

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 238_2338_A KB Home 238.2338.A

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I44249965 thru I44249985

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

North Carolina COA: C-0844



January 7,2021

Sevier, Scott

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.



8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.

9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 **MSIVTP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



L	12-0-0	24-4-0			36-0-12	1	
	12-0-0	12-4-0			11-8-12	I	
Plate Offsets (X,Y) [6:0-4-0	,Edge], [11:0-4-0,0-4-8], [14:0-4-0,0-4-8]						
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.62 BC 0.82 WB 0.43 Matrix-S	DEFL. ir Vert(LL) -0.28 Vert(CT) -0.45 Horz(CT) 0.07	n (loc) l/defl 3 2-14 >999 5 2-14 >960 7 10 n/a	L/d 240 180 a n/a	PLATES MT20 Weight: 250 lb	GRIP 244/190 FT = 20%
BCDL 10.0						Ŭ	
LUMBER- TOP CHORD 2x6 SP No.2 BOT CHORD 2x6 SP No.2 WEBS 2x4 SP No.3		BRACII TOP CH BOT CH WEBS	IG- IORD Structu IORD Rigid c 1 Row	ral wood sheath eiling directly ap at midpt	ning directly app oplied or 10-0-0 5-7	lied or 3-7-2 oc purlins oc bracing.	
REACTIONS. (size) 2=0 Max Horz 2=1 Max Uplift 2=- Max Grav 2=1	-3-8, 10=Mechanical 38(LC 16) 94(LC 16), 10=-79(LC 17) 483(LC 2), 10=1434(LC 2)						
FORCES. (lb) Max. Comp./l TOP CHORD 2-3=-2511/15 9-10=-2487/1 BOT CHORD 2-14=-175/21 WEBS 7-11=-57/75	Max. Ten All forces 250 (lb) or less exce 6, 3-5=-2274/170, 5-6=-306/92, 6-7=-322 63 62, 11-14=-13/1702, 10-11=-53/2132 , 9-11=-534/264, 5-14=-58/802, 3-14=-56	pt when shown. '93, 7-9=-2258/177, 4/263, 5-7=-1488/130					
 NOTES- 1) Unbalanced roof live loads h 2) Wind: ASCE 7-10; Vult=120, gable end zone and C-C Ext 36-0-0 zone; cantilever left a reactions shown; Lumber DOL 3) TCLL: ASCE 7-10; Pr=20.0 roof snow: Lumber DOL=1.1 4) Unbalanced snow loads hav 5) This truss has been designe non-concurrent with other liv 6) This truss has been designe will fit between the bottom cl 8) Refer to girder(s) for truss to 9) Provide mechanical connect 10) One H2.5A Simpson Strom connection is for uplift only 11) ATTIC SPACE SHOWN IS 	ave been considered for this design. mph Vasd=95mph; TCDL=6.0psf; BCDL= erior(2) -0-7-14 to 2-4-2, Interior(1) 2-4-2 nd right exposed ; end vertical left and rig DL=1.60 plate grip DOL=1.60 osf (roof live load: Lumber DOL=1.15 Plat 5 Plate DOL=1.15); Category II; Exp B; P e been considered for this design. d for greater of min roof live load of 12.0 p e loads. d for a 10.0 psf bottom chord live load no ed for a live load of 20.0psf on the bottom hord and any other members, with BCDL truss connections. ion (by others) of truss to bearing plate ca g-Tie connectors recommended to conner and does not consider lateral forces. DESIGNED AS UNINHABITABLE.	5.0psf; h=30ft; Cat. II; Exp B; to 18-2-0, Exterior(2) 18-2-0 to ht exposed;C-C for members e DOL=1.15); Pg=15.0 psf (gr artially Exp.; Ct=1.10 sf or 1.00 times flat roof load nooncurrent with any other live chord in all areas where a re = 10.0psf. pable of withstanding 100 lb u tt truss to bearing walls due to	Enclosed; MWFRS > 21-2-0, Interior(1) and forces & MWF ound snow); Pf=11 of 11.6 psf on over > loads. ctangle 3-6-0 tall b plift at joint(s) 10. > UPLIFT at jt(s) 2.	6 (envelope)) 21-2-0 to IRS for .6 psf (flat thangs y 2-0-0 wide This	Solution States	SEAL 044925	Wies with the

