

RE: 1238844\_Master - H&H-NC/Wilmington/

**Site Information:**

Project Customer: H and H Project Name: 1238844  
 Lot/Block: Subdivision:  
 Model:  
 Address:  
 City: State: NC

**Trenco**

818 Soundside Rd  
 Edenton, NC 27932

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2009/TPI2007 Design Program: MiTek 20/20 7.6  
 Wind Code: ASCE 7-05 Wind Speed: 100 mph Design Method: MWFRS(low-rise)/C-C hybrid Wind ASCE 7-05  
 Roof Load: 40.0 psf Floor Load: N/A psf

Mean Roof Height (feet): 25

Exposure Category: C

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I31241136	A01	10/3/17	35	I31241170	J06	10/3/17
2	I31241137	A02	10/3/17	36	I31241171	J07	10/3/17
3	I31241138	A03	10/3/17	37	I31241172	J08	10/3/17
4	I31241139	A04	10/3/17	38	I31241173	J09	10/3/17
5	I31241140	A04A	10/3/17	39	I31241174	J10	10/3/17
6	I31241141	A05	10/3/17	40	I31241175	J11	10/3/17
7	I31241142	A05A	10/3/17	41	I31241176	J12	10/3/17
8	I31241143	A06	10/3/17	42	I31241177	J13	10/3/17
9	I31241144	A07	10/3/17	43	I31241178	J14	10/3/17
10	I31241145	A08	10/3/17	44	I31241179	J15	10/3/17
11	I31241146	A09	10/3/17	45	I31241180	PB01	10/3/17
12	I31241147	A10	10/3/17	46	I31241181	PB02	10/3/17
13	I31241148	A11	10/3/17	47	I31241182	PB03	10/3/17
14	I31241149	B01	10/3/17				
15	I31241150	B02	10/3/17				
16	I31241151	B03	10/3/17				
17	I31241152	B04	10/3/17				
18	I31241153	C01	10/3/17				
19	I31241154	C02	10/3/17				
20	I31241155	C03	10/3/17				
21	I31241156	C04	10/3/17				
22	I31241157	CP01	10/3/17				
23	I31241158	CP02	10/3/17				
24	I31241159	D01	10/3/17				
25	I31241160	FG01	10/3/17				
26	I31241161	FG02	10/3/17				
27	I31241162	G01	10/3/17				
28	I31241163	G02	10/3/17				
29	I31241164	G03	10/3/17				
30	I31241165	J01	10/3/17				
31	I31241166	J02	10/3/17				
32	I31241167	J03	10/3/17				
33	I31241168	J04	10/3/17				
34	I31241169	J05	10/3/17				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Sumter, SC.

Truss Design Engineer's Name: Galinski, John

My license renewal date for the state of North Carolina is December 31, 2017.

**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.

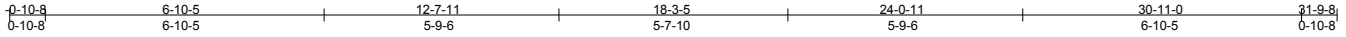


October 3, 2017

Job 1238844_MASTER	Truss A01	Truss Type HIP GIRDER	Qty 5	Ply 2	H&H-NC/Wilmington/ Job Reference (optional)	131241136
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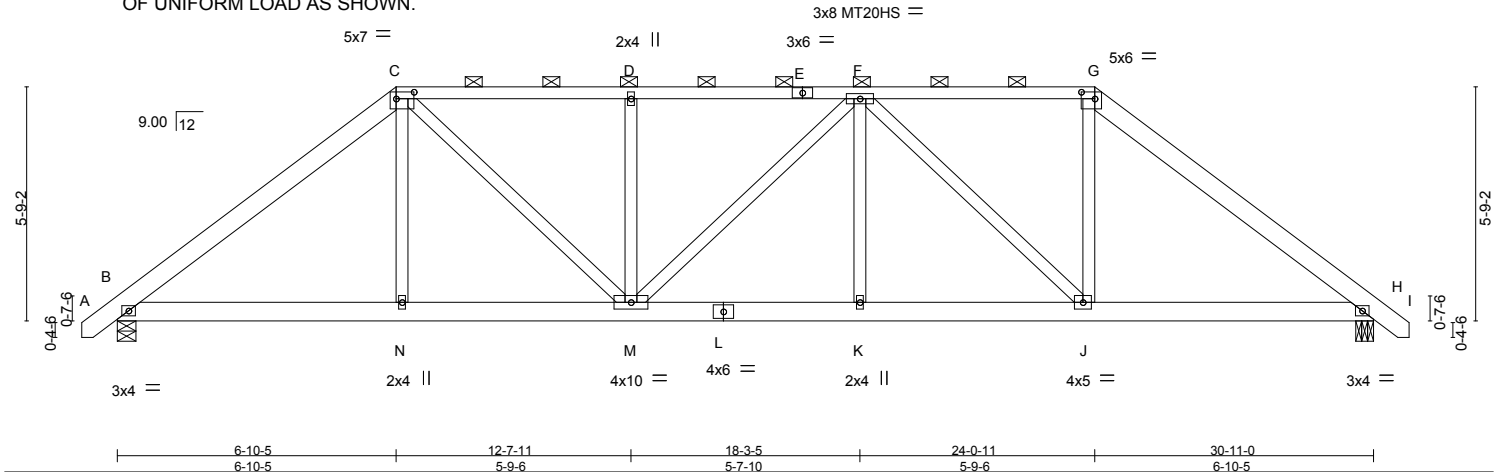
Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:17 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-E0PGmh0tX4zckbzVhKMVxRcTN2V21F\_bepJtNjYXBde



THIS TRUSS IS DESIGNED TO SUPPORT ONLY 2'-0" OF UNIFORM LOAD AS SHOWN.

Scale = 1:56.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.03 K-M >999 360	MT20	244/190		
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(TL)	-0.08 K-M >999 240	MT20HS	187/143		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.16	Horz(TL)	0.03 H n/a n/a				
BCDL	10.0	Code	IRC2009/TP12007	(Matrix-M)		Wind(LL)	0.03 K-M >999 240			Weight: 413 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2 *Except* C-E,E-G: 2x4 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.): C-G.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2		

**REACTIONS.** (lb/size) B=1281/0-5-8, H=1281/0-5-4  
Max Horz B=-163(LC 4)  
Max Uplift B=-163(LC 5), H=-163(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1689/262, C-D=-1732/329, D-E=-1732/329, E-F=-1732/329, F-G=-1258/258, G-H=-1686/261  
BOT CHORD B-N=-253/1244, M-N=-252/1248, L-M=-291/1735, K-L=-291/1735, J-K=-291/1735, H-J=-120/1242  
WEBS C-N=0/271, C-M=-233/724, D-M=-359/185, F-J=-720/234, G-J=-62/623

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=163, H=163.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

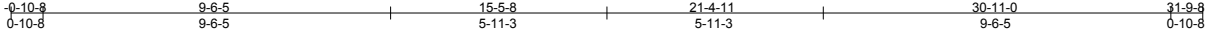


October 3, 2017

Job 1238844_MASTER	Truss A02	Truss Type HIP	Qty 5	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241137
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:17 2017 Page 1  
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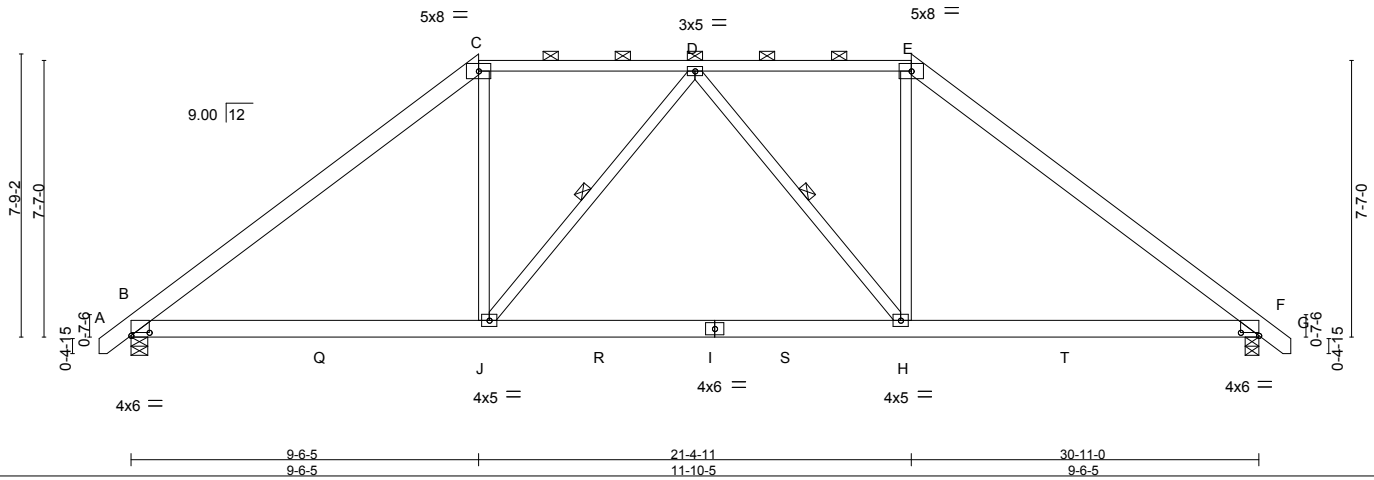


Plate Offsets (X,Y)-- [B:0-6-0-0-1-0], [F:0-6-0-0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.14	H-J	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(TL)	-0.29	H-J	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(TL)	0.05	F	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.08	J-M	>999	240		
									Weight: 198 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2 \*Except\*  
C-E: 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (4-10-9 max.): C-E.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt D-J, D-H

**REACTIONS.**

(lb/size) B=1283/0-5-8, F=1283/0-4-8  
Max Horz B=-219(LC 6)  
Max Uplift B=-110(LC 8), F=-110(LC 9)  
Max Grav B=1331(LC 2), F=1331(LC 2)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1735/523, C-D=-1294/549, D-E=-1294/549, E-F=-1735/523  
BOT CHORD B-Q=-185/1283, J-Q=-185/1283, J-R=-265/1408, I-R=-265/1408, I-S=-265/1408,  
H-S=-265/1408, H-T=-181/1283, F-T=-181/1283  
WEBS C-J=-24/614, D-J=-315/228, D-H=-315/228, E-H=-24/614

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=110, F=110.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

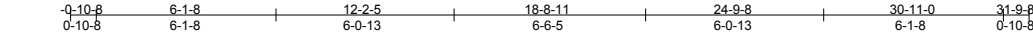


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A03	Truss Type Hip	Qty 5	Ply 1	H&H-NC/Wilmington/ I31241138
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:18 2017 Page 1  
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6x10 MT18H = 6x10 MT18H =

Scale = 1:78.5

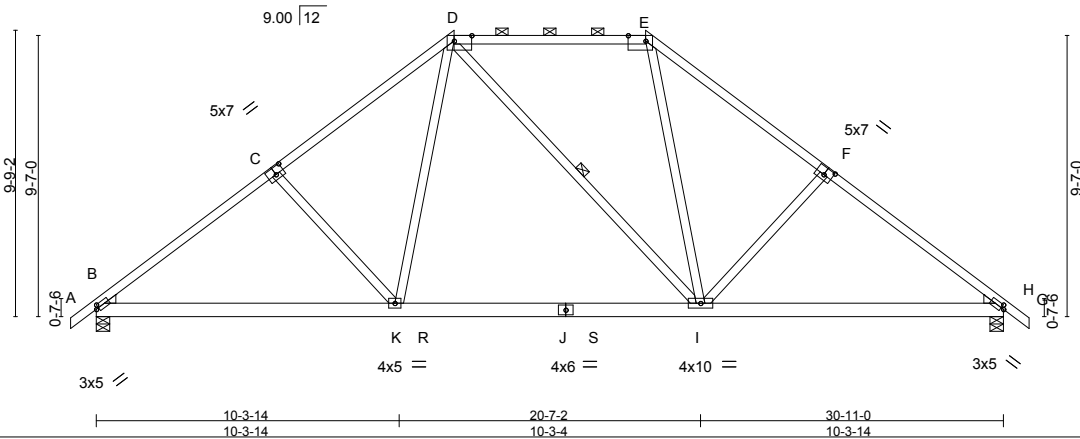


Plate Offsets (X,Y)-- [B:0-1-2,0-1-8], [C:0-3-8,0-3-0], [D:0-7-3,Edge], [E:0-7-3,Edge], [F:0-3-8,0-3-0], [G:0-1-2,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.58	Vert(LL)	-0.16	I-K	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	Vert(TL)	-0.27	I-K	>999	MT18H	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.22	Horz(TL)	0.04	G	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL)	0.04	K	>999		
	Code IRC2009/TP12007						Weight: 195 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
D-I: 2x4 SP No.2

**WEDGE**

Left: 2x4 SP No.3, Right: 2x4 SP No.3

**REACTIONS.** (lb/size) B=1289/0-5-8, G=1289/0-5-8  
Max Horz B=279(LC 7)  
Max Uplift B=-129(LC 8), G=-129(LC 9)

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

TOP CHORD B-C=-1699/596, C-D=-1465/611, D-E=-1003/555, E-F=-1465/611, F-G=-1699/596  
BOT CHORD B-K=-321/1281, K-R=-111/1002, J-R=-111/1002, J-S=-111/1002, I-S=-111/1002,  
G-I=-323/1281  
WEBS C-K=-288/316, D-K=-115/523, E-I=-114/516, F-I=-287/316

**NOTES-** (11)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=129, G=129.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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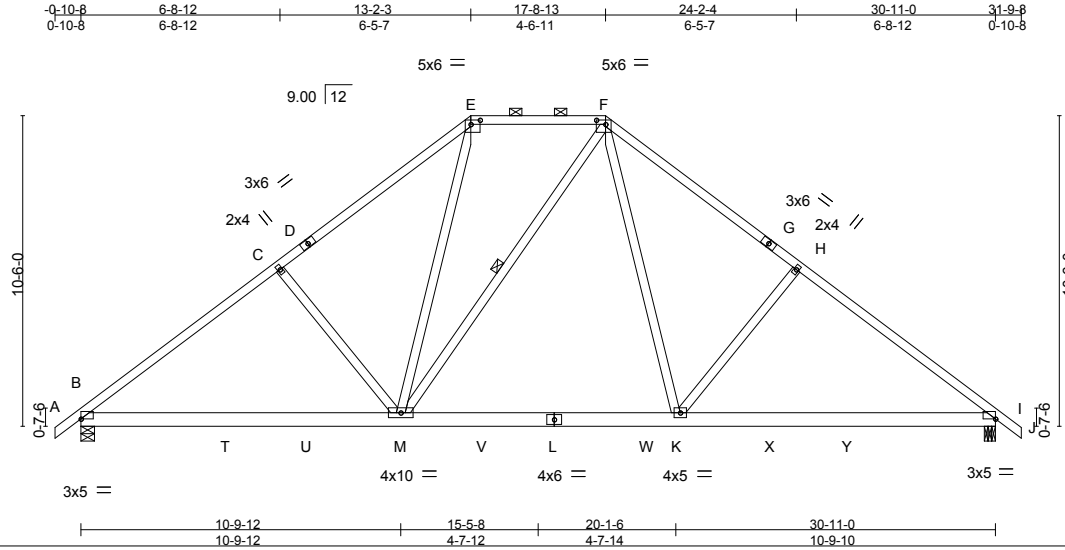


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A04	Truss Type PIGGYBACK BASE	Qty 55	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241139
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Builders FirstSource, Sumter, SC 29153

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Scale = 1:77.9

Plate Offsets (X,Y)-- [E:0-3-12,0-1-12], [F:0-3-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	Vert(LL)	-0.10	K-M	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(TL)	-0.26	K-S	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.35	Horz(TL)	0.04	I	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL)	0.05	K-S	>999		
	Code IRC2009/TPI2007						Weight: 198 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-10-1 max.): E-F.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt F-M

**REACTIONS.**

(lb/size) B=1289/0-5-8, I=1289/0-4-8  
Max Horz B=-306(LC 6)  
Max Uplift B=-133(LC 8), I=-133(LC 9)  
Max Grav B=1289(LC 1), I=1294(LC 2)

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

TOP CHORD B-C=-1686/589, C-D=-1487/583, D-E=-1380/626, E-F=-964/550, F-G=-1396/627, G-H=-1504/583, H-I=-1703/589  
BOT CHORD B-T=-304/1282, T-U=-304/1282, M-U=-304/1282, M-V=-41/971, L-V=-41/971, L-W=-41/971, K-W=-41/971, K-X=-306/1295, X-Y=-306/1295, I-Y=-306/1295  
WEBS C-M=-344/360, E-M=-170/585, F-K=-171/612, H-K=-345/361

