

Trenco 818 Soundside Rd Edenton, NC 27932

Re: J0524-3234

Lot 137 Duncans Creek

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: I66783675 thru I66783691

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



July 11,2024

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.



ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 33-0-8 17-11-8 15-1-0

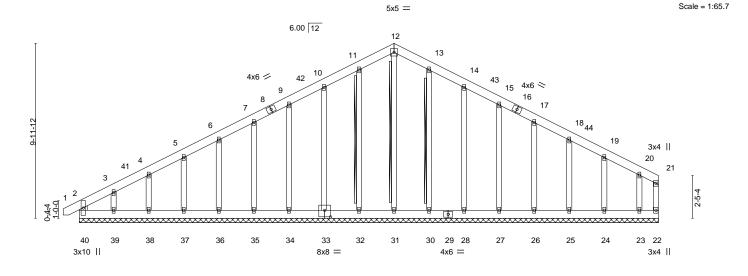


Plate Offsets (X,Y)	[33:0-4-0,0-4-8]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 1 n/r 120	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 1 n/r 120	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.00 22 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-R		Weight: 291 lb FT = 20%

33-0-8

WEBS

LUMBER-BRACING-2x6 SP No.1

TOP CHORD **BOT CHORD** 2x6 SP No.1 2x6 SP No.1 *Except* **WEBS**

21-22: 2x4 SP No.2

OTHERS 2x4 SP No.2

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

2x4 SPF No.2 - 12-31, 11-32, 13-30 T-Brace: Fasten (2X) T and I braces to narrow edge of web with 10d

(0.131"x3") nails, 6in o.c., with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 33-0-8.

(lb) -Max Horz 40=148(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 40, 22, 32, 33, 34, 35, 36, 37, 38,

30, 28, 27, 26, 25, 24, 23 except 39=-105(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 40, 22, 31, 32, 33, 34, 35, 36,

37, 38, 39, 30, 28, 27, 26, 25, 24, 23

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

TOP CHORD 7-9=-85/287, 9-10=-105/345, 10-11=-127/408, 11-12=-140/443, 12-13=-140/444,

13-14=-127/409, 14-15=-104/345, 15-17=-84/287

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) -0-9-2 to 3-7-11, Exterior(2) 3-7-11 to 17-11-8, Corner(3) 17-11-8 to 22-4-5, Exterior(2) 22-4-5 to 32-10-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) 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 30.0psf 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 40, 22, 32, 33, 34, 35, 36, 37, 38, 30, 28, 27, 26, 25, 24, 23 except (jt=lb) 39=105.
- 11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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/TP11 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)

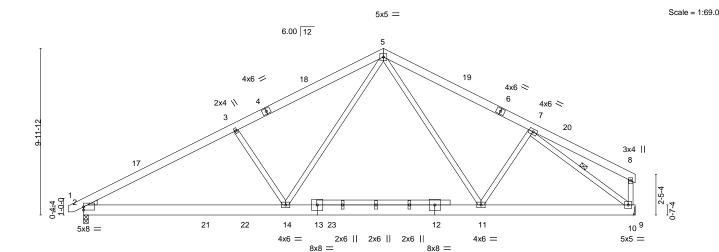




8-10-0

26-9-8

8-10-0



			12-1-5		1	23-9-	11	1		33-0-8	
		ı	12-1-5		1	11-8-	6	ı		9-2-13	
Plate Offsets	s (X,Y)	[2:0-0-0,0-2-5]									
LOADING ((psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defI	L/d	PLATES	GRIP
TCLL 2	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.14 11-14	>999	360	MT20	244/190
TCDL 1	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.21 11-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.03 10	n/a	n/a		
BCDL 1	10.0	Code IRC2015/TP	PI2014	Matrix	<-S	Wind(LL)	0.05 2-14	>999	240	Weight: 265 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

WEBS

LUMBER-

TOP CHORD 2x6 SP No.1

BOT CHORD 2x8 SP No.1 *Except*

15-16: 2x4 SP No.1

2x4 SP No.2 WEBS

WEDGE

Left: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 10=Mechanical

Max Horz 2=153(LC 12)

Max Uplift 2=-95(LC 12), 10=-64(LC 13) Max Grav 2=1395(LC 2), 10=1327(LC 2)

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

9-1-8

TOP CHORD 2-3=-2278/473, 3-5=-2036/500, 5-7=-1686/463 **BOT CHORD**

2-14=-374/1951, 11-14=-141/1222, 10-11=-278/1394 WEBS 3-14=-470/305, 5-14=-133/1001, 5-11=-51/449, 7-10=-1756/348

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 17-11-8, Exterior(2) 17-11-8 to 22-4-5, Interior(1) 22-4-5 to 32-9-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.



