

RE: 2502-2001-A - The Farm at Neill's Creek Lot 00.0047 OWF

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name: The Farm at Neill's Creek Lot 00.0047

Lot/Block: 00.00047

Subdivision: The Farm at Neills Creek

Model: Cooper 3

Address: 556 Winding Creek Dr

City: Lillington

State: NC

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

Design Code: IRC2021/TPI2014

Design Program: MiTek 20/20 8.8

Wind Code: ASCE 7-16

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Wind Speed: 115 mph

Floor Load: N/A psf

Roof Load: 50.0 psf

Exposure Category: B

Mean Roof Height (feet): 25

No.	Seal#	Truss Name	Date
1	I71489308	2FGR1	2/18/25
2	I71489309	2FGR2	2/18/25
3	I71489310	2F5	2/18/25
4	I71489311	2F7L	2/18/25
5	I71489312	2F7	2/18/25
6	I71489313	2F6	2/18/25
7	I71489314	2F3	2/18/25
8	I71489315	2F4	2/18/25
9	I71489316	2F4L	2/18/25
10	I71489317	2FGE1	2/18/25
11	I71489318	2F1	2/18/25
12	I71489319	2F2	2/18/25
13	I71489320	2FGR3	2/18/25

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.



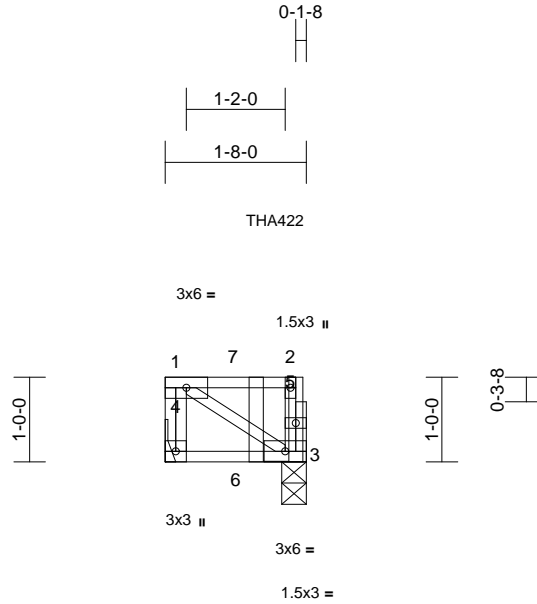
February 18, 2025

Job	Truss	Truss Type	Qty	Ply	The Farm at Neill's Creek Lot 00.0047 OWF
2502-2001-A	2FGR1	Floor Girder	1	1	I71489308
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.02	3-4	>916	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.02	3-4	>880	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 11 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)

Vert: 3-4=-8, 1-2=-80
 Concentrated Loads (lb)
 Vert: 2=-457 (B)

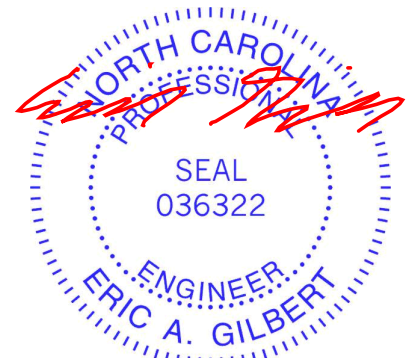
BRACING
 TOP CHORD Structural wood sheathing directly applied or 1-8-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=0-3-8, 4= Mechanical
 Max Grav 3=494 (LC 1), 4=276 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-4=-270/0, 2-3=-512/0, 1-2=-37/0
 BOT CHORD 3-4=0/0
 WEBS 1-3=0/43

- NOTES**
- Bearings are assumed to be: , Joint 3 SP No.2 .
 - Refer to girder(s) for truss to truss connections.
 - 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.
 - 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.
 - CAUTION, Do not erect truss backwards.
 - Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent at 1-3-11 from the left end to connect truss (es) to back face of top chord.
 - Fill all nail holes where hanger is in contact with lumber.
 - 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)



February 18, 2025

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ENGINEERING BY
TRENCO
 A MiTek Affiliate

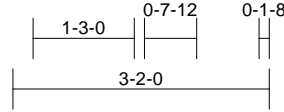
818 Soundside Road
 Edenton, NC 27932

Job 2502-2001-A	Truss 2FGR2	Truss Type Floor Girder	Qty 1	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489309
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Structural, LLC, Thurmont, MD - 21788,

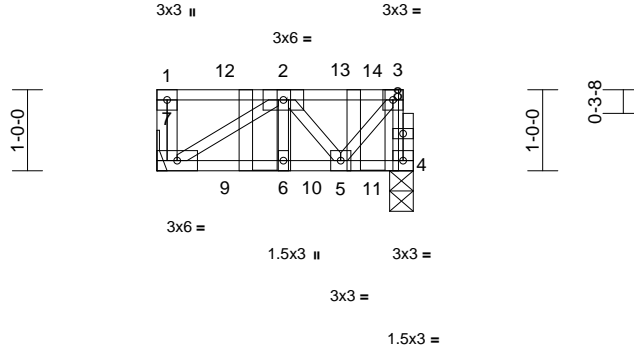
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Page: 1



THA422

THA422



Scale = 1:28.5

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.01	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.44	Vert(CT)	-0.01	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.12	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 20 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)

- Dead + Floor Live (balanced): Lumber Increase=1.00,
 Plate Increase=1.00
 Uniform Loads (lb/ft)
 Vert: 4-7=-8, 1-3=-80
 Concentrated Loads (lb)
 Vert: 2=-164 (F), 14=-178 (F)

BRACING

TOP CHORD Structural wood sheathing directly applied or
 3-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
 bracing.

