ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: 2411-0099-F - Elmhurst Rev 3-Elev.5-Floor

Site Information:

Project Customer: DRB Raleigh Project Name: DRB Raleigh Model Track
Lot/Block: Subdivision:
Model: Elmhurst Rev 3
Address:
City: State: NC

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

Design Code: IRC2021/TPI2014
Wind Code: ASCE 7-16
Wind Speed: 120 mph
Roof Load: 40.0 psf
Mean Roof Height (feet): 25

Design Program: MiTek 20/20 25.2
Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16
Floor Load: N/A psf

Exposure Category: B

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1		1F1	5/28/25	35	I73751040	2F2	5/28/25
2	I73751007	1F2	5/28/25	36	I73751041	2FGR2	5/28/25
3	I73751008	1F3	5/28/25	37		2F3	5/28/25
4	I73751009	1F4	5/28/25	38	I73751043	2F3B	5/28/25
5	I73751010	1F5	5/28/25	39	I73751044	2F6GE	5/28/25
6	I73751011	1F6	5/28/25	40	I73751045	2F2GE	5/28/25
7	I73751012	1F7	5/28/25	41	I73751046	2FGR6	5/28/25
8	I73751013	1F8	5/28/25		I73751047	2FGR4	5/28/25
9	I73751014	1F10	5/28/25	43	I73751048	2FGR5	5/28/25
10		1F11	5/28/25	44	I73751049	2FGR3	5/28/25
11	I73751016	1F12	5/28/25	45	I73751050	2F6	5/28/25
12	I73751017	1F13	5/28/25	46		2FGR1	5/28/25
13	I73751018	1F14	5/28/25	47	I73751052	2F4A	5/28/25
14	I73751019	1F15	5/28/25	48	I73751053	2F4C	5/28/25
	I73751020	1F16	5/28/25	49	I73751054	2F1B	5/28/25
16	I73751021	1F17	5/28/25	50	I73751055	2F2A	5/28/25
17	I73751022	1F20	5/28/25		I73751056	2FGR7	5/28/25
18	I73751023	1F18	5/28/25	52	I73751057	2F3A	5/28/25
19		1F19	5/28/25	53	I73751058	2F9	5/28/25
20	I73751025	2F3GE	5/28/25	54	I73751059	2F18	5/28/25
21	I73751026	2F5GE	5/28/25	55	I73751060	2F19	5/28/25
22	I73751027	2F4	5/28/25				
23	I73751028	2F4D	5/28/25				
	I73751029	2F4B	5/28/25				
25	I73751030	2F5	5/28/25				
26	I73751031	2F5A	5/28/25				
27	I73751032	2F7	5/28/25				
28		2F7A	5/28/25				
29	I73751034	2F7B	5/28/25				
30	I73751035	2F8B	5/28/25				
31	I73751036	2F8C	5/28/25				
32	I73751037	2F1	5/28/25				
	I73751038	2F1GE	5/28/25				
34	I73751039	2F1A	5/28/25				

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

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2025.

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.

May 28,2025

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F1	Floor Supported Gable	1	1	Job Reference (optional)	I73751006

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:08 Page: 1
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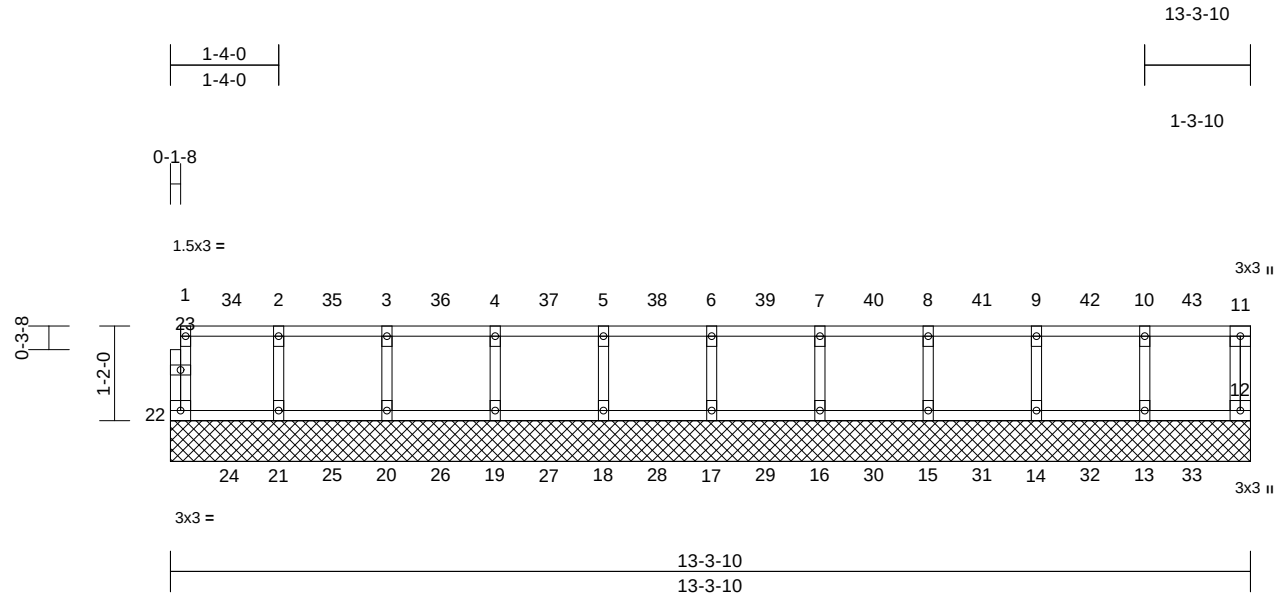

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 57 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 12=13-3-10, 13=13-3-10, 14=13-3-10, 15=13-3-10, 16=13-3-10, 17=13-3-10, 18=13-3-10, 19=13-3-10, 20=13-3-10, 21=13-3-10, 22=13-3-10
Max Uplift 12=-18 (LC 34), 13=-8 (LC 33), 14=-5 (LC 32), 15=-6 (LC 31), 16=-6 (LC 30), 17=-6 (LC 29), 18=-6 (LC 31), 19=-6 (LC 30), 20=-5 (LC 29), 21=-7 (LC 28), 22=-18 (LC 27)
Max Grav 12=264 (LC 46), 13=279 (LC 45), 14=280 (LC 44), 15=280 (LC 43), 16=280 (LC 42), 17=280 (LC 41), 18=280 (LC 40), 19=280 (LC 39), 20=280 (LC 38), 21=279 (LC 37), 22=263 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-256/23, 11-12=-260/24, 1-2=-22/4, 2-3=-22/4, 3-4=-22/4, 4-5=-22/4, 5-6=-22/4, 6-7=-22/4, 7-8=-22/4, 8-9=-22/4, 9-10=-22/4, 10-11=-22/4
BOT CHORD 21-22=-4/22, 20-21=-4/22, 19-20=-4/22, 18-19=-4/22, 17-18=-4/22, 16-17=-4/22, 15-16=-4/22, 14-15=-4/22, 13-14=-4/22, 12-13=-4/22
WEBS 2-21=-268/16, 3-20=-269/14, 4-19=-269/14, 5-18=-269/14, 6-17=-269/14, 7-16=-269/14, 8-15=-269/14, 9-14=-269/14, 10-13=-267/16

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 22, 18 lb uplift at joint 12, 7 lb uplift at joint 21, 5 lb uplift at joint 20, 6 lb uplift at joint 19, 6 lb uplift at joint 18, 6 lb uplift at joint 17, 6 lb uplift at joint 16, 6 lb uplift at joint 15, 5 lb uplift at joint 14 and 8 lb uplift at joint 13.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F2	Floor	3	1	I73751007 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:09 Page: 1
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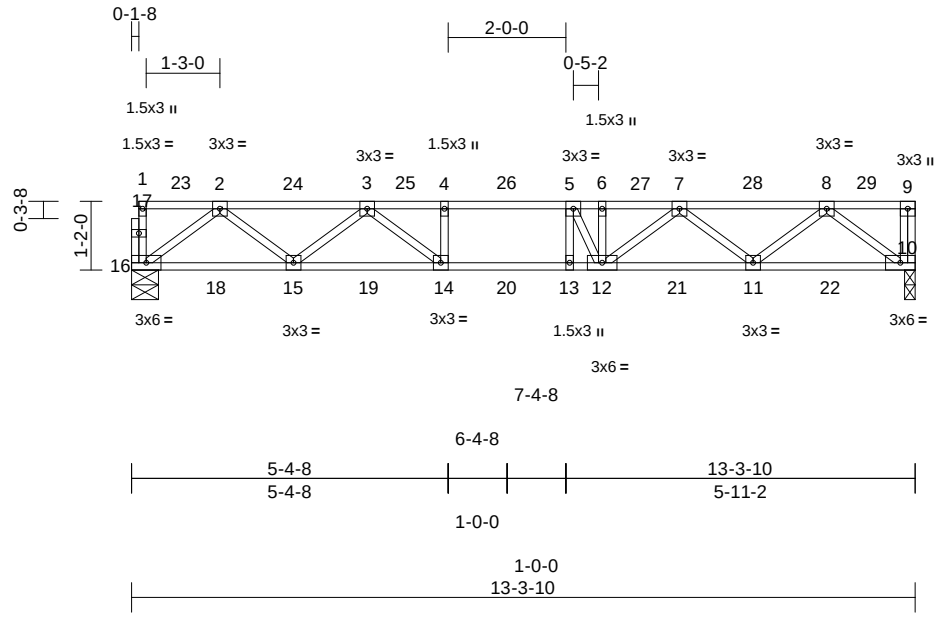

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.16	14-15	>994	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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=0-2-2, 16=0-5-8
Max Grav 10=479 (LC 1), 16=474 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-258/37, 9-10=-258/35, 1-2=-15/2, 2-3=-937/0, 3-4=-1467/0, 4-5=-1467/0, 5-6=-1431/0, 6-7=-1431/0, 7-8=-941/0, 8-9=0/0
BOT CHORD 15-16=0/587, 14-15=0/1270, 13-14=0/1467, 12-13=0/1467, 11-12=0/1272, 10-11=0/587
WEBS 4-14=-197/92, 5-13=-282/236, 2-16=-735/0, 2-15=0/458, 3-15=-434/0, 3-14=-144/372, 8-10=-736/0, 8-11=0/461, 7-11=-431/0, 7-12=-113/315, 6-12=-379/149, 5-12=-399/437

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F3	Floor	1	1	Job Reference (optional)	I73751008

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:09 Page: 1

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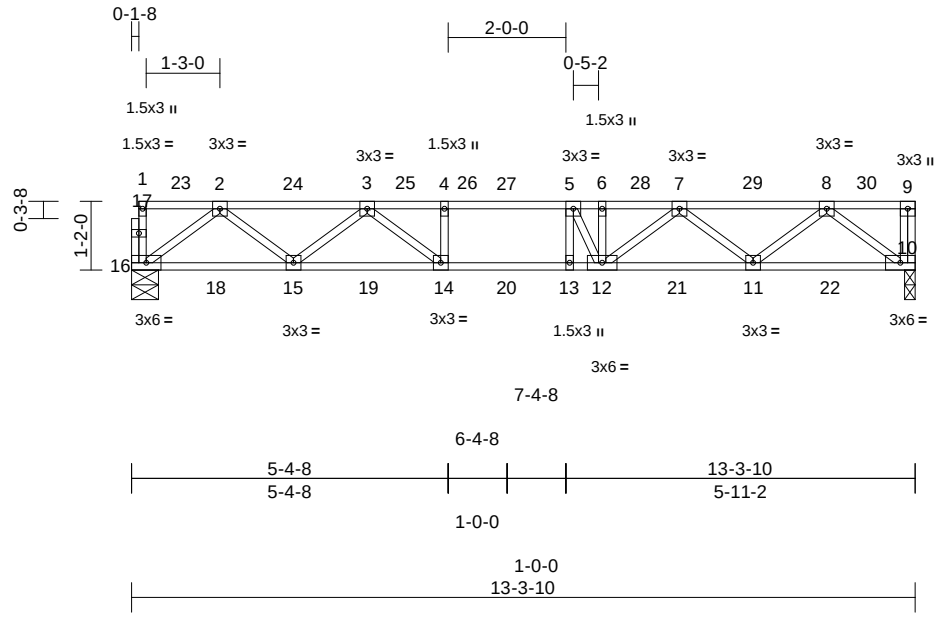

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.16	14-15	>983	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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=0-2-2, 16=0-5-8
Max Grav 10=493 (LC 1), 16=489 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-258/38, 9-10=-258/35, 1-2=-15/2, 2-3=-972/0, 3-4=-1545/0, 4-5=-1545/0, 5-6=-1500/0, 6-7=-1500/0, 7-8=-976/0, 8-9=0/0
BOT CHORD 15-16=0/606, 14-15=0/1323, 13-14=0/1545, 12-13=0/1545, 11-12=0/1324, 10-11=0/605
WEBS 4-14=-215/75, 5-13=-288/230, 2-16=-759/0, 2-15=0/479, 3-15=-456/0, 3-14=-112/404, 8-10=-759/0, 8-11=0/483, 7-11=-453/0, 7-12=-91/338, 6-12=-373/156, 5-12=-417/419

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-7, 1-26=-67, 5-26=-83, 5-9=-67

May 28,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F4	Floor	1	1	Job Reference (optional)	I73751009

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1

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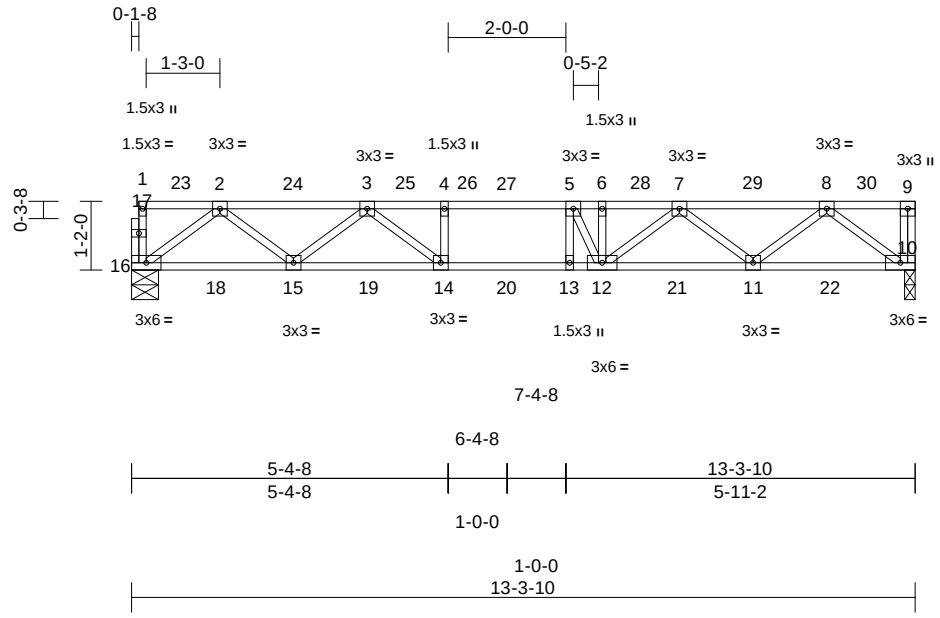

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.16	14-15	>951	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 14-15.

REACTIONS (size) 10=0-2-2, 16=0-5-8
Max Grav 10=533 (LC 1), 16=530 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-257/38, 9-10=-258/35, 1-2=-15/2, 2-3=-1074/0, 3-4=-1769/0, 4-5=-1769/0, 5-6=-1699/0, 6-7=-1699/0, 7-8=-1077/0, 8-9=0/0
BOT CHORD 15-16=0/661, 14-15=0/1475, 13-14=0/1769, 12-13=0/1769, 11-12=0/1474, 10-11=0/658
WEBS 4-14=-265/24, 5-13=-306/212, 2-16=-828/0, 2-15=0/541, 3-15=-521/0, 3-14=-20/496, 8-10=-826/0, 8-11=0/545, 7-11=-517/0, 7-12=-28/401, 6-12=-353/176, 5-12=-470/367

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-7, 1-26=-67, 5-26=-130, 5-9=-67

May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F5	Floor	1	1	Job Reference (optional)	I73751010

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1
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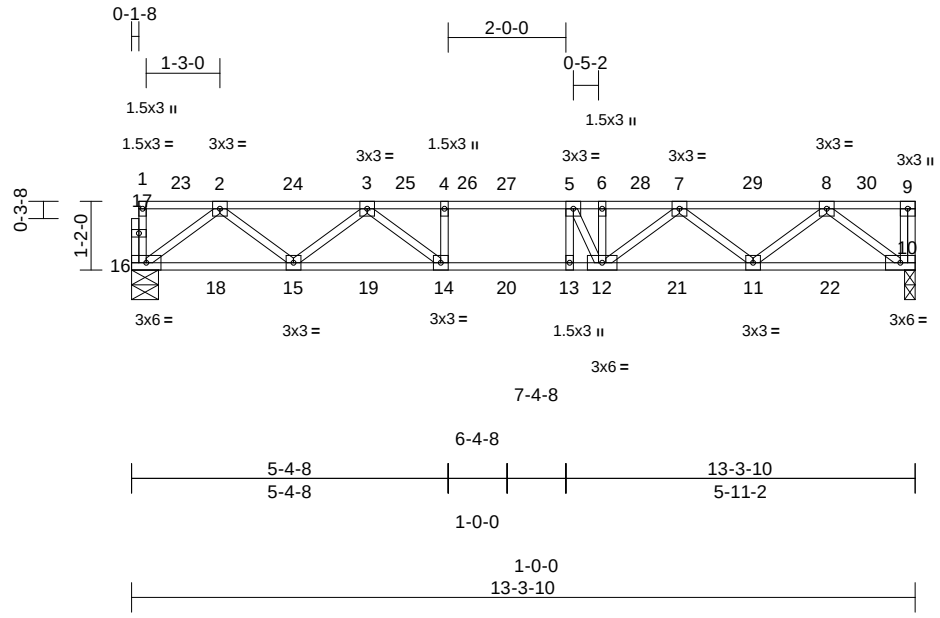

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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.17	14-15	>949	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 14-15.

REACTIONS (size) 10=0-2-2, 16=0-5-8
Max Grav 10=536 (LC 1), 16=533 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-257/38, 9-10=-258/35, 1-2=-15/2, 2-3=-1080/0, 3-4=-1783/0, 4-5=-1783/0, 5-6=-1712/0, 6-7=-1712/0, 7-8=-1084/0, 8-9=0/0
BOT CHORD 15-16=0/664, 14-15=0/1484, 13-14=0/1783, 12-13=0/1783, 11-12=0/1484, 10-11=0/662
WEBS 4-14=-268/21, 5-13=-307/211, 2-16=-832/0, 2-15=0/544, 3-15=-525/0, 3-14=-14/502, 8-10=-830/0, 8-11=0/549, 7-11=-521/0, 7-12=-24/405, 6-12=-352/177, 5-12=-473/364

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-7, 1-26=-67, 5-26=-133, 5-9=-67

May 28,2025

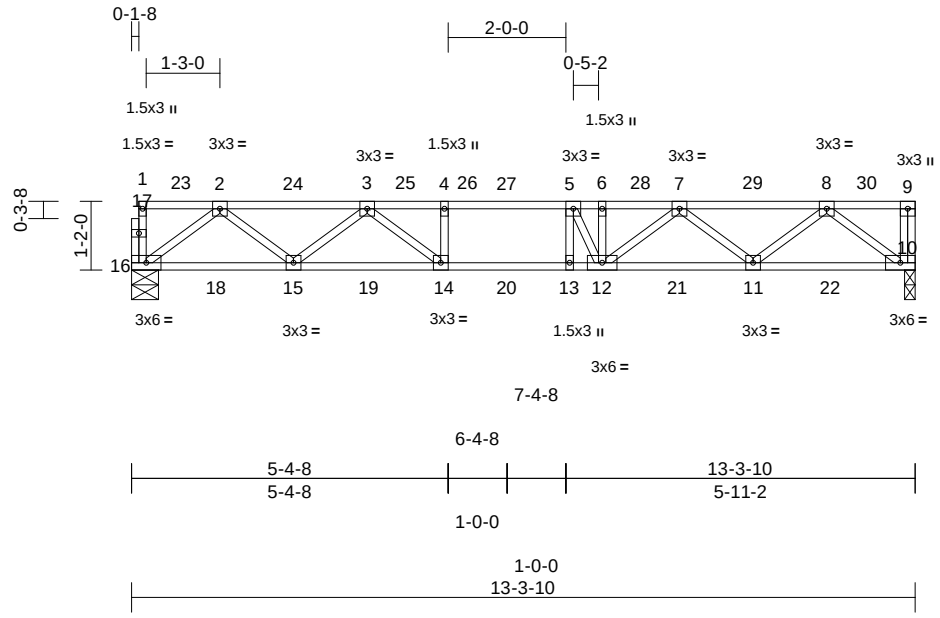
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F6	Floor	1	1	I73751011
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1

ID:btwgrgD9FDfOwvyzmfZT3yzDy?B-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.16	14-15	>960	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 14-15.