**NOTES-** (10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=133, I=133.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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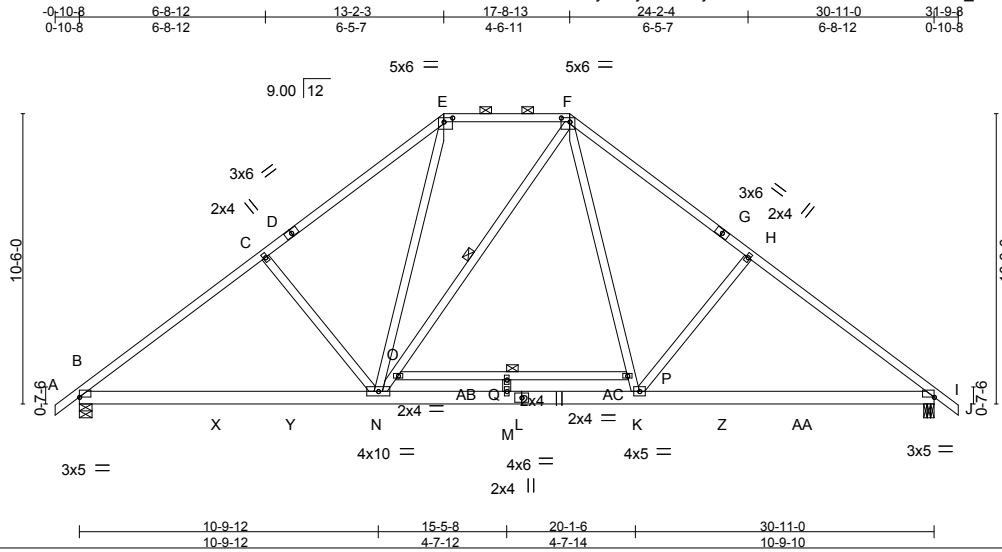
818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A04A	Truss Type PIGGYBACK BASE	Qty 14	Ply 1	H&H-NC/Wilmington/ 131241140
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Builders FirstSource, Sumter, SC 29153

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Scale = 1:83.3

Plate Offsets (X,Y)-- [E:0-3-12,0-1-12], [F:0-3-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-12	TC 0.77	Vert(LL)	-0.12	M	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.66	Vert(TL)	-0.27	K-W	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.36	Horz(TL)	0.04	I	n/a		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Wind(LL)	0.05	K-W	>999		
	Code IRC2009/TP12007						Weight: 211 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except 2-0-0 oc purlins (5-9-8 max.): E-F.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt O-P, F-N
O-P: 2x4 SP No.2	

**REACTIONS.** (lb/size) B=1329/0-5-8, I=1329/0-4-8  
 Max Horz B=-316(LC 6)  
 Max Uplift B=-137(LC 8), I=-137(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1735/608, C-D=-1521/603, D-E=-1409/647, E-F=-984/566, F-G=-1424/647, G-H=-1538/603, H-I=-1743/608  
 BOT CHORD B-X=-315/1312, X-Y=-315/1312, N-Y=-315/1312, M-N=-40/987, L-M=-40/987, K-L=-40/987, K-Z=-316/1325,  
 Z-AA=-316/1325, I-AA=-316/1325  
 WEBS C-N=-358/375, E-N=-179/657, F-P=-180/687, K-P=-181/630, H-K=-359/375

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=137, I=137.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-E=-62, E-F=-62, F-J=-62, R-U=-21



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job 1238844_MASTER	Truss A05	Truss Type PIGGYBACK BASE	Qty 28	Ply 1	H&H-NC/Wilmington/ I31241141
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:20 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-eb5PPj2lq?LBb3i4MSwCZ4ExHGRoEZj2KnX7OeyXBdb

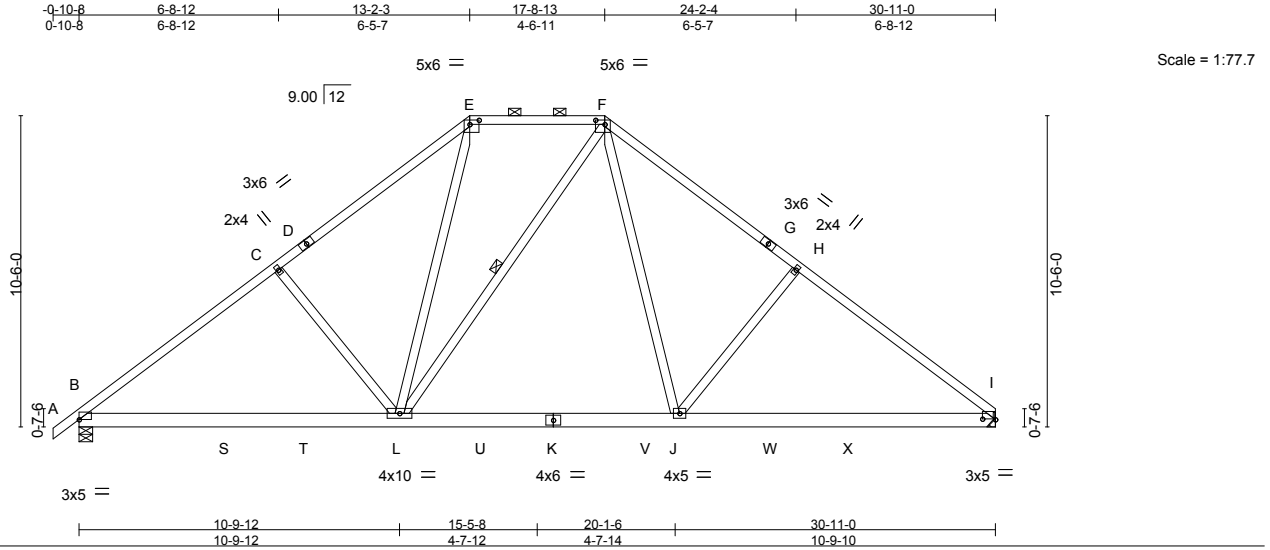


Plate Offsets (X,Y)-- [E:0-3-12.0-1-12], [F:0-3-12.0-1-12], [I:0-5-4.0-0-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.10	J-L	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.52	Vert(TL)	-0.26	J-R	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35	Horz(TL)	0.04	I	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.05	J-R	>999	240	Weight: 196 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-10-1 max.): E-F.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt F-L

**REACTIONS.**

(lb/size) B=1290/0-5-8, I=1236/Mechanical  
Max Horz B=321(LC 7)  
Max Uplift B=-133(LC 8), I=-93(LC 9)  
Max Grav B=1290(LC 1), I=1250(LC 2)

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

TOP CHORD B-C=-1687/590, C-D=-1488/585, D-E=-1381/628, E-F=-965/551, F-G=-1399/629, G-H=-1507/586, H-I=-1705/591  
BOT CHORD B-S=-334/1282, S-T=-334/1282, L-T=-334/1282, L-U=-70/973, K-U=-70/973, K-V=-70/973, J-V=-70/973, J-W=-335/1297, W-X=-335/1297, I-X=-335/1297  
WEBS C-L=-344/360, E-L=-171/586, F-J=-174/615, H-J=-346/361

**NOTES-** (11)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I except (jt=lb) B=133.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

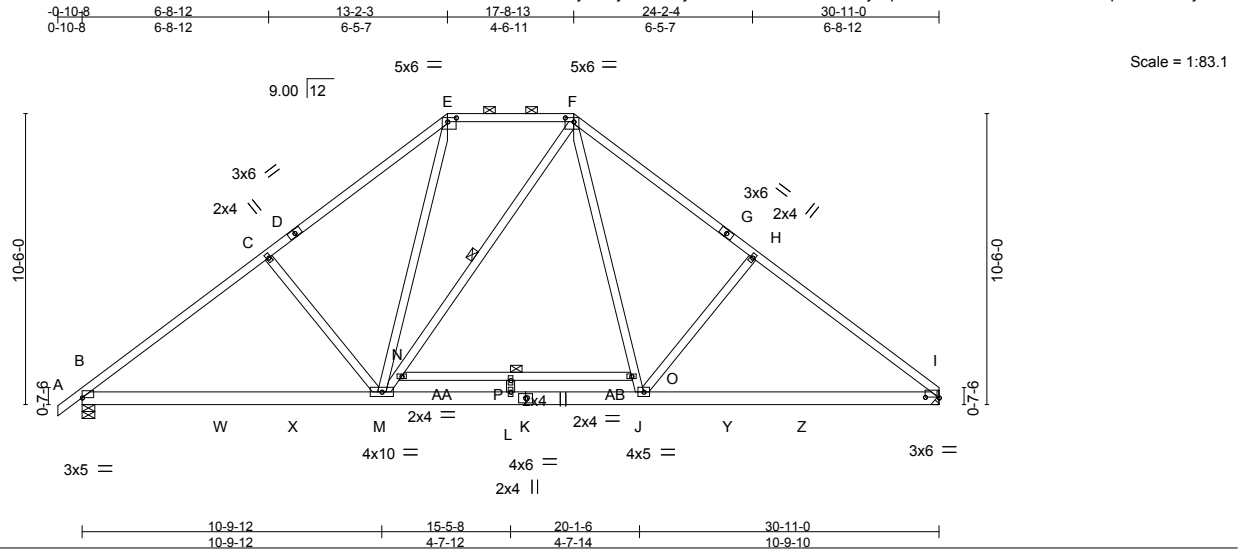
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A05A	Truss Type PIGGYBACK BASE	Qty 35	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241142
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Builders FirstSource, Sumter, SC 29153 7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:20 2017 Page 1  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-eb5PPj2lq?LBb3i4MSwCZ4EwEGPkEZp2KnX7OeyXBdb



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.50	Vert(LL) -0.14	L	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.65	Vert(TL) -0.26	J-V	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.35	Horz(TL) 0.04	I	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	(Matrix-S)	Wind(LL) 0.05	J-V	>999	240		
	Code IRC2009/TPI2007						Weight: 209 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-9-10 max.): E-F.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* N-O: 2x4 SP No.2	WEBS 1 Row at midpt N-O, F-M

**REACTIONS.** (lb/size) B=1290/0-5-8, I=1236/Mechanical  
 Max Horz B=321(LC 7)  
 Max Uplift B=-133(LC 8), I=-93(LC 9)  
 Max Grav B=1298(LC 2), I=1259(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1707/590, C-D=-1508/585, D-E=-1401/628, E-F=-978/552, F-G=-1412/630,  
 G-H=-1520/586, H-I=-1718/591  
 BOT CHORD B-W=-334/1298, W-X=-334/1298, M-X=-334/1298, L-M=-69/984, K-L=-69/984, J-K=-69/984,  
 J-Y=-335/1308, Y-Z=-335/1308, I-Z=-335/1308  
 WEBS C-M=-344/360, E-M=-171/663, F-O=-174/681, J-O=-175/623, H-J=-346/361

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I except (jt=lb) B=133.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-E=-60, E-F=-60, F-I=-60, Q-T=-20



October 3, 2017

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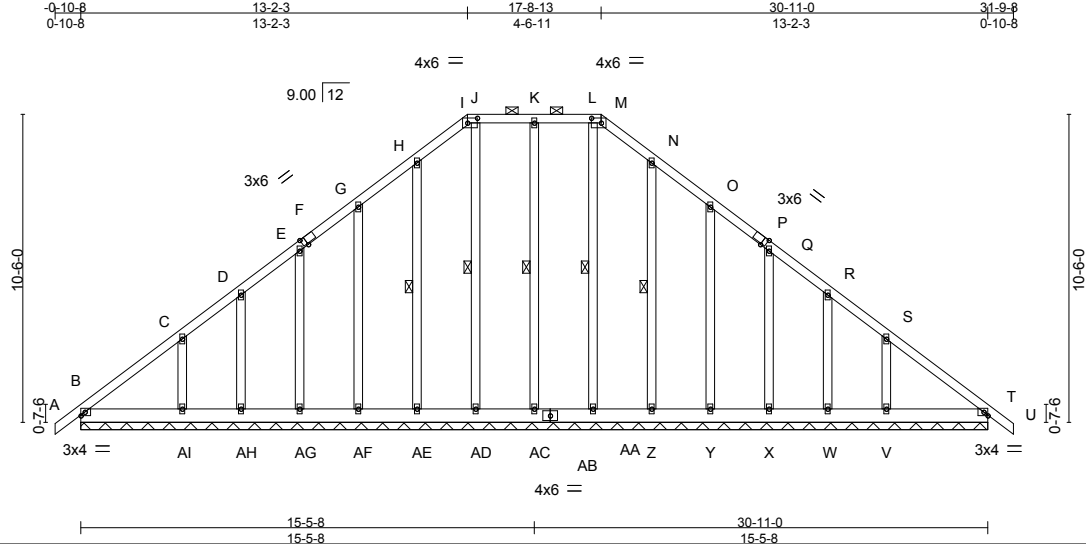


818 Soundside Road  
 Edenton, NC 27932



Job 1238844_MASTER	Truss A06	Truss Type Piggyback Base Supported Gable	Qty 8	Ply 1	H&H-NC/Wilmington/ 131241143
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Builders FirstSource, Sumter, SC 29153 7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:21 2017 Page 1  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-6nfnC23NbJT2DDHGwARR5HnA4fv5z4cBZRHWg4yXBda



Scale = 1:78.5

Plate Offsets (X,Y)-- [F:0-1-13,Edge], [I:0-4-0-0-2-0], [M:0-4-0-0-2-0], [P:0-1-13,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(LL) 0.00 U n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(TL) 0.00 U n/r 120		
BCDL 10.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.01 T n/a n/a		
	Code IRC2009/TPI2007			Weight: 257 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 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.): I-M.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt K-AC, J-AD, H-AE, L-AA, N-Z

**REACTIONS.** All bearings 30-11-0.  
 (lb) - Max Horz B=-395(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) T, AC, AD, AE, AH, Z, W except B=-103(LC 6), AF=-119(LC 8), AG=-118(LC 8), AI=-201(LC 8), Y=-121(LC 9), X=-117(LC 9), V=-199(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) B, T, AC, AD, AE, AF, AG, AH, AA, Z, Y, X, W except AI=267(LC 13), V=267(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-341/225, H-I=-62/295, I-J=-21/268, J-K=-21/268, K-L=-21/268, L-M=-21/268, M-N=-62/295, S-T=-258/119  
 BOT CHORD B-AI=-79/297, AH-AI=-79/297, AG-AH=-79/297, AF-AG=-79/297, AE-AF=-79/297, AD-AE=-79/297, AC-AD=-79/297, AB-AC=-79/297, AA-AB=-79/297, Z-AA=-79/297, Y-Z=-79/297, X-Y=-79/297, W-X=-79/297, V-W=-79/297, T-V=-79/297

- NOTES-** (14)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) T, AC, AD, AE, AH, Z, W except (jt=lb) B=103, AF=119, AG=118, AI=201, Y=121, X=117, V=199.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



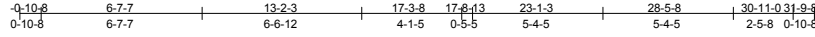
October 3, 2017

Job 1238844_MASTER	Truss A07	Truss Type PIGGYBACK BASE	Qty 5	Ply 1	H&H-NC/Wilmington/ 131241144
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Scale = 1:94.7

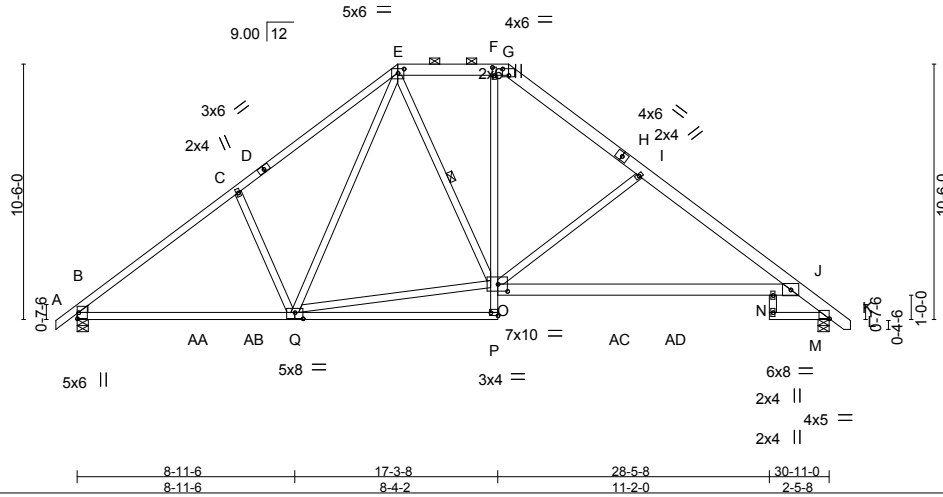


Plate Offsets (X,Y)-- [E:0-3-0-0-2-2], [F:0-4-0-0-1-0], [G:0-3-0-0-3-4], [O:0-4-12-0-3-8], [P:Edge:0-1-8], [Q:0-4-0-0-3-0]

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 0.96	Vert(LL)	-0.21	N-O	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(TL)	-0.63	N-O	>585		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(TL)	0.20	K	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.14	N-O	>999		
								Weight: 214 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2 \*Except\*  
E-G,G-H: 2x6 SP No.2, H-L: 2x6 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\*  
J-O: 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (6-0-0 max.): E-G.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt E-O