33-0-8

6-3-0

Structural wood sheathing directly applied or 4-10-15 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.

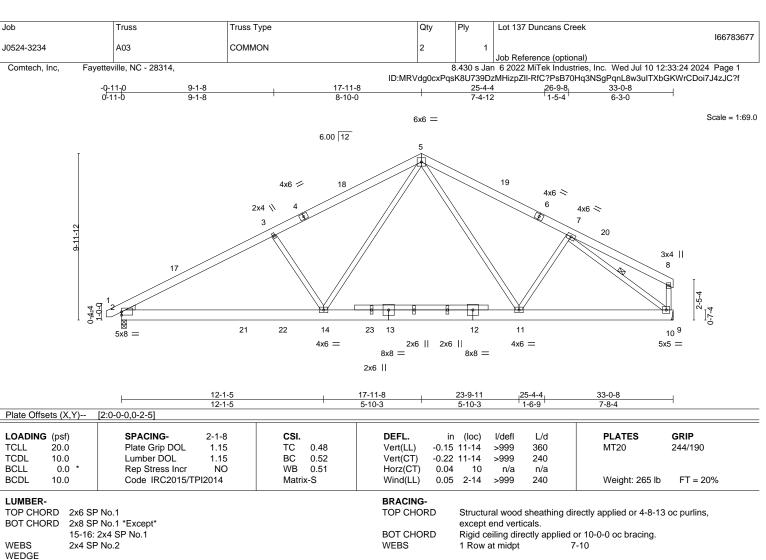
1 Row at midpt

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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)





Left: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 10=Mechanical

Max Horz 2=162(LC 12)

Max Uplift 2=-101(LC 12), 10=-68(LC 13) Max Grav 2=1482(LC 2), 10=1410(LC 2)

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

TOP CHORD 2-3=-2420/503, 3-5=-2163/531, 5-7=-1792/492 **BOT CHORD**

2-14=-397/2073, 11-14=-150/1298, 10-11=-296/1481

WEBS 3-14=-500/324, 5-14=-141/1063, 5-11=-55/478, 7-10=-1865/370

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 17-11-8, Exterior(2) 17-11-8 to 22-4-5, Interior(1) 22-4-5 to 32-9-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 30.0psf 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=101.



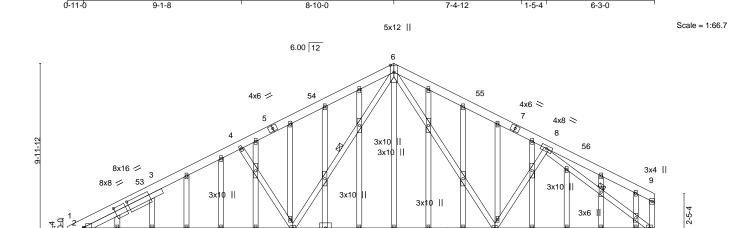
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15

4x6

except end verticals.

14

3x4 =

26-9-8

33-0-8

13

Structural wood sheathing directly applied or 6-0-0 oc purlins,

4x4

11 10

3x6 ||

12

			12-1-5		14-0-0	17-11-8 ₁	23-9-11		25-4-4	28-4-0	1 33-0-8	1
			12-1-5		1-10-11	3-11-8	5-10-3		1-6-9	2-11-12	4-8-8	1
Plate Offs	ets (X,Y)	[2:0-3-6,0-1-9], [16:0-4-0	,0-4-8], [35:2-	10-11,0-2-8], [36:2-0-7,0-2	2-8]						
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defI	L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.21 14-17	>925	360		MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.30 14-17	>647	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01 10	n/a	n/a			
BCDL	10.0	Code IRC2015/TI	PI2014	Matrix	c-S	Wind(LL)	0.02 14-17	>999	240		Weight: 352 lb	FT = 20%
											3	

TOP CHORD

LUMBER-BRACING-

20 57 19

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1

WEBS 2x4 SP No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.2 **WEBS** 1 Row at midpt 6-17, 8-10

3x4 =

16

8x8

17

18

SLIDER Left 2x4 SP No.2 5-0-8

REACTIONS. All bearings 14-3-8 except (jt=length) 10=5-0-0, 12=5-0-0, 11=5-0-0, 13=0-3-8, 13=0-3-8.

