Job	Truss	Truss Type	Qty	Ply	15 Rosemont-Roof-Yarborough	
20120037-A	T2	Common	10	1	Job Reference (optional)	I44820305

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Feb 3 2021 Print: 8.430 S Feb 3 2021 MiTek Industries, Inc. Mon Feb 15 16:07:20   Page: 1
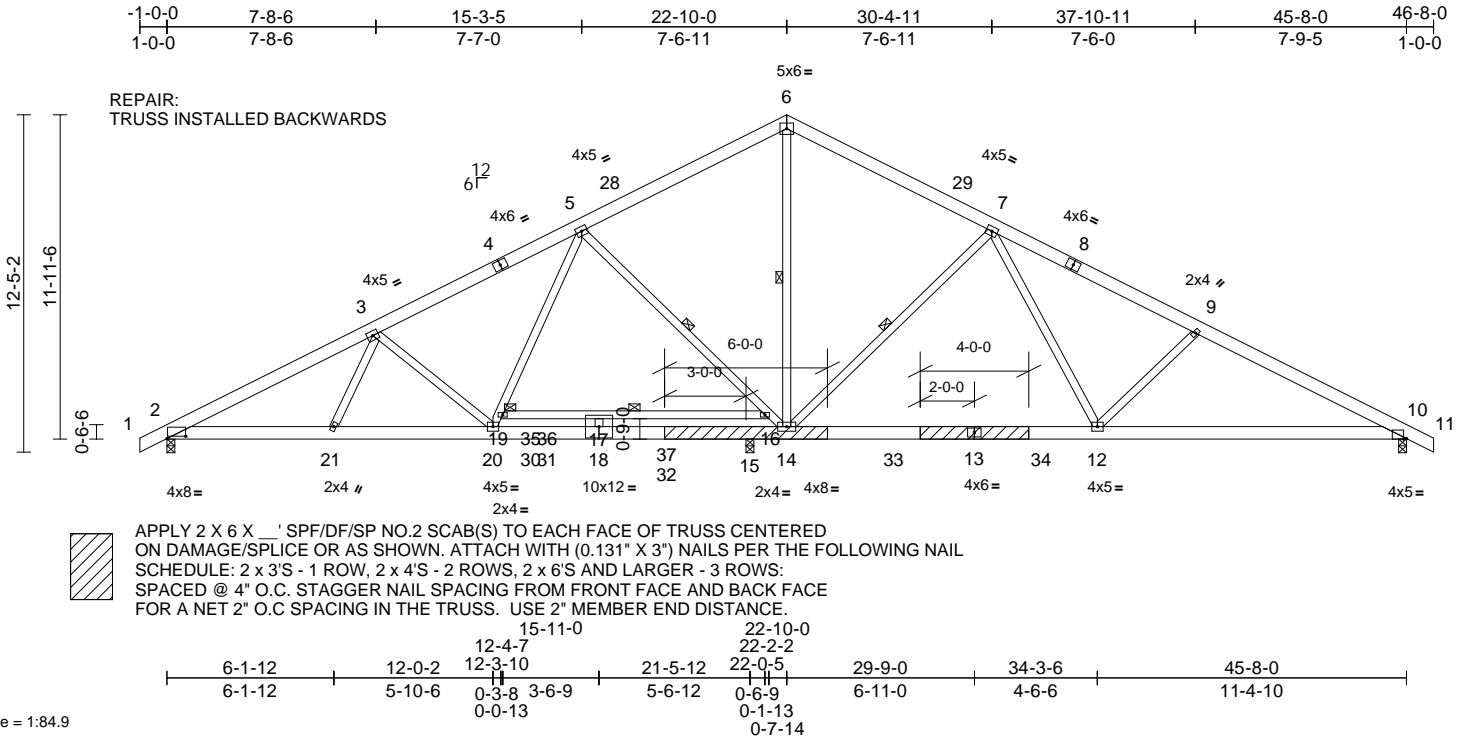ID:tBVDi9XfsNAfyKgPR3hSTPzD?sf-YIyorJRvGAGEbTCbT1BMd?sGzglN7N9CfLDu27zkrJd