**REACTIONS.**

(lb/size) K=1307/0-5-8, B=1263/0-5-8  
Max Horz B=-306(LC 6)  
Max UpliftK=-127(LC 9), B=-133(LC 8)

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

TOP CHORD B-C=-1635/564, C-D=-1484/645, D-E=-1360/688, E-F=-989/530, F-G=-994/527,  
G-H=-1335/566, H-I=-1366/528, I-J=-1686/616  
BOT CHORD B-AA=-285/1225, AA-AB=-285/1225, Q-AB=-285/1225, F-O=-174/541, O-AC=-299/1348,  
AC-AD=-299/1348, N-AD=-299/1348, J-N=-299/1348  
WEBS C-Q=-334/360, E-Q=-240/405, O-Q=-49/1023, I-O=-451/353

**NOTES-** (10)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) K=127, B=133.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A08	Truss Type PIGGYBACK BASE	Qty 4	Ply 1	H&H-NC/Wilmington/ 131241145
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Builders FirstSource, Sumter, SC 29153 7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:23 2017 Page 1  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOfF-2AmX1k5e7wjJSWQf1bTvAisL6TM7RtPU1kmm\_zyXBdY

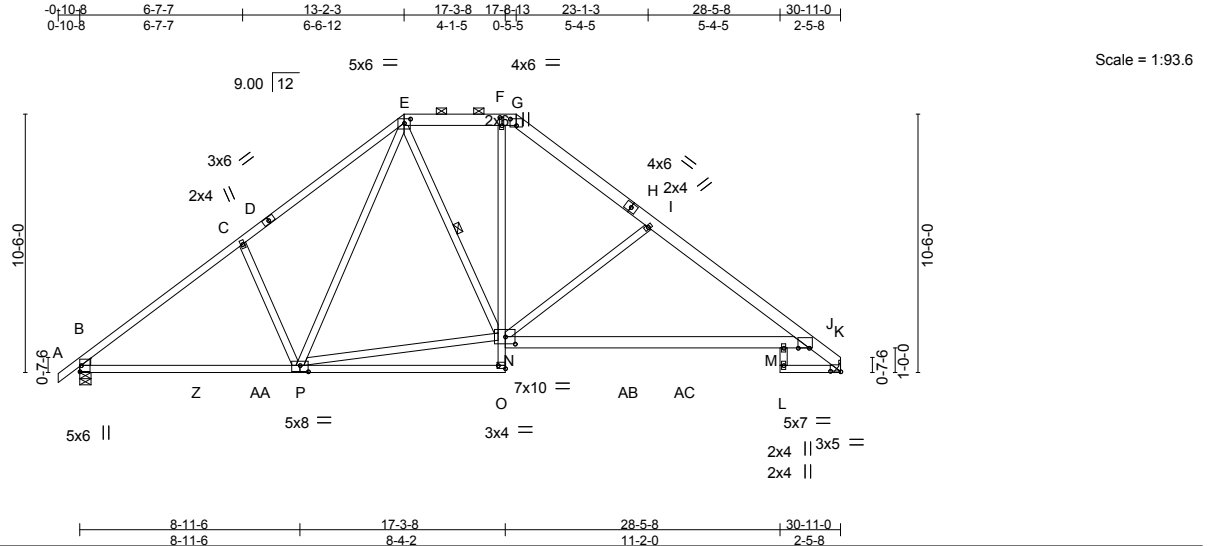


Plate Offsets (X,Y)-- [E:0-3-0-0-2-2], [F:0-4-0-0-1-0], [G:0-3-0-0-3-4], [J:0-5-7-0-0-0], [K:0-5-0-0-0-4], [N:0-4-12-0-3-8], [O:Edge,0-1-8], [P:0-4-0-0-3-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.97	Vert(LL) -0.21 M-N >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.99	Vert(TL) -0.63 M-N >584 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.55	Horz(TL) 0.20 K n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.14 M-N >999 240		
				Weight: 211 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 E-G,G-H: 2x6 SP No.2, H-K: 2x6 SP No.1  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 J-N: 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): E-G.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt E-N

**REACTIONS.** (lb/size) K=1263/Mechanical, B=1263/0-5-8  
 Max Horz B=318(LC 7)  
 Max UpliftK=94(LC 9), B=-133(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1636/564, C-D=-1485/645, D-E=-1361/687, E-F=-990/533, F-G=-994/530,  
 G-H=-1336/570, H-I=-1367/533, I-J=-1688/621  
 BOT CHORD B-Z=-310/1226, Z-AA=-310/1226, P-AA=-310/1226, F-N=-177/541, N-AB=-327/1350,  
 AB-AC=-327/1350, M-AC=-327/1350, J-M=-327/1350  
 WEBS C-P=-334/360, E-P=-234/404, N-P=-69/1024, I-N=-453/356

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) K except (jt=lb) B=133.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

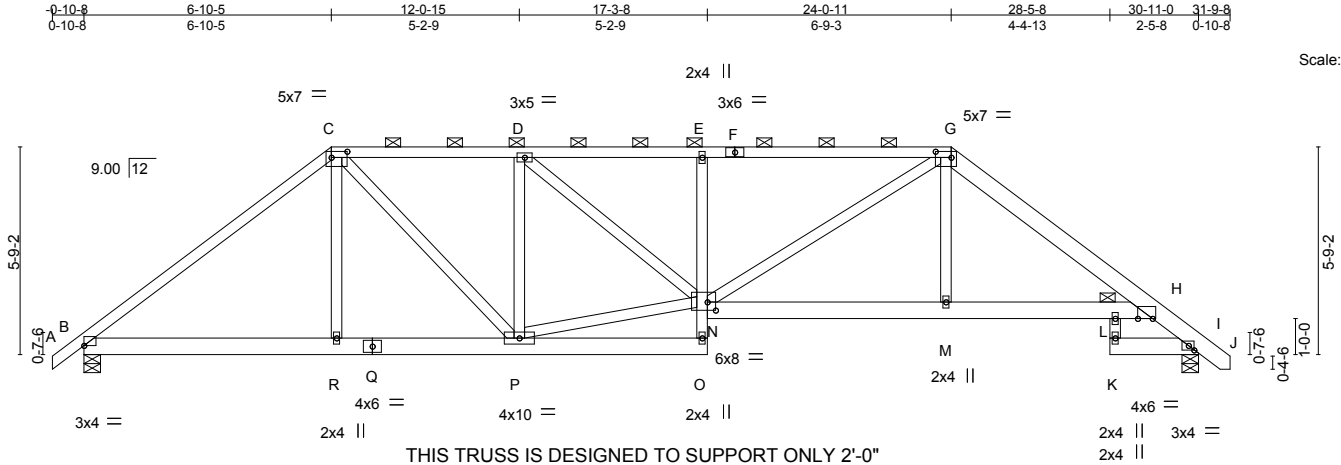


October 3, 2017

Job 1238844_MASTER	Truss A09	Truss Type HIP GIRDER	Qty 1	Ply 2	H&H-NC/Wilmington/ Job Reference (optional)	131241146
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:24 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-XMLkVE45GuErc4g?rbl\_8jwPaNtrpAQOdFOVKXPYxBdX



Scale: 3/16"=1'

Plate Offsets (X,Y)--	[C:0-5-4-0-2-0], [G:0-5-4-0-2-0], [H:0-4-15-0-0-0], [I:0-1-13-0-1-8], [N:0-2-12-0-2-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.06	N	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(TL)	-0.14	M-N	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18	Horz(TL)	0.08	I	n/a	n/a		
BCDL 10.0	Code IRC2009/TP12007		(Matrix-M)	Wind(LL)	0.05	N	>999	240		
								Weight: 411 lb	FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* G-J: 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.): C-G.
BOT CHORD 2x6 SP No.2 *Except* E-O: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: L-M
WEBS 2x4 SP No.2	JOINTS 1 Brace at Jt(s): E, L

**REACTIONS.** (lb/size) B=1268/0-5-8, I=1302/0-5-8  
Max Horz B=162(LC 5)  
Max Uplift B=163(LC 5), I=165(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1670/267, C-D=-1655/322, D-E=-2075/379, E-F=-2100/388, F-G=-2100/388, G-H=-1881/278  
BOT CHORD B-R=-257/1227, Q-R=-256/1231, P-Q=-256/1231, E-N=-384/199, M-N=-153/1478, L-M=-156/1468, H-L=-156/1468  
WEBS C-R=0/258, C-P=-236/689, D-P=-678/238, N-P=-274/1478, D-N=-107/549, G-N=-273/805, G-M=0/405, K-L=-21/295

- NOTES-** (12)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=163, I=165.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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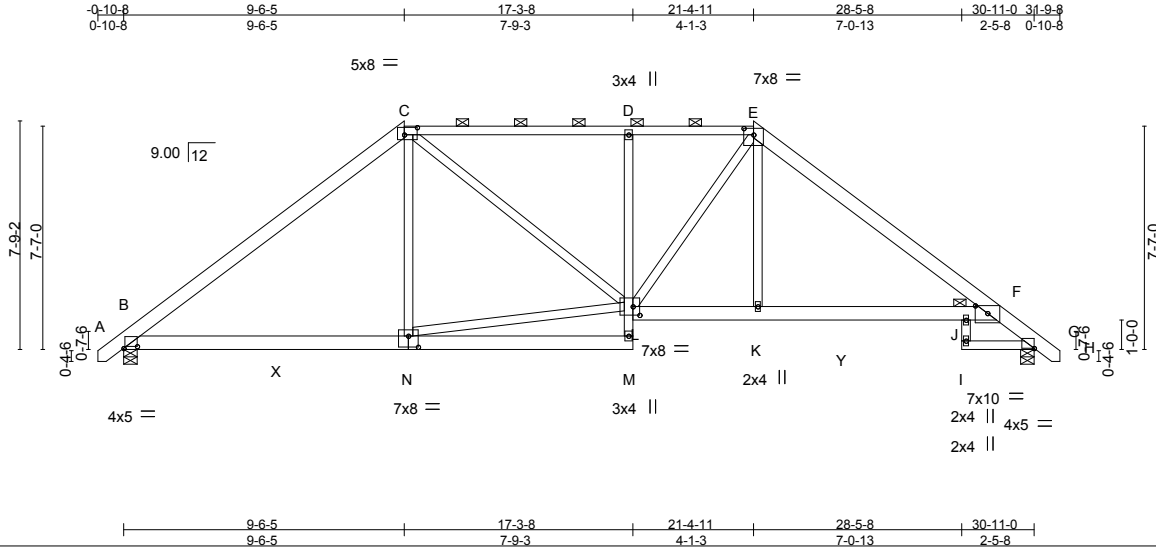


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A10	Truss Type HIP	Qty 1	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241147
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:24 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-XMKvE45GuErc4g?rbl\_8jwPU7tkgAMDdFOVKXPYxBdX



Scale = 1:78.2

Plate Offsets (X,Y)-- [B:0-5-8-0-0-12], [C:0-5-4-0-3-0], [E:0-4-0-0-2-10], [F:0-5-0-0-3-2], [L:0-2-12-0-3-8], [N: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 0.95	Vert(LL) -0.13 J-K >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.84	Vert(TL) -0.34 J-K >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.38	Horz(TL) 0.18 G n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.13 J-K >999 240		
				Weight: 217 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1 \*Except\*  
C-E: 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
M-N,B-N: 2x6 SP No.2, F-L: 2x6 SP No.1  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-9-5 max.): C-E.  
BOT CHORD Rigid ceiling directly applied. Except:  
10-0-0 oc bracing: J-K  
JOINTS 1 Brace at Jt(s): J

**REACTIONS.**

(lb/size) G=1301/0-5-8, B=1260/0-5-8  
Max Horz B=-219(LC 6)  
Max Uplift G=-109(LC 9), B=-108(LC 8)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1576/528, C-D=-1449/638, D-E=-1436/627, E-F=-1697/570  
BOT CHORD B-X=-197/1138, N-X=-197/1138, D-L=-374/230, K-L=-203/1285, K-Y=-204/1294,  
J-Y=-204/1294, F-J=-204/1294  
WEBS C-N=0/290, L-N=-201/928, C-L=-177/480, E-L=-214/379, E-K=-15/418

**NOTES-** (10)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=I) G=109, B=108.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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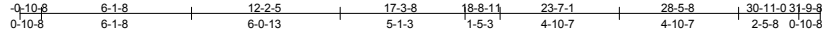
818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss A11	Truss Type HIP	Qty 1	Ply 1	H&H-NC/Wilmington/ I31241148
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Scale = 1:94.1

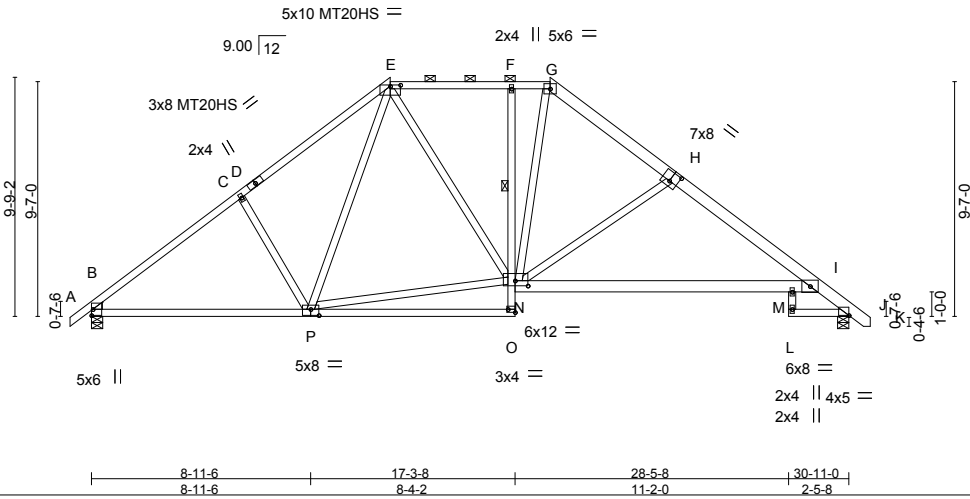


Plate Offsets (X,Y)-- [E:0-5-0-0-10], [H:0-4-0-0-4-8], [N:0-6-4-0-2-8], [O:Edge:0-1-8], [P:0-4-0-0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.96	Vert(LL)	-0.20	M-N	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.91	Vert(TL)	-0.62	M-N	>600	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(TL)	0.20	J	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.13	M-N	>999		
								Weight: 217 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2 \*Except\*  
G-H: 2x6 SP No.2, H-K: 2x6 SP No.1  
BOT CHORD 2x4 SP No.2 \*Except\*  
I-N: 2x6 SP No.2  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-3-3 max.): E-G.  
BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt F-N

**REACTIONS.**

(lb/size) J=1306/0-5-8, B=1264/0-5-8  
Max Horz B=-281(LC 6)  
Max Uplift J=-122(LC 9), B=-129(LC 8)

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

TOP CHORD B-C=-1644/576, C-D=-1471/613, D-E=-1355/651, E-F=-1121/555, F-G=-1126/550,  
G-H=-1377/559, H-I=-1718/632  
BOT CHORD B-P=-302/1237, M-N=-321/1388, I-M=-321/1388  
WEBS C-P=-287/318, E-P=-169/353, N-P=-80/1058, E-N=-112/336, G-N=-209/644, H-N=-464/333

**NOTES-** (11)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) J=122, B=129.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss B01	Truss Type GABLE	Qty 3	Ply 1	H&H-NC/Wilmington/ 131241149
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:26 2017 Page 1  
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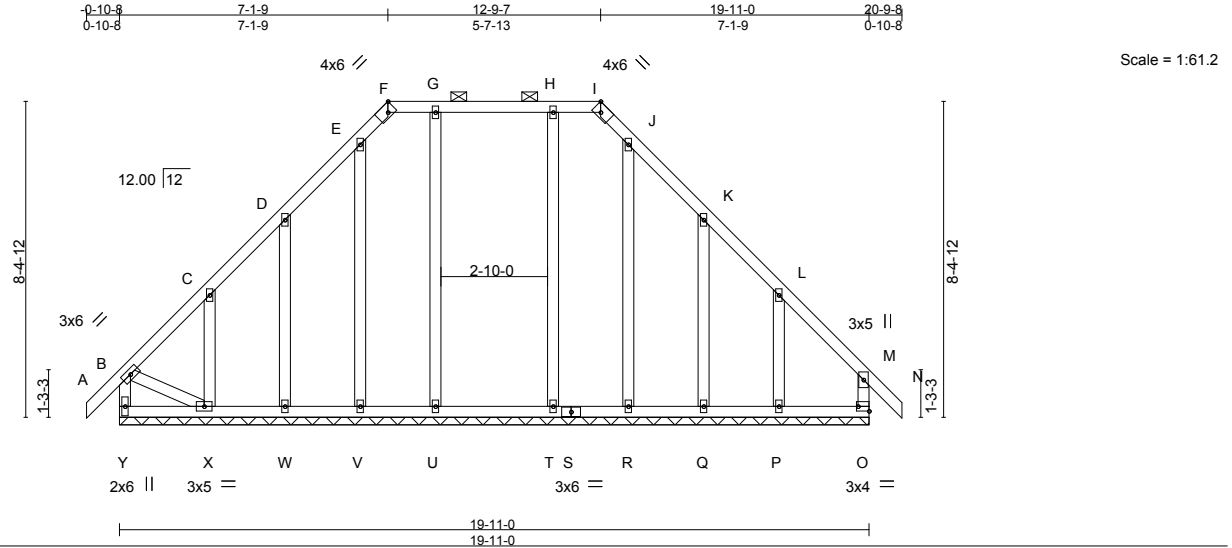


