ENGINEERING BY TRENCO
A MiTek Affiliate

RE: 3883834

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: 3883834
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
Wind Code: Wind Speed: 125 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 18 individual, dated Truss Design Drawings and 0 Additional Drawings.

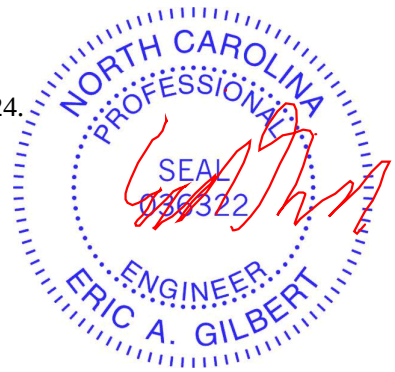
No.	Seal#	Truss Name	Date
1	I63943821	F1A	3/1/2024
2	I63943822	F1B	3/1/2024
3	I63943823	F1C	3/1/2024
4	I63943824	F1E	3/1/2024
5	I63943825	F2	3/1/2024
6	I63943826	F2A	3/1/2024
7	I63943827	F2AE	3/1/2024
8	I63943828	F2E	3/1/2024
9	I63943829	F2G	3/1/2024
10	I63943830	F3	3/1/2024
11	I63943831	F3A	3/1/2024
12	I63943832	F3AE	3/1/2024
13	I63943833	F3E	3/1/2024
14	I63943834	F4	3/1/2024
15	I63943835	F4AE	3/1/2024
16	I63943836	F4E	3/1/2024
17	I63943837	F18	3/1/2024
18	I63943838	F19	3/1/2024

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

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



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

March 01, 2024

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	
3883834	F1A	Floor	3	1	I63943821 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 E Jun 15 2023 Print: 8.630 E Jun 15 2023 MiTek Industries, Inc. Thu Feb 29 10:06:29
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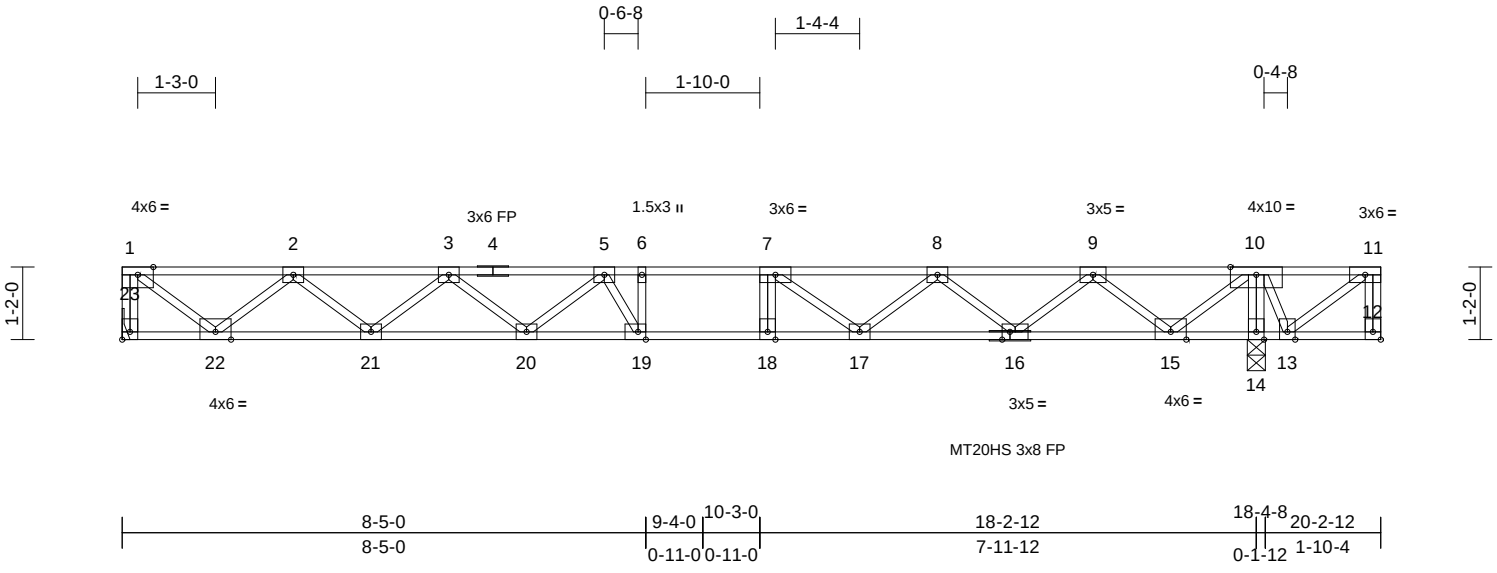

Scale = 1:37

Plate Offsets (X, Y): [12:Edge,0-1-8], [16:0-1-8,Edge], [19:0-1-8,Edge], [23:Edge,0-1-8]

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	0.85	Vert(LL)	-0.30	18-19	>721	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.40	18-19	>540	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 106 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 4-11:2x4 SP No.1 (flat)
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-15,13-14.

REACTIONS (lb/size) 14=1389/0-3-8, 23=968/ Mechanical
Max Grav 14=1389 (LC 1), 23=976 (LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-23=-969/0, 1-2=-1138/0, 2-3=-2811/0, 3-4=-3784/0, 4-5=-3784/0, 5-6=-4111/0, 6-7=-4111/0, 7-8=-3679/0, 8-9=-2617/0, 9-10=-862/104, 10-11=0/326
BOT CHORD 21-22=0/2149, 20-21=0/3443, 19-20=0/4091, 18-19=0/4111, 17-18=0/4111, 16-17=0/3303, 15-16=0/1897, 14-15=-430/0, 13-14=-442/0
WEBS 10-14=-1316/0, 1-22=0/1428, 2-22=-1316/0, 2-21=0/862, 3-21=-824/0, 3-20=0/444, 5-20=-472/0, 5-19=-366/494, 10-15=0/1419, 9-15=-1347/0, 9-16=0/954, 8-16=-906/0, 8-17=0/588, 7-17=-775/0, 11-13=-408/0, 10-13=0/264, 6-19=-301/180

NOTES (8)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Refer to girder(s) for truss to truss connections.
5) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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.
8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 12-23=-10, 1-11=-100
Concentrated Loads (lb)
Vert: 11=-160

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F1B	Floor	7	1	I63943822 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:39 Page: 1
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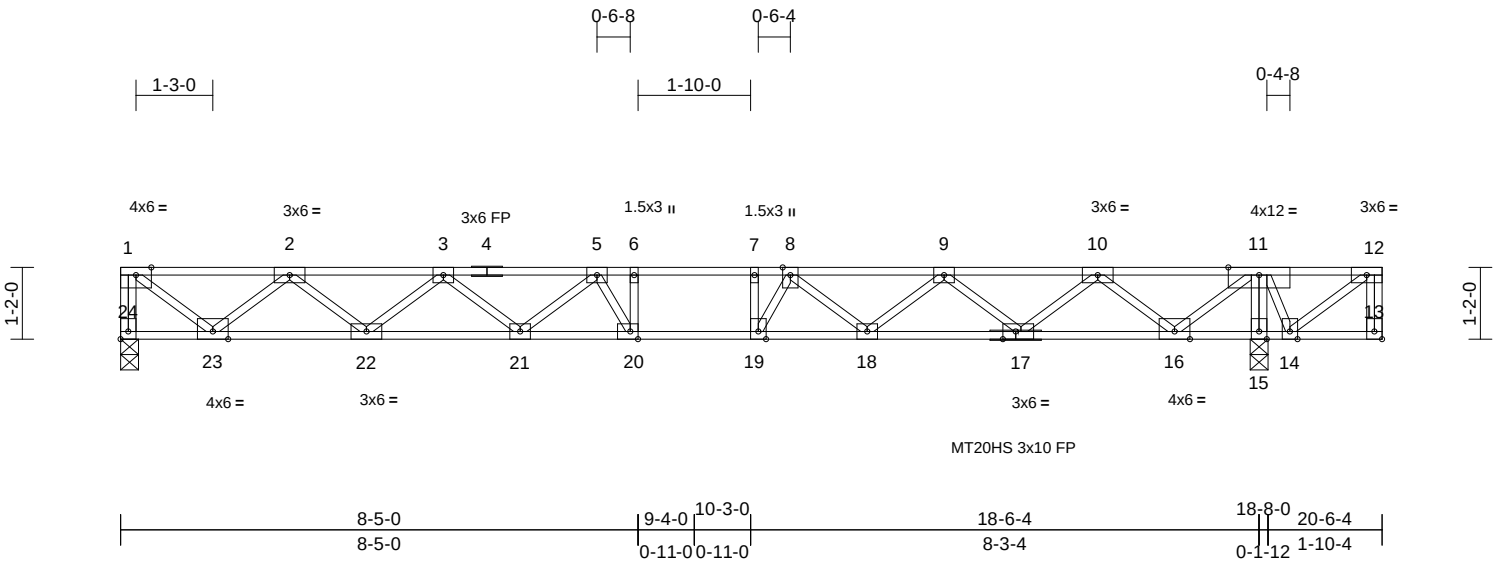


Scale = 1:37.5

Plate Offsets (X, Y): [13:Edge,0-1-8], [17:0-2-8,Edge], [20:0-1-8,Edge], [24:Edge,0-1-8]

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	0.78	Vert(LL)	-0.32	19-20	>689	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.60	Vert(CT)	-0.43	19-20	>519	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 107 lb	FT = 20%F, 11%E

LUMBER
TOP CHORD 2x4 SP No.2(flat) *Except* 4-12:2x4 SP No.1 (flat)
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-10-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 15-16,14-15.