REACTIONS (size) 4=0-3-8, 7= Mechanical
 Max Grav 4=360 (LC 14), 7=321 (LC 3)

FORCES (lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-7=-259/16, 3-4=-356/0, 1-2=0/0, 2-3=-212/0
 BOT CHORD 6-7=0/313, 5-6=0/313, 4-5=0/25
 WEBS 2-7=-366/0, 2-6=-22/253, 2-5=-240/19,
 3-5=0/305

NOTES

- Bearings are assumed to be: , Joint 4 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- 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.
- 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.
- CAUTION, Do not erect truss backwards.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 1-4-0 oc max. starting at 1-4-0 from the left end to 2-8-0 to connect truss(es) to front face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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



February 18, 2025

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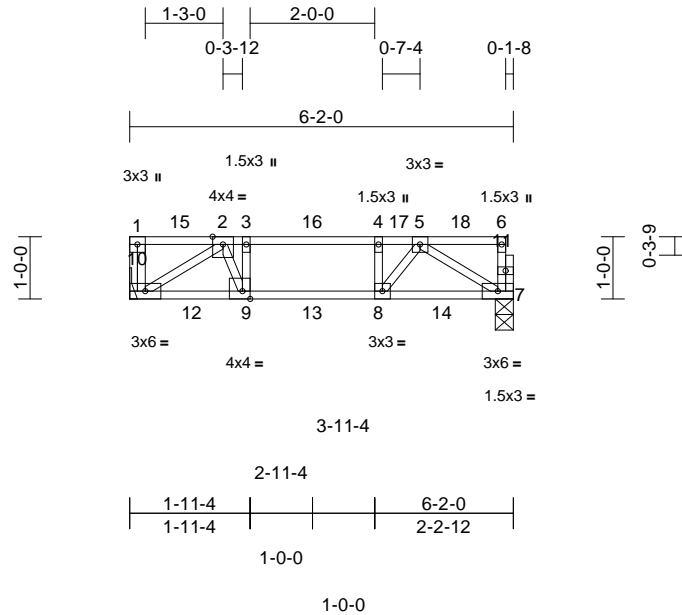
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neill's Creek Lot 00.0047 OWF
2502-2001-A	2F5	Floor	2	1	I71489310
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:37

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

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	0.42	Vert(LL)	-0.06	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.07	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 32 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) 7=0-3-8, 10= Mechanical
 Max Grav 7=311 (LC 24), 10=312 (LC 7)

- FORCES** (lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-10=-261/0, 6-7=-261/4, 1-2=0/0, 2-3=-429/0, 3-4=-429/0, 4-5=-429/0, 5-6=-19/0
- BOT CHORD 9-10=0/357, 8-9=0/429, 7-8=0/361
- WEBS 3-9=-340/178, 4-8=-227/140, 2-10=-423/0, 2-9=-195/388, 5-7=-428/0, 5-8=-130/300

NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: , Joint 7 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- 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.
- 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



February 18, 2025

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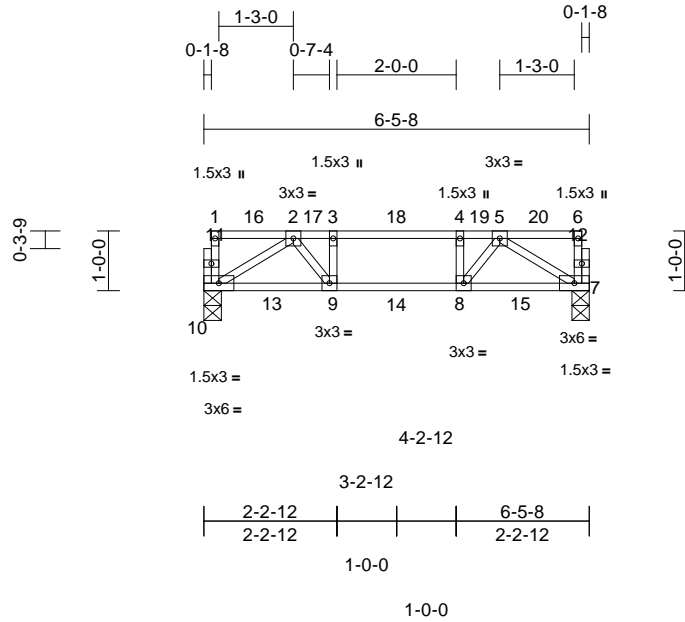
818 Soundside Road
 Edenton, NC 27932

Job 2502-2001-A	Truss 2F7L	Truss Type Floor	Qty 1	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489311
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Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:38.6

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	0.68	Vert(LL)	-0.06	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.07	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 32 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) 7=0-3-8, 10=0-3-8
Max Grav 7=588 (LC 26), 10=588 (LC 23)

- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-10=-314/0, 6-7=-314/0, 1-2=-22/0, 2-3=-924/0, 3-4=-924/0, 4-5=-924/0, 5-6=-22/0
 - BOT CHORD 9-10=0/719, 8-9=0/924, 7-8=0/719
 - WEBS 3-9=-397/0, 4-8=-397/0, 2-10=-848/0, 2-9=0/516, 5-7=-848/0, 5-8=0/516

- NOTES**
- Unbalanced floor live loads have been considered for this design.
 - All bearings are assumed to be SP No.2 .
 - 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.
 - 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.
 - 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

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)

