

Trenco

818 Soundside Rd Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name:

Lot/Block:

RE:

Model:

Address: City:

State:

Subdivision:

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 8.8

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

Floor Load: N/A psf

Exposure Category: B

| No. | Seal# | Truss Name | |
|----------------------------|-------------------------------------|-------------------------|----------------------------|
| 1 2 3 | 171190822 171190823 | 2FGR5 2FGR2 2FGR4 | 2/5/25 2/5/25 2/5/25 |
| 2 3 4 5 6 7 | 171190824 171190825 | 2F1A 2F1C | 2/5/25 2/5/25 |
| 6 7 8 9 | 171190826 171190827 171190828 | 2F1 2F1B 2FGR1 | 2/5/25 2/5/25 2/5/25 |
| 10 | I71190829 | 2F2GE 2F2 | 2/5/25 2/5/25 |
| 11 12 13 | 171190831 171190832 171190833 | 2F4A 2F4 2FGR3 | 2/5/25 2/5/25 2/5/25 |
| 14 | 171190834 171190835 | 2F3GE 2F3A | 2/5/25 2/5/25 |
| 16 | I71190836 | 2F3 | 2/5/25 |

The truss drawing(s) referenced above have been prepared by

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

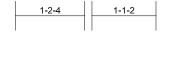
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 to the building designer should verify applicability. incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

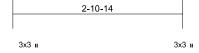


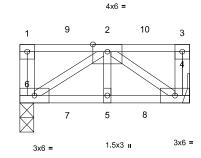
February 5,2025

| Job | Truss | Truss Type | Qty | Ply | | |
|-----|-------|--------------|-----|-----|--------------------------|-----------|
| | 2FGR2 | Floor Girder | 1 | 1 | Job Reference (optional) | I71190822 |

Run: 8.82 E Sep 25 2024 Print: 8.820 E Sep 25 2024 MiTek Industries, Inc. Wed Feb 05 16:59:58









Scale = 1:19

| Loading | (psf) | Spacing | 1-4-0 | CSI | | DEFL | in | (loc) | I/defl | L/d | PLATES | GRIP |
|---------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|-----------------|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.39 | Vert(LL) | -0.01 | 5-6 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.20 | Vert(CT) | -0.01 | 5-6 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.10 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2021/TPI2014 | Matrix-P | | | | | | | Weight: 18 lb | FT = 20%F, 12%E |

Vert: 2=-172 (F)

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

BRACING

LUMBER

TOP CHORD Structural wood sheathing directly applied or

2-10-14 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc **BOT CHORD**

REACTIONS (size) 4= Mechanical, 6=0-2-14

Max Grav 4=306 (LC 12), 6=304 (LC 3)

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

TOP CHORD 1-6=-260/13, 3-4=-260/18 2-6=-293/0, 2-4=-300/0, 2-5=0/257

WEBS NOTES

- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to
- bearing plate at joint(s) 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.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 172 lb down at 1-5-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 4-6=-7, 1-3=-67 Concentrated Loads (lb)



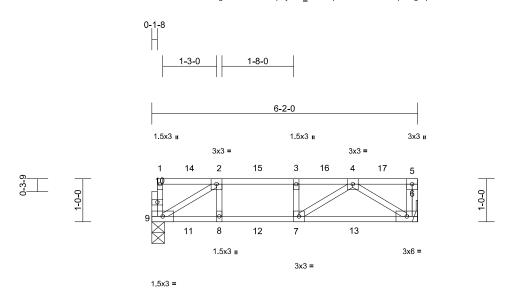
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 property 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 ANSUFINI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org)



| Job | Truss | Truss Type | Qty | Ply | |
|-----|-------|------------|-----|-----|--------------------------|
| | 2F1A | Floor | 1 | 1 | Job Reference (optional) |

Run: 8.83~S Jan 17 2025 Print: 8.830~S Jan 17 2025 MiTek Industries, Inc. Tue Feb 04 08:37:03 Page: 1



