

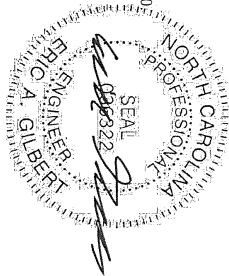
RE: P20-08023 - 475 McARTHUR RD
Site Information:
 Project Customer: Project Name:
 Lot/Block: Subdivision:
 Model:
 Address:
 City: State:
Trenco
 818 Soundside Rd
 Eden, NC 27932

General Truss Engineering Criteria & Design Loads (Individual Truss Design
Drawings Show Special Loading Conditions):
 Design Code: IRC2018/TP12014 Design Program: MITek 20/20 8.3
 Wind Code: N/A Wind Speed: 130 mph Design Method: User defined
 Roof Load: 40.0 psf Floor Load: N/A psf
 Mean Roof Height (feet): 12 Exposure Category: B

No.	Seal#	Truss Name	Date
1	E14797303	M01	8/28/20
2	E14797304	T01	8/28/20
3	E14797305	T01GE	8/28/20
4	E14797306	T01SSE	8/28/20
5	E14797307	T02	8/28/20
6	E14797308	T02GE	8/28/20
7	E14797309	T03	8/28/20
8	E14797310	T04	8/28/20
9	E14797311	T05	8/28/20
10	E14797312	T06	8/28/20
11	E14797313	T07	8/28/20

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Longleaf Truss Company.
 Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2020
IMPORTANT NOTE: This 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 ANS/ITP 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 the reference purpose only, and was not taken into account in the preparation of these designs. MITek or TRENCO has not independently verified the design and renders the designs for any particular building. Before use, the building designer shall verify the design and details of the design and incorporate these designs into the overall building design per ANS/ITP 1, Chapter 2.



Job P20-08023	Truss M01	Truss Type Monopitch Supported Gable	QTY 1	Ply 1	475 McARTHUR RD Lab Reference (optional)	E: 419/393
Langleaf Truss Company	West End, NC - 27376				8 330 s Jul 22 2020 MTRK Industries Inc. Fri Aug 28 09:25:37 2020 Page 1	
					ID: W049Y00486VYCPHSB7TYVNSN-D0LAWH6WIKVZ6R-3EGID4/SV6ZHQ/L3V4Z4JMCS	



Scale = 1/16" = 1'

Plate Offsets (X,Y) - [2:0-2:8,0:0-3]

LOADING (psf)	SPACING-	2-0-0	CSI	DEFL.	In	(top)	Wdell	Ltd	PLATES	GRP
TCLL (roof)	Plate Gap DCL	1.15	TC	Vert(L)	0.00	1	n/r	120	M720	244/190
Snow (p/rfg)	Lumber DCL	1.15	BC	Vert(C)	-0.00	1	n/r	120		
YCLL	Rep Stress Infr	YES	WB	Horz(CT)	-0.00	4	n/a	n/a		
BCLL	Code IRC2018/TP2014		Matix-P						Weight: 10 lb	FT = 20%
BDDL										

BRACING:
TOP CHORD Sheathed or 1.7x0 on purlins, except end verticals
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

LUMBER:
TOP CHORD 2x4 SP No. 1
BOT CHORD 2x4 SP No. 1
WEBS 2x4 SP No. 3
SLIDER Left 2x4 SP No. 3 x 1'-6-0

REACTIONS:
(S2) 4-1'-2.0, 2-1'-7.0
Max Uplift 4=9IL(C 9), 2=26IL(C 12)
Max Grav 4=46IL(C 24), 2=126IL(C 2)

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

- NOTES:
- Wind ASCE 7-16; Valt=130mph (3-second gust) Vsect=103mph. TCCL=6.0psf; BDDL=6.0psf; h=12ft; B=45ft; L=24ft; gaxe=2ft; Cal. II; Exp B; Endosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DCL=1.50 plate gap DCL=1.50
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Grade End Details as applicable, or consult qualified building designer as per AISI SFR 1.
 - DCL=1.50; L=10; Rough Call B Partially Exp. Cp=1.0; Ce=1.00; Cf=1.10; CL=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.5 psf on overhangs non-concurrent with other live loads.
 - Gable requires continuous bottom chord bearing.
 - Truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 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.
 - Provide mechanical connection (by others) for truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
 - This truss is designed in accordance with the 2018 International Residential Code sections R902.1.1.1 and R902.10.2 and references standard AISI SFR 1.