Vert: 7-10=-7, 1-6=-157



February 18, 2025

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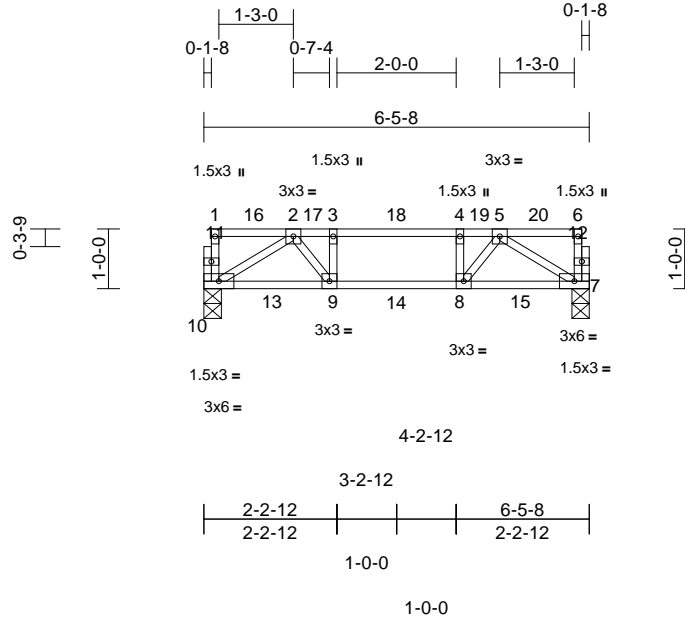
818 Soundside Road
Edenton, NC 27932

Job 2502-2001-A	Truss 2F7	Truss Type Floor	Qty 4	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	171489312
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Structural, LLC, Thurmont, MD - 21788,

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Scale = 1:38.6

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	0.44	Vert(LL)	-0.06	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.07	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 32 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) 7=0-3-8, 10=0-3-8
 Max Grav 7=314 (LC 26), 10=314 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-261/3, 6-7=-261/3, 1-2=-19/0,
 2-3=-460/0, 3-4=-460/0, 4-5=-460/0,
 5-6=-19/0

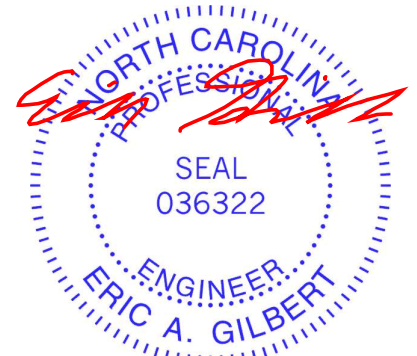
BOT CHORD 9-10=0/370, 8-9=0/460, 7-8=0/370

WEBS 3-9=-244/128, 4-8=-244/128, 2-10=-438/0,
 2-9=-119/325, 5-7=-438/0, 5-8=-119/325

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



February 18, 2025

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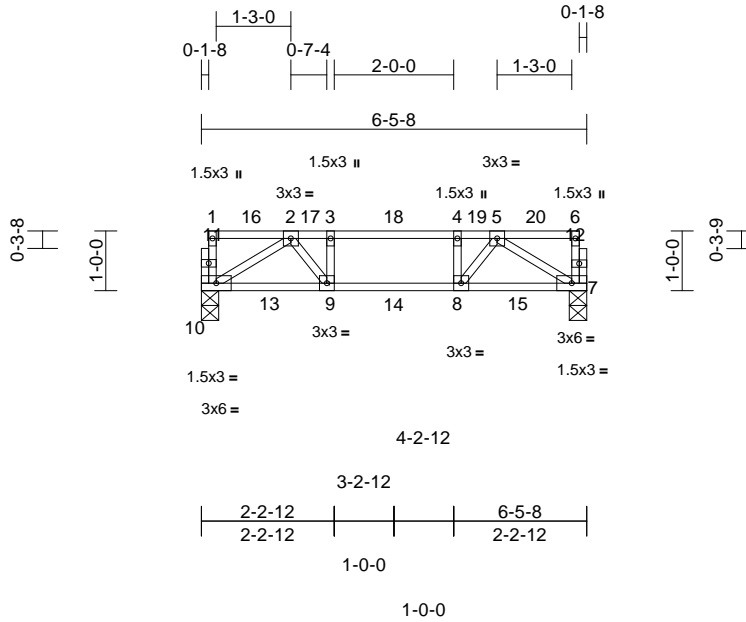
818 Soundside Road
 Edenton, NC 27932

Job 2502-2001-A	Truss 2F6	Truss Type Floor	Qty 2	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489313
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Structural, LLC, Thurmont, MD - 21788,

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Page: 1



Scale = 1:38.6

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	0.44	Vert(LL)	-0.06	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.68	Vert(CT)	-0.07	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 32 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) 7=0-3-8, 10=0-3-8
 Max Grav 7=314 (LC 26), 10=314 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-261/3, 6-7=-261/3, 1-2=-19/0,
 2-3=-460/0, 3-4=-460/0, 4-5=-460/0,
 5-6=-19/0

BOT CHORD 9-10=0/370, 8-9=0/460, 7-8=0/370

WEBS 3-9=-244/128, 4-8=-244/128, 2-10=-438/0,
 2-9=-119/325, 5-7=-438/0, 5-8=-119/325

NOTES

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



February 18, 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/TPH 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)



