

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 25138-25138A  
Wellons BB 1398 Extended

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: I43832984 thru I43833011

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



December 2, 2020

Vance, Jeff

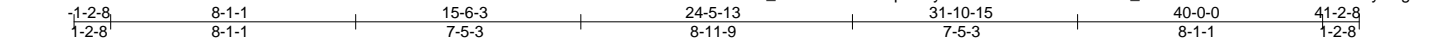
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 25138-25138A	Truss A	Truss Type ROOF TRUSS	Qty 4	Ply 1	Wellons BB 1398 Extended	143832984
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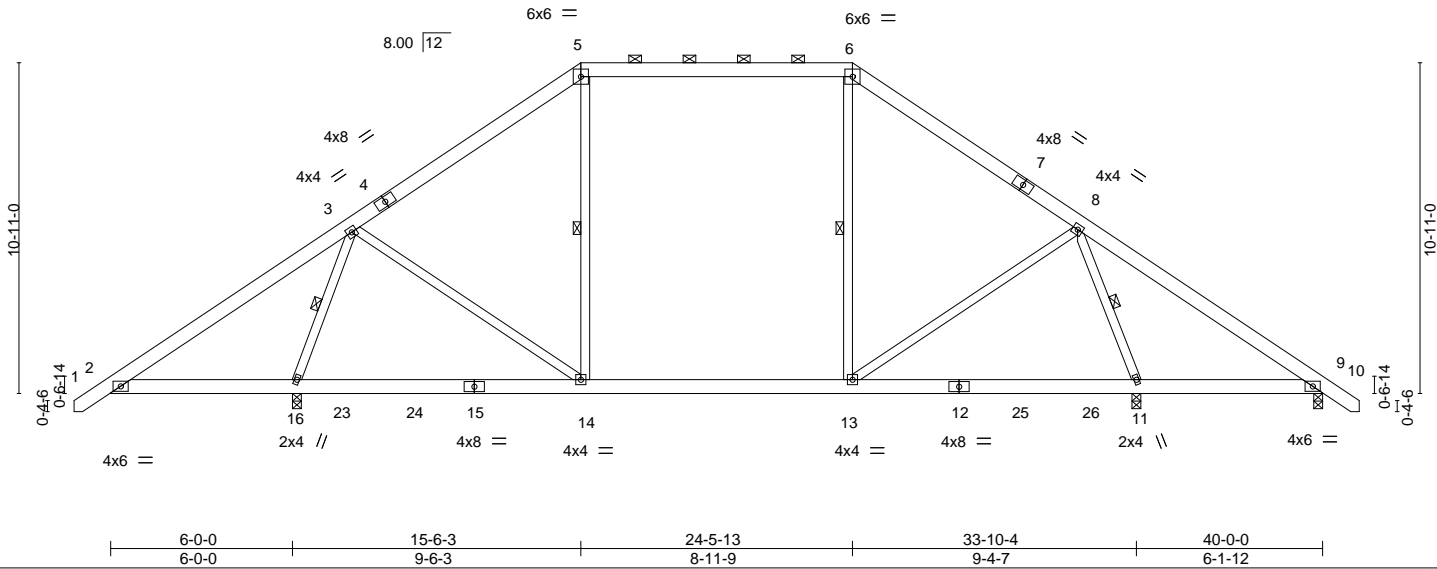
84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:07 2020 Page 1

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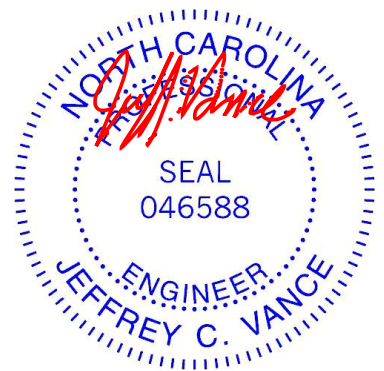
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.08 13-14	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.15 13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.02 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.07 13-14	1426	360	Weight: 281 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midt 5-14, 6-13, 8-11, 3-16

**REACTIONS.** (size) 11=0-3-8, 16=0-3-8, 9=0-3-8  
 Max Horz 16=-275(LC 10)  
 Max Uplift 11=-215(LC 13), 16=-76(LC 12), 9=-247(LC 9)  
 Max Grav 11=2011(LC 21), 16=1874(LC 1), 9=310(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-341/641, 3-5=-1083/16, 5-6=-807/75, 6-8=-1099/30, 8-9=-555/789  
 BOT CHORD 2-16=-418/396, 14-16=-175/387, 13-14=-16/934, 11-13=-227/531, 9-11=-589/512  
 WEBS 3-14=0/739, 6-13=-170/267, 8-13=-8/687, 8-11=-1819/283, 3-16=-1743/349

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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.
  - 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.
  - Ceiling dead load (5.0 psf) on member(s). 5-6; Wall dead load (5.0psf) on member(s).5-14, 6-13
  - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-14
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 16, and 9. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

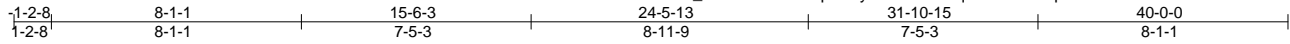


Job 25138-25138A	Truss A1	Truss Type ROOF TRUSS	Qty 5	Ply 1	Wellons BB 1398 Extended 143832985
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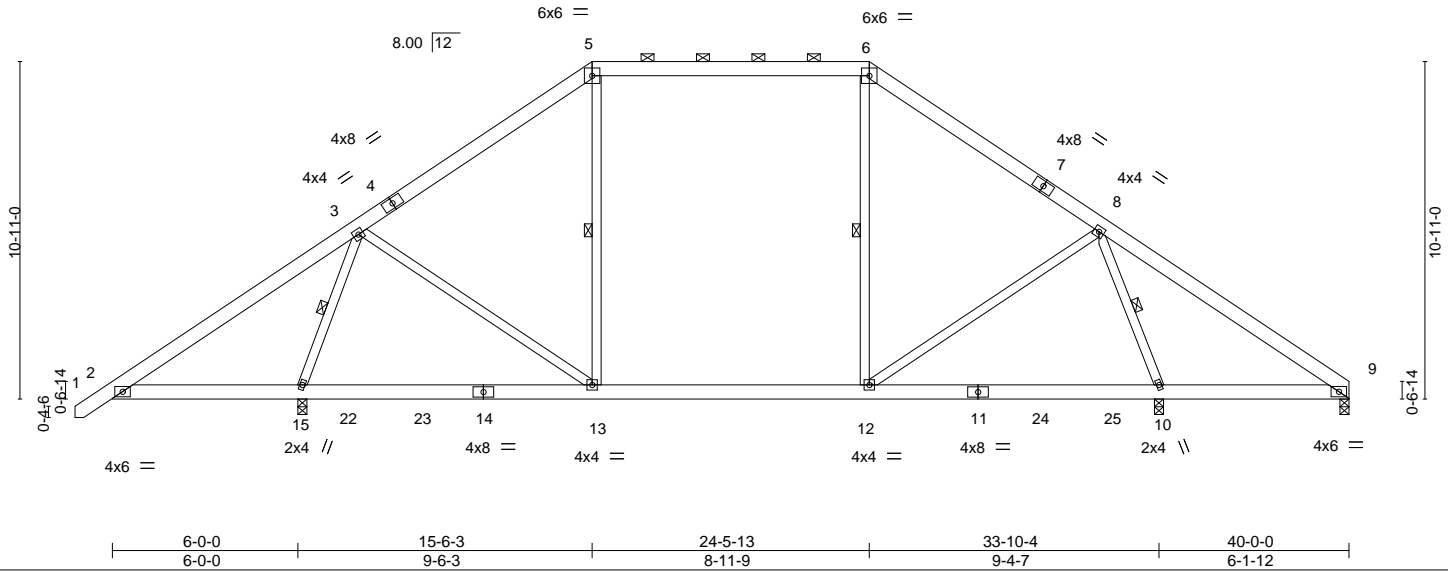
84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:08 2020 Page 1

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Scale = 1:74.5



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 0.65	Vert(LL)	-0.18 12-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.24 12-13	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.02 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.16 12-13	637	360	Weight: 278 lb	FT = 20%

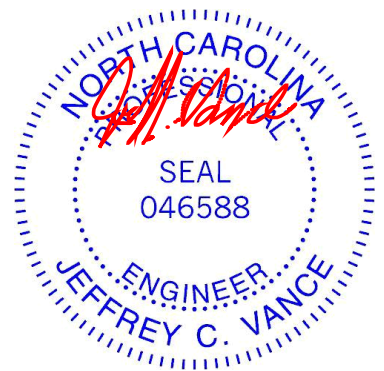
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (5-11-12 max.); 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midt 5-13, 6-12, 8-10, 3-15

**REACTIONS.** (size) 10=0-3-8, 15=0-3-8, 9=0-3-8  
 Max Horz 15=269(LC 9)  
 Max Uplift 10=-219(LC 13), 15=-75(LC 12), 9=-248(LC 9)  
 Max Grav 10=2144(LC 21), 15=1993(LC 2), 9=312(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-341/641, 3-5=-1239/16, 5-6=-938/75, 6-8=-1255/30, 8-9=-556/797  
 BOT CHORD 2-15=-418/396, 13-15=-182/422, 12-13=-24/1047, 10-12=-234/573, 9-10=-589/501  
 WEBS 3-13=0/843, 5-13=-156/337, 6-12=-169/347, 8-12=-9/783, 8-10=-1980/285, 3-15=-1855/349

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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.
- 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.
- Ceiling dead load (5.0 psf) on member(s). 5-6; Wall dead load (5.0psf) on member(s).5-13, 6-12
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-13
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 15, and 9. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



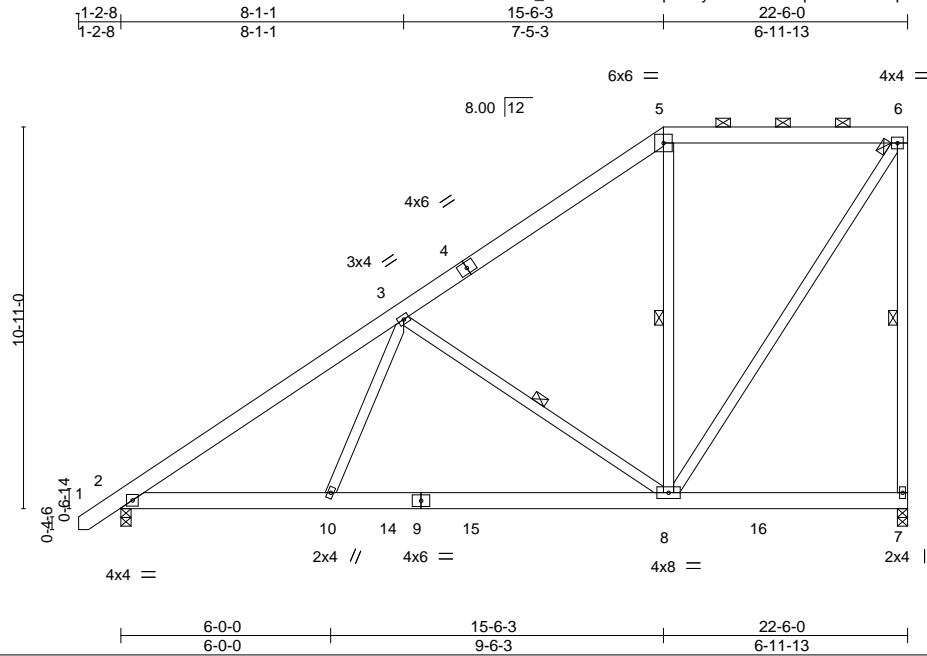
Job 25138-25138A	Truss A2	Truss Type PIGGYBACK BASE	Qty 11	Ply 1	Wellons BB 1398 Extended	143832986
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84 Components (Dunn),

