ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J1020-4757
Lot 30 Forest Ridge

Trenco
818 Soundside Rd
Edenton, NC 27932

**Site Information:**

Customer: Project Name: J1020-4757
Lot/Block: Model:
Address: Subdivision:
City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 12 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date |
|---|---|---|---|
| 1 | E14970028 | ET1 | 1/7/2021 |
| 2 | E14970029 | ET2 | 1/7/2021 |
| 3 | E14970030 | F1 | 1/7/2021 |
| 4 | E14970031 | F2 | 1/7/2021 |
| 5 | E14970032 | F2A | 1/7/2021 |
| 6 | E14970033 | F3 | 1/7/2021 |
| 7 | E14970034 | F4 | 1/7/2021 |
| 8 | E14970035 | F5 | 1/7/2021 |
| 9 | E14970036 | F6 | 1/7/2021 |
| 10 | E14970037 | F7 | 1/7/2021 |
| 11 | E14970038 | F7A | 1/7/2021 |
| 12 | E14970039 | FG1 | 1/7/2021 |

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

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844


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

January 07, 2021

Gilbert, Eric

| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | ET1 | Floor Supported Gable | 1 | 1 | E14970028 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:05 2020 Page 1
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0-1-8 0-1-8

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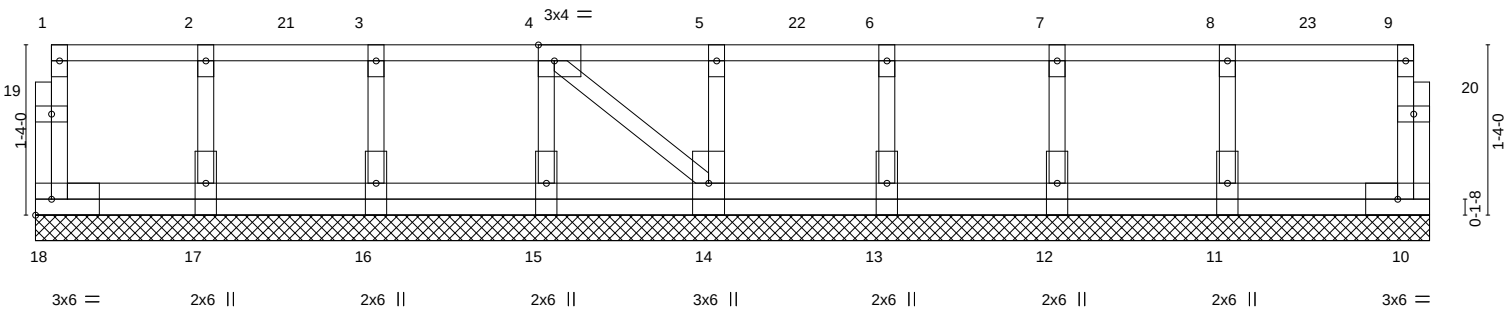


10-11-0
10-11-0

Plate Offsets (X,Y)-- [4:0-1-8,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 | 0.18 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.00 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 66 lb | FT = 20%F, 11%E |

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

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

**REACTIONS.** All bearings 10-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

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

**NOTES-**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 10-18=-10, 1-9=-100
Concentrated Loads (lb)
Vert: 4=-92 7=-92 21=-92 22=-92 23=-95


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | ET2 | Floor Supported Gable | 1 | 1 | E14970029 |
| | | | | | Job Reference (optional) |

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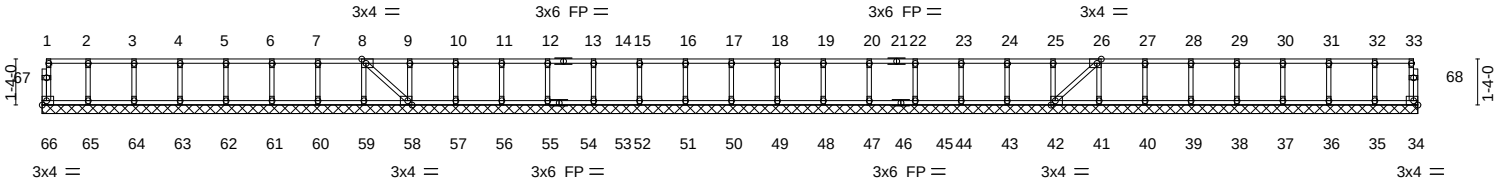
0-1-8 0-1-8

Scale = 1:66.9




39-11-0
39-11-0

Plate Offsets (X,Y)-- [8:0-1-8,Edge], [26:0-1-8,Edge], [42:0-1-8,Edge], [58:0-1-8,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 | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.01 | Vert(CT) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.00 | 42 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 176 lb | FT = 20%F, 11%E |

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.** All bearings 39-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 66, 34, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 53, 52, 51, 50, 49, 48, 47, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35

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

**NOTES-**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020

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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F1 | Floor | 4 | 1 | E14970030 |
| | | | | | Job Reference (optional) |

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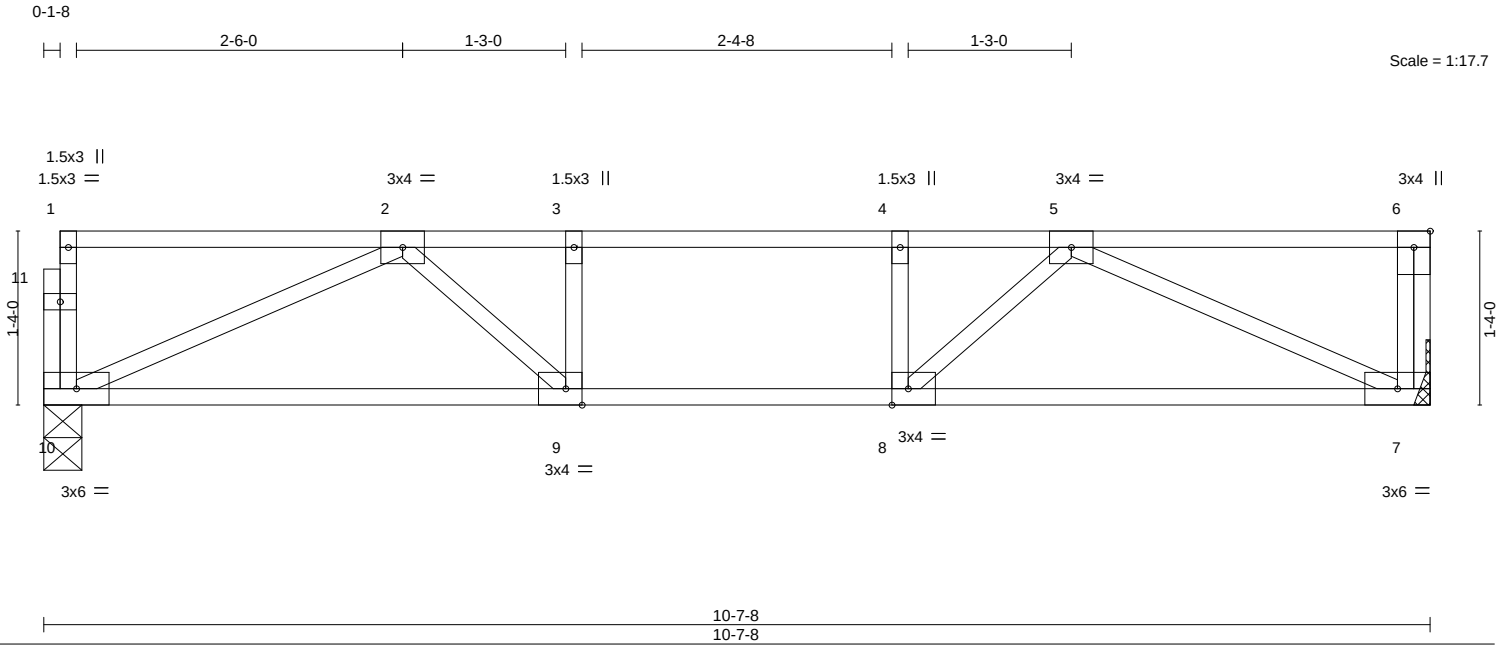