REACTIONS (size) 15=0-3-8, 24=0-3-8
Max Grav 15=1405 (LC 1), 24=993 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-985/0, 12-13=0/9, 1-2=-1159/0, 2-3=-2871/0, 3-5=-3883/0, 5-6=-4251/0, 6-7=-4251/0, 7-8=-4251/0, 8-9=-3777/0, 9-10=-2675/0, 10-11=-883/99, 11-12=0/324
BOT CHORD 23-24=0/0, 22-23=0/2190, 21-22=0/3524, 20-21=0/4210, 19-20=0/4251, 18-19=0/4159, 16-18=0/3378, 15-16=-430/0, 14-15=-442/0, 13-14=0/0
WEBS 6-20=-342/187, 7-19=-429/114, 11-15=-1331/0, 1-23=0/1455, 2-23=-1341/0, 2-22=0/887, 3-22=-849/0, 3-21=0/468, 5-21=-479/0, 5-20=-328/513, 11-16=0/1444, 10-16=-1372/0, 10-17=0/977, 9-17=-930/0, 9-18=0/529, 8-18=-568/0, 8-19=-206/645, 12-14=-407/0, 11-14=0/264

NOTES (8)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
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) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
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.
8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 13-24=-10, 1-12=-100
Concentrated Loads (lb)
Vert: 12=-160

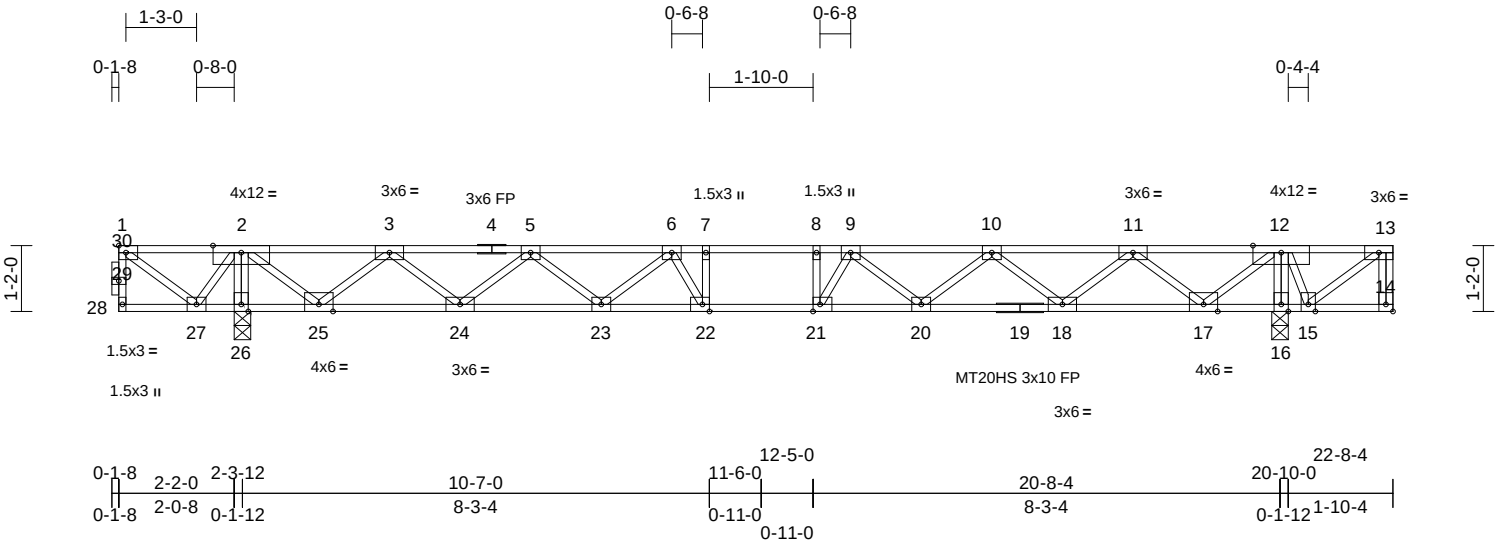
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F1C	Floor	2	1	I63943823 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:39 Page: 1
ID:M_3y_j3KdsbzXLU74j7ecwziEw1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.8

Plate Offsets (X, Y): [14:Edge,0-1-8], [21:0-1-8,Edge], [22:0-1-8,Edge]

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	0.89	Vert(LL)	-0.36	21-22	>617	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.49	21-22	>455	240	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.08	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 119 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 5-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 16=0-3-8, 26=0-3-8
Max Grav 16=1224 (LC 4), 26=1255 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-28=0/8, 13-14=0/9, 1-2=0/121, 2-3=-1135/0, 3-5=-2884/0, 5-6=-3948/0, 6-7=-4373/0, 7-8=-4373/0, 8-9=-4373/0, 9-10=-3952/0, 10-11=-2892/0, 11-12=-1147/0, 12-13=0/113
BOT CHORD 27-28=0/0, 26-27=-198/0, 25-26=-192/0, 24-25=0/2168, 23-24=0/3568, 22-23=0/4303, 21-22=0/4373, 20-21=0/4305, 18-20=0/3574, 17-18=0/2178, 16-17=-144/20, 15-16=-153/2, 14-15=0/0
WEBS 2-26=-1213/0, 7-22=-394/150, 8-21=-387/156, 12-16=-1161/0, 1-27=-154/0, 2-27=0/127, 2-25=0/1430, 3-25=-1345/0, 3-24=0/953, 5-24=-908/0, 5-23=0/507, 6-23=-536/0, 6-22=-271/597, 12-17=0/1420, 11-17=-1342/0, 11-18=0/946, 10-18=-902/0, 10-20=0/502, 9-20=-529/0, 9-21=-281/586, 13-15=-142/0, 12-15=-24/93

NOTES (7)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
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.
7) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3883834	F1E	Floor Supported Gable	1	1	I63943824 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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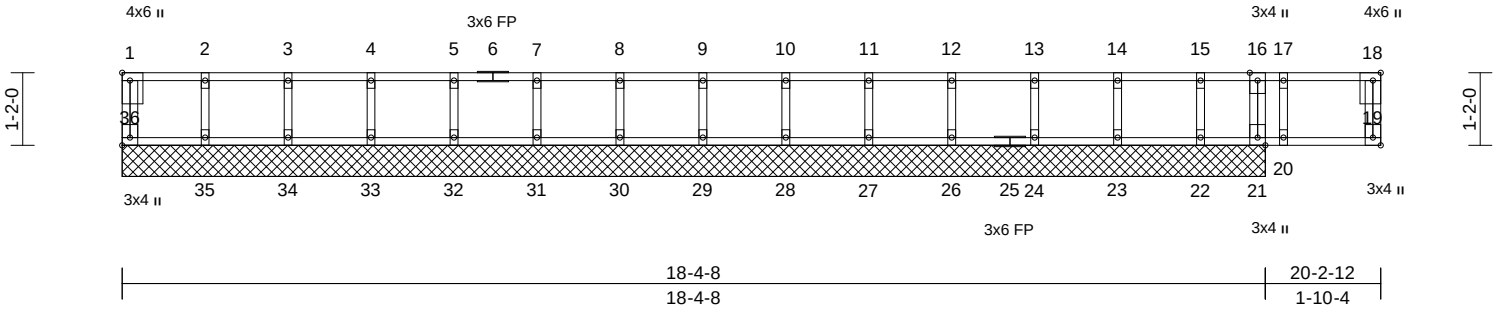