REPAIR:
TRUSS INSTALLED BACKWARDS

APPLY 2 X 6 X __ ' SPF/DF/SP NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED
ON DAMAGE/SPLICE OR AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL
SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS:
SPACED @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE
FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

Scale = 1:84.9

Plate Offsets (X, Y): [2:0-8-4,0-1-0], [10:0-1-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.22	12-14	>999	240	MT20	244/190
Snow (Pf/Pg)	20.8/30.0	Lumber DOL	1.15	BC	0.69	Vert(TL)	-0.50	12-14	>578	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horiz(TL)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2012/TPI2007	Matrix-MSH								
BCDL	10.0										Weight: 340 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except* 19-16:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 14-6,14-5,14-7:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-9-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
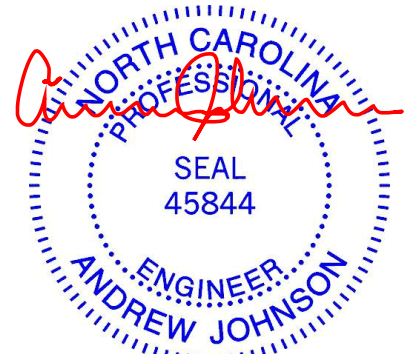6-0-0 oc bracing: 16-19
WEBS 1 Row at midpt 6-14, 5-14, 7-14

REACTIONS (lb/size) 2=1260/0-3-8, 10=1254/0-3-8, 15=1735/0-3-8
Max Horiz 2=268 (LC 19)
Max Uplift 2=-312 (LC 15), 10=-426 (LC 16)
Max Grav 2=1296 (LC 22), 10=1291 (LC 23), 15=1846 (LC 4)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2163/754, 3-5=-1679/581, 5-6=-691/581, 6-7=-708/581, 7-9=-1784/898, 9-10=-2093/982
BOT CHORD 2-21=-671/1855, 20-21=-526/1802, 15-20=-222/1189, 14-15=-222/1189, 12-14=-335/1205, 10-12=-718/1944
WEBS 3-20=-537/422, 19-20=0/721, 5-19=0/758, 5-16=-1014/391, 14-16=-1052/329, 7-14=-1026/597, 7-12=-219/762, 9-12=-426/406, 17-18=-279/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) V (IRC2012)=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=20.8 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp C; Fully Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
6) 200.0lb AC unit load placed on the bottom chord, 15-11-0 from left end, supported at two points, 5-0-0 apart.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 2, and   . This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

NORTH CAROLINA
PROFESSIONAL
SEAL
45844
ENGINEER
ANDREW JOHNSON

February 15,2021

ENGINEERING BY
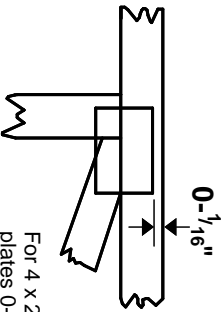**TRENCO**
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Symbols

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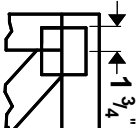
Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.

↑ 1 ¾"

0- ¹⁄₁₆"

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.
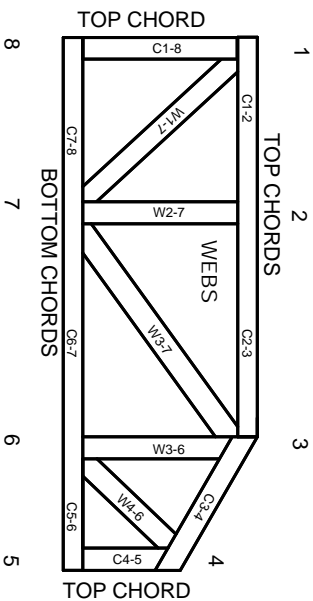
BEARING

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

Numbering System

dimensions shown in ft-in-sixteenths
(Drawings not to scale)

6-4-8

1
2
3

TOP CHORDS

TOP CHORD

C1-8

C1-2

W1-7

C7-8

W2-7

BOTTOM CHORDS

WEBS

C6-7

W3-7

C2-3

8
7
6
5

W3-6

C3-4

C5-6

W4-6

C4-5

TOP CHORD

4

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

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

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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⚠ 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 T or 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.