Plate Offsets (X,Y)-- [8:0-1-8,Edge], [9:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.38 | Vert(LL) | -0.07 | 9-10 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.33 | Vert(CT) | -0.10 | 9-10 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.29 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 54 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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) 10=0-3-8, 7=Mechanical
Max Grav 10=564(LC 1), 7=571(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1188/0, 3-4=-1188/0, 4-5=-1188/0
BOT CHORD 9-10=0/958, 8-9=0/1188, 7-8=0/961
WEBS 2-10=-1048/0, 5-7=-1057/0, 5-8=0/454, 2-9=0/455

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F2 | Floor | 2 | 1 | E14970031 |
| | | | | | Job Reference (optional) |

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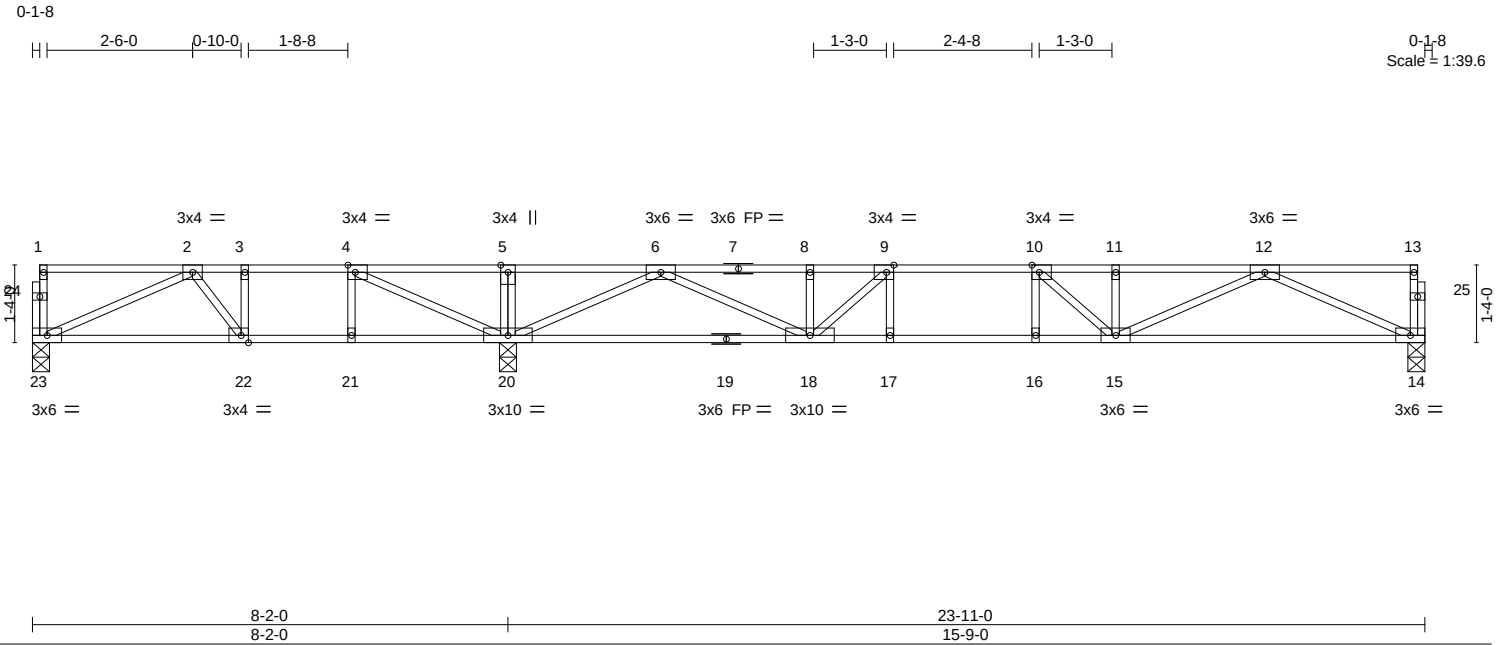


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [9:0-1-8,Edge], [10:0-1-8,Edge], [22:0-1-8,Edge]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.57 | Vert(LL) | -0.17 | 15-16 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.76 | Vert(CT) | -0.22 | 15-16 | >838 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.55 | Horz(CT) | 0.04 | 14 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 121 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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 6-0-0 oc bracing.

**REACTIONS.** (size) 23=0-3-8, 20=0-3-8, 14=0-3-8
Max Grav 23=399(LC 3), 20=1476(LC 1), 14=807(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-576/210, 3-4=-576/210, 4-5=0/819, 5-6=0/819, 6-8=-2093/0, 8-9=-2093/0, 9-10=-2436/0, 10-11=-2309/0, 11-12=-2309/0
BOT CHORD 22-23=-67/604, 21-22=-210/576, 20-21=-210/576, 18-20=0/1100, 17-18=0/2436, 16-17=0/2436, 15-16=0/2436, 14-15=0/1491
WEBS 5-20=-251/0, 2-23=-659/75, 4-20=-1113/0, 2-22=-273/0, 6-20=-1846/0, 6-18=0/1156, 12-14=-1636/0, 12-15=0/904, 11-15=-251/25, 10-15=-400/107, 9-18=-679/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F2A | Floor | 1 | 1 | E14970032 |
| | | | | | Job Reference (optional) |

