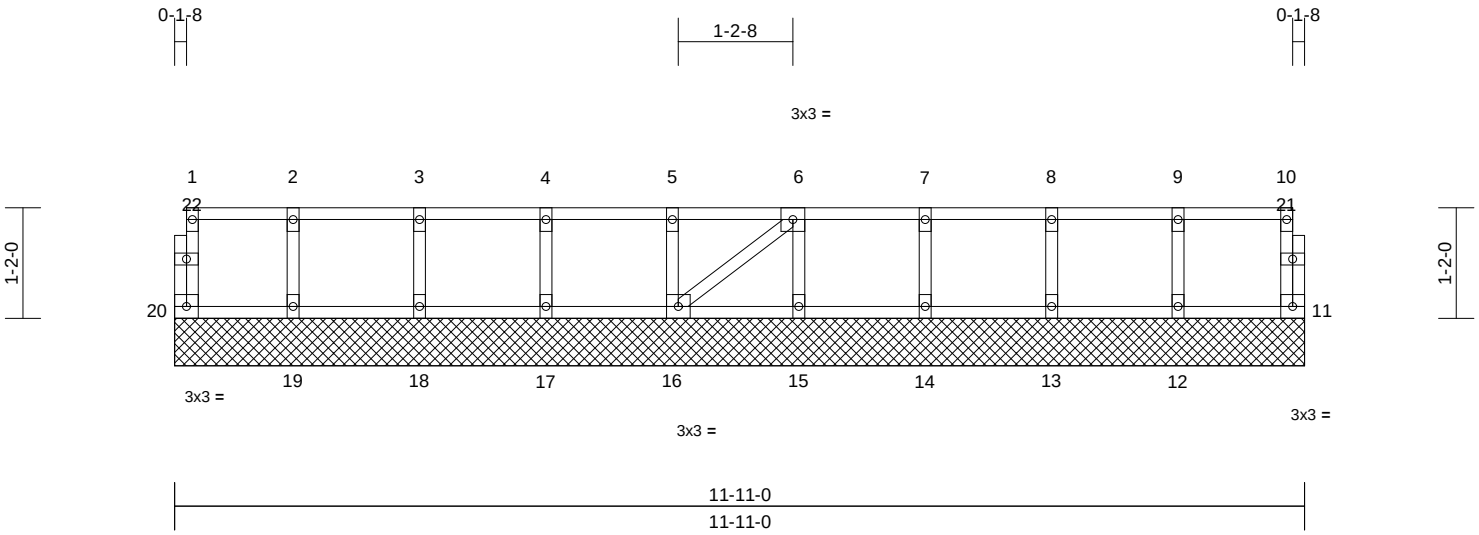


Scale = 1:24.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat) *Except* 11-21,20-22:2x4 SP No.2(flat)

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

REACTIONS (size) 11=11-11-0, 12=11-11-0, 13=11-11-0, 14=11-11-0, 15=11-11-0, 16=11-11-0, 17=11-11-0, 18=11-11-0, 19=11-11-0, 20=11-11-0
Max Grav 11=49 (LC 1), 12=152 (LC 1), 13=146 (LC 1), 14=147 (LC 1), 15=146 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=146 (LC 1), 20=44 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 10-11=-44/0, 1-20=-40/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=-3/0, 7-8=-3/0, 8-9=-3/0, 9-10=-3/0
BOT CHORD 19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2, 15-16=0/3, 14-15=0/3, 13-14=0/3, 12-13=0/3, 11-12=0/3
WEBS 9-12=-138/0, 8-13=-133/0, 7-14=-134/0, 6-15=-133/0, 5-16=-133/0, 4-17=-133/0, 3-18=-134/0, 2-19=-133/0, 6-16=0/0

NOTES
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

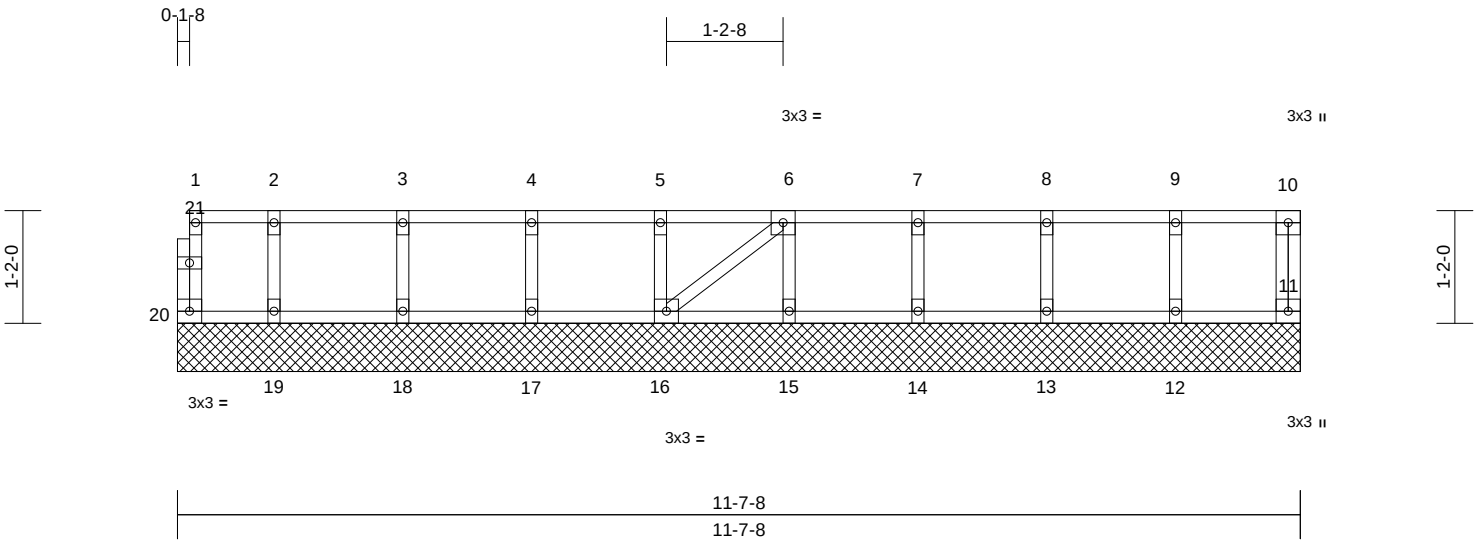
February 7,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Floor
Q2200850	K203	Floor Supported Gable	1	1	I56500240 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Mon Feb 06 12:30:23 ID:q9cWwebUrE1rN_rC9qJAGjzEjvt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat) *Except* 20-21:2x4 SP No.2(flat)

BRACING

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

REACTIONS (size) 11=11-7-8, 12=11-7-8, 13=11-7-8, 14=11-7-8, 15=11-7-8, 16=11-7-8, 17=11-7-8, 18=11-7-8, 19=11-7-8, 20=11-7-8

Max Grav 11=49 (LC 1), 12=153 (LC 1), 13=145 (LC 1), 14=147 (LC 1), 15=148 (LC 1), 16=146 (LC 1), 17=146 (LC 1), 18=150 (LC 1), 19=131 (LC 1), 20=29 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-20=-26/0, 10-11=-45/0, 1-2=-2/0, 2-3=-2/0, 3-4=-2/0, 4-5=-2/0, 5-6=-2/0, 6-7=0/0, 7-8=0/0, 8-9=0/0, 9-10=0/0
BOT CHORD	19-20=0/2, 18-19=0/2, 17-18=0/2, 16-17=0/2, 15-16=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0, 11-12=0/0
WEBS	9-12=-139/0, 8-13=-132/0, 7-14=-134/0, 6-15=-134/0, 5-16=-134/0, 4-17=-132/0, 3-18=-137/0, 2-19=-119/0, 6-16=0/2

NOTES

1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

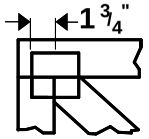
LOAD CASE(S) Standard

February 7,2023

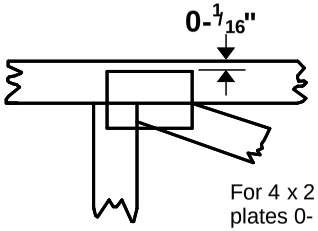
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

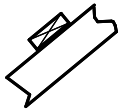
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

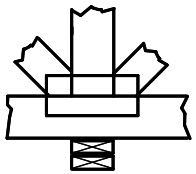
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

