ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J1118-5040
202 BROADLAKE LANE, SPRING LAKE, NC

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

Pages or sheets covered by this seal: E12904763 thru E12904763

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

April 11,2019

Gilbert, Eric

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	202 BROADLAKE LANE, SPRING LAKE, NC
J1118-5040	20F04	Floor	9	1	E12904763
					Job Reference (optional)

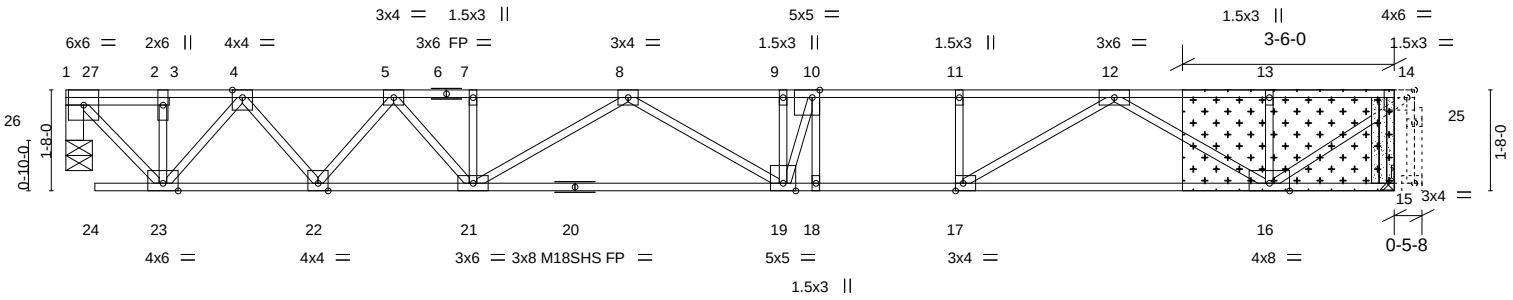
Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Wed Apr 10 13:44:08 2019 Page 1
ID:lJi5YqEYD995uEzmoDQpdVzhHyQ-Z25Sal2sgLn5TeNXURA6iOIKMcRdx2fQbaeZzozS5y5

1-3-0 | 2-6-0 | 2-6-0 | 0-5-0 | 2-2-15 | 2-6-0 | 2-6-0 | 2-2-8 | 0-1-8

ATTACH 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1) TO EACH SIDE OF TRUSS WITH CONSTRUCTION QUALITY ADHESIVE AND ONE ROW OF (0.131" X 2.5") NAILS SPACED 2" O.C. FROM EACH FACE INTO EACH COVERED TRUSS MEMBER.

INSTALL (3) 2 X 4 SPF/DF/SP NO.2 CUT TO FIT TIGHT.

Scale = 1:38.1



PLYWOOD MAY BE APPLIED OVER TRUSS HANGER. MAXIMUM GAP BETWEEN TRUSS AND HANGER NOT TO EXCEED 1/16" ON EACH SIDE.

REPAIR: STUB TRUSS AS SHOWN.

0-5-12 | 22-4-15
0-5-12 | 21-11-3

Plate Offsets (X,Y)-- [10:0-1-8,Edge], [14:0-1-8,Edge], [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	0.71	Vert(LL)	-0.31	18-19	>855	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.42	18-19	>629	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 124 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)
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.

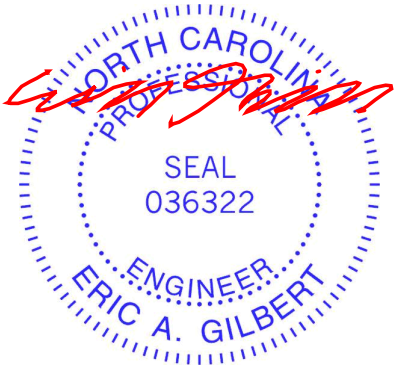
REACTIONS. (lb/size) 15=969/0-5-8, 26=971/0-5-4

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

TOP CHORD	14-15=-954/0, 1-2=-872/0, 2-4=-872/0, 4-5=-2055/0, 5-7=-2941/0, 7-8=-2941/0, 8-9=-3514/0, 9-10=-3514/0, 10-11=-3282/0, 11-12=-3282/0, 12-13=-1376/0, 13-14=-1376/0, 1-26=-971/0
BOT CHORD	22-23=0/1547, 21-22=0/2551, 19-21=0/3408, 18-19=0/3282, 17-18=0/3282, 16-17=0/2442
WEBS	1-23=0/1242, 4-23=-1041/0, 4-22=0/805, 5-22=-787/0, 5-21=0/602, 8-21=-545/0, 8-19=-29/318, 9-19=-538/56, 10-19=-200/1046, 10-18=-533/5, 11-17=-363/0, 12-17=0/1059, 12-16=-1244/0, 14-16=0/1603

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) Bearing at joint(s) 26 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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.



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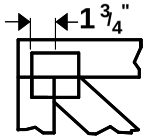
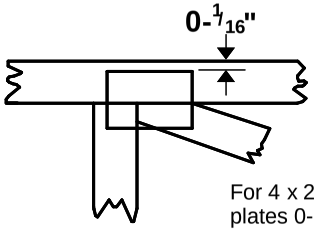
Symbols

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.

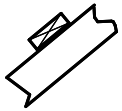
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

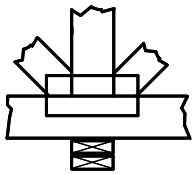
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

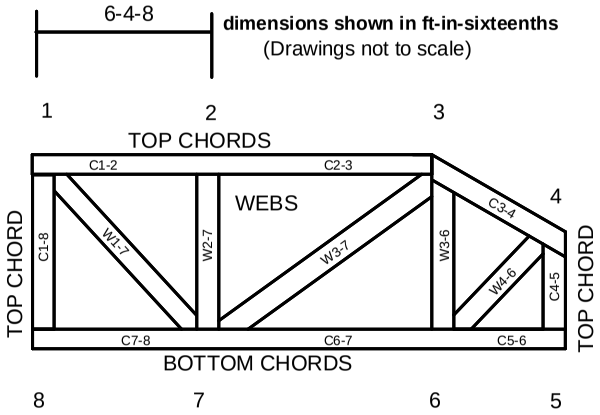


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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. 10/03/2015

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.