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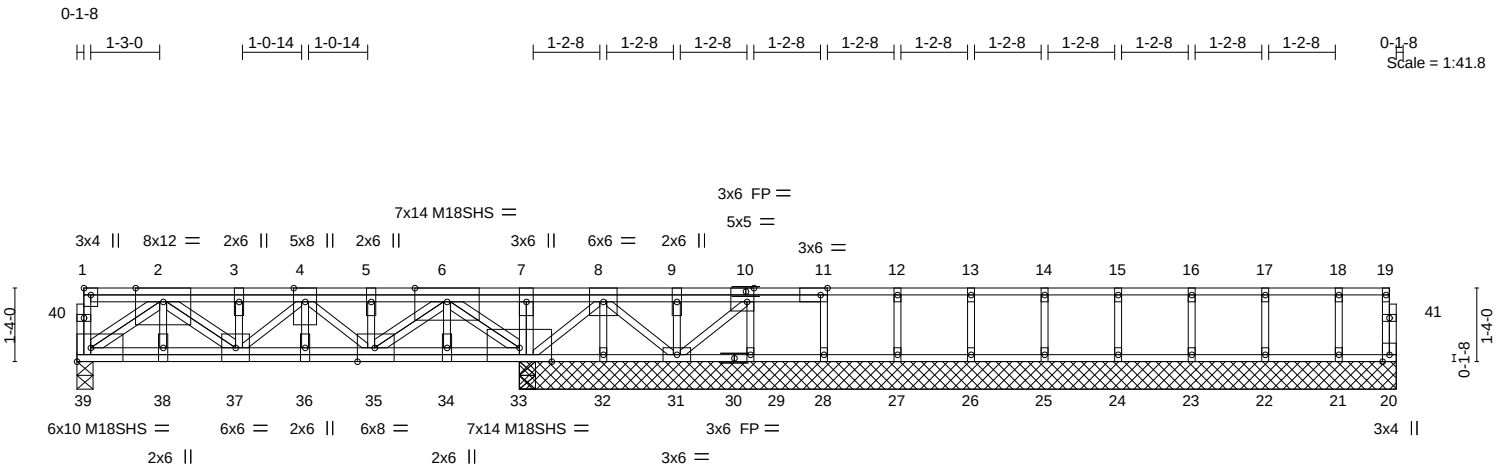


8-0-4 23-11-0
8-0-4 15-10-12

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [10:0-1-8,Edge], [11:0-1-8,Edge], [35:0-3-12,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 | 0.40 | Vert(LL) | -0.03 | 36 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.32 | Vert(CT) | -0.06 | 36 | >999 | 360 | M18SHS | 244/190 |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.83 | Horz(CT) | 0.01 | 33 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 163 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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: 6-0-0 oc bracing: 32-33,31-32.

**REACTIONS.** All bearings 15-10-12 except (jt=length) 39=0-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) except 39=3198(LC 1), 20=266(LC 1), 33=6051(LC 1), 33=6051(LC 1), 32=470(LC 1), 31=1404(LC 1), 29=648(LC 1), 28=1270(LC 1), 27=1238(LC 1), 26=1241(LC 1), 25=1239(LC 1), 24=1242(LC 1), 23=1232(LC 1), 22=1270(LC 1), 21=1125(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-39=-520/0, 19-20=-264/0, 2-3=-5006/0, 3-4=-5068/0, 4-5=-4015/0, 5-6=-3949/0, 6-7=0/2814, 7-8=0/2639, 8-9=0/628, 9-10=0/628
BOT CHORD 38-39=0/3531, 37-38=0/3531, 36-37=0/5150, 35-36=0/5150, 34-35=0/1265, 33-34=0/1265, 32-33=-1102/0, 31-32=-1102/0
WEBS 7-33=-1527/0, 2-39=-4385/0, 2-37=0/1912, 3-37=-1098/0, 6-33=-5289/0, 6-35=0/3479, 5-35=-1167/0, 8-33=-1887/0, 8-32=-462/0, 8-31=0/625, 9-31=-1151/0, 10-31=-934/0, 10-29=-640/0, 11-28=-1255/0, 12-27=-1225/0, 13-26=-1227/0, 14-25=-1226/0, 15-24=-1229/0, 16-23=-1219/0, 17-22=-1257/0, 18-21=-1112/0, 4-35=-1498/0

**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 1.5x3 MT20 unless otherwise indicated.
4) The Fabrication Tolerance at joint 28 = 3%, joint 27 = 3%, joint 12 = 3%, joint 26 = 3%, joint 13 = 3%, joint 25 = 3%, joint 14 = 3%, joint 24 = 3%, joint 15 = 3%, joint 23 = 7%, joint 16 = 7%, joint 22 = 3%, joint 17 = 3%
5) Plates checked for a plus or minus 1 degree rotation about its center.
6) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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 Except:
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-920
2) Dead: Lumber Increase=1.00, Plate Increase=1.00


October 13,2020

Continued on page 2



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**LOAD CASE(S)** Standard

Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

3) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
4) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
5) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
6) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
7) 5th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
8) 6th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
9) 7th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
10) 8th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
11) 9th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
12) 10th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
13) 11th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
14) 12th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
15) 13th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
16) 14th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
17) 15th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
18) 16th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
19) 17th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
20) 18th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
21) 19th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
22) 20th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
23) 21st chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
24) 22nd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
25) 23rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
26) 24th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570
27) 25th chase Dead: Lumber Increase=1.00, Plate Increase=1.00

Continued on page 3



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**LOAD CASE(S)** Standard

Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

28) 26th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

29) 27th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

30) 28th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

31) 29th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

32) 30th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

33) 31st chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

34) 32nd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

35) 33rd chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

36) 34th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

37) 35th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

38) 36th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 20-39=-10, 1-19=-570

| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F3 | Floor Girder | 1 | 1 | E14970033 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:12 2020 Page 1
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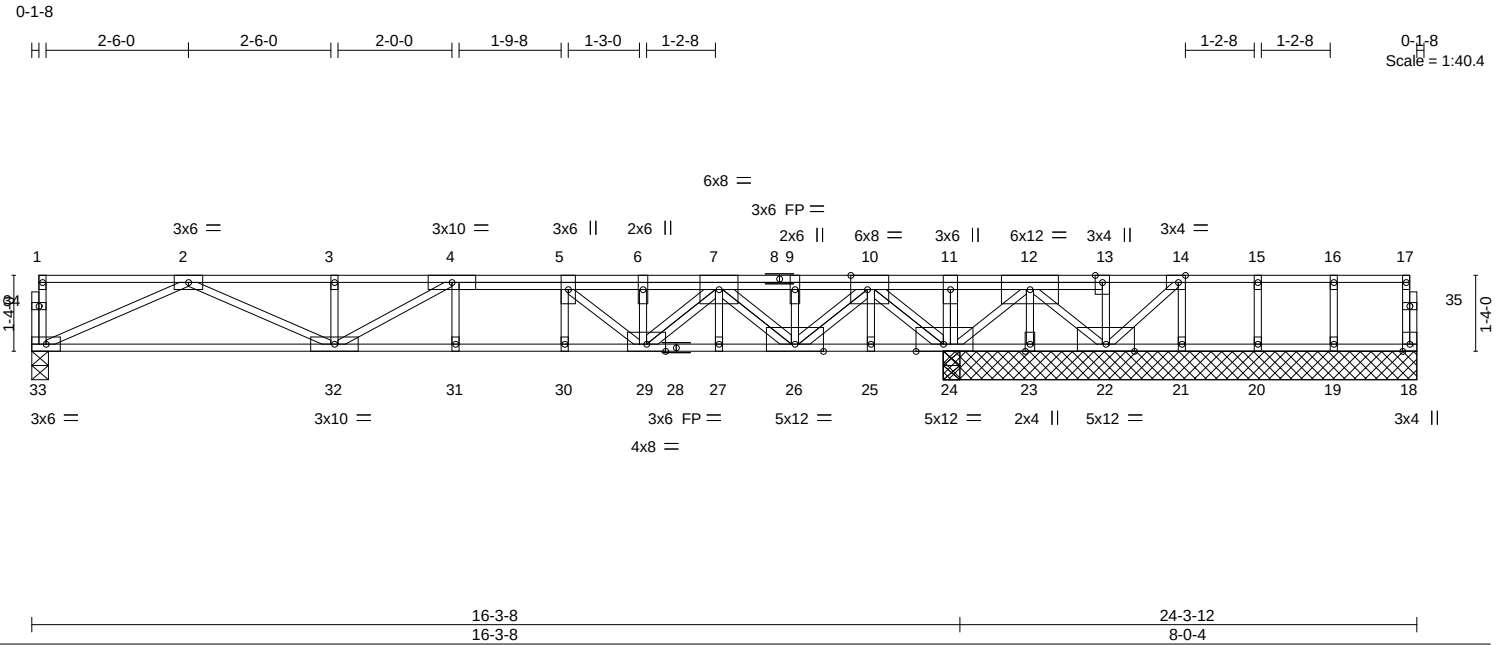


Plate Offsets (X,Y)-- [10:0-3-8,Edge], [14:0-1-8,Edge], [24:0-5-12,Edge]

| 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 | 0.70 | Vert(LL) | -0.15 | 30 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.86 | Vert(CT) | -0.21 | 30 | >903 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 1.00 | Horz(CT) | 0.03 | 24 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 155 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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: 6-0-0 oc bracing: 25-26,24-25,23-24,22-23.

**REACTIONS.** All bearings 8-3-12 except (jt=length) 33=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) except 23=-897(LC 1), 22=-547(LC 1), 21=-476(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 18, 20, 19 except 33=925(LC 1), 24=4523(LC 1), 24=4523(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2807/0, 3-4=-2807/0, 4-5=-3273/0, 5-6=-3213/0, 6-7=-3151/0, 7-9=0/616, 9-10=0/616, 10-11=0/5015, 11-12=0/5015, 12-13=0/699, 13-14=0/694
BOT CHORD 32-33=0/1744, 31-32=0/3272, 30-31=0/3272, 29-30=0/3272, 27-29=0/1413, 26-27=0/1413, 25-26=-2700/0, 24-25=-2700/0, 23-24=-2286/0, 22-23=-2286/0
WEBS 11-24=-321/0, 10-24=-2995/0, 10-26=0/2825, 7-26=-2598/0, 7-29=0/2330, 6-29=-1612/0, 5-29=-145/431, 12-24=-3530/0, 2-33=-1914/0, 2-32=0/1175, 12-23=0/877, 12-22=0/2099, 14-22=-940/0, 14-21=0/487, 4-32=-786/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 897 lb uplift at joint 23, 547 lb uplift at joint 22 and 476 lb uplift at joint 21.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1330 lb down at 10-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) 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 (plf)
Vert: 18-33=-10, 1-17=-100
Concentrated Loads (lb)
Vert: 6=-1250(F)


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F4 | Floor | 2 | 1 | E14970034 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:13 2020 Page 1
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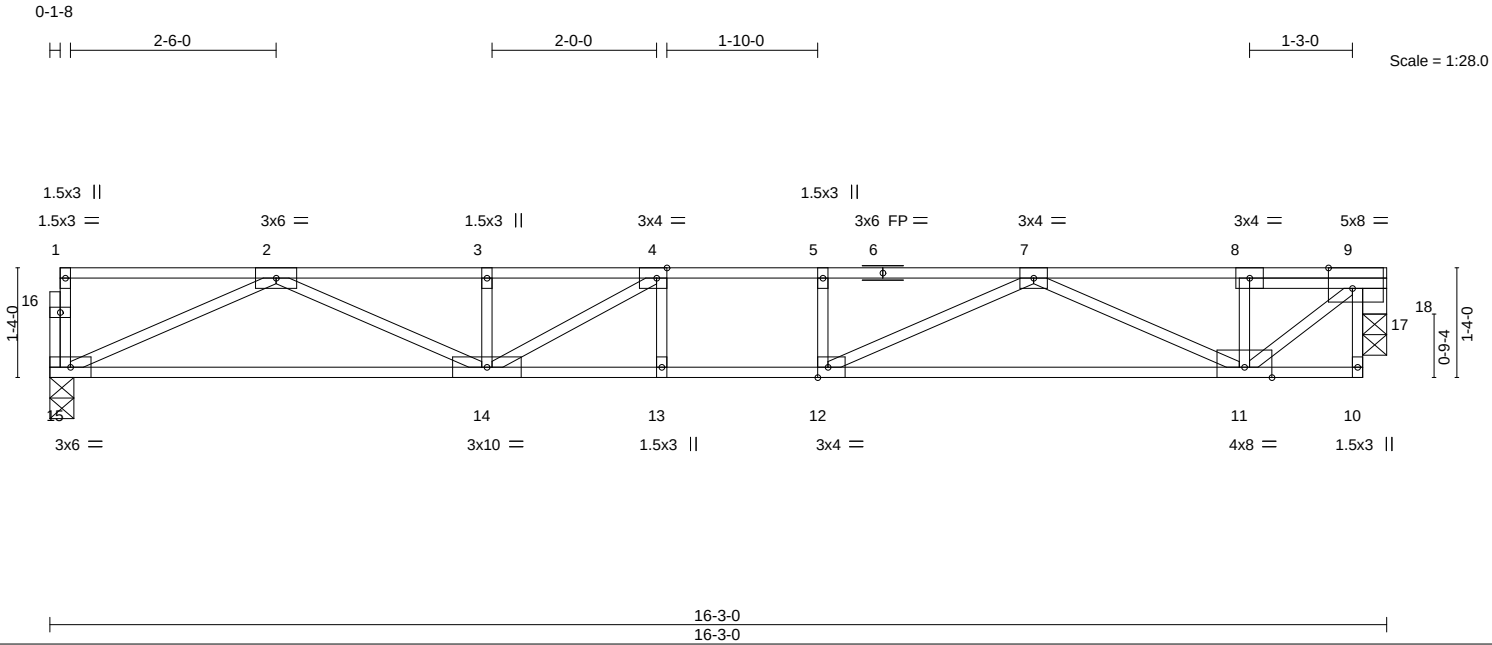