Max Horz 2=241(LC 12) (lb) -

4x6 ||

22

21

Max Uplift All uplift 100 lb or less at joint(s) 2, 21, 12, 11 except 17=-254(LC 12), 10=-242(LC 13),

18=-476(LC 18), 22=-132(LC 12), 13=-155(LC 18)

Max Grav All reactions 250 lb or less at joint(s) 20, 21, 22, 12, 11, 13, 13 except 2=334(LC 23), 17=1654(LC

2), 10=775(LC 2), 19=326(LC 18)

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

2-4=-452/187, 6-8=-881/329 TOP CHORD

BOT CHORD 2-22=-216/284, 21-22=-216/284, 20-21=-216/284, 19-20=-216/284, 18-19=-216/284,

17-18=-216/284, 14-17=-29/378, 13-14=-189/776, 12-13=-189/776, 11-12=-189/776,

10-11=-189/776

WEBS 4-17=-527/419, 6-17=-709/155, 6-14=-156/648, 8-14=-280/320, 8-10=-979/234

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-2 to 3-7-11, Interior(1) 3-7-11 to 17-11-8, Exterior(2) 17-11-8 to 22-4-5, Interior(1) 22-4-5 to 32-10-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) 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 30.0psf 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 21, 12, 11 except (jt=lb) 17=254, 10=242, 18=476, 22=132, 13=155.



July 11,2024

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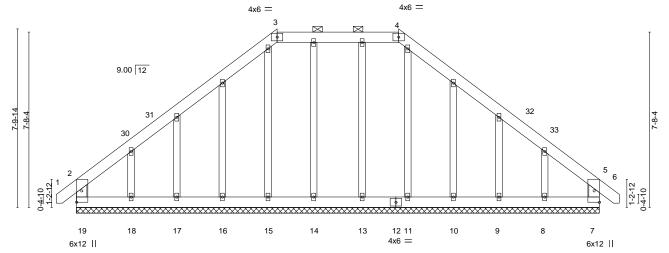


Job Truss Truss Type Qty Lot 137 Duncans Creek 166783679 J0524-3234 B01GE **GABLE** Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:26 2024 Page 1

ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 22-11-0 23-9-8 0-10-8 8-9-9 5-3-15 8-9-9

Scale = 1:50.5



LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.36 BC 0.24 WB 0.00 Matrix-R	DEFL. Vert(LL) Vert(CT)	in (I 0.02 0.02 0.01	(loc) 6 6 7	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 198 lb	GRIP 244/190 FT = 20%

22-11-0

LUMBER-BRACING-

TOP CHORD 2x6 SP No.1 2x6 SP No.1 **BOT CHORD** WEBS 2x6 SP No.1 **OTHERS** 2x4 SP No.2

TOP CHORD **BOT 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.): 3-4. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 22-11-0.

(lb) -Max Horz 19=251(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 17, 9 except 19=-214(LC 13), 7=-214(LC 12), 18=-248(LC 12),

8=-248(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 14, 15, 16, 17, 13, 11, 10, 9 except 19=780(LC 1), 7=780(LC

1), 18=331(LC 10), 8=329(LC 11)

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

TOP CHORD 2-19=-733/399, 2-3=-816/389, 3-4=-529/404, 4-5=-816/389, 5-7=-733/399

BOT CHORD 18-19=-186/517, 17-18=-186/517, 16-17=-186/517, 15-16=-186/517, 14-15=-186/517,

13-14=-186/517, 11-13=-186/517, 10-11=-186/517, 9-10=-186/517, 8-9=-186/517,

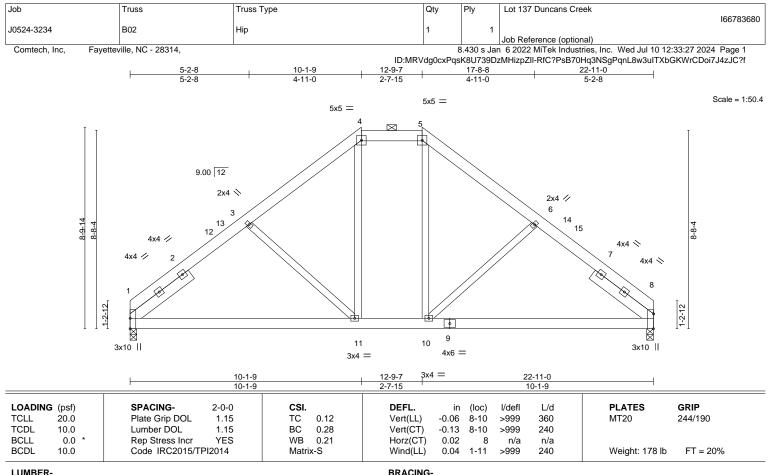
7-8=-186/517

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-9-0 to 3-7-13, Interior(1) 3-7-13 to 8-9-9, Exterior(2) 8-9-9 to 20-4-2, Interior(1) 20-4-2 to 23-8-0 zone; 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) 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 30.0psf 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 9 except (jt=lb) 19=214, 7=214, 18=248, 8=248.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 11,2024





BOT CHORD

LUMBER-

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1

2x4 SP No.2 WEBS **SLIDER** Left 2x6 SP No.1 3-3-10, Right 2x6 SP No.1 3-3-10

REACTIONS.