Dunn, NC - 28334,

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ID:eBUL\_9RQo7di2ekrJPpsD7yDKwN-RAKqmPEPV08NpBZHx05WRZOXBPRfrk9IWwEd8xyD?g9



Scale = 1:65.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.06 8-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.12 8-10	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.01 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 185 lb	FT = 20%

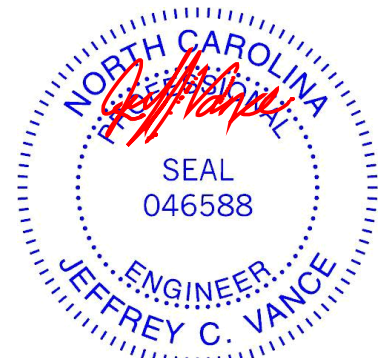
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.  
 Rigid ceiling directly applied or 10-0-0 oc bracing.  
 BOT CHORD  
 WEBS 1 Row at midpt 6-7, 3-8, 5-8

**REACTIONS.** (size) 7=0-3-8, 2=0-3-8  
 Max Horz 2=425(LC 12)  
 Max Uplift 7=-161(LC 12), 2=-75(LC 12)  
 Max Grav 7=922(LC 2), 2=960(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1297/54, 3-5=-650/75, 5-6=-435/121, 6-7=-842/270  
 BOT CHORD 2-10=-314/1085, 8-10=-341/976  
 WEBS 3-10=0/383, 3-8=-666/290, 6-8=-223/801

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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) 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, with BCDL = 10.0psf.
  - 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 2. This connection is for uplift only and does not consider lateral forces.
  - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 2, 2020

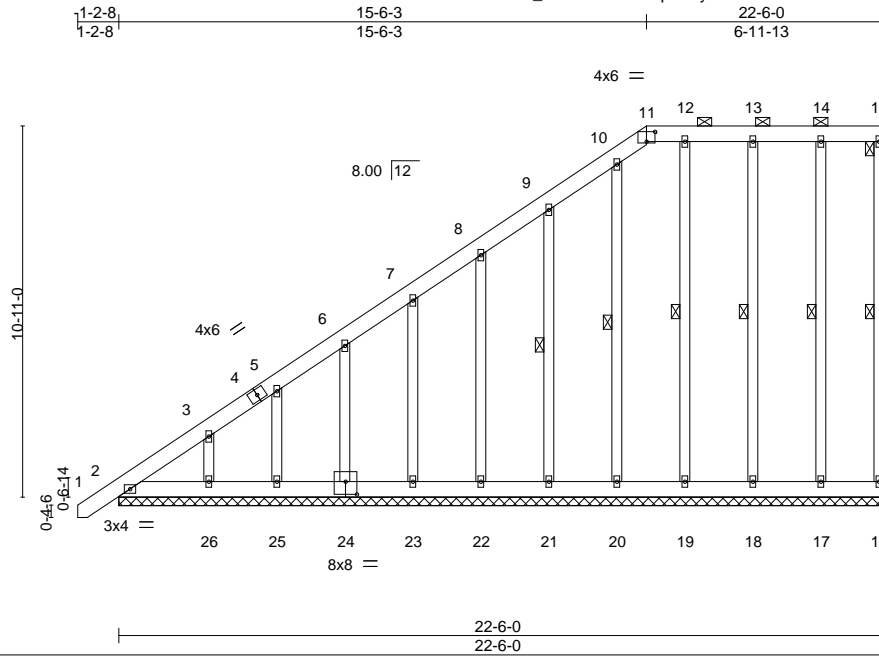
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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 **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss A2E	Truss Type PIGGYBACK BASE SUPPO	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832987
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84 Components (Dunn), Dunn, NC - 28334,

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Scale = 1:67.8

Plate Offsets (X,Y)--	[11:0-3-0,0-3-8], [24:0-4-0,0-4-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.07	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 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.00 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 232 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-15.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 15-16, 14-17, 13-18, 12-19, 10-20, 9-21

**REACTIONS.** All bearings 22-6-0.  
(lb) - Max Horz 2=426(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26  
Max Grav All reactions 250 lb or less at joint(s) 16, 2, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-455/371, 3-5=-374/297, 5-6=-314/252, 6-7=-252/204

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - 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.
  - n/a

- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 2, 2020

**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 **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

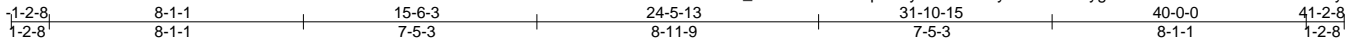
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

Job 25138-25138A	Truss AE	Truss Type GABLE	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832988
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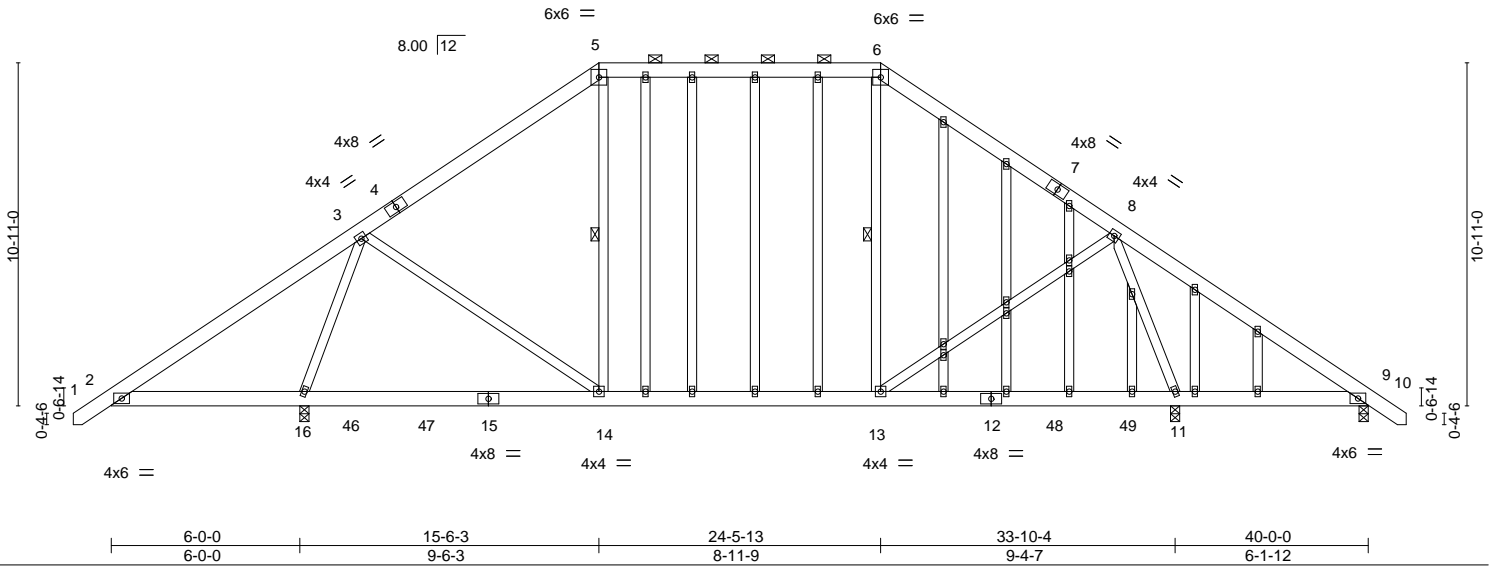
84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:11 2020 Page 1

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Scale = 1:73.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL) -0.08 13-14 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT) -0.11 13-14 >999 180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT) 0.01 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS		Weight: 386 lb	FT = 20%

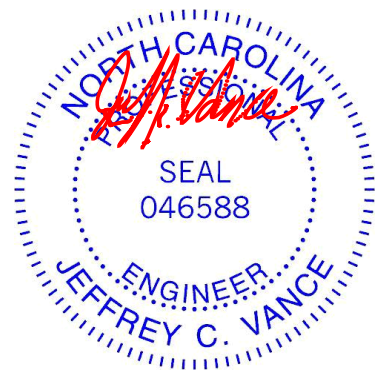
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-14, 6-13
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 11=0-3-8, 16=0-3-8, 9=0-3-8  
 Max Horz 16=-275(LC 10)  
 Max Uplift 11=-372(LC 13), 16=-233(LC 12), 9=-247(LC 9)  
 Max Grav 11=1819(LC 20), 16=1681(LC 1), 9=309(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-342/638, 3-5=-866/192, 5-6=-626/222, 6-8=-882/206, 8-9=-555/788  
 BOT CHORD 2-16=-416/397, 14-16=-229/322, 13-14=-164/752, 11-13=-286/459, 9-11=-588/512  
 WEBS 3-14=-32/598, 8-13=-117/552, 8-11=-1609/453, 3-16=-1533/519

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11, 16, and 9. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



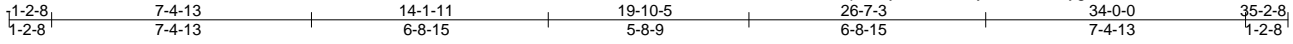
December 2, 2020

Job 25138-25138A	Truss B	Truss Type ROOF TRUSS	Qty 6	Ply 1	Wellons BB 1398 Extended	143832989
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84 Components (Dunn), Dunn, NC - 28334,