Scale = 1:37

Plate Offsets (X, Y): [1:Edge,0-1-8], [18:0-1-8,Edge], [19:Edge,0-1-8], [36:Edge,0-1-8]

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	0.96	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horiz(TL)	-0.01	21	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 87 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 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 21=18-4-8, 22=18-4-8, 23=18-4-8, 24=18-4-8, 26=18-4-8, 27=18-4-8, 28=18-4-8, 29=18-4-8, 30=18-4-8, 31=18-4-8, 32=18-4-8, 33=18-4-8, 34=18-4-8, 35=18-4-8, 36=18-4-8
Max Uplift 22=-405 (LC 4), 34=-20 (LC 4), 36=-190 (LC 4)
Max Grav 21=784 (LC 1), 22=-168 (LC 3), 23=224 (LC 1), 24=133 (LC 3), 26=152 (LC 1), 27=146 (LC 3), 28=147 (LC 1), 29=147 (LC 3), 30=146 (LC 3), 31=148 (LC 1), 32=143 (LC 3), 33=163 (LC 1), 34=99 (LC 3), 35=406 (LC 1), 36=-103 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-36=0/92, 18-19=-112/0, 1-2=0/189, 2-3=0/189, 3-4=0/189, 4-5=0/189, 5-7=0/189, 7-8=0/189, 8-9=0/189, 9-10=0/189, 10-11=0/189, 11-12=0/189, 12-13=0/189, 13-14=0/189, 14-15=0/189, 15-16=0/189, 16-17=0/189, 17-18=0/189
BOT CHORD 35-36=-189/0, 34-35=-189/0, 33-34=-189/0, 32-33=-189/0, 31-32=-189/0, 30-31=-189/0, 29-30=-189/0, 28-29=-189/0, 27-28=-189/0, 26-27=-189/0, 24-26=-189/0, 23-24=-189/0, 22-23=-189/0, 21-22=-189/0, 20-21=-189/0, 19-20=-189/0
WEBS 16-21=-394/0, 2-35=-261/0, 3-34=-111/3, 4-33=-141/0, 5-32=-132/0, 7-31=-134/0, 8-30=-133/0, 9-29=-133/0, 10-28=-133/0, 11-27=-133/0, 12-26=-136/0, 13-24=-126/0, 14-23=-172/0, 15-22=0/191, 17-20=-65/0

NOTES (11)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 190 lb uplift at joint 36, 20 lb uplift at joint 34 and 405 lb uplift at joint 22.
6) Non Standard bearing condition. Review required.
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) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
9) 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.
10) CAUTION, Do not erect truss backwards.
11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-36=-10, 1-18=-100
Concentrated Loads (lb)
Vert: 18=-160

March 1,2024

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	
3883834	F2	Floor	7	1	I63943825 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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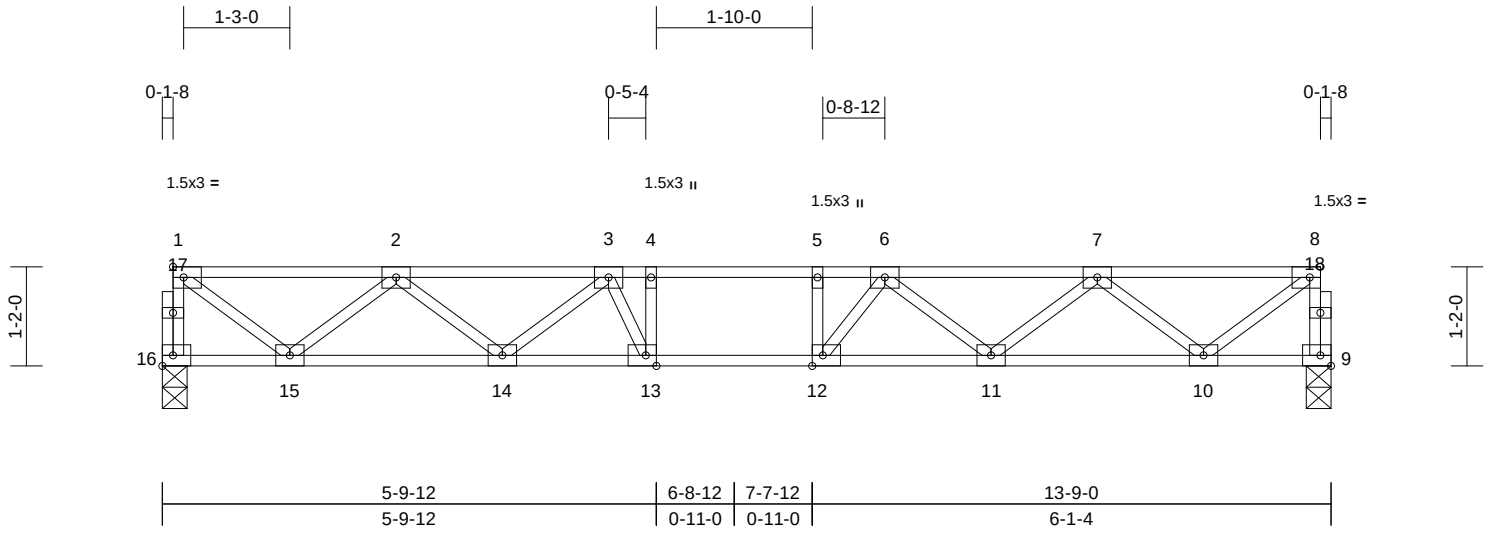


Scale = 1:27.1

Plate Offsets (X, Y): [8:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,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	0.39	Vert(LL)	-0.09	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.13	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 70 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, 16=0-3-8
Max Grav 9=589 (LC 1), 16=589 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-585/0, 8-9=-585/0, 1-2=-668/0, 2-3=-1549/0, 3-4=-1893/0, 4-5=-1893/0, 5-6=-1893/0, 6-7=-1551/0, 7-8=-668/0
BOT CHORD 15-16=0/35, 14-15=0/1250, 13-14=0/1830, 12-13=0/1893, 11-12=0/1824, 10-11=0/1251, 9-10=0/35
WEBS 4-13=-288/52, 5-12=-206/26, 1-15=0/809, 2-15=-757/0, 2-14=0/388, 3-14=-367/0, 3-13=-93/395, 8-10=0/808, 7-10=-759/0, 7-11=0/390, 6-11=-356/0, 6-12=-78/331

NOTES (5)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

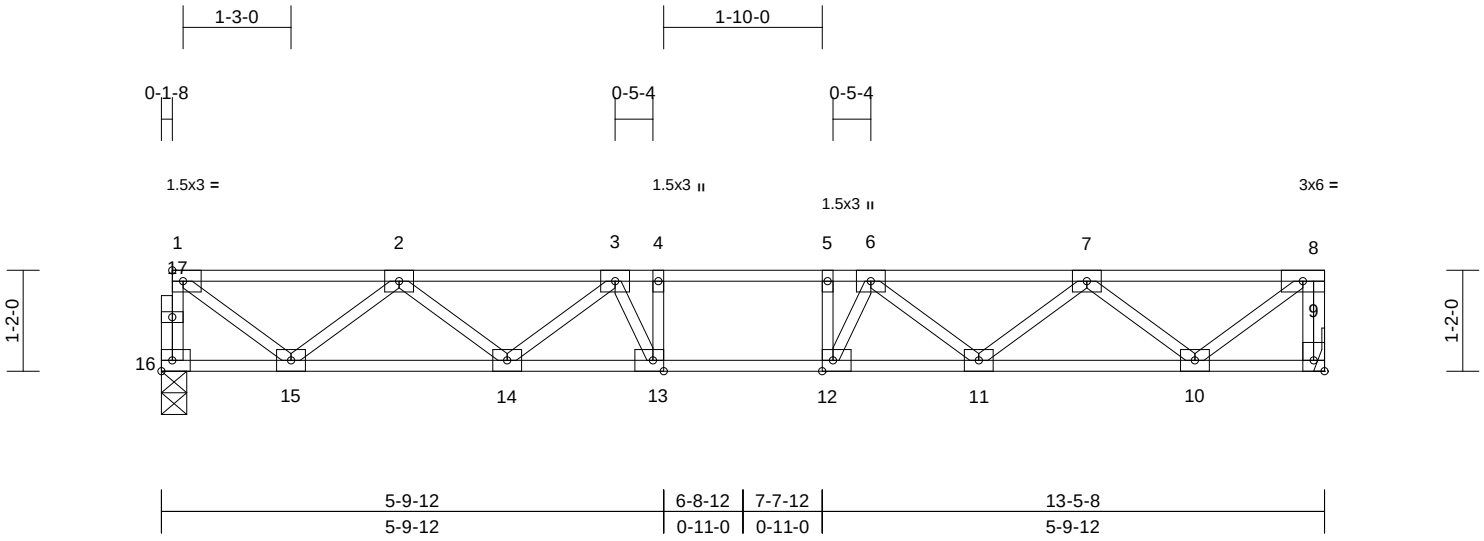
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F2A	Floor	3	1	I63943826 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:40 ID:a1fPKd_je2bXnmH_FRiS1UziDPI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:26.7