REACTIONS (size) 10=0-2-2, 16=0-5-8
Max Grav 10=521 (LC 1), 16=518 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-257/38, 9-10=-258/35, 1-2=-15/2, 2-3=-1045/0, 3-4=-1705/0, 4-5=-1705/0, 5-6=-1642/0, 6-7=-1642/0, 7-8=-1048/0, 8-9=0/0
BOT CHORD 15-16=0/645, 14-15=0/1431, 13-14=0/1705, 12-13=0/1705, 11-12=0/1431, 10-11=0/643
WEBS 4-14=-250/39, 5-13=-301/217, 2-16=-808/0, 2-15=0/523, 3-15=-503/0, 3-14=-46/470, 8-10=-807/0, 8-11=0/527, 7-11=-499/0, 7-12=-46/383, 6-12=-358/170, 5-12=-455/382

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-7, 1-26=-67, 5-26=-117, 5-9=-67

May 28,2025

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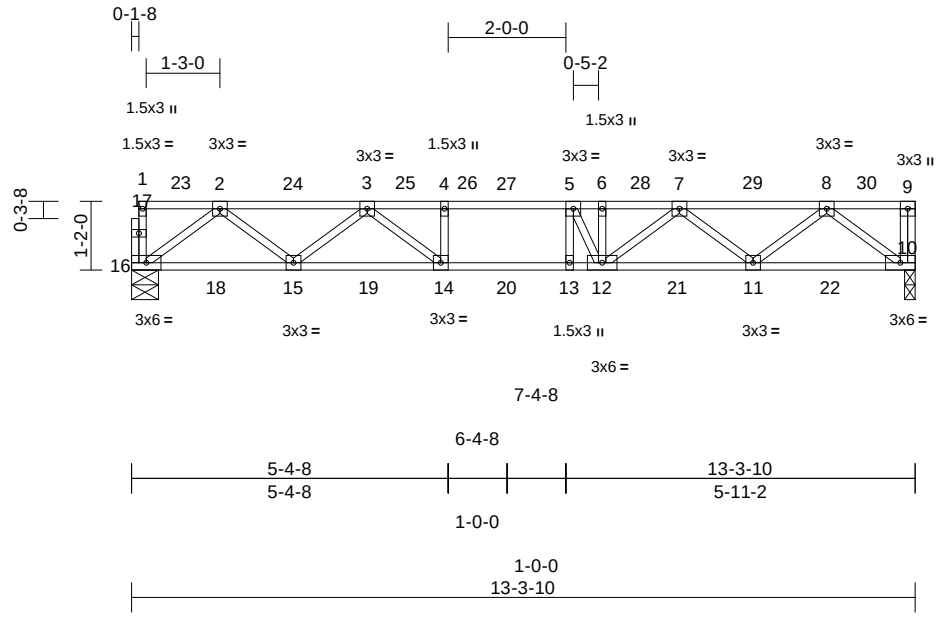
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F7	Floor	1	1	Job Reference (optional)	I73751012

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1
ID:qtVVIZXT7Dwi1vxzI71Z7RzDy_n-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.16	14-15	>992	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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=0-2-2, 16=0-5-8
Max Grav 10=481 (LC 1), 16=477 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-258/37, 9-10=-258/35, 1-2=-15/2, 2-3=-943/0, 3-4=-1481/0, 4-5=-1481/0, 5-6=-1443/0, 6-7=-1443/0, 7-8=-947/0, 8-9=0/0
BOT CHORD 15-16=0/591, 14-15=0/1279, 13-14=0/1481, 12-13=0/1481, 11-12=0/1281, 10-11=0/590
WEBS 4-14=-200/89, 5-13=-283/235, 2-16=-739/0, 2-15=0/462, 3-15=-438/0, 3-14=-138/378, 8-10=-740/0, 8-11=0/465, 7-11=-435/0, 7-12=-110/319, 6-12=-378/150, 5-12=-402/434

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-7, 1-26=-67, 5-26=-70, 5-9=-67

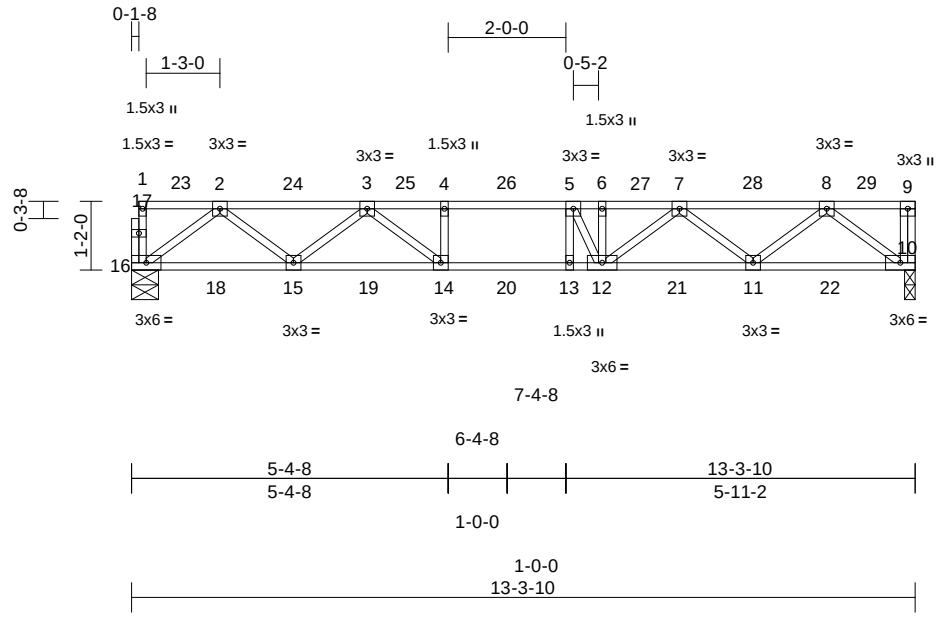
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F8	Floor	6	1	I73751013
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1
ID:frR2G2EDik6cNgow7bYwwSzDxzu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.1

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.16	14-15	>994	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%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=0-2-2, 16=0-5-8
Max Grav 10=479 (LC 1), 16=474 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-258/37, 9-10=-258/35, 1-2=-15/2, 2-3=-937/0, 3-4=-1467/0, 4-5=-1467/0, 5-6=-1431/0, 6-7=-1431/0, 7-8=-941/0, 8-9=0/0
BOT CHORD 15-16=0/587, 14-15=0/1270, 13-14=0/1467, 12-13=0/1467, 11-12=0/1272, 10-11=0/587
WEBS 4-14=-197/92, 5-13=-282/236, 2-16=-735/0, 2-15=0/458, 3-15=-434/0, 3-14=-144/372, 8-10=-736/0, 8-11=0/461, 7-11=-431/0, 7-12=-113/315, 6-12=-379/149, 5-12=-399/437

LOAD CASE(S) Standard

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.

May 28,2025

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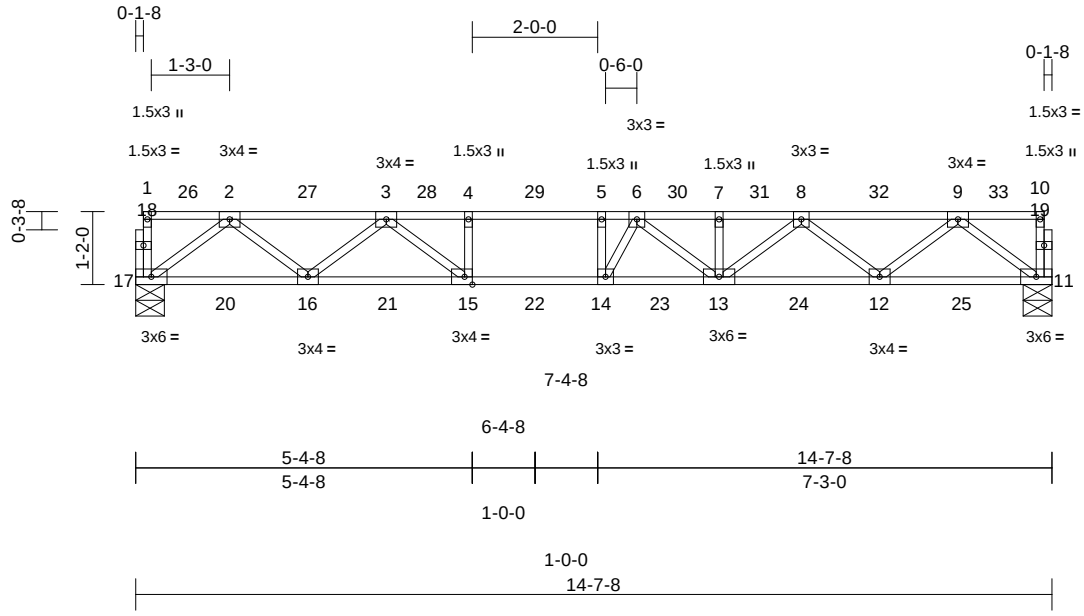
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F10	Floor	10	1	I73751014
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:10 Page: 1

ID:v6YIIllBaxXW1HaB87q0AXzDxzD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.8

Plate Offsets (X, Y): [15:0-1-8,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	0.68	Vert(LL)	-0.18	13-14	>971	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.24	13-14	>713	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(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=0-5-8, 17=0-5-8
Max Grav 11=784 (LC 1), 17=784 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-17=-260/36, 10-11=-260/36, 1-2=-16/2, 2-3=-1577/0, 3-4=-2631/0, 4-5=-2631/0, 5-6=-2631/0, 6-7=-2521/0, 7-8=-2521/0, 8-9=-1591/0, 9-10=-16/2
BOT CHORD 16-17=0/974, 15-16=0/2179, 14-15=0/2631, 13-14=0/2675, 12-13=0/2180, 11-12=0/974
WEBS 4-15=-316/47, 5-14=-235/270, 2-17=-1220/0, 2-16=0/785, 3-16=-784/0, 3-15=-42/740, 9-11=-1219/0, 9-12=0/802, 8-12=-768/0, 8-13=-38/436, 7-13=-252/64, 6-13=-307/151, 6-14=-399/316

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F11	Floor Supported Gable	1	1	I73751015 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:11 Page: 1
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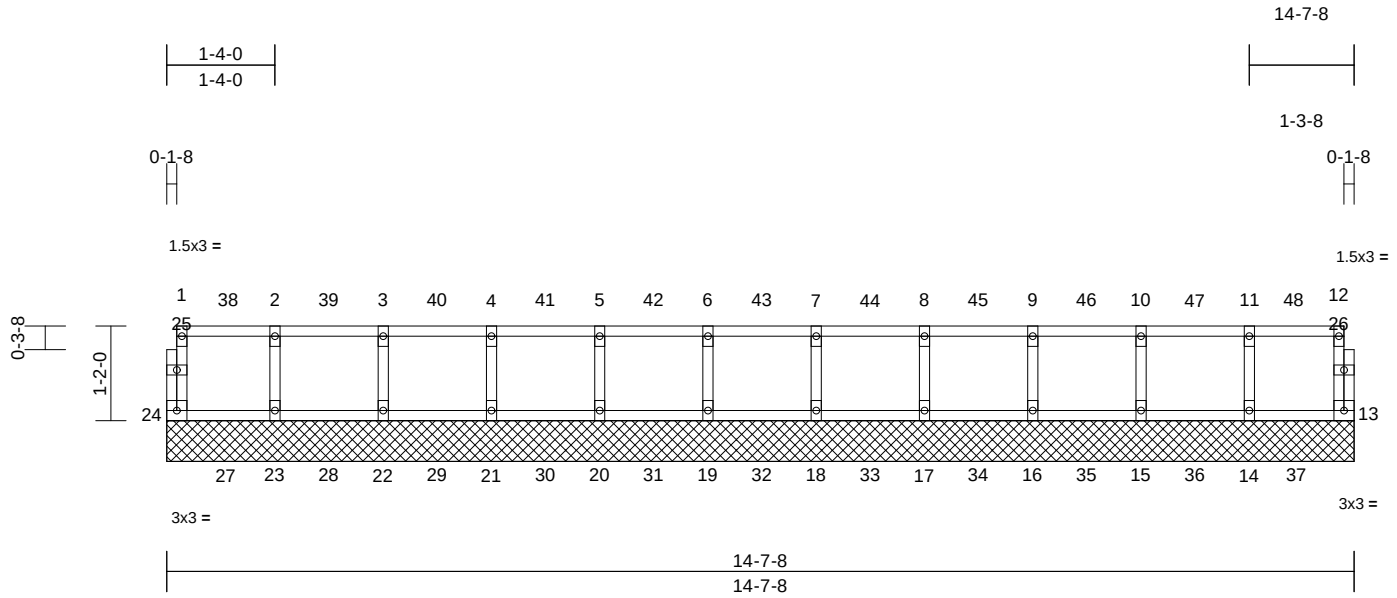


Scale = 1:28.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 62 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=14-7-8, 14=14-7-8, 15=14-7-8, 16=14-7-8, 17=14-7-8, 18=14-7-8, 19=14-7-8, 20=14-7-8, 21=14-7-8, 22=14-7-8, 23=14-7-8, 24=14-7-8
Max Uplift 13=-14 (LC 37), 24=-13 (LC 29)
Max Grav 13=268 (LC 50), 14=291 (LC 49), 15=293 (LC 48), 16=293 (LC 47), 17=293 (LC 46), 18=293 (LC 45), 19=293 (LC 44), 20=293 (LC 43), 21=293 (LC 42), 22=293 (LC 41), 23=292 (LC 40), 24=269 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-259/20, 12-13=-259/22, 1-2=-23/4, 2-3=-23/4, 3-4=-23/4, 4-5=-23/4, 5-6=-23/4, 6-7=-23/4, 7-8=-23/4, 8-9=-23/4, 9-10=-23/4, 10-11=-23/4, 11-12=-23/4
BOT CHORD 23-24=-4/23, 22-23=-4/23, 21-22=-4/23, 20-21=-4/23, 19-20=-4/23, 18-19=-4/23, 17-18=-4/23, 16-17=-4/23, 15-16=-4/23, 14-15=-4/23, 13-14=-4/23
WEBS 2-23=-276/7, 3-22=-278/5, 4-21=-277/5, 5-20=-277/5, 6-19=-277/5, 7-18=-277/5, 8-17=-277/5, 9-16=-277/5, 10-15=-278/4, 11-14=-276/8

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 24 and 14 lb uplift at joint 13.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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

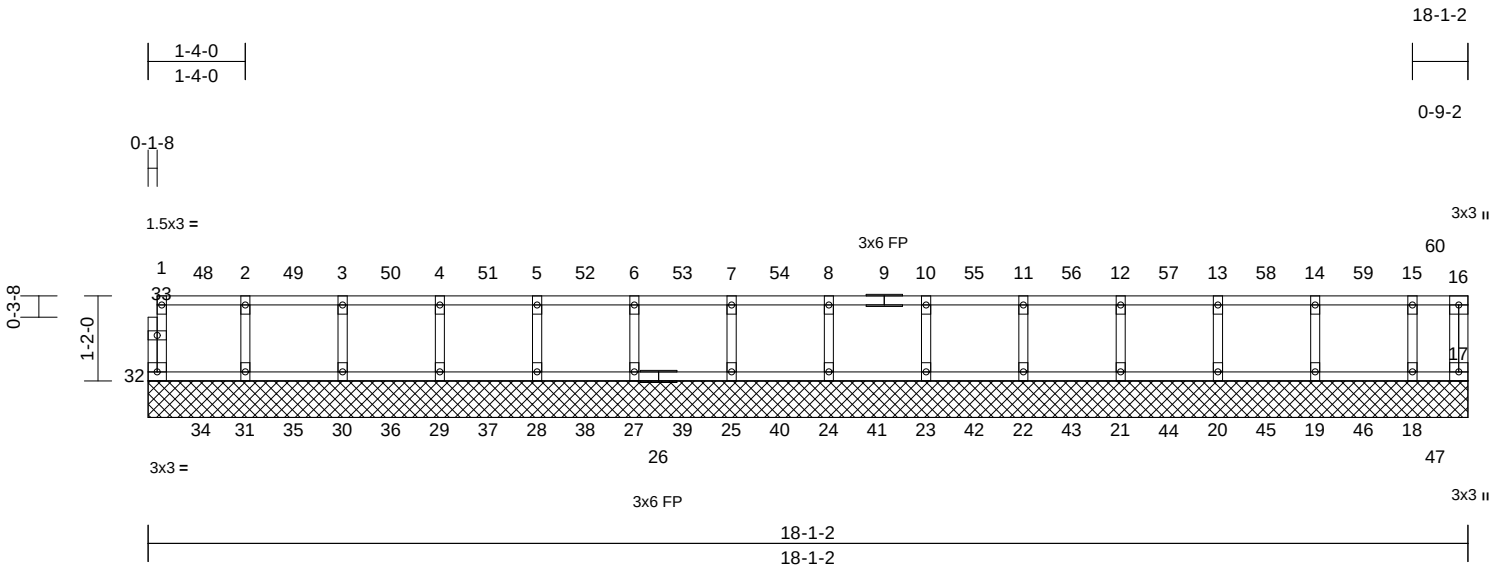
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751016
	1F12	Floor Supported Gable	1	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:11 Page: 1
ID:CYaf1OfEv_ztXopc2NgbjLzDxy2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.6

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 77 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 17=18-1-2, 18=18-1-2, 19=18-1-2, 20=18-1-2, 21=18-1-2, 22=18-1-2, 23=18-1-2, 24=18-1-2, 25=18-1-2, 27=18-1-2, 28=18-1-2, 29=18-1-2, 30=18-1-2, 31=18-1-2, 32=18-1-2
Max Uplift 17=-58 (LC 46), 18=-26 (LC 34), 20=-1 (LC 43), 22=-1 (LC 11), 31=-1 (LC 36), 32=-18 (LC 35)
Max Grav 17=259 (LC 62), 18=277 (LC 61), 19=286 (LC 60), 20=285 (LC 59), 21=285 (LC 58), 22=285 (LC 57), 23=285 (LC 56), 24=285 (LC 55), 25=285 (LC 54), 27=285 (LC 53), 28=285 (LC 52), 29=285 (LC 51), 30=285 (LC 50), 31=285 (LC 49), 32=265 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-258/23, 16-17=-255/62, 1-2=-25/6, 2-3=-25/6, 3-4=-25/6, 4-5=-25/6, 5-6=-25/6, 6-7=-25/6, 7-8=-25/6, 8-10=-25/6, 10-11=-25/6, 11-12=-25/6, 12-13=-25/6, 13-14=-25/6, 14-15=-25/6, 15-16=-25/6
BOT CHORD 31-32=-6/25, 30-31=-6/25, 29-30=-6/25, 28-29=-6/25, 27-28=-6/25, 25-27=-6/25, 24-25=-6/25, 23-24=-6/25, 22-23=-6/25, 21-22=-6/25, 20-21=-6/25, 19-20=-6/25, 18-19=-6/25, 17-18=-6/25
WEBS 2-31=-272/12, 3-30=-272/10, 4-29=-272/10, 5-28=-272/10, 6-27=-272/10, 7-25=-272/10, 8-24=-272/10, 10-23=-272/10, 11-22=-272/12, 12-21=-272/10, 13-20=-272/10, 14-19=-273/10, 15-18=-262/27

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 32, 58 lb uplift at joint 17, 1 lb uplift at joint 31, 1 lb uplift at joint 22, 1 lb uplift at joint 20 and 26 lb uplift at joint 18.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

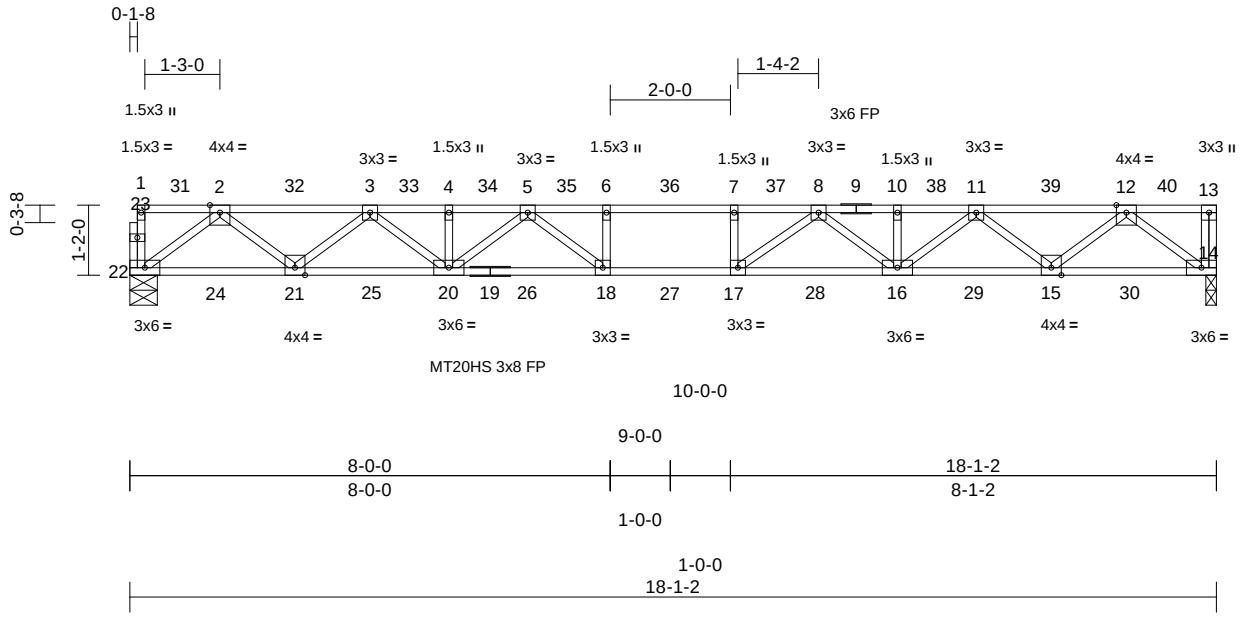
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F13	Floor	10	1	I73751017 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:11 Page: 1
ID:1zTLsGxgU2tcnK41uia_8BzDxxh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.4