Scale = 1:21.6

| 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 | 0.40 | Vert(LL) | -0.13 | 6-7 | >556 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.90 | Vert(CT) | -0.14 | 6-7 | >510 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.09 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2021/TPI2014 | Matrix-S | | | | | | | Weight: 31 lb | FT = 20%F, 12%E |

3x6 =

LUMBER

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

BRACING

BOT CHORD

TOP CHORD

BOT CHORD

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

Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 6= Mechanical, 9=0-3-8

Max Grav 6=312 (LC 12), 9=311 (LC 21) **FORCES** (lb) - Maximum Compression/Maximum

Tension

1-9=-256/39, 5-6=-259/20, 1-2=-18/3, 2-3=-413/0, 3-4=-413/0, 4-5=0/0 8-9=0/413, 7-8=0/413, 6-7=0/366 4-6=-434/0, 2-9=-486/0, 4-7=-139/242,

2-8=-27/226, 3-7=-140/118

WEBS NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 9 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" \times 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



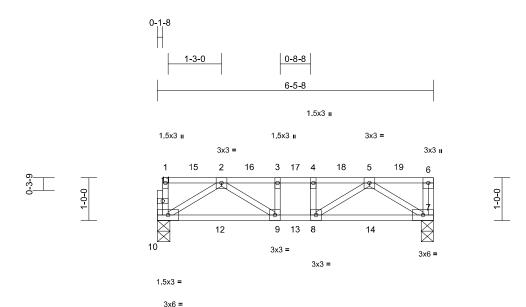
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| Job | Truss | Truss Type | Qty | Ply | |
|-----|-------|------------|-----|-----|--------------------------|
| | 2F1 | Floor | 6 | 1 | Job Reference (optional) |

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Tue Feb 04 08:37:02



Scale = 1:21.6

| | | | | | | | • | | | | | |
|---------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|-----------------|
| 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 | 0.34 | Vert(LL) | -0.10 | 9-10 | >777 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | ВС | 0.81 | Vert(CT) | -0.10 | 9-10 | >731 | 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: 34 lb | FT = 20%F, 12%E |

LUMBER

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

BRACING

BOT CHORD

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc

bracing. REACTIONS

(size) 7=0-3-8, 10=0-3-8

Max Grav 7=315 (LC 26), 10=314 (LC 23)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD 1-10=-260/16, 6-7=-260/14, 1-2=-19/1,

2-3=-512/0, 3-4=-512/0, 4-5=-512/0, 5-6=0/0 9-10=0/378, 8-9=0/512, 7-8=0/379 BOT CHORD **WEBS** 5-7=-449/0, 2-10=-448/0, 5-8=-82/302

2-9=-82/303, 3-9=-183/159, 4-8=-183/159

NOTES

- 1) 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.
- 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

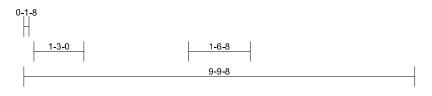


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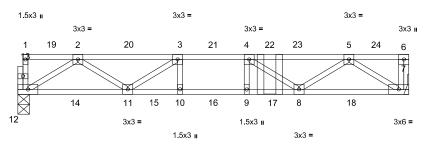
| Job | Truss | Truss Type | Qty | Ply | |
|-----|-------|--------------|-----|-----|--------------------------|
| | 2FGR1 | Floor Girder | 1 | 1 | Job Reference (optional) |

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Tue Feb 04 08:37:06 $ID: Pf_j4b? MCId1OS0sW? gL6wzqdVu-RfC? PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC? full for the first of the fir$

THA422







1.5x3 = 3x6 =

Scale = 1:23.5

| Loading | (psf) | Spacing | 1-7-3 | CSI | | DEFL | in | (loc) | I/defl | L/d | PLATES | GRIP |
|---------|-------|-----------------|-----------------|----------|------|----------|-------|-------|--------|-----|---------------|-----------------|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.86 | Vert(LL) | -0.08 | 11-12 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.91 | Vert(CT) | -0.10 | 8-9 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.21 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2021/TPI2014 | Matrix-S | | , , | | | | | Weight: 48 lb | FT = 20%F, 12%E |