- connection is for uplift only and does not consider lateral forces. 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

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<u> </u>		<u>36-0-1</u> 36-0-1	12 12					
Plate Offsets (X,Y) [2:0-3-8	,Edge]							
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2015/TPI2014	CSI. TC 0.07 BC 0.06 WB 0.12 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.00 1 0.00 1 0.01 23	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 239 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SP No.2 of BOT CHORD 2x4 SP No.2 of WEBS 2x4 SP No.3 OTHERD 0 CHORD 2x4 SP No.3	r 2x4 SPF No.2 r 2x4 SPF No.2	BI TC BC	RACING- DP CHORD	Structural wood except end vert Rigid ceiling dir	l sheathin icals. ectly appl	g directly ap	plied or 6-0-0 oc purlins	,
WEDGE 2x4 SP No.3		VV	EBS	1 Row at midpt		12-32, 11	-33, 13-31	

Left: 2x4 SP No.3

REACTIONS. All bearings 36-0-12. (lb) - Max Horz 2=147(LC 16)

 Max Uplift
 All uplift 100 lb or less at joint(s) 2, 33, 34, 35, 37, 38, 39, 40, 41, 31, 30, 29, 28, 27, 26, 25, 24

 Max Grav
 All reactions 250 lb or less at joint(s) 23, 2, 32, 33, 34, 35, 37, 38, 39, 40, 41, 31, 30, 29, 28, 27, 26, 25, 24

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

TOP CHORD 11-12=-98/266, 12-13=-98/268

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-2-0, Exterior(2) 2-2-0 to 18-2-0, Corner(3) 18-2-0 to 21-2-0, Exterior(2) 21-2-0 to 35-11-0 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 1.5x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.
- 12) n/a
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.





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Edenton, NC 27932



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Job	Truss	Truss Type	Qty	Ply	KB Home 238.2338.A	
						144249970
238_2338_A	BG	COMMON GIRDER	1	2		
				_	Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,		8.	430 s Nov	30 2020 MiTek Industries, Inc. Wed Jan 6 14:06:37 2021	1 Page 2
		ID:byj??x	6A9z5 vid	am kAghrz	2C2Gy-VHiKLBFmPJ4AQ?qN9hshLUPwCBchQoLRcuGvn	nKzy2gm

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-43, 3-5=-43, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-1111(B) 9=-1114(B) 10=-1111(B) 11=-1111(B) 12=-1111(B) 13=-1111(B) 14=-1111(B) 15=-1111(B) 16=-1111(B)

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Plate Offsets (X,Y) [5:0-4-11,0-2-0], [6:0-6-0,0-2-0], [7:0-4-0,0-5-4], [8:0-5-12,0-2-0]							
LOADING (psf) SPACING- 2-0-0 CSI. DEFL. in (loc) l/defl L/d PLATES GRIP TCLL (roof) 20.0 Plate Grip DOL 1.15 TC 0.35 Vert(LL) -0.04 7 >999 240 MT20 197/144 TCDL 10.0 BcDL 1.15 BC 0.93 Vert(CT) -0.08 6-7 >999 180 BCLL 0.0* Code IRC2015/TPI2014 Watrix-S Watrix-S Weight: 162 lb FT = 20%							
LUMBER- BRACING- TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 TOP CHORD Structural wood sheathing directly applied or 4-7-11 oc purlins. 3OT CHORD 2x8 SP No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 2x4 SP No.3 2x4 SP No.3							
REACTIONS. (size) 1=0-3-8, 5=0-5-8 Max Horz 1=-90(LC 29) Max Uplift 1=-260(LC 10), 5=-329(LC 11) Max Grav 1=4182(LC 2), 5=5249(LC 2)							
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 1-2=-5836/367, 2-3=-4333/313, 3-4=-4334/313, 4-5=-6498/411 BOT CHORD 1-8=-307/4576, 7-8=-307/4576, 6-7=-294/5159, 5-6=-294/5159 WEBS 3-7=-293/4551, 4-7=-2009/196, 4-6=-134/2573, 2-7=-1272/146, 2-8=-86/1794							
 IOP CHORD 1-2=-5836/367, 2-3=-4333/313, 4-5=-6498/411 SOT CHORD 1-8=-307/4576, 7-8=-294/5159, 5-6=-294/5159 NEBS 3-7=-293/4551, 4-7=-209/196, 4-6=-134/2573, 2-7=-1272/146, 2-8=-86/1794 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. Bottom chords 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 fort (F) or back (B) face in the LOAD CASE(S) section. Ply to ply 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 (F) or (B), unless otherwise indicated. 3) Unbalanced roof live loads have been considered for this design. 4) Wind: ASCE 7-10; Vul=20mph Vasd=95mph; TCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; tumber DOL=1.60 5) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15; Plate DOL=							