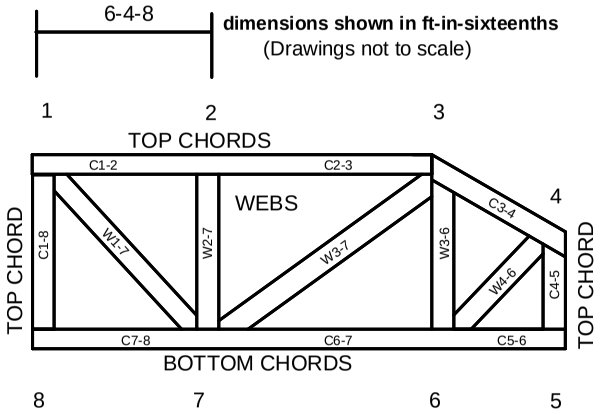


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

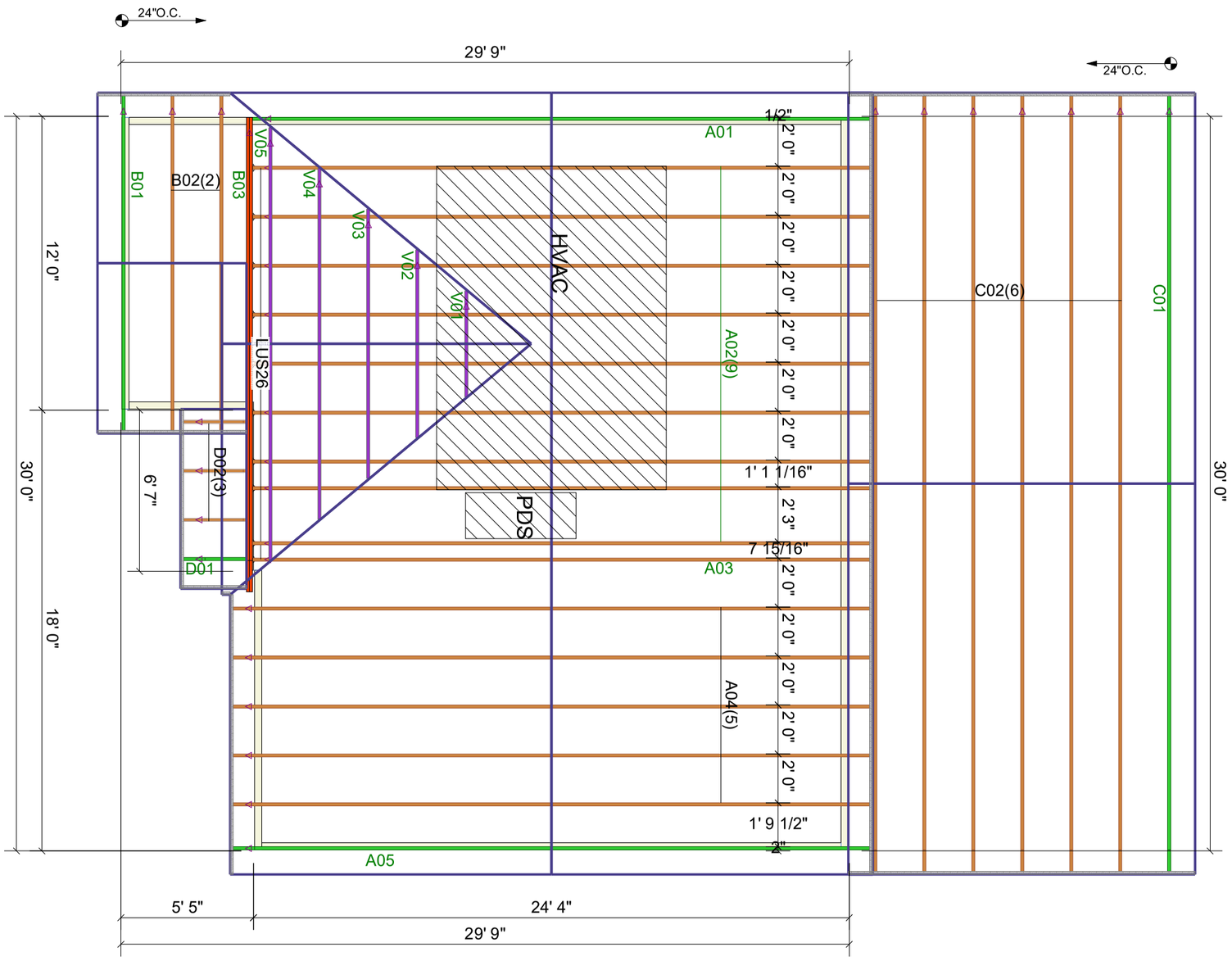
Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



Truss Connector Total List		
Manuf	Product	Qty
Simpson	H2.5A	38
	LUS26	10

EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING.
SHEATHING IS FLUSH TO FACE OF FOUNDATION.

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

REVIEWED BY: APPROVED BY: DATE:

Job #: Q2200851 FORGET ME NOT B ROOF	Plan: GARAGE RIGHT	
Customer: GARMAN HOMES	Date: 1/5/2023	
Site Address:	Sales Rep: RW	ROOF DATA
City, ST, ZIP:	Designer: JSP	Roof Area: 1722.28 SF

QUALITY AUDITED by:
IBC 1704.2 IBC 2303.4
ANSI/TPI 1-2002 ANSI/TPI 1-2007 ANSI/TPI 1-2014
CAROLINA STRUCTURAL SYSTEMS, LLC
Star, NC - Plant E30-437
910-491-9004

Carolina Structural Systems
Roof Trusses • Floor Trusses • EWP
Carolina Structural Systems
P.O. Box 157, Ether, NC 27247
225 Frame Shop Rd., Star, NC 27356
910-491-9004

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Q2200851
Garman Homes - Forget Me Not B Roof

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

Pages or sheets covered by this seal: I56000341 thru I56000357

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

North Carolina COA: C-0844

January 6,2023

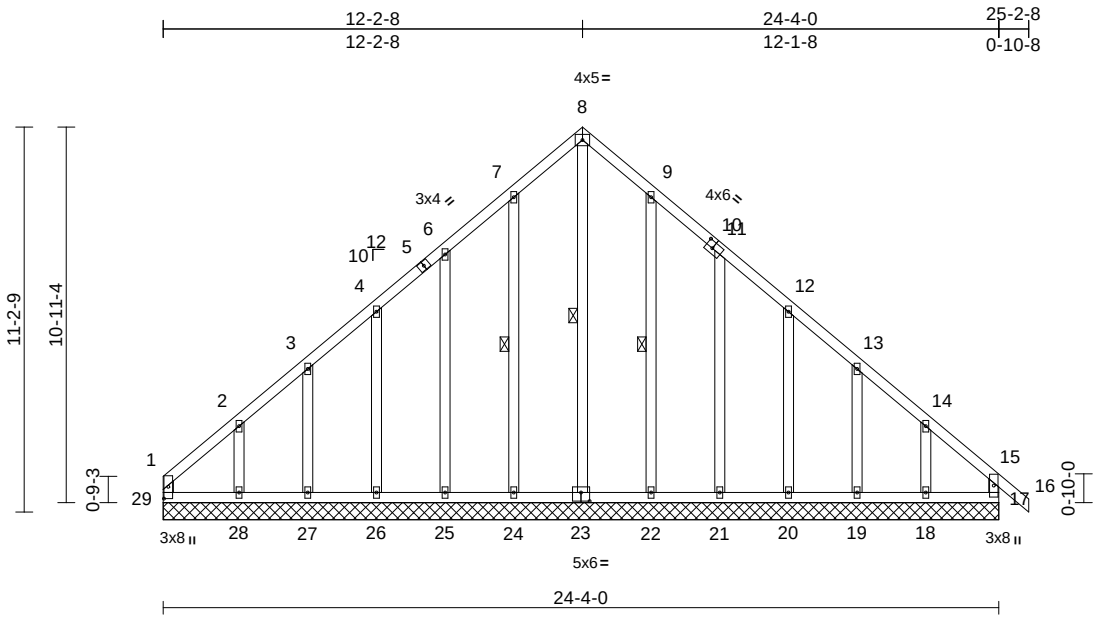
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	A01	Common Supported Gable	1	1	I56000341 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:53 ID:wWlRnnEMic_X1iQR_n6cCIzEjkj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.1

Plate Offsets (X, Y): [10:0-2-8,0-2-4], [23:0-3-0,0-3-0], [29:0-4-2,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	17	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 182 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-23, 7-24, 9-22

REACTIONS (size) 17=24-4-0, 18=24-4-0, 19=24-4-0, 20=24-4-0, 21=24-4-0, 22=24-4-0, 23=24-4-0, 24=24-4-0, 25=24-4-0, 26=24-4-0, 27=24-4-0, 28=24-4-0, 29=24-4-0
Max Horiz 29=-207 (LC 10)
Max Uplift 17=-7 (LC 11), 18=-71 (LC 12), 19=-26 (LC 12), 20=-36 (LC 12), 21=-41 (LC 12), 22=-19 (LC 12), 24=-20 (LC 12), 25=-41 (LC 12), 26=-36 (LC 12), 27=-26 (LC 12), 28=-73 (LC 12), 29=-75 (LC 10)
Max Grav 17=187 (LC 17), 18=186 (LC 18), 19=163 (LC 1), 20=166 (LC 18), 21=165 (LC 18), 22=168 (LC 18), 23=238 (LC 12), 24=169 (LC 17), 25=164 (LC 17), 26=168 (LC 17), 27=156 (LC 1), 28=221 (LC 17), 29=160 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-29=-127/69, 1-2=-162/149, 2-3=-133/109, 3-4=-121/93, 4-6=-126/127, 6-7=-186/198, 7-8=-232/255, 8-9=-231/253, 9-11=-185/197, 11-12=-125/126, 12-13=-88/59, 13-14=-99/66, 14-15=-125/99, 15-16=0/39, 15-17=-154/21