LUMBER

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

BRACING

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 7= Mechanical, 12=0-3-8

Max Grav 7=506 (LC 1), 12=462 (LC 1) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-12=-260/48, 6-7=-253/51, 1-2=-19/3,

2-3=-1016/0, 3-4=-1405/0, 4-5=-1113/0,

5-6=0/0

BOT CHORD 11-12=0/662, 10-11=0/1405, 9-10=0/1405,

8-9=0/1405, 7-8=0/762

WEBS 5-7=-903/0, 2-12=-782/0, 5-8=0/440, 2-11=0/441, 4-8=-388/139, 3-11=-542/98,

3-10=-82/189, 4-9=-155/141

NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 12 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" \times 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 6-3-12 from the left end to connect truss (es) to back face of top chord.

- 8) Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face 9) of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00,

Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 7-12=-8, 1-6=-80

Concentrated Loads (lb)

Vert: 22=-133 (B)

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February 5,2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFURE USE.

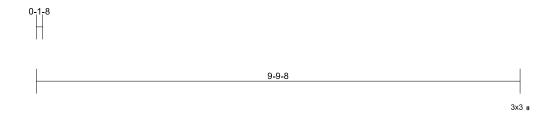
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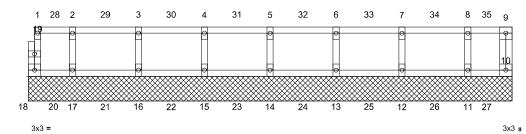
818 Soundside Roa Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | |
|-----|-------|-----------------------|-----|-----|--------------------------|
| | 2F2GE | Floor Supported Gable | 1 | 1 | Job Reference (optional) |

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Tue Feb 04 08:37:04 ID: 91FKDqS4LQUB1nEF06NJwxzqdXu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ffCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4ZDGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnL8w3uITXbGFTCPsB70Hq3NSgPqnWqqNAyANGTCPsB70Hq3NSqPqqNAyANGTCPsB70Hq3NSqPqqNAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGTCPsB70Hq4NAyANGT







Scale = 1:23.5

| Loading | (psf) | Spacing | 1-7-3 | csı | | DEFL | in | (loc) | I/defl | 1./4 | PLATES | GRIP |
|---------|-------|-----------------|-----------------|----------|------|-----------|------|-------|--------|------|---------------|-----------------|
| Loading | (psi) | Spacing | 1-7-3 | COL | | DEFL | in | (IOC) | i/deli | L/U | PLATES | GRIF |
| 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 | 10 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2021/TPI2014 | Matrix-R | | | | | | | Weight: 41 lb | FT = 20%F, 12%E |

LUMBER

2x4 SP No.2(flat) TOP CHORD BOT CHORD 2x4 SP No 2(flat) 2x4 SP No 3(flat) WEBS 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=9-9-8, 11=9-9-8, 12=9-9-8, 13=9-9-8, 14=9-9-8, 15=9-9-8, 16=9-9-8, 17=9-9-8, 18=9-9-8

1.5x3 =

10=-46 (LC 28), 11=-14 (LC 27), Max Uplift 13=-1 (LC 25), 15=-1 (LC 26),

17=-14 (LC 24), 18=-47 (LC 23) Max Grav

10=259 (LC 38), 11=280 (LC 37), 12=286 (LC 36), 13=285 (LC 35), 14=285 (LC 34), 15=285 (LC 33), 16=286 (LC 32), 17=280 (LC 31),

18=258 (LC 30)

FORCES (lb) - Maximum Compression/Maximum

1-18=-250/52, 9-10=-256/50, 1-2=-16/8, 2-3=-16/8, 3-4=-16/8, 4-5=-16/8, 5-6=-16/8,