Plate Offsets (X, Y): [9:Edge,0-1-8], [12:0-1-8,Edge], [13:0-1-8,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	0.35	Vert(LL)	-0.09	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.12	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 69 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= Mechanical, 16=0-3-8
Max Grav 9=581 (LC 1), 16=576 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-16=-572/0, 8-9=-576/0, 1-2=-651/0, 2-3=-1502/0, 3-4=-1812/0, 4-5=-1812/0, 5-6=-1812/0, 6-7=-1503/0, 7-8=-650/0
BOT CHORD	15-16=0/34, 14-15=0/1218, 13-14=0/1765, 12-13=0/1812, 11-12=0/1765, 10-11=0/1220, 9-10=0/0
WEBS	4-13=-263/64, 5-12=-264/62, 1-15=0/788, 2-15=-738/0, 2-14=0/370, 3-14=-343/0, 3-13=-108/360, 8-10=0/815, 7-10=-742/0, 7-11=0/368, 6-11=-341/0, 6-12=-107/360

NOTES (7)

1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
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.
7) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

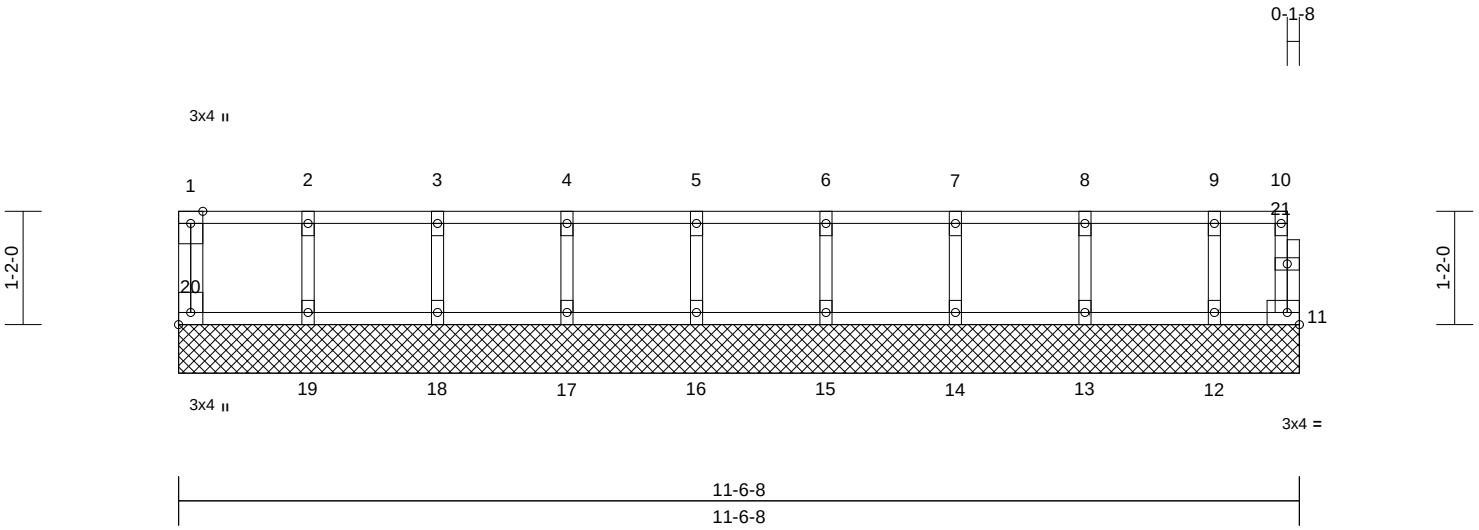
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F2AE	Floor Supported Gable	1	1	I63943827 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:40
ID:9y73gYKUt_ZFTYcbXm_ux7ziEIz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.7

Plate Offsets (X, Y): [20:Edge,0-1-8]

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	0.02	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-R							Weight: 50 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=11-6-8, 12=11-6-8, 13=11-6-8, 14=11-6-8, 15=11-6-8, 16=11-6-8, 17=11-6-8, 18=11-6-8, 19=11-6-8, 20=11-6-8

Max Grav 11=30 (LC 1), 12=115 (LC 1), 13=153 (LC 1), 14=145 (LC 1), 15=147 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-20=-55/0, 10-11=-24/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0
BOT CHORD	19-20=0/7, 18-19=0/7, 17-18=0/7, 16-17=0/7, 15-16=0/7, 14-15=0/7, 13-14=0/7, 12-13=0/7, 11-12=0/7
WEBS	2-19=-132/0, 3-18=-134/0, 4-17=-133/0, 5-16=-133/0, 6-15=-134/0, 7-14=-132/0, 8-13=-138/0, 9-12=-108/0

NOTES (8)

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.
8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F2E	Floor Supported Gable	1	1	I63943828 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:40
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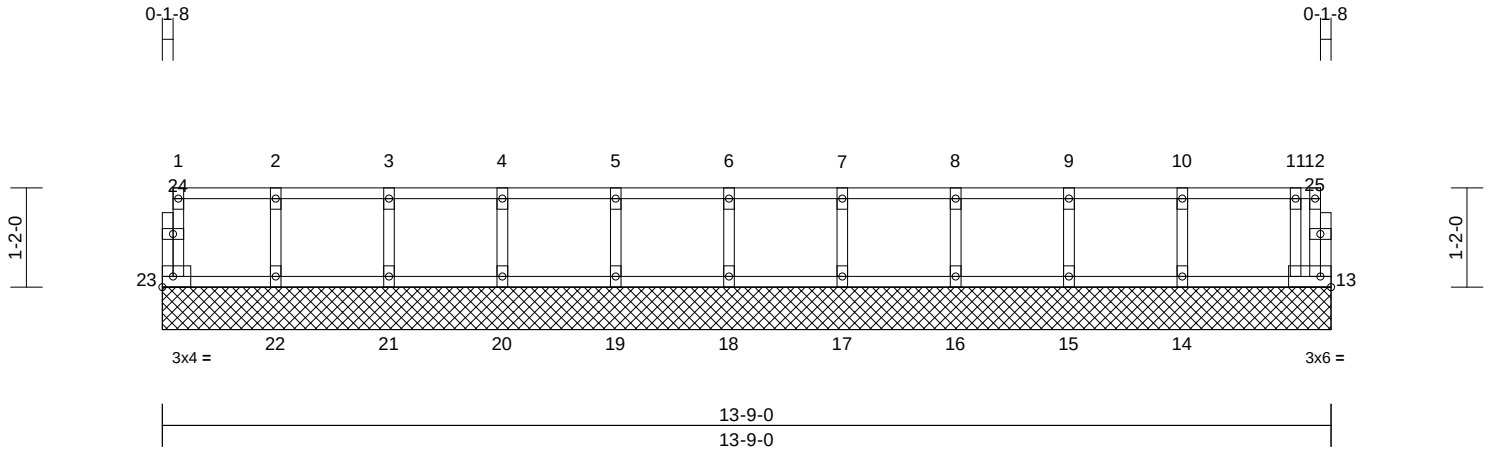