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	0.60	Vert(LL)	-0.25	17-18	>866	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.34	17-18	>630	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 19-14:2x4 SP SS (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) 14=0-2-2, 22=0-5-8
Max Grav 14=785 (LC 1), 22=780 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-259/37, 13-14=-259/34, 1-2=-16/2, 2-3=-1656/0, 3-4=-2766/0, 4-5=-2766/0, 5-6=-3322/0, 6-7=-3322/0, 7-8=-3322/0, 8-10=-2765/0, 10-11=-2765/0, 11-12=-1656/0, 12-13=0/0
BOT CHORD 21-22=0/980, 20-21=0/2304, 18-20=0/3105, 17-18=0/3322, 16-17=0/3106, 15-16=0/2305, 14-15=0/981
WEBS 6-18=-236/109, 7-17=-223/107, 2-22=-1228/0, 2-21=0/880, 3-21=-844/0, 3-20=0/590, 4-20=-249/64, 5-20=-432/40, 5-18=-190/536, 12-14=-1230/0, 12-15=0/879, 11-15=-845/0, 11-16=0/588, 10-16=-247/67, 8-16=-435/39, 8-17=-197/534

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 14.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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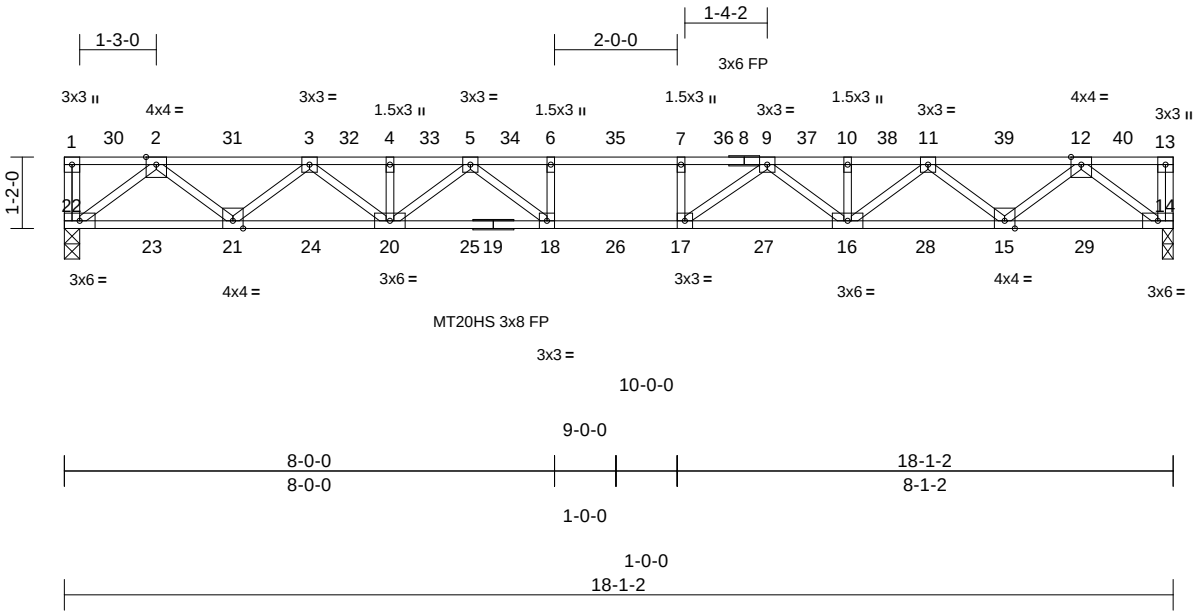
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751018
	1F14	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:11 Page: 1

ID:o2?EgdR0by9fqnH5LXKrr2zDxx1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.6

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	0.60	Vert(LL)	-0.24	17-18	>884	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.52	Vert(CT)	-0.33	17-18	>643	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.05	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 92 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(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) 14=0-2-2, 22=0-3-0
Max Grav 14=785 (LC 1), 22=785 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-259/34, 13-14=-259/34, 1-2=0/0, 2-3=-1656/0, 3-4=-2765/0, 4-5=-2765/0, 5-6=-3322/0, 6-7=-3322/0, 7-9=-3322/0, 9-10=-2766/0, 10-11=-2766/0, 11-12=-1656/0, 12-13=0/0
BOT CHORD 21-22=0/981, 20-21=0/2305, 18-20=0/3105, 17-18=0/3322, 16-17=0/3106, 15-16=0/2305, 14-15=0/981
WEBS 6-18=-235/107, 7-17=-223/107, 2-22=-1230/0, 2-21=0/879, 3-21=-844/0, 3-20=0/587, 4-20=-248/66, 5-20=-435/40, 5-18=-192/537, 12-14=-1230/0, 12-15=0/879, 11-15=-845/0, 11-16=0/588, 10-16=-247/67, 9-16=-434/39, 9-17=-195/533

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 14.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.

LOAD CASE(S) Standard

May 28,2025

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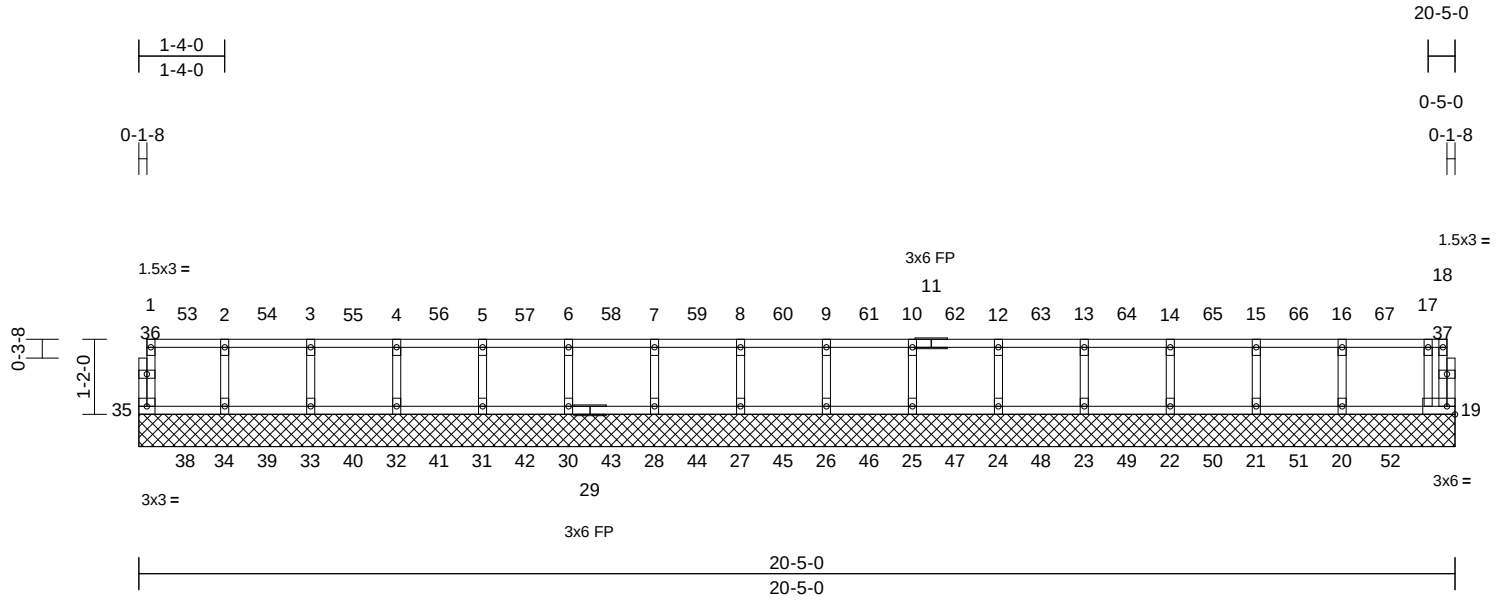
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751019
	1F15	Floor Supported Gable	1	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:11 Page: 1
ID:ApNPQm78P9DiYOZsdHLz6szDxw9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.7

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.32	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	19	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 86 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 19=20-5-0, 20=20-5-0, 21=20-5-0, 22=20-5-0, 23=20-5-0, 24=20-5-0, 25=20-5-0, 26=20-5-0, 27=20-5-0, 28=20-5-0, 30=20-5-0, 31=20-5-0, 32=20-5-0, 33=20-5-0, 34=20-5-0, 35=20-5-0
Max Uplift 19=-3 (LC 17), 21=-10 (LC 53), 22=-1 (LC 52), 34=-8 (LC 18), 35=-14 (LC 40)
Max Grav 19=271 (LC 69), 20=289 (LC 68), 21=284 (LC 67), 22=285 (LC 66), 23=285 (LC 65), 24=285 (LC 64), 25=285 (LC 63), 26=285 (LC 62), 27=285 (LC 61), 28=285 (LC 60), 30=285 (LC 59), 31=285 (LC 58), 32=285 (LC 57), 33=286 (LC 56), 34=283 (LC 55), 35=267 (LC 54)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-35=-258/21, 18-19=-82/94, 1-2=-31/3, 2-3=-31/3, 3-4=-31/3, 4-5=-31/3, 5-6=-31/3, 6-7=-31/3, 7-8=-31/3, 8-9=-31/3, 9-10=-31/3, 10-12=-31/3, 12-13=-31/3, 13-14=-31/3, 14-15=-31/3, 15-16=-31/3, 16-17=-31/3, 17-18=-40/9
BOT CHORD 34-35=-3/31, 33-34=-3/31, 32-33=-3/31, 31-32=-3/31, 30-31=-3/31, 28-30=-3/31, 27-28=-3/31, 26-27=-3/31, 25-26=-3/31, 24-25=-3/31, 23-24=-3/31, 22-23=-3/31, 21-22=-3/31, 20-21=-3/31, 19-20=-3/31
WEBS 2-34=-270/13, 3-33=-272/10, 4-32=-272/10, 5-31=-272/10, 6-30=-272/10, 7-28=-272/10, 8-27=-272/10, 9-26=-272/10, 10-25=-272/10, 12-24=-272/10, 13-23=-272/10, 14-22=-272/10, 15-21=-272/13, 16-20=-274/8, 17-19=-231/84

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 35, 3 lb uplift at joint 19, 8 lb uplift at joint 34, 1 lb uplift at joint 22 and 10 lb uplift at joint 21.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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

May 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F16	Floor Supported Gable	1	1	I73751020 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
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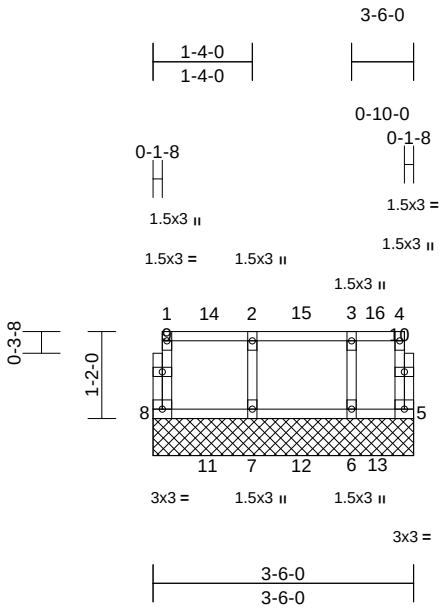

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Loading	(psf)	Spacing	1-7-3	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.27	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 18 lb	FT = 20%F, 12%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 3-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 5=3-6-0, 6=3-6-0, 7=3-6-0, 8=3-6-0
Max Uplift 5=-61 (LC 13), 6=-59 (LC 12), 8=-22 (LC 13)
Max Grav 5=259 (LC 18), 6=278 (LC 17), 7=286 (LC 16), 8=265 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-257/24, 4-5=-248/60, 1-2=-27/11, 2-3=-27/11, 3-4=-27/11
BOT CHORD 7-8=-11/27, 6-7=-11/27, 5-6=-11/27
WEBS 2-7=-272/0, 3-6=-264/37

NOTES
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 8, 61 lb uplift at joint 5 and 59 lb uplift at joint 6.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F17	Floor	2	1	Job Reference (optional)	I73751021

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
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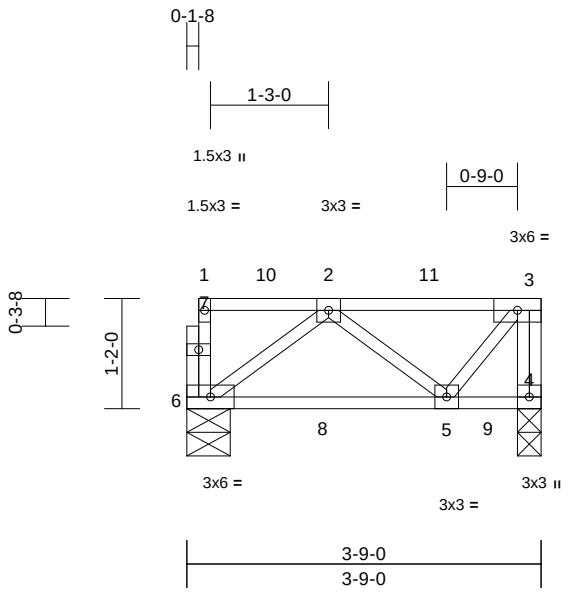

Scale = 1:24.4

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)	-0.07	5-6	>597	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.71	Vert(CT)	-0.07	5-6	>561	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%F, 12%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 3-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-3-0, 6=0-5-8
Max Grav 4=295 (LC 6), 6=294 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-259/41, 3-4=-297/0, 1-2=-16/2, 2-3=-193/0
BOT CHORD 5-6=0/237, 4-5=0/0
WEBS 2-6=-296/0, 2-5=-168/91, 3-5=0/300

NOTES
1) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 28,2025

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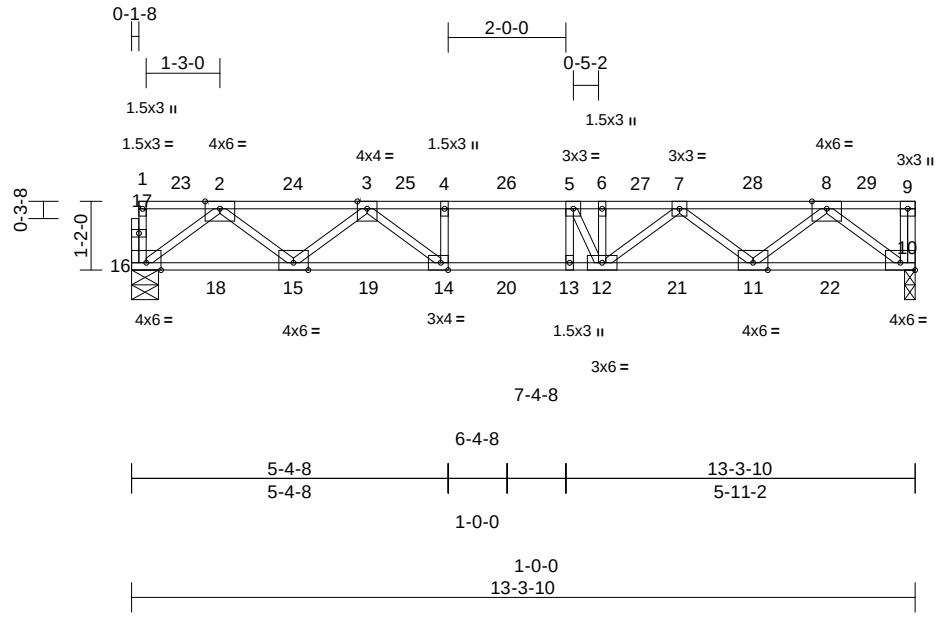
Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	1F20	Floor	1	1	Job Reference (optional)	I73751022

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
ID:EFrwjXjttDOlwwpH?4jTcBzDxvO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:39.1

Plate Offsets (X, Y): [10:Edge,0-1-8], [14:0-1-8,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	0.51	Vert(LL)	-0.11	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.24	13	>665	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.05	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat)
BOT CHORD 2x4 SP SS(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=0-2-2, 16=0-5-8
Max Grav 10=1370 (LC 1), 16=1358 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-293/2, 9-10=-300/0, 1-2=-18/0, 2-3=-2673/0, 3-4=-4201/0, 4-5=-4201/0, 5-6=-4093/0, 6-7=-4093/0, 7-8=-2684/0, 8-9=0/0
BOT CHORD 15-16=0/1689, 14-15=0/3642, 13-14=0/4201, 12-13=0/4201, 11-12=0/3648, 10-11=0/1688
WEBS 4-14=-436/0, 5-13=-333/181, 2-16=-2114/0, 2-15=0/1281, 3-15=-1262/0, 3-14=0/893, 8-10=-2118/0, 8-11=0/1297, 7-11=-1255/0, 7-12=0/608, 6-12=-403/125, 5-12=-586/311

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 10.
3) 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.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 10-16=-10, 1-9=-200

May 28,2025

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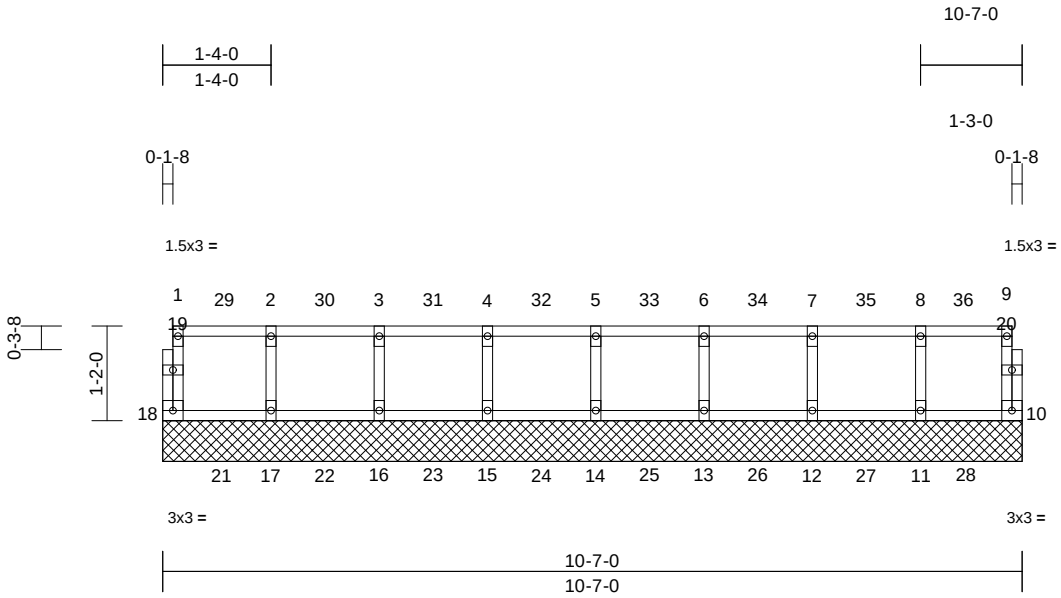
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F18	Floor Supported Gable	1	1	I73751023 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
ID:pddL8eaFmjprPncSe4?NMIzHHk0-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 46 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 10=10-7-0, 11=10-7-0, 12=10-7-0, 13=10-7-0, 14=10-7-0, 15=10-7-0, 16=10-7-0, 17=10-7-0, 18=10-7-0
Max Uplift 10=-17 (LC 28), 18=-13 (LC 23)
Max Grav 10=268 (LC 38), 11=290 (LC 37), 12=294 (LC 36), 13=293 (LC 35), 14=293 (LC 34), 15=293 (LC 33), 16=293 (LC 32), 17=292 (LC 31), 18=269 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-259/20, 9-10=-258/24, 1-2=-23/4, 2-3=-23/4, 3-4=-23/4, 4-5=-23/4, 5-6=-23/4, 6-7=-23/4, 7-8=-23/4, 8-9=-23/4
BOT CHORD 17-18=-4/23, 16-17=-4/23, 15-16=-4/23, 14-15=-4/23, 13-14=-4/23, 12-13=-4/23, 11-12=-4/23, 10-11=-4/23
WEBS 2-17=-276/7, 3-16=-278/5, 4-15=-277/5, 5-14=-278/5, 6-13=-277/5, 7-12=-278/4, 8-11=-275/9

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 18 and 17 lb uplift at joint 10.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	1F19	Floor	3	1	I73751024 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
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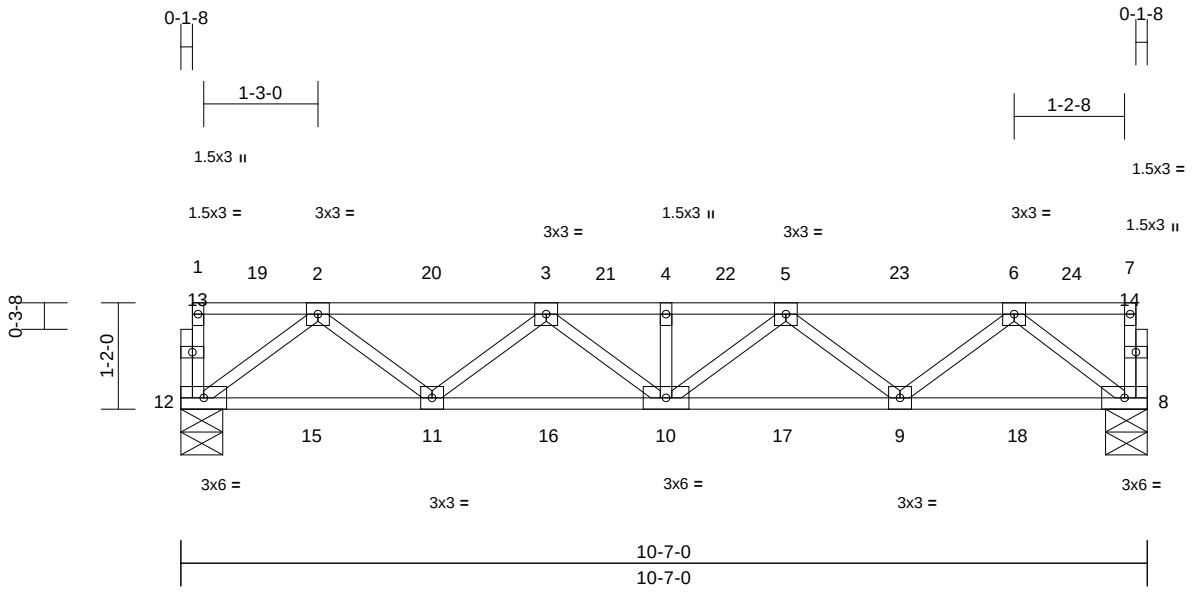