Plate Offsets (X,Y)-- [F:0-2-8,Edge], [I:0-2-8,Edge], [O:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.00	N	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(TL)	-0.00	N	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(TL)	0.01	O	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)					Weight: 147 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
B-X: 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.): F-I.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 19-11-0.  
(lb) - Max Horz Y=-339(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) O, V, T except Y=-278(LC 6), U=-104(LC 7), W=-192(LC 8), X=-260(LC 8), Q=-170(LC 9), P=-270(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) O, V, W, X, R, Q, P except Y=317(LC 7), U=250(LC 15), T=250(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-Y=-300/287, B-C=-304/292, C-D=-197/267, D-E=-100/331, E-F=-42/256, F-G=-7/275, G-H=-7/275, H-I=-7/275, I-J=-42/255, J-K=-54/291  
BOT CHORD X-Y=-311/332  
WEBS B-X=-221/308

- NOTES-** (15)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Gable requires continuous bottom chord bearing.
  - 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 9) Gable studs spaced at 2-0-0 oc.
  - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) O, V, T except (jt=lb) Y=278, U=104, W=192, X=260, Q=170, P=270.
  - 13) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 15) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

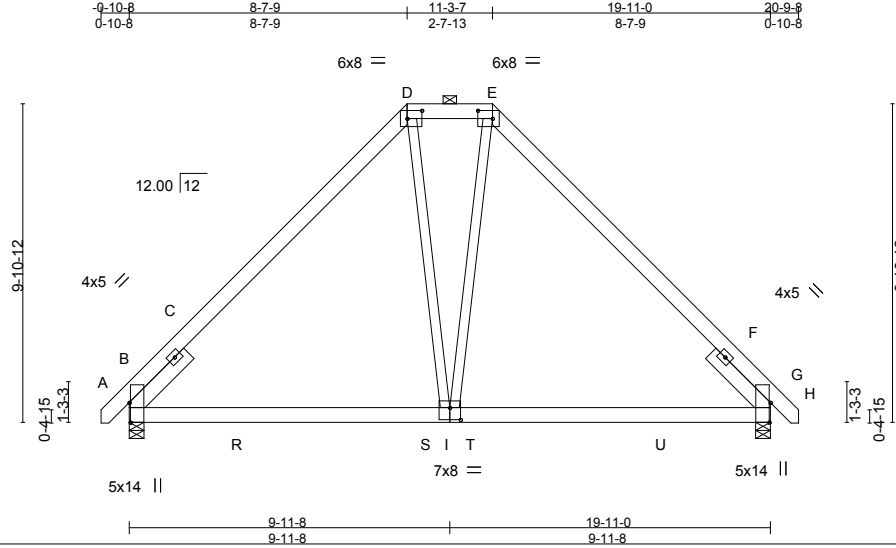


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss B02	Truss Type HIP	Qty 3	Ply 1	H&H-NC/Wilmington/ 131241150
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:26 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-TISgfm7WPr6KK\_9Ejj1coLUyGgUReJkwji\_RblyXBdV



Scale = 1:71.6

Plate Offsets (X,Y)-- [B:0-7-6,Edge], [D:0-5-8,0-3-0], [E:0-5-8,0-3-0], [G:0-7-6,Edge], [I:0-4-0,0-4-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.08	I-L	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(TL)	-0.15	I-L	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.26	Horz(TL)	0.04	G	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.09	I-L	>999		
								Weight: 156 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
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (6-0-0 max.): D-E.
WEBS 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER Left 2x6 SP No.2 2-6-0, Right 2x6 SP No.2 2-6-0	

**REACTIONS.** (lb/size) B=842/0-5-8, G=842/0-5-8  
Max Horz B=-269(LC 6)  
Max Uplift B=-80(LC 8), G=-80(LC 9)  
Max Grav B=913(LC 2), G=912(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-443/0, C-D=-731/326, D-E=-549/401, E-F=-731/326, F-G=-443/0  
BOT CHORD B-R=-76/513, R-S=-76/513, I-S=-76/513, I-T=-20/513, T-U=-20/513, G-U=-20/513  
WEBS D-I=-152/337, E-I=-152/337

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, G.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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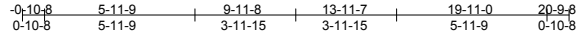
818 Soundside Road  
Edenton, NC 27932



Job 1238844_MASTER	Truss B03	Truss Type COMMON	Qty 11	Ply 1	H&H-NC/Wilmington/ 131241151
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:27 2017 Page 1  
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3x6 =

Scale = 1:91.3

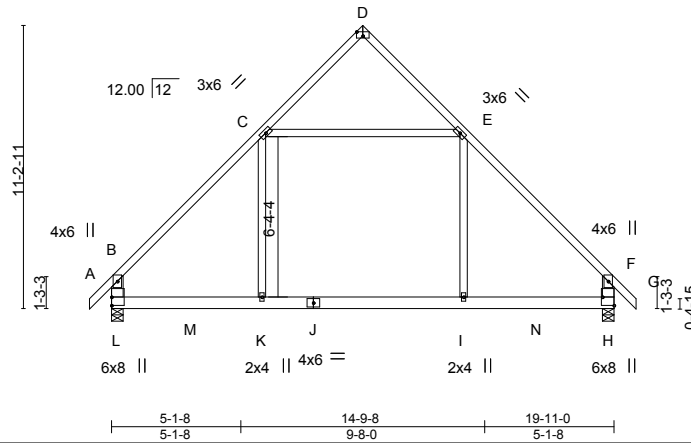


Plate Offsets (X,Y)-- [D:0-3-0,Edge], [H:Edge,0-5-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.14	I-K	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(TL)	-0.23	I-K	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.60	Horz(TL)	0.01	H	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.23	K-L	>999		
								Weight: 128 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* B-L,F-H: 2x6 SP No.2	

**REACTIONS.** (lb/size) L=845/0-5-8, H=845/0-5-8  
Max Horz L=347(LC 7)  
Max Uplift L=93(LC 8), H=93(LC 9)  
Max Grav L=942(LC 2), H=942(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-954/294, E-F=-954/294, B-L=-822/362, F-H=-822/362  
BOT CHORD L-M=-58/583, K-M=-58/583, J-K=-58/583, I-J=-58/583, I-N=-58/583, H-N=-58/583  
WEBS E-I=-82/359, C-K=-82/359, C-E=-487/402

- NOTES-** (8)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) L, H.
  - 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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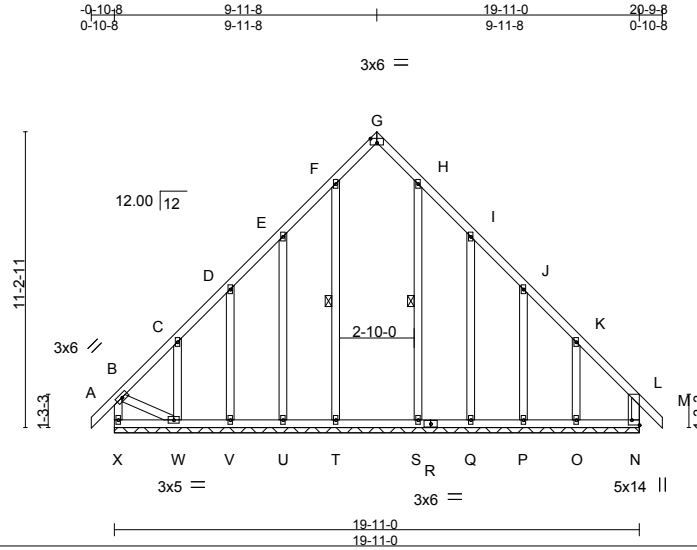


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss B04	Truss Type GABLE	Qty 4	Ply 1	H&H-NC/Wilmington/ 131241152
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:27 2017 Page 1  
ID: X0JtQcFjQu8X?XjGN5R0bmzVOFf-xx02t688A9EBx8kQGQYrLY18f4sMNnt4xMk\_7kyXBdU



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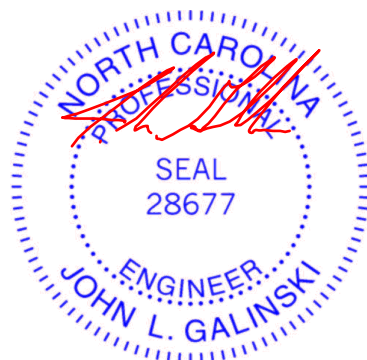
Plate Offsets (X,Y)-- [G:0-3-0,Edge], [N:Edge,0-3-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	I/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL) -0.00	M n/r	120	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.39	Vert(TL) -0.01	M n/r	120	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(TL) 0.01	N n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)				
						Weight: 154 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-2-9 oc bracing.
WEBS 2x4 SP No.2 *Except* B-W: 2x4 SP No.3	WEBS 1 Row at midpt F-T, H-S
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 19-11-0.  
(lb) - Max Horz X=-446(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) N, T, P except X=-197(LC 6), U=-216(LC 8), V=-145(LC 8), W=-359(LC 8), Q=-256(LC 9), O=-455(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) T, U, V, W, S, Q, P, O except X=441(LC 7), N=379(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-X=-424/206, B-C=-424/214, C-D=-316/195, K-L=-446/89, L-N=-264/57  
BOT CHORD W-X=-415/439, V-W=-55/412, U-V=-55/412, T-U=-55/412, S-T=-55/412, R-S=-55/412, Q-R=-55/412, P-Q=-55/412, O-P=-55/412, N-O=-55/412  
WEBS I-Q=-119/265, K-O=-117/341, B-W=-160/451

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) N, T, P except (jt=lb) X=197, U=216, V=145, W=359, Q=256, O=455.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



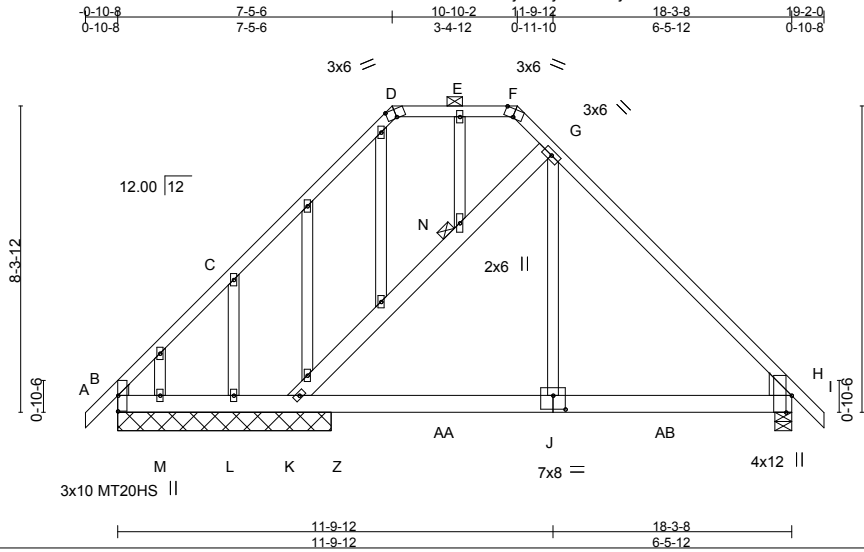
October 3, 2017

Job 1238844_MASTER	Truss C01	Truss Type GABLE	Qty 3	Ply 1	H&H-NC/Wilmington/ I31241153
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:28 2017 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOfP7aQ4S9mxSM2ZlJcq834tmZHeUDZ6D5DA0TYgAyXBdT



Scale = 1:62.5

Plate Offsets (X,Y)-- [B:Edge,0-0-1], [D:0-3-0,Edge], [F:0-3-0,Edge], [H:0-5-8,Edge], [J:0-4-0-0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.47	Vert(LL)	-0.02	J-Y	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.33	Vert(TL)	-0.04	J-Y	>999	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.20	Horz(TL)	0.02	H	n/a		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Wind(LL)	0.05	J-Y	>999		
	Code IRC2009/TPI2007						Weight: 144 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x6 SP No.2 \*Except\*  
 G-J: 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.2, Right: 2x8 SP DSS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-9-11 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): D-F.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): N

**REACTIONS.**

All bearings 5-9-8 except (jt=length) H=0-5-8.  
 (lb) - Max Horz B=296(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) M except L=-369(LC 8), H=-113(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) M except B=592(LC 13), K=590(LC 3), L=336(LC 1), H=815(LC 1), B=571(LC 1)

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

TOP CHORD B-C=-507/24, C-D=-583/130, D-E=-323/133, E-F=-324/133, F-G=-423/162, G-H=-844/146  
 BOT CHORD B-M=-149/394, L-M=-149/394, K-L=-149/394, K-Z=-6/513, Z-AA=-6/513, J-AA=-6/513,  
 J-AB=-5/518, H-AB=-5/518  
 WEBS K-N=-436/250, G-N=-404/273, G-J=-26/345, C-L=-328/353

**NOTES-** (15)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) M except (jt=lb) L=369, H=113.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



LOAD CASE(S) Standard

October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241153
1238844_MASTER	C01	GABLE	3	1		

Job Reference (optional)

Builders FirstSource, Sumter, SC 29153

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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-B=-60, B-D=-75(F=-15), D-F=-75(F=-15), F-I=-60, T-Z=-35(F=-15), W-Z=-20, G-K=-45(F)

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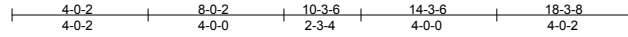
818 Soundside Road  
 Edenton, NC 27932

Job 1238844_MASTER	Truss C02	Truss Type Hip Girder	Qty 3	Ply 2	H&H-NC/Wilmington/ Job Reference (optional)	131241154
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Builders FirstSource, Sumter, SC 29153

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ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-P7aQ4S9mxSMZIJcq834tmZOHUHW6GkDA0TYgYxBt



THIS TRUSS IS DESIGNED TO SUPPORT ONLY 2'-0" OF UNIFORM LOAD AS SHOWN.

Scale = 1:67.9

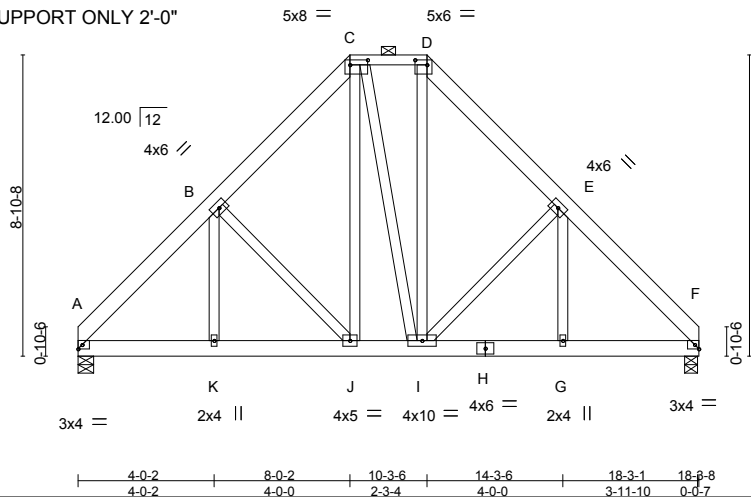


Plate Offsets (X,Y)-- [C:0-6-4,0-1-12]. [D:0-4-4,0-1-12]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	I/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL) -0.01	J >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(TL) -0.02	J-K >999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(TL) 0.01	F n/a	n/a		
BCDL 10.0	Code IRC2009/TP12007		(Matrix-M)	Wind(LL) 0.01	K >999	240		
							Weight: 331 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* C-D: 2x4 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.): C-D.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) A=732/0-5-8, F=732/0-4-9  
Max Horz A=-254(LC 4)  
Max Uplift A=-44(LC 6), F=-44(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD A-B=-853/82, B-C=-656/149, C-D=-396/148, D-E=-661/153, E-F=-850/81  
BOT CHORD A-K=-159/546, J-K=-159/546, I-J=-67/392, H-I=-3/544, G-H=-3/544, F-G=-3/544

- NOTES-** (12)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, F.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

Job 1238844_MASTER	Truss C03	Truss Type GABLE	Qty 4	Ply 1	H&H-NC/Wilmington/ 131241155
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Builders FirstSource, Sumter, SC 29153

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ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-fk8olo9OimUvBSuoOraJQz6SMuaJrhGMPgD5CcyXBds