Scale = 1:27.1

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	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 59 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) 13=13-9-0, 14=13-9-0, 15=13-9-0, 16=13-9-0, 17=13-9-0, 18=13-9-0, 19=13-9-0, 20=13-9-0, 21=13-9-0, 22=13-9-0, 23=13-9-0
Max Grav 13=69 (LC 1), 14=129 (LC 1), 15=114 (LC 1), 16=118 (LC 1), 17=117 (LC 1), 18=117 (LC 1), 19=117 (LC 1), 20=117 (LC 1), 21=120 (LC 1), 22=107 (LC 1), 23=51 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-44/0, 12-13=0/10, 1-2=-13/0, 2-3=-13/0, 3-4=-13/0, 4-5=-13/0, 5-6=-13/0, 6-7=-13/0, 7-8=-13/0, 8-9=-13/0, 9-10=-13/0, 10-11=-13/0, 11-12=0/0
BOT CHORD 22-23=0/13, 21-22=0/13, 20-21=0/13, 19-20=0/13, 18-19=0/13, 17-18=0/13, 16-17=0/13, 15-16=0/13, 14-15=0/13, 13-14=0/13
WEBS 2-22=-101/0, 3-21=-108/0, 4-20=-106/0, 5-19=-107/0, 6-18=-107/0, 7-17=-106/0, 8-16=-107/0, 9-15=-104/0, 10-14=-115/0, 11-13=-76/0

NOTES (7)
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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F2G	Floor Girder	1	1	I63943829
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:41
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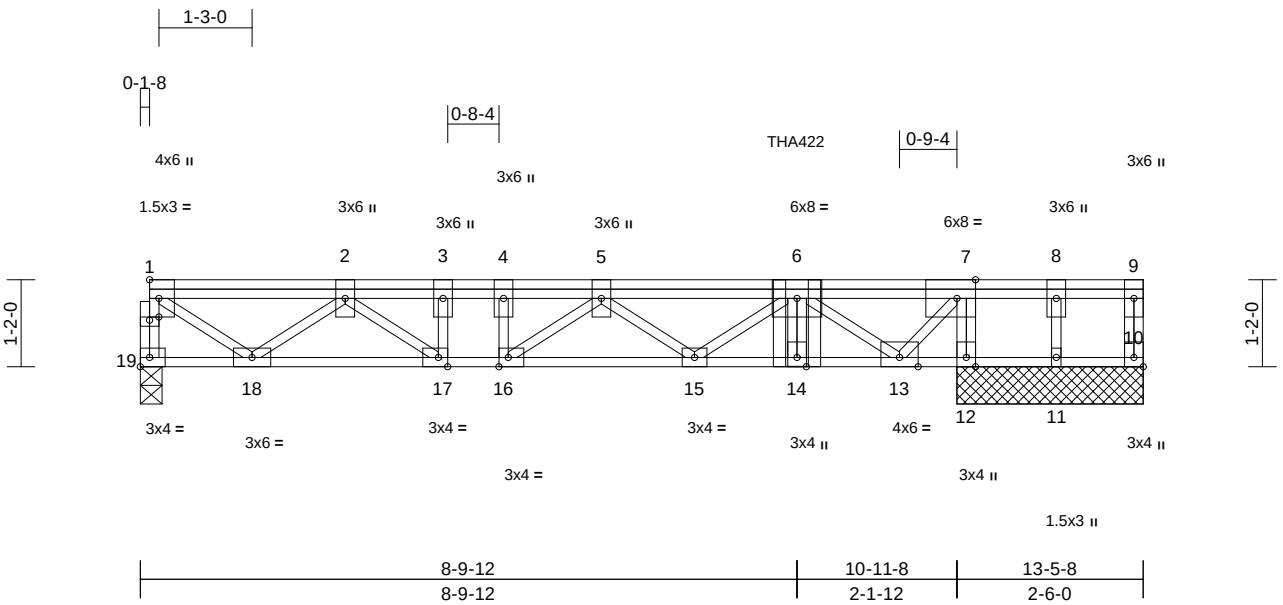
Page: 1



Scale = 1:30.9

Plate Offsets (X, Y): [1:0-1-8,0-0-8], [7:0-3-0,Edge], [10:Edge,0-1-8], [16:0-1-8,Edge], [17:0-1-8,Edge]

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	0.26	Vert(LL)	-0.06	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.09	15-16	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 90 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) 10=2-6-0, 11=2-6-0, 12=2-6-0, 19=0-3-8
Max Uplift 11=-42 (LC 1)
Max Grav 10=77 (LC 1), 11=-42 (LC 1), 12=1114 (LC 1), 19=663 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-19=-655/0, 9-10=-65/0, 1-2=-762/0, 2-3=-1854/0, 3-4=-1854/0, 4-5=-1854/0, 5-6=-1886/0, 6-7=-633/0, 7-8=0/0, 8-9=0/0
BOT CHORD	18-19=0/0, 17-18=0/1420, 16-17=0/1854, 15-16=0/2066, 14-15=0/1639, 13-14=0/1639, 12-13=0/0, 11-12=0/0, 10-11=0/0
WEBS	6-14=0/1, 7-12=-1031/0, 6-15=0/303, 1-18=0/928, 5-15=-228/0, 2-18=-837/0, 5-16=-264/0, 2-17=0/541, 3-17=-276/0, 4-16=0/142, 6-13=-1235/0, 7-13=0/938, 8-11=0/14

NOTES (10)

1) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
2) Gable studs spaced at 1-4-0 oc.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 11.
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.
7) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 8-9-12 from the left end to connect truss(es) to back face of top chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
8) Fill all nail holes where hanger is in contact with lumber.
9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-19=-10, 1-9=-100
Concentrated Loads (lb)
Vert: 6=-358 (B)

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F3	Floor	7	1	I63943830
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:41 Page: 1
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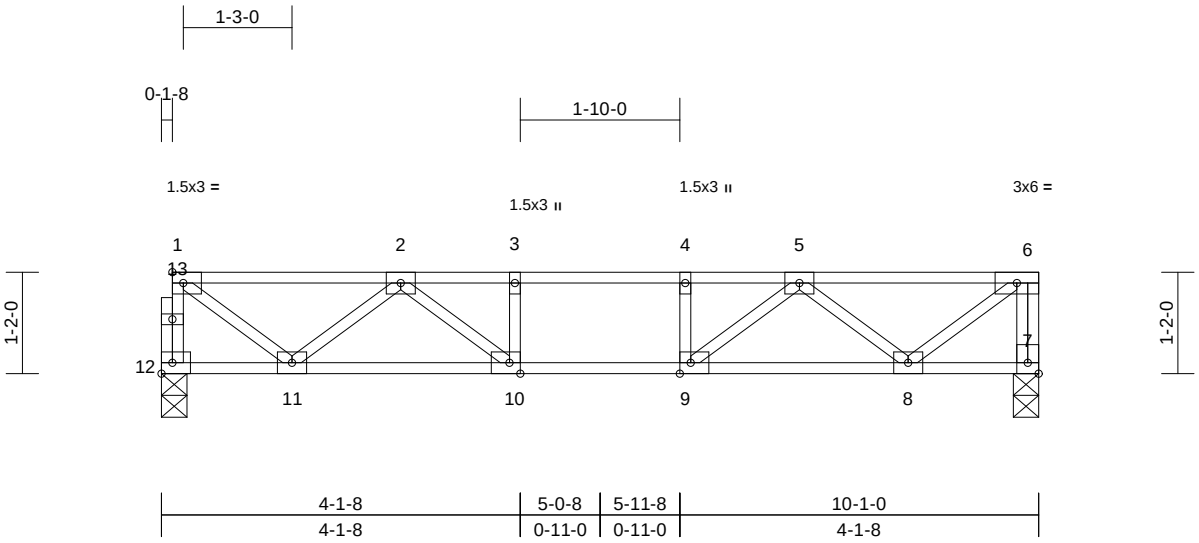

Scale = 1:26.5

Plate Offsets (X, Y): [7:Edge,0-1-8], [9:0-1-8,Edge], [10:0-1-8,Edge]

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	0.42	Vert(LL)	-0.05	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.41	Vert(CT)	-0.06	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 52 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) 7=0-3-8, 12=0-3-8
Max Grav 7=541 (LC 1), 12=535 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-530/0, 6-7=-536/0, 1-2=-565/0, 2-3=-1241/0, 3-4=-1241/0, 4-5=-1241/0, 5-6=-563/0
BOT CHORD 11-12=0/32, 10-11=0/1045, 9-10=0/1241, 8-9=0/1048, 7-8=0/0
WEBS 3-10=-190/0, 4-9=-189/0, 1-11=0/680, 2-11=-626/0, 2-10=0/401, 6-8=0/706, 5-8=-632/0, 5-9=0/400