(size) 1=0-3-8, 8=0-3-8 Max Horz 1=198(LC 9)

Max Uplift 1=-38(LC 12), 8=-38(LC 13) Max Grav 1=917(LC 1), 8=917(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 1-3=-1137/322, 3-4=-907/319, 4-5=-741/305, 5-6=-907/319, 6-8=-1137/322 TOP CHORD

BOT CHORD 1-11=-138/887, 10-11=0/708, 8-10=-134/788

3-11=-282/224, 4-11=-70/324, 5-10=-70/324, 6-10=-282/224 WFBS

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-0 to 4-4-13, Interior(1) 4-4-13 to 10-1-9, Exterior(2) 10-1-9 to 19-0-2, Interior(1) 19-0-2 to 22-11-0 zone; 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) 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 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 6-0-0 oc purlins, except

2-0-0 oc purlins (6-0-0 max.): 4-5.

Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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Job Truss Truss Type Qty Ply Lot 137 Duncans Creek 166783681 J0524-3234 B03-GR Common Girder Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:28 2024 Page 1 ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

17-0-8 5-10-8 5-7-0 5-7-0 5-10-8

> Scale = 1:59.2 5x8 ||

> > Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

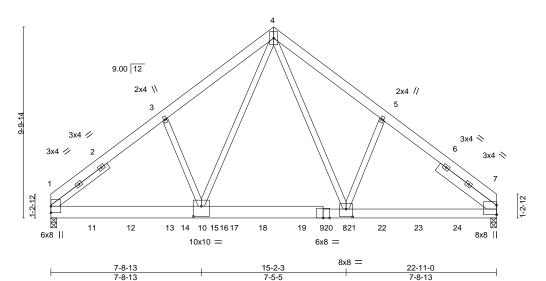


Plate Offsets (X,Y)-- [8:0-4-0,0-4-12], [10:0-5-0,0-6-4]

LOADIN	G (psf)	SPACING- 2-	-0-0	CSI.		DEFL.	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1	1.15	TC	0.72	Vert(LL)	-0.12	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1	1.15	BC	0.70	Vert(CT)	-0.25	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI20	14	Matri	x-S	Wind(LL)	0.03	7-8	>999	240	Weight: 568 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

2x6 SP No.1 TOP CHORD

BOT CHORD 2x8 SP 2400F 2.0E *Except*

7-9: 2x6 SP 2400F 2.0E

2x4 SP No.2 WEBS

SLIDER Left 2x4 SP No.2 3-7-9, Right 2x6 SP No.1 3-8-9

REACTIONS. (size) 1=0-3-8, 7=0-3-8

Max Horz 1=-223(LC 4)

Max Grav 1=9952(LC 2), 7=9117(LC 2)

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

TOP CHORD 1-3=-12184/0, 3-4=-11820/0, 4-5=-10575/0, 5-7=-10913/0 BOT CHORD

1-10=0/9245, 8-10=0/6483, 7-8=0/8270 **WEBS** 4-8=0/5567, 5-8=-68/763, 4-10=0/8222, 3-10=-10/844

NOTES-

- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 - Top chords connected as follows: 2x6 2 rows staggered at 0-9-0 oc.
 - Bottom chords connected as follows: 2x8 3 rows staggered at 0-5-0 oc, 2x6 2 rows staggered at 0-5-0 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) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- 5) 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 30.0psf 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1459 lb down at 2-0-12, 1459 lb down at 4-0-12, 1459 lb down at 6-0-12, 1459 lb down at 6-10-4, 1459 lb down at 8-4-4, 1449 lb down at 8-10-4, 1414 lb down at 10-10-4, 1422 lb down at 12-10-4, 1388 lb down and 90 lb up at 14-8-12, 1388 lb down and 90 lb up at 16-11-12, and 1459 lb down at 18-10-4, and 1459 lb down at 20-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 1-7=-20



July 11,2024

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.