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [9:0-3-8,Edge], [12:0-1-8,Edge]

| 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 | 0.41 | Vert(LL) | -0.20 | 13-14 | >970 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.77 | Vert(CT) | -0.25 | 11-12 | >757 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.03 | 18 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 84 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 4x4 SP No.2(flat)

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

**REACTIONS.** (size) 15=0-3-8, 18=0-3-8
Max Grav 15=868(LC 1), 18=861(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2577/0, 3-4=-2577/0, 4-5=-2848/0, 5-7=-2848/0, 7-8=-1040/0, 8-9=-1040/0
BOT CHORD 14-15=0/1620, 13-14=0/2848, 12-13=0/2848, 11-12=0/2214
WEBS 9-11=0/1289, 2-15=-1777/0, 2-14=0/1058, 3-14=-282/10, 7-11=-1298/0, 7-12=0/848, 4-14=-606/55, 9-18=-875/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F5 | Floor | 1 | 1 | E14970035 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:13 2020 Page 1
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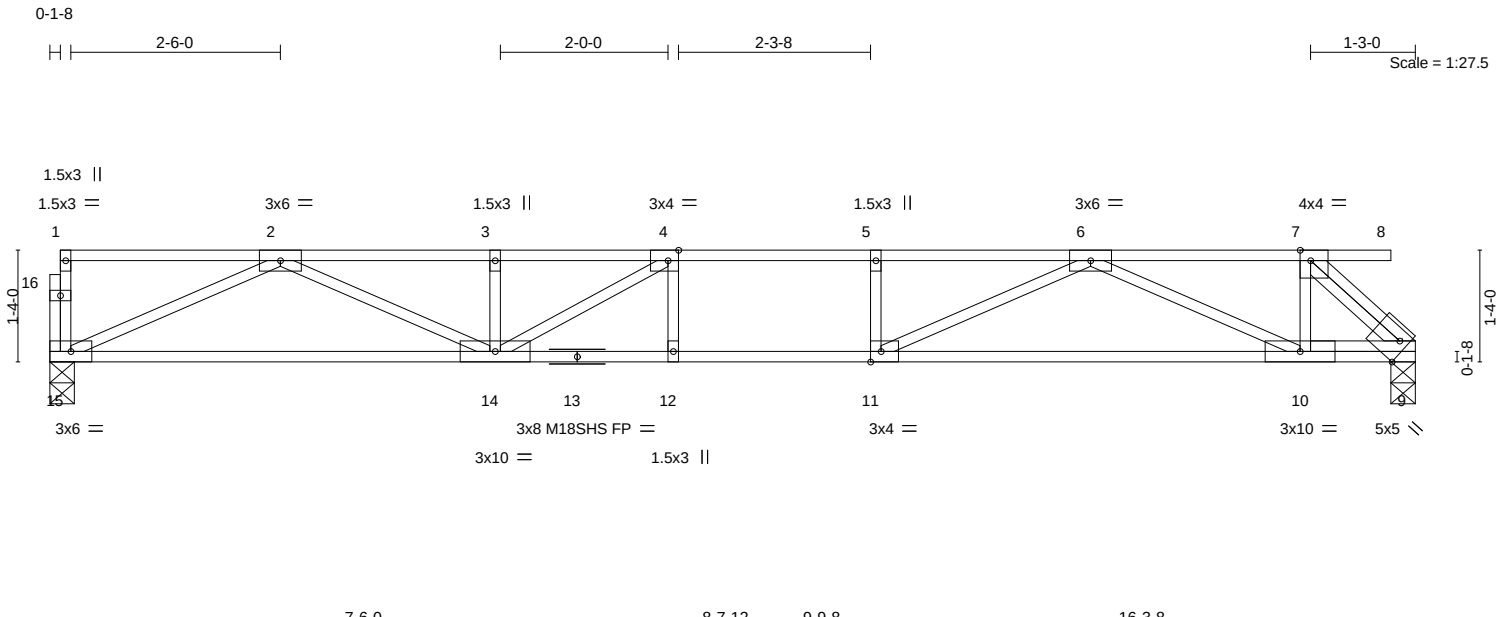


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [7:0-1-8,Edge], [9:Edge,0-3-0], [11:0-1-8,Edge]

| 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 | 0.65 | Vert(LL) | -0.25 | 12-14 | >761 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.89 | Vert(CT) | -0.32 | 12-14 | >609 | 360 | M18SHS | 244/190 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.52 | Horz(CT) | 0.05 | 9 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 83 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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) 15=0-3-8, 9=0-3-8
Max Grav 15=880(LC 1), 9=862(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2631/0, 3-4=-2631/0, 4-5=-2908/0, 5-6=-2908/0, 6-7=-908/0
BOT CHORD 14-15=0/1646, 12-14=0/2908, 11-12=0/2908, 10-11=0/2165, 9-10=0/909
WEBS 7-10=0/589, 7-9=-1225/0, 2-15=-1807/0, 2-14=0/1088, 3-14=-289/18, 6-10=-1389/0, 6-11=0/960, 5-11=-285/0, 4-14=-642/44