4x5 =

Scale = 1:80.1

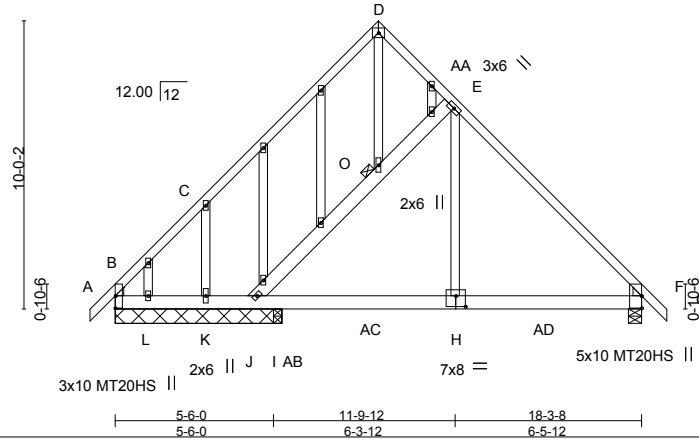


Plate Offsets (X,Y)-- [B:Edge,0-0-1], [F:Edge,0-0-1], [H:0-4-0-0-4-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.01	H-Z	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(TL)	-0.04	H-Z	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.14	Horz(TL)	0.02	F	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.04	H-Z	>999		
								Weight: 149 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x6 SP No.2 \*Except\*  
 E-H: 2x4 SP No.3  
 OTHERS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.2, Right: 2x4 SP SS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.  
 JOINTS 1 Brace at Jt(s): O

**REACTIONS.**

All bearings 5-9-8 except (jt=length) F=0-5-8, I=0-3-8.  
 (lb) - Max Horz B=-359(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) F except K=-444(LC 8), L=-139(LC 1)  
 Max Grav All reactions 250 lb or less at joint(s) L except B=503(LC 1), K=671(LC 1), F=785(LC 1), I=395(LC 3), B=503(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-439/0, C-D=-511/32, D-AA=-307/144, E-AA=-411/104, E-F=-809/83  
 BOT CHORD B-L=-62/455, K-L=-62/455, J-K=-62/455, I-J=0/485, I-AB=0/485, AB-AC=0/485,  
 H-AC=0/485, H-AD=0/490, F-AD=0/490  
 WEBS J-O=-439/318, E-O=-449/325, E-H=-10/320, C-K=-431/433

**NOTES-** (13)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) F except (jt=lb) K=444, L=139.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard

Continued on page 2



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241155
1238844_MASTER	C03	GABLE	4	1		

Job Reference (optional)

Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:29 2017 Page 2  
 ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-fK8olo9OimUvBSuoOraJQz6SMuaJrhGMPgD5CcyXBdS

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-B=-60, B-D=-75(F=-15), D-AA=-75(F=-15), G-AA=-60, U-AB=-35(F=-15), X-AB=-20, E-J=-45(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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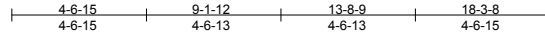


818 Soundside Road  
 Edenton, NC 27932

Job 1238844_MASTER	Truss C04	Truss Type Common Girder	Qty 4	Ply 2	H&H-NC/Wilmington/ 131241156
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Builders FirstSource, Sumter, SC 29153

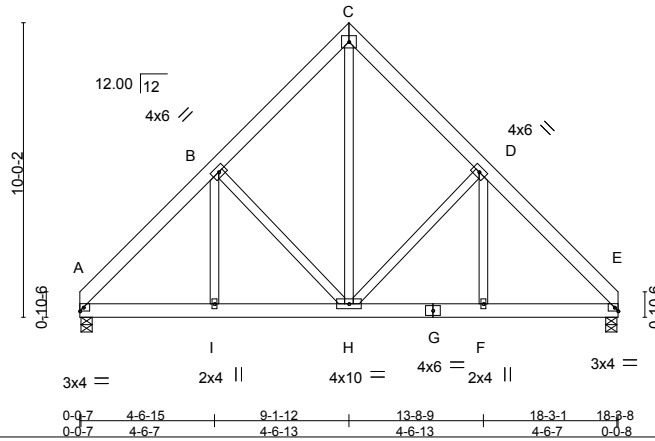
7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:30 2017 Page 1  
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THIS TRUSS IS DESIGNED TO SUPPORT ONLY 2'-0" OF UNIFORM LOAD AS SHOWN.

5x6 =

Scale = 1:78.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	Vert(LL)	-0.01	I	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(TL)	-0.02	H-I	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(TL)	0.01	E	n/a		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Wind(LL)	0.01	H	>999		
	Code IRC2009/TPI2007						Weight: 301 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2

**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.** (lb/size) A=732/0-4-9, E=732/0-4-9  
Max Horz A=-283(LC 4)  
Max Uplift A=-50(LC 7), E=-50(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD A-B=-846/105, B-C=-617/179, C-D=-617/179, D-E=-846/104  
BOT CHORD A-I=-140/534, H-I=-140/534, G-H=-10/534, F-G=-10/534, E-F=-10/534  
WEBS C-H=-135/467, D-H=-261/190, B-H=-261/189

**NOTES-** (10)

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) A, E.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



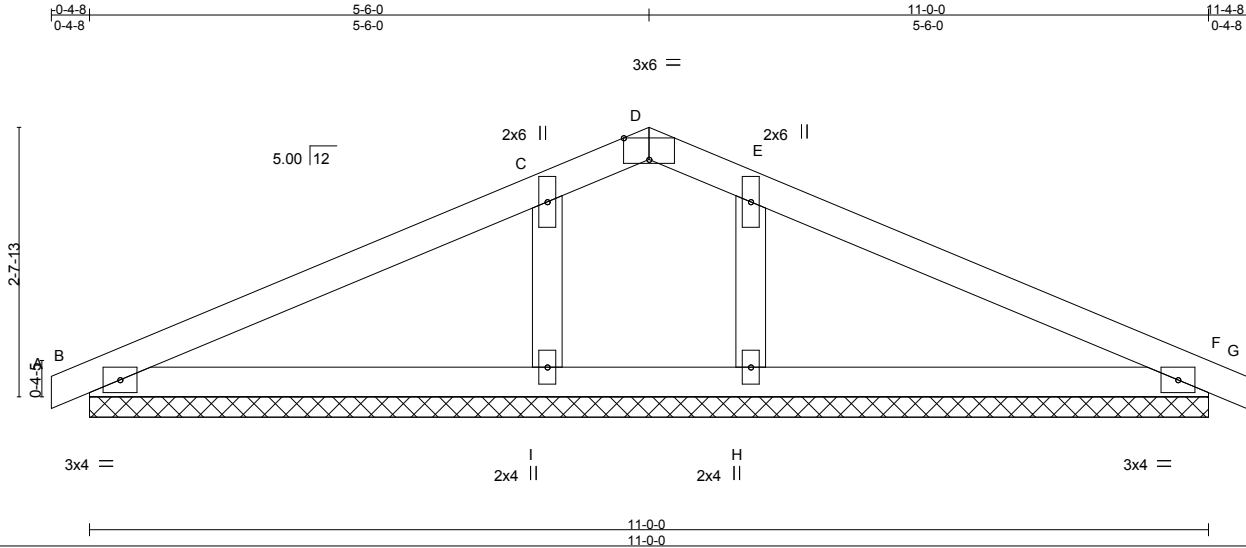
818 Soundside Road  
Edenton, NC 27932



Job 1238844_MASTER	Truss CP01	Truss Type GABLE	Qty 7	Ply 1	H&H-NC/Wilmington/ 131241157
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:30 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOF-LWhAV7A1T4cmobT?yZ5YyBfgJlyha9cWeKyk3yXBdR



Scale = 1:22.6

Plate Offsets (X,Y)-- [D:0-3-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	0.00	G	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(TL)	0.01	G	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(TL)	0.00	F	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)							
								Weight: 41 lb	FT = 20%	

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

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

**REACTIONS.** All bearings 11-0-0.  
(lb) - Max Horz B=41(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) B, F except I=158(LC 8), H=153(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) B, F except I=354(LC 13), H=354(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS C-I=-268/237, E-H=-268/237

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, F except (jt=Ib) I=158, H=153.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3,2017

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

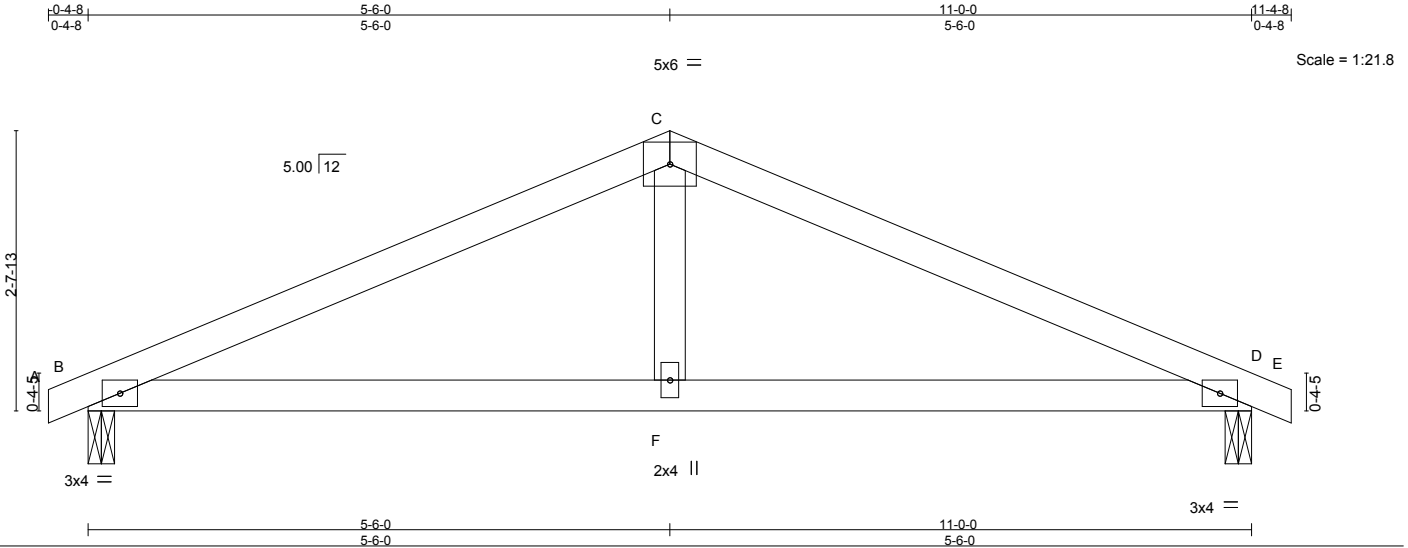


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss CP02	Truss Type Common	Qty 29	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241158
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:30 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOf-LWAv7A1T4cmobT?yZ5YyBfgzlw3a9PWekYfk3yXBdr



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)	-0.02	F-l	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(TL)	-0.05	F-l	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(TL)	0.01	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.05	F-L	>999	240	Weight: 39 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.**

(lb/size) B=463/0-3-0, D=463/0-3-0  
Max Horz B=37(LC 8)  
Max Uplift B=218(LC 8), D=218(LC 9)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-617/795, C-D=-617/795  
BOT CHORD B-F=-637/520, D-F=-637/520  
WEBS C-F=-321/218

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; porch 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 basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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) B=218, D=218.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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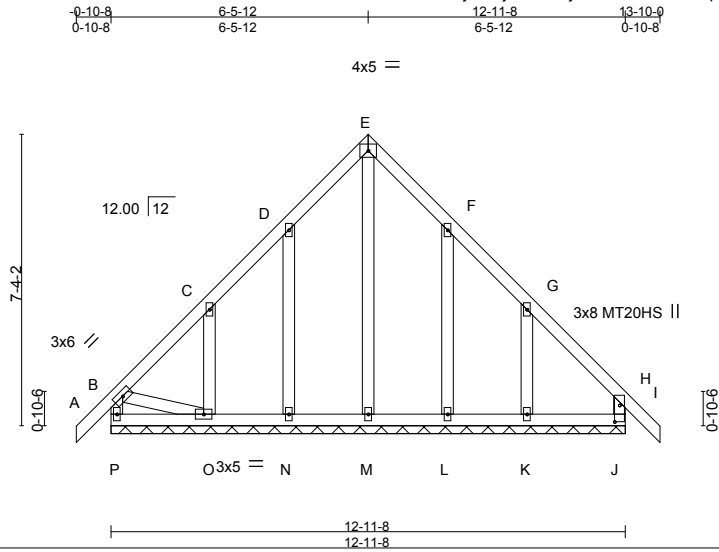


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss D01	Truss Type Common Supported Gable	Qty 7	Ply 1	H&H-NC/Wilmington/ I31241159
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:31 2017 Page 1  
ID: XOjtQcFjQu8X?XjGN5R0bmzVOFf-qifZITBfENkdQ1BVGdnVOBsFhJiJYXfs\_iCGVyXBdQ



Scale = 1:58.1

Plate Offsets (X,Y)-- [H:0-5-0,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.00	I	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(TL)	-0.00	I	n/r	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(TL)	0.00	J	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)						
								Weight: 88 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 12-11-8.  
(lb) - Max Horz P=-288(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) J except P=-185(LC 6), N=-154(LC 8), O=-222(LC 8), L=-133(LC 9), K=-235(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) P, J, N, O, L, K except M=330(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-255/232, D-E=-64/283, E-F=-64/281  
BOT CHORD O-P=-257/289  
WEBS E-M=-308/22

- NOTES-** (14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) All plates are 2x4 MT20 unless otherwise indicated.
  - 7) Gable requires continuous bottom chord bearing.
  - 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 9) Gable studs spaced at 2-0-0 oc.
  - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) J except (jt=lb) P=185, N=154, O=222, L=133, K=235.
  - 13) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 14) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss FG01	Truss Type GABLE	Qty 4	Ply 3	H&H-NC/Wilmington/ Job Reference (optional)	131241160
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:32 2017 Page 1  
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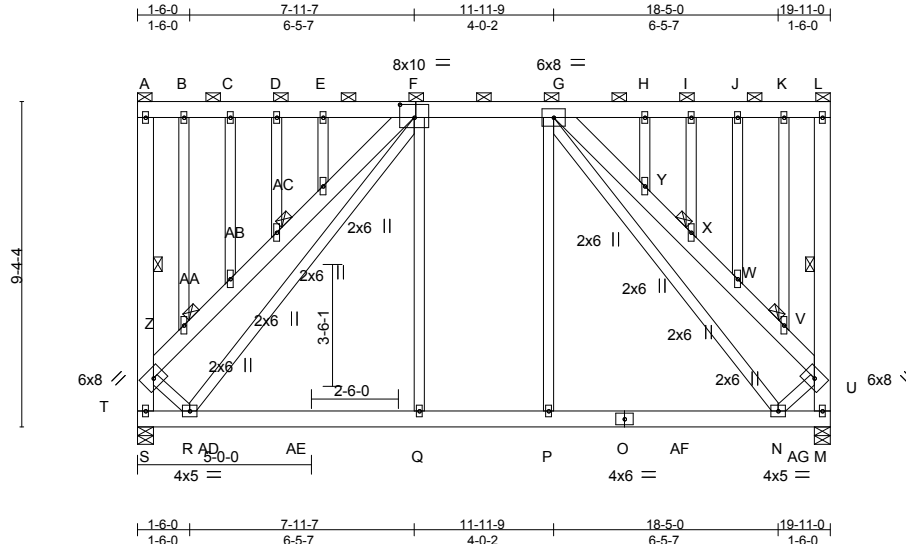


Plate Offsets (X,Y)-- [F:0-5-0-0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	Vert(LL)	-0.07	N-P	>999	MT20	244/190
TCDL 17.0	Plate Grip DOL 1.15	BC 0.41	Vert(TL)	-0.10	Q-R	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Horz(TL)	0.01	M	n/a		
BCDL 17.0	Rep Stress Incr NO	(Matrix-M)	Wind(LL)	0.10	N-P	>999		
	Code IRC2009/TPI2007						Weight: 876 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2 \*Except\*  
 A-S,L-M,G-U,F-T: 2x6 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): A-L, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt A-S, L-M  
 JOINTS 1 Brace at Jt(s): A, L, V, X, Z, AB

**REACTIONS.** (lb/size) S=1838/0-5-8, M=1736/0-5-8  
 Max Horz S=-839(LC 13)  
 Max Uplift S=-709(LC 13), M=-854(LC 16)  
 Max Grav S=2556(LC 12), M=2451(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD S-T=-2477/266, A-T=-314/218, B-C=-343/367, C-D=-476/500, D-E=-610/621,  
 E-F=-875/899, F-G=-1246/229, G-H=-848/884, H-I=-606/628, I-J=-472/508,  
 J-K=-339/374, M-U=-2361/460, L-U=-370/243  
 BOT CHORD S-AD=-1561/1516, R-AD=-1561/1516, R-AE=-311/1239, Q-AE=-311/1239, P-Q=-300/1246,  
 O-P=-283/1221, O-AF=-283/1221, N-AF=-283/1221, N-AG=-722/691, M-AG=-722/691  
 WEBS R-T=-231/1595, F-Q=-556/963, N-U=-353/1460, G-Y=-1568/615, X-Y=-1378/421,  
 W-X=-1490/501, V-W=-1523/510, U-V=-1544/525, T-Z=-1674/424, Z-AA=-1654/405,  
 AA-AB=-1629/400, AB-AC=-1541/312, F-AC=-1630/500, G-P=-470/1019, F-R=-1189/1449,  
 G-N=-1185/1256, H-Y=-316/352, E-AC=-311/255

**NOTES-** (16)

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left and right exposed; 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 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 = 17.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) S=709, M=854.
- Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building Contractor to review loads to verify that they are correct for the intended use of this truss.