6-7=-16/8, 7-8=-16/8, 8-9=-16/8

17-18=-8/16, 16-17=-8/16, 15-16=-8/16,

14-15=-8/16, 13-14=-8/16, 12-13=-8/16,

11-12=-8/16, 10-11=-8/16

WEBS 5-14=-273/10, 4-15=-272/10, 3-16=-273/10, 2-17=-267/23, 6-13=-272/10, 7-12=-273/10,

8-11=-267/23

NOTES

TOP CHORD

BOT CHORD

- 1) All plates are 1.5x3 (||) MT20 unless otherwise
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- 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.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard

6) N/A

"initiality

February 5,2025

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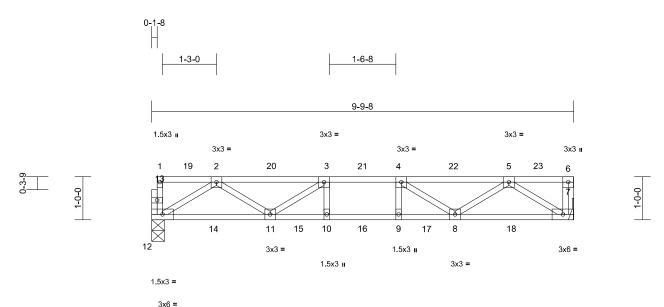


818 Soundside Roa Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | | |
|-----|-------|------------|-----|-----|--------------------------|----------|
| | 2F2 | Floor | 4 | 1 | Job Reference (optional) | 71190830 |

Run: 8.83 S Jan 17 2025 Print: 8.830 S Jan 17 2025 MiTek Industries, Inc. Tue Feb 04 08:37:04 ID: IwWLSA? s32qR55v8LrDew8zqdYT-RfC? PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC? factor of the property of the p

Page: 1



Scale = 1:23.5

| Loading | (psf) | Spacing | 1-7-3 | CSI | | DEFL | in | (loc) | l/def | L/d | PLATES | GRIP |
|---------|-------|-----------------|-----------------|----------|------|----------|-------|-------|-------|-----|---------------|-----------------|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.69 | Vert(LL) | -0.08 | 11-12 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.77 | Vert(CT) | -0.09 | 11-12 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.01 | 7 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2021/TPI2014 | Matrix-S | | | | | | | Weight: 48 lb | FT = 20%F, 12%E |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or

6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

BOT CHORD REACTIONS

(size) 7= Mechanical, 12=0-3-8 Max Grav 7=420 (LC 1), 12=415 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD 1-12=-259/49, 6-7=-259/45, 1-2=-18/4, 2-3=-877/0, 3-4=-1139/0, 4-5=-877/0, 5-6=0/0

BOT CHORD 11-12=0/598, 10-11=0/1139, 9-10=0/1139,

8-9=0/1139, 7-8=0/599

WEBS 5-7=-710/0, 2-12=-707/0, 5-8=0/409,

2-11=0/409, 4-8=-375/151, 3-11=-375/151,

3-10=-106/165, 4-9=-107/165

NOTES

- Unbalanced floor live loads have been considered for this design.
- Bearings are assumed to be: Joint 12 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.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard





WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

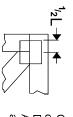
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSUFIT 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)



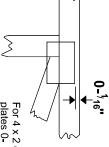
818 Soundside Road Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

Plate location details available in MiTek software or upon request

PLATE SIZE

4 × 4

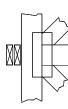
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction.

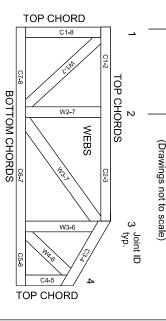
DSB-22: ANSI/TPI1:

Guide to Good Practice for Handling, Building Component Safety Information, Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Design Standard for Bracing

Numbering System

6-4-8

dimensions shown in ft-in-sixteenths



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

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

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

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

▲ General Safety Notes

Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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

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Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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Provide copies of this truss design to the building all other interested parties designer, erection supervisor, property owner and

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- Cut members to bear tightly against each other
- Place plates on each face of truss at each locations are regulated by ANSI/TPI 1. joint and embed fully. Knots and wane at joint
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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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
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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 project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone
- 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.