BOT CHORD 28-29=-96/129, 27-28=-96/129, 26-27=-96/129, 25-26=-96/129, 24-25=-96/129, 22-24=-97/130, 21-22=-97/130, 20-21=-97/130, 19-20=-97/130, 18-19=-97/130, 17-18=-97/130

WEBS 8-23=-262/177, 7-24=-130/62, 6-25=-134/89, 4-26=-128/81, 3-27=-121/76, 2-28=-157/108, 9-22=-127/62, 11-21=-134/89, 12-20=-128/81, 13-19=-124/77, 14-18=-155/107

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-1-12 to 3-1-12, Exterior (2) 3-1-12 to 12-2-8, Corner (3) 12-2-8 to 15-2-8, Exterior (2) 15-2-8 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 requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 29, 7 lb uplift at joint 17, 20 lb uplift at joint 24, 41 lb uplift at joint 25, 36 lb uplift at joint 26, 26 lb uplift at joint 27, 73 lb uplift at joint 28, 19 lb uplift at joint 22, 41 lb uplift at joint 21, 36 lb uplift at joint 20, 26 lb uplift at joint 19 and 71 lb uplift at joint 18.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	A02	Common	9	1	I56000342 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:55 Page: 1
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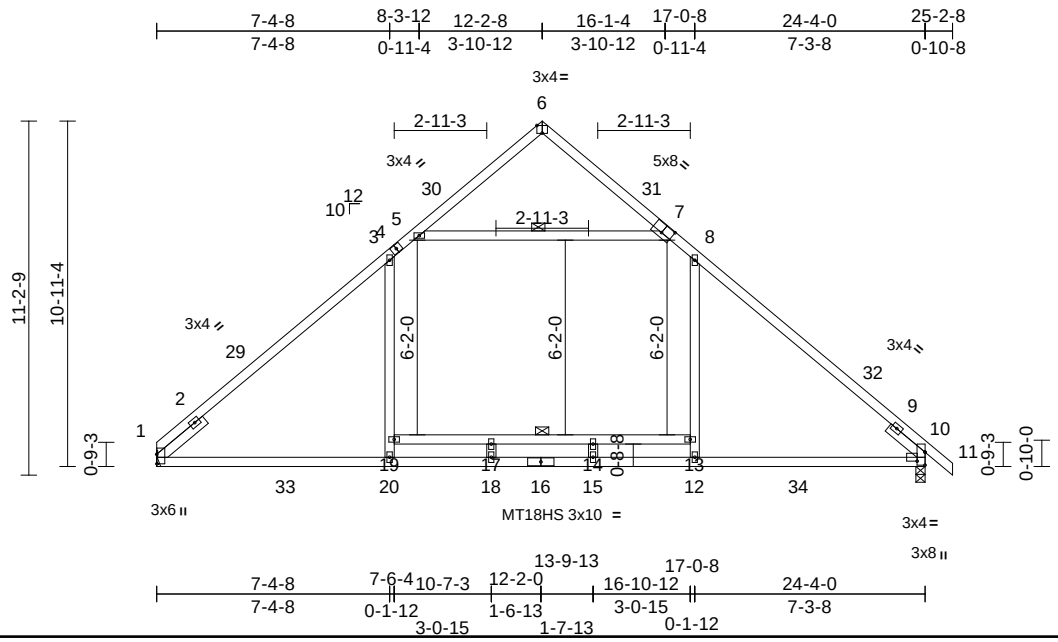

Scale = 1:73

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.56	20-23	>520	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.64	20-23	>453	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 137 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-4,7-11:2x4 SP No.1
BOT CHORD 2x4 SP DSS *Except* 19-13:2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 1-11-5, Right 2x4 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied. Except: 6-0-0 oc bracing: 13-19
WEBS 1 Row at midpt 5-7

REACTIONS (size) 1= Mechanical, 10=0-3-8
Max Horiz 1=-192 (LC 10)
Max Grav 1=1069 (LC 1), 10=1124 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1322/34, 3-5=-866/97, 5-6=-173/55, 6-8=-864/97, 8-10=-1339/233, 10-11=0/34
BOT CHORD 1-20=-71/955, 18-20=0/969, 15-18=0/969, 12-15=0/969, 10-12=-59/955, 17-19=-23/11, 14-17=-23/11, 13-14=-23/11
WEBS 12-13=0/429, 8-13=0/535, 5-7=-913/96, 19-20=0/426, 3-19=0/547, 17-18=-101/29, 14-15=-114/16

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-2-8, Exterior (2) 12-2-8 to 15-2-8, Interior (1) 15-2-8 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) All plates are MT20 plates unless otherwise indicated.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	A03	Common	1	1	I56000343
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:56 Page: 1

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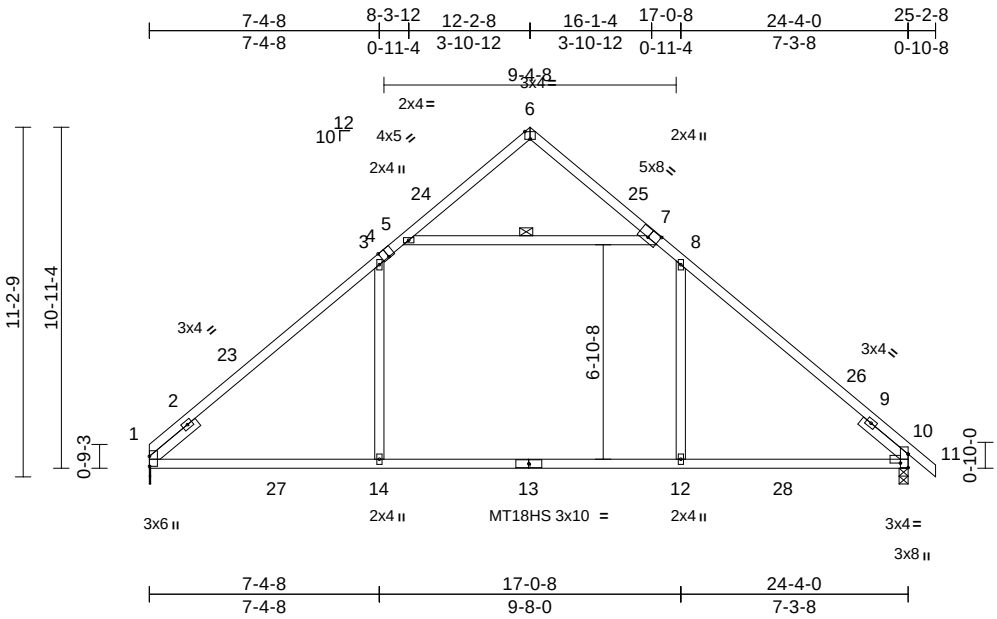

Scale = 1:73.9

Plate Offsets (X, Y): [1:0-3-14,0-0-1], [4:0-2-8,Edge], [6:0-2-0,Edge], [7:0-4-0,0-3-4], [10:0-3-0,0-3-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.92	Vert(LL)	-0.65	14-17	>446	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.74	14-17	>394	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.09	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 123 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.2 -- 1-11-9, Right 2x4 SP No.2 -- 1-11-9

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-7

REACTIONS (size) 1=0-0-8, (req. 0-1-8), 10=0-3-8
Max Horiz 1=-192 (LC 10)
Max Uplift 1=-7 (LC 12), 10=-29 (LC 12)
Max Grav 1=1111 (LC 17), 10=1161 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-3=-1410/86, 3-5=-914/149, 5-6=-181/48, 6-8=-911/148, 8-10=-1417/201, 10-11=0/34
BOT CHORD 1-14=-111/1019, 12-14=0/1019, 10-12=-96/1019
WEBS 8-12=0/518, 3-14=0/503, 5-7=-952/171