NOTES (6)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 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.
6) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F3A	Floor	3	1	I63943831 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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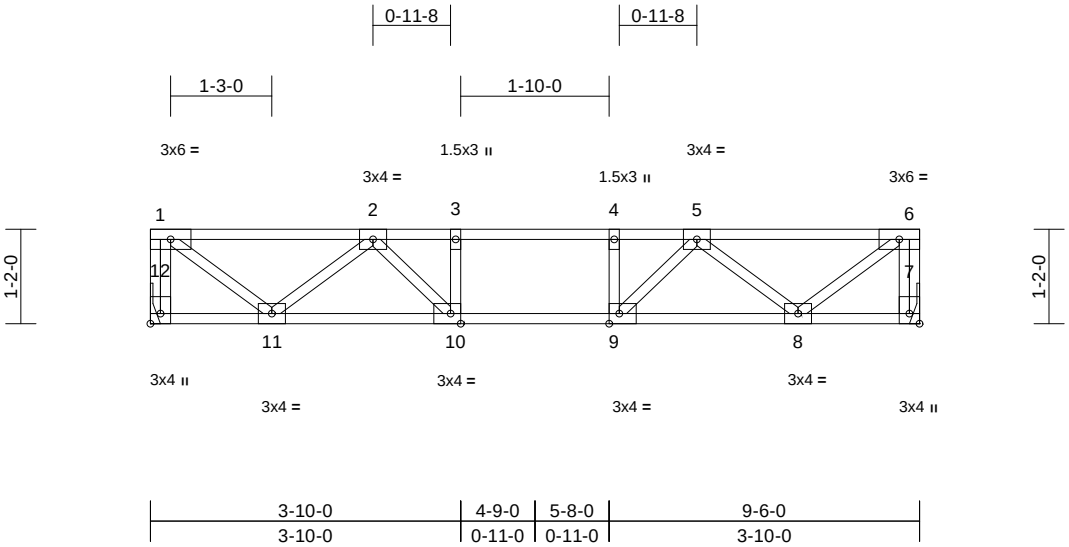

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Plate Offsets (X, Y): [7:Edge,0-1-8], [9:0-1-8,Edge], [10:0-1-8,Edge], [12:Edge,0-1-8]

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	0.41	Vert(LL)	-0.04	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(CT)	-0.05	8-9	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 50 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) 7= Mechanical, 12= Mechanical
Max Grav 7=509 (LC 1), 12=509 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-503/0, 6-7=-503/0, 1-2=-521/0, 2-3=-1094/0, 3-4=-1094/0, 4-5=-1094/0, 5-6=-521/0
BOT CHORD 11-12=0/0, 10-11=0/970, 9-10=0/1094, 8-9=0/970, 7-8=0/0
WEBS 3-10=-192/0, 4-9=-192/0, 1-11=0/653, 2-11=-585/0, 2-10=0/346, 6-8=0/653, 5-8=-585/0, 5-9=0/346

LOAD CASE(S) Standard

NOTES (6)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

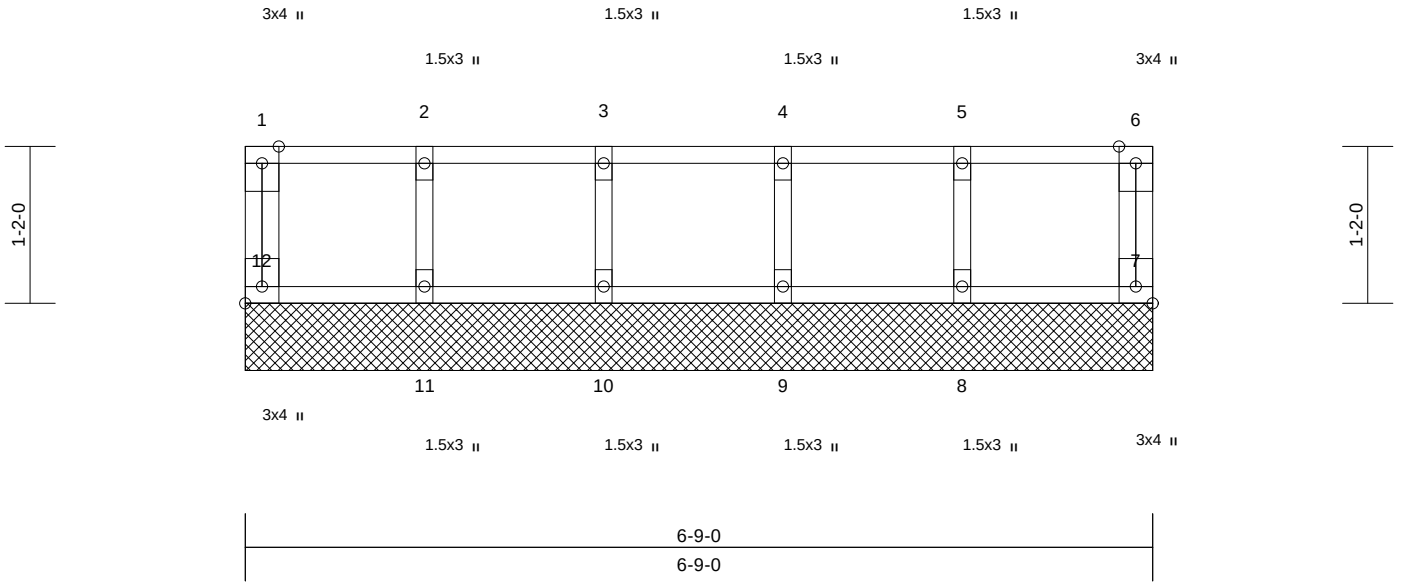
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F3AE	Floor Supported Gable	1	1	I63943832 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:41 ID:baiGTFP2dVtis?tWFaJQPfziDOm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:17.1

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

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	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 31 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) 7=6-9-0, 8=6-9-0, 9=6-9-0, 10=6-9-0, 11=6-9-0, 12=6-9-0
Max Grav 7=68 (LC 1), 8=148 (LC 1), 9=146 (LC 1), 10=148 (LC 1), 11=141 (LC 1), 12=64 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-12=-57/0, 6-7=-62/0, 1-2=-12/0, 2-3=-12/0, 3-4=-12/0, 4-5=-12/0, 5-6=-12/0
BOT CHORD	11-12=0/12, 10-11=0/12, 9-10=0/12, 8-9=0/12, 7-8=0/12
WEBS	2-11=-129/0, 3-10=-135/0, 4-9=-133/0, 5-8=-134/0

NOTES (7)

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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F3E	Floor Supported Gable	1	1	I63943833 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:42
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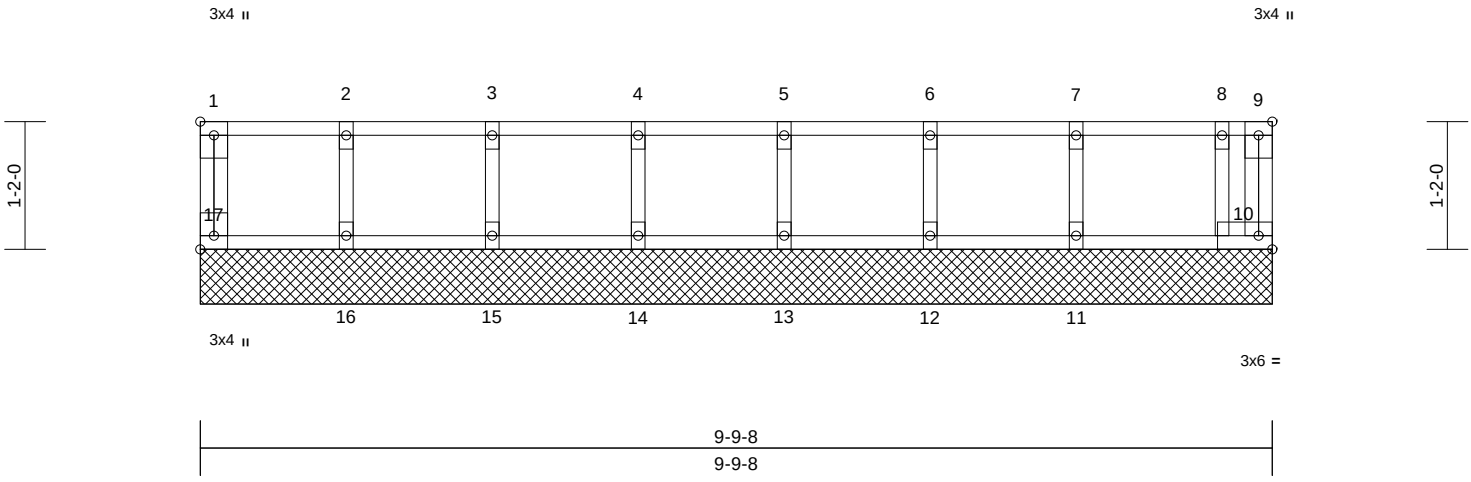