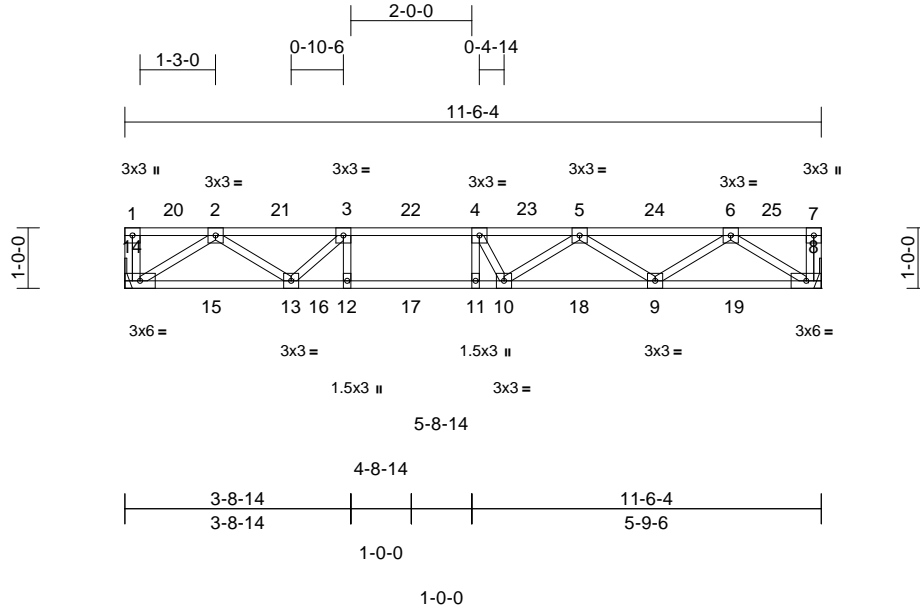
818 Soundside Road
 Edenton, NC 27932

Job 2502-2001-A	Truss 2F3	Truss Type Floor	Qty 1	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489314
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:05
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Page: 1



Scale = 1:38.1

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.59	Vert(LL)	-0.10	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.14	10-11	>974	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							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)

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= Mechanical, 14= Mechanical
Max Grav 8=496 (LC 1), 14=496 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-263/32, 7-8=-260/33, 1-2=0/0,
2-3=-1130/0, 3-4=-1507/0, 4-5=-1554/0,
5-6=-1109/0, 6-7=0/0

BOT CHORD 13-14=0/687, 12-13=0/1507, 11-12=0/1507,
10-11=0/1507, 9-10=0/1478, 8-9=0/712

WEBS 3-12=-112/258, 4-11=-412/169, 2-14=-815/0,
2-13=0/540, 3-13=-538/106, 6-8=-843/0,
6-9=0/490, 5-9=-450/8, 5-10=-163/257,
4-10=-223/519

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



February 18, 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/TPI 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)



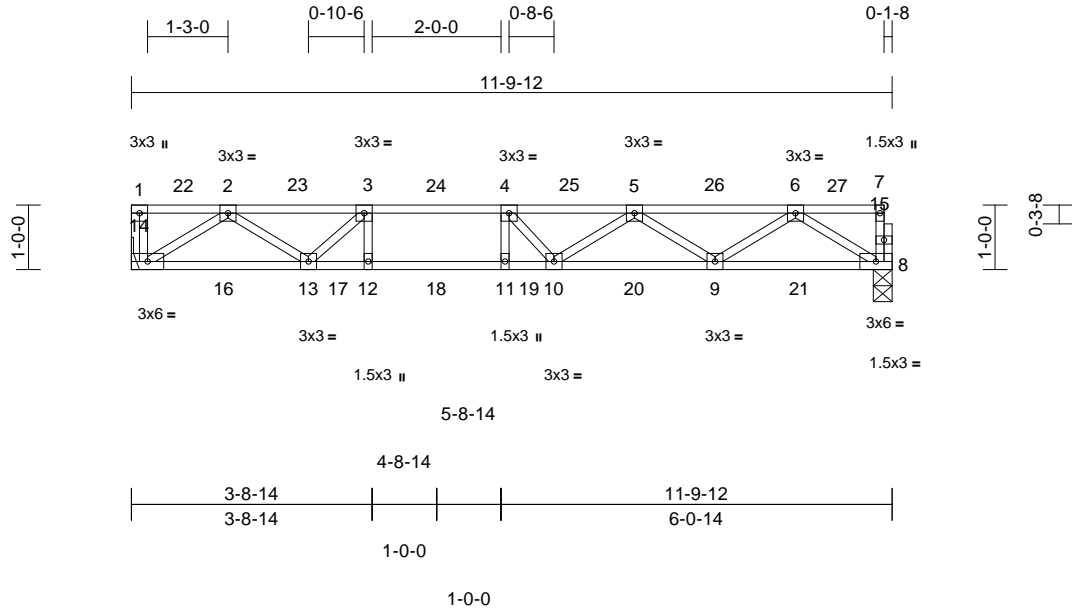
818 Soundside Road
Edenton, NC 27932

Job 2502-2001-A	Truss 2F4	Truss Type Floor	Qty 2	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489315
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:05
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Page: 1



Scale = 1:35.8

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	0.65	Vert(LL)	-0.12	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.16	10-11	>860	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 58 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: 11-12.

REACTIONS (size) 8=0-3-8, 14= Mechanical
Max Grav 8=504 (LC 1), 14=509 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-263/32, 7-8=-260/37, 1-2=0/0,
2-3=-1170/0, 3-4=-1578/0, 4-5=-1624/0,
5-6=-1148/0, 6-7=-19/3

BOT CHORD 13-14=0/704, 12-13=0/1578, 11-12=0/1578,
10-11=0/1578, 9-10=0/1542, 8-9=0/728

WEBS 3-12=-105/269, 4-11=-272/135, 2-14=-835/0,
2-13=0/568, 3-13=-581/93, 6-8=-861/0,
6-9=0/513, 5-9=-480/0, 5-10=-143/247,
4-10=-203/411

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: , Joint 8 SP No.2 .
- 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



February 18, 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/TPH 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