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 12-2-8, Exterior (2) 12-2-8 to 15-2-8, Interior (1) 15-2-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 29 lb uplift at joint 10.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	A04	Common	5	1	I56000344 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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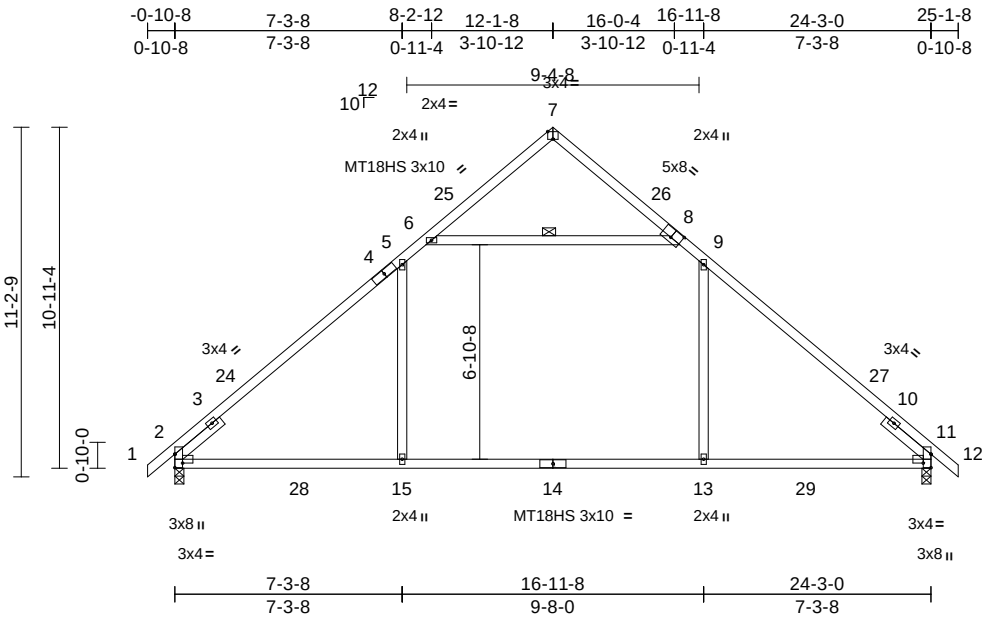


Scale = 1:73.9

Plate Offsets (X, Y): [2:0-3-0,0-3-7], [7:0-2-0,Edge], [8:0-4-0,0-3-4], [11:0-3-0,0-3-7]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.62	15-18	>469	240	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.68	15-18	>428	180	MT20	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.09	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 124 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.1
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.2 -- 1-11-9, Right 2x4 SP No.2 -- 1-11-9

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-8

REACTIONS (size) 2=0-3-8, 11=0-3-8
Max Horiz 2=195 (LC 11)
Max Uplift 2=-29 (LC 12), 11=-29 (LC 12)
Max Grav 2=1156 (LC 17), 11=1156 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/34, 2-5=-1401/148, 5-6=-908/147, 6-7=-185/48, 7-9=-902/148, 9-11=-1406/200, 11-12=0/34
BOT CHORD	2-15=-100/1010, 13-15=0/1010, 11-13=-95/1010
WEBS	9-13=0/515, 5-15=0/501, 6-8=-938/167

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-1-8, Exterior (2) 12-1-8 to 15-1-8, Interior (1) 15-1-8 to 25-1-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2 and 29 lb uplift at joint 11.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

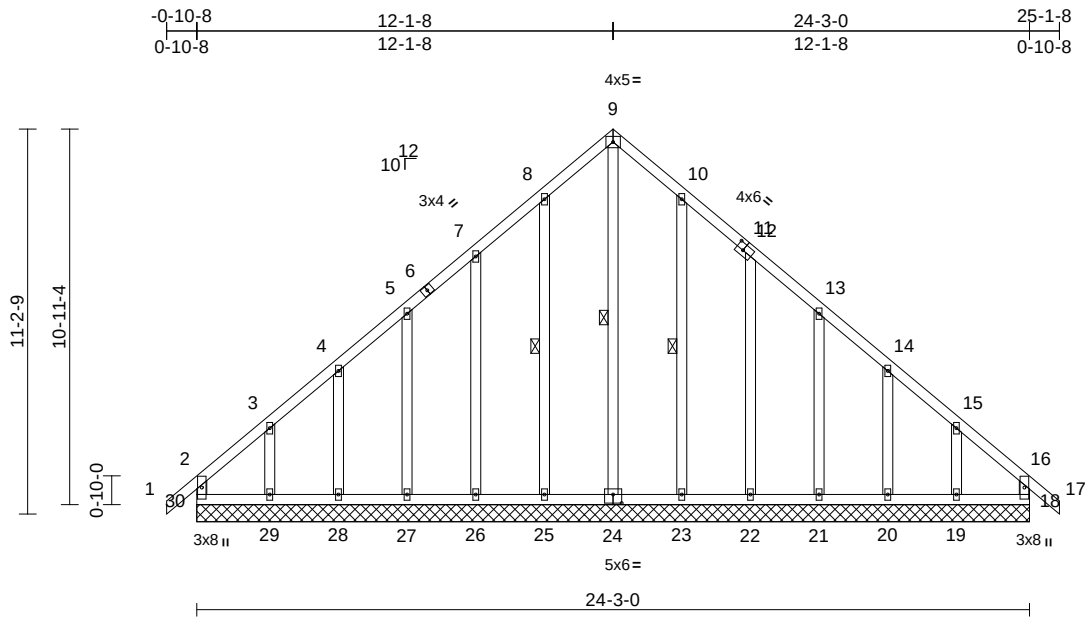
January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	A05	Common Supported Gable	1	1	I56000345 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:57 ID:8XUh_NCDwANoU2eDb8pEzezEjSh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.1

Plate Offsets (X, Y): [11:0-2-8,0-2-4], [24:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 184 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 9-24, 8-25, 10-23

REACTIONS (size) 18=24-3-0, 19=24-3-0, 20=24-3-0, 21=24-3-0, 22=24-3-0, 23=24-3-0, 24=24-3-0, 25=24-3-0, 26=24-3-0, 27=24-3-0, 28=24-3-0, 29=24-3-0, 30=24-3-0
Max Horiz 30=212 (LC 11)
Max Uplift 18=-11 (LC 11), 19=-71 (LC 12), 20=-27 (LC 12), 21=-36 (LC 12), 22=-41 (LC 12), 23=-19 (LC 12), 25=-19 (LC 12), 26=-41 (LC 12), 27=-36 (LC 12), 28=-27 (LC 12), 29=-71 (LC 12), 30=-50 (LC 10)
Max Grav 18=181 (LC 17), 19=189 (LC 18), 20=162 (LC 1), 21=166 (LC 18), 22=165 (LC 18), 23=168 (LC 18), 24=239 (LC 12), 25=170 (LC 17), 26=164 (LC 17), 27=167 (LC 17), 28=162 (LC 1), 29=201 (LC 17), 30=210 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-30=-174/45, 1-2=0/39, 2-3=-161/149, 3-4=-124/111, 4-5=-113/94, 5-7=-125/127, 7-8=-185/198, 8-9=-231/254, 9-10=-231/254, 10-12=-185/198, 12-13=-124/127, 13-14=-82/59, 14-15=-92/70, 15-16=-118/103, 16-17=0/39, 16-18=-149/22

BOT CHORD 29-30=-97/130, 28-29=-97/130, 27-28=-97/130, 26-27=-97/130, 25-26=-97/130, 23-25=-97/130, 22-23=-97/130, 21-22=-97/130, 20-21=-97/130, 19-20=-97/130, 18-19=-97/130

WEBS 9-24=-262/176, 8-25=-130/62, 7-26=-134/89, 5-27=-127/81, 4-28=-123/78, 3-29=-153/108, 10-23=-128/62, 12-22=-134/89, 13-21=-128/81, 14-20=-124/77, 15-19=-155/107

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 12-1-8, Corner (3) 12-1-8 to 15-1-8, Exterior (2) 15-1-8 to 25-1-8 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 30, 11 lb uplift at joint 18, 19 lb uplift at joint 25, 41 lb uplift at joint 26, 36 lb uplift at joint 27, 27 lb uplift at joint 28, 71 lb uplift at joint 29, 19 lb uplift at joint 23, 41 lb uplift at joint 22, 36 lb uplift at joint 21, 27 lb uplift at joint 20 and 71 lb uplift at joint 19.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	B01	Common Supported Gable	1	1	I56000346 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:57 Page: 1
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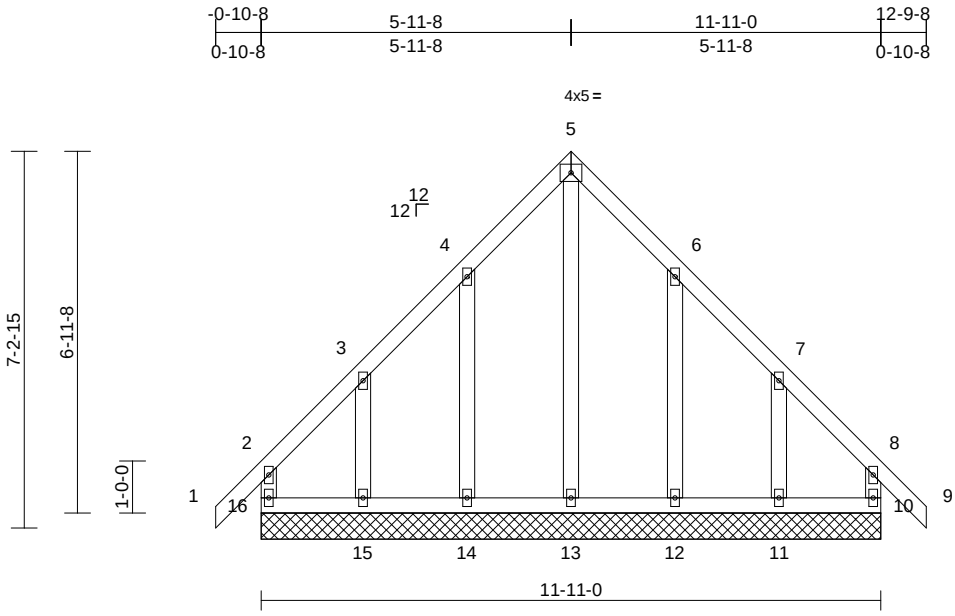

Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.11	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	0.19	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 79 lb	FT = 20%

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

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

REACTIONS (size) 10=11-11-0, 11=11-11-0, 12=11-11-0, 13=11-11-0, 14=11-11-0, 15=11-11-0, 16=11-11-0
Max Horiz 16=153 (LC 11)
Max Uplift 10=-36 (LC 9), 11=-67 (LC 12), 12=-43 (LC 12), 14=-43 (LC 12), 15=-67 (LC 12), 16=-45 (LC 8)
Max Grav 10=161 (LC 17), 11=188 (LC 18), 12=178 (LC 18), 13=208 (LC 12), 14=177 (LC 17), 15=193 (LC 17), 16=172 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-141/62, 1-2=0/43, 2-3=-104/95, 3-4=-97/112, 4-5=-171/202, 5-6=-172/202, 6-7=-97/114, 7-8=-92/79, 8-9=0/43, 8-10=-132/61
BOT CHORD 15-16=-72/77, 14-15=-72/77, 13-14=-72/77, 12-13=-72/77, 11-12=-72/77, 10-11=-72/77
WEBS 5-13=-230/130, 4-14=-146/103, 3-15=-157/122, 6-12=-146/103, 7-11=-159/121

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 1-11-8, Exterior (2) 1-11-8 to 5-11-8, Corner (3) 5-11-8 to 8-11-8, Exterior (2) 8-11-8 to 12-9-8 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 16, 36 lb uplift at joint 10, 43 lb uplift at joint 14, 67 lb uplift at joint 15, 43 lb uplift at joint 12 and 67 lb uplift at joint 11.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	B02	Common	2	1	I56000347 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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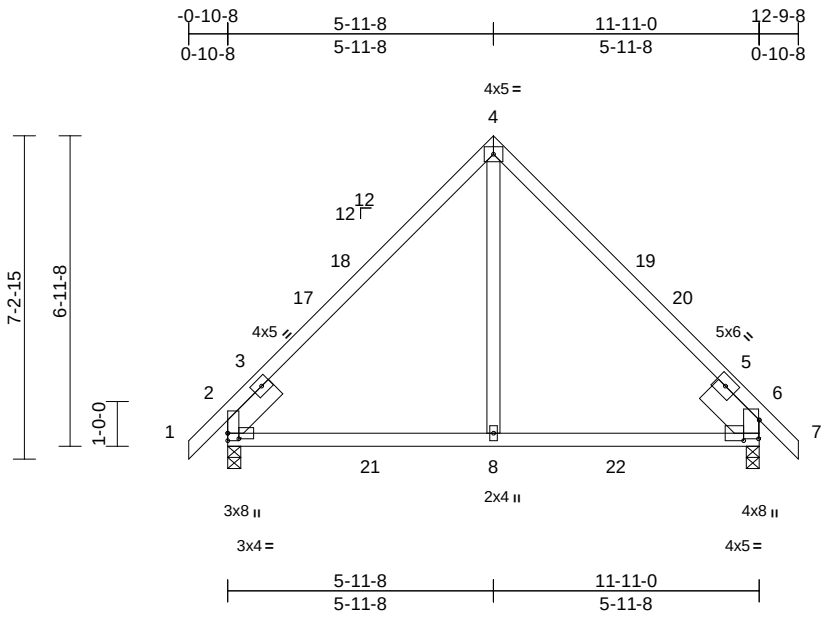

Scale = 1:51.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.04	8-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.07	8-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 65 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 1-6-0, Right 2x8 SP No.2 -- 1-6-0

BRACING

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

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=131 (LC 11)
Max Uplift 2=-25 (LC 12), 6=-25 (LC 12)
Max Grav 2=549 (LC 17), 6=549 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-4=-516/157, 4-6=-516/100, 6-7=0/37
BOT CHORD	2-8=-89/329, 6-8=-76/329
WEBS	4-8=0/311

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 5-11-8, Exterior (2) 5-11-8 to 8-11-8, Interior (1) 8-11-8 to 12-9-8 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2 and 25 lb uplift at joint 6.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	B03	Common Girder	1	2	I56000348 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:58 Page: 1
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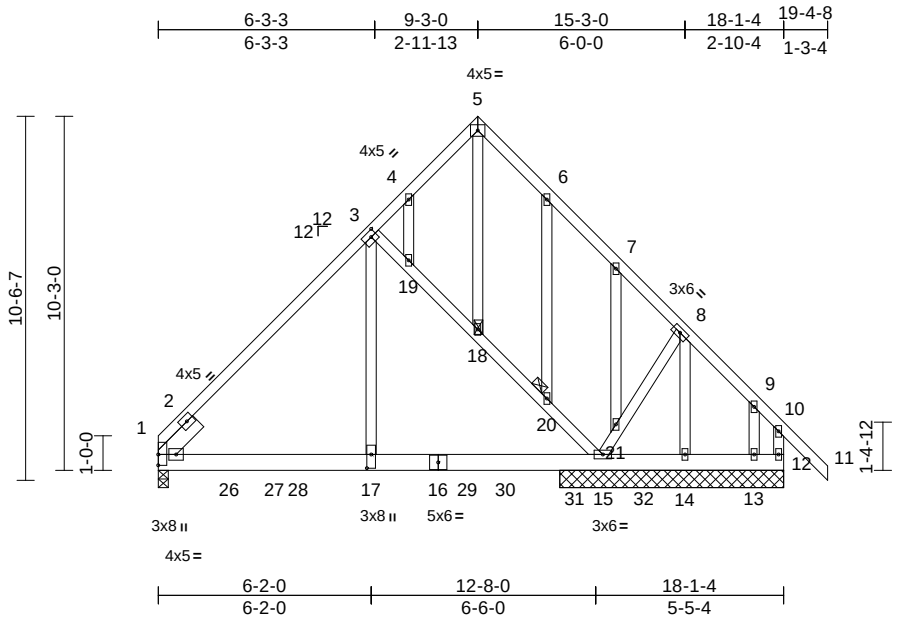


Scale = 1:66.7

Plate Offsets (X, Y): [3:0-2-0,0-2-0], [17:0-4-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.06	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.13	15-17	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.02	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 307 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.3 *Except* 12-10:2x4 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 18, 20

REACTIONS (size) 1=0-3-8, 12=6-5-12, 13=6-5-12, 14=6-5-12, 15=6-5-12
Max Horiz 1=204 (LC 7)
Max Uplift 12=-43 (LC 5)
Max Grav 1=3241 (LC 1), 12=1239 (LC 13), 13=1413 (LC 14), 14=724 (LC 13), 15=5556 (LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-3016/0, 3-4=-227/44, 4-5=-164/57, 5-6=-142/47, 6-7=-190/0, 7-8=-161/31, 8-9=-119/14, 9-10=-161/0, 10-11=0/60, 10-12=-256/17
BOT CHORD	1-17=0/2166, 15-17=0/2166, 14-15=-31/109, 13-14=-31/109, 12-13=-31/109
WEBS	3-19=-2885/0, 18-19=-2864/0, 18-20=-2856/0, 15-20=-2883/0, 5-18=-25/42, 4-19=-9/29, 6-20=-73/41, 7-21=-186/91, 8-14=-240/33, 9-13=-34/55, 3-17=0/3712, 15-21=-183/295, 8-21=-79/215

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 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 12.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1049 lb down at 2-0-12, 1049 lb down at 4-0-12, 1049 lb down at 6-0-12, 1049 lb down at 8-0-12, 1049 lb down at 10-0-12, 1049 lb down at 12-0-12, 1049 lb down at 14-0-12, 1049 lb down at 15-1-12, and 1053 lb down at 17-4-12, and 1102 lb down and 12 lb up at 17-11-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-5=-60, 5-10=-60, 10-11=-60, 12-22=-20
Concentrated Loads (lb)
Vert: 16=-1049 (B), 12=-963 (B), 14=-1049 (B), 13=-1053 (B), 17=-1049 (B), 26=-1049 (B), 28=-1049 (B), 30=-1049 (B), 31=-1049 (B), 32=-1049 (B)