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Scale = 1:65.6

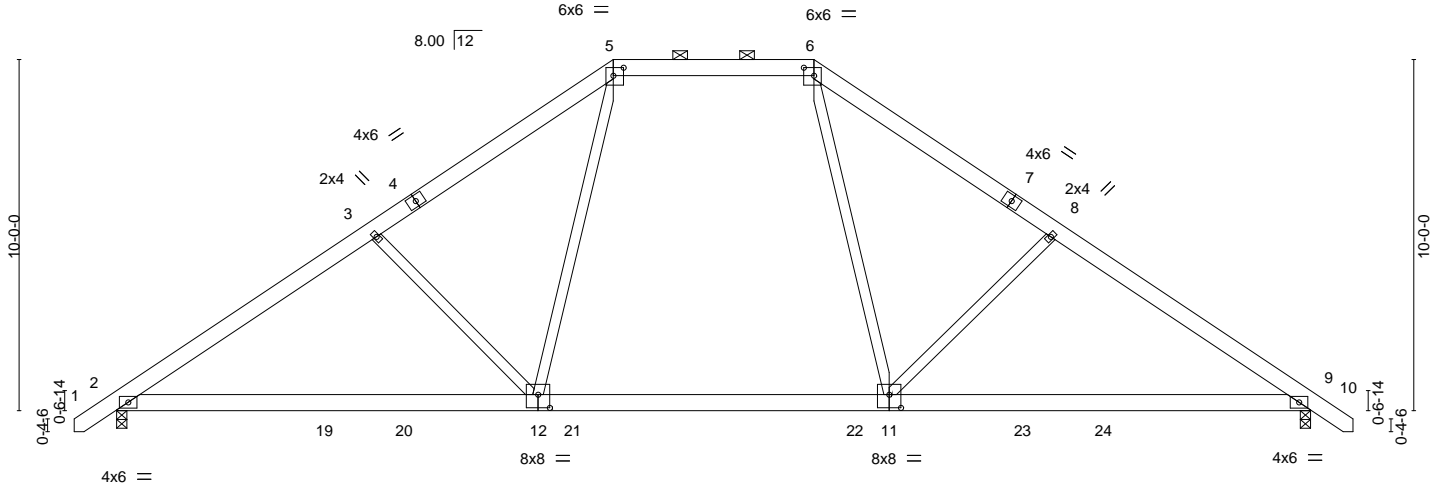


Plate Offsets (X,Y)--	[5:0-3-8,0-2-12], [6:0-3-8,0-2-12], [11:0-4-0,0-4-8], [12:0-4-0,0-4-8]
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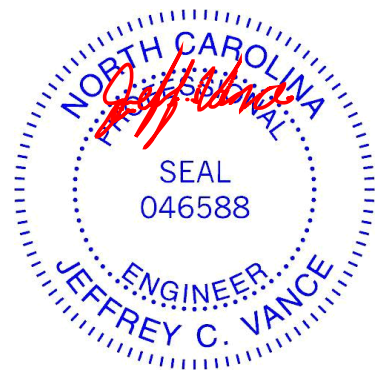
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.26	12-15	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.38	12-15	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.05	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 227 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.); 5-6.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

<b>REACTIONS.</b>	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=-252(LC 10)
	Max Uplift 2=-153(LC 12), 9=-153(LC 13)
	Max Grav 2=1449(LC 20), 9=1449(LC 21)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2042/396, 3-5=-1812/396, 5-6=-1264/374, 6-8=-1812/396, 8-9=-2042/396
BOT CHORD	2-12=-219/1796, 11-12=-6/1278, 9-11=-197/1664
WEBS	3-12=-508/316, 5-12=-65/744, 6-11=-65/745, 8-11=-509/316

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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.
  - 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.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 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 **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

**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

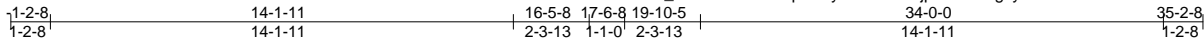
818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss BE	Truss Type GABLE	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832990
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:13 2020 Page 1

ID:eBUIL\_9RQo7di2ekrJPpsD7yDKwN-o78jp6lYKymgyvSFJahh8c5U5QE6W7HRfByOp9yD?g4



Scale = 1:70.4

Plate Offsets (X,Y)--	[10:0-3-0,0-3-8], [15:0-3-0,0-3-8]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) 0.00 23 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00 23 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.01 23 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 323 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 10-15.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 11-35, 9-36, 14-32, 16-31, 12-34, 13-33

**REACTIONS.** All bearings 34-0-0.  
(lb) - Max Horz 2--252(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 35, 36, 38, 39, 40, 41, 42, 29, 28, 27, 26, 25, 34, 33  
Max Grav All reactions 250 lb or less at joint(s) 2, 35, 36, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 23, 34, 33

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 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.
- n/a
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 2, 2020

**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 **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



818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	Wellons BB 1398 Extended	143832991
25138-25138A	C	PIGGYBACK BASE	1	1		

84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:14 2020 Page 1

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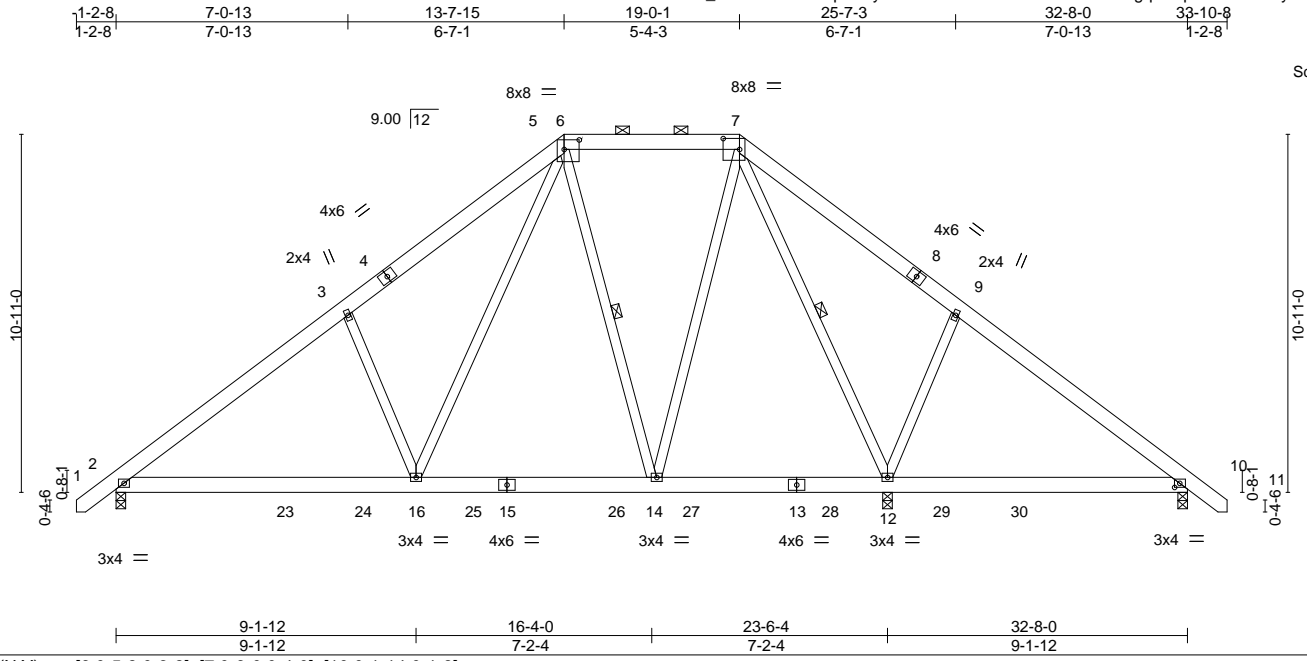


Plate Offsets (X, Y)--	[6:0-5-8,0-3-8], [7:0-6-0,0-4-0], [10:0-1-14,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.04	16-19	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	-0.10	16-19	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.02	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 256 lb	FT = 20%

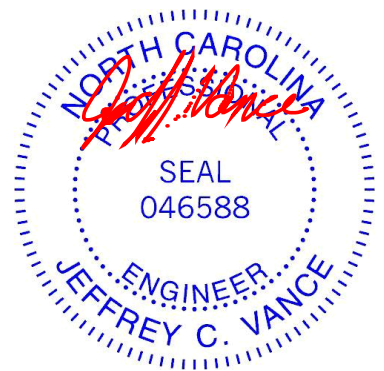
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): 6-7.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
	WEBS 1 Row at midpt 6-14, 7-12

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8, 10=0-3-8  
 Max Horz 2=-275(LC 10)  
 Max Uplift 2=-119(LC 12), 12=-134(LC 13), 10=-46(LC 13)  
 Max Grav 2=1068(LC 19), 12=1286(LC 2), 10=506(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1275/235, 3-5=-1205/352, 5-6=-370/176, 6-7=-540/251, 7-9=-294/189, 9-10=-390/68  
 BOT CHORD 2-16=-157/1145, 14-16=-91/703, 12-14=-49/516, 10-12=0/291  
 WEBS 3-16=-442/299, 5-16=-201/759, 6-14=-333/157, 7-14=-74/597, 7-12=-728/75, 9-12=-453/304

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 10. This connection is for uplift only and does not consider lateral forces.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job 25138-25138A	Truss C1	Truss Type ROOF TRUSS	Qty 7	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832992
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:15 2020 Page 1

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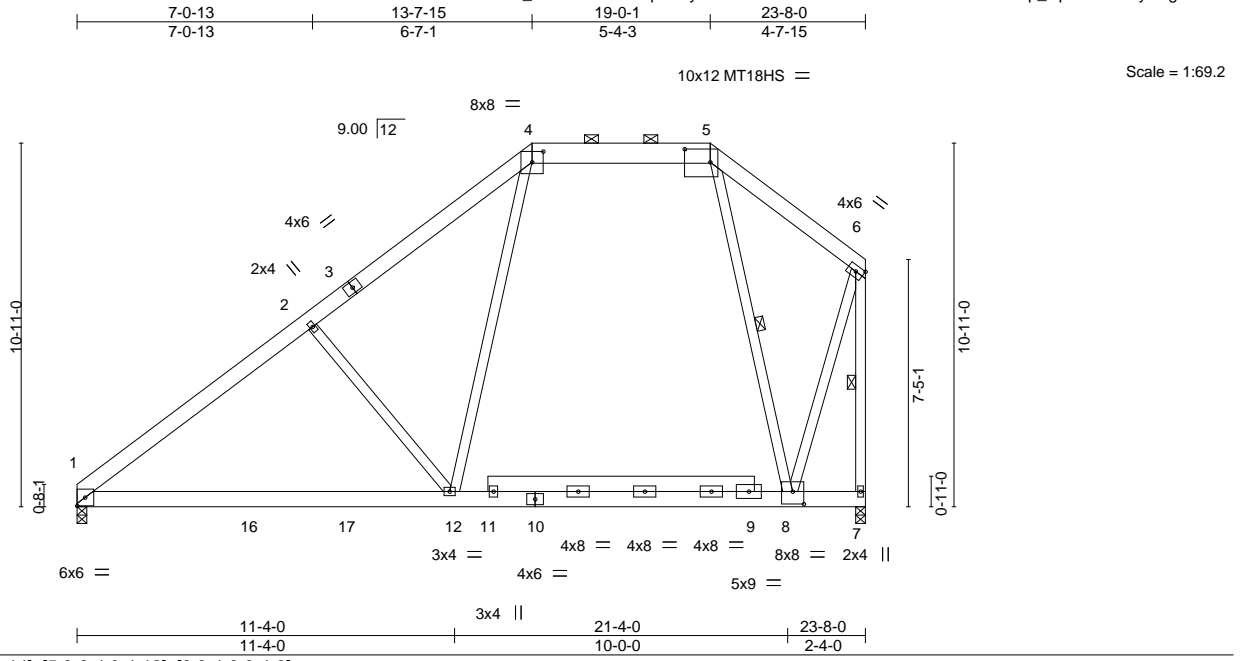