October 3, 2017

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241160
1238844_MASTER	FG01	GABLE	4	3	Job Reference (optional)	

Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:32 2017 Page 2  
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**NOTES-** (16)

- 13) This truss has been designed for a total drag load of 100 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-0-0, 18-11-0 to 19-11-0 for 996.0 plf.
- 14) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard Except:

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: A-F=-88(F=-14), F-G=-74, G-L=-88(F=-14), M-S=-64(F=-30), G-U=-30(F), F-R=-69(F)
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: A-F=-78(F=-14), F-G=-64, G-L=-78(F=-14), S-AE=-104(F=-70), AE-AF=-134(F=-70), M-AF=-104(F=-70), G-U=-27(F), F-R=-66(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: A-F=-48(F=-14), F-G=-34, G-L=-48(F=-14), M-S=-84(F=-30), G-U=-24(F), F-R=-63(F)
- 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27
- 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=-21
- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=10(F=-14), F-G=24, G-L=10(F=-14), M-S=-42(F=-30), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=3(F=-14), F-G=17, G-L=3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-3(F=-14), F-G=11, G-L=-3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26
- 10) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: A-F=-48(F=-14), F-G=-34, G-L=-48(F=-14), S-AE=-64(F=-30), AE-AF=-104(F=-30), M-AF=-64(F=-30), G-U=-19(F), F-R=-58(F)
- 11) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-78(F=-14), F-G=-64, G-L=-78(F=-14), S-AE=-64(F=-30), AE-AF=-94(F=-30), M-AF=-64(F=-30), G-U=-27(F), F-R=-66(F)  
Drag: A-L=75, S-AD=-747, M-AG=-747
- 12) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-78(F=-14), F-G=-64, G-L=-78(F=-14), S-AE=-64(F=-30), AE-AF=-94(F=-30), M-AF=-64(F=-30), G-U=-27(F), F-R=-66(F)  
Drag: A-L=-75, S-AD=747, M-AG=747
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) Left + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27  
Drag: A-L=100, S-AD=-996, M-AG=-996
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) Left + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27  
Drag: A-L=-100, S-AD=996, M-AG=996
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) Right + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=-21  
Drag: A-L=100, S-AD=-996, M-AG=-996
- 16) Dead + 0.6 MWFRS Wind (Pos. Internal) Right + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241160
1238844_MASTER	FG01	GABLE	4	3	Job Reference (optional)	

Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:32 2017 Page 3  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOff-lvpxwpCH?hsU2vcN3\_802ck\_x5ZA2zZp5eRlpxyXBdP

**LOAD CASE(S)** Standard Except:

- Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=21  
Drag: A-L=-100, S-AD=996, M-AG=996
- 17) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 18) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=25(F=-14), F-G=39, G-L=25(F=-14), M-S=-42(F=-30), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 19) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=10(F=-14), F-G=24, G-L=10(F=-14), M-S=-42(F=-30), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 20) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=10(F=-14), F-G=24, G-L=10(F=-14), M-S=-42(F=-30), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 21) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=3(F=-14), F-G=17, G-L=3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 22) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=3(F=-14), F-G=17, G-L=3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 23) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-3(F=-14), F-G=11, G-L=-3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 24) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-3(F=-14), F-G=11, G-L=-3(F=-14), M-S=-42(F=-30), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 25) Dead-Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-48(F=-14), F-G=-34, G-L=-48(F=-14), M-S=-64(F=-30), G-U=-19(F), F-R=-58(F)  
Drag: A-L=100, S-AD=996, M-AG=996
- 26) Dead-Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-48(F=-14), F-G=-34, G-L=-48(F=-14), M-S=-64(F=-30), G-U=-19(F), F-R=-58(F)  
Drag: A-L=-100, S-AD=996, M-AG=996

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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

**Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314. **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

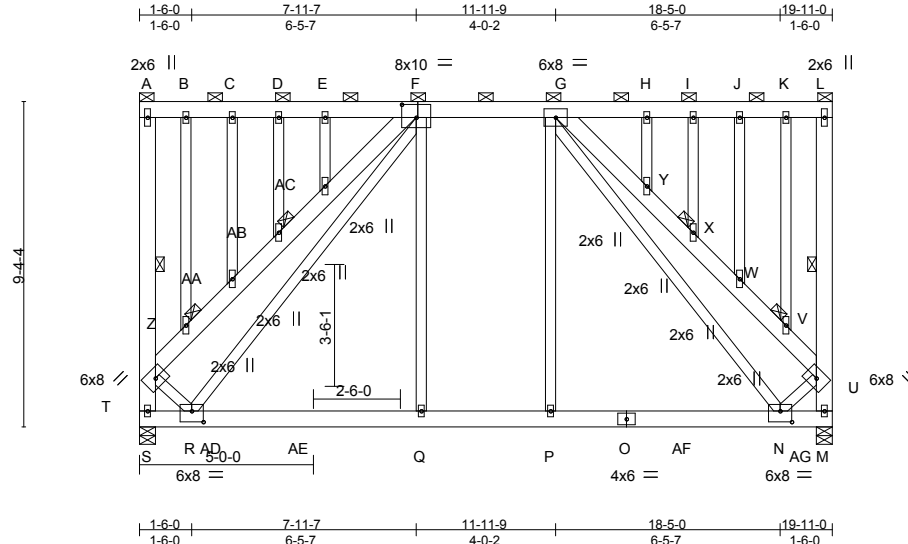


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss FG02	Truss Type GABLE	Qty 3	Ply 3	H&H-NC/Wilmington/ Job Reference (optional)	I31241161
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:33 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-m5Nj9Cvm?\_Lf3BadhfFapHAoVuVnQsyKIBJLoyXBdO



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.08 N-P >999	360	MT20	244/190	
TCDL	17.0	Lumber DOL	1.15	BC	0.47	Vert(TL)	-0.12 Q-R >999	240	Weight: 876 lb FT = 20%		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(TL)	0.01 M n/a n/a				
BCDL	17.0	Code IRC2009/TPI2007		(Matrix-M)		Wind(LL)	0.10 N-P >999	240			

LUMBER-		BRACING-	
TOP CHORD	2x6 SP No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.): A-L, except end verticals.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.2 *Except*	WEBS	1 Row at midpt A-S, L-M
	A-S, L-M, G-U, F-T: 2x6 SP No.2	JOINTS	1 Brace at Jt(s): A, L, V, X, Z, AB
OTHERS	2x4 SP No.3		

**REACTIONS.** (lb/size) S=1877/0-5-8, M=1775/0-5-8  
 Max Horz S=-839(LC 13)  
 Max Uplift S=-290(LC 27), M=-434(LC 16)  
 Max Grav S=3659(LC 12), M=3552(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD S-T=-3683/0, A-T=-417/113, B-C=-353/357, C-D=-486/490, D-E=-606/624, E-F=-884/889,  
 F-G=-1779/19, G-H=-859/873, H-I=-603/618, I-J=-483/497, J-K=-349/364, M-U=-3575/18,  
 L-U=-482/138  
 BOT CHORD S-AD=-1573/1504, R-AD=-1573/1504, R-AE=-102/1765, Q-AE=-102/1765, P-Q=91/1769,  
 O-P=-76/1717, O-AF=-76/1717, N-AF=-76/1717, N-AG=-739/674, M-AG=-739/674  
 WEBS R-T=0/2361, F-Q=-519/1369, N-U=-115/2227, G-Y=-2311/429, X-Y=-2118/233,  
 W-X=-2249/294, V-W=-2294/291, U-V=-2313/305, T-Z=-2459/194, Z-AA=-2440/176,  
 AA-AB=-2402/182, AB-AC=-2298/112, F-AC=-2365/311, G-P=-513/1417, F-R=-1187/1363,  
 G-N=-1190/1161, H-Y=-319/355, E-AC=-328/239

- NOTES-** (16)
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left and right exposed; 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 1-4-0 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 = 17.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) S=290, M=434.
  - Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building Contractor to review loads to verify that they are correct for the intended use of this truss.



October 3, 2017

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241161
1238844_MASTER	FG02	GABLE	3	<b>3</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:33 2017 Page 2  
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**NOTES-** (16)

- 13) This truss has been designed for a total drag load of 100 plf. Lumber DOL=(1.33) Plate grip DOL=(1.33) Connect truss to resist drag loads along bottom chord from 0-0-0 to 1-0-0, 18-11-0 to 19-11-0 for 996.0 plf.
- 14) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard Except:

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: A-L=-74, M-S=-79(F=-45), G-U=-30(F), F-R=-69(F)
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: A-F=-114(F=-50), F-G=-64, G-L=-114(F=-50), S-AE=-149(F=-115), AE-AF=-179(F=-115), M-AF=-149(F=-115), G-U=-27(F), F-R=-66(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: A-F=-84(F=-50), F-G=-34, G-L=-84(F=-50), M-S=-99(F=-45), G-U=-24(F), F-R=-63(F)
- 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27
- 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=-21
- 6) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26
- 7) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-26(F=-50), F-G=24, G-L=-26(F=-50), M-S=-57(F=-45), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-33(F=-50), F-G=17, G-L=-33(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: A-F=-39(F=-50), F-G=11, G-L=-39(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26
- 10) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: A-L=-34, S-AE=-119(F=-85), AE-AF=-159(F=-85), M-AF=-119(F=-85), G-U=-19(F), F-R=-58(F)
- 11) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-114(F=-50), F-G=-64, G-L=-114(F=-50), S-AE=-149(F=-115), AE-AF=-179(F=-115), M-AF=-149(F=-115),  
G-U=-27(F), F-R=-66(F)  
Drag: A-L=75, S-AD=747, M-AG=747
- 12) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-114(F=-50), F-G=-64, G-L=-114(F=-50), S-AE=-149(F=-115), AE-AF=-179(F=-115), M-AF=-149(F=-115),  
G-U=-27(F), F-R=-66(F)  
Drag: A-L=-75, S-AD=747, M-AG=747
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) Left + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27  
Drag: A-L=100, S-AD=996, M-AG=996
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) Left + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=21, L-M=27  
Drag: A-L=-100, S-AD=996, M-AG=996
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) Right + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=-21  
Drag: A-L=100, S-AD=996, M-AG=996
- 16) Dead + 0.6 MWFRS Wind (Pos. Internal) Right + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33

Continued on page 3

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818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241161
1238844_MASTER	FG02	GABLE	3	<b>3</b>	Job Reference (optional)	

Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:33 2017 Page 3  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-m5NJ79Cvm?\_Lf3BadhfFapHAoVuVnQsyKIBJLOYxBdO

**LOAD CASE(S)** Standard Except:

- Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-27, L-M=-21  
Drag: A-L=-100, S-AD=996, M-AG=996
- 17) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 18) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-11(F=-50), F-G=39, G-L=-11(F=-50), M-S=-57(F=-45), G-U=8(F), F-R=-31(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 19) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-26(F=-50), F-G=24, G-L=-26(F=-50), M-S=-57(F=-45), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 20) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-26(F=-50), F-G=24, G-L=-26(F=-50), M-S=-57(F=-45), G-U=3(F), F-R=-36(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 21) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-33(F=-50), F-G=17, G-L=-33(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 22) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-33(F=-50), F-G=17, G-L=-33(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 23) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel + Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-39(F=-50), F-G=11, G-L=-39(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=100, S-AD=996, M-AG=996
- 24) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel + Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-F=-39(F=-50), F-G=11, G-L=-39(F=-50), M-S=-57(F=-45), G-U=1(F), F-R=-38(F)  
Horz: A-S=-26, L-M=26  
Drag: A-L=-100, S-AD=996, M-AG=996
- 25) Dead-Drag LC#1 Left: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-L=-34, M-S=-79(F=-45), G-U=-19(F), F-R=-58(F)  
Drag: A-L=100, S-AD=996, M-AG=996
- 26) Dead-Drag LC#1 Right: Lumber Increase=1.33, Plate Increase=1.33  
Uniform Loads (plf)  
Vert: A-L=-34, M-S=-79(F=-45), G-U=-19(F), F-R=-58(F)  
Drag: A-L=-100, S-AD=996, M-AG=996

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**Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314. **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

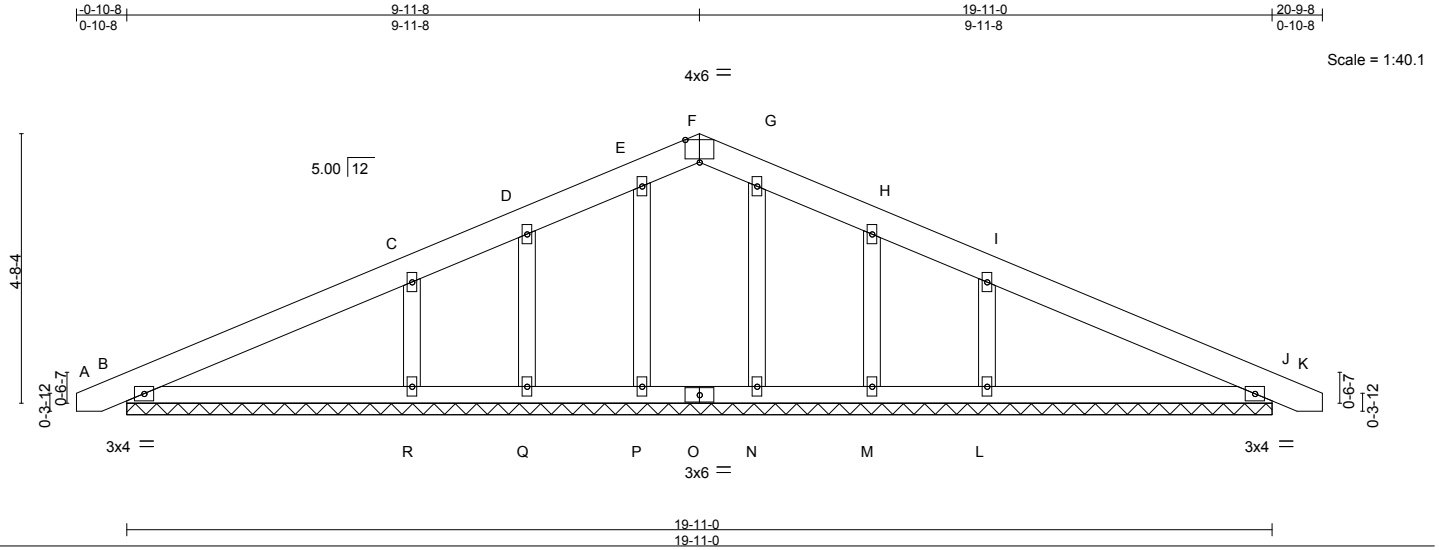


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss G01	Truss Type GABLE	Qty 2	Ply 1	H&H-NC/Wilmington/ 131241162
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:34 2017 Page 1  
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Scale = 1:40.1

Plate Offsets (X,Y)-- [F:0-3-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	0.00	K	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(TL)	0.01	K	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(TL)	0.00	J	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)						
								Weight: 109 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x4 SP 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.** All bearings 19-11-0.  
(lb) - Max Horz B=-73(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) B, J, P, Q, N, M except R=-180(LC 8), L=-179(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) F, B, J, P, Q, N, M except R=401(LC 1), L=401(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** C-R=-299/262, I-L=-299/262

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, J, P, Q, N, M except (jt=lb) R=180, L=179.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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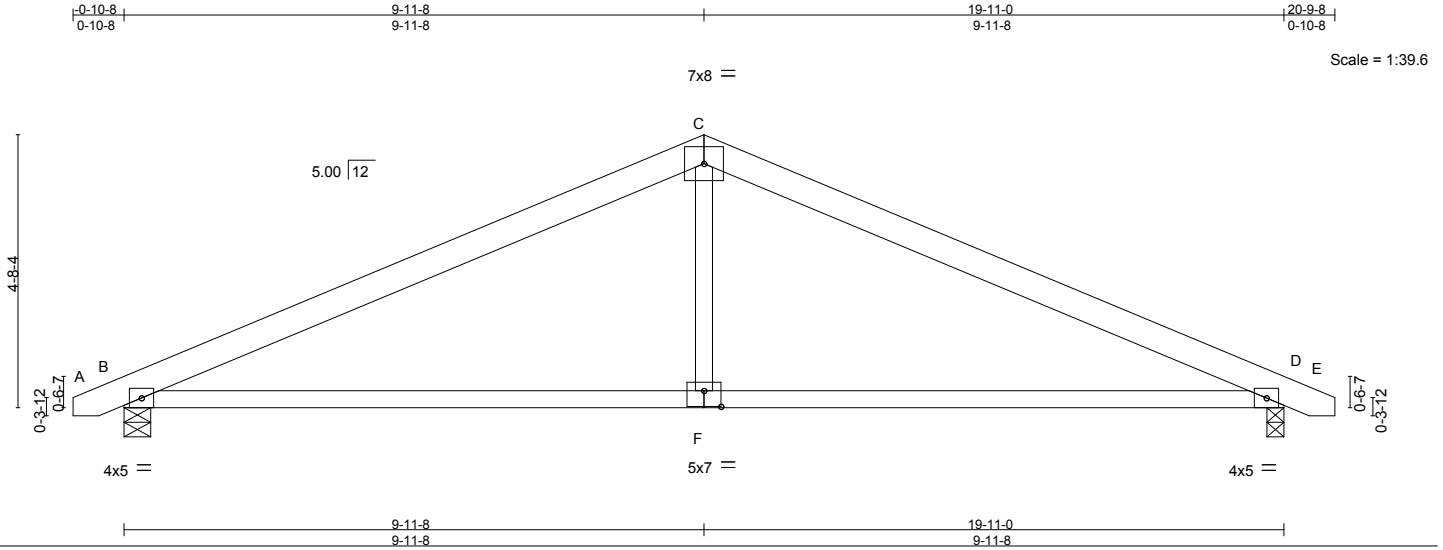