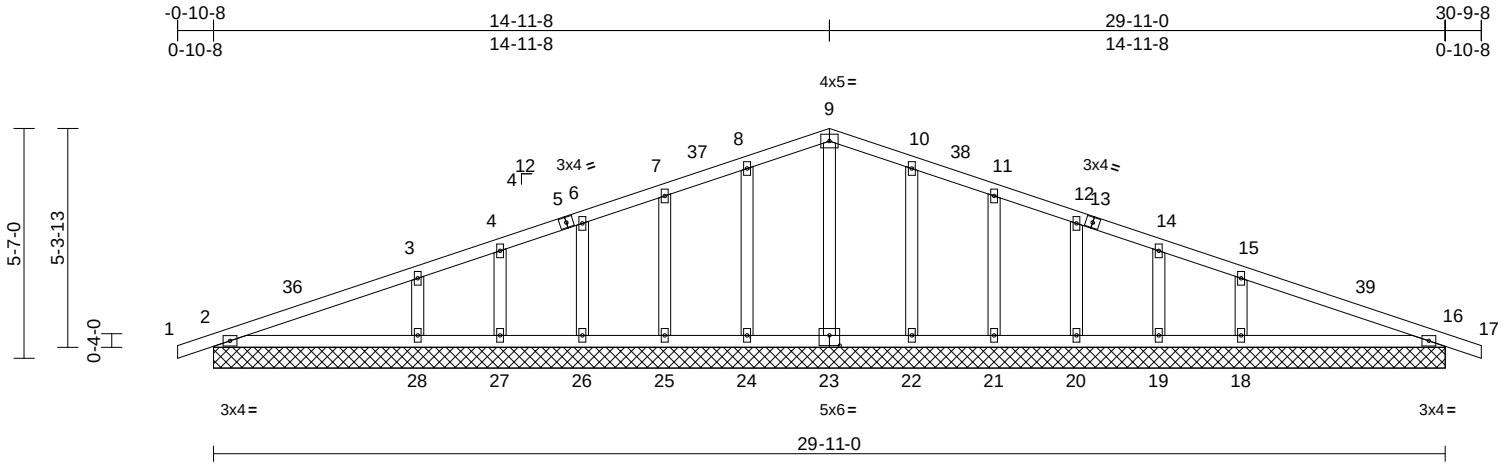
January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	C01	Common Supported Gable	1	1	I56000349 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:42:58 ID:5xZJKvo4gLIN2Y0ydH25zOzEjrl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:56

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 143 lb	FT = 20%

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

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

REACTIONS (size) 2=29-11-0, 16=29-11-0, 18=29-11-0, 19=29-11-0, 20=29-11-0, 21=29-11-0, 22=29-11-0, 23=29-11-0, 24=29-11-0, 25=29-11-0, 26=29-11-0, 27=29-11-0, 28=29-11-0, 29=29-11-0, 33=29-11-0
Max Horiz 2=-51 (LC 10), 29=-51 (LC 10)
Max Uplift 2=-21 (LC 12), 16=-21 (LC 12), 18=-12 (LC 12), 19=-5 (LC 12), 20=-7 (LC 12), 21=-7 (LC 12), 22=-5 (LC 12), 24=-5 (LC 12), 25=-7 (LC 12), 26=-7 (LC 12), 27=-5 (LC 12), 28=-12 (LC 12), 29=-21 (LC 12), 33=-21 (LC 12)
Max Grav 2=226 (LC 1), 16=226 (LC 1), 18=403 (LC 22), 19=43 (LC 1), 20=189 (LC 22), 21=152 (LC 1), 22=169 (LC 22), 23=141 (LC 1), 24=169 (LC 21), 25=152 (LC 1), 26=189 (LC 21), 27=43 (LC 1), 28=403 (LC 21), 29=226 (LC 1), 33=226 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-77/49, 3-4=-63/56, 4-6=-39/73, 6-7=-44/100, 7-8=-52/126, 8-9=-62/150, 9-10=-62/152, 10-11=-52/127, 11-12=-44/102, 12-14=-31/74, 14-15=-55/58, 15-16=-76/35, 16-17=0/17
BOT CHORD 2-28=-9/67, 27-28=-9/62, 26-27=-9/62, 25-26=-9/62, 24-25=-9/62, 22-24=-9/62, 21-22=-9/62, 20-21=-9/62, 19-20=-9/62, 18-19=-9/62, 16-18=-9/62
WEBS 9-23=-102/0, 8-24=-128/101, 7-25=-116/60, 6-26=-136/63, 4-27=-52/35, 3-28=-269/120, 10-22=-128/101, 11-21=-116/60, 12-20=-136/63, 14-19=-52/35, 15-18=-269/120

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -0-10-8 to 2-1-8, Exterior (2) 2-1-8 to 14-11-8, Corner (3) 14-11-8 to 17-11-8, Exterior (2) 17-11-8 to 30-9-8 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 21 lb uplift at joint 16, 5 lb uplift at joint 24, 7 lb uplift at joint 25, 7 lb uplift at joint 26, 5 lb uplift at joint 27, 12 lb uplift at joint 28, 5 lb uplift at joint 22, 7 lb uplift at joint 21, 7 lb uplift at joint 20, 5 lb uplift at joint 19, 12 lb uplift at joint 18, 21 lb uplift at joint 2 and 21 lb uplift at joint 16.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	C02	Common	6	1	I56000350 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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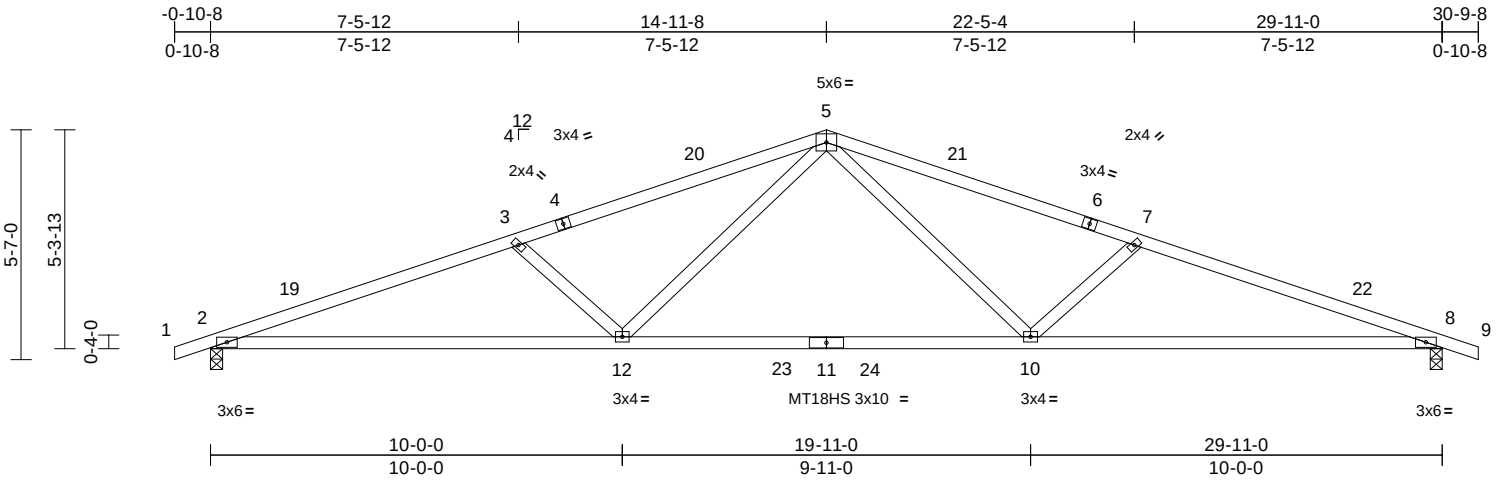

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	-0.27	10-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.54	10-12	>662	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.10	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 125 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-51 (LC 10)
Max Uplift 2=-31 (LC 12), 8=-31 (LC 12)
Max Grav 2=1249 (LC 1), 8=1249 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-2944/169, 3-5=-2578/135, 5-7=-2578/135, 7-8=-2944/169, 8-9=0/17
BOT CHORD 2-12=-100/2763, 10-12=-31/1801, 8-10=-108/2763
WEBS 5-10=0/834, 7-10=-554/138, 5-12=0/834, 3-12=-554/138

