

RE: 3854660 - DREAMFINDERS HOMES, Jordan (A_2), A/B, Lot 687, MANOR @ LEXINGTON PLANTATION
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Project Customer: DREAMFINDERS HOMES Project Name:
 Lot/Block: 687 Subdivision: MANOR @ LEXINGTON PLANTATION
 Address: 240 BOW COMMON WAY
 City: CAMERON State: NC

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
 Address: State:
 City, County:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5
 Wind Code: ASCE 7-10 Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-10
 Wind Speed: 150 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 1 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Job ID#	Truss Name	Date
1	164894070	3854660		4/15/24

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter,SC.

Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2024.

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.



Gilbert, Eric
 April 15, 2024

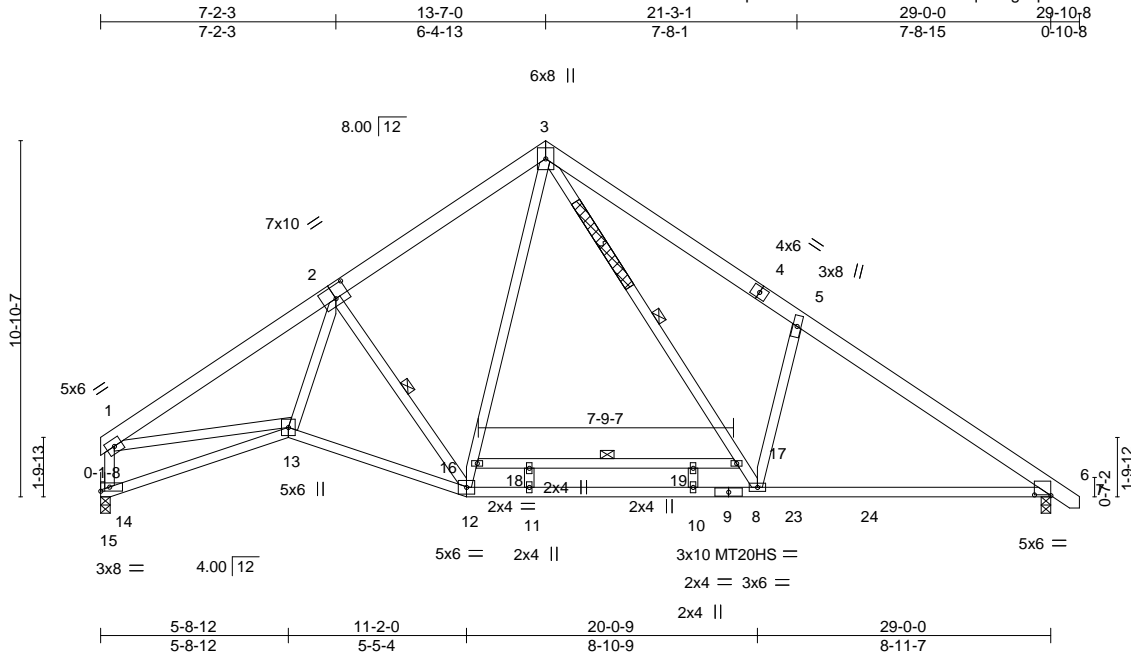
Job 3854660	Truss A05	Truss Type ROOF SPECIAL	Qty 2	Ply 1	DREAMFINDERS HOMES, Jordan (A_2), A/B, Lot 687, MANOR @ LEXINGTON 164894070
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Builders FirstSource (Sumter, SC),

Sumter, SC - 29153,

8.630 s Apr 5 2024 MiTek Industries, Inc. Mon Apr 15 08:49:15 2024 Page 1

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Scale = 1:70.3

Plate Offsets (X,Y)-- [2:0-5-0,0-4-8], [6:0-6-0,0-0-4]

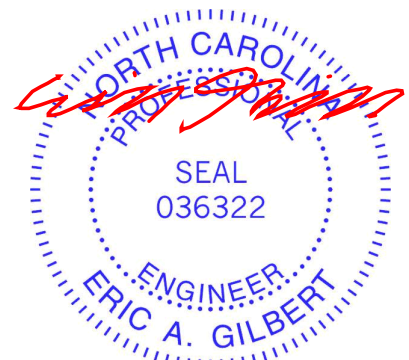
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-6-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.13 10-11 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.78	Vert(CT) -0.43 10-11 >811 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.09 6 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.13 8-22 >999 240	Weight: 219 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 6-9: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-9-5 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-14,16-17: 2x4 SP No.2	WEBS 1 Row at midpt 2-12, 3-8, 16-17

REACTIONS. (size) 14=0-3-8, 6=0-3-8
 Max Horz 14=580(LC 8)
 Max Uplift 14=497(LC 12), 6=564(LC 13)
 Max Grav 14=1532(LC 1), 6=1616(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2840/927, 2-3=-2050/925, 3-5=-2779/1234, 5-6=-2555/896, 1-14=-1741/668
 BOT CHORD 13-14=-540/696, 12-13=-732/2231, 11-12=-104/1268, 10-11=-104/1268, 8-10=-104/1268,
 6-8=-497/1964
 WEBS 2-13=-292/1125, 2-12=-1306/886, 12-16=-366/673, 3-16=-306/764, 1-13=-517/2024,
 5-8=-938/860, 3-17=-706/1501, 8-17=-758/1416

- NOTES-**
- 1) Repair Condition: web has 0-1-0 long break centered at 3-0-0 below joint 3.
 - 2) Apply 37" long 2x4 SP No.2 scab to both side(s) of truss centered on damage located 3-0-0 below joint 3 with 2 row(s) of 10d (0.131"x3") nails spaced 4" o.c. from each face. Minimum 0-3-0 end distance.
 - 3) NA
 - 4) Unbalanced roof live loads have been considered for this design.
 - 5) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever right exposed ; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 6) 200.0lb AC unit load placed on the bottom chord, 15-7-0 from left end, supported at two points, 5-0-0 apart.
 - 7) All plates are MT20 plates unless otherwise indicated.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 10) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 497 lb uplift at joint 14 and 564 lb uplift at joint 6.



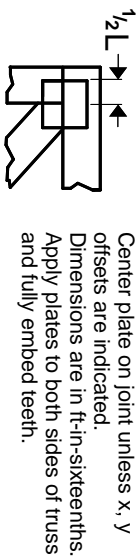
April 15, 2024

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 **ANSI/TPI1 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)

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.



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



* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

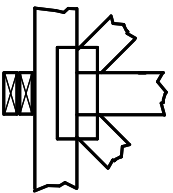
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

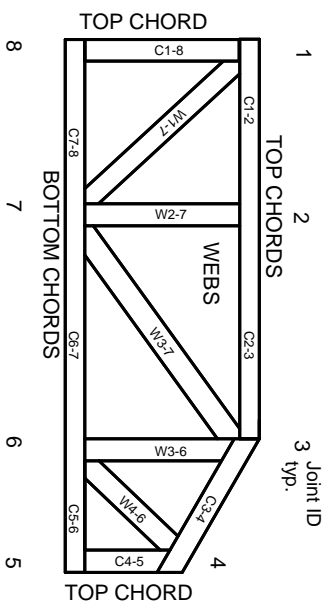


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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ENGINEERING BY
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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.