Scale = 1:21

Plate Offsets (X, Y): [1:Edge,0-1-8], [17:Edge,0-1-8]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 44 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) 10=9-9-8, 11=9-9-8, 12=9-9-8, 13=9-9-8, 14=9-9-8, 15=9-9-8, 16=9-9-8, 17=9-9-8
Max Grav 10=97 (LC 1), 11=161 (LC 1), 12=142 (LC 1), 13=148 (LC 1), 14=145 (LC 1), 15=150 (LC 1), 16=133 (LC 1), 17=70 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-17=-60/0, 9-10=0/2, 1-2=-17/0, 2-3=-17/0, 3-4=-17/0, 4-5=-17/0, 5-6=-17/0, 6-7=-17/0, 7-8=-17/0, 8-9=0/0
BOT CHORD	16-17=0/17, 15-16=0/17, 14-15=0/17, 13-14=0/17, 12-13=0/17, 11-12=0/17, 10-11=0/17
WEBS	2-16=-125/0, 3-15=-135/0, 4-14=-133/0, 5-13=-134/0, 6-12=-131/0, 7-11=-143/0, 8-10=-96/0

NOTES (7)

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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

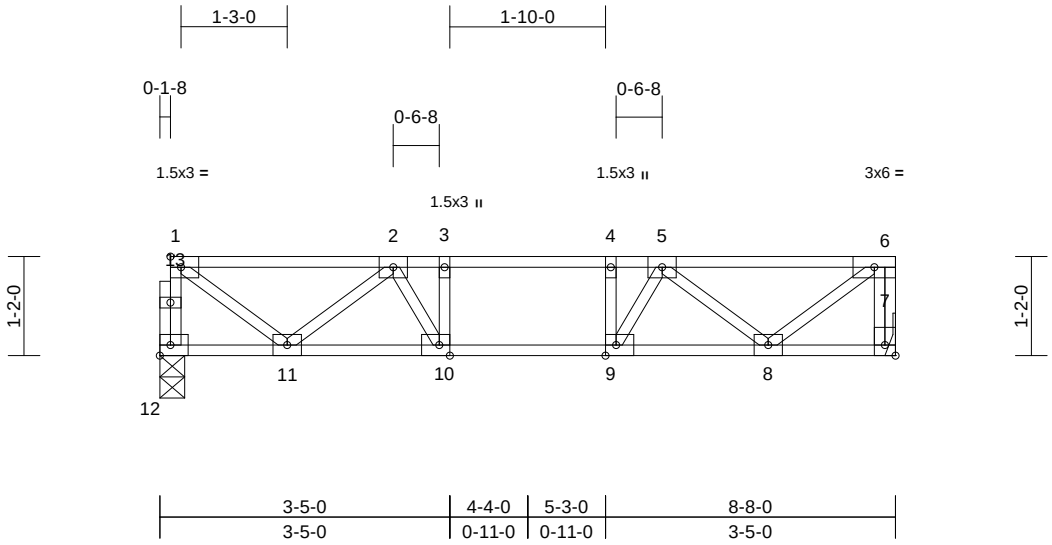
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F4	Floor	1	1	I63943834 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:42 ID:dPDsSiXndWqhdJ_3aYI6gwziEIh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.1

Plate Offsets (X, Y): [7:Edge,0-1-8], [9:0-1-8,Edge], [10:0-1-8,Edge]

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	0.38	Vert(LL)	-0.03	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.04	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 46 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) 7= Mechanical, 12=0-3-8
Max Grav 7=463 (LC 1), 12=457 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-451/0, 6-7=-456/0, 1-2=-463/0, 2-3=-903/0, 3-4=-903/0, 4-5=-903/0, 5-6=-462/0
BOT CHORD 11-12=0/27, 10-11=0/859, 9-10=0/903, 8-9=0/862, 7-8=0/0
WEBS 3-10=-211/27, 4-9=-210/33, 1-11=0/557, 2-11=-514/0, 2-10=-43/300, 6-8=0/580, 5-8=-521/0, 5-9=-50/298

NOTES (7)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
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.
7) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F4AE	Floor Supported Gable	1	1	I63943835 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:42 Page: 1
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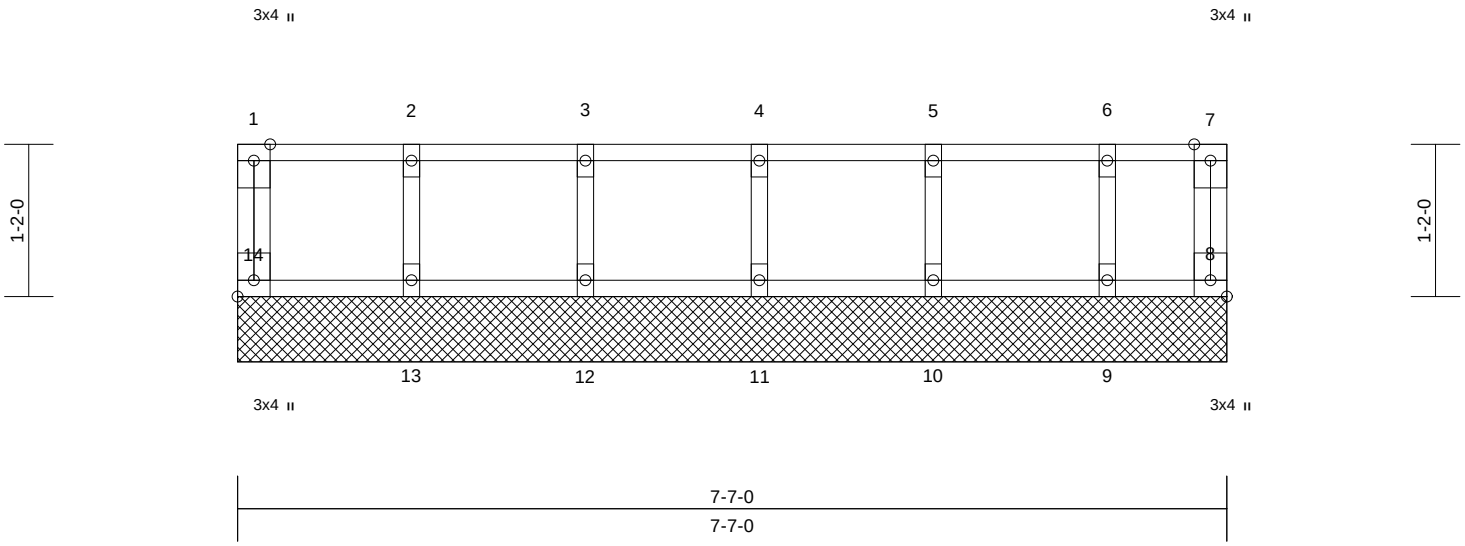

Scale = 1:17.7

Plate Offsets (X, Y): [8:Edge,0-1-8], [14:Edge,0-1-8]

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	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 35 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) 8=7-7-0, 9=7-7-0, 10=7-7-0, 11=7-7-0, 12=7-7-0, 13=7-7-0, 14=7-7-0
Max Grav 8=39 (LC 1), 9=117 (LC 1), 10=152 (LC 1), 11=145 (LC 1), 12=147 (LC 1), 13=147 (LC 1), 14=59 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-55/0, 7-8=-32/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0
BOT CHORD 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7, 9-10=0/7, 8-9=0/7
WEBS 2-13=-132/0, 3-12=-134/0, 4-11=-132/0, 5-10=-138/0, 6-9=-110/0