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Job	Truss	Truss Type	Qty	Ply	KB Home 238.2338.A	
000 0000 4	00	Common Circles				144249972
238_2338_A	CG	Common Girder	1	2	Job Reference (optional)	
84 Components (Dunn),	Dunn, NC - 28334,		8	.430 s Nov	30 2020 MiTek Industries, Inc. Wed Jan 6 14:06:39 2021 I	Page 2

ID:byj??x6A9z5_vigm_kAghrzC2Gy-Rfq5msG1xwKufl_mG5u9QvUOs?B4uhMk4Cl0sDzy2gk

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-43, 3-5=-43, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-1111(B) 9=-1111(B) 10=-1111(B) 11=-1111(B) 12=-1111(B) 13=-1111(B)

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LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 DOLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.24 BC 0.18 WB 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.01 2-4 -0.03 2-4 0.00	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 16 lb	FT = 20%
LUMBER-		BE	ACING-					

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 WEBS 2x4 SP No.3

REACTIONS. 2=0-3-8, 4=0-1-8 (size) Max Horz 2=57(LC 12) Max Uplift 2=-47(LC 12), 4=-23(LC 16) Max Grav 2=224(LC 2), 4=147(LC 2)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-4 zone; cantilever left exposed; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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.
- 7) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.



Structural wood sheathing directly applied or 4-2-0 oc purlins,

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

except end verticals.

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LUMBER

 TOP CHORD
 2x4 SP No.2 or 2x4 SPF No.2

 BOT CHORD
 2x4 SP No.2 or 2x4 SPF No.2

 WEBS
 2x4 SP No.3

BRACING-TOP CHORD

BOT CHORD

Structural wood sheathing directly applied or 4-2-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 3=0-1-8 Max Horz 1=45(LC 12) Max Uplift 1=-9(LC 12), 3=-25(LC 12) Max Grav 1=155(LC 2), 3=155(LC 2)

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

NOTES-

- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-0-4 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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 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.
- 6) Bearing at joint(s) 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 3.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This
 connection is for uplift only and does not consider lateral forces.



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NOTES-

- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-2-0, Exterior(2) 2-2-0 to 4-0-4 zone; cantilever left exposed; end vertical left exposed; 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 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.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



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7) * 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.

8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.



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		0 + 0							
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 POLL 0.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES	CSI. TC 0.08 BC 0.05 WB 0.05	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 6 7 6	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20	GRIP 197/144
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	()					Weight: 38 lb	FT = 20%
LUMBER-	•	BR	ACING-					L.	

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 2x4 SP No.3 OTHERS

TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 9-4-0. Max Horz 2=-33(LC 17) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8

Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 4-8-0, Corner(3) 4-8-0 to 7-8-0, Exterior(2) 7-8-0 to 10-2-8 zone; porch 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 11.6 psf on overhangs non-concurrent with other live loads.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.