Plate Offsets (X,Y)--	[4:0-4-0,0-3-14], [5:0-9-4,0-4-12], [8:0-4-0,0-4-8]
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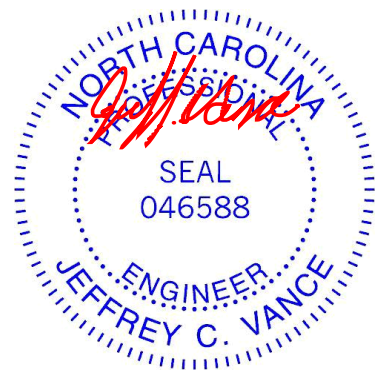
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.92	Vert(LL) -0.35 12-15 >811 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(CT) -0.67 12-15 >420 180	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.58	Horz(CT) 0.02 1 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 206 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 4-5: 2x8 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x6 SP No.2 *Except* 7-10: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-8, 6-7

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=322(LC 12)  
 Max Uplift 1=-76(LC 12), 7=-103(LC 12)  
 Max Grav 1=990(LC 20), 7=1015(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1165/189, 2-4=-972/221, 4-5=-494/220, 5-6=-460/142, 6-7=-1622/306  
 BOT CHORD 1-12=-306/1037, 8-12=-96/513  
 WEBS 2-12=-599/328, 4-12=-64/657, 5-8=-458/147, 6-8=-218/1494

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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 MT20 plates 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.
  - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



Job 25138-25138A	Truss C1A	Truss Type ROOF TRUSS	Qty 2	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832993
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:16 2020 Page 1  
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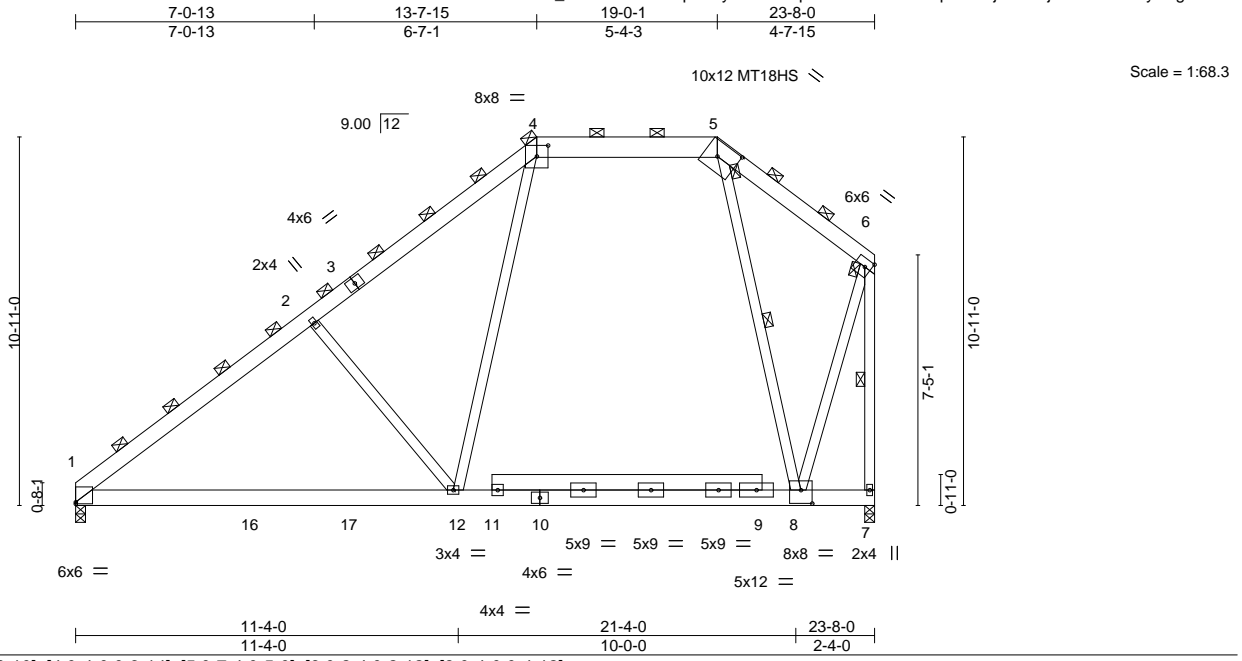


Plate Offsets (X,Y)--	[1:0-0,0-0-10], [4:0-4-0,0-3-14], [5:0-7-4,0-5-0], [6:0-2-4,0-2-12], [8:0-4-0,0-4-12]
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<b>LOADING</b> (psf)	<b>SPACING-</b> 2-6-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.97	Vert(LL) -0.41 12-15 >695 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.96	Vert(CT) -0.79 12-15 >359 180	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr NO	WB 0.72	Horz(CT) 0.02 1 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 206 lb	FT = 20%

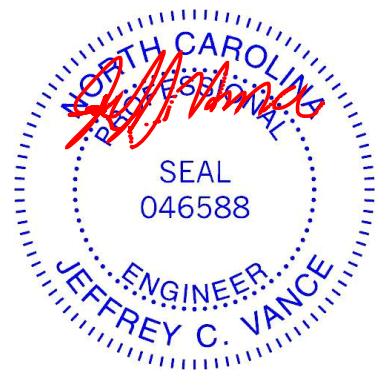
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 4-5: 2x8 SP No.2, 5-6: 2x6 SP DSS	TOP CHORD 2-0-0 oc purlins (3-2-2 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD 2x6 SP No.2 *Except* 7-10: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-8, 6-7

**REACTIONS.** (size) 1=0-3-8, 7=0-3-8  
 Max Horz 1=402(LC 12)  
 Max Uplift 1=-95(LC 12), 7=-129(LC 12)  
 Max Grav 1=1237(LC 20), 7=1268(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1460/237, 2-4=-1219/277, 4-5=-624/276, 5-6=-536/172, 6-7=-1969/372  
 BOT CHORD 1-12=-383/1298, 8-12=-122/647  
 WEBS 2-12=-735/406, 4-12=-84/835, 5-8=-616/194, 6-8=-269/1844

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.



December 2, 2020

Job 25138-25138A	Truss CE	Truss Type GABLE	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832994
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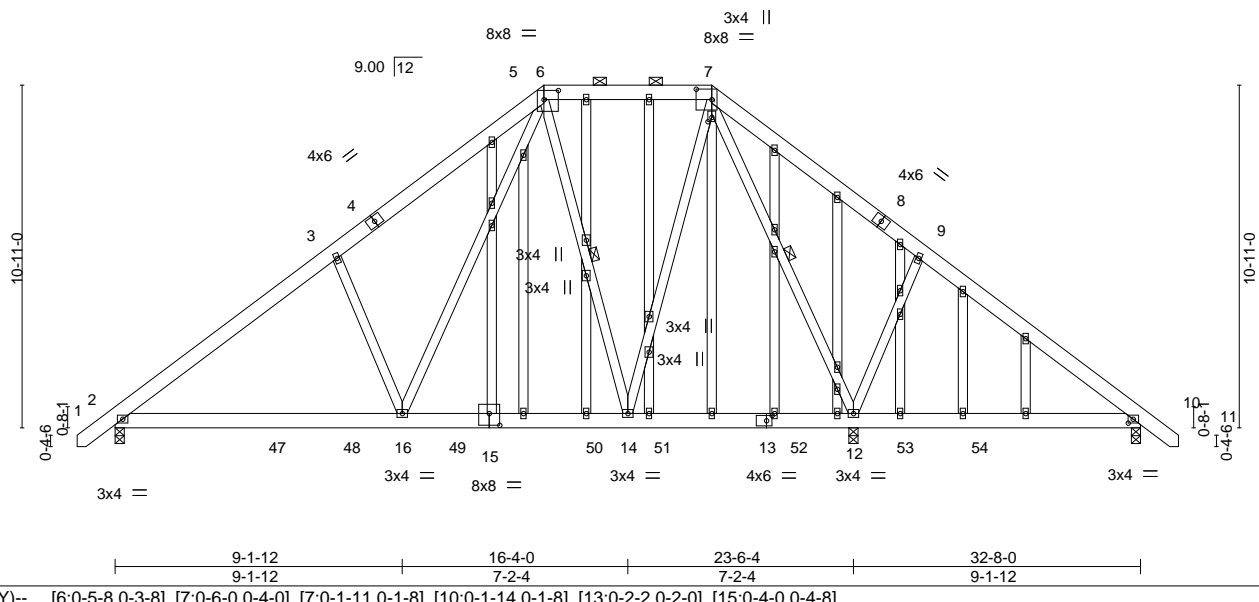
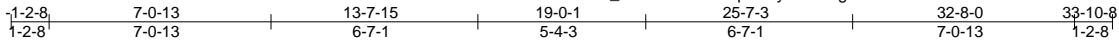


Plate Offsets (X, Y)--	[6:0-5-8,0-3-8], [7:0-6-0,0-4-0], [7:0-1-11,0-1-8], [10:0-1-14,0-1-8], [13:0-2-2,0-2-0], [15:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.29	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(LL) -0.04 16-43 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.10 16-43 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.02 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 366 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-14, 7-12
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8, 10=0-3-8  
Max Horz 2=-275(LC 10)  
Max Uplift 2=-119(LC 12), 12=-134(LC 13), 10=-46(LC 13)  
Max Grav 2=1068(LC 19), 12=1288(LC 2), 10=506(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1276/235, 3-5=-1205/352, 5-6=-373/176, 6-7=-543/251, 7-9=-294/190, 9-10=-389/69  
BOT CHORD 2-16=-158/1146, 14-16=-91/704, 12-14=-50/516, 10-12=0/291  
WEBS 3-16=-442/299, 5-16=-202/757, 6-14=-332/157, 7-14=-75/599, 7-12=-729/75, 9-12=-453/304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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 studs spaced at 2-0-0 oc.
  - 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, and 10. This connection is for uplift only and does not consider lateral forces.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 2,2020

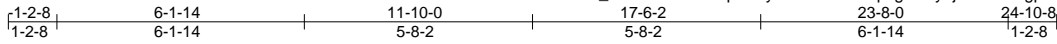
Job 25138-25138A	Truss D	Truss Type COMMON	Qty 2	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43832995
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84 Components (Dunn),

Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:18 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-95xcsqMg85Oy0jKC67HsrpIDRp\_BJaBpTf9UMyD?g?