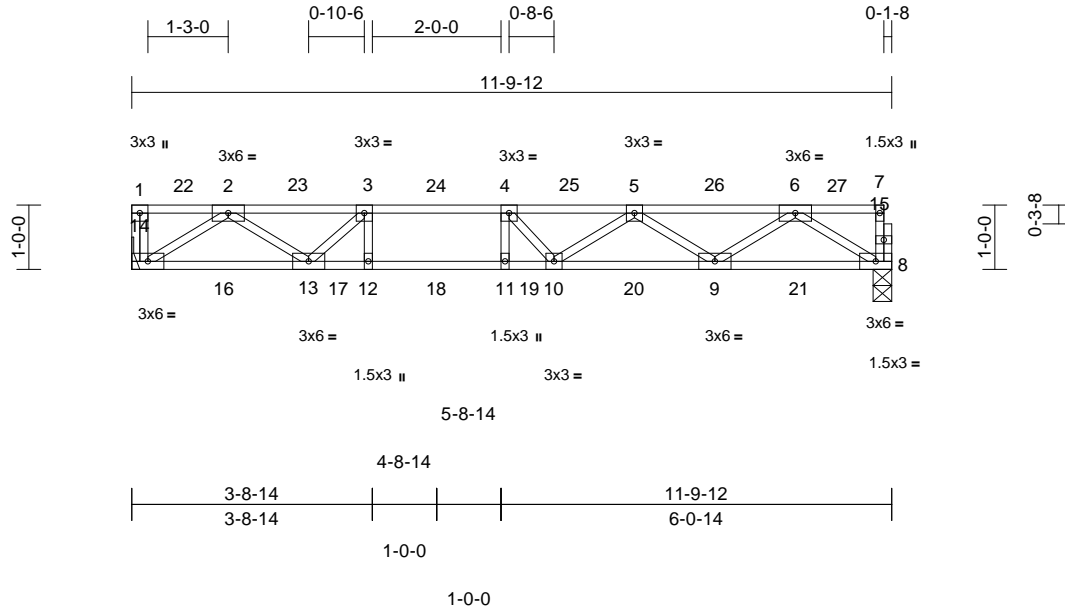
818 Soundside Road
Edenton, NC 27932

Job 2502-2001-A	Truss 2F4L	Truss Type Floor	Qty 1	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489316
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:06
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Page: 1



Scale = 1:35.8

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)	-0.09	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.25	10-11	>553	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.54	Horz(CT)	0.04	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 58 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)

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: 8-14=-8, 1-7=-170

BRACING

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

REACTIONS (size) 8=0-3-8, 14= Mechanical
 Max Grav 8=1019 (LC 1), 14=1029 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-14=-315/0, 7-8=-295/2, 1-2=0/0,
 2-3=-2357/0, 3-4=-3192/0, 4-5=-3279/0,
 5-6=-2312/0, 6-7=-21/0
 BOT CHORD 13-14=0/1432, 12-13=0/3192, 11-12=0/3192,
 10-11=0/3192, 9-10=0/3124, 8-9=0/1481
 WEBS 3-12=0/405, 4-11=-428/0, 2-14=-1698/0,
 2-13=0/1129, 3-13=-1166/0, 6-8=-1750/0,
 6-9=0/1014, 5-9=-992/0, 5-10=-53/336,
 4-10=-138/474

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Bearings are assumed to be: , Joint 8 SP SS .
- 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.



February 18, 2025

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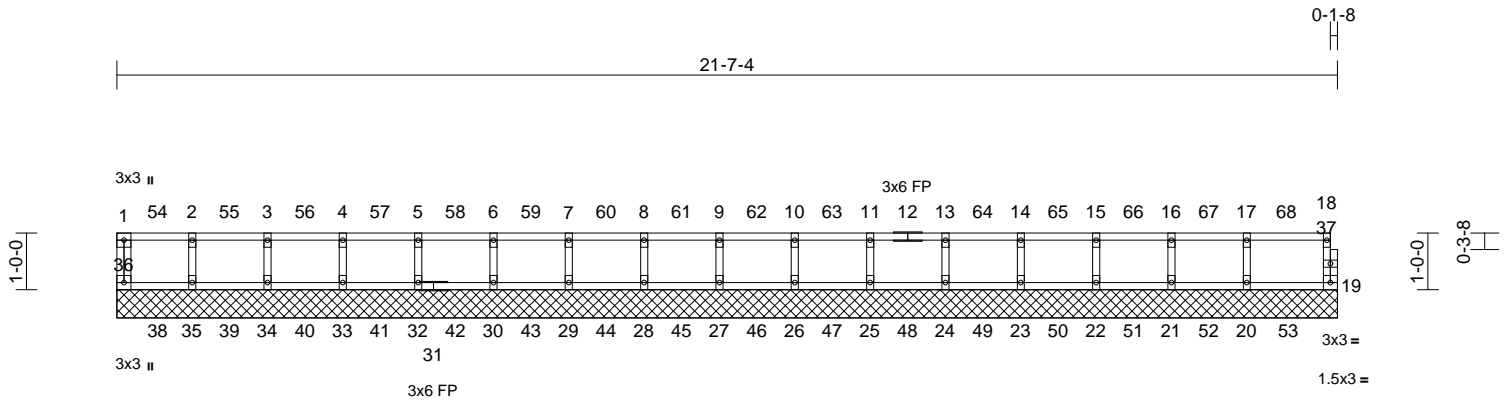
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neill's Creek Lot 00.0047 OWF
2502-2001-A	2FGE1	Floor Supported Gable	1	1	Job Reference (optional) I71489317

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:07
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Page: 1



Scale = 1:40.8

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	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	19	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 85 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)

BOT CHORD	
	35-36=-4/33, 34-35=-4/33, 33-34=-4/33, 32-33=-4/33, 30-32=-4/33, 29-30=-4/33, 28-29=-4/33, 27-28=-4/33, 26-27=-4/33, 25-26=-4/33, 24-25=-4/33, 23-24=-4/33, 22-23=-4/33, 21-22=-4/33, 20-21=-4/33, 19-20=-4/33
WEBS	
	2-35=-271/13, 3-34=-273/10, 4-33=-272/10, 5-32=-273/10, 6-30=-272/10, 7-29=-272/10, 8-28=-272/10, 9-27=-272/10, 10-26=-272/10, 11-25=-272/10, 13-24=-272/10, 14-23=-272/10, 15-22=-273/10, 16-21=-272/15, 17-20=-275/7