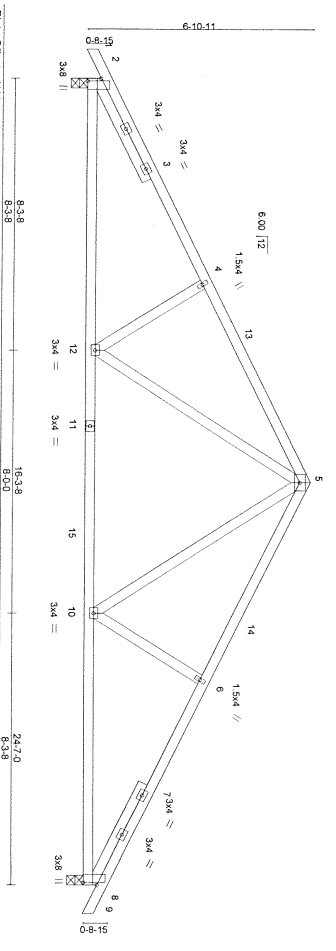
WARNING - Verify design parameters and field notes ON THIS AND ALL OTHER WORK REFERENCE DATE 8/12/21 per 6/19/2020 BEFORE USE
Design values for use only with AIA connections. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall design. The building designer is responsible for determining the appropriate design parameters for the application and for ensuring that the design is always required for stability and proper design. Always consult with the building designer for any questions. For general guidance regarding the design of building components, refer to the International Residential Code (IRC) and the International Building Code (IBC). Safety information available from Truss Steel Systems, 2850 Green Valley Way, Suite 300 Walnut, MD 20783.

NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
FRANCIS A. GILBERT
0369322
August 28 2020

TRENCO
ENGINEERING & ARCHITECTURE
818 Sandstone Road
Estimote, NC 27626

Job	Truss	Truss Type	Qty	Qty	475 McARTHUR RD	E14797311
P20-00023	105	Common	3	1		
Longleaf Truss Company,	Wash End NC - 27316,				8-309 S JUL 22 2020 MITAK Industries, Inc. Fri Aug 28 09:26:01 2020 Page 1	
6-10-8	6-3-8	13-3-8			ID:WZG4Y406867YCP1819TY1NENJCF7aAGW6KCS6268XKXLA4M4UJZ0YMO4	25-5-81
6-10-8	6-3-8	6-9-0			8-3-8	6-10-8
					8-3-8	6-10-8

Scale = 1/4" = 1'-0"



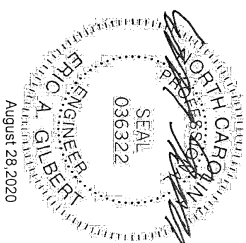
LOADING (psf)	SPACING-	CSI	DEFL	PLATES
TCL (roof)	Plate Grip DOL	0.46	In (top)	GRP
TCL (wall)	Lumber DOL	0.59	Vert(L)	M70
TCL (floor)	Rep Stress Incl	0.25	Vert(R)	24x190
BCL	Code IRC2018R1P2014		Horz(CT)	
BCLR				Weight: 125 lb
				FT = 20%

LUMBER: 2x4 SP No.1
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 x 3-6-0, Right 2x4 SP No.3 x 3-6-0

REACTIONS:
 Max Horz 2x4 114(LC 10)
 Max Uplift 2x4 21(LC 12), 8x21(LC 12)
 Max Grav 2x4 114(LC 24), 8x114(LC 25)

FORCES: (R) - Max Comp/Max Ten - All forces 50% (D) or less except when shown.
 TOP CHORD 2-12x01529, 10-12x01058, 8-10x017443, 6-8x172242
 BOT CHORD 2-12x01529, 10-12x01058, 8-10x017443, 6-8x172242
 WEBS 5-10x0648, 6-10x092107, 5-12x0649, 4-12x092107

- NOTES:**
- Unbalanced roof live loads have been considered for this design.
 - Exp E Enclosed LUMBERS (downhill), cantilever left and right exposed, stud vertical left and right exposed, Lumber DOL=1.00 plate grip DOL=1.50
 - TCLL ASCE 7-16, P=20 psf (roof LL, Lum DOL=1.15 Plate DOL=1.15), P=15.0 psf (Pl=1.6 psf (Lum DOL=1.15 Plate DOL=1.15), Is=1.0, Rough Cat B, Partially Exp., Ce=1.0, Cs=1.00, Ch=1.10
 - Unbalanced snow loads have been considered for this design.
 - Design roof load greater than roof live load of 12.0 psf or 1.00 times flat roof load of 11.8 psf on overhangs non-concurrent with other live loads.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20 psf 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 BCLR = 10 Ogsf.
 - Provide mechanical connection (by others) to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.
 - The truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard AS/NZS 1711.



WARNING: View/draw parameters and READ NOTES ON THIS AND INCLUDED WRITE REFERENCE PAGE M1-Z17 rev. 5/19/2018 BEFORE USE.
 Design valid for use only with MITRAC connectors. This design is based only upon parameters shown, and is for an individual building component, not a building system. Before use, the building designer must verify the applicability of design parameters and properly incorporate the design into the overall building design. The building designer is responsible for ensuring that the design is suitable for the intended use and that all applicable codes and standards are followed. A design is always required for stability and to prevent collapse with possible partial injury and property damage. For general questions regarding the design, please contact the design engineer. Safety information available from Truss Plate Institute, 3070 Court Highway, Suite 203 Waldorf, MD 20686.