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss G02	Truss Type COMMON	Qty 14	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241163
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:34 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf-EHxhLVDXXi6CHDmmBOAU71pltv8zWxJ6YywstqyXBdN



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP			
TCLL	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.12	F-I	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(TL)	-0.36	F-I	>666	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(TL)	0.03	D	n/a	n/a			
BCDL	10.0	Code	IRC2009/TPI2007	(Matrix-S)		Wind(LL)	0.08	F-I	>999	240			
											Weight: 91 lb	FT = 20%	

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=836/0-5-8, D=836/0-3-8  
Max Horz B=-66(LC 9)  
Max Uplift B=-108(LC 8), D=-108(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1227/514, C-D=-1227/514  
BOT CHORD B-F=-326/1072, D-F=-326/1072  
WEBS C-F=0/403

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 100mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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) B=108, D=108.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss G03	Truss Type Hip Girder	Qty 1	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241164
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:35 2017 Page 1  
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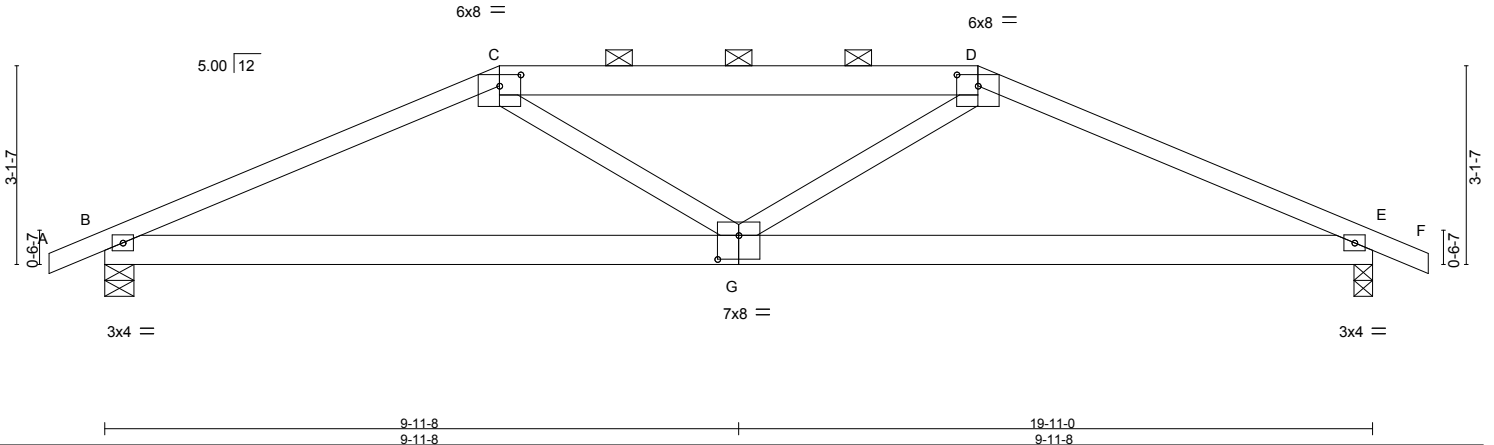
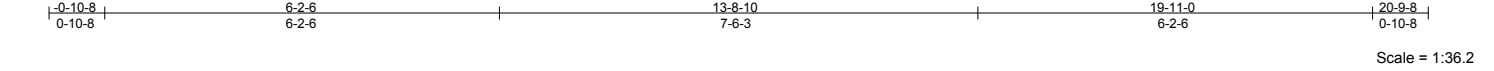


Plate Offsets (X,Y)-- [C:0-4-0,0-2-2], [D:0-4-0,0-4-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) -0.06 G-M >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.53	Vert(TL) -0.17 G-M >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.09	Horz(TL) 0.02 E n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.04 G-J >999 240		
				Weight: 100 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* C-D: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins, except 2-0-0 oc purlins (5-4-10 max.): C-D.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) B=849/0-5-8, E=849/0-3-8  
Max Horz B=49(LC 6)  
Max Uplift B=-92(LC 6), E=-92(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-1408/176, C-D=-1406/91, D-E=-1408/176  
BOT CHORD B-G=-101/1240, E-G=-104/1240  
WEBS C-G=0/382, D-G=0/382

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, E.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

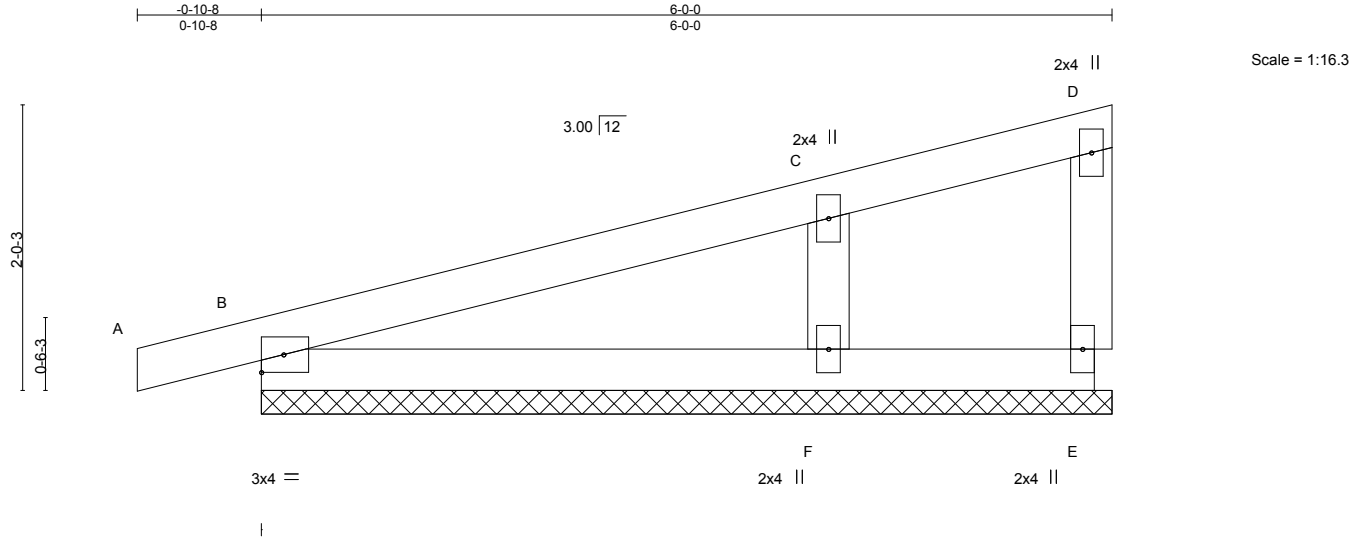


October 3, 2017

Job 1238844_MASTER	Truss J01	Truss Type GABLE	Qty 7	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241165
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:35 2017 Page 1  
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<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	2-0-0	TC 0.19	Vert(LL) 0.00	A	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(TL) 0.01	A	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(TL) 0.00	E	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix)					Weight: 23 lb	FT = 20%
	Code IRC2009/TPI2007							

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

**REACTIONS.** (lb/size) E=14/6-0-0, B=190/6-0-0, F=317/6-0-0  
Max Horz B=91(LC 7)  
Max Uplift E=-6(LC 7), B=-93(LC 6), F=-119(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS C-F=-234/280

- NOTES-** (10)
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, B except (jt=lb) F=119.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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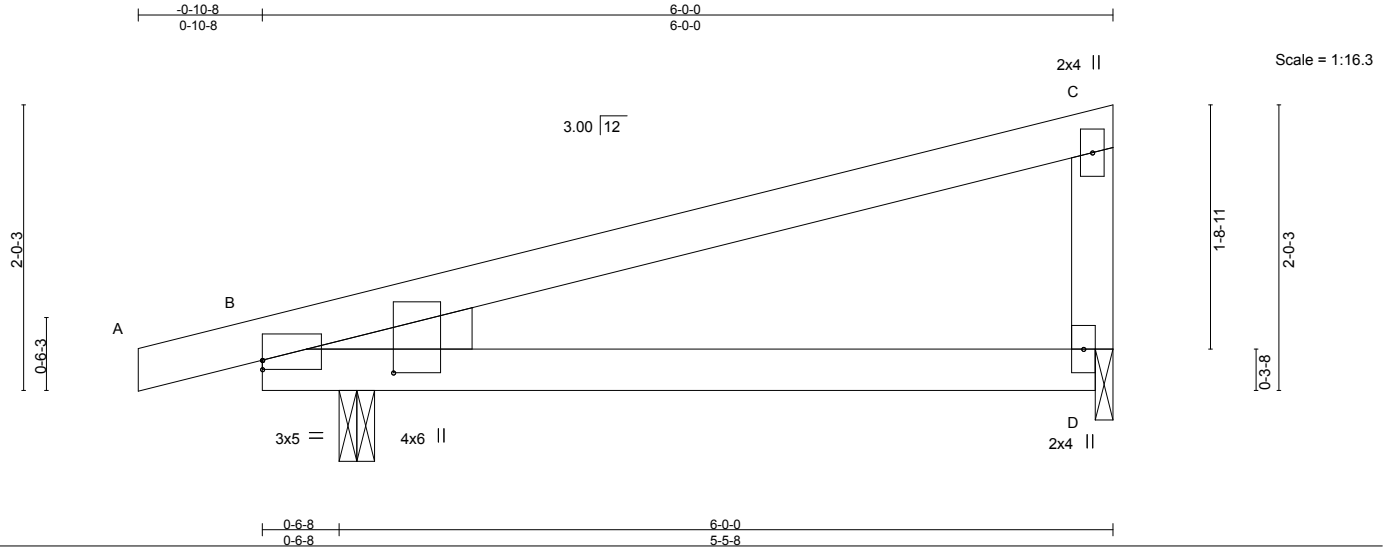


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J02	Truss Type Monopitch	Qty 35	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241166
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:36 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-Ag3SmBFn3wMvWWW9lpCyCSuh4ixY\_tBO0GPzyiyXBdL



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	GRIP
TCLL	20.0	2-0-0	Plate Grip DOL	1.15	TC	0.38	in (loc) l/defl L/d	MT20	244/190
TCDL	10.0	0-6-8	Lumber DOL	1.15	BC	0.39	Vert(LL) -0.03 D-l >999 360		
BCLL	0.0 *	0-6-8	Rep Stress Incr	YES	WB	0.00	Vert(TL) -0.09 D-l >776 240		
BCDL	10.0	6-0-0	Code IRC2009/TPI2007		(Matrix-S)		Horz(TL) -0.01 B n/a n/a		
		5-5-8					Wind(LL) 0.11 D-l >633 240	Weight: 23 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=320/0-3-0, D=201/0-1-8  
Max Horz B=65(LC 6)  
Max Uplift B=-165(LC 6), D=-107(LC 6)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - 5) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=165, D=107.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Wilmington/	I31241167
1238844_MASTER	J03	Monopitch	21	1		

Builders FirstSource, Sumter, SC 29153 7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:36 2017 Page 1  
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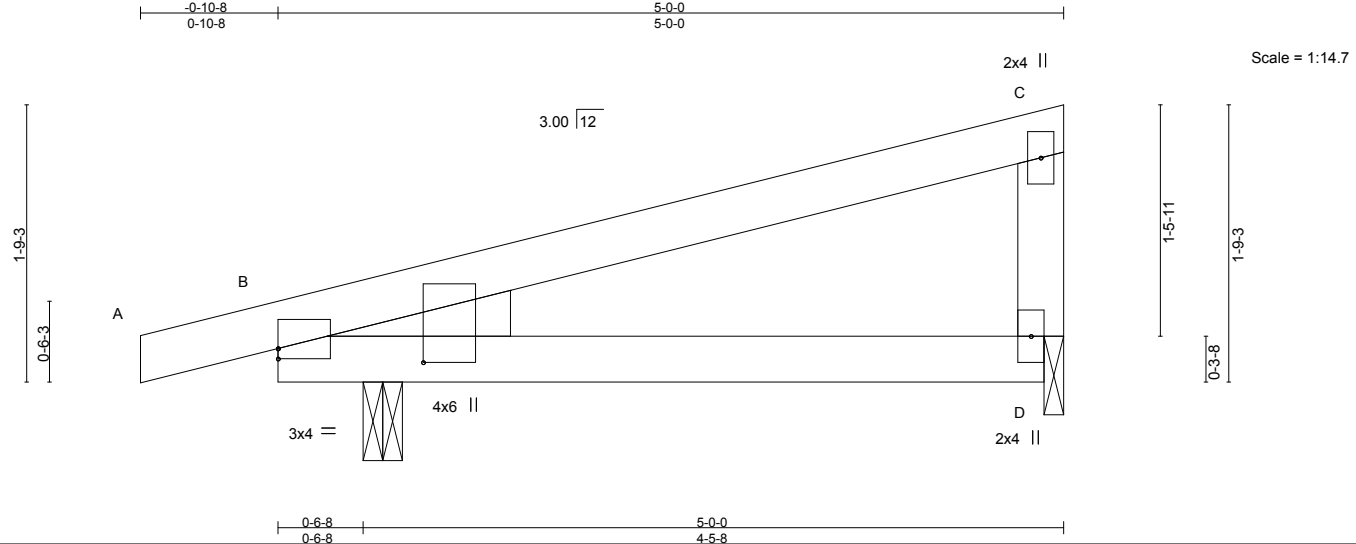


Plate Offsets (X,Y)-- [B:0-0-0-0-12]. [B:0-1-1-0-11-1]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.01 D-l >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(TL) -0.04 D-l >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.01 B n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.05 D-l >999 240	Weight: 20 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=283/0-3-0, D=158/0-1-8  
 Max Horz B=56(LC 6)  
 Max Uplift B=-148(LC 6), D=-84(LC 6)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - 5) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) B=148.
  - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 9) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

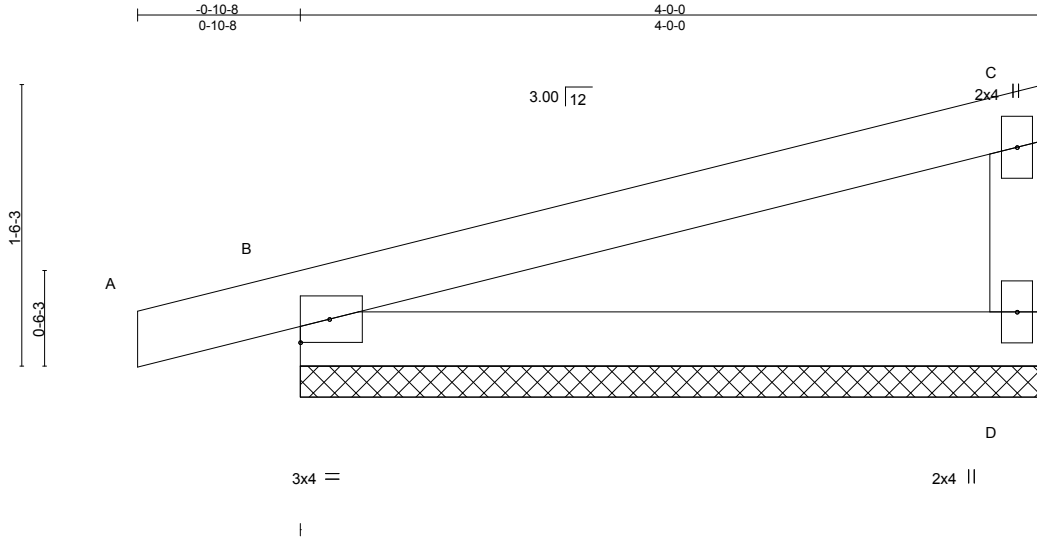


October 3, 2017

Job 1238844_MASTER	Truss J04	Truss Type GABLE	Qty 7	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241168
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Builders FirstSource, Sumter, SC 29153