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=21-7-4, 20=21-7-4, 21=21-7-4, 22=21-7-4, 23=21-7-4, 24=21-7-4, 25=21-7-4, 26=21-7-4, 27=21-7-4, 28=21-7-4, 29=21-7-4, 30=21-7-4, 32=21-7-4, 33=21-7-4, 34=21-7-4, 35=21-7-4, 36=21-7-4
Max Uplift	19=5 (LC 50), 21=8 (LC 51), 35=3 (LC 51), 36=13 (LC 37)
Max Grav	19=269 (LC 68), 20=288 (LC 67), 21=284 (LC 66), 22=285 (LC 65), 23=285 (LC 64), 24=285 (LC 63), 25=285 (LC 62), 26=285 (LC 61), 27=285 (LC 60), 28=285 (LC 59), 29=285 (LC 58), 30=285 (LC 57), 32=285 (LC 56), 33=285 (LC 55), 34=285 (LC 54), 35=283 (LC 53), 36=267 (LC 52)

- 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) All bearings are assumed to be SP No.2 .
 - 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 36, 19, 35, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, and 21. This connection is for uplift only and does not consider lateral forces.
 - 7) 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.
 - 8) 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.
 - 9) CAUTION, Do not erect truss backwards.

FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-36=-262/21, 18-19=-260/12, 1-2=-33/4, 2-3=-33/4, 3-4=-33/4, 4-5=-33/4, 5-6=-33/4, 6-7=-33/4, 7-8=-33/4, 8-9=-33/4, 9-10=-33/4, 10-11=-33/4, 11-13=-33/4, 13-14=-33/4, 14-15=-33/4, 15-16=-33/4, 16-17=-33/4, 17-18=-33/4

LOAD CASE(S) Standard



February 18, 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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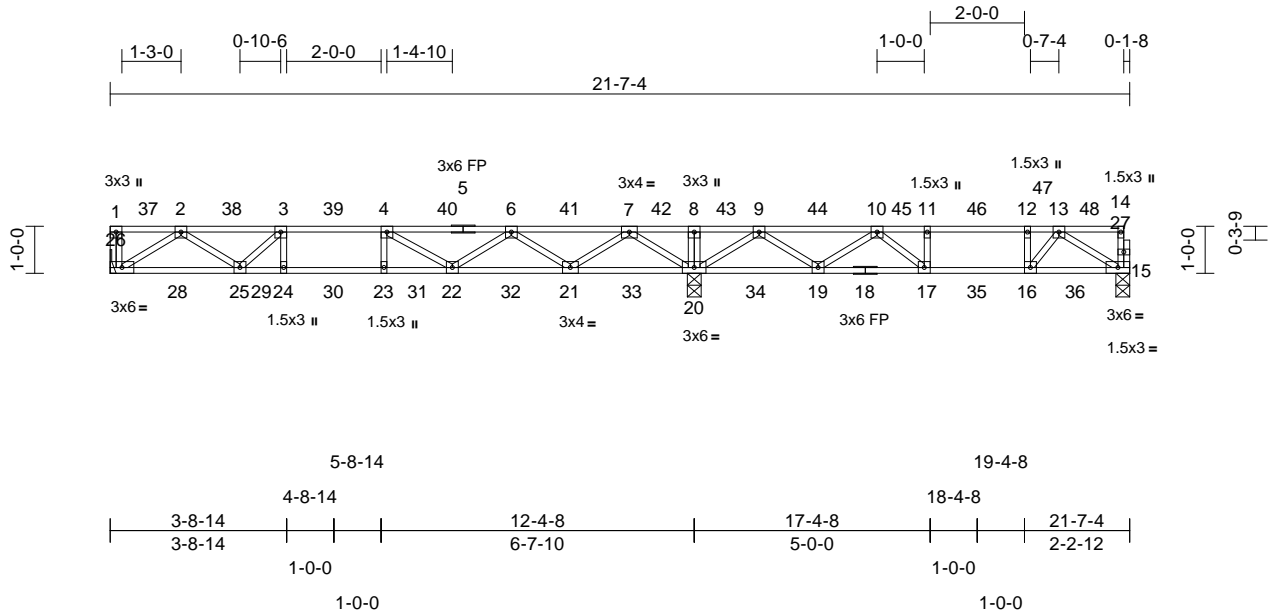
818 Soundside Road
Edenton, NC 27932

Job 2502-2001-A	Truss 2F1	Truss Type Floor	Qty 3	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489318
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:03
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Page: 1



Scale = 1:48.8

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	0.78	Vert(LL)	-0.11	22-23	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.76	Vert(CT)	-0.13	22-23	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	20	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-S								
											Weight: 104 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) 15=0-3-8, 20=0-3-8, 26= Mechanical
Max Grav 15=322 (LC 60), 20=1188 (LC 1), 26=463 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-26=-261/34, 14-15=-263/0, 1-2=0/0, 2-3=-1027/0, 3-4=-1349/0, 4-6=-1180/11, 6-7=-407/340, 7-8=0/1470, 8-9=0/1470, 9-10=-269/536, 10-11=-625/116, 11-12=-625/116, 12-13=-625/116, 13-14=-19/0
BOT CHORD 25-26=0/640, 24-25=0/1349, 23-24=0/1349, 22-23=0/1349, 21-22=-149/962, 20-21=-600/50, 19-20=-750/0, 17-19=-321/571, 16-17=-116/625, 15-16=-27/422
WEBS 3-24=-131/230, 4-23=-110/152, 8-20=-271/49, 11-17=-199/100, 12-16=-282/96, 2-26=-759/0, 2-25=0/472, 3-25=-442/153, 7-20=-1090/0, 7-21=0/751, 6-21=-725/0, 6-22=-2/395, 4-22=-401/192, 9-20=-911/0, 9-19=0/555, 10-19=-533/0, 10-17=-160/407, 13-15=-496/33, 13-16=-146/386

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 (=) MT20 unless otherwise indicated.