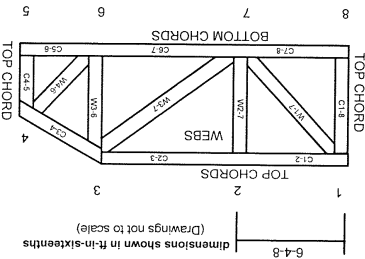
TRUSCO
 818 Courthouse Road
 Edison, NC 27627

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 1 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 fabrication. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are the 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 perfect 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.

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
 ESR-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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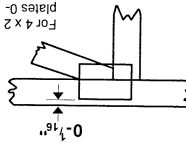


MITek Engineering Reference Sheet, Mill-7473 rev. 5/19/2020

Symbols

PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated.
 Dimensions are in 1/16-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

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

4 X 4



Indicated by symbol shown and/or text in the bracing section of the reaction section indicates joint (supports) occur. Icons vary but number where bearings occur.

BEARING

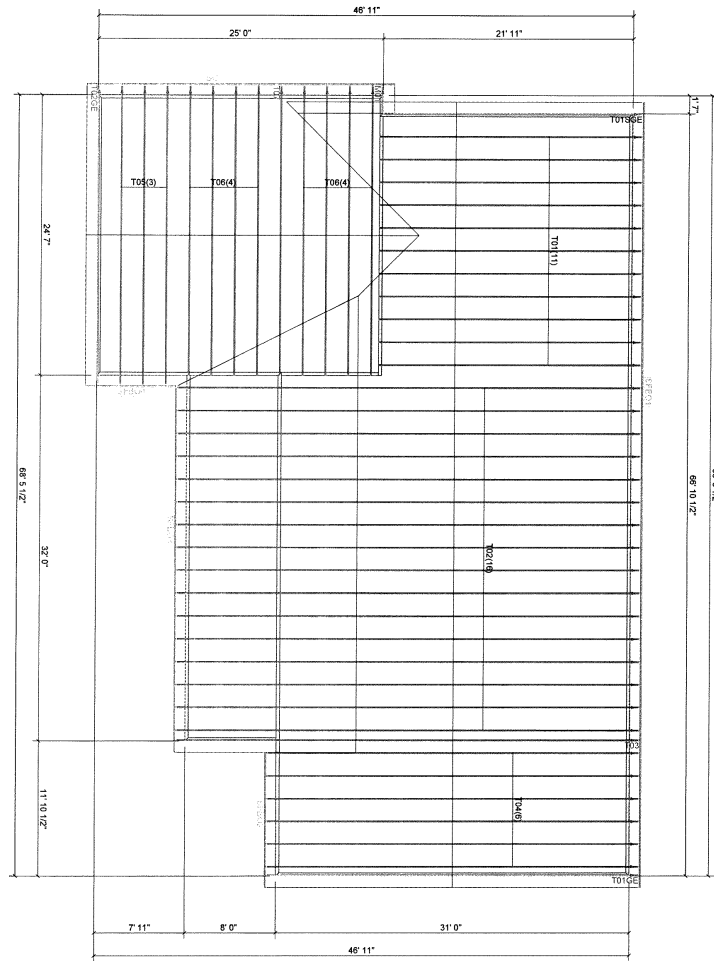


Indicates location where bearings occur.

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
 Design Standard for Bracing.
 Building Component Safety Information.
 Guide to Good Practices for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

BSI: British Standards Institution.
 DSB-89: Design Standard for Bracing.
 Industry Standards:

Floor Area: 0 SF
 Roof Plywood: 0
 Roof Area: 3279.86 SF
 Roof Sheeting: 41 Squares



ROOF TRUSS LAYOUT
 148 - 11-19

Client: SERVICE BUILDING SUPPLY SANF
 Project: 475 McARTHUR RD
 Model: HARRINGTON PROP
 Lot #: / /
 Order #: P20-08023
 Designer: / /
 Date: / /

ONGLEAF RUSS CO.
 4476 Hwy. 21 W
 West End, NC 27376
 (910) 673-4711

NOTE
 IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT TO PROVIDE AN APPROPRIATE CONNECTION FOR TRUSSES TO SUPPORTING STRUCTURE PERREACTIONS SHOWN ON TRUSS ENGINEERING. SPECIAL CONSIDERATIONS FOR MECHANICAL EQUIPMENT AND/OR PLUMBING (AND THEIR CONNECTIONS) IN TRUSS SPACE MUST BE DIAGRAMMED BY BUILDER ON APPROVED TRUSS LAYOUT PRIOR TO FABRICATION.
 THIS COMPANY IS A TRUSS MANUFACTURER WHOSE RESPONSIBILITIES ARE LIMITED TO THOSE DESCRIBED IN WTC1-1995 "DESIGN RESPONSIBILITIES". ACCORDINGLY, IT DISCLAIMS ANY RESPONSIBILITIES AND/OR LIABILITY FOR THE CONSTRUCTION, DESIGN, DRAWINGS, DOCUMENTS INCLUDING THE INSTALLATION AND BRACING OF TRUSSES MANUFACTURED BY THIS COMPANY. SEE <http://support.abcdindustry.com/pubs/TTBDRsp-D>