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Max Grav 1=165(LC 2), 3=165(LC 2), 4=346(LC 2)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-8-6, Exterior(2) 4-8-6 to 7-8-6, Interior(1) 7-8-6 to 8-11-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

4) Gable requires continuous bottom chord bearing.

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.



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		6-4-12							
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 PCLL 0.0 *	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	CSI. TC 0.23 BC 0.13 WB 0.03	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P						Weight: 21 lb	FT = 20%
LUMBER-		BR	ACING-						

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.3 BOT CHORD OTHERS

2x4 SP No.3 2x4 SP No.3

REACTIONS. 1=6-4-12, 3=6-4-12, 4=6-4-12 (size) Max Horz 1=-38(LC 10) Max Uplift 1=-17(LC 14), 3=-23(LC 15) Max Grav 1=116(LC 2), 3=116(LC 2), 4=202(LC 2)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 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.



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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		0111	•					
Plate Offsets (X,Y) [2:0-2-0,	Edge]							
LOADING (psf) TCLL (roof) 20.0 Snow (Pf/Pg) 11.6/15.0 TCDL 10.0 BCLL 0.0 *	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2015/TPI2014	CSI. TC 0.04 BC 0.12 WB 0.00 Matrix-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) n/a - n/a - 0.00 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
LUMBER-		BR	ACING-					

TOP CHORD

BOT CHORD

TOP CHORD 2x4 SP No.3 BOT CHORD 2x4 SP No.3

REACTIONS. 1=3-4-12, 3=3-4-12 (size) Max Horz 1=-17(LC 10) Max Uplift 1=-5(LC 14), 3=-5(LC 15) Max Grav 1=97(LC 2), 3=97(LC 2)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

4) Gable requires continuous bottom chord bearing.

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.



Structural wood sheathing directly applied or 3-4-12 oc purlins.

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

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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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-7-14, Exterior(2) 6-7-14 to 9-7-14, Interior(1) 9-7-14 to 12-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 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.



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Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=260(LC 25), 6=259(LC 26)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-1-14, Exterior(2) 5-1-14 to 8-1-14, Interior(1) 8-1-14 to 9-10-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 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.



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11	IN	IR	F	R-	

TOP CHORD2x4 SP No.3BOT CHORD2x4 SP No.3OTHERS2x4 SP No.3

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-3-12, 3=7-3-12, 4=7-3-12 Max Horz 1=-45(LC 10) Max Uplift 1=-20(LC 14), 3=-26(LC 15) Max Grav 1=136(LC 2), 3=136(LC 2), 4=236(LC 2)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- 4) Gable requires continuous bottom chord bearing.
- 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 20.0ps for 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.



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4-3-12 4-3-12

DEFL

BRACING-

BOT CHORD

Vert(LL)

Vert(CT)

Horz(CT)

CSI.

0.08

0.23

0.00

тс

BC

WB

Matrix-P

2x4 🥢

SPACING-

Plate Grip DOL

Rep Stress Incr

Code IRC2015/TPI2014

Lumber DOL

2x4 🖄

3

l/defl

n/a

n/a

n/a

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

L/d

999

999

n/a

Structural wood sheathing directly applied or 4-3-12 oc purlins.

in (loc)

n/a

n/a

0.00

BCDL	10.0	
LUMBER-		
TOP CHORD	2x4 SP No.3	
DOT OUODD	0 1 0 D N 0	

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

20.0

10.0

0.0 *

LOADING (psf)

Snow (Pf/Pg) 11.6/15.0

TCLL (roof)

TCDL

BCLL

BOT CHORD 2x4 SP No.3 BOT CHORD 2x4 SP No.3

REACTIONS. (size) 1=4-3-12, 3=4-3-12 Max Horz 1=-24(LC 10) Max Uplift 1=-6(LC 14), 3=-6(LC 15) Max Grav 1=134(LC 2), 3=134(LC 2)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=15.0 psf (ground snow); Pf=11.6 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10

2-0-0

1.15

1.15

YES

- 4) Gable requires continuous bottom chord bearing.
- 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.



PLATES

Weight: 12 lb

MT20

GRIP

244/190

FT = 20%

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 sand truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