- Bearings are assumed to be: , Joint 20 SP No.2 , Joint 15 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- 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.
- 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



February 18, 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/TPI 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.sbccomponents.com)



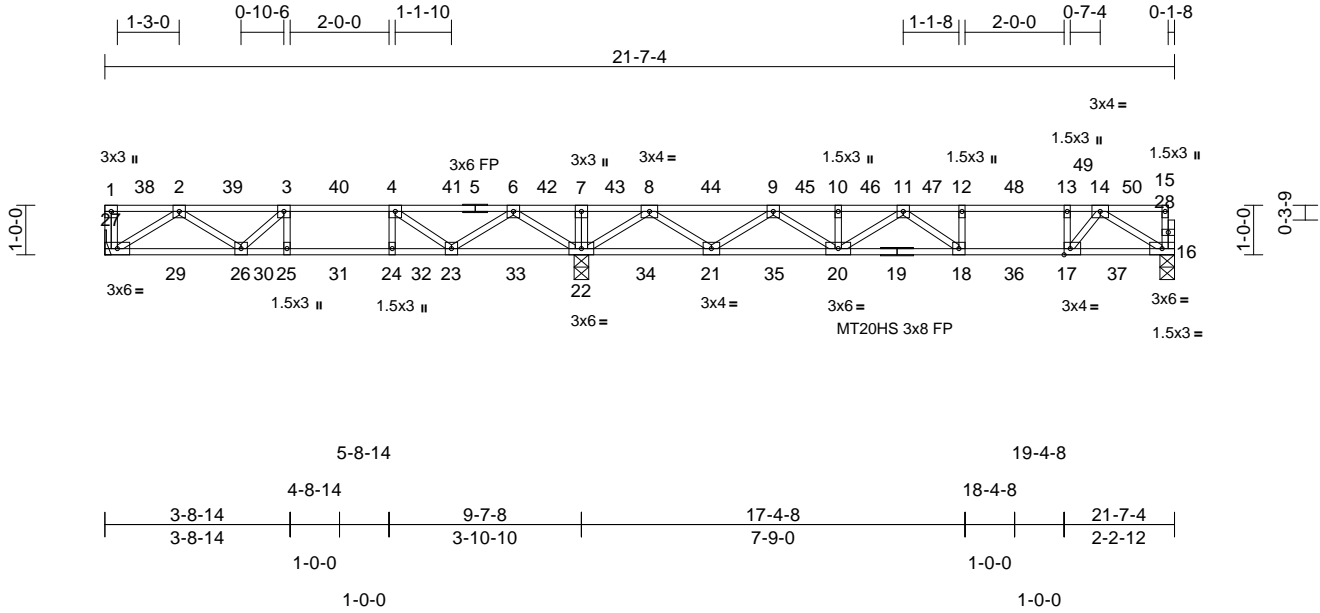
818 Soundside Road
Edenton, NC 27932

Job 2502-2001-A	Truss 2F2	Truss Type Floor	Qty 1	Ply 1	The Farm at Neill's Creek Lot 00.0047 OWF Job Reference (optional)	I71489319
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Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:04
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Page: 1



Scale = 1:46.5
Plate Offsets (X, Y): [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.17	18-20	>831	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.22	18-20	>641	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.01	16	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 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) 16=0-3-8, 22=0-3-8, 27= Mechanical
Max Grav 16=431 (LC 7), 22=1173 (LC 1), 27=361 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-257/38, 15-16=-266/0, 1-2=0/0, 2-3=-709/87, 3-4=-807/265, 4-6=-428/593, 6-7=0/1448, 7-8=0/1448, 8-9=-394/280, 9-10=-1102/0, 10-11=-1102/0, 11-12=-1036/0, 12-13=-1036/0, 13-14=-1036/0, 14-15=-19/0
BOT CHORD 26-27=0/501, 25-26=-265/807, 24-25=-265/807, 23-24=-265/807, 22-23=-857/71, 21-22=-552/65, 20-21=-98/812, 18-20=0/1223, 17-18=0/1036, 16-17=0/622
WEBS 3-25=-200/144, 4-24=-43/233, 7-22=-275/51, 12-18=-101/184, 13-17=-434/0, 2-27=-594/0, 2-26=-113/349, 3-26=-217/283, 6-22=-875/0, 6-23=0/604, 4-23=-694/0, 8-22=-1063/0, 8-21=0/704, 9-21=-692/0, 9-20=-52/444, 10-20=-240/70, 11-20=-321/127, 11-18=-367/127, 14-16=-732/0, 14-17=0/683

- 4) Bearings are assumed to be: , Joint 22 SP No.2 , Joint 16 SP No.2 .
 - 5) Refer to girder(s) for truss to truss connections.
 - 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