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=30ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 14-11-8, Exterior (2) 14-11-8 to 17-11-8, Interior (1) 17-11-8 to 30-9-8 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2 and 31 lb uplift at joint 8.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	D01	Monopitch Supported Gable	1	1	I56000351 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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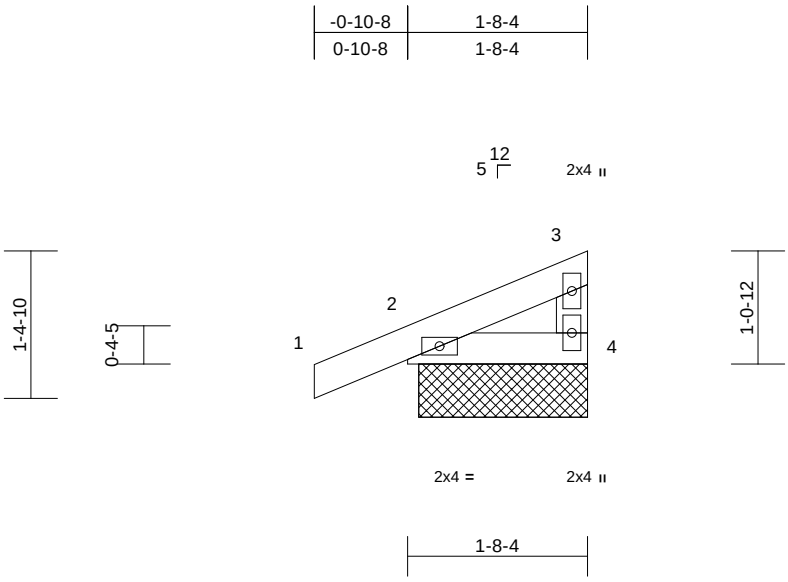

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=1-7-0, 4=1-7-0, 5=1-7-0
Max Horiz 2=25 (LC 11), 5=25 (LC 11)
Max Uplift 2=-29 (LC 12), 5=-29 (LC 12)
Max Grav 2=129 (LC 1), 4=50 (LC 1), 5=129 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-31/20, 3-4=-30/36
BOT CHORD 2-4=-14/28

NOTES
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 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
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) Gable studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2 and 29 lb uplift at joint 2.
7) N/A
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	D02	Monopitch	3	1	I56000352 Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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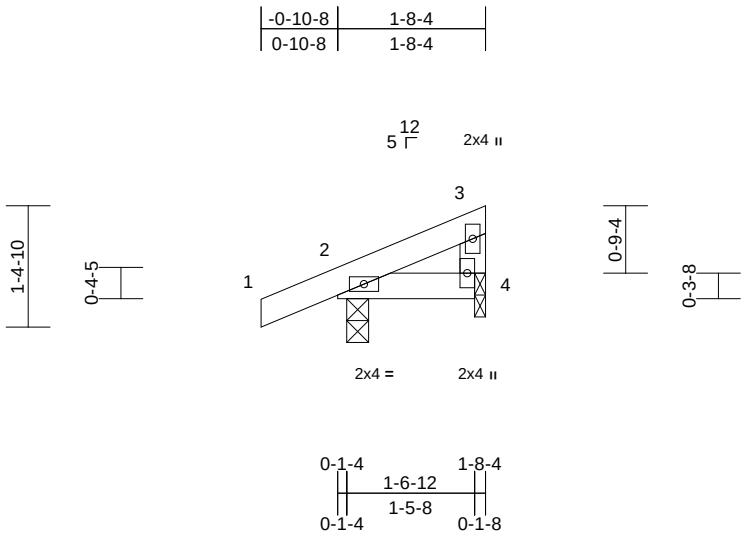

Scale = 1:26.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.05	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 7 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-1-8
Max Horiz 2=25 (LC 11)
Max Uplift 2=-29 (LC 12)
Max Grav 2=129 (LC 1), 4=47 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/20, 2-3=-21/17, 3-4=-30/23
BOT CHORD 2-4=-11/17

NOTES
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 2.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	V01	Valley	1	1	I56000353
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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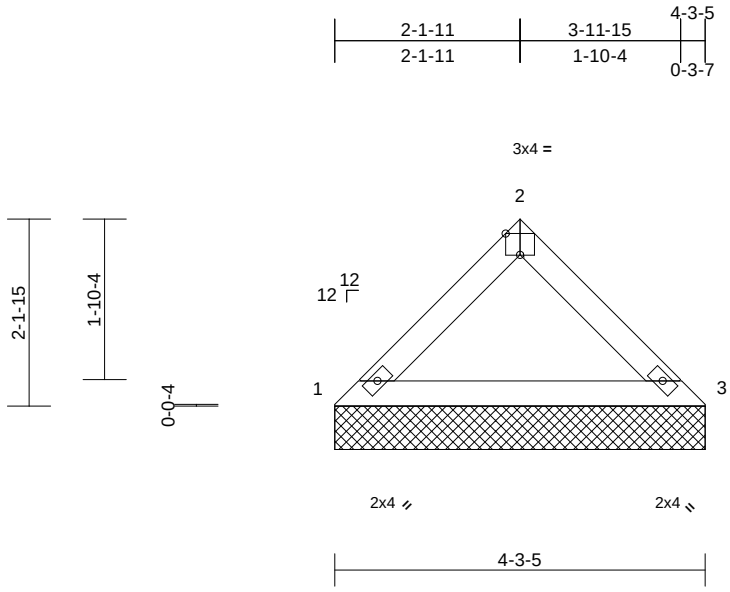

Scale = 1:26.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-3-5, 3=4-3-5
Max Horiz 1=37 (LC 11)
Max Uplift 1=-1 (LC 12), 3=-1 (LC 12)
Max Grav 1=171 (LC 1), 3=171 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-215/32, 2-3=-215/32
BOT CHORD 1-3=-13/154

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

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	V02	Valley	1	1	I56000354
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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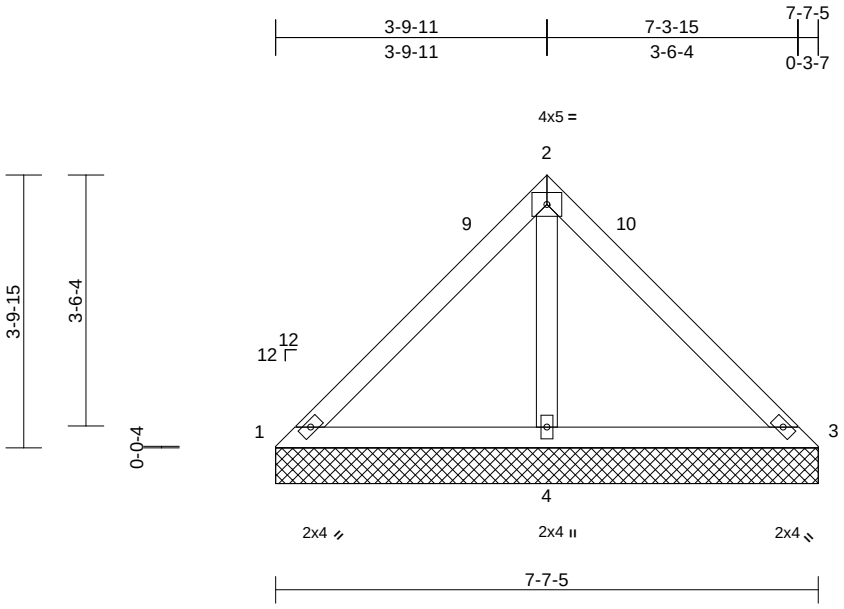

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-7-5, 3=7-7-5, 4=7-7-5
Max Horiz 1=69 (LC 11)
Max Uplift 1=-11 (LC 22), 3=-11 (LC 21), 4=-58 (LC 12)
Max Grav 1=65 (LC 21), 3=65 (LC 22), 4=537 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-78/199, 2-3=-77/199
BOT CHORD 1-4=-173/119, 3-4=-173/119
WEBS 2-4=-385/137

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 3-9-15, Exterior (2) 3-9-15 to 6-11-6, Interior (1) 6-11-6 to 7-7-9 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 11 lb uplift at joint 3 and 58 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	V03	Valley	1	1	I56000355
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

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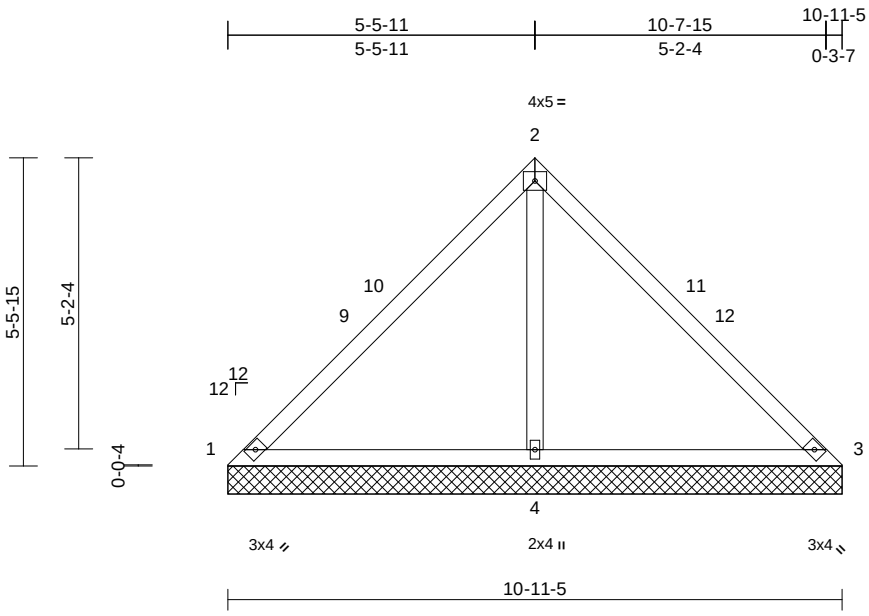