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.09	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.10	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%F, 12%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=0-5-8, 12=0-5-8
Max Grav 8=562 (LC 1), 12=562 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-260/36, 7-8=-260/39, 1-2=-16/2, 2-3=-1036/0, 3-4=-1405/0, 4-5=-1405/0, 5-6=-1025/0, 6-7=-16/2
BOT CHORD 11-12=0/683, 10-11=0/1354, 9-10=0/1348, 8-9=0/667
WEBS 2-12=-855/0, 2-11=0/459, 3-11=-414/4, 3-10=-168/241, 4-10=-260/59, 5-10=-164/245, 5-9=-421/0, 6-9=0/466, 6-8=-844/0

NOTES
1) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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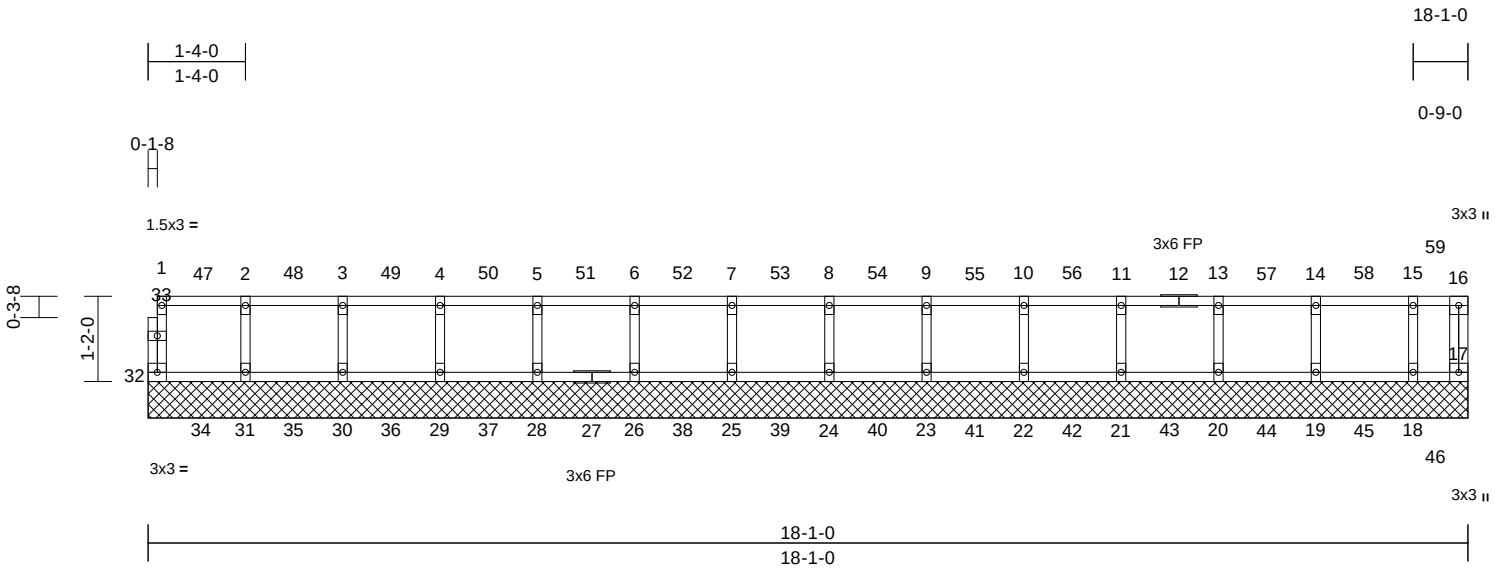
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751025
	2F3GE	Floor Supported Gable	1	1	Job Reference (optional)



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Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 77 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 17=18-1-0, 18=18-1-0, 19=18-1-0, 20=18-1-0, 21=18-1-0, 22=18-1-0, 23=18-1-0, 24=18-1-0, 25=18-1-0, 26=18-1-0, 28=18-1-0, 29=18-1-0, 30=18-1-0, 31=18-1-0, 32=18-1-0
Max Uplift 17=-60 (LC 46), 18=-31 (LC 34), 19=-6 (LC 14), 20=-6 (LC 43), 21=-5 (LC 42), 22=-6 (LC 41), 23=-6 (LC 40), 24=-6 (LC 39), 25=-7 (LC 38), 26=-6 (LC 40), 28=-6 (LC 39), 29=-5 (LC 35), 30=-6 (LC 37), 31=-7 (LC 36), 32=-20 (LC 35)
Max Grav 17=258 (LC 62), 18=273 (LC 61), 19=281 (LC 60), 20=279 (LC 59), 21=280 (LC 58), 22=280 (LC 57), 23=280 (LC 56), 24=280 (LC 55), 25=280 (LC 54), 26=280 (LC 53), 28=280 (LC 52), 29=280 (LC 51), 30=280 (LC 50), 31=280 (LC 49), 32=263 (LC 48)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-32=-256/24, 16-17=-254/64, 1-2=-25/6, 2-3=-25/6, 3-4=-25/6, 4-5=-25/6, 5-6=-25/6, 6-7=-25/6, 7-8=-25/6, 8-9=-25/6, 9-10=-25/6, 10-11=-25/6, 11-13=-25/6, 13-14=-25/6, 14-15=-25/6, 15-16=-25/6
BOT CHORD 31-32=-6/25, 30-31=-6/25, 29-30=-6/25, 28-29=-6/25, 26-28=-6/25, 25-26=-6/25, 24-25=-6/25, 23-24=-6/25, 22-23=-6/25, 21-22=-6/25, 20-21=-6/25, 19-20=-6/25, 18-19=-6/25, 17-18=-6/25
WEBS 2-31=-268/15, 3-30=-269/14, 4-29=-269/14, 5-28=-269/14, 6-26=-269/14, 7-25=-269/14, 8-24=-269/14, 9-23=-269/14, 10-22=-269/14, 11-21=-269/14, 13-20=-268/14, 14-19=-269/15, 15-18=-259/31

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 32, 60 lb uplift at joint 17, 7 lb uplift at joint 31, 6 lb uplift at joint 30, 5 lb uplift at joint 29, 6 lb uplift at joint 28, 6 lb uplift at joint 26, 7 lb uplift at joint 25, 6 lb uplift at joint 24, 6 lb uplift at joint 23, 6 lb uplift at joint 22, 5 lb uplift at joint 21, 6 lb uplift at joint 20, 6 lb uplift at joint 19 and 31 lb uplift at joint 18.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 28,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F5GE	Floor Supported Gable	1	1	I73751026 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:16 Page: 1
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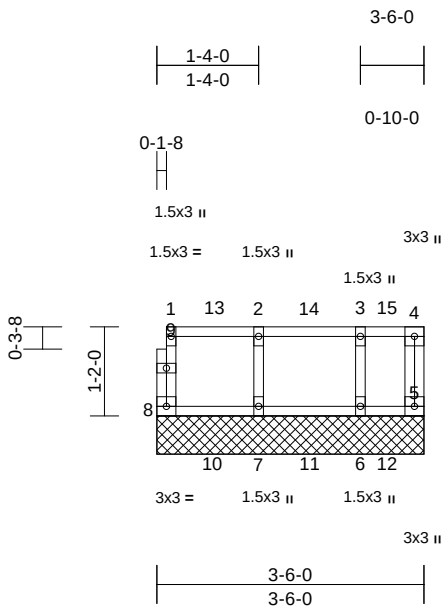


Scale = 1:30.2

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.26	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 18 lb	FT = 20%F, 12%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 3-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 5=3-6-0, 6=3-6-0, 7=3-6-0, 8=3-6-0
Max Uplift 5=-62 (LC 13), 6=-63 (LC 12), 8=-24 (LC 13)
Max Grav 5=259 (LC 18), 6=274 (LC 17), 7=281 (LC 16), 8=263 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-256/25, 4-5=-255/59, 1-2=-28/11, 2-3=-28/11, 3-4=-28/11
BOT CHORD 7-8=-11/28, 6-7=-11/28, 5-6=-11/28
WEBS 2-7=-269/0, 3-6=-261/41

NOTES
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 8, 62 lb uplift at joint 5 and 63 lb uplift at joint 6.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

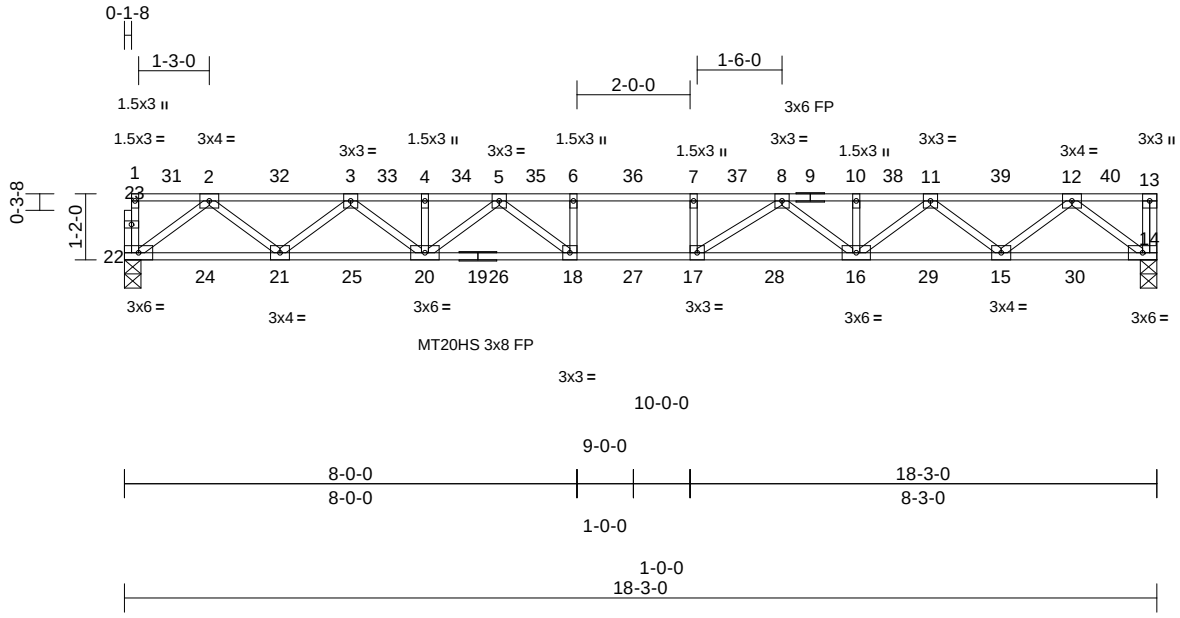
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F4	Floor	3	1	Job Reference (optional)	I73751027

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:14 Page: 1
ID:3Mns6ObQcc1xS9E1rv1_BpztZSN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.7

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.22	16-17	>995	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.30	16-17	>726	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.05	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 19-14:2x4 SP SS (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) 14=0-3-8, 22=0-3-8
Max Grav 14=660 (LC 1), 22=656 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-258/38, 13-14=-258/35, 1-2=-15/2, 2-3=-1395/0, 3-4=-2335/0, 4-5=-2335/0, 5-6=-2819/0, 6-7=-2819/0, 7-8=-2819/0, 8-10=-2335/0, 10-11=-2335/0, 11-12=-1395/0, 12-13=0/0
BOT CHORD 21-22=0/825, 20-21=0/1943, 18-20=0/2625, 17-18=0/2819, 16-17=0/2627, 15-16=0/1944, 14-15=0/825
WEBS 6-18=-203/111, 7-17=-184/108, 2-22=-1033/0, 2-21=0/742, 3-21=-712/0, 3-20=-8/501, 4-20=-247/67, 5-20=-370/56, 5-18=-198/463, 12-14=-1035/0, 12-15=0/742, 11-15=-715/0, 11-16=-9/499, 10-16=-243/70, 8-16=-378/52, 8-17=-217/457

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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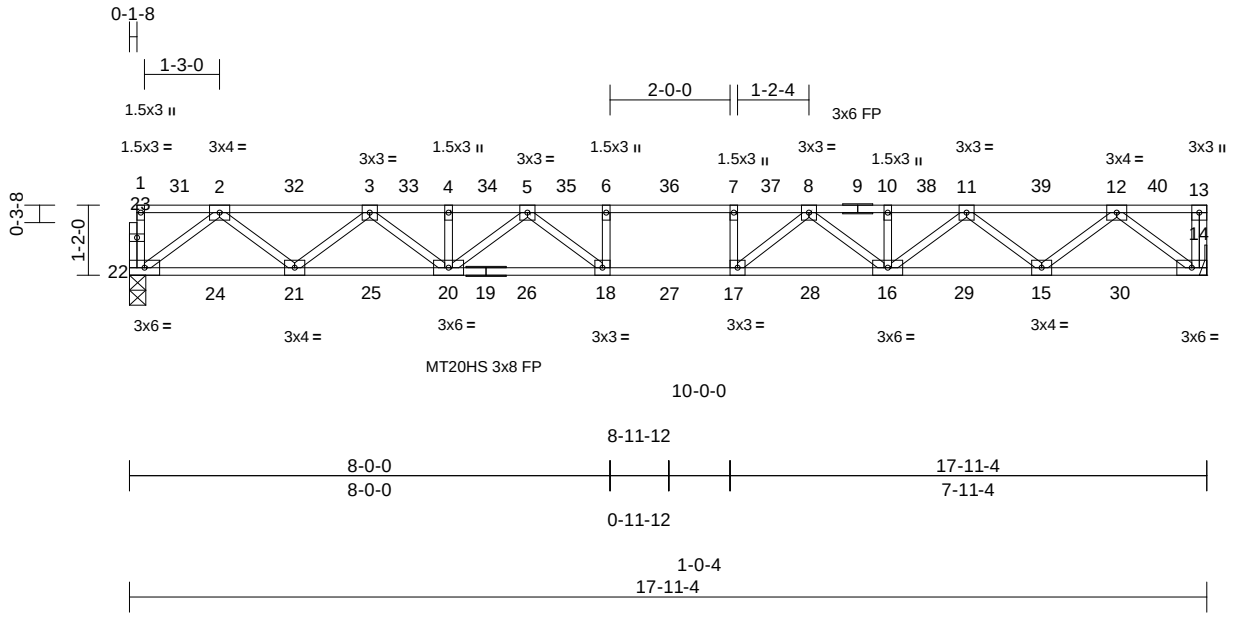
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F4D	Floor	1	1	I73751028
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:15 Page: 1

ID:BP6dzTAvX2yHbNK36HN0bkztZRe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.4

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.20	17-18	>999	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.27	17-18	>775	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.05	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 12%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 19-14:2x4 SP SS (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) 14= Mechanical, 22=0-3-4
Max Grav 14=649 (LC 1), 22=644 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-258/38, 13-14=-258/35, 1-2=-15/2, 2-3=-1366/0, 3-4=-2279/0, 4-5=-2279/0, 5-6=-2721/0, 6-7=-2721/0, 7-8=-2721/0, 8-10=-2277/0, 10-11=-2277/0, 11-12=-1367/0, 12-13=0/0
BOT CHORD 21-22=0/810, 20-21=0/1901, 18-20=0/2553, 17-18=0/2721, 16-17=0/2553, 15-16=0/1901, 14-15=0/810
WEBS 12-14=-1017/0, 12-15=0/724, 11-15=-695/0, 11-16=-15/481, 10-16=-245/68, 8-16=-354/63, 8-17=-199/434, 2-22=-1014/0, 2-21=0/725, 3-21=-695/0, 3-20=-14/483, 4-20=-246/67, 5-20=-358/62, 5-18=-209/431, 6-18=-195/116, 7-17=-200/116

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

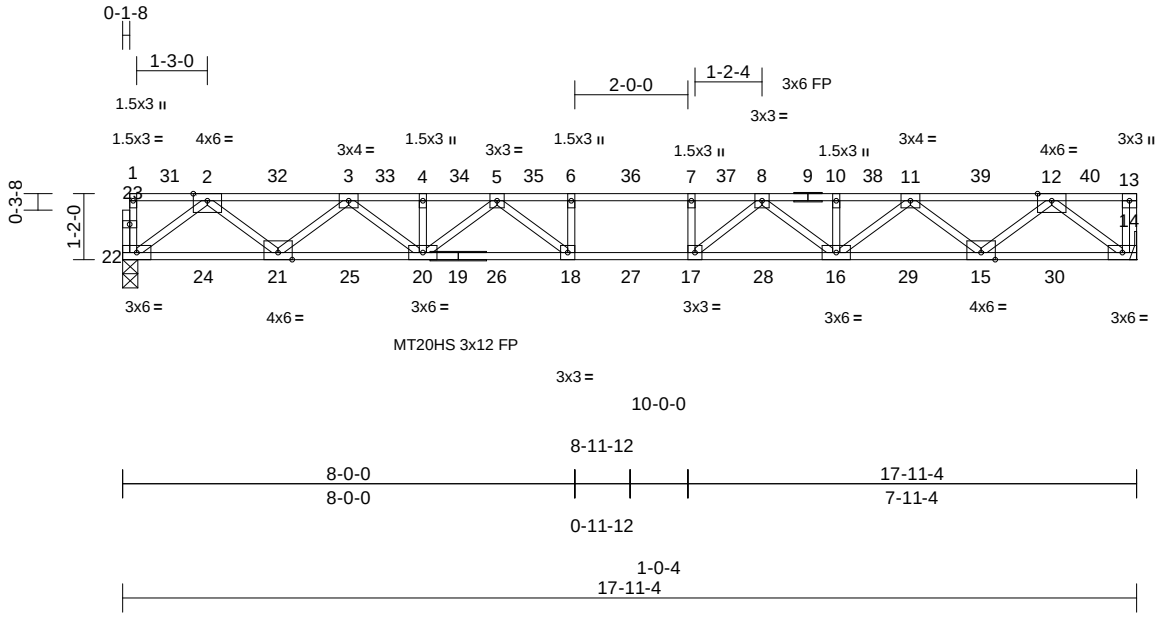
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F4B	Floor	2	1	Job Reference (optional)	I73751029

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:15 Page: 1

ID:YvzN9oeML1tkmNpZuza9gyztZR1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.8

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	0.73	Vert(LL)	-0.29	17-18	>726	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.40	17-18	>528	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14= Mechanical, 22=0-3-4
Max Grav 14=973 (LC 1), 22=967 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-261/36, 13-14=-261/32, 1-2=-16/2, 2-3=-2050/0, 3-4=-3416/0, 4-5=-3416/0, 5-6=-4082/0, 6-7=-4082/0, 7-8=-4082/0, 8-10=-3416/0, 10-11=-3416/0, 11-12=-2050/0, 12-13=0/0
BOT CHORD 21-22=0/1214, 20-21=0/2851, 18-20=0/3830, 17-18=0/4082, 16-17=0/3830, 15-16=0/2851, 14-15=0/1215
WEBS 12-14=-1525/0, 12-15=0/1087, 11-15=-1042/0, 11-16=0/721, 10-16=-252/62, 8-16=-529/17, 8-17=-167/651, 2-22=-1521/0, 2-21=0/1087, 3-21=-1044/0, 3-20=0/721, 4-20=-251/62, 5-20=-529/17, 5-18=-179/648, 6-18=-285/103, 7-17=-295/104

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

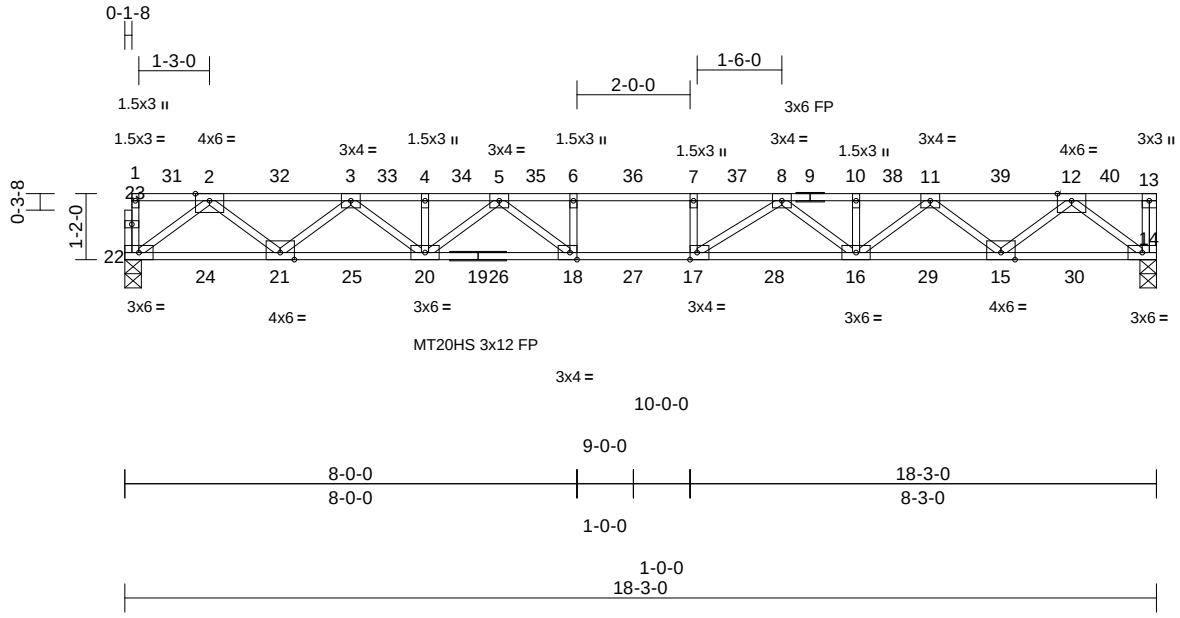
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751030
	2F5	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:15 Page: 1

