RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

11/09/2020

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 400279
Lot 62 MN

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Wheeler - Waverly.

Pages or sheets covered by this seal: I43442661 thru I43442661

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

Missouri COA: Engineering 001193

November 2,2020

Sevier, Scott ,Engineer

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	Lot 62 MN
40025	S06	ROOF SPECIAL GIRDER	1	2	I43442661

Wheeler Lumber, Waverly, KS 66871 — Job Reference (optional)

8.420 s Oct 9 2020 MiTek Industries, Inc. Mon Nov 2 10:21:58 2020 Page 1

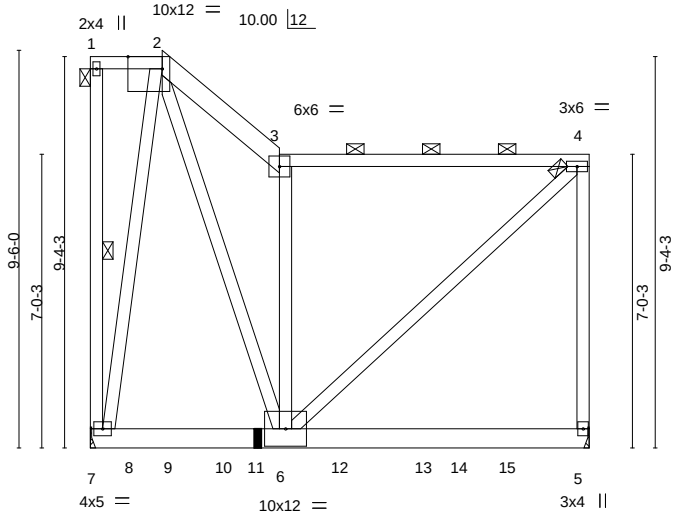
ID:eIVztmttrvqeWtykiiM9UhzAKds-aL9maV7YLTD5zEZ34SMrTO94TODcUPYbsfnO2JyNFRN

1/4" DEEP X 2" WIDE NOTCH IN FRONT PLY OF BOTTOM CHORD CENTERED AT 4' FROM LEFT END

NO REPAIR REQUIRED

1-8-10 | 4-6-3 | 11-11-0
1-8-10 | 2-9-10 | 7-4-13

Scale = 1:55.0



LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED
NO LUMBER DEFECTS ARE TO BE LOCATED WITHIN +/- 12" OF NOTCH

1-8-10 | 4-6-3 | 11-11-0
1-8-10 | 2-9-10 | 7-4-13

Plate Offsets (X,Y)-- [2:0-9-13,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.13	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.23	5-6	>613	240		
BCLL	0.0 *+	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	5-6	>999	240	Weight: 200 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 1-7

REACTIONS. (lb/size) 7=3010/Mechanical, 5=2927/Mechanical
Max Horz 7=-347(LC 23)
Max Uplift 7=-438(LC 4), 5=-485(LC 5)
Max Grav 7=3144(LC 2), 5=2955(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2430/359, 3-4=-1774/243, 4-5=-1819/362
BOT CHORD 7-8=-266/576, 8-9=-266/576, 9-10=-266/576, 10-11=-266/576, 6-11=-266/576
WEBS 2-7=-2708/438, 2-6=-534/4294, 3-6=-1851/394, 4-6=-388/2353

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 438 lb uplift at joint 7 and 485 lb uplift at joint 5.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) A + following a basic load indicates that the load has been modified in one or more load cases.
11) Load case(s) 2, 14, 15, 16, 17, 18, 31, 32, 33, 34 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1081 lb down and 77 lb up at 1-11-12, 1084 lb down and 232 lb up at 3-11-12, 974 lb down and 63 lb up at 5-11-12, and 1004 lb down and 63 lb up at 7-11-12, and 937 lb down and 196 lb up at 9-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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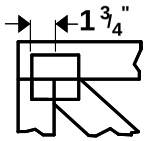
LOAD CASE(S) Standard Except:

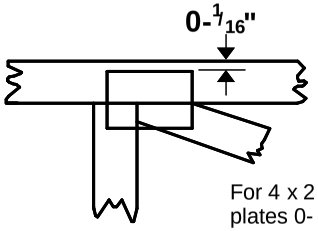
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
   Concentrated Loads (lb)
   Vert: 9=-1028(B) 11=-1048(B) 12=-940(B) 13=-938(B) 15=-937(B)
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-58, 2-3=-57, 3-4=-58, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Concentrated Loads (lb)
   Vert: 9=-1081(B) 11=-1084(B) 12=-974(B) 13=-1004(B) 15=-804(B)
14) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-2=-20, 2-3=-20, 3-4=-20, 7-8=-40, 8-10=-60, 10-14=-40, 5-14=-60
   Concentrated Loads (lb)
   Vert: 9=-711(B) 11=-700(B) 12=-630(B) 13=-671(B) 15=-406(B)
15) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-36, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=21, 2-3=9, 4-5=7
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
16) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-36, 2-3=-69, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=-7, 2-3=-11, 4-5=-21
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
17) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-49, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=19, 2-3=9, 4-5=6
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
18) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-49, 2-3=-36, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=-6, 2-3=22, 4-5=-19
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-7(B) 11=108(B) 12=-12(B) 13=-12(B) 15=88(B)
31) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-36, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=21, 2-3=9, 4-5=7
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
32) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-36, 2-3=-69, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=-7, 2-3=-11, 4-5=-21
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
33) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-49, 2-3=-49, 3-4=-49, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=19, 2-3=9, 4-5=6
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)
34) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-49, 2-3=-36, 3-4=-36, 7-8=-35, 8-10=-50, 10-14=-35, 5-14=-50
   Horz: 1-7=-6, 2-3=22, 4-5=-19
   Drag: 1-2=0
   Concentrated Loads (lb)
   Vert: 9=-998(B) 11=-1002(B) 12=-900(B) 13=-923(B) 15=-778(B)

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.

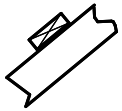
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

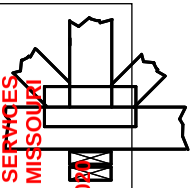
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

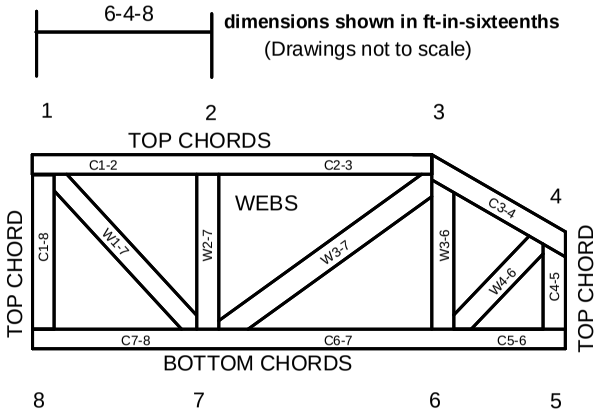


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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

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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.