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 45 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=10-11-5, 3=10-11-5, 4=10-11-5
Max Horiz 1=101 (LC 11)
Max Uplift 1=-48 (LC 22), 3=-48 (LC 21), 4=-105 (LC 12)
Max Grav 1=62 (LC 21), 3=62 (LC 22), 4=854 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-141/363, 2-3=-141/363
BOT CHORD 1-4=-275/156, 3-4=-275/156
WEBS 2-4=-665/218

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-5-15, Exterior (2) 5-5-15 to 8-5-15, Interior (1) 8-5-15 to 10-11-9 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1, 48 lb uplift at joint 3 and 105 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	V04	Valley	1	1	I56000356
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:43:00 ID:TNDLAUwM10_nfNZSt3I2?wzEjwI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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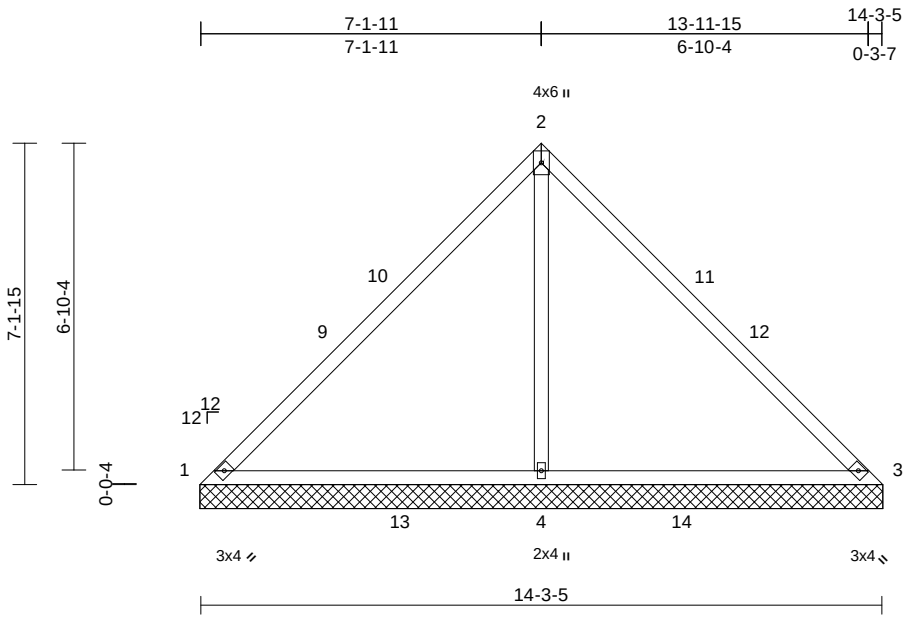

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 60 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 1=14-3-13, 3=14-3-13, 4=14-3-13
Max Horiz 1=-133 (LC 10)
Max Uplift 1=-127 (LC 22), 3=-127 (LC 21), 4=-198 (LC 12)
Max Grav 1=95 (LC 12), 3=95 (LC 12), 4=1388 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-244/614, 2-3=-244/603
BOT CHORD 1-4=-458/225, 3-4=-458/225
WEBS 2-4=-1052/332

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-1-15, Exterior (2) 7-1-15 to 10-1-15, Interior (1) 10-1-15 to 14-3-13 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 1, 127 lb uplift at joint 3 and 198 lb uplift at joint 4.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Garman Homes - Forget Me Not B Roof
Q2200851	V05	Valley	1	1	I56000357
					Job Reference (optional)

Carolina Structural Systems (Star, NC)), Ether, NC - 27247,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Thu Jan 05 12:43:00 Page: 1
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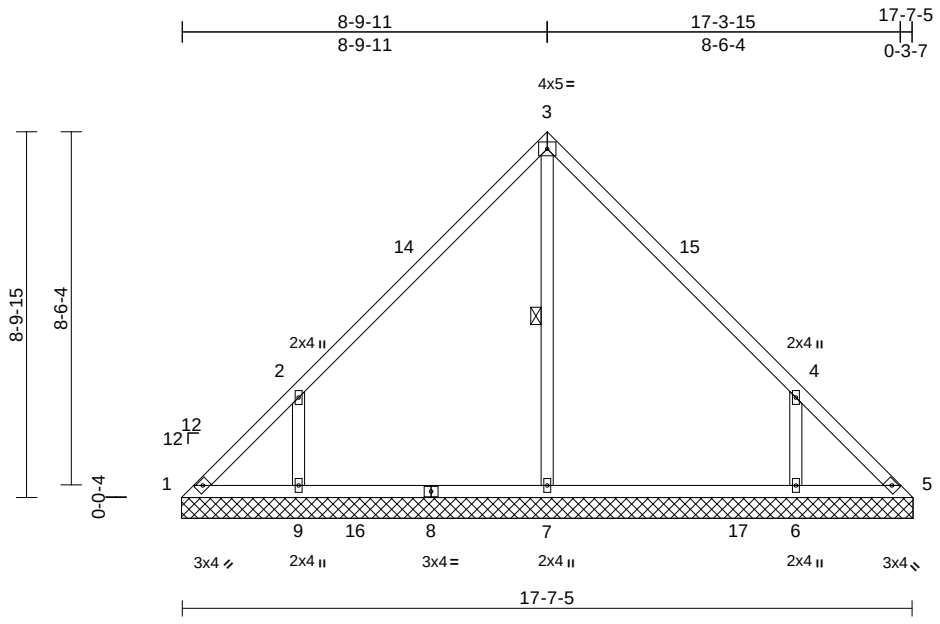

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 81 lb	FT = 20%

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

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

REACTIONS (size) 1=17-7-13, 5=17-7-13, 6=17-7-13, 7=17-7-13, 9=17-7-13
Max Horiz 1=-165 (LC 10)
Max Uplift 1=-51 (LC 10), 5=-14 (LC 11), 6=-133 (LC 12), 9=-133 (LC 12)
Max Grav 1=146 (LC 18), 5=118 (LC 17), 6=539 (LC 18), 7=483 (LC 17), 9=544 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-187/149, 2-3=-256/141, 3-4=-235/141, 4-5=-153/103
BOT CHORD 1-9=-45/117, 7-9=-45/117, 6-7=-45/117, 5-6=-45/117
WEBS 3-7=-196/0, 2-9=-411/241, 4-6=-411/241

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 2-9-15, Interior (1) 2-9-15 to 8-9-15, Exterior (2) 8-9-15 to 11-9-15, Interior (1) 11-9-15 to 17-7-13 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 6-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 1, 14 lb uplift at joint 5, 133 lb uplift at joint 9 and 133 lb uplift at joint 6.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

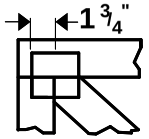
LOAD CASE(S) Standard

January 6,2023

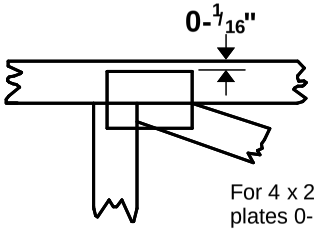
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

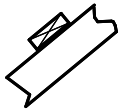
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

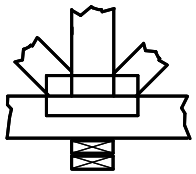
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

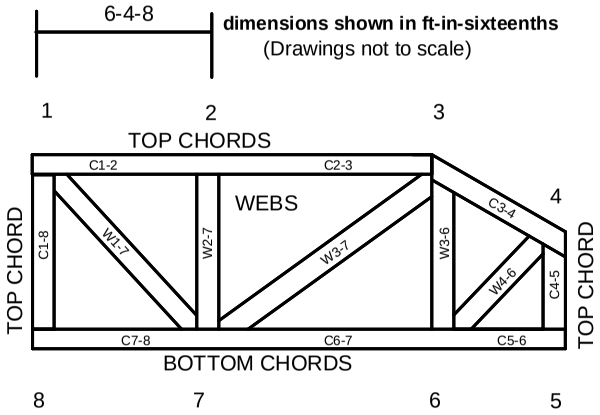


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.