ID:4oWiDjSOacJEJgRRJYHtu4ztZQ_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:40.8

Plate Offsets (X, Y): [17:0-1-8,Edge], [18:0-1-8,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	0.80	Vert(LL)	-0.32	17-18	>684	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.58	Vert(CT)	-0.43	17-18	>498	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

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

REACTIONS (size) 14=0-3-8, 22=0-3-8
Max Grav 14=990 (LC 1), 22=984 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-261/36, 13-14=-261/32, 1-2=-16/2, 2-3=-2093/0, 3-4=-3500/0, 4-5=-3500/0, 5-6=-4229/0, 6-7=-4229/0, 7-8=-4229/0, 8-10=-3503/0, 10-11=-3503/0, 11-12=-2093/0, 12-13=0/0

BOT CHORD 21-22=0/1237, 20-21=0/2914, 18-20=0/3938, 17-18=0/4229, 16-17=0/3941, 15-16=0/2916, 14-15=0/1237

WEBS 6-18=-302/96, 7-17=-266/97, 2-22=-1550/0, 2-21=0/1114, 3-21=-1069/0, 3-20=0/748, 4-20=-252/61, 5-20=-559/7, 5-18=-164/696, 12-14=-1552/0, 12-15=0/1113, 11-15=-1072/0, 11-16=0/749, 10-16=-249/64, 8-16=-559/5, 8-17=-183/686

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F5A	Floor	2	1	Job Reference (optional)	I73751031

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:15 Page: 1

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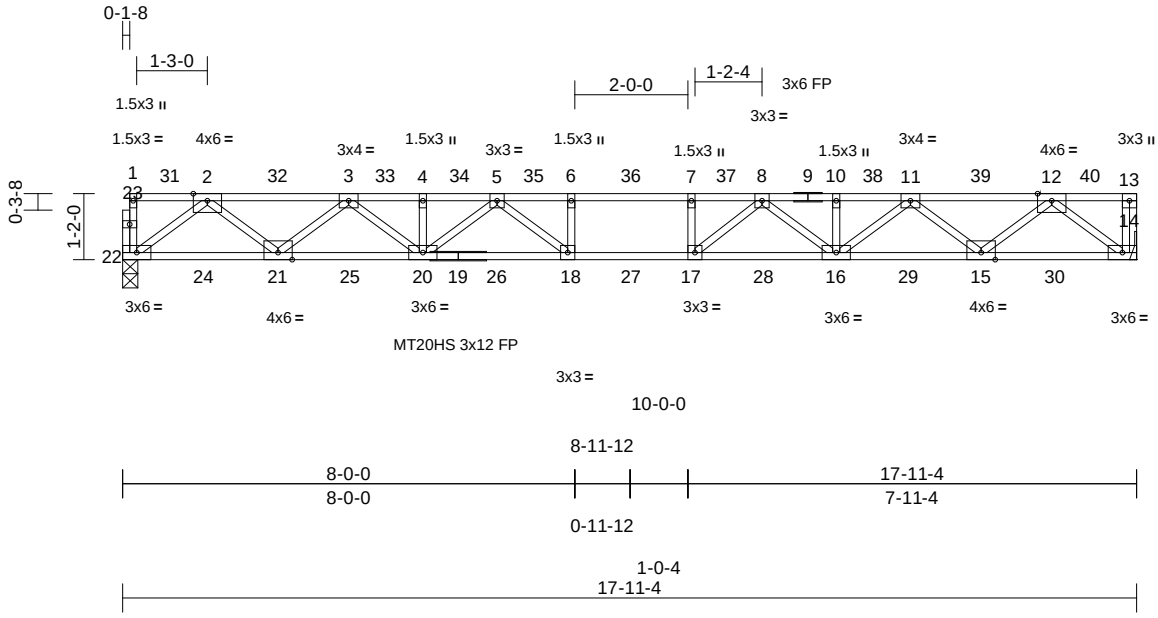


Scale = 1:40.8

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	0.73	Vert(LL)	-0.29	17-18	>726	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.40	17-18	>528	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 91 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14= Mechanical, 22=0-3-4
Max Grav 14=973 (LC 1), 22=967 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-261/36, 13-14=-261/32, 1-2=-16/2, 2-3=-2050/0, 3-4=-3416/0, 4-5=-3416/0, 5-6=-4082/0, 6-7=-4082/0, 7-8=-4082/0, 8-10=-3416/0, 10-11=-3416/0, 11-12=-2050/0, 12-13=0/0
BOT CHORD 21-22=0/1214, 20-21=0/2852, 18-20=0/3830, 17-18=0/4082, 16-17=0/3830, 15-16=0/2851, 14-15=0/1215
WEBS 12-14=-1525/0, 12-15=0/1087, 11-15=-1042/0, 11-16=0/721, 10-16=-252/62, 8-16=-529/17, 8-17=-167/651, 2-22=-1521/0, 2-21=0/1087, 3-21=-1044/0, 3-20=0/721, 4-20=-251/62, 5-20=-529/17, 5-18=-179/648, 6-18=-285/103, 7-17=-295/103

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

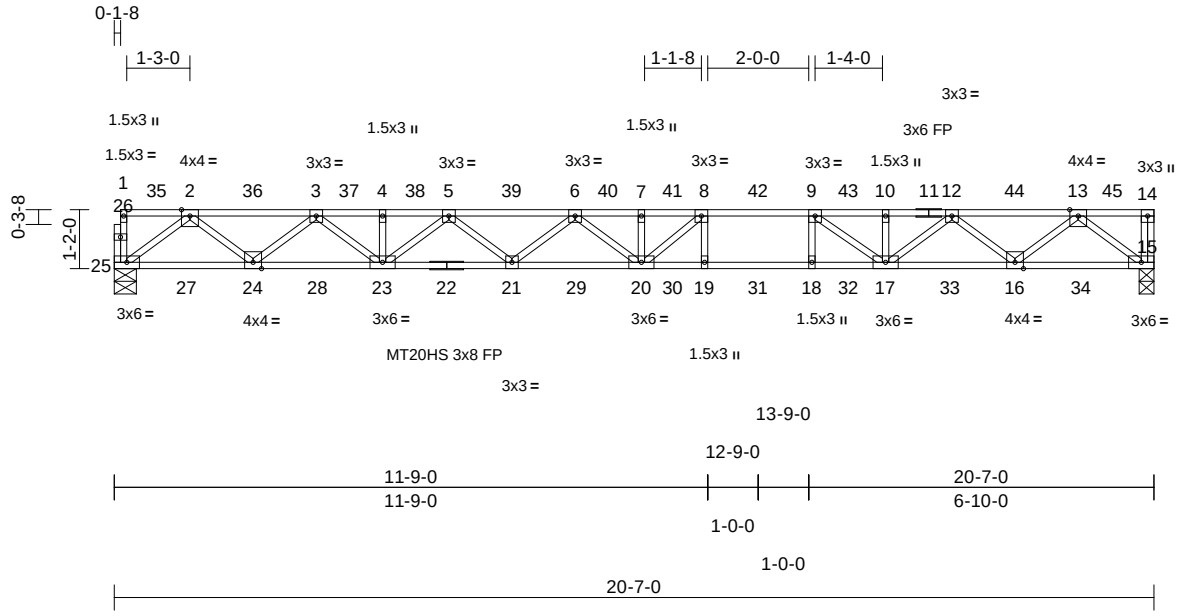
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F7	Floor	2	1	Job Reference (optional)	I73751032

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:16 Page: 1
ID:w65O0GAT7FC5LVIkdMqAf1ztZNm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45.6

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.88	Vert(LL)	-0.41	19-20	>602	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.56	19-20	>438	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 105 lb	FT = 20%F, 12%E

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

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

REACTIONS (size) 15=0-3-8, 25=0-5-4
Max Grav 15=746 (LC 1), 25=741 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-25=-258/38, 14-15=-259/35, 1-2=-15/2, 2-3=-1610/0, 3-4=-2753/0, 4-5=-2753/0, 5-6=-3392/0, 6-7=-3657/0, 7-8=-3657/0, 8-9=-3389/0, 9-10=-2716/0, 10-12=-2716/0, 12-13=-1616/0, 13-14=0/0
BOT CHORD 24-25=0/937, 23-24=0/2261, 21-23=0/3175, 20-21=0/3601, 19-20=0/3389, 18-19=0/3389, 17-18=0/3389, 16-17=0/2257, 15-16=0/939
WEBS 8-19=-257/95, 9-18=-42/257, 2-25=-1173/0, 2-24=0/876, 3-24=-848/0, 3-23=0/628, 4-23=-253/66, 5-23=-539/0, 5-21=-44/338, 6-21=-292/99, 6-20=-197/282, 13-15=-1178/0, 13-16=0/882, 12-16=-834/0, 12-17=0/587, 10-17=-266/125, 9-17=-949/9, 7-20=-357/16, 8-20=-164/537

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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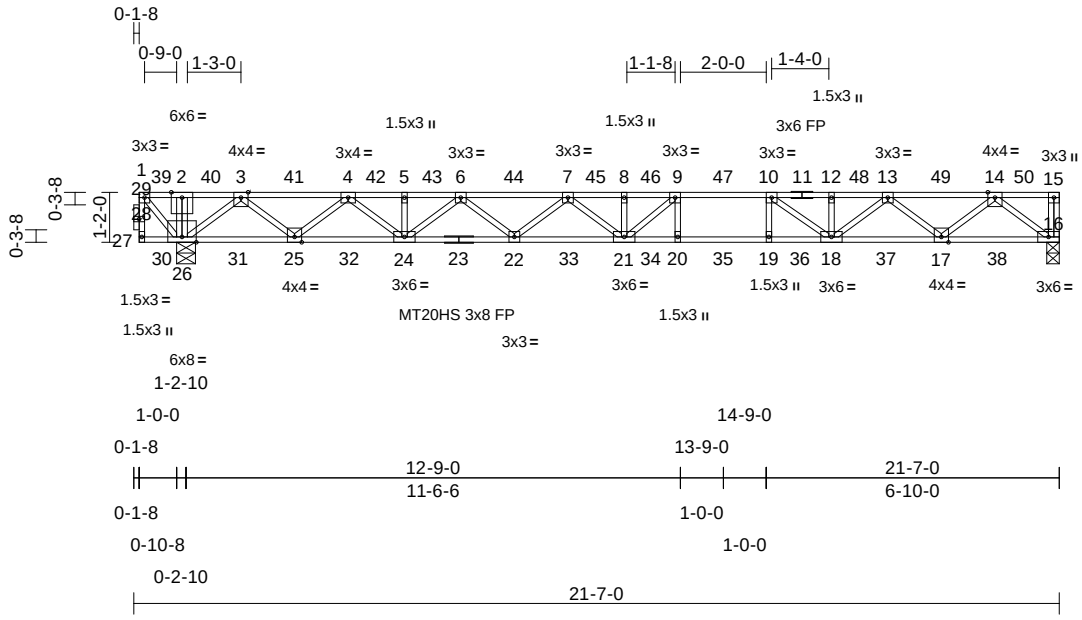
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751033
	2F7A	Floor	1	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:17 Page: 1
ID:w65O0GAT7FC5LVIkdMqAf1ztZNm-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:53.7

Loading	(psf)	Spacing	1-6-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	-0.41	20-21	>598	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.54	20-21	>447	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.07	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 11-15:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP SS(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, Except:
6-0-0 oc bracing: 25-26.

REACTIONS (size) 16=0-3-8, 26=0-5-4
Max Grav 16=829 (LC 8), 26=5298 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-80/248, 15-16=-259/34, 1-2=0/355, 2-3=0/405, 3-4=-1643/0, 4-5=-2958/0, 5-6=-2958/0, 6-7=-3698/0, 7-8=-4021/0, 8-9=-4021/0, 9-10=-3739/0, 10-12=-3012/0, 12-13=-3012/0, 13-14=-1793/0, 14-15=0/0
BOT CHORD 26-27=0/0, 25-26=-98/881, 24-25=0/2387, 22-24=0/3442, 21-22=0/3943, 20-21=0/3739, 19-20=0/3739, 18-19=0/3739, 17-18=0/2503, 16-17=0/1043
WEBS 2-26=-4496/0, 9-20=-247/109, 10-19=-44/251, 1-26=-526/0, 3-26=-1323/0, 3-25=0/995, 4-25=-971/0, 4-24=0/730, 5-24=-255/61, 6-24=-621/0, 6-22=-18/364, 7-22=-321/78, 7-21=-176/302, 14-16=-1308/0, 14-17=0/976, 13-17=-925/0, 13-18=0/650, 12-18=-271/145, 8-21=-371/18, 9-21=-207/578, 10-18=-1030/13

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Load case(s) 1, 3, 4 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-27=-7, 1-2=-155, 2-15=-75
Concentrated Loads (lb)
Vert: 1=-96, 2=-4200
3) Dead + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-7, 1-2=-95, 2-15=-15
Concentrated Loads (lb)
Vert: 1=-191, 2=-4200
4) Dead + Roof Live (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-7, 1-2=-95, 2-15=-15
Concentrated Loads (lb)
Vert: 1=-115, 2=-4200

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751034
	2F7B	Floor	1	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:17 Page: 1
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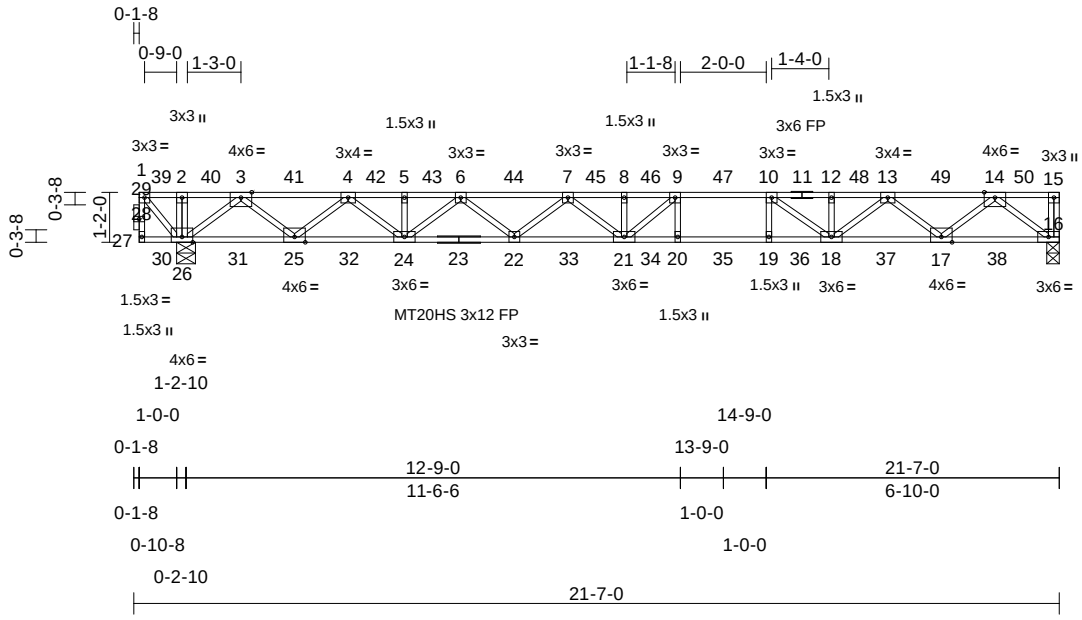

Scale = 1:53.7

Loading	(psf)	Spacing	1-8-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.45	20-21	>538	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.93	Vert(CT)	-0.61	20-21	>401	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.08	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 11-15:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP SS(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 25-26.

REACTIONS (size) 16=0-3-8, 26=0-5-4
Max Grav 16=923 (LC 8), 26=1201 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-80/248, 15-16=-260/33, 1-2=0/384, 2-3=0/384, 3-4=-1854/0, 4-5=-3311/0, 5-6=-3311/0, 6-7=-4130/0, 7-8=-4485/0, 8-9=-4485/0, 9-10=-4167/0, 10-12=-3355/0, 12-13=-3355/0, 13-14=-1996/0, 14-15=0/0
BOT CHORD 26-27=0/0, 25-26=-58/1006, 24-25=0/2681, 22-24=0/3848, 21-22=0/4400, 20-21=0/4167, 19-20=0/4167, 18-19=0/4167, 17-18=0/2788, 16-17=0/1161
WEBS 2-26=-275/45, 9-20=-277/103, 10-19=-37/280, 1-26=-569/0, 3-26=-1453/0, 3-25=0/1106, 4-25=-1080/0, 4-24=0/806, 5-24=-255/62, 6-24=-688/0, 6-22=-8/373, 7-22=-354/71, 7-21=-174/305, 14-16=-1457/0, 14-17=0/1087, 13-17=-1031/0, 13-18=0/724, 12-18=-269/162, 8-21=-377/13, 9-21=-225/648, 10-18=-1150/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Load case(s) 1, 3, 4 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-83
Concentrated Loads (lb)
Vert: 1=-172
3) Dead + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-17
Concentrated Loads (lb)
Vert: 1=-345
4) Dead + Roof Live (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-17
Concentrated Loads (lb)
Vert: 1=-207

May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
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ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F8B	Floor	7	1	I73751035 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:17 Page: 1
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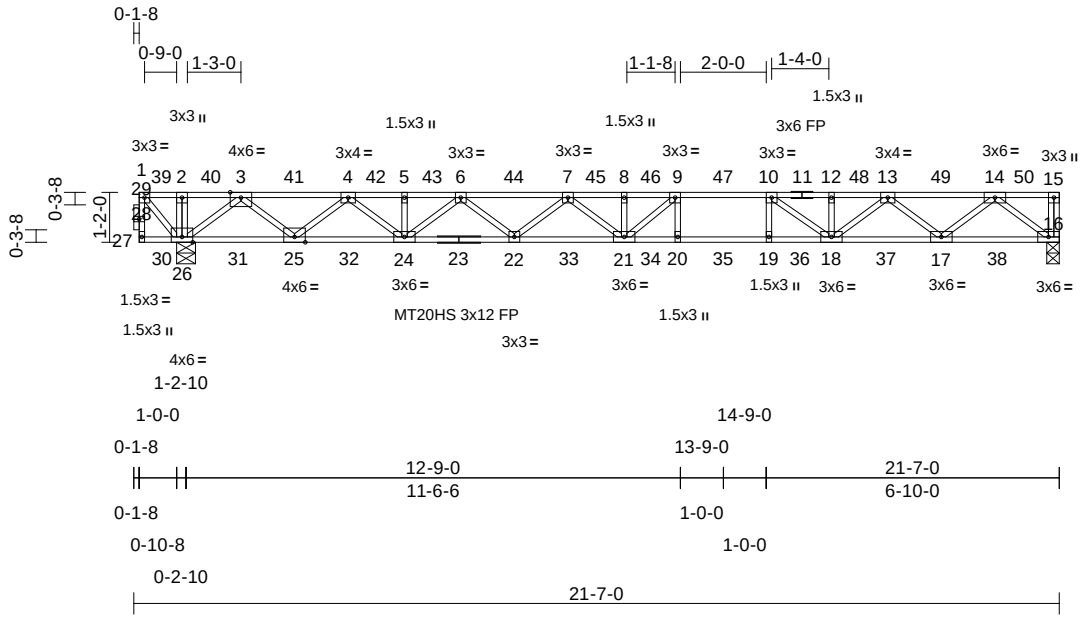

Scale = 1:53.7

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	0.75	Vert(LL)	-0.43	20-21	>561	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.58	20-21	>417	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.07	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 11-15:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP SS(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, Except:
6-0-0 oc bracing: 25-26.