6x6 =

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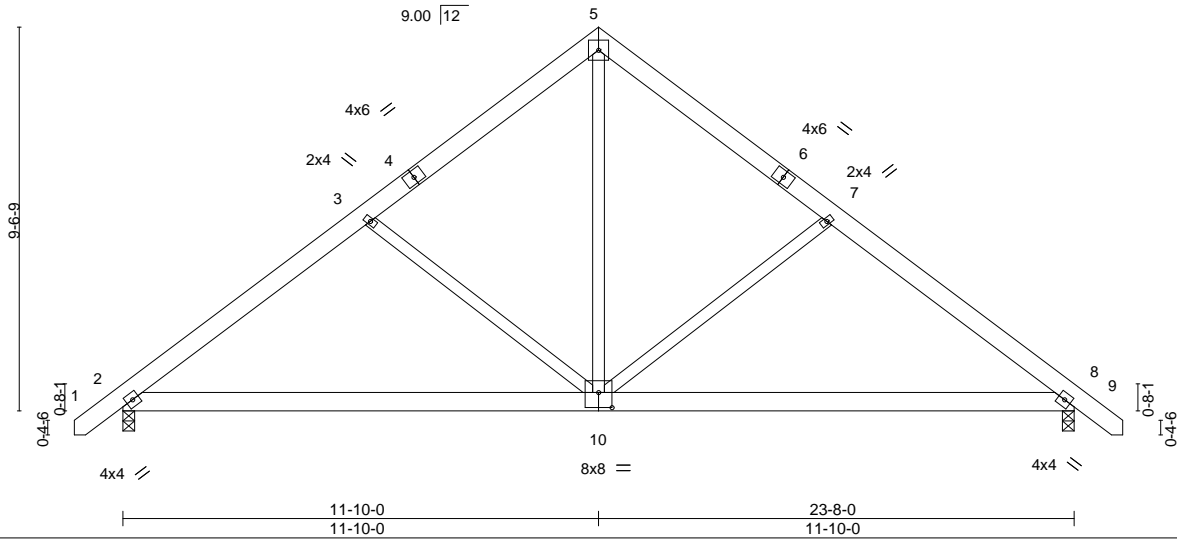


Plate Offsets (X,Y)--	[10:0-4-0,0-4-8]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.09	10-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.18	10-16	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.02	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS							
									Weight: 166 lb	FT = 20%

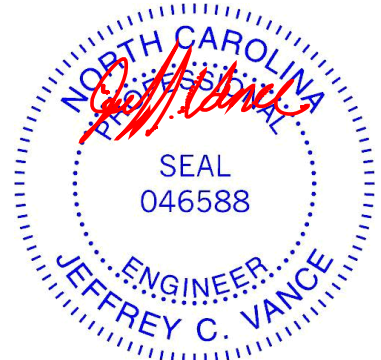
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=-239(LC 10)  
 Max Uplift 2=-118(LC 12), 8=-118(LC 13)  
 Max Grav 2=1011(LC 1), 8=1011(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1200/254, 3-5=-937/240, 5-7=-937/240, 7-8=-1200/254  
 BOT CHORD 2-10=-160/969, 8-10=-76/917  
 WEBS 5-10=-130/737, 7-10=-383/247, 3-10=-383/246

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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 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.
  - 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.



December 2, 2020

**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 **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

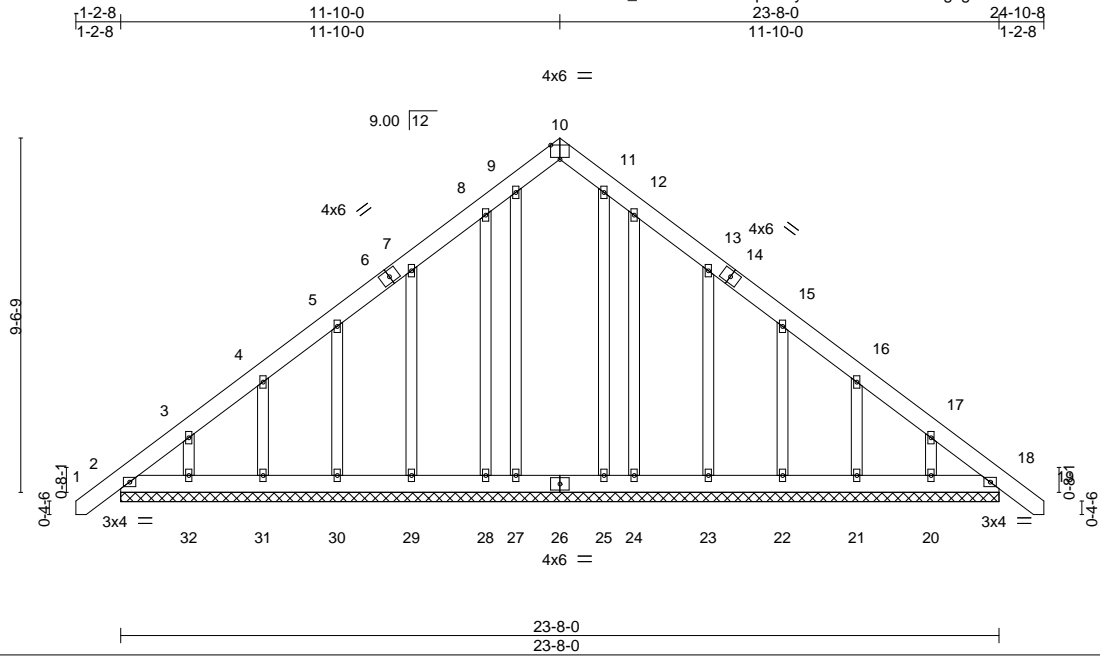
ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss DE	Truss Type GABLE	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832996
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:20 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-5T3MHVOxgfgF1UbEYJKw5uhaEcsfleTGn8GYFyD?fz



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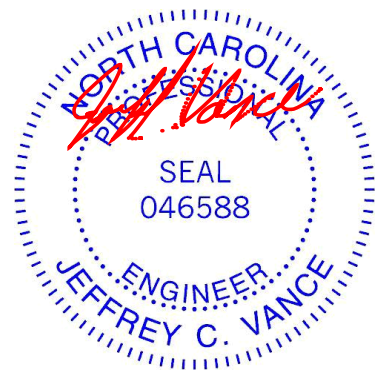
Plate Offsets (X,Y)--	[10:0-3-0,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.04	Vert(LL) -0.00	18	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00	18	n/r	90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.00	18	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 217 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 23-8-0.  
 (lb) - Max Horz 2=-239(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 10, 2, 18, 27, 25, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20  
 Max Grav All reactions 250 lb or less at joint(s) 2, 18, 27, 25, 28, 29, 30, 31, 32, 24, 23, 22, 21, 20 except 10=264(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 9-10=-218/268, 10-11=-218/268

- 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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 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) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.



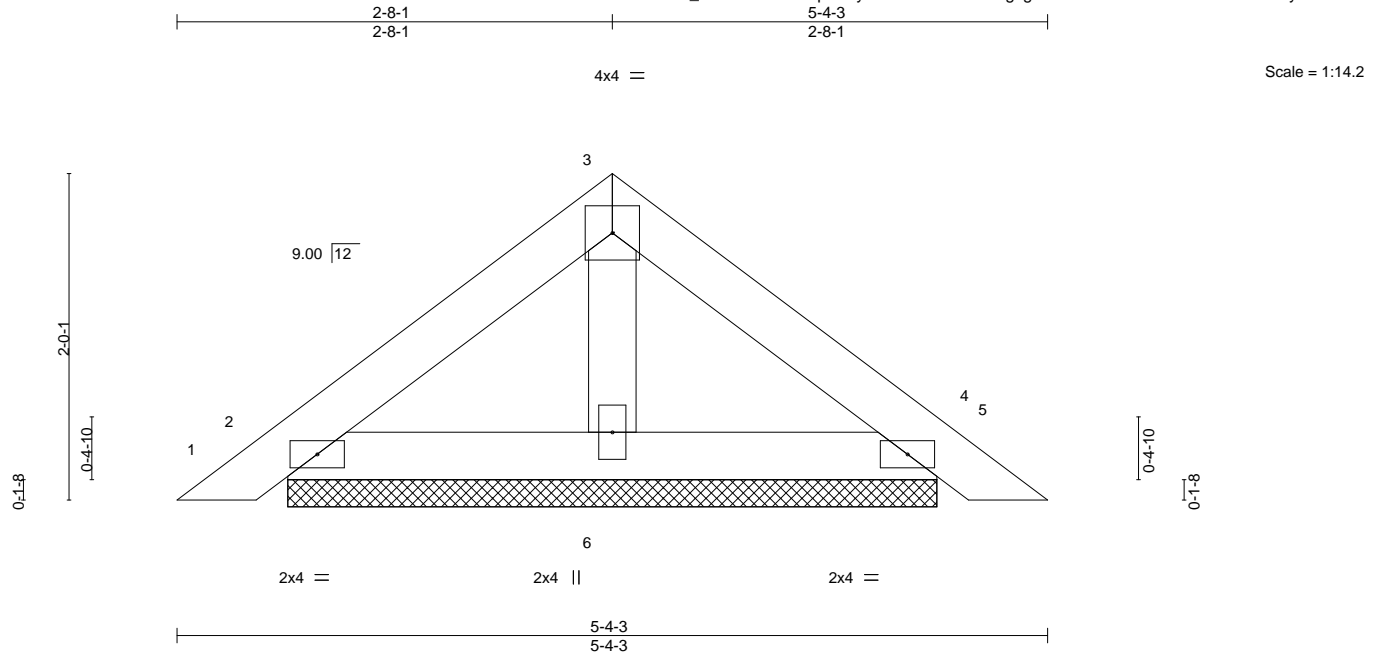
December 2, 2020

Job 25138-25138A	Truss PB2	Truss Type Piggyback	Qty 11	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143832997
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:20 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-5T3MHVOxgigfF1UbEYJKw5uhEEcbJtTgn8GYFyD?fz



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 0.06	Vert(LL)	0.00	4	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	5	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=3-11-14, 4=3-11-14, 6=3-11-14  
 Max Horz 2=45(LC 11)  
 Max Uplift 2=-30(LC 12), 4=-36(LC 13)  
 Max Grav 2=118(LC 1), 4=118(LC 1), 6=136(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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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 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) n/a
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 2, 2020

**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 **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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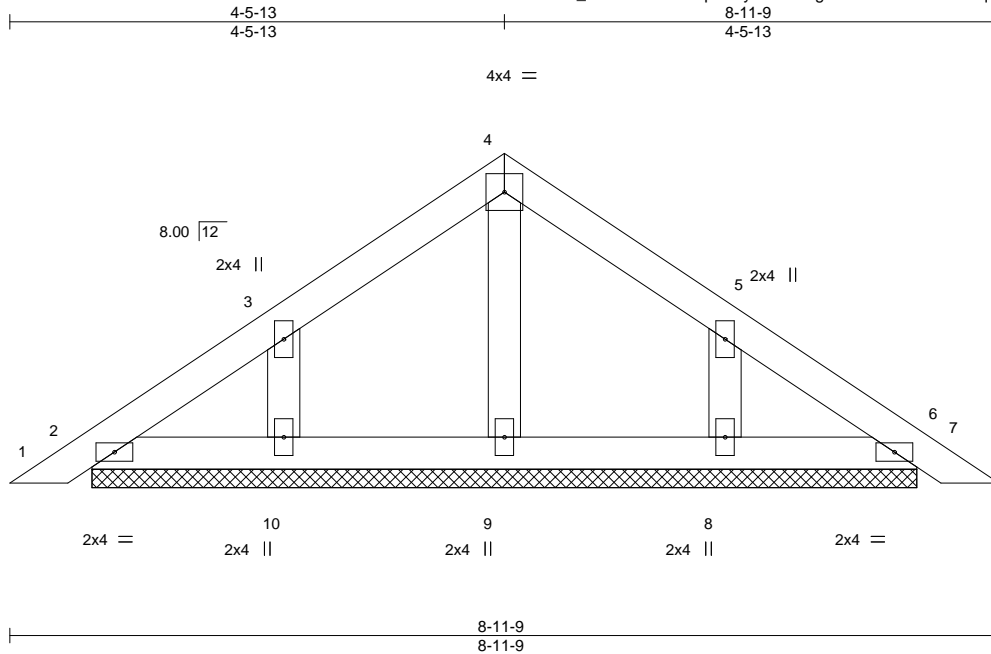
Job 25138-25138A	Truss PB3	Truss Type Piggyback	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43832998
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84 Components (Dunn),

Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:21 2020 Page 1

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Scale = 1:20.9

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 0.05	Vert(LL)	0.00	6	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	6	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 33 lb	FT = 20%

**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  
 OTHERS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

All bearings 7-5-11.  
 (lb) - Max Horz 2=-70(LC 10)  
 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.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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.
- n/a
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 2, 2020

**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 **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



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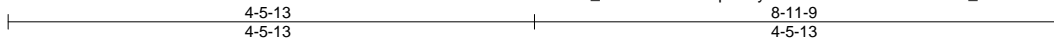
Job 25138-25138A	Truss PB4	Truss Type Piggyback	Qty 9	Ply 1	Wellons BB 1398 Extended 143832999
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84 Components (Dunn),

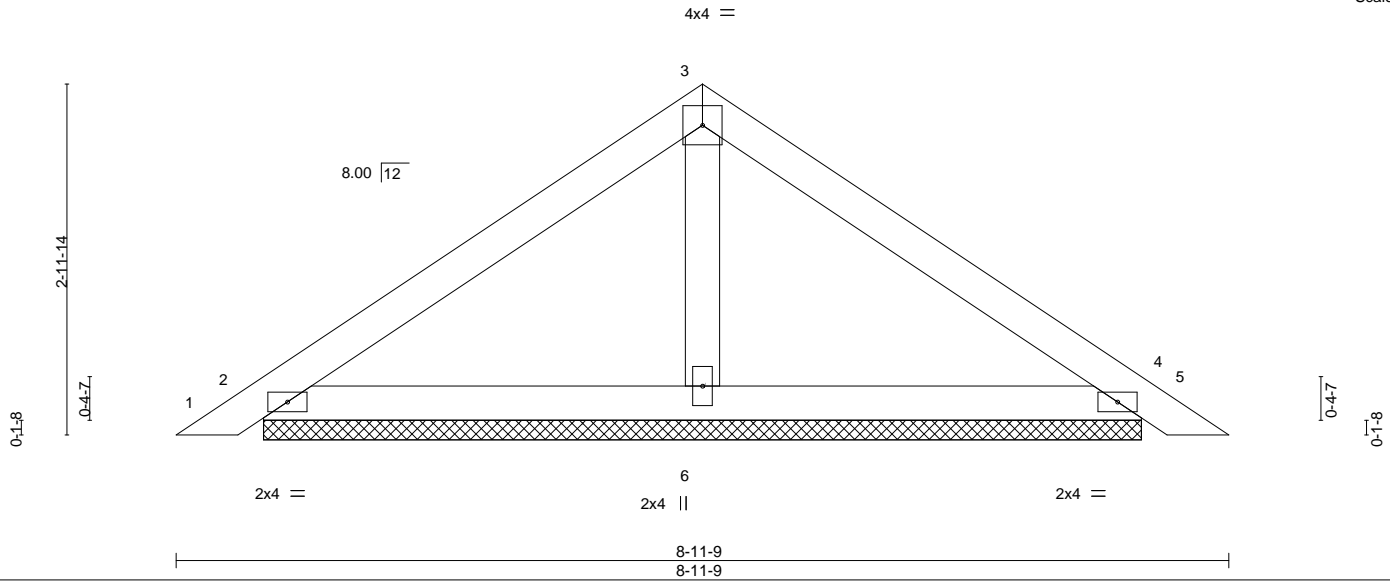
Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:22 2020 Page 1

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Scale = 1:19.6



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 0.26	Vert(LL)	0.01	5	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	0.01	5	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 30 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=7-5-11, 4=7-5-11, 6=7-5-11  
 Max Horz 2=-70(LC 10)  
 Max Uplift 2=-48(LC 12), 4=-57(LC 13)  
 Max Grav 2=192(LC 1), 4=192(LC 1), 6=271(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; TCCL=6.0psf; BCCL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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 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) n/a
  - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 2, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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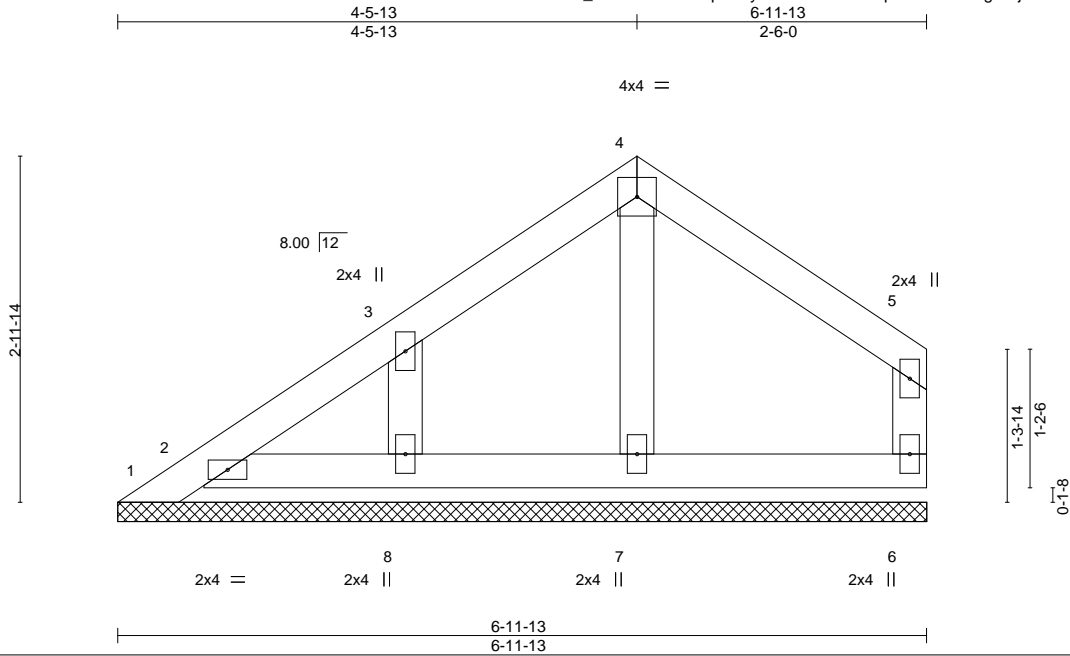


818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Wellons BB 1398 Extended	143833000
25138-25138A	PB5	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:23 2020 Page 1  
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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 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 28 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 6-11-13.  
 (lb) - Max Horz 1=74(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 2, 8  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6, 2, 7, 8

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 4-0-0 oc.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
  - n/a
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



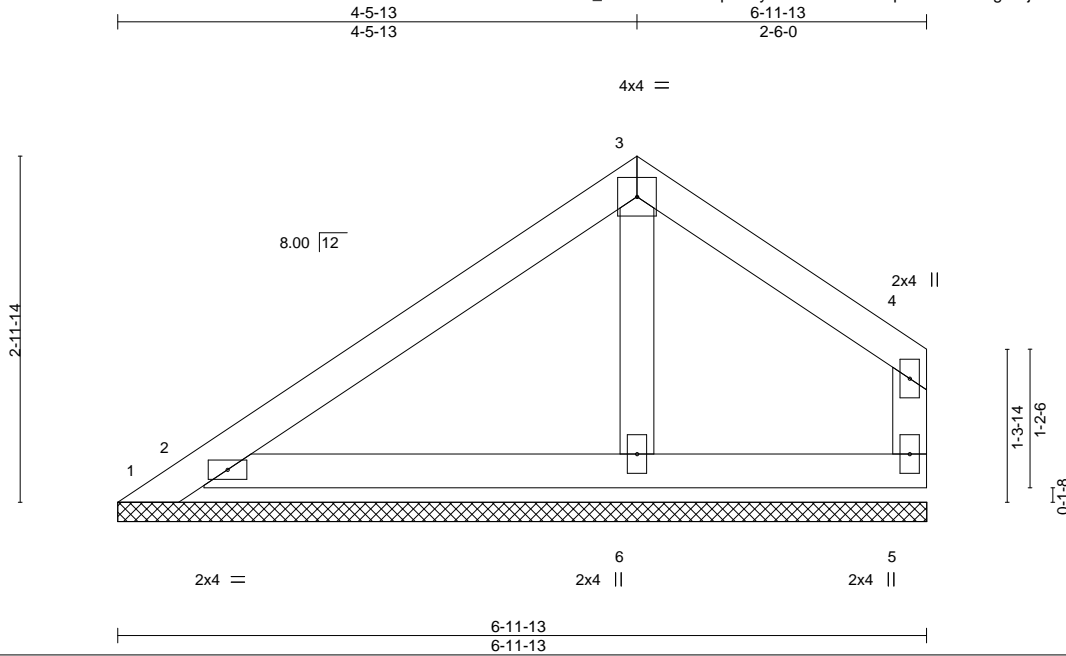
December 2, 2020

Job	Truss	Truss Type	Qty	Ply	Wellons BB 1398 Extended	I43833001
25138-25138A	PB6	GABLE	11	1		

84 Components (Dunn),

Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:23 2020 Page 1  
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Scale = 1:19.9

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 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 26 lb	FT = 20%

**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  
 OTHERS 2x4 SP No.3

**BRACING-**

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.

