

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 4682454
Mattamy; Lot 13 Bloom

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Apex,NC).

Pages or sheets covered by this seal: I76491436 thru I76491437

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



September 22, 2025

Gilbert, Eric

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	Mattamy; Lot 13 Bloom	176491436
4682454	A02	HIP	4	1		
Job Reference (optional)						1 OF 2

Builders FirstSource, Apex, NC 27523

8.830 s Dec 4 2024 MiTek Industries, Inc. Mon Sep 22 11:48:34 2025 Page 1

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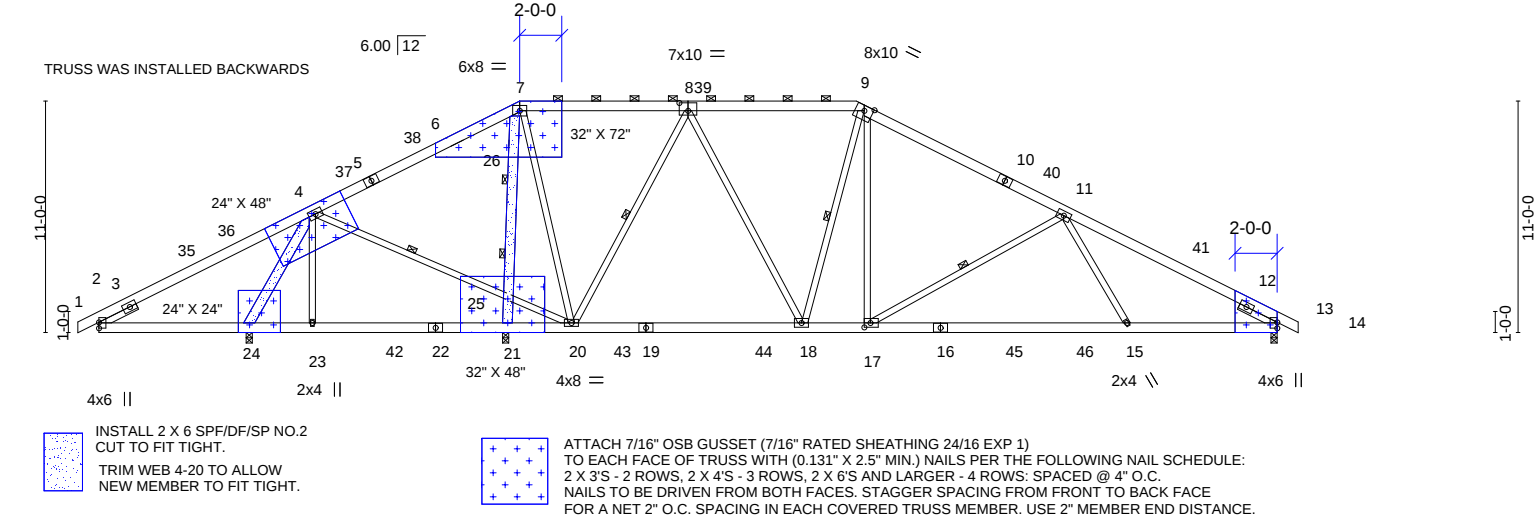
54-2-15 57-0-0

1-0-0 6-6-0 10-1-12 15-4-0 20-0-0 28-0-0 36-0-0 45-10-4 48-10-4 52-6-053-0-0 56-0-0

1-0-0 6-6-0 3-7-12 5-2-4 4-8-0 8-0-0 8-0-0 9-10-4 3-0-0 3-7-12 0-6-0 1-9-1

1-2-15 1-0-0

Scale = 1:109.5



7-1-12		10-1-12		19-2-4		22-5-8		33-6-8		45-10-4		48-10-4		56-0-0			
7-1-12		3-0-0		9-0-8		3-3-4		11-1-0		12-3-12		3-0-0		7-1-12			
Plate Offsets (X,Y)-- [8:0-5-0,0-4-8], [17:0-3-8,0-2-8]																	
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL		1.15		TC	0.78	Vert(LL)		-0.18	15-17	>999		360		MT20	244/190
TCDL	10.0	Lumber DOL		1.15		BC	0.80	Vert(CT)		-0.41	15-17	>999		240			
BCLL	0.0 *	Rep Stress Incr		NO		WB	0.95	Horz(CT)		-0.06	24	n/a		n/a			
BCDL	10.0	Code IRC2015/TPI2014				Matrix-MS		Wind(LL)		0.05	15-17	>999		240		Weight: 457 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x6 SP No.2 *Except*	Structural wood sheathing directly applied or 5-5-2 oc purlins, except
9-10,1-5,10-14: 2x6 SP 2400F 2.0E or 2x6 SP DSS	2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD	BOT CHORD
2x6 SP No.2	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	6-0-0 oc bracing: 2-24.
20-25,11-17,4-25, : 2x4 SP No.2, 4-24,7-21: 2x6 SP No.2	1 Row at midpt
SLIDER	2 Rows at 1/3 pts
Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12	8-20, 9-18, 11-17, 4-25
	7-21

