

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 20-6461-A

GARY ROBINSON-STOCKTON XL-SOUTH CREEK#44 ROOF

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Riverside Roof Truss.

Pages or sheets covered by this seal: I47373489 thru I47373489

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

North Carolina COA: C-0844



August 10,2021

Sevier, Scott

**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.

Job	Truss	Truss Type	Qty	Ply	GARY ROBINSON-STOCKTON XL-SOUTH CREEK#44 ROOF	
20-6461-A	F03	FLOOR GIRDER	1	1	1 UNIT Job Reference (optional)	147373489

Riverside Roof Truss, LLC, Danville, VA. 24541, Mitek

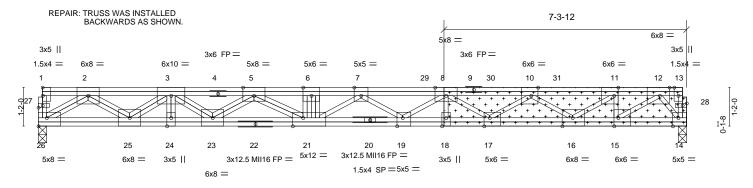
8.330 e Jan 15 2021 MiTek Industries, Inc. Tue Aug 10 08:31:56 2021 Page 1
ID:wGHO7kGIZJUXqaFdBnCYKlyjubB-Dq9qJLVGEV8Lf0Uftn3yarNCJub1Y2VPivzjz0yplun

Structural wood sheathing directly applied or 4-6-8 oc purlins, ex[PepA]

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

0-1-8 1-3-0 1-1-8 1-5-12  $H \vdash$ 

0-6-120-1-8 Scale = 1:34.7



ATTACH < 2 LAYERS > 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1) TO ONE FACE OF TRUSS WITH CONSTRUCTION QUALITY ADHESIVE AND ONE ROW OF (0.131" X 3.0") NAILS SPACED 2" O.C. INTO EACH COVERED TRUSS MEMBER. GLUE PLYWOOD LAYERS TOGETHER PRIOR TO ATTACHING TO TRUSS.

8-2-12 11-3-12

[5:0-4-0, Edge], [6:0-3-0, Edge], [7:0-2-8, Edge], [8:0-4-0, Edge], [10:0-2-8, Edge], [11:0-1-8, Edge], [12:0-3-8, Edge], [13:0-3-0, Edge], [14:0-2-0, Edge], [10:0-2-8, EdPlate Offsets (X,Y)--[15:0-1-8,Edge], [16:0-3-12,Edge], [17:0-2-0,Edge], [18:0-3-0,Edge], [19:0-2-0,Edge], [21:0-3-12,Edge], [24:0-3-0,Edge], [26:Edge,0-3-0], [27:0-1-8

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 0.82	Vert(LL)	-0.42 19-21	>549	480	MT20	244/190
TCDL	10.0	Lumber DOL 1.00	BC 0.69	Vert(CT)	-0.58 19-21	>399	360	MII16	174/126
BCLL	0.0	Rep Stress Incr NO	WB 0.82	Horz(CT)	0.07 14	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 171 lb	FT = 20%F, 11%E

BOT CHORD

end verticals

LUMBER-**BRACING-**TOP CHORD

TOP CHORD 2x4 SP DSS(flat) 2x4 SP DSS(flat) BOT CHORD WEBS

2x4 SP No.3(flat) \*Except\*

2-26,2-25,5-23,7-21,7-19,8-19,8-17,10-17,10-16,11-16,12-15: 2x4 SP

No.2(flat)

REACTIONS. (size) 26=0-3-0, 14=0-3-0

Max Grav 26=1449(LC 1), 14=1893(LC 1)

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

2-3=-3740/0, 3-5=-6762/0, 5-6=-9486/0, 6-7=-9483/0, 7-8=-11138/0, 8-10=-9648/0, TOP CHORD

10-11=-5901/0, 11-12=-3826/0

**BOT CHORD**  $25\text{-}26\text{=}0/2086,\ 24\text{-}25\text{=}0/5390,\ 23\text{-}24\text{=}0/5390,\ 21\text{-}23\text{=}0/8104,\ 19\text{-}21\text{=}0/10855,$ 18-19=0/11366, 17-18=0/11366, 16-17=0/7906, 15-16=0/3826, 14-15=0/1438 **WEBS** 

2-26=-2503/0, 2-25=0/2058, 3-25=-2040/0, 3-23=0/1696, 5-23=-1660/0, 5-21=0/1587,

7-21=-1585/0, 7-19=0/351, 8-19=-278/0, 8-17=-2096/0, 10-17=0/2161, 10-16=-2486/0, 11-16=0/2531, 11-15=-1722/0, 12-15=0/2917, 12-14=-2314/0

### NOTES-

- 1) All plates are MT20 plates unless otherwise indicated.
- 2) The Fabrication Tolerance at joint 20 = 11%
- 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) 85 lb down at 17-8-3, 85 lb down at 15-8-3, 85 lb down at 13-8-3, and 85 lb down at 11-8-4, and 1316 lb down at 11-5-12 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: 14-26=-8, 1-13=-80

Concentrated Loads (lb)

Vert: 11=-85(F) 29=-1401(F=-85, B=-1316) 30=-85(F) 31=-85(F)



August 10,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 chorembers 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, rerection and bracing of trusses and truss systems, see

ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



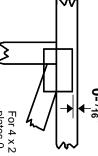
Edenton, NC 27932

### Symbols

# PLATE LOCATION AND ORIENTATION



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



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

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

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

### PLATE SIZE

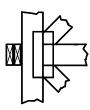
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



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

### **BEARING**



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

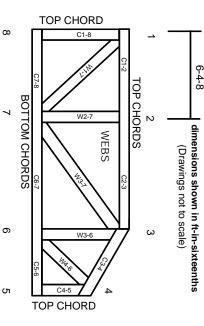
### Industry Standards:

National Design Specification for Metal

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

DSB-89: ANSI/TPI1:

## 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

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

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

© 2012 MiTek® All Rights Reserved





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

# **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
- Ņ Truss bracing must be designed by an engineer. For bracing should be considered. may require bracing, or alternative Tor I wide truss spacing, individual lateral braces themselves
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

ω

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

4

- Cut members to bear tightly against each other
- 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.

ტ. Ö

- 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

φ.

- 9 Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the camber for dead load deflection. responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- 13. 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
- Connections not shown are the responsibility of others
- 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
- Review all portions of this design (front, back, words is not sufficient. 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.