REACTIONS (size) 16=0-3-8, 26=0-5-4
Max Grav 16=886 (LC 8), 26=1146 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-80/248, 15-16=-260/34, 1-2=0/372, 2-3=0/373, 3-4=-1783/0, 4-5=-3180/0, 5-6=-3180/0, 6-7=-3965/0, 7-8=-4306/0, 8-9=-4306/0, 9-10=-4000/0, 10-12=-3220/0, 12-13=-3220/0, 13-14=-1916/0, 14-15=0/0
BOT CHORD 26-27=0/0, 25-26=-59/970, 24-25=0/2576, 22-24=0/3695, 21-22=0/4224, 20-21=0/4000, 19-20=0/4000, 18-19=0/4000, 17-18=0/2676, 16-17=0/1114
WEBS 2-26=-274/46, 9-20=-266/105, 10-19=-39/269, 1-26=-553/0, 3-26=-1393/0, 3-25=0/1061, 4-25=-1035/0, 4-24=0/773, 5-24=-255/62, 6-24=-660/0, 6-22=-14/368, 7-22=-339/75, 7-21=-176/303, 14-16=-1398/0, 14-17=0/1043, 13-17=-989/0, 13-18=0/695, 12-18=-270/156, 8-21=-375/14, 9-21=-215/622, 10-18=-1104/0

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Load case(s) 1, 3, 4 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-80
Concentrated Loads (lb)
Vert: 1=-160
3) Dead + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-16
Concentrated Loads (lb)
Vert: 1=-320
4) Dead + Roof Live (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-16
Concentrated Loads (lb)
Vert: 1=-192

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751036
	2F8C	Floor	1	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:18 Page: 1
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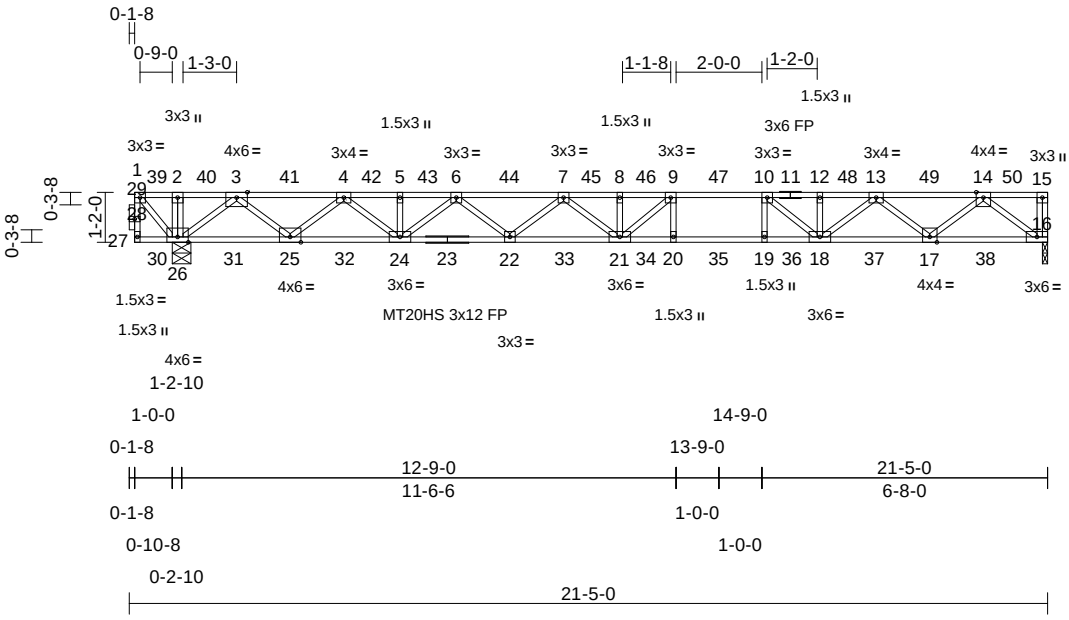

Scale = 1:53.7

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	0.73	Vert(LL)	-0.42	20-21	>570	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.57	20-21	>425	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.07	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 112 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP SS(flat) *Except* 11-15:2x4 SP No.2 (flat)
BOT CHORD 2x4 SP SS(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, Except:
6-0-0 oc bracing: 25-26.

REACTIONS (size) 16=0-1-8, 26=0-5-4
Max Grav 16=878 (LC 8), 26=1139 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-80/248, 15-16=-260/34, 1-2=0/372, 2-3=0/373, 3-4=-1765/0, 4-5=-3144/0, 5-6=-3144/0, 6-7=-3911/0, 7-8=-4235/0, 8-9=-4235/0, 9-10=-3915/0, 10-12=-3181/0, 12-13=-3181/0, 13-14=-1897/0, 14-15=0/0
BOT CHORD 26-27=0/0, 25-26=-62/961, 24-25=0/2549, 22-24=0/3650, 21-22=0/4162, 20-21=0/3915, 19-20=0/3915, 18-19=0/3915, 17-18=0/2649, 16-17=0/1104
WEBS 2-26=-274/46, 9-20=-268/101, 10-19=-46/288, 1-26=-553/0, 3-26=-1382/0, 3-25=0/1049, 4-25=-1024/0, 4-24=0/762, 5-24=-254/62, 6-24=-648/0, 6-22=-18/364, 7-22=-328/72, 7-21=-180/298, 14-16=-1386/0, 14-17=0/1032, 13-17=-978/0, 13-18=0/680, 12-18=-266/179, 10-18=-1089/2, 8-21=-375/11, 9-21=-197/629

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 16.
4) Load case(s) 1, 3, 4 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-80
Concentrated Loads (lb)
Vert: 1=-160
3) Dead + Snow (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-16
Concentrated Loads (lb)
Vert: 1=-320
4) Dead + Roof Live (balanced): Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-16
Concentrated Loads (lb)
Vert: 1=-192

May 28,2025

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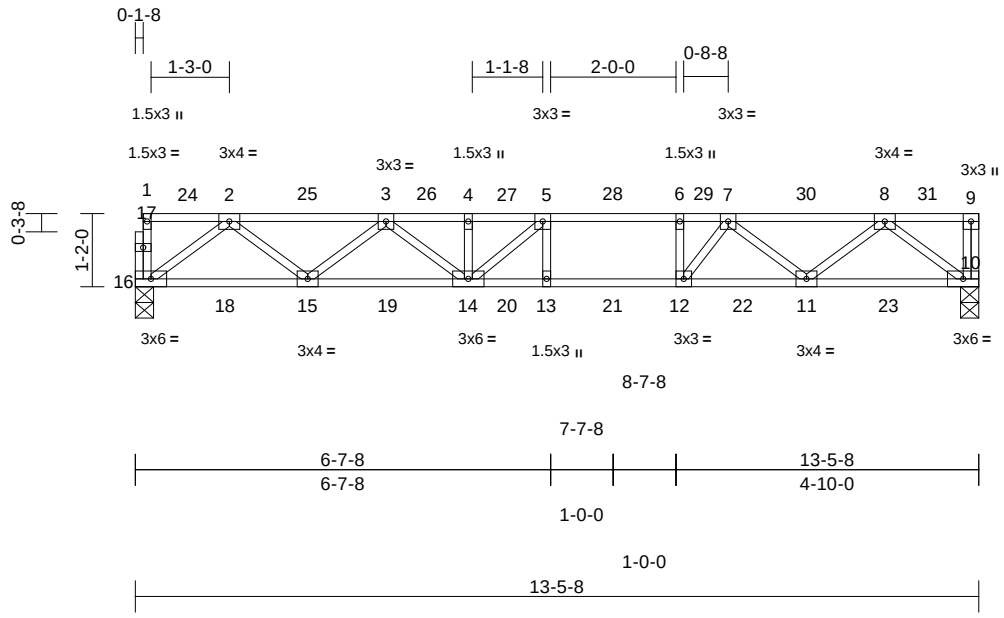
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751037
	2F1	Floor	3	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
ID:sO10VVE2noRDWjmBED7PYcztZbt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.8

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	0.63	Vert(LL)	-0.14	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.49	Vert(CT)	-0.18	13-14	>858	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP SS(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=0-3-8, 16=0-3-8
Max Grav 10=726 (LC 1), 16=720 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-260/36, 9-10=-260/30, 1-2=-16/2, 2-3=-1430/0, 3-4=-2208/0, 4-5=-2208/0, 5-6=-2219/0, 6-7=-2219/0, 7-8=-1418/0, 8-9=0/0
BOT CHORD 15-16=0/891, 14-15=0/1940, 13-14=0/2219, 12-13=0/2219, 11-12=0/1958, 10-11=0/889
WEBS 5-13=-155/144, 2-16=-1115/0, 2-15=0/702, 3-15=-664/0, 3-14=-59/393, 8-10=-1115/0, 8-11=0/689, 7-11=-703/0, 7-12=-126/631, 4-14=-336/31, 5-14=-337/321, 6-12=-356/108

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.

LOAD CASE(S) Standard

May 28,2025

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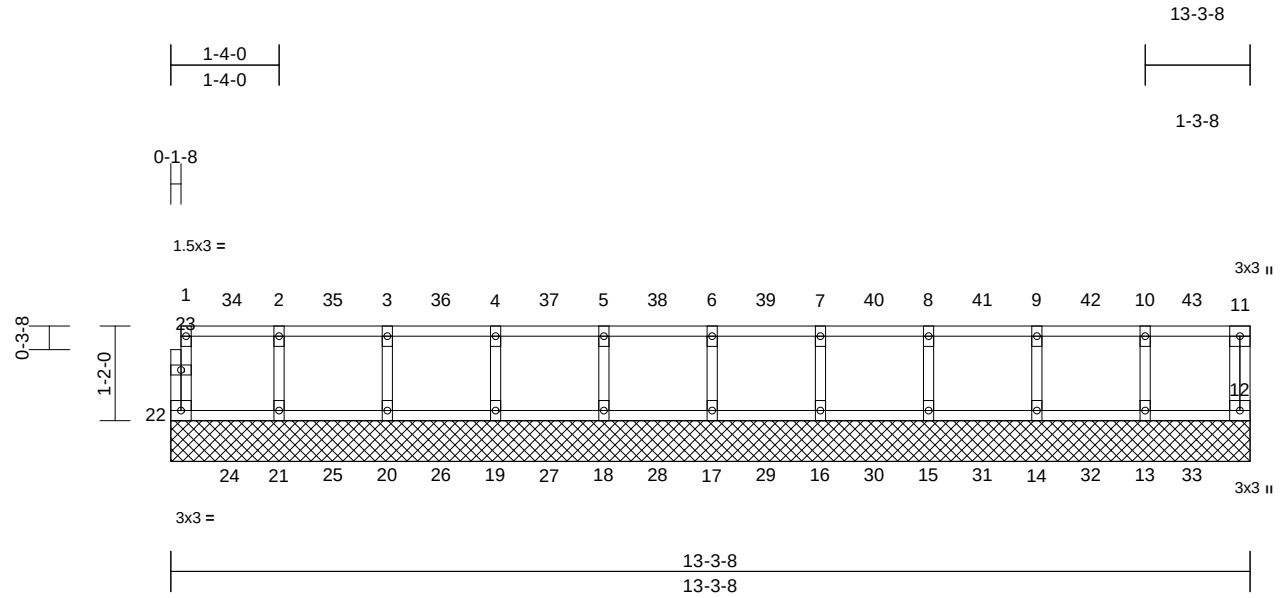
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F1GE	Floor Supported Gable	1	1	I73751038 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:13 Page: 1
ID:I7xZg1wE2VxUh4uutv70hwztZZi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 57 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 12=13-3-8, 13=13-3-8, 14=13-3-8, 15=13-3-8, 16=13-3-8, 17=13-3-8, 18=13-3-8, 19=13-3-8, 20=13-3-8, 21=13-3-8, 22=13-3-8
Max Uplift 12=-13 (LC 34), 22=-13 (LC 27)
Max Grav 12=269 (LC 46), 13=291 (LC 45), 14=293 (LC 44), 15=293 (LC 43), 16=293 (LC 42), 17=293 (LC 41), 18=293 (LC 40), 19=293 (LC 39), 20=293 (LC 38), 21=292 (LC 37), 22=269 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-259/20, 11-12=-263/21, 1-2=-23/4, 2-3=-23/4, 3-4=-23/4, 4-5=-23/4, 5-6=-23/4, 6-7=-23/4, 7-8=-23/4, 8-9=-23/4, 9-10=-23/4, 10-11=-23/4
BOT CHORD 21-22=-4/23, 20-21=-4/23, 19-20=-4/23, 18-19=-4/23, 17-18=-4/23, 16-17=-4/23, 15-16=-4/23, 14-15=-4/23, 13-14=-4/23, 12-13=-4/23
WEBS 2-21=-276/7, 3-20=-278/5, 4-19=-277/5, 5-18=-277/5, 6-17=-277/5, 7-16=-277/5, 8-15=-277/5, 9-14=-278/5, 10-13=-276/8

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 22 and 13 lb uplift at joint 12.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 28,2025

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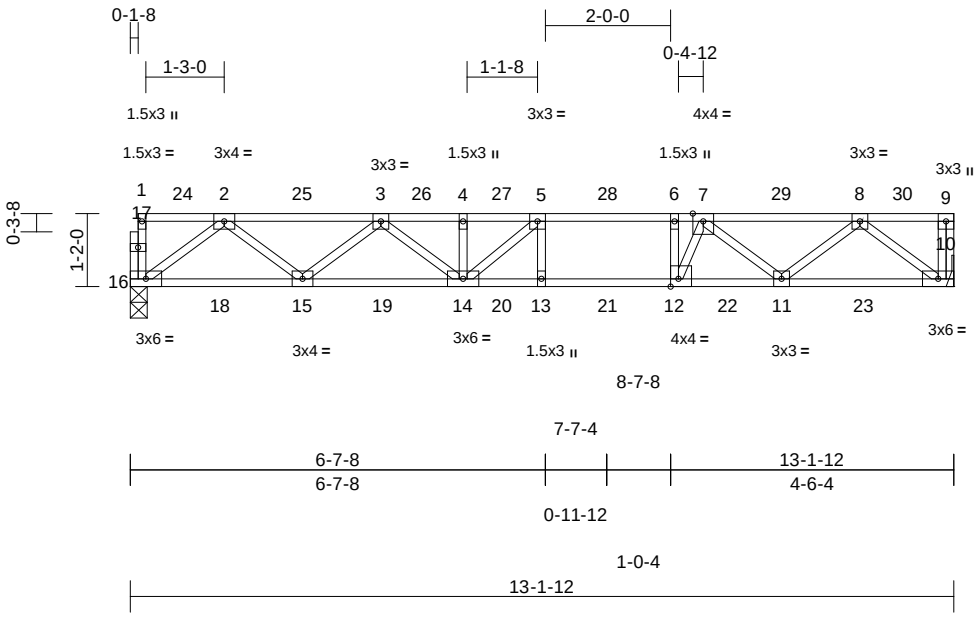
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F1A	Floor	2	1	Job Reference (optional)	I73751039

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:12 Page: 1
ID:HWm?G9hF4A5zSP5IvUI5YPztZbI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.8

Plate Offsets (X, Y): [12:0-1-8,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	0.75	Vert(LL)	-0.15	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.20	13-14	>776	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 68 lb	FT = 20%F, 12%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 2-2-0 oc bracing.

REACTIONS (size) 10= Mechanical, 16=0-3-4
Max Grav 10=709 (LC 1), 16=703 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-260/36, 9-10=-261/28, 1-2=-16/2, 2-3=-1387/0, 3-4=-2128/0, 4-5=-2128/0, 5-6=-2102/0, 6-7=-2102/0, 7-8=-1378/0, 8-9=0/0
BOT CHORD 15-16=0/869, 14-15=0/1876, 13-14=0/2102, 12-13=0/2102, 11-12=0/1909, 10-11=0/865
WEBS 8-10=-1085/0, 8-11=0/668, 7-11=-691/0, 7-12=-211/729, 2-16=-1087/0, 2-15=0/674, 3-15=-637/0, 3-14=-65/385, 5-13=-146/144, 6-12=-522/199, 4-14=-351/24, 5-14=-292/338

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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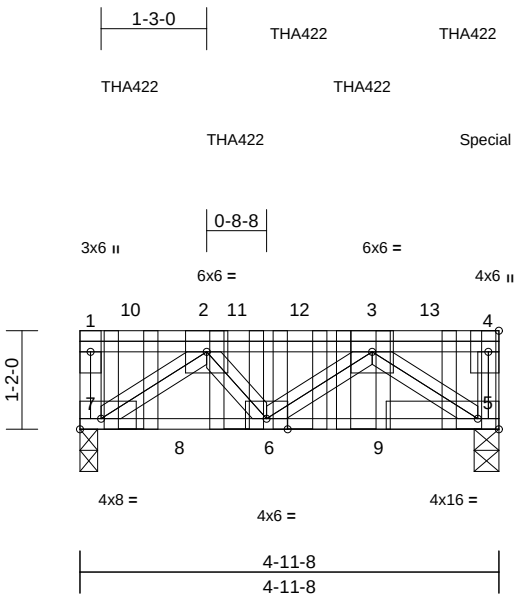
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2FGR2	Floor Girder	1	1	I73751041
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:18 Page: 1
ID:gq4843A1kRRv5cFO9SHKiKztZJu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.3

Plate Offsets (X, Y): [4:0-3-0,Edge], [5:Edge,0-1-8], [7: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	0.70	Vert(LL)	-0.08	5-6	>707	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.99	Vert(CT)	-0.09	5-6	>633	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.31	Horz(CT)	0.02	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 43 lb	FT = 20%F, 12%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 4-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-3-8, 7=0-2-8
Max Grav 5=4680 (LC 1), 7=1925 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-327/0, 4-5=-3062/0, 1-2=0/0, 2-3=-2259/0, 3-4=0/0
BOT CHORD 6-7=0/2247, 5-6=0/2253
WEBS 3-5=-2766/0, 3-6=-98/194, 2-7=-2781/0, 2-6=-66/201

NOTES
1) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 1-6-0 oc max. starting at 1-10-4 from the left end to 3-4-4 to connect truss(es) to front face of top chord.
5) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-7-4 from the left end to 4-7-4 to connect truss(es) to back face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) 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: 5-7=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 4=-3097 (F=-2450, B=-648), 3=-873 (F), 10=-635 (B), 11=-873 (F), 12=-609 (B)

May 28,2025

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A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F3	Floor	8	1	Job Reference (optional)	I73751042

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:13 Page: 1
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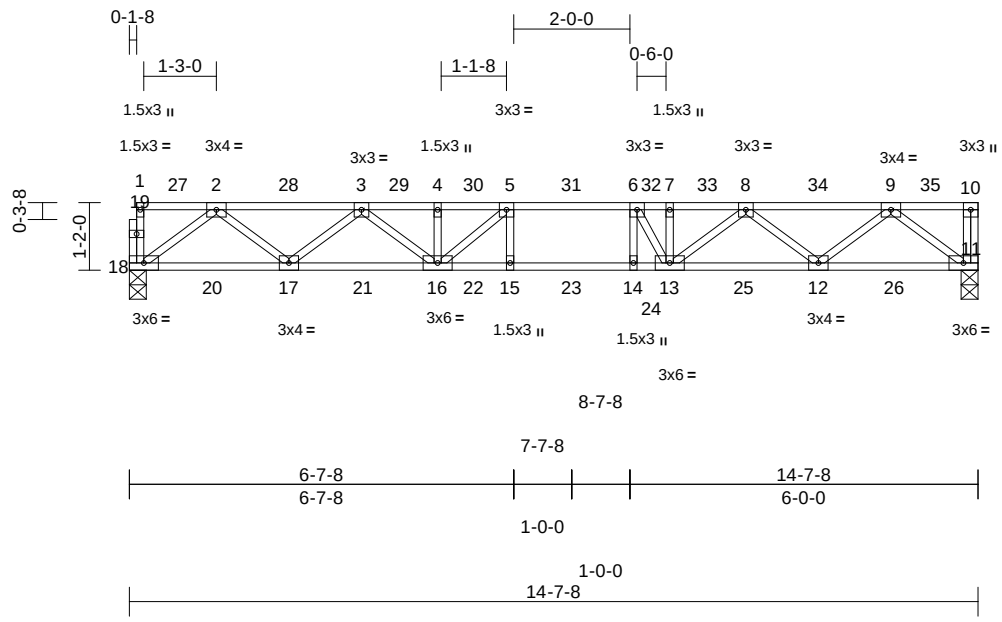


Scale = 1:39.7

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	0.61	Vert(LL)	-0.16	15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.21	15	>809	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 15-16,14-15.

REACTIONS (size) 11=0-3-8, 18=0-3-8
Max Grav 11=791 (LC 1), 18=784 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-260/36, 10-11=-261/32, 1-2=-16/2, 2-3=-1593/0, 3-4=-2514/0, 4-5=-2514/0, 5-6=-2685/0, 6-7=-2498/0, 7-8=-2498/0, 8-9=-1595/0, 9-10=0/0
BOT CHORD 17-18=0/976, 16-17=0/2177, 15-16=0/2685, 14-15=0/2685, 13-14=0/2685, 12-13=0/2177, 11-12=0/976
WEBS 5-15=-125/170, 6-14=-217/262, 2-18=-1221/0, 2-17=0/804, 3-17=-760/0, 3-16=-29/431, 9-11=-1225/0, 9-12=0/805, 8-12=-758/0, 8-13=-45/424, 4-16=-322/62, 7-13=-333/192, 5-16=-501/239, 6-13=-662/298

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.

LOAD CASE(S) Standard

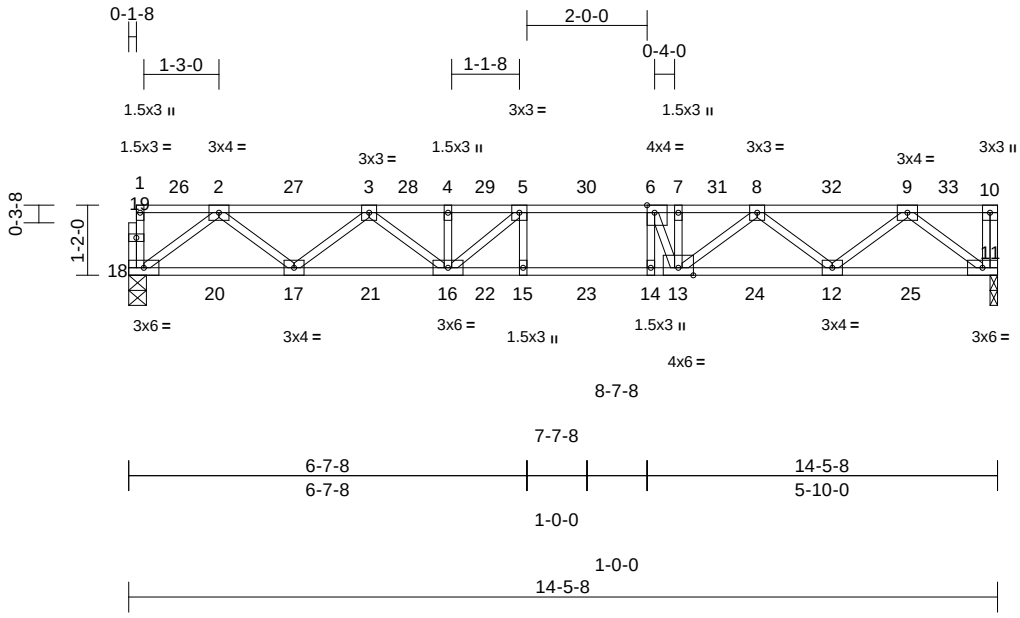
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F3B	Floor	1	1	Job Reference (optional)	I73751043

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:14 Page: 1
ID:1aOu90j7fU2jva2IvwmBYdztZW5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.3

Plate Offsets (X, Y): [6:0-1-8,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	0.61	Vert(LL)	-0.15	15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.21	15	>819	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 76 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 14-15.