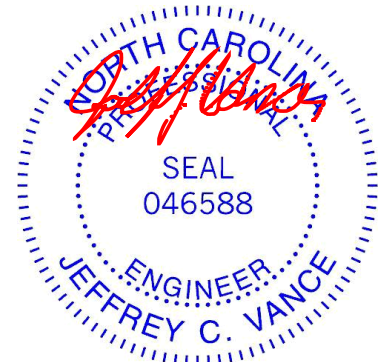
**REACTIONS.**

All bearings 6-11-13.  
 (lb) - Max Horz 1=74(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 1=215(LC 19), 2=226(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=408(LC 19)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=215.
- n/a
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 2,2020

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818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss PB8	Truss Type Piggyback	Qty 7	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833002
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84 Components (Dunn), Dunn, NC - 28334,

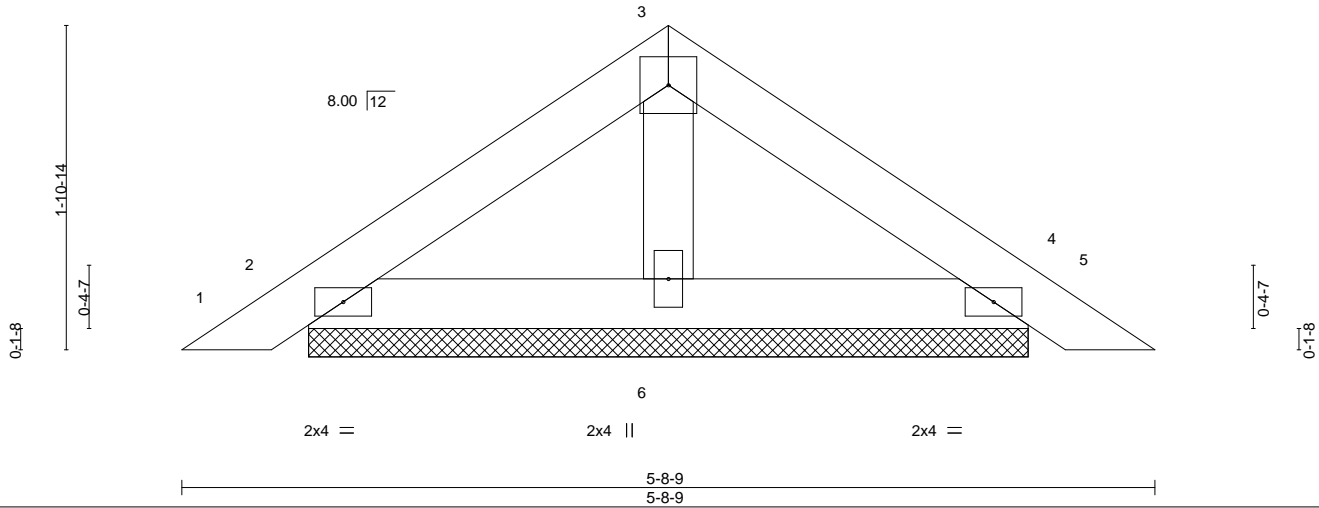
8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:24 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-zFlt7tRRkx96kenMTOOG4x3M6r\_Sb7r3BP6UhoYD?fv



4x4 =

Scale = 1:13.5



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 0.07	Vert(LL)	0.00	5	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	5	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=4-2-11, 4=4-2-11, 6=4-2-11  
 Max Horz 2=-43(LC 10)  
 Max Uplift 2=-33(LC 12), 4=-38(LC 13)  
 Max Grav 2=123(LC 1), 4=123(LC 1), 6=150(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- 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.
- n/a
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 2, 2020

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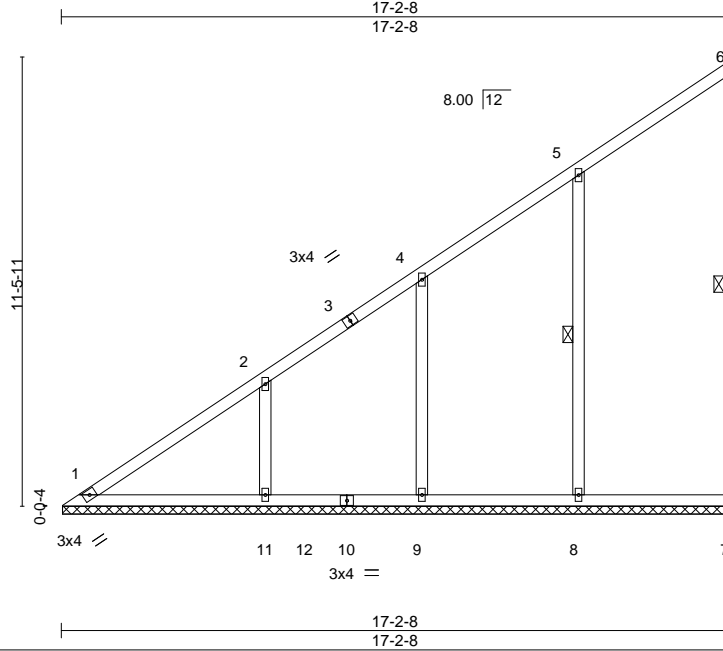
818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss V1	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833003
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:25 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-RRsFKDS3VEHzLoMY05vVd8bQIFGSKY0DQ3s1DSyD?fu



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 0.49	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 97 lb	FT = 20%

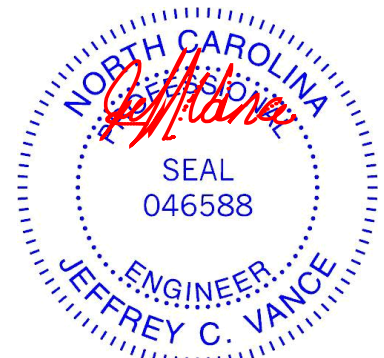
**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 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.  
 WEBS 1 Row at midt 6-7, 5-8

**REACTIONS.** All bearings 17-2-2.  
 (lb) - Max Horz 1=427(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 8=-139(LC 12), 9=-115(LC 12), 11=-162(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 1 except 8=504(LC 19), 9=428(LC 19), 11=463(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-461/382, 2-4=-312/251  
 WEBS 5-8=-286/193, 2-11=-321/212

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) All plates are 2x4 MT20 unless otherwise indicated.
  - 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 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.



December 2, 2020

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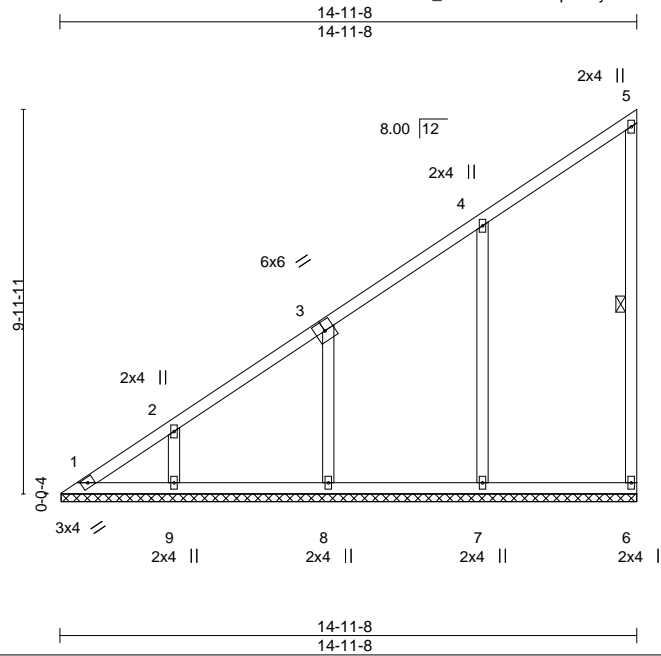
818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss V2	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	143833004
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:26 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-wdQdYZShGYPqzyxiaoQk9M8dRfdW3zSMfjbamuyD?ft



Scale = 1:59.7

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 0.34	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 80 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 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.  
 WEBS 1 Row at midt 5-6

**REACTIONS.** All bearings 14-11-2.  
 (lb) - Max Horz 1=369(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 6, 1 except 7=-141(LC 12), 8=-125(LC 12), 9=-108(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 6, 1 except 7=512(LC 19), 8=394(LC 19), 9=290(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-412/334, 2-3=-313/254  
 WEBS 4-7=-288/194, 3-8=-256/173

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 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 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.



December 2, 2020

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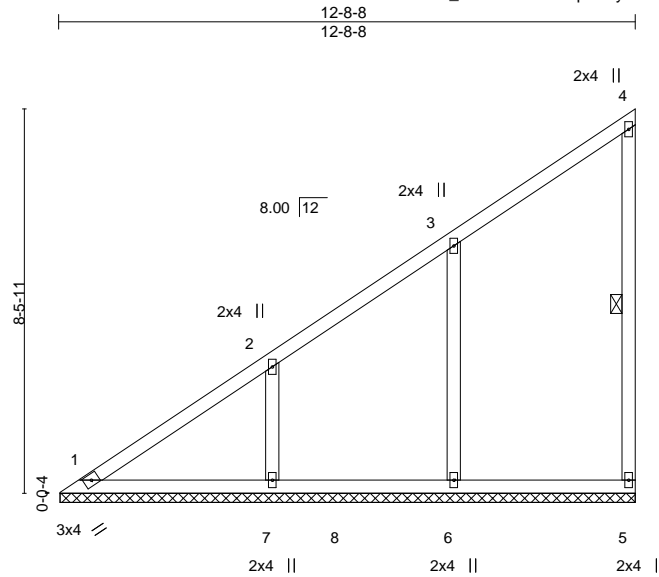


818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss V3	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833005
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:27 2020 Page 1  
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Scale = 1:50.8

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 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 64 lb	FT = 20%

**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  
 OTHERS 2x4 SP No.3

**BRACING-**

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.  
 WEBS 1 Row at midt 4-5

**REACTIONS.** All bearings 12-8-2.

(lb) - Max Horz 1=311(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=-130(LC 12), 7=-148(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=480(LC 19), 7=409(LC 19)

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

TOP CHORD 1-2=-327/280  
 WEBS 3-6=-271/184, 2-7=-292/193

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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.



December 2, 2020

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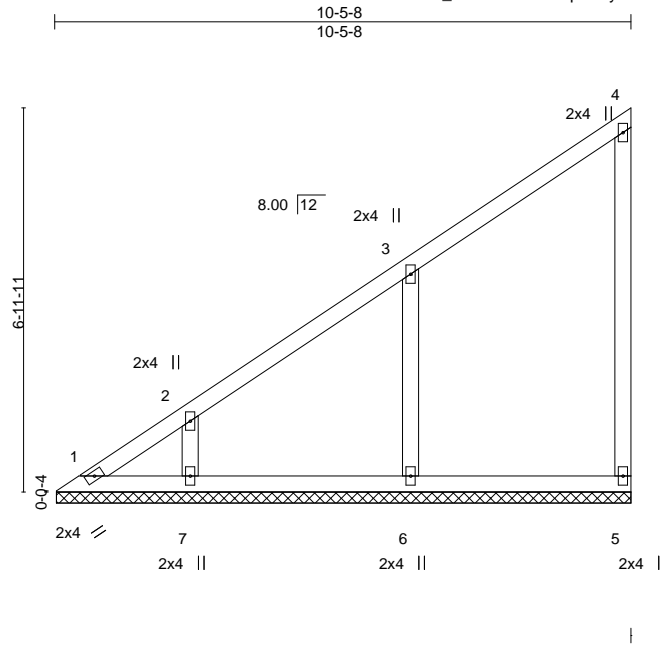


818 Soundside Road  
 Edenton, NC 27932

Job 25138-25138A	Truss V4	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833006
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:27 2020 Page 1  
ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-Op\_0lvTK1sXgb6Wx8WxziZhq53xSoTSVtNL8LyD?fs



Scale = 1:41.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 50 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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.

**REACTIONS.** All bearings 10-5-2.

(lb) - Max Horz 1=253(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 6=-140(LC 12), 7=-106(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=447(LC 19), 7=269(LC 19)

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

TOP CHORD 1-2=-293/248  
 WEBS 3-6=-291/198

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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.