REACTIONS. (lb/size) 13=1436/0-3-8, 21=2669/0-3-8, 24=2261/0-3-8

Max Horz 13=140(LC 16)

Max Uplift 13=-74(LC 13), 24=-252(LC 12)

Max Grav 13=1453(LC 24), 21=2669(LC 1), 24=2333(LC 23)

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

TOP CHORD 2-3=-195/560, 3-35=-300/658, 35-36=-284/673, 4-36=-295/1133, 4-37=-256/130, 5-38=0/334, 6-38=0/467, 6-7=-56/1115, 8-39=-1064/187, 9-39=-1069/187, 9-10=-1339/170, 10-40=-1398/131, 11-40=-1473/123, 11-41=-2077/97, 12-41=-2283/65, 12-13=-843/0

BOT CHORD 2-24=-602/353, 23-24=-35/522, 23-42=-35/522, 22-42=-35/522, 21-22=-35/522, 20-21=-65/668, 20-43=-33/753, 19-43=-33/753, 19-44=-33/753, 18-44=-33/753, 17-18=0/1181, 16-17=-160/1842, 16-45=-160/1842, 45-46=-160/1842, 15-46=-160/1842, 13-15=-100/1941

WEBS 20-25=-1008/241, 7-20=-78/1734, 8-20=-1260/160, 8-18=-4/740, 9-18=-497/71, 11-17=-762/234, 9-17=-6/595, 11-15=0/443, 4-24=-2245/364, 21-25=-2463/189, 25-26=-2550/232, 7-26=-2607/248, 4-25=-857/141, 6-26=-610/154

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 4-7-3, Interior(1) 4-7-3 to 20-0-0, Exterior(2) 20-0-0 to 28-0-0, Interior(1) 28-0-0 to 36-4-8, Exterior(2) 36-4-8 to 44-3-9, Interior(1) 44-3-9 to 57-0-0 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=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are MT20 plates unless otherwise indicated.
 - 5) All plates are 5x8 MT20 unless otherwise indicated.
 - 6) N/A
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * 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.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 13 and 252 lb uplift at joint 24.
 - 10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and

Continued on page 2

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)

SEAL 036322

ENGINEER

ERIC A. GILBERT

September 22,2025

TRENCO

ENGINEERING BY

A MiTek Affiliate

818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy; Lot 13 Bloom	I76491436
4682454	A02	HIP	4	1	Job Reference (optional)	

- NOTES-**
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 12) 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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-36=-60, 36-38=-260(F=-200), 7-38=-60, 7-9=-60, 9-14=-60, 27-31=-20

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

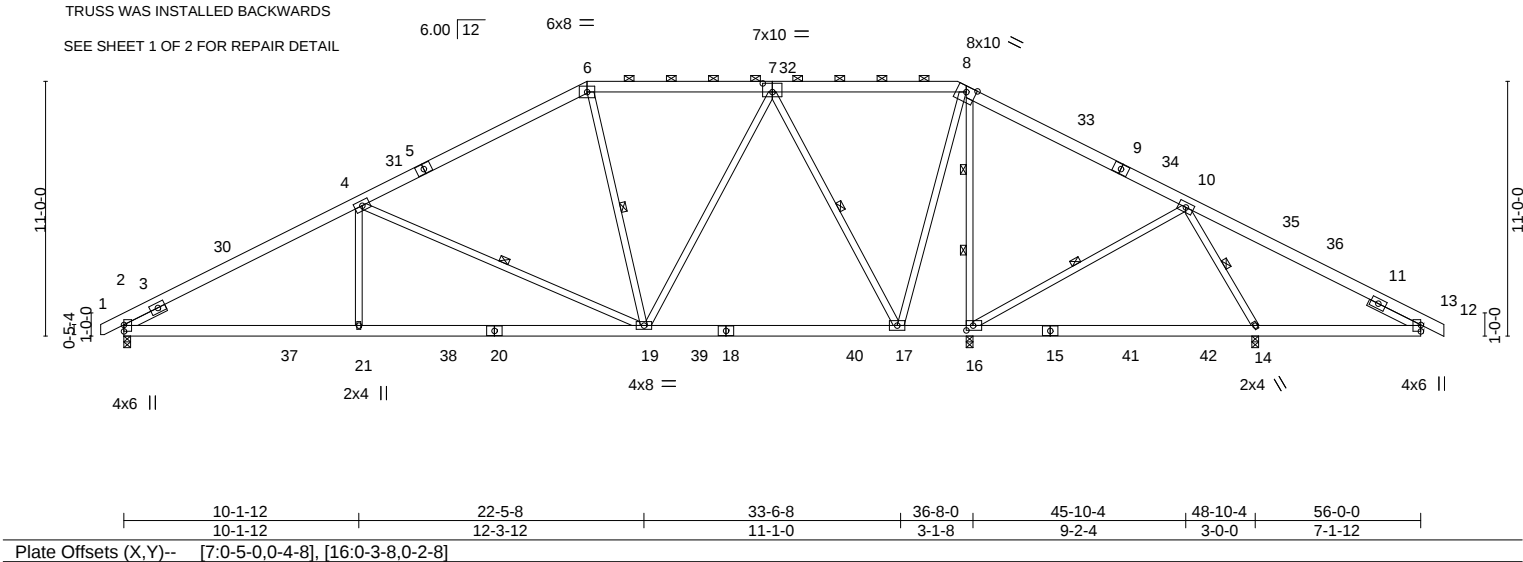
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy; Lot 13 Bloom	176491437
4682454	A03	HIP	1	1		