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Truss Type Job Truss Qty Ply Lot 137 Duncans Creek 166783681 J0524-3234 B03-GR Common Girder 3 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:28 2024 Page 2

Comtech, Inc, Fayetteville, NC - 28314,

ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 11=-1399(B) 12=-1399(B) 13=-1399(B) 14=-1399(B) 15=-1399(B) 16=-1399(B) 18=-1399(B) 19=-1399(B) 21=-1370(B) 22=-1370(B) 23=-1399(B) 24=-1399(B) 21=-1370(B) 23=-1399(B) 24=-1399(B) 24=-1399(B)



Job Truss Truss Type Qty Lot 137 Duncans Creek 166783682 J0524-3234 M01GE **GABLE** 2 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:28 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, 0-10-8 3-6-0 Scale = 1:10.3 3 3x4 IL 4.00 12 0-4-1 3x4 =3x4 II

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.00 1 n/r 120	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT) 0.00 1 n/r 120	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 14 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

WEBS 2x4 SP No.2

REACTIONS. (size)

4=3-6-0, 2=3-6-0 Max Horz 2=50(LC 8) Max Uplift 4=-19(LC 12), 2=-44(LC 8) Max Grav 4=127(LC 1), 2=194(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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 30.0psf 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.



Structural wood sheathing directly applied or 3-6-0 oc purlins,

Rigid ceiling directly applied or 10-0-0 oc bracing.

except end verticals.



Job Truss Truss Type Qty Lot 137 Duncans Creek 166783683 J0524-3234 M02 MONOPITCH 11 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:29 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f 0-10-8 3-6-0 Scale = 1:10.3 3x4 || 4.00 12 2 0-4-1 3x4 = 6 5 3x4 || LOADING (psf) SPACING-2-0-0 CSI. DEFL. L/d **PLATES** GRIP (loc) I/def

Vert(LL)

Vert(CT)

Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

-0.00

-0.01

0.00

0.01

2-6

2-6

2-6

>999

>999

>999

except end verticals.

n/a

360

240

n/a

240

Rigid ceiling directly applied or 10-0-0 oc bracing.

LUMBER-

TCLL

TCDL

BCLL

BCDL

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

WEBS 2x4 SP No.2

20.0

10.0

0.0

10.0

REACTIONS. 6=Mechanical, 2=0-3-0 (size) Max Horz 2=51(LC 8)

Max Uplift 6=-50(LC 8), 2=-83(LC 8)

Plate Grip DOL

Rep Stress Incr

Code IRC2015/TPI2014

Lumber DOL

Max Grav 6=126(LC 1), 2=193(LC 1)

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

NOTES-

1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

TC

ВС

WB

Matrix-P

0.10

0.08

0.00

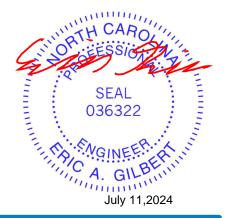
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

1.15

1.15

YES

- 3) * This truss has been designed for a live load of 30.0psf 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.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.



244/190

FT = 20%

MT20

Structural wood sheathing directly applied or 3-6-0 oc purlins,

Weight: 13 lb

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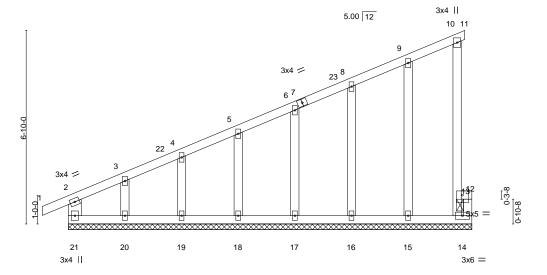
Job Truss Truss Type Qty Lot 137 Duncans Creek 166783684 J0524-3234 M03GE MONOPITCH SUPPORTED Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:30 2024 Page 1 ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-11-0 14-0-0

Scale = 1:40.7



LOADING (psf) SPACING-DEFL. L/d **PLATES** GRIP 2-0-0 CSI (loc) I/def 20.0 244/190 **TCLL** Plate Grip DOL 1.15 TC 0.23 Vert(LL) 0.00 10 n/r 120 MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.16 Vert(CT) 0.00 10 120 n/r **BCLL** 0.0 Rep Stress Incr NO WB 0.07 Horz(CT) -0.00 13 n/a n/a **BCDL** 10.0 Code IRC2015/TPI2014 Matrix-S Weight: 87 lb FT = 20%

14-0-0

LUMBER-BRACING-

TOP CHORD 2x4 SP No.1 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 2x4 SP No.1 **BOT CHORD**

except end verticals. Except:

2x4 SP No.2 *Except* 6-0-0 oc bracing: 10-13

2-21: 2x6 SP No.1 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.2

REACTIONS. All bearings 14-3-0.