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F6 | Floor | 3 | 1 | E14970036 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:14 2020 Page 1
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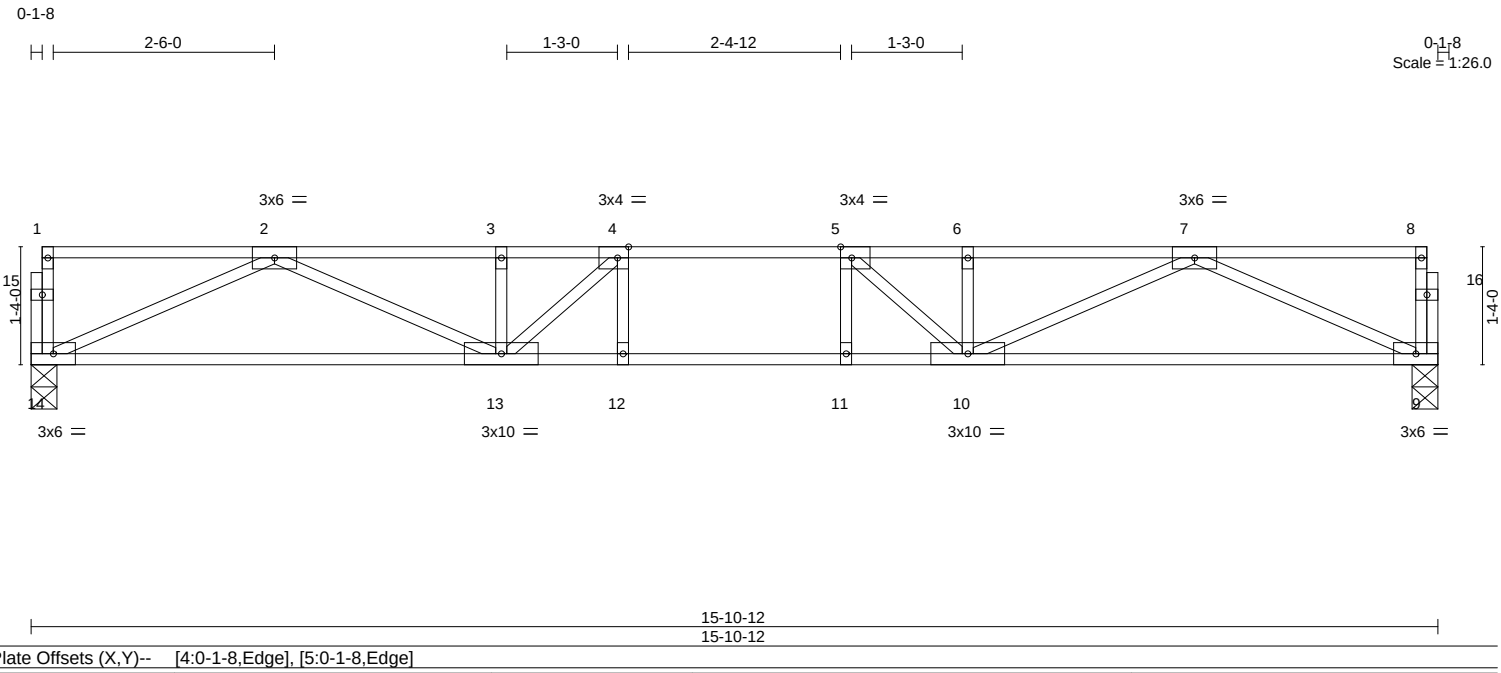


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

| 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 | 0.48 | Vert(LL) | -0.17 | 12-13 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.71 | Vert(CT) | -0.22 | 12-13 | >849 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.48 | Horz(CT) | 0.04 | 9 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 80 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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=0-3-8, 9=0-3-8
Max Grav 14=854(LC 1), 9=854(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2503/0, 3-4=-2503/0, 4-5=-2738/0, 5-6=-2503/0, 6-7=-2503/0
BOT CHORD 13-14=0/1593, 12-13=0/2738, 11-12=0/2738, 10-11=0/2738, 9-10=0/1593
WEBS 2-14=-1748/0, 2-13=0/1006, 7-9=-1748/0, 7-10=0/1006, 5-10=-599/29, 4-13=-599/29

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F7 | Floor | 8 | 1 | E14970037 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:16 2020 Page 1
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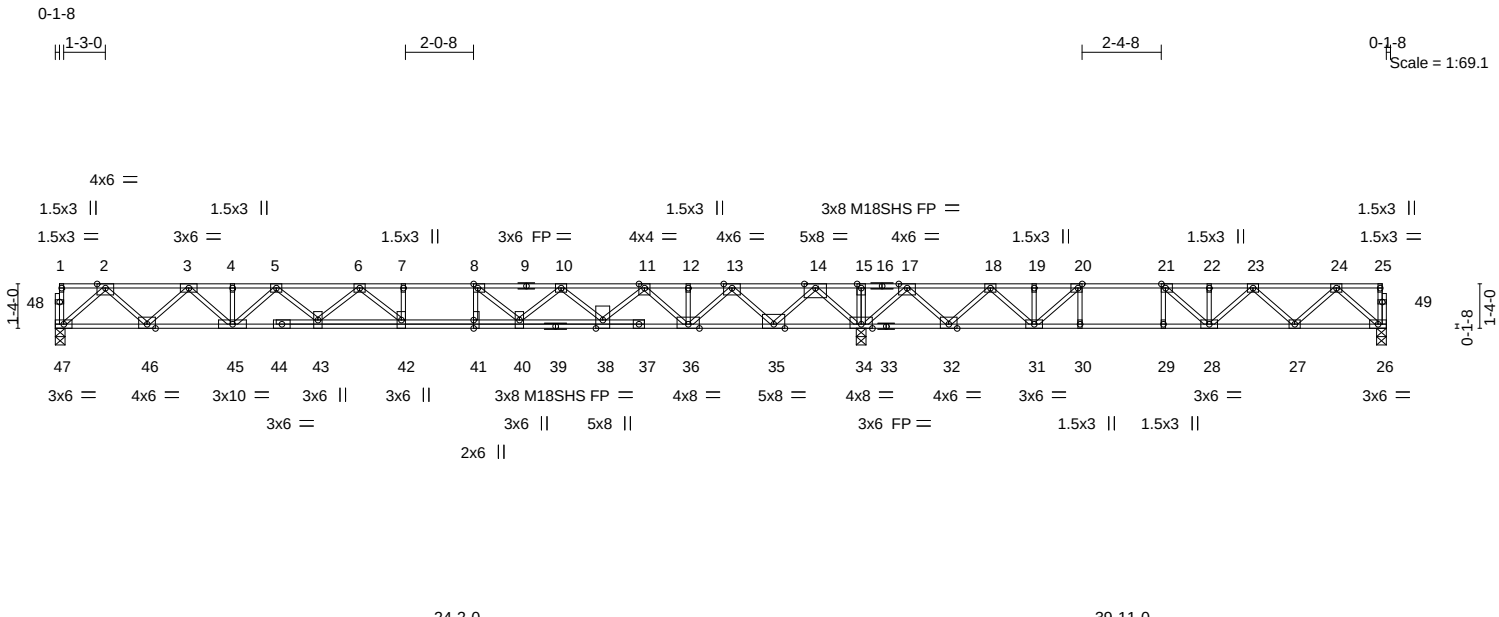


Plate Offsets (X,Y)-- [8:0-1-8,Edge], [20:0-1-8,Edge], [21:0-1-8,Edge], [41:0-3-0,0-0-0]

| 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 | 0.79 | Vert(LL) | -0.38 | 42 | >752 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.74 | Vert(CT) | -0.52 | 42 | >559 | 360 | M18SHS | 244/190 |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.85 | Horz(CT) | 0.06 | 34 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 222 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(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 6-0-0 oc bracing.