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Fri Sep 19 10:05:36 2025 Page 1
ID:jww8HilN90uFSTm7sxLqmezW8l3-mXVnFbUerXj75_nYOOYhEXBQXxVNYNEa?ZDusGyc5mz
1-0-0 10-1-12 20-0-0 28-0-0 36-0-0 45-10-4 56-0-0 57-0-0
1-0-0 10-1-12 9-10-4 8-0-0 8-0-0 9-10-4 10-1-12 1-0-0
Scale = 1:99.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.18 17-19	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.31 19-21	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.05 14	n/a	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-MS	Wind(LL)	-0.05 14-16	>999	240	Weight: 417 lb	FT = 20%

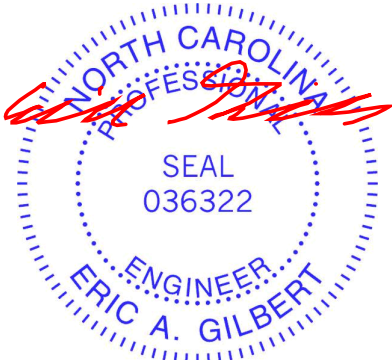
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except
8-9,1-5,9-13: 2x6 SP 2400F 2.0E or 2x6 SP DSS	2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 4-19, 6-19, 7-17, 10-16, 10-14
4-19,10-16: 2x4 SP No.2	2 Rows at 1/3 pts 8-16
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 2-5-12	

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 14=0-3-8
Max Horz 2=-139(LC 13)
Max Uplift 2=-69(LC 12), 14=-239(LC 13)
Max Grav 2=1374(LC 25), 16=2961(LC 1), 14=2151(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2156/124, 4-6=-1164/165, 6-7=-943/168, 8-10=-80/781, 10-12=-352/1133
BOT CHORD 2-21=-124/1846, 19-21=-124/1846, 17-19=-23/572, 16-17=-490/223, 14-16=-57/432, 12-14=-594/399
WEBS 4-21=0/438, 4-19=-1018/199, 7-19=-5/873, 7-17=-1366/157, 8-17=-100/1421, 10-16=-1043/207, 8-16=-2208/234, 10-14=-2092/536

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-11-2 to 4-8-2, Interior(1) 4-8-2 to 20-0-0, Exterior(2) 20-0-0 to 28-0-0, Interior(1) 28-0-0 to 36-4-8, Exterior(2) 36-4-8 to 44-3-9, Interior(1) 44-3-9 to 57-0-0 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=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 5x8 MT20 unless otherwise indicated.
 - 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 20.0psf 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 14=239.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

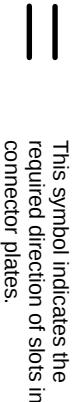
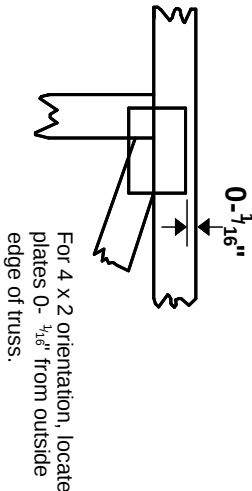
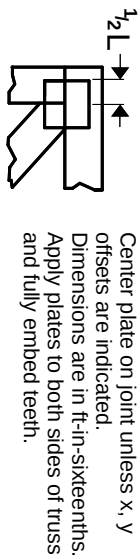
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-8=-60, 8-33=-60, 33-35=-260(F=-200), 13-35=-60, 22-26=-20



September 22,2025

Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

4 X 4

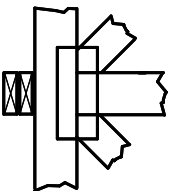
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

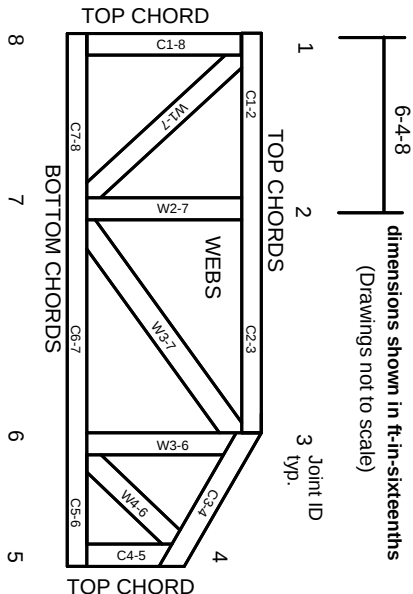


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI.1: 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/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 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.

MITek

ENGINEERING BY
TRENCO
A MITek Affiliate

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