NOTES (7)
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) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F4E	Floor Supported Gable	1	1	I63943836
					Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:42
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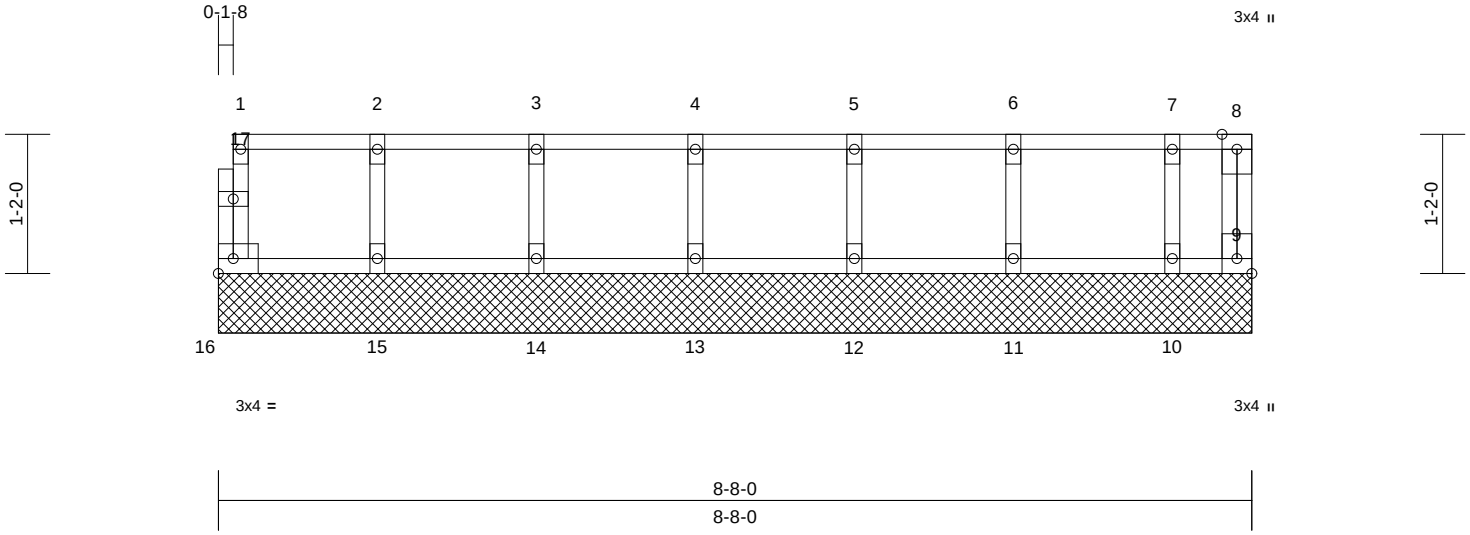


Scale = 1:19.3

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

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	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 39 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=8-8-0, 10=8-8-0, 11=8-8-0, 12=8-8-0, 13=8-8-0, 14=8-8-0, 15=8-8-0, 16=8-8-0
Max Grav 9=22 (LC 1), 10=105 (LC 1), 11=153 (LC 1), 12=145 (LC 1), 13=147 (LC 1), 14=147 (LC 1), 15=147 (LC 1), 16=53 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-16=-49/0, 8-9=-14/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0
BOT CHORD	15-16=0/7, 14-15=0/7, 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7, 9-10=0/7
WEBS	2-15=-132/0, 3-14=-134/0, 4-13=-134/0, 5-12=-132/0, 6-11=-139/0, 7-10=-102/0

NOTES (8)

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.
8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

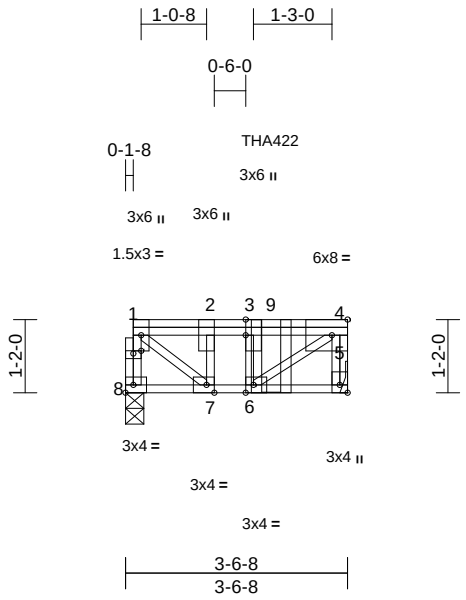
March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F18	Floor Girder	1	1	I63943837 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:42 ID:dPDsSiXndWqhdJ_3aYI6gwziEIh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.7

Plate Offsets (X, Y): [1:0-1-8,0-0-8], [3:0-3-0,Edge], [4:0-3-0,Edge], [5:Edge,0-1-8], [6:0-1-8,Edge], [7:0-1-8,Edge]

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	0.30	Vert(LL)	-0.01	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.21	Vert(CT)	-0.01	5-6	>999	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 27 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 3-6-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 8=0-3-8
Max Grav 5=458 (LC 4), 8=303 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-8=-307/0, 4-5=-438/0, 1-2=-375/0, 2-3=-376/0, 3-4=-376/0
BOT CHORD	7-8=0/0, 6-7=0/376, 5-6=0/0
WEBS	4-6=0/455, 1-7=0/476, 2-7=-224/0, 3-6=-316/0

NOTES (9)

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
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.
6) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 2-3-14 from the left end to connect truss(es) to front face of top chord.
7) Fill all nail holes where hanger is in contact with lumber.
8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (lb/ft)
   Vert: 5-8=-10, 1-4=-100
   Concentrated Loads (lb)
   Vert: 9=-363 (F)

March 1,2024

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

Job	Truss	Truss Type	Qty	Ply	
3883834	F19	Floor Girder	1	1	I63943838 Job Reference (optional)

Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Thu Feb 29 09:58:43 Page: 1
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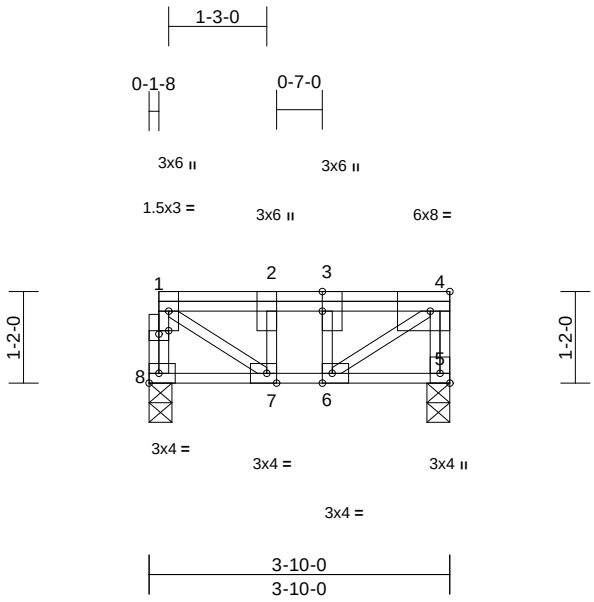


Scale = 1:29.4

Plate Offsets (X, Y): [1:0-1-8,0-0-8], [3:0-3-0,Edge], [4:0-3-0,Edge], [5:Edge,0-1-8], [6:0-1-8,Edge], [7:0-1-8,Edge]

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	0.05	Vert(LL)	0.00	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.05	Vert(CT)	0.00	7-8	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 28 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 3-10-0 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=197 (LC 1), 8=197 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-190/0, 4-5=-190/0, 1-2=-185/0, 2-3=-184/0, 3-4=-184/0
BOT CHORD 7-8=0/0, 6-7=0/184, 5-6=0/0
WEBS 4-6=0/223, 1-7=0/222, 2-7=-112/0, 3-6=-115/0

NOTES (5)
1) Unbalanced floor live loads have been considered for this design.
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.
4) CAUTION, Do not erect truss backwards.
5) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

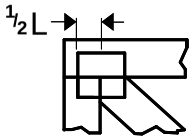
LOAD CASE(S) Standard

March 1,2024

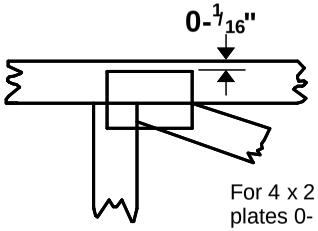
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

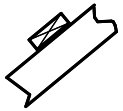
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

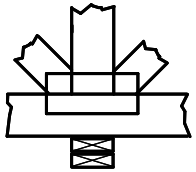
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

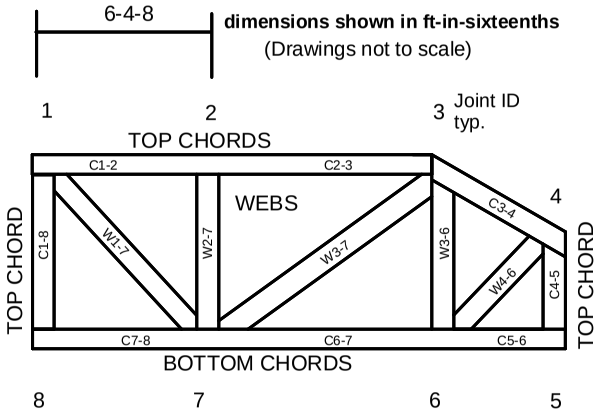


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.