**REACTIONS.** (size) 47=0-3-8, 34=0-3-8, 26=0-3-8
Max Uplift 26=-9(LC 3)
Max Grav 47=1159(LC 3), 34=2662(LC 1), 26=725(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2191/0, 3-4=-3744/0, 4-5=-3744/0, 5-6=-4866/0, 6-7=-5296/0, 7-8=-5296/0, 8-10=-4832/0, 10-11=-3721/0, 11-12=-1983/85, 12-13=-1983/85, 13-14=0/997, 14-15=0/3786, 15-17=0/3786, 17-18=-149/2166, 18-19=-1325/1462, 19-20=-1325/1462, 20-21=-1908/812, 21-22=-1936/310, 22-23=-1936/310, 23-24=-1242/108
BOT CHORD 46-47=0/1269, 45-46=0/3068, 43-45=0/4424, 42-43=0/5202, 41-42=0/5296, 40-41=0/5296, 38-40=0/4414, 36-38=0/2967, 35-36=-417/959, 34-35=-2150/0, 32-34=-2683/0, 31-32=-1777/852, 30-31=-812/1908, 29-30=-812/1908, 28-29=-812/1908, 27-28=-203/1689, 26-27=-30/774
WEBS 2-47=-1687/0, 2-46=0/1283, 3-46=-1219/0, 3-45=0/920, 5-45=-924/0, 5-43=0/599, 6-43=-474/0, 6-42=-345/475, 14-34=-2178/0, 14-35=0/1776, 13-35=-1735/0, 13-36=0/1444, 11-36=-1379/0, 11-38=0/1061, 10-38=-981/0, 10-40=0/691, 8-40=-1067/0, 8-41=-157/483, 17-34=-1626/0, 17-32=0/1262, 18-32=-1205/0, 18-31=0/835, 19-31=0/278, 20-31=-1430/0, 20-30=0/387, 24-26=-1028/40, 24-27=-109/652, 23-27=-621/131, 23-28=-145/336, 22-28=-324/0, 21-28=0/770, 21-29=-349/0

**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 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 26.
6) Required 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020




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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | F7A | Floor | 1 | 1 | E14970038 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:18 2020 Page 1
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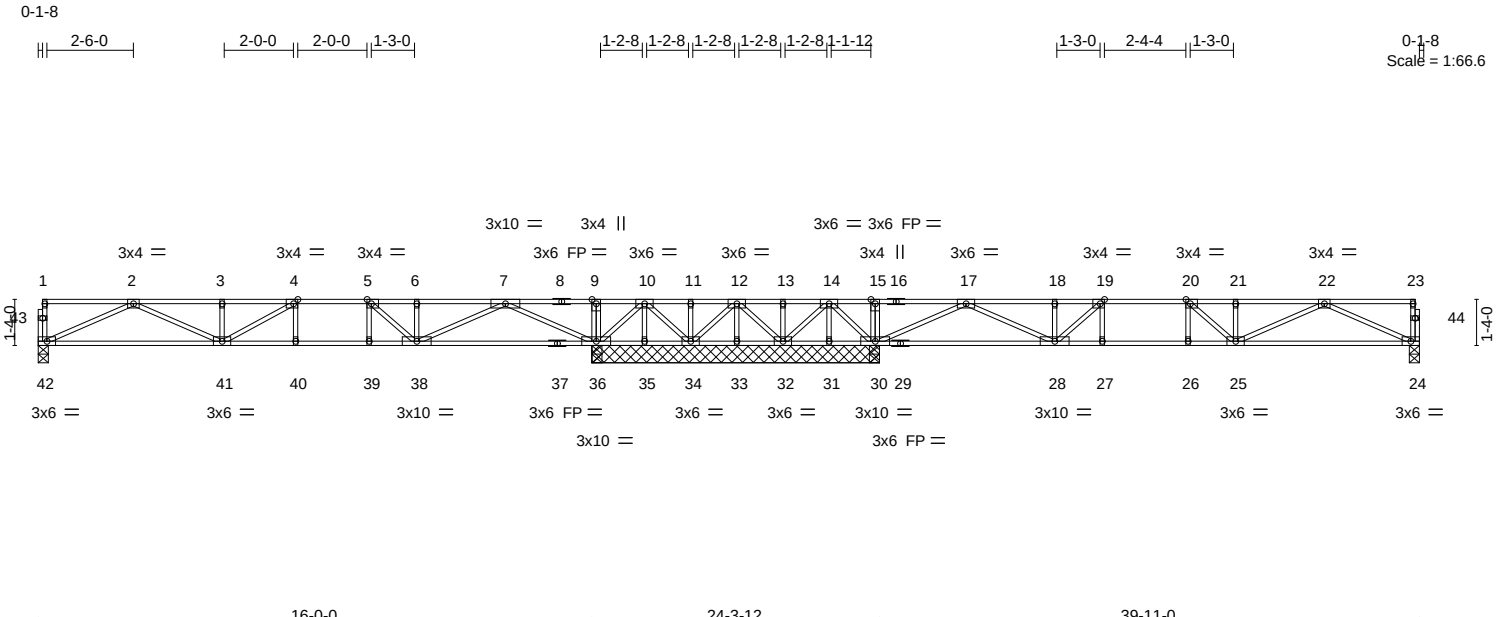


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge], [19:0-1-8,Edge], [20:0-1-8,Edge]

| 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) | -0.19 | 40-41 | >996 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.85 | Vert(CT) | -0.26 | 40-41 | >737 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.61 | Horz(CT) | 0.05 | 24 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-S | | | | | | | Weight: 209 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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 6-0-0 oc bracing.

**REACTIONS.** All bearings 8-3-12 except (jt=length) 42=0-3-8, 24=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 34, 33 except 35=-211(LC 9), 32=-188(LC 4), 31=-285(LC 4)
Max Grav All reactions 250 lb or less at joint(s) 34, 33, 32, 31 except 42=762(LC 3), 36=1745(LC 3), 36=1734(LC 1), 30=1703(LC 7), 30=1694(LC 1), 24=743(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2141/0, 3-4=-2141/0, 4-5=-2108/0, 5-6=-1561/0, 6-7=-1561/0, 7-9=0/1388, 9-10=0/1382, 10-11=0/321, 11-12=0/321, 12-13=0/328, 13-14=0/328, 14-15=0/1405, 15-17=0/1411, 17-18=-1530/0, 18-19=-1530/0, 19-20=-2020/0, 20-21=-2042/0, 21-22=-2042/0
BOT CHORD 41-42=0/1391, 40-41=0/2108, 39-40=0/2108, 38-39=0/2108, 36-38=0/398, 35-36=-674/0, 34-35=-674/0, 31-32=-697/0, 30-31=-697/0, 28-30=0/416, 27-28=0/2020, 26-27=0/2020, 25-26=0/2020, 24-25=0/1351
WEBS 2-42=-1525/0, 2-41=0/830, 3-41=-294/0, 7-36=-1967/0, 7-38=0/1287, 5-38=-808/0, 10-36=-946/0, 10-34=0/504, 14-32=0/524, 14-31=-18/261, 14-30=-945/0, 17-30=-1915/0, 17-28=0/1234, 22-24=-1482/0, 22-25=0/763, 21-25=-261/0, 19-28=-735/0

**NOTES-**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 34, 33 except (jt=lb) 35=211, 32=188, 31=285.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 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.