Max Horz 21=274(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 14, 15, 16, 17, 18, 19, 13 except 20=-233(LC 12) Max Grav All reactions 250 lb or less at joint(s) 21, 14, 15, 16, 17, 18, 19, 20 except 13=399(LC 19)

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

TOP CHORD 2-3=-430/132, 3-4=-324/99, 4-5=-286/84

WFBS 3-20=-127/297

NOTES-

WEBS

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-11-0 to 3-5-13, Exterior(2) 3-5-13 to 14-0-0 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 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 30.0psf 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.
- 10) Bearing at joint(s) 13 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 100 lb uplift at joint(s) 14, 15, 16, 17, 18, 19, 13 except (jt=lb) 20=233.
- 12) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



Continued on page 2

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

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Job Truss Truss Type Qty Ply Lot 137 Duncans Creek 166783684 MONOPITCH SUPPORTED J0524-3234 M03GE Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:30 2024 Page 2

Fayetteville, NC - 28314, Comtech, Inc,

ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

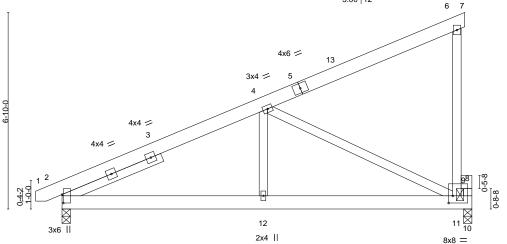
LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-2=-60, 2-10=-60, 10-11=-20, 14-21=-20, 12-13=-20

Concentrated Loads (lb) Vert: 13=-300

Job Truss Truss Type Qty Lot 137 Duncans Creek 166783685 J0524-3234 M04 MONOPITCH 6 Job Reference (optional) 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:30 2024 Page 1 Comtech, Inc, Fayetteville, NC - 28314, ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f 0-11-0 7-0-0 Scale = 1:40.1 3x4 || 5.00 12 6



14-0-0 Plate Offsets (X Y)-- [2:0-3-9 0-0-8] [11:0-1-12 0-3-0]

TOP CHORD

1 1010 011	0010 (71,17	[2.0 0 0,0 0 0], [11.0 1 12,0 0 0]			
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.33	Vert(LL) -0.03 11-12 >999 360	MT20 244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.06 11-12 >999 240	
BCLL	0.0 *	Rep Stress Incr NO	WB 0.72	Horz(CT) 0.01 10 n/a n/a	
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.02 11-12 >999 240	Weight: 102 lb FT = 20%

LUMBER-BRACING-

TOP CHORD 2x6 SP No.1 BOT CHORD 2x6 SP No.1

WEBS 2x4 SP No.2

SLIDER Left 2x4 SP No.2 3-8-12

6-0-0 oc bracing: 6-9 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 10=0-3-8 Max Horz 2=201(LC 12)

Max Uplift 2=-25(LC 12), 10=-130(LC 12) Max Grav 2=617(LC 1), 10=846(LC 1)

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

TOP CHORD 2-4=-845/73

BOT CHORD 2-12=-243/698, 11-12=-243/698 **WEBS** 4-12=0/354, 4-11=-749/259, 8-10=-318/100

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 14-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 30.0psf 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.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 10=130.
- 6) Magnitude of user added load(s) on this truss have been applied uniformly across all gravity load cases with no adjustments
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-6=-60, 6-7=-20, 2-10=-20, 8-9=-20

Concentrated Loads (lb) Vert: 9=-300



Structural wood sheathing directly applied or 6-0-0 oc purlins,

except end verticals. Except:

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Job Truss Truss Type Qty Lot 137 Duncans Creek 166783686 J0524-3234 V1 Valley Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:31 2024 Page 1 ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 8-8-8 8-8-8 Scale = 1:42.1 4x4 = 3 9.00 12 2x4 || 2x4 || 4 11 10 5 3x4 / 3x4 💸 9 8 6 3x4 =2x4 II 2x4 || 2x4 || 17-5-0 0-0-8 17-4-8 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) 20.0 Plate Grip DOL Vert(LL) 999 244/190 **TCLL** 1.15 TC 0.19 n/a n/a MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.17 Vert(CT) n/a 999 n/a **BCLL** 0.0 Rep Stress Incr YES WB 0.10 Horz(CT) 0.00 5 n/a n/a Code IRC2015/TPI2014 **BCDL** 10.0 Matrix-S Weight: 74 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

OTHERS 2x4 SP No.2

REACTIONS. All bearings 17-4-0.

Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-137(LC 12), 6=-137(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=413(LC 19), 9=479(LC 19), 6=486(LC 20)

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

2-9=-372/247, 4-6=-372/247 WEBS

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-8-8, Interior(1) 4-8-8 to 8-8-8, Exterior(2) 8-8-8 to 13-1-5, Interior(1) 13-1-5 to 16-11-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=137, 6=137,



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.



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)



Job Truss Truss Type Qty Lot 137 Duncans Creek 166783687 Valley J0524-3234 V2 Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:32 2024 Page 1 ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 7-4-8 7-4-8 Scale = 1:35.1 4x4 = 3 9.00 12 10 2x4 || 2x4 || 2 12 9 3x4 × 8 7 6 2x4 || 2x4 || 2x4 || 14-9-0 0-0-8 14-8-8 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) 20.0 Plate Grip DOL Vert(LL) 999 244/190 **TCLL** 1.15 TC 0.14 n/a n/a MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.08 Vert(CT) n/a 999 n/a **BCLL** 0.0 Rep Stress Incr YES WB 0.08 Horz(CT) 0.00 5 n/a n/a Code IRC2015/TPI2014 BCDL 10.0 Matrix-S Weight: 61 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

OTHERS 2x4 SP No.2

REACTIONS. All bearings 14-8-0.

Max Horz 1=125(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-116(LC 12), 6=-116(LC 13) Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=356(LC 19), 6=356(LC 20)

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

2-8=-316/223, 4-6=-316/223 WEBS

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 7-4-8, Exterior(2) 7-4-8 to 11-9-5, Interior(1) 11-9-5 to 14-3-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=116, 6=116.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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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)



Job Truss Truss Type Qty Lot 137 Duncans Creek 166783688 J0524-3234 Valley V3 Job Reference (optional) Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jan 6 2022 MiTek Industries, Inc. Wed Jul 10 12:33:32 2024 Page 1 ID:MRVdg0cxPqsK8U739DzMHizpZII-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 6-0-8 6-0-8 Scale = 1:28.8 4x4 = 11 9.00 12 2x4 || 2x4 || 12 8 7 6 3x4 // 2x4 || 2x4 || 2x4 || 12-1-0 12-0-8 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI L/d **PLATES** GRIP (loc) 20.0 Plate Grip DOL 1.15 TC Vert(LL) 999 244/190 **TCLL** 0.13 n/a n/a MT20 TCDL 10.0 Lumber DOL 1.15 ВС 0.09 Vert(CT) n/a 999 n/a **BCLL** 0.0 Rep Stress Incr YES WB 0.05 Horz(CT) 0.00 5 n/a n/a Code IRC2015/TPI2014 BCDL 10.0 Matrix-S Weight: 47 lb FT = 20% **BRACING-**

TOP CHORD

BOT CHORD

LUMBER-TOP CHORD

2x4 SP No.1 2x4 SP No.1

BOT CHORD **OTHERS** 2x4 SP No.2

REACTIONS. All bearings 12-0-0.

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-107(LC 12), 6=-107(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=253(LC 1), 8=319(LC 19), 6=319(LC 20)

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

2-8=-295/223, 4-6=-295/223 WEBS

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 6-0-8, Exterior(2) 6-0-8 to 10-5-5, Interior(1) 10-5-5 to 11-7-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=107, 6=107.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

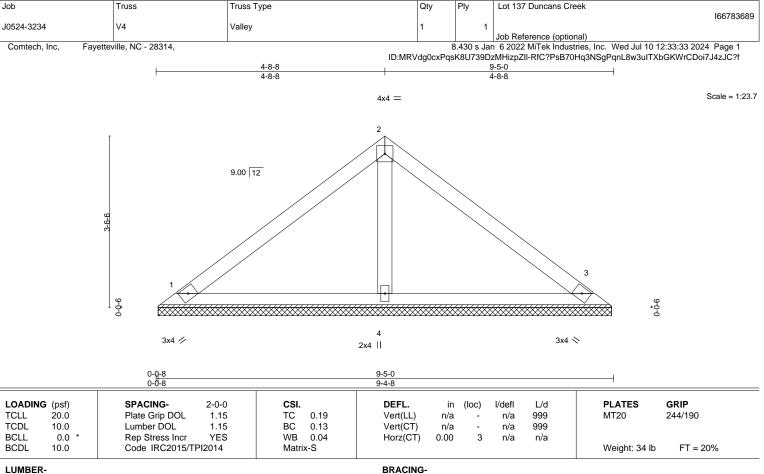
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road Edenton, NC 27932



BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

OTHERS 2x4 SP No.2

REACTIONS. 1=9-4-0, 3=9-4-0, 4=9-4-0 (size) Max Horz 1=77(LC 11)

Max Uplift 1=-21(LC 12), 3=-28(LC 13)

Max Grav 1=176(LC 1), 3=176(LC 1), 4=331(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



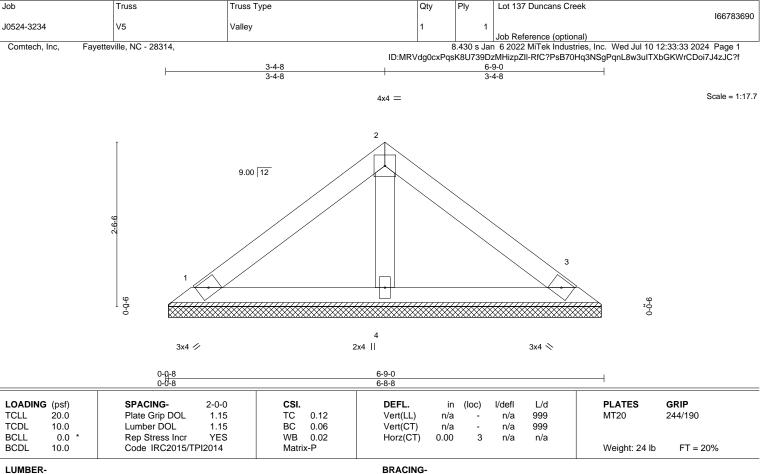
Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

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BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1

OTHERS 2x4 SP No.2

REACTIONS.

1=6-8-0, 3=6-8-0, 4=6-8-0 (size) Max Horz 1=53(LC 11) Max Uplift 1=-20(LC 12), 3=-25(LC 13)

Max Grav 1=132(LC 1), 3=132(LC 1), 4=206(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



Structural wood sheathing directly applied or 6-0-0 oc purlins.

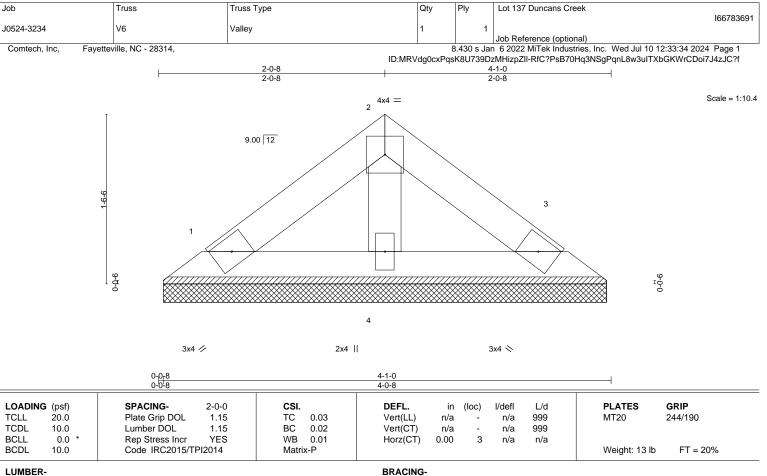
Rigid ceiling directly applied or 10-0-0 oc bracing.



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BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 2x4 SP No.1

BOT CHORD **OTHERS** 2x4 SP No.2

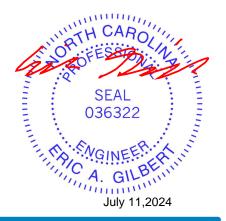
REACTIONS.

1=4-0-0, 3=4-0-0, 4=4-0-0 (size) Max Horz 1=-29(LC 10) Max Uplift 1=-11(LC 12), 3=-14(LC 13) Max Grav 1=72(LC 1), 3=72(LC 1), 4=112(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 30.0psf 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



Structural wood sheathing directly applied or 4-1-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

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Symbols

PLATE LOCATION AND ORIENTATION



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



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

₹

connector plates. required direction of slots in This symbol indicates the

* Plate location details available in MiTek software or upon request

PLATE SIZE

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

LATERAL BRACING LOCATION



by text in the bracing section of the output. Use T or I bracing if indicated. ndicated by symbol shown and/or

BEARING



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

ANSI/TPI1: Industry Standards: National Design Specification for Metal

DSB-22:

Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

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

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

established by others section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Ņ 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- œ Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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.