REACTIONS (size) 11=0-1-8, 18=0-3-8
Max Grav 11=781 (LC 1), 18=775 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-260/36, 10-11=-261/32, 1-2=-16/2, 2-3=-1570/0, 3-4=-2470/0, 4-5=-2470/0, 5-6=-2621/0, 6-7=-2455/0, 7-8=-2455/0, 8-9=-1572/0, 9-10=0/0
BOT CHORD 17-18=0/963, 16-17=0/2143, 15-16=0/2621, 14-15=0/2621, 13-14=0/2621, 12-13=0/2143, 11-12=0/964
WEBS 5-15=-127/165, 6-14=-290/310, 2-18=-1206/0, 2-17=0/789, 3-17=-746/0, 3-16=-34/423, 9-11=-1209/0, 9-12=0/791, 8-12=-744/0, 8-13=-54/433, 4-16=-323/56, 7-13=-345/258, 6-13=-748/371, 5-16=-475/247

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 11.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

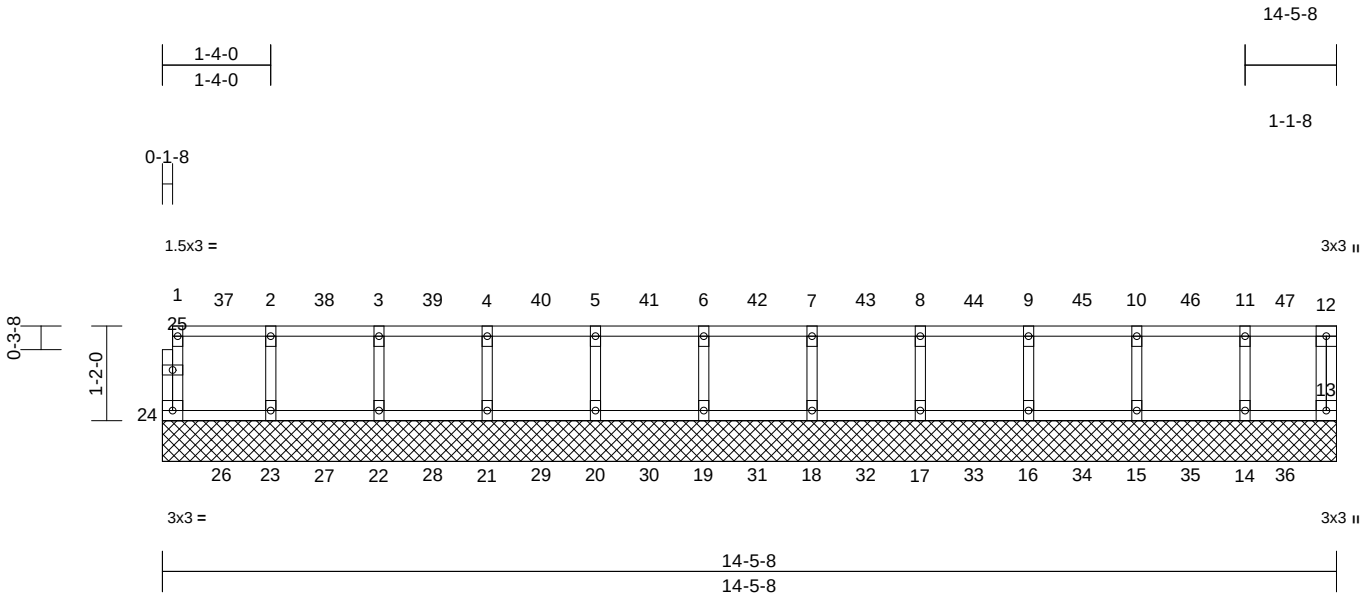
May 28,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F2GE	Floor Supported Gable	1	1	I73751045 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:13 Page: 1
ID:NjcVVH9HULFEOWXSDGxOhxztZWp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 62 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 13=14-5-8, 14=14-5-8, 15=14-5-8, 16=14-5-8, 17=14-5-8, 18=14-5-8, 19=14-5-8, 20=14-5-8, 21=14-5-8, 22=14-5-8, 23=14-5-8, 24=14-5-8
Max Uplift 13=-22 (LC 37), 24=-13 (LC 29)
Max Grav 13=267 (LC 50), 14=288 (LC 49), 15=294 (LC 48), 16=293 (LC 47), 17=293 (LC 46), 18=293 (LC 45), 19=293 (LC 44), 20=293 (LC 43), 21=293 (LC 42), 22=293 (LC 41), 23=293 (LC 40), 24=268 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-259/20, 12-13=-261/29, 1-2=-24/4, 2-3=-24/4, 3-4=-24/4, 4-5=-24/4, 5-6=-24/4, 6-7=-24/4, 7-8=-24/4, 8-9=-24/4, 9-10=-24/4, 10-11=-24/4, 11-12=-24/4
BOT CHORD 23-24=-4/24, 22-23=-4/24, 21-22=-4/24, 20-21=-4/24, 19-20=-4/24, 18-19=-4/24, 17-18=-4/24, 16-17=-4/24, 15-16=-4/24, 14-15=-4/24, 13-14=-4/24
WEBS 2-23=-277/7, 3-22=-278/5, 4-21=-277/5, 5-20=-277/5, 6-19=-277/5, 7-18=-277/5, 8-17=-278/5, 9-16=-277/5, 10-15=-278/4, 11-14=-273/12

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 24 and 22 lb uplift at joint 13.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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.
8) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

May 28,2025

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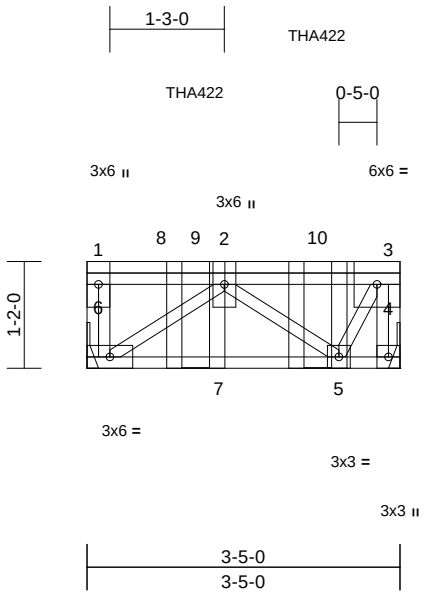
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2FGR6	Floor Girder	1	1	I73751046
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:19 Page: 1
ID:BdXmsj9Oz8J2USgCbkm596ztZJv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25.2

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	0.23	Vert(LL)	-0.07	5-6	>582	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.07	5-6	>538	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%F, 12%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 3-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Grav 4=403 (LC 1), 6=365 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-267/14, 3-4=-419/0, 1-2=0/0, 2-3=-206/0
BOT CHORD 5-6=0/406, 4-5=0/0
WEBS 2-6=-499/0, 2-5=-347/14, 3-5=0/427

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 1-4-0 oc max. starting at 1-2-4 from the left end to 2-6-4 to connect truss(es) to front face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) 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: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 9=-210 (F), 10=-210 (F)

May 28,2025

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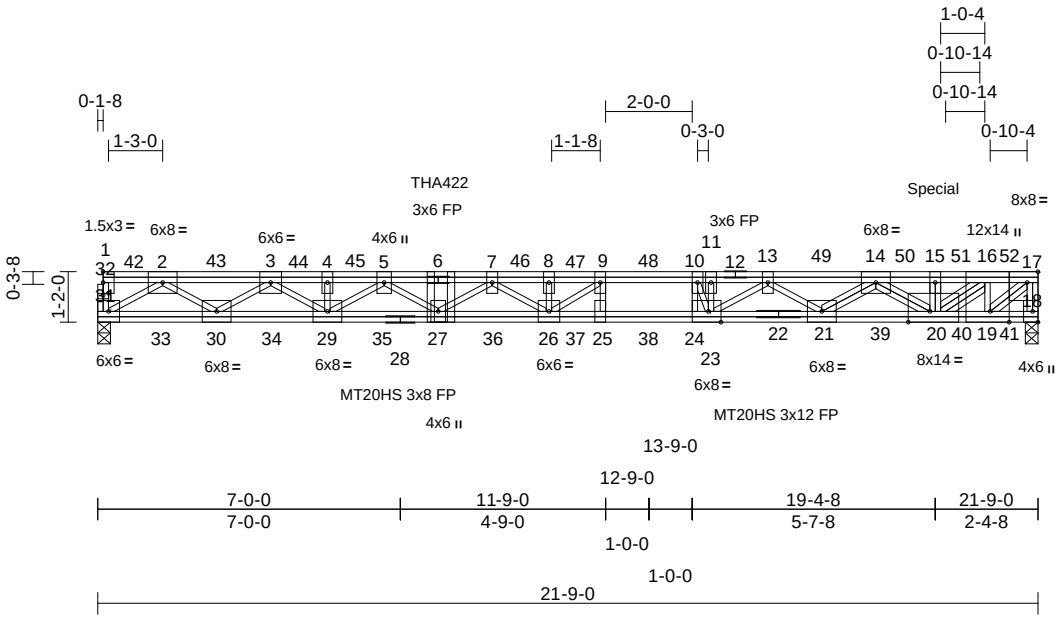
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2FGR4	Floor Girder	1	1	Job Reference (optional)	I73751047

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:19 Page: 1

ID:5Z_hFbrD?8yAHzN6o8HwqeztZHj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:53.3

Plate Offsets (X, Y): [16:0-3-0,Edge], [17:0-3-0,Edge], [20:0-6-0,Edge], [24:0-3-8,Edge], [32:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.77	Vert(LL)	-0.36	25-26	>706	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.51	Vert(CT)	-0.68	25-26	>376	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.06	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 182 lb	FT = 20%F, 12%E

LUMBER

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

BRACING

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

REACTIONS (size) 18=0-3-8, 31=0-3-8
Max Grav 18=2612 (LC 1), 31=1198 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-31=-262/31, 17-18=-2593/0, 1-2=0/0, 2-3=-3018/0, 3-4=-5534/0, 4-5=-5534/0, 5-7=-7396/0, 7-8=-8101/0, 8-9=-8101/0, 9-10=-8176/0, 10-11=-8009/0, 11-13=-8009/0, 13-14=-7272/0, 14-15=-5959/0, 15-16=-5959/0, 16-17=-2872/0

BOT CHORD 30-31=0/1761, 29-30=0/4371, 27-29=0/6762, 26-27=0/8016, 25-26=0/8176, 24-25=0/8176, 23-24=0/8176, 21-23=0/7751, 20-21=0/6788, 19-20=0/2872, 18-19=0/0

WEBS 9-25=-159/271, 10-24=-508/347, 15-20=-111/535, 2-31=-2054/0, 2-30=0/1562, 3-30=-1678/0, 3-29=0/1419, 4-29=-200/93, 5-29=-1497/0, 5-27=0/786, 7-27=-769/0, 7-26=-71/484, 14-20=-988/0, 14-21=-80/612, 13-21=-584/205, 13-23=-364/450, 11-23=-393/249, 10-23=-808/780, 16-19=-2476/0, 17-19=0/3825, 16-20=0/3922, 8-26=-200/140, 9-26=-822/235

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x6 (||) MT20 unless otherwise indicated.
4) 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.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
6) Required 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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 7-11-4 from the left end to connect truss(es) to back face of top chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4 lb down and 596 lb up at 19-4-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
11) 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: 18-31=-7, 1-17=-67
Concentrated Loads (lb)
Vert: 6=-337 (B), 15=49 (B), 20=-1950

May 28,2025

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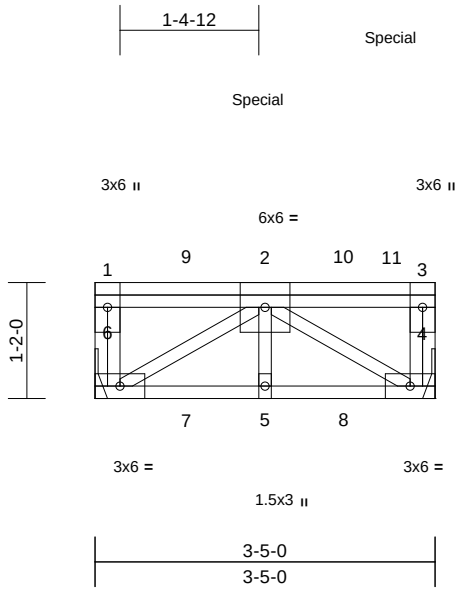
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2FGR5	Floor Girder	1	1	Job Reference (optional)	I73751048



Scale = 1:23.2

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	0.23	Vert(LL)	-0.02	4-5	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.02	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%F, 12%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 3-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical
Max Uplift 4=-529 (LC 15), 6=-136 (LC 15)
Max Grav 4=148 (LC 12), 6=233 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-268/5, 3-4=-182/322, 1-2=0/0, 2-3=0/0
BOT CHORD 5-6=-342/128, 4-5=-342/128
WEBS 2-6=-150/402, 2-5=0/270, 2-4=-150/402

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 6 and 529 lb uplift at joint 4.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 524 lb up at 1-7-12, and 490 lb up at 2-11-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) 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: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=116 (B), 11=109 (B)

May 28,2025

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ENGINEERING BY TRENCO
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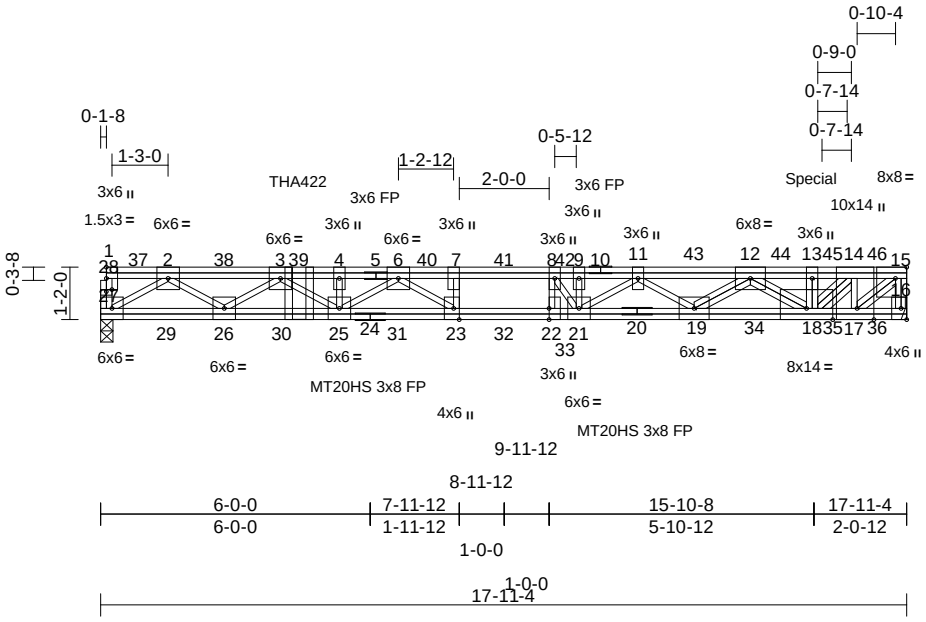
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751049
	2FGR3	Floor Girder	1	1	Job Reference (optional)	



Scale = 1:51.3

Plate Offsets (X, Y): [14:0-3-0,Edge], [15:0-3-0,Edge], [22:0-3-0,Edge], [23:0-3-0,Edge], [28:0-1-8,0-0-8]

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.16	22-23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.37	22-23	>571	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.86	Horz(CT)	0.04	16	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 151 lb	FT = 20%F, 12%E

LUMBER
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat) *Except* 24-16,20-27:2x4 SP SS(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) 16= Mechanical, 27=0-3-4
Max Grav 16=2484 (LC 1), 27=1095 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-263/29, 15-16=-2466/0, 1-2=0/0, 2-3=-2744/0, 3-4=-4714/0, 4-6=-4714/0, 6-7=-5797/0, 7-8=-5797/0, 8-9=-5991/0, 9-11=-5991/0, 11-12=-5810/0, 12-13=-5066/0, 13-14=-5065/0, 14-15=-2715/0
BOT CHORD 26-27=0/1603, 25-26=0/3957, 23-25=0/5254, 22-23=0/5797, 21-22=0/5797, 19-21=0/6011, 18-19=0/5577, 17-18=0/2715, 16-17=0/0
WEBS 7-23=-366/0, 8-22=-549/0, 2-27=-1869/0, 2-26=0/1418, 3-26=-1505/0, 3-25=0/922, 4-25=-282/6, 6-25=-763/0, 6-23=0/1032, 13-18=-207/146, 12-18=-613/129, 12-19=-212/295, 11-19=-244/332, 11-21=-466/85, 9-21=-476/8, 8-21=-17/1056, 14-17=-2342/0, 14-18=0/3301, 15-17=0/3617

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) 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.
5) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 4-5-0 from the left end to connect truss(es) to front face of top chord.
9) Fill all nail holes where hanger is in contact with lumber.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 92 lb down and 203 lb up at 15-10-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
11) 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: 16-27=-7, 1-15=-67
Concentrated Loads (lb)
Vert: 13=-39 (F), 18=-1950, 39=-298 (F)

May 28,2025

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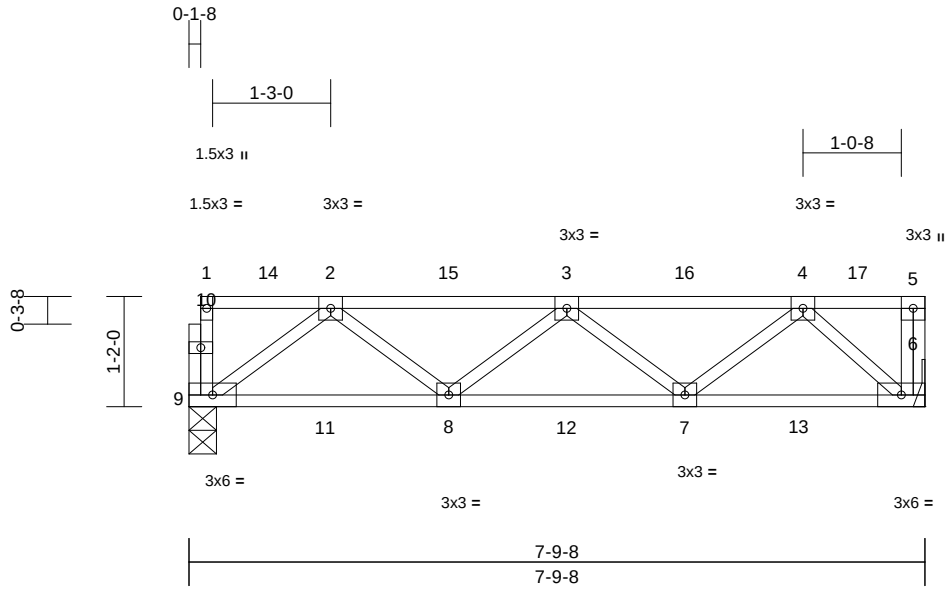
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751050
	2F6	Floor	2	1	Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:16 Page: 1
ID:589r3nUiZk0A?kRnouJor0ztZOf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24.4

Loading	(psf)	Spacing	1-4-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.09	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.09	8-9	>997	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 42 lb	FT = 20%F, 12%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) 6= Mechanical, 9=0-3-8
Max Grav 6=328 (LC 8), 9=328 (LC 17)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-258/41, 5-6=-256/51, 1-2=-15/2, 2-3=-536/0, 3-4=-514/0, 4-5=0/0
BOT CHORD 8-9=0/358, 7-8=0/597, 6-7=0/326
WEBS 2-9=-452/0, 2-8=-18/310, 3-8=-215/113, 3-7=-233/95, 4-7=-2/326, 4-6=-437/0

NOTES
1) Refer to girder(s) for truss to truss connections.
2) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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.