October 13,2020



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| Job | Truss | Truss Type | Qty | Ply | Lot 30 Forest Ridge |
|---|---|---|---|---|---|
| J1020-4757 | FG1 | Floor Girder | 1 | 1 | E14970039 |
| | | | | | Job Reference (optional) |

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Jul 22 2020 MiTek Industries, Inc. Tue Oct 13 08:29:18 2020 Page 1
ID:Y_aRO?CxgIt9gUrIHW7gHdzqoOe-2BStlyEtZ1dmJHgwO4cgq9YnmvRSof7Db8_0cIyTtrF

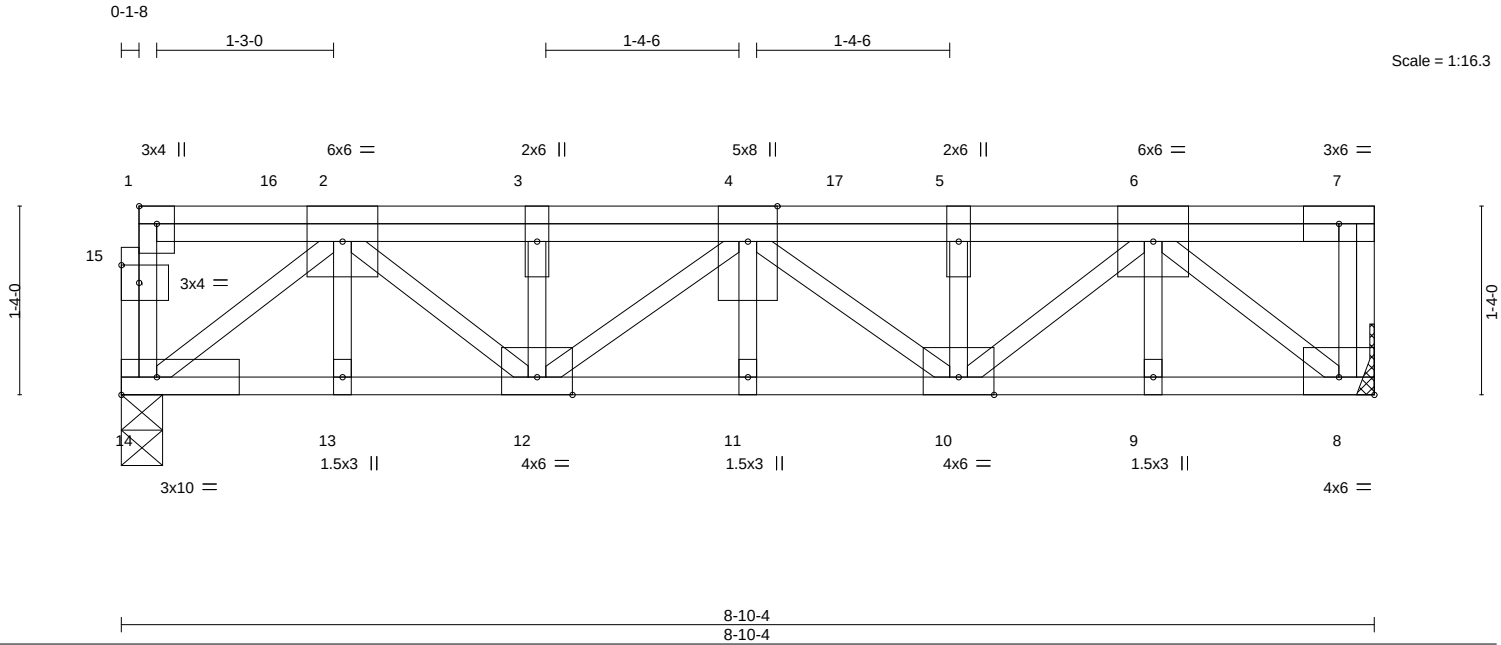


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [8:Edge,0-1-8], [15:0-1-8,0-1-8]

| 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 | 0.27 | Vert(LL) | -0.04 | 11 | >999 | 480 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.57 | Vert(CT) | -0.06 | 11 | >999 | 360 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.53 | Horz(CT) | 0.02 | 8 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2015/TPI2014 | Matrix-P | | | | | | | Weight: 66 lb | FT = 20%F, 11%E |

**LUMBER-**
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(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=0-3-8, 8=Mechanical
Max Grav 14=1475(LC 1), 8=1350(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2485/0, 3-4=-2485/0, 4-5=-2414/0, 5-6=-2414/0
BOT CHORD 13-14=0/1625, 12-13=0/1625, 11-12=0/2734, 10-11=0/2734, 9-10=0/1566, 8-9=0/1566
WEBS 2-14=-2067/0, 2-12=0/1119, 3-12=-500/0, 6-8=-2003/0, 6-10=0/1104, 5-10=-436/0, 4-10=-404/0, 4-12=-315/0

**NOTES-**
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 473 lb down at 1-1-12, 471 lb down at 3-1-12, and 471 lb down at 5-1-12, and 471 lb down at 7-1-12 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
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 8-14=-10, 1-7=-100
Concentrated Loads (lb)
Vert: 3=-471(B) 6=-471(B) 16=-473(B) 17=-471(B)


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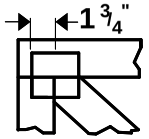
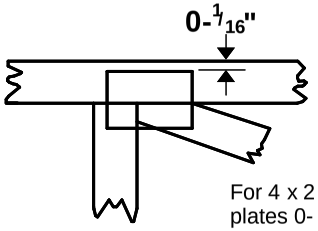
# Symbols

## 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.

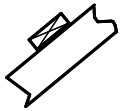
*** Plate location details available in MiTek 20/20 software or upon request.**

## PLATE SIZE

4 x 4

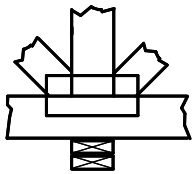
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

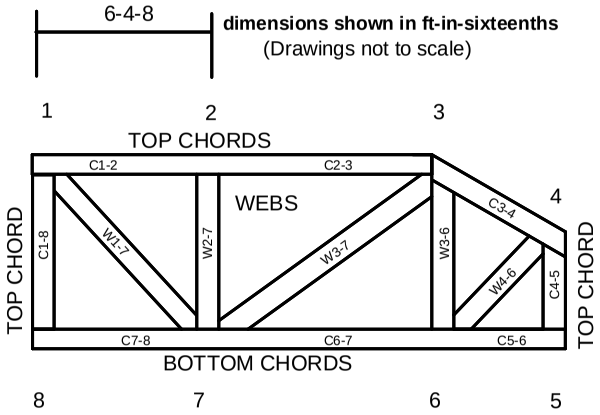


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

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

# Numbering System




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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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



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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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