February 18, 2025

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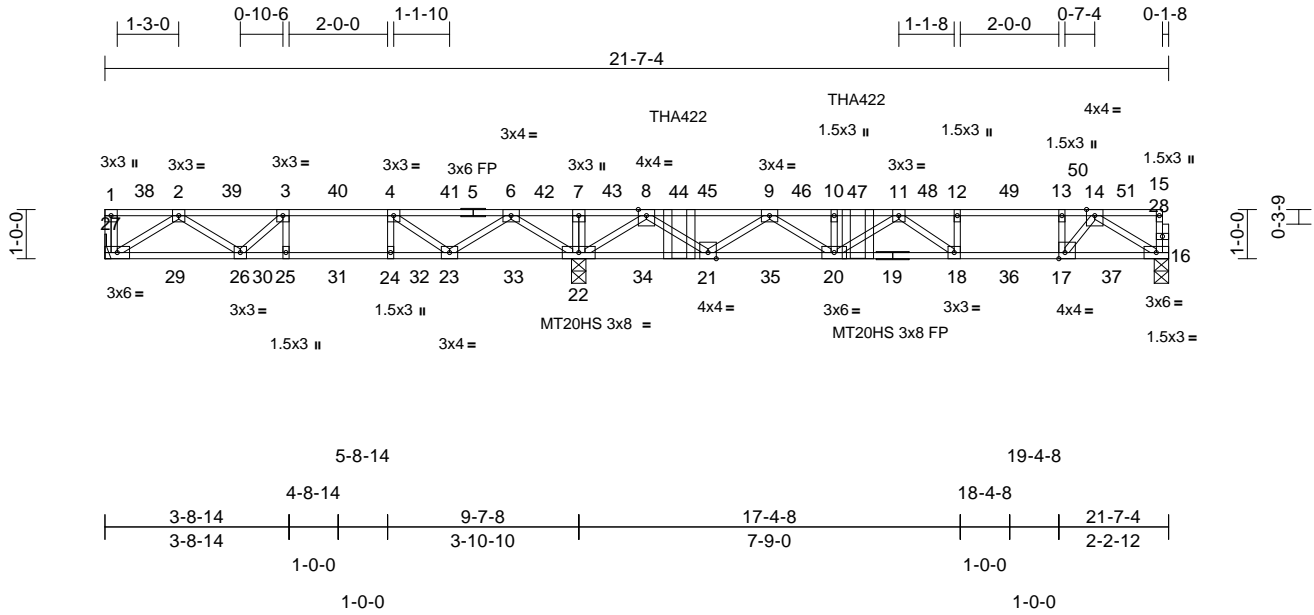
TRENCO
ENGINEERING BY
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	The Farm at Neill's Creek Lot 00.0047 OWF
2502-2001-A	2FGR3	Floor Girder	1	1	I71489320
					Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788,

Run: 8.83 S Feb 1 2025 Print: 8.830 S Feb 1 2025 MiTek Industries, Inc. Tue Feb 18 12:12:08
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Page: 1



Scale = 1:46.8
Plate Offsets (X, Y): [17:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.69	Vert(LL)	-0.18	18-20	>794	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.24	18-20	>602	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.46	Horz(CT)	0.01	16	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) *Except* 5-15:2x4 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 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 18-20,17-18,16-17.

REACTIONS (size) 16=0-3-8, 22=0-3-8, 27= Mechanical
Max Uplift 27=18 (LC 4)
Max Grav 16=520 (LC 7), 22=1403 (LC 9), 27=351 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-27=-257/37, 15-16=-268/0, 1-2=0/0, 2-3=-680/159, 3-4=-756/395, 4-6=-351/789, 6-7=0/1851, 7-8=0/1851, 8-9=-436/264, 9-10=-1679/0, 10-11=-1679/0, 11-12=-1351/0, 12-13=-1351/0, 13-14=-1351/0, 14-15=-19/0
BOT CHORD 26-27=-30/487, 25-26=-395/756, 24-25=-395/756, 22-23=-1108/0, 21-22=-622/50, 20-21=-24/1174, 18-20=0/1782, 17-18=0/1351, 16-17=0/777
WEBS 3-25=-274/123, 4-24=-27/258, 7-22=-274/59, 12-18=-67/220, 13-17=-594/0, 2-27=-577/35, 2-26=-157/335, 3-26=-183/325, 6-22=-933/0, 6-23=0/669, 4-23=-816/0, 8-22=-1457/0, 8-21=0/957, 9-21=-957/0, 9-20=0/651, 10-20=-275/33, 11-20=-312/134, 11-18=-536/52, 14-16=-915/0, 14-17=0/947

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- Bearings are assumed to be: , Joint 22 SP SS , Joint 16 SP SS .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 27.
- 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.
- 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.
- CAUTION, Do not erect truss backwards.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 3-7-8 oc max. starting at 11-8-0 from the left end to 15-3-8 to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

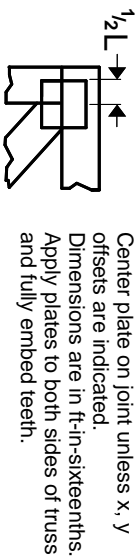
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 16-27=-8, 1-15=-80
Concentrated Loads (lb)
Vert: 44=-24 (B), 47=-170 (B)



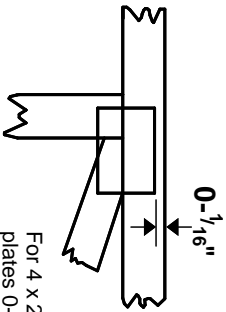
February 18, 2025

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

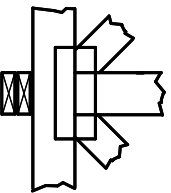
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

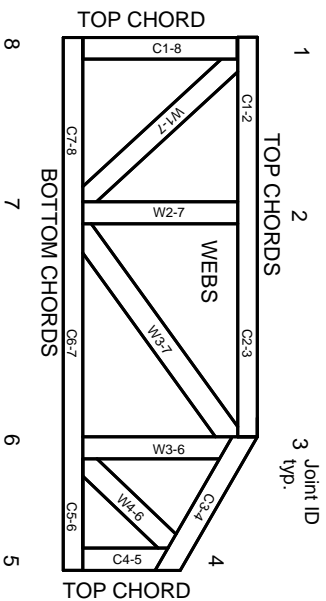


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: 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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.