LOAD CASE(S) Standard

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2FGR1	Floor Girder	1	1	Job Reference (optional)	I73751051

Structural, LLC, Thurmont, MD - 21788,

Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:18 Page: 1
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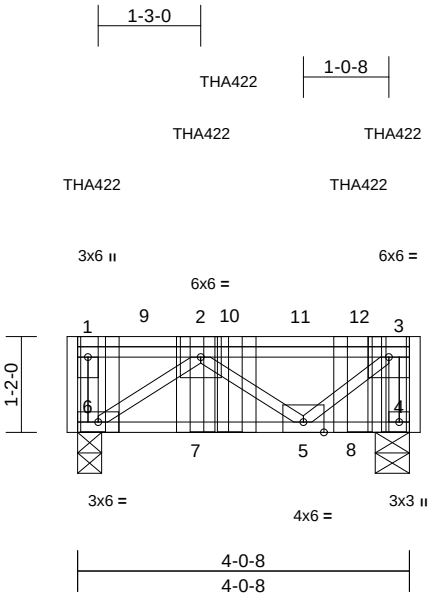

Scale = 1:28.1

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	0.93	Vert(LL)	-0.07	5-6	>615	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.92	Vert(CT)	-0.08	5-6	>554	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.01	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 29 lb	FT = 20%F, 12%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 4-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-5-0, 6=0-3-8
Max Grav 4=2244 (LC 1), 6=1822 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-6=-512/0, 3-4=-2236/0, 1-2=0/0, 2-3=-888/0
BOT CHORD 5-6=0/1820, 4-5=0/0
WEBS 2-6=-2234/0, 2-5=-1183/0, 3-5=0/1160

NOTES
1) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 1-11-0 oc max. starting at 0-2-4 from the left end to 3-5-4 to connect truss(es) to front face of top chord.
4) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-10-4 from the left end to 3-10-4 to connect truss(es) to back face of top chord.
5) Fill all nail holes where hanger is in contact with lumber.
6) 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: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 3=-656 (B), 1=-612 (F), 2=-873 (F), 10=-609 (B), 12=-899 (F)

May 28,2025

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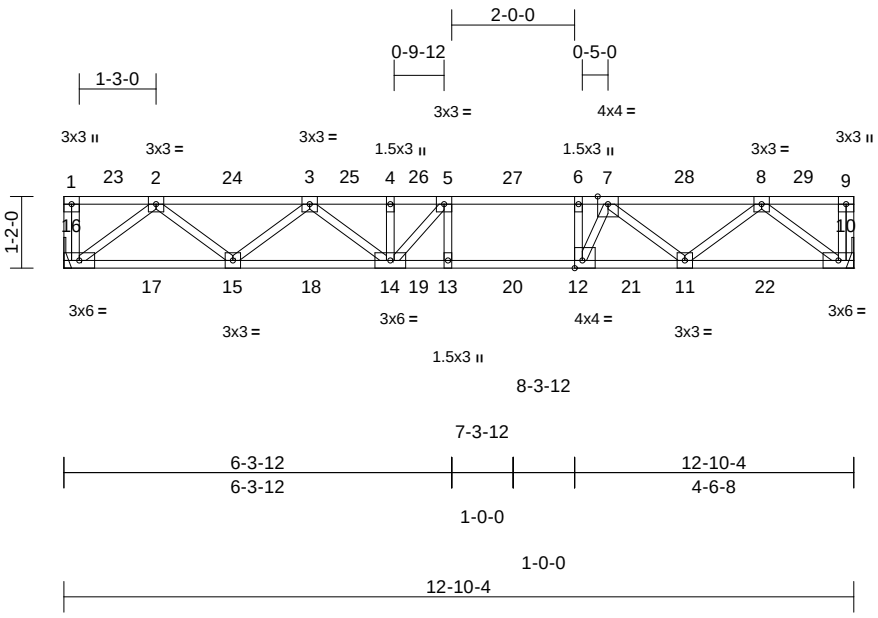
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F1B	Floor	3	1	I73751054
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:13 Page: 1

ID:HWm?G9hF4A5zSP5IvUI5YPztZbI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:37.5

Plate Offsets (X, Y): [12:0-1-8,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	0.67	Vert(LL)	-0.13	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.17	13-14	>877	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.32	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 67 lb	FT = 20%F, 12%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, Except:
2-2-0 oc bracing: 12-13.

REACTIONS (size) 10= Mechanical, 16= Mechanical
Max Grav 10=693 (LC 1), 16=693 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-261/33, 9-10=-261/28, 1-2=0/0, 2-3=-1348/0, 3-4=-2038/0, 4-5=-2038/0, 5-6=-2017/0, 6-7=-2017/0, 7-8=-1340/0, 8-9=0/0
BOT CHORD 15-16=0/848, 14-15=0/1817, 13-14=0/2017, 12-13=0/2017, 11-12=0/1843, 10-11=0/845
WEBS 5-13=-186/162, 6-12=-470/200, 8-10=-1060/0, 8-11=0/644, 7-11=-655/0, 7-12=-219/662, 2-16=-1064/0, 2-15=0/651, 3-15=-610/0, 3-14=-83/357, 4-14=-363/47, 5-14=-292/366

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751055
	2F2A	Floor	2	1	Job Reference (optional)	

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:13 Page: 1
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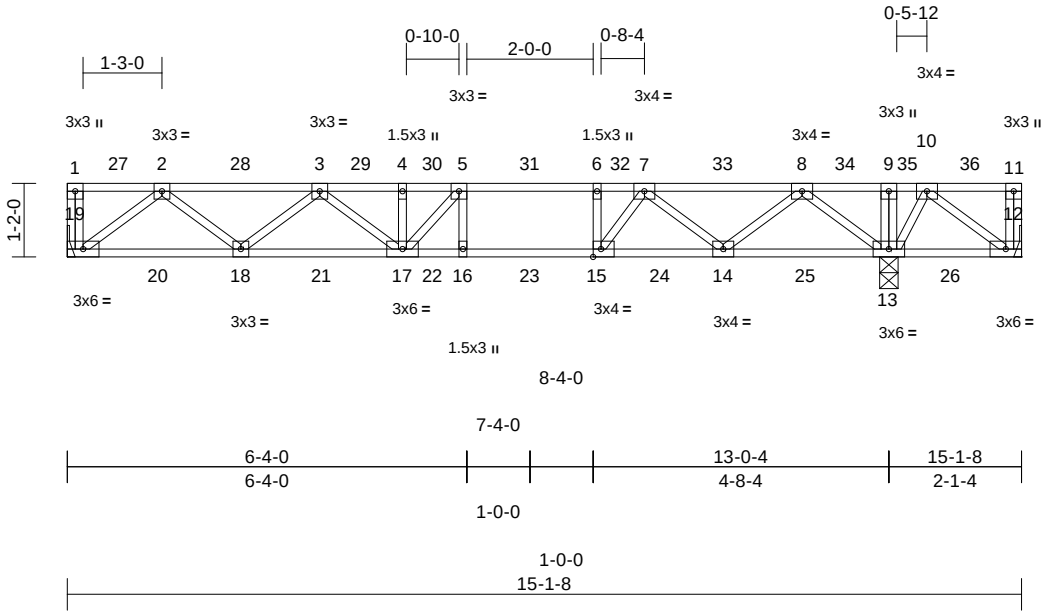

Scale = 1:36.5

Plate Offsets (X, Y): [15:0-1-8,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	0.72	Vert(LL)	-0.13	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.18	16-17	>850	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%F, 12%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 1-4-12 oc bracing.

REACTIONS (size) 12= Mechanical, 13=0-3-8, 19= Mechanical
Max Uplift 12=-433 (LC 3)
Max Grav 12=155 (LC 46), 13=1356 (LC 1), 19=637 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-19=-261/33, 11-12=-264/0, 1-2=0/0, 2-3=-1204/0, 3-4=-1769/0, 4-5=-1769/0, 5-6=-1619/0, 6-7=-1619/0, 7-8=-652/0, 8-9=0/893, 9-10=0/892, 10-11=0/0
BOT CHORD 18-19=0/773, 17-18=0/1607, 16-17=0/1619, 15-16=0/1619, 14-15=0/1272, 13-14=-297/217, 12-13=-587/0
WEBS 5-16=-202/125, 6-15=-412/47, 9-13=-263/75, 8-13=-1175/0, 8-14=0/760, 7-14=-807/0, 7-15=-7/692, 10-12=0/737, 10-13=-643/0, 2-19=-970/0, 2-18=0/561, 3-18=-525/0, 3-17=-102/349, 4-17=-373/1, 5-17=-94/417

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 433 lb uplift at joint 12.
4) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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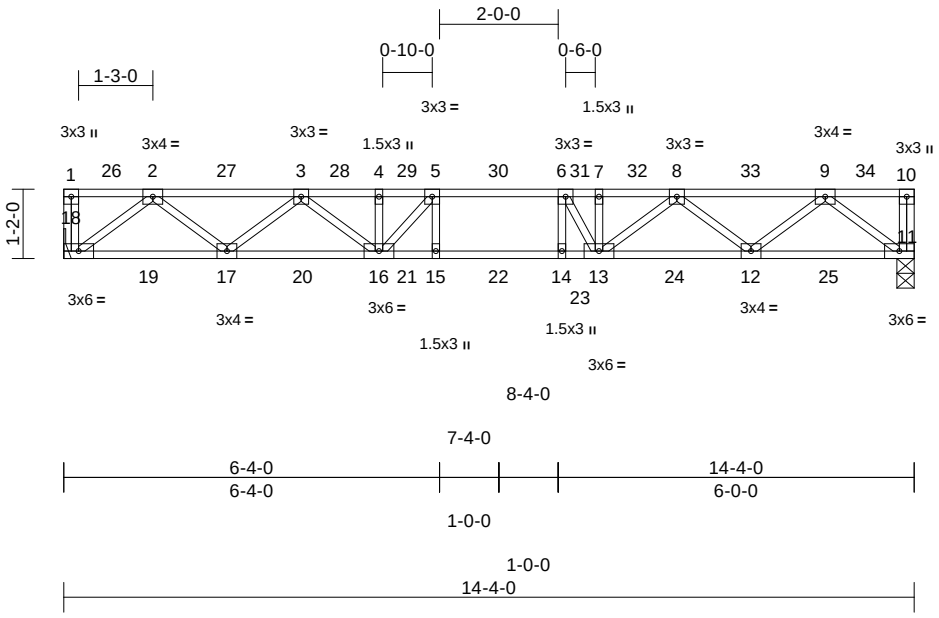
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor
	2F3A	Floor	1	1	I73751057
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 25.20 S May 13 2025 Print: 25.2.0 S May 13 2025 MiTek Industries, Inc. Tue May 27 08:56:14 Page: 1

ID:1aOu90j7fU2jva2IvwmBYdztZW5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.8

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	0.61	Vert(LL)	-0.14	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.89	Vert(CT)	-0.19	14-15	>884	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.04	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%F, 12%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) 11=0-3-8, 18= Mechanical
Max Grav 11=775 (LC 1), 18=775 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-18=-261/32, 10-11=-261/32, 1-2=0/0, 2-3=-1554/0, 3-4=-2428/0, 4-5=-2428/0, 5-6=-2578/0, 6-7=-2421/0, 7-8=-2421/0, 8-9=-1554/0, 9-10=0/0

BOT CHORD 17-18=0/955, 16-17=0/2118, 15-16=0/2578, 14-15=0/2578, 13-14=0/2578, 12-13=0/2118, 11-12=0/955

WEBS 5-15=-157/192, 6-14=-224/250, 9-11=-1198/0, 9-12=0/780, 8-12=-734/0, 8-13=-53/404, 2-18=-1198/0, 2-17=0/779, 3-17=-734/0, 3-16=-45/404, 4-16=-327/92, 7-13=-337/173, 5-16=-499/263, 6-13=-605/314

NOTES

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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

May 28,2025

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor I73751058
	2F9	Floor Supported Gable	1	1	Job Reference (optional)

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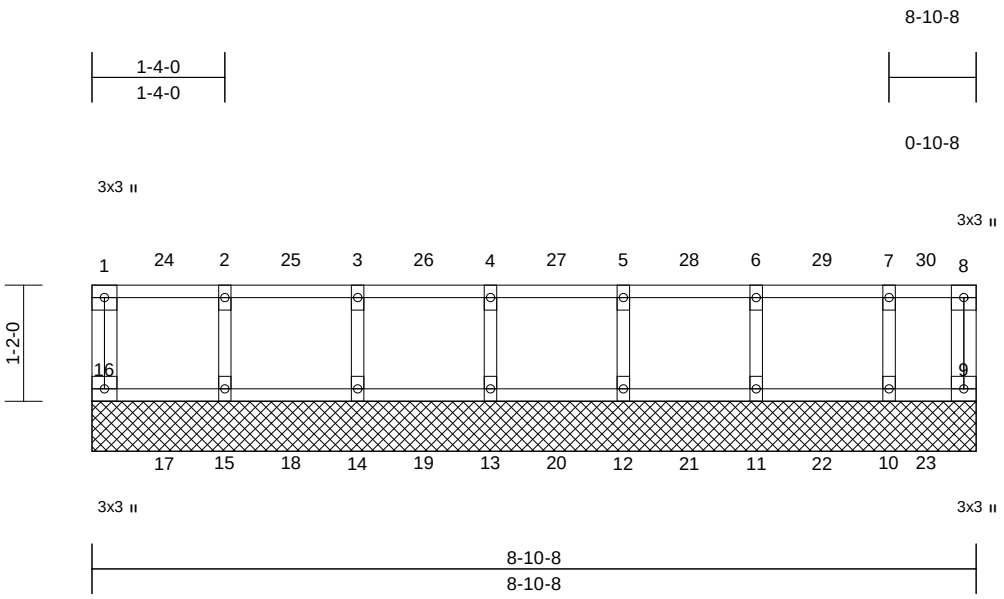
ID:O6fQYhKx7jyU5Y2b758Y3gzDyU1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:23.1

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 40 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 9=8-10-8, 10=8-10-8, 11=8-10-8, 12=8-10-8, 13=8-10-8, 14=8-10-8, 15=8-10-8, 16=8-10-8
Max Uplift 9=-43 (LC 23), 10=-13 (LC 4), 16=-13 (LC 19)
Max Grav 9=263 (LC 32), 10=284 (LC 31), 11=295 (LC 30), 12=293 (LC 29), 13=293 (LC 28), 14=293 (LC 27), 15=293 (LC 26), 16=269 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-263/20, 8-9=-258/49, 1-2=-26/5, 2-3=-26/5, 3-4=-26/5, 4-5=-26/5, 5-6=-26/5, 6-7=-26/5, 7-8=-26/5
BOT CHORD 15-16=-5/26, 14-15=-5/26, 13-14=-5/26, 12-13=-5/26, 11-12=-5/26, 10-11=-5/26, 9-10=-5/26
WEBS 2-15=-277/7, 3-14=-277/5, 4-13=-278/5, 5-12=-277/5, 6-11=-278/4, 7-10=-269/19

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) N/A
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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

May 28,2025

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	
	2F18	Floor Supported Gable	1	1	Job Reference (optional)	I73751059

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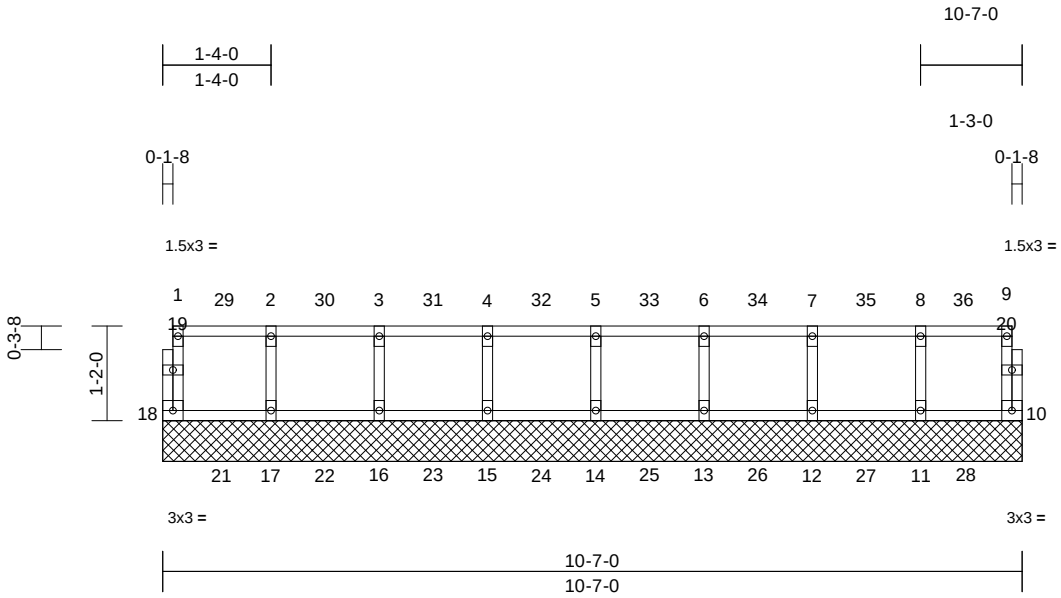

Scale = 1:28.4

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.29	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 46 lb	FT = 20%F, 12%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 6-0-0 oc bracing.

REACTIONS (size) 10=10-7-0, 11=10-7-0, 12=10-7-0, 13=10-7-0, 14=10-7-0, 15=10-7-0, 16=10-7-0, 17=10-7-0, 18=10-7-0
Max Uplift 10=-17 (LC 28), 18=-13 (LC 23)
Max Grav 10=268 (LC 38), 11=290 (LC 37), 12=294 (LC 36), 13=293 (LC 35), 14=293 (LC 34), 15=293 (LC 33), 16=293 (LC 32), 17=292 (LC 31), 18=269 (LC 30)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-259/20, 9-10=-258/24, 1-2=-23/4, 2-3=-23/4, 3-4=-23/4, 4-5=-23/4, 5-6=-23/4, 6-7=-23/4, 7-8=-23/4, 8-9=-23/4
BOT CHORD 17-18=-4/23, 16-17=-4/23, 15-16=-4/23, 14-15=-4/23, 13-14=-4/23, 12-13=-4/23, 11-12=-4/23, 10-11=-4/23
WEBS 2-17=-276/7, 3-16=-278/5, 4-15=-277/5, 5-14=-278/5, 6-13=-277/5, 7-12=-278/4, 8-11=-275/9

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 18 and 17 lb uplift at joint 10.
6) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
7) 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

May 28,2025

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Job	Truss	Truss Type	Qty	Ply	Elmhurst Rev 3-Elev.5-Floor	I73751060
	2F19	Floor	3	1	Job Reference (optional)	

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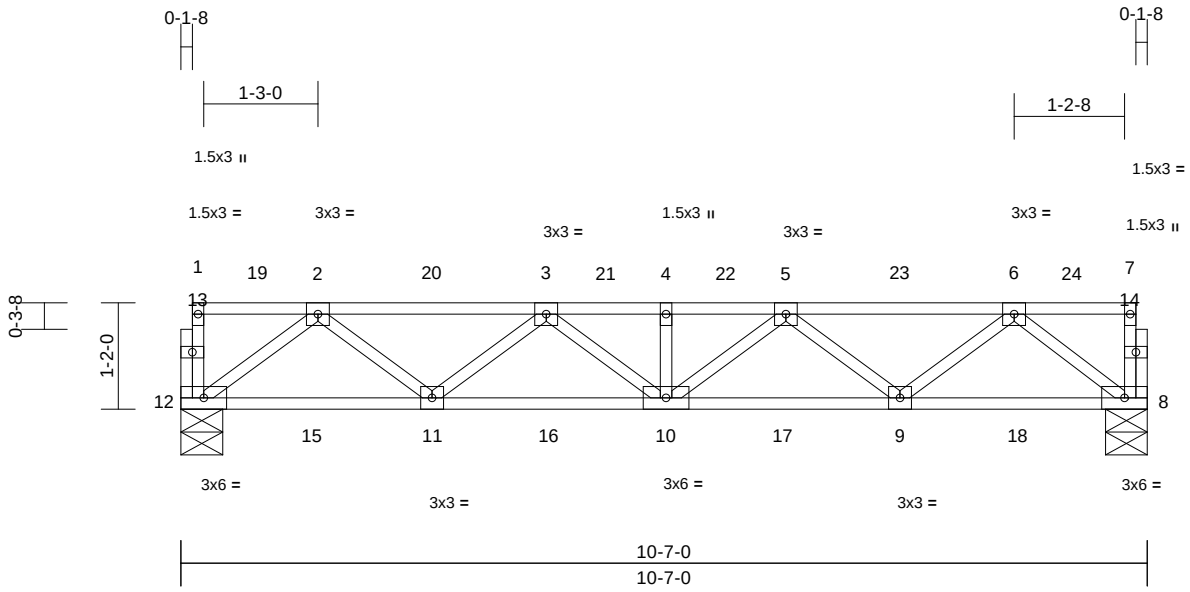


Scale = 1:25.2

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	0.59	Vert(LL)	-0.09	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.10	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%F, 12%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)

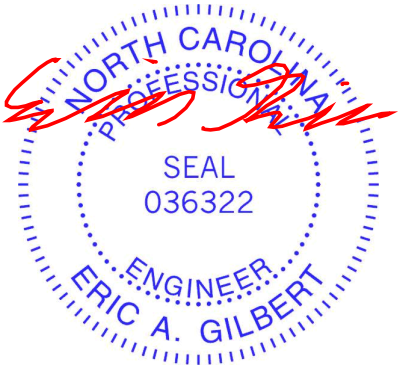
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-5-8, 12=0-5-8
Max Grav 8=562 (LC 1), 12=562 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-12=-260/36, 7-8=-260/39, 1-2=-16/2, 2-3=-1036/0, 3-4=-1405/0, 4-5=-1405/0, 5-6=-1025/0, 6-7=-16/2
BOT CHORD 11-12=0/683, 10-11=0/1354, 9-10=0/1348, 8-9=0/667
WEBS 2-12=-855/0, 2-11=0/459, 3-11=-414/4, 3-10=-168/241, 4-10=-260/59, 5-10=-164/245, 5-9=-421/0, 6-9=0/466, 6-8=-844/0

NOTES
1) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
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



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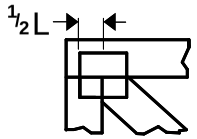
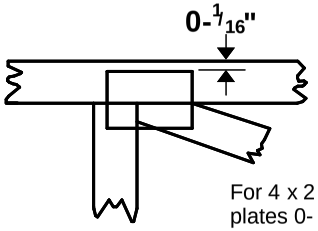
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

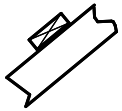
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

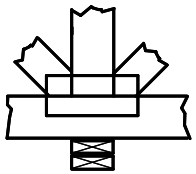
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

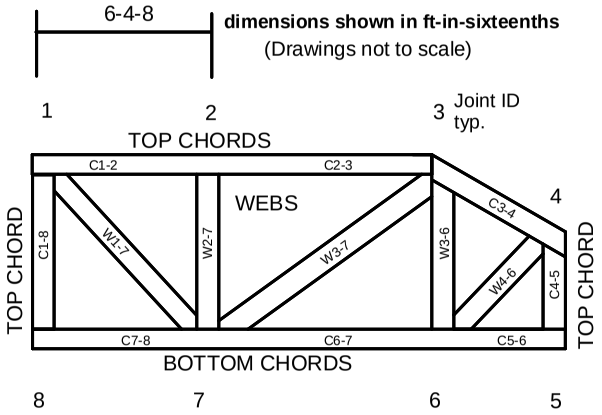


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.

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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.