December 2, 2020

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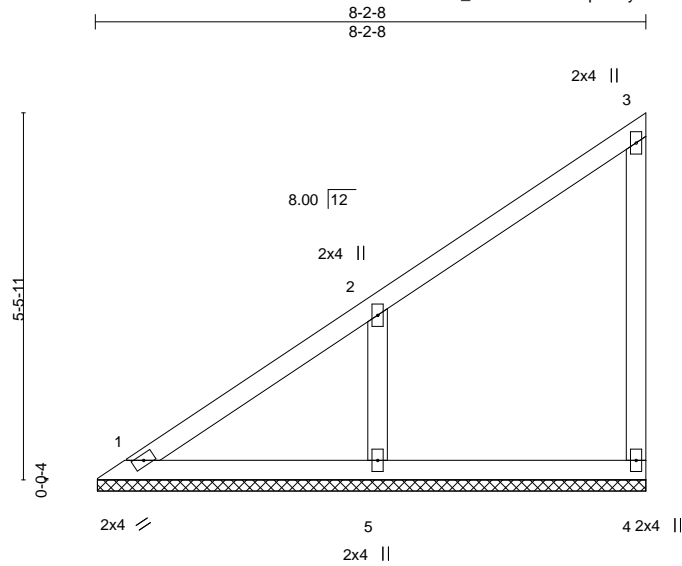
818 Soundside Road  
 Edenton, NC 27932



Job 25138-25138A	Truss V5	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833007
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:28 2020 Page 1  
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Scale = 1:34.4

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 0.41	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 37 lb	FT = 20%

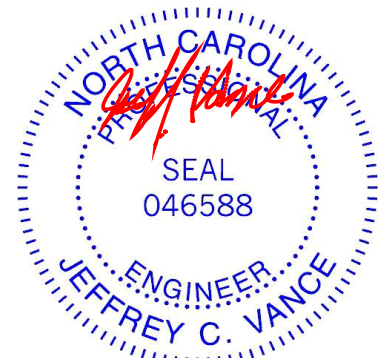
**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
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.

**REACTIONS.** (size) 1=8-2-2, 4=8-2-2, 5=8-2-2  
Max Horz 1=195(LC 12)  
Max Uplift 4=-47(LC 12), 5=-150(LC 12)  
Max Grav 1=125(LC 21), 4=124(LC 19), 5=403(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-5=-316/220

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 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 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.



December 2, 2020

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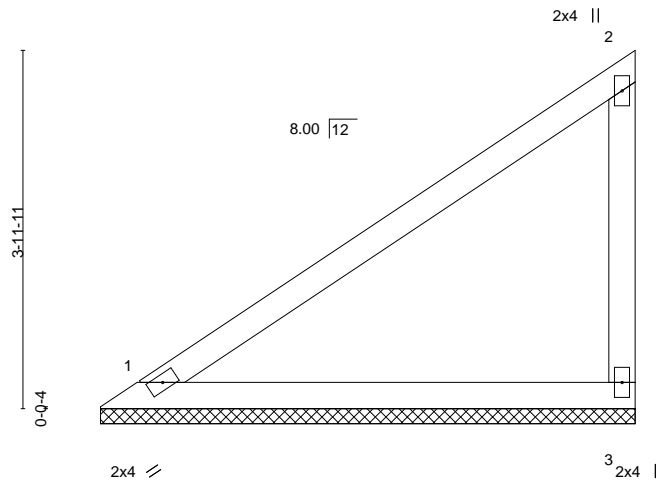
818 Soundside Road  
Edenton, NC 27932

Job 25138-25138A	Truss V6	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833008
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:29 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-KC6mAaVaZTnOqPgKfX\_Rn\_m\_ksYtGONoLhqFMDyD?fq  
5-11-8  
5-11-8



Scale = 1:25.5

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 0.97	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 24 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 1=5-11-2, 3=5-11-2  
Max Horz 1=137(LC 12)  
Max Uplift 3=85(LC 12)  
Max Grav 1=213(LC 1), 3=227(LC 19)

**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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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.



December 2, 2020

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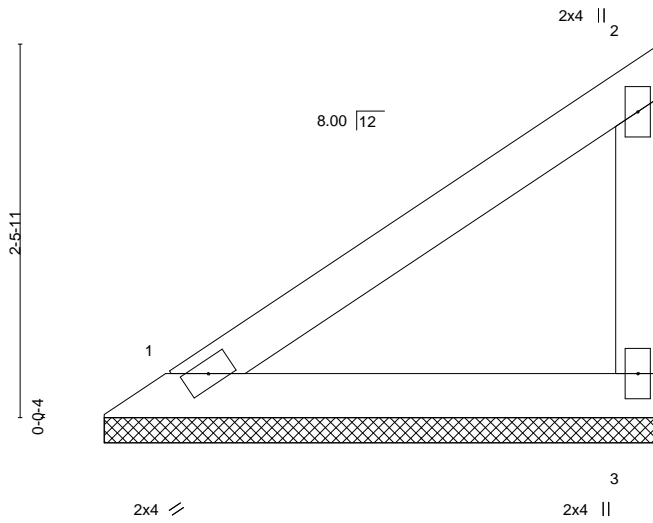
818 Soundside Road  
Edenton, NC 27932

Job 25138-25138A	Truss V7	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833009
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:29 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-KC6mAaVaZTnOqPgKFx\_Rn\_m9JsfSGONoLhqFMDyD?fq  
3-8-8  
3-8-8



Scale = 1:15.3

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 0.30	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 14 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
WEBS 2x4 SP No.3

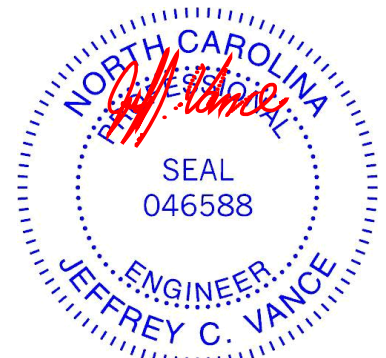
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-8-2, 3=3-8-2  
Max Horz 1=79(LC 12)  
Max Uplift 3=-49(LC 12)  
Max Grav 1=123(LC 1), 3=131(LC 19)

**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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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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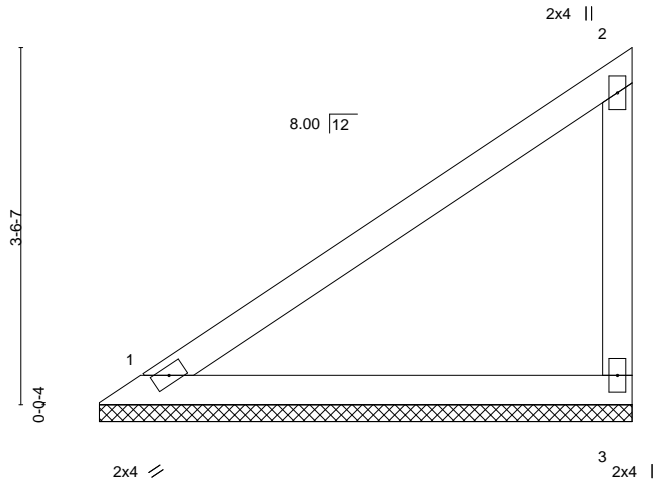
Job 25138-25138A	Truss V8	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833010
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:30 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-oOg8NwVCKnvFSZFWpeVgKCIDCGwR?rddyZLZovgyD?fp

5-3-11  
5-3-11



Scale = 1:22.8

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 0.73	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 21 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=5-3-5, 3=5-3-5  
Max Horz 1=121(LC 12)  
Max Uplift 3=-74(LC 12)  
Max Grav 1=187(LC 1), 3=199(LC 19)

**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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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.



December 2, 2020

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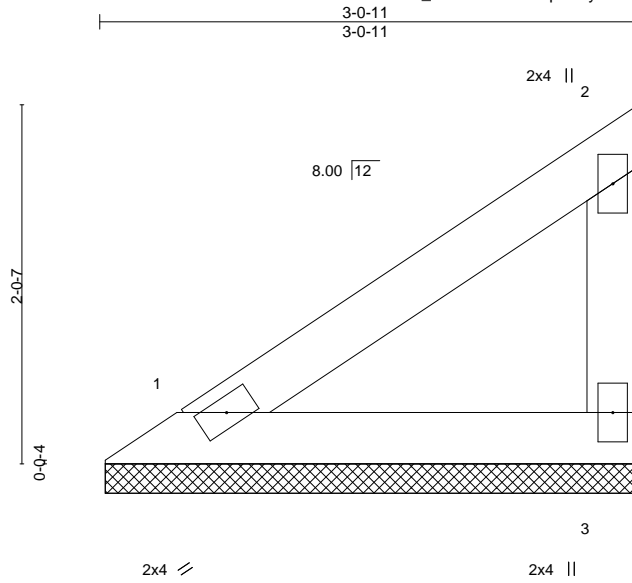
818 Soundside Road  
Edenton, NC 27932

Job 25138-25138A	Truss V9	Truss Type Valley	Qty 1	Ply 1	Wellons BB 1398 Extended Job Reference (optional)	I43833011
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84 Components (Dunn), Dunn, NC - 28334,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 2 12:29:30 2020 Page 1

ID:eBUI\_9RQo7di2ekrJPpsD7yDKwN-oOg8NwVCKnvFSZFWpeVgKCIMvG0r?rdyZLZovgyD?fp



Scale = 1:13.1

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 0.18	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						
								Weight: 11 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.3  
 BOT CHORD 2x4 SP No.3  
 WEBS 2x4 SP No.3

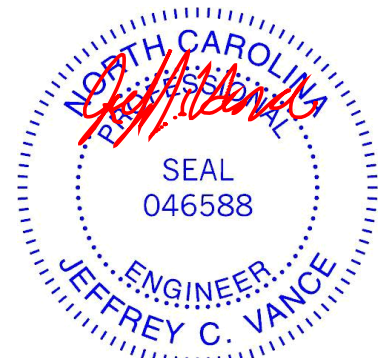
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-0-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-0-5, 3=3-0-5  
 Max Horz 1=63(LC 12)  
 Max Uplift 3=-39(LC 12)  
 Max Grav 1=97(LC 1), 3=103(LC 19)

**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=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 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 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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ENGINEERING BY  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



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



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

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

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING



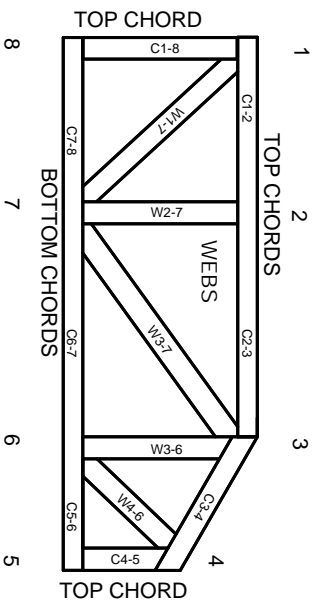
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or 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.