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Scale = 1:12.4

<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	2-0-0	TC 0.25	Vert(LL)	0.00	A	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(TL)	0.01	A	n/r		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(TL)	0.00	D	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix)					Weight: 15 lb	FT = 20%
	Code IRC2009/TPI2007							

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) D=148/4-0-0, B=213/4-0-0  
Max Horz B=48(LC 7)  
Max Uplift D=-21(LC 6), B=-64(LC 8)

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

- NOTES-** (10)
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Gable requires continuous bottom chord bearing.
  - 5) Gable studs spaced at 2-0-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, B.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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Edenton, NC 27932

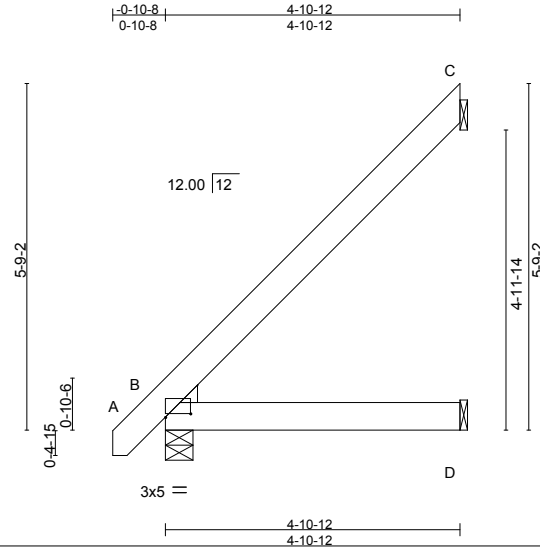


Job 1238844_MASTER	Truss J05	Truss Type JACK-OPEN	Qty 50	Ply 1	H&H-NC/Wilmington/ 131241169
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Builders FirstSource, Sumter, SC 29153

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ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-esdqzXGQqDUm8gVLsXjBIfRu76LEjKRYFw9WU9yXBdK



Scale = 1:38.3

Plate Offsets (X,Y)-- [B:0-5-0,0-0-11]

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 0.17	Vert(LL)	-0.01	D-G	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(TL)	-0.02	D-G	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.01	C	n/a	n/a		
BCDL 10.0	Code	IRC2009/TPI2007	(Matrix-S)	Wind(LL)	0.01	D-G	>999	240		
									Weight: 32 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) C=128/Mechanical, B=242/0-5-8, D=62/Mechanical

Max Horz B=216(LC 8)  
 Max Uplift C=-123(LC 8)  
 Max Grav C=128(LC 1), B=242(LC 1), D=92(LC 3)

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

**NOTES-** (8)

- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) C=123.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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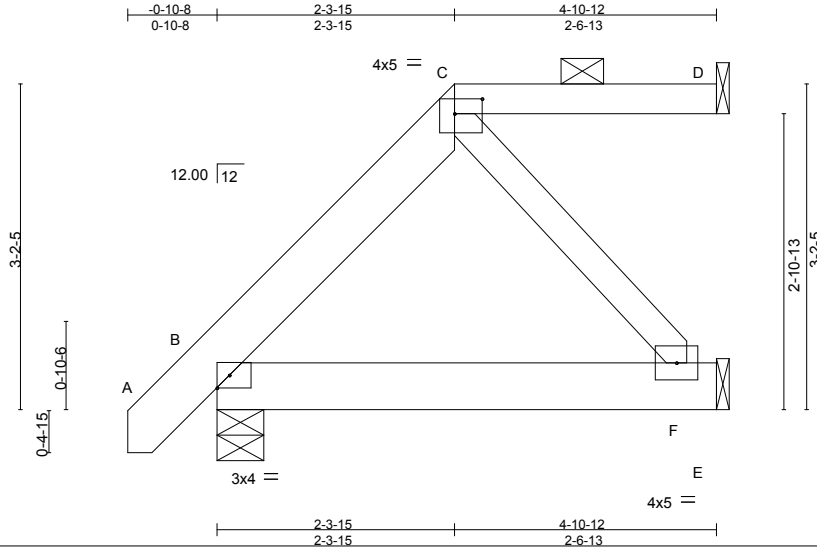
818 Soundside Road  
 Edenton, NC 27932



Job 1238844_MASTER	Truss J07	Truss Type JACK-OPEN	Qty 11	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241171
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:37 2017 Page 1  
ID: X0jtQcFjQu8X?XjGN5R0bmzVOff-esdqzXGQqDUm8gVLsXjBlfRvz6MNjKpYFw9WU9yXBdK



Scale = 1:22.6

Plate Offsets (X,Y)-- [C:0-3-4,0-1-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.01	F-I	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(TL)	-0.01	F-I	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(TL)	0.00	D	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.00	F-I	>999		
								Weight: 31 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.2 \*Except\*  
C-D: 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins: C-D.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) D=75/Mechanical, B=242/0-5-8, E=115/Mechanical  
Max Horz B=132(LC 8)  
Max Uplift D=-38(LC 6), B=-28(LC 8), E=-17(LC 8)  
Max Grav D=75(LC 1), B=242(LC 1), E=119(LC 3)

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

**NOTES-** (11)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, B, E.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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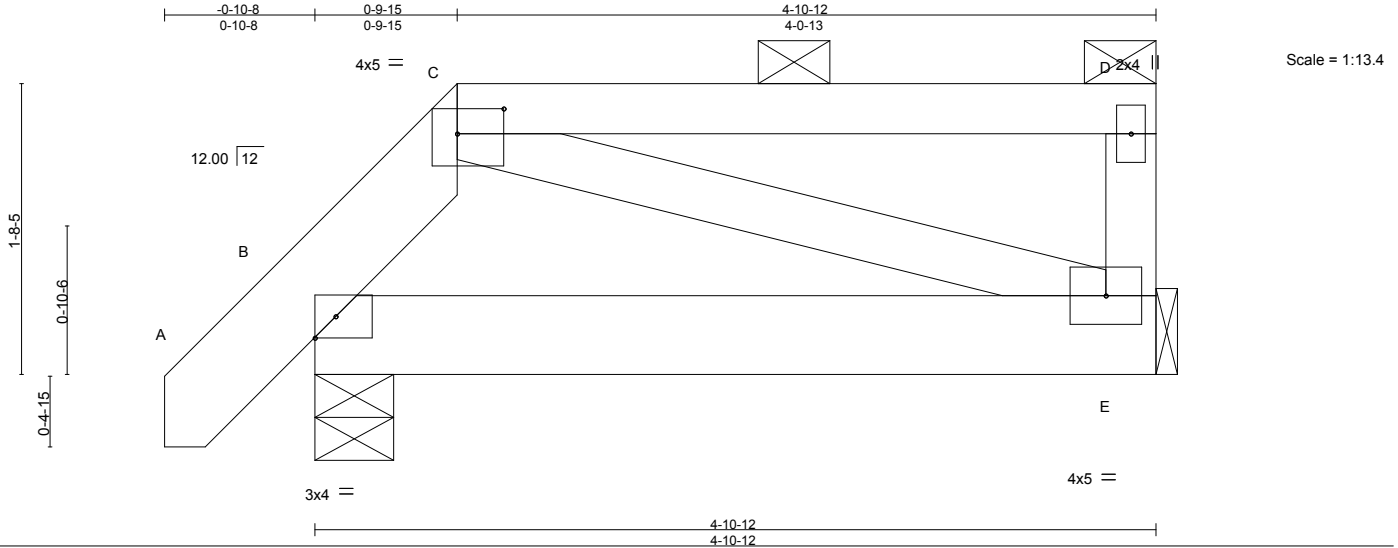


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J08	Truss Type HALF HIP GIRDER	Qty 12	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241172
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:38 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-62ACAsG2bXcdmq4XQEFQHT\_0JWhfSnDhTau40byXBdJ



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.33	in	(loc)	I/defl	L/d	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(LL)	-0.00	E-H	>999		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.03	Vert(TL)	-0.01	E-H	>999		
BCDL	10.0	Code	IRC2009/TPI2007	(Matrix-M)		Horz(TL)	0.00	B	n/a		
						Wind(LL)	0.00	H	>999	Weight: 31 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.2 \*Except\*  
C-D: 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) B=239/0-5-8, E=186/Mechanical  
Max Horz B=79(LC 6)  
Max Uplift B=-37(LC 6), E=-39(LC 4)

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

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) B, E.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 BEFORE USE.**

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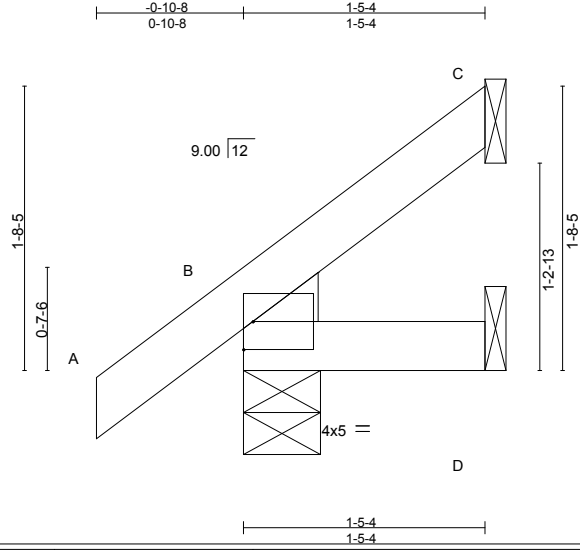


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J09	Truss Type Jack-Open	Qty 24	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241173
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:38 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-62ACAsG2bXcdmq4XQEFQHT\_4SWikSnhhTau40byXBdJ



Scale = 1:13.7

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 0.07	Vert(LL)	-0.00	G	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(TL)	-0.00	G	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.00	C	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.00	G	>999	240	Weight: 7 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-5-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) C=28/Mechanical, B=126/0-5-8, D=13/Mechanical  
Max Horz B=75(LC 8)  
Max Uplift C=-19(LC 8), B=-38(LC 8)  
Max Grav C=28(LC 1), B=126(LC 1), D=23(LC 3)

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

**NOTES-** (8)

- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, B.
- 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	H&H-NC/Wilmington/ 131241174
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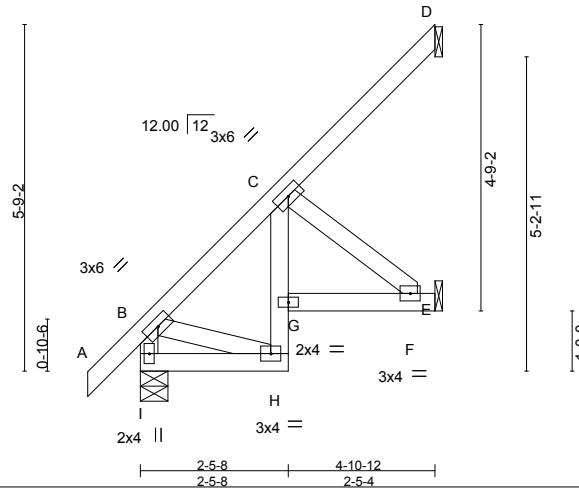
Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:38 2017 Page 1

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Scale = 1:38.3



<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	2-0-0	TC 0.12	Vert(LL) -0.00	G	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(TL) -0.01	F-G	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(TL) -0.02	E	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL) 0.01	H	>999	240	Weight: 31 lb	FT = 20%
	Code IRC2009/TPI2007							

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) I=255/0-5-8, D=68/Mechanical, E=112/Mechanical

Max Horz I=242(LC 8)  
 Max Uplift D=-68(LC 8), E=-65(LC 8)  
 Max Grav I=255(LC 1), D=68(LC 1), E=113(LC 3)

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

BOT CHORD H-I=-339/0  
 WEBS C-F=-154/262

**NOTES-** (8)

- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, E.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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**Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314. **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



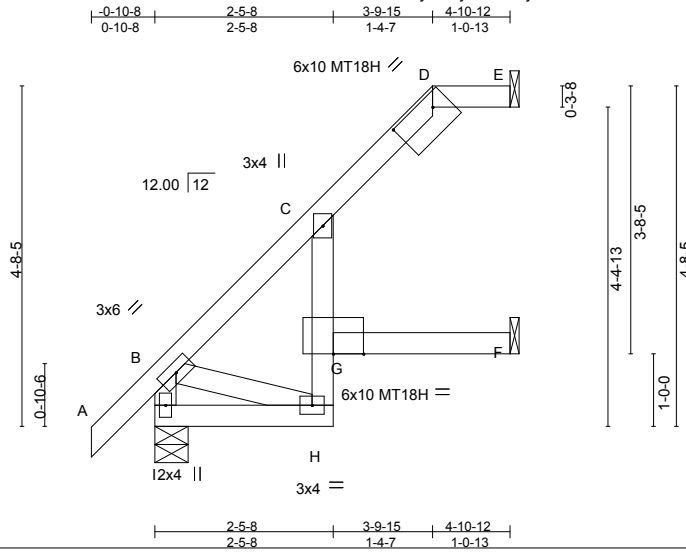
818 Soundside Road  
 Edenton, NC 27932

Job 1238844_MASTER	Truss J11	Truss Type Jack-Open	Qty 1	Ply 1	H&H-NC/Wilmington/ I31241175
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:39 2017 Page 1

ID:X0jtQcFjQu8X?XjGN5R0bmzVOFF-bFkaOCHgMrkUN\_fjzymfq4WDTwzWBEGriEedZ1yXBdl



Scale: 3/8"=1'

Plate Offsets (X,Y)-- [D:0-7-4,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.02	G	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(TL)	-0.06	F-G	>900	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(TL)	-0.07	E	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.06	F-G	>924		
								Weight: 27 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: D-E.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) I=255/0-5-8, E=104/Mechanical, F=77/Mechanical  
 Max Horz I=209(LC 8)  
 Max Uplift I=-1(LC 8), E=-58(LC 8), F=-29(LC 8)  
 Max Grav I=255(LC 1), E=104(LC 1), F=85(LC 3)

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

BOT CHORD H-I=-255/30

**NOTES-** (12)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I, E, F.
- 10) This truss requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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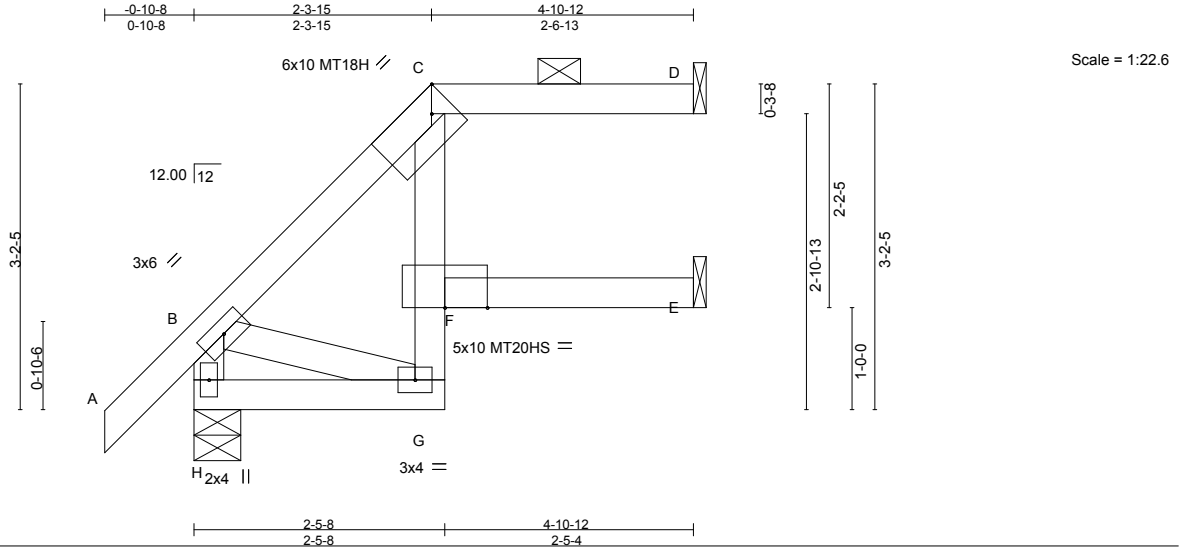


818 Soundside Road  
 Edenton, NC 27932

Job 1238844_MASTER	Truss J12	Truss Type Jack-Open	Qty 1	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241176
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:39 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-bFkaOCHgMrkUN\_fjzymfq4WDaw\_kBEXriEedZ1yXBdl



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.02	E-F	>999	360	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	-0.05	E-F	>999	240	MT20HS	187/143	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.06	D	n/a	n/a	MT18H	244/190	
BCDL	10.0	Code	IRC2009/TPI2007	(Matrix-S)		Wind(LL)	0.04	E-F	>999	240	Weight: 26 lb		FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) H=255/0-5-8, D=108/Mechanical, E=73/Mechanical  
Max Horz H=154(LC 8)  
Max Uplift H=-36(LC 8), D=-39(LC 7), E=-7(LC 8)  
Max Grav H=255(LC 1), D=108(LC 1), E=82(LC 3)

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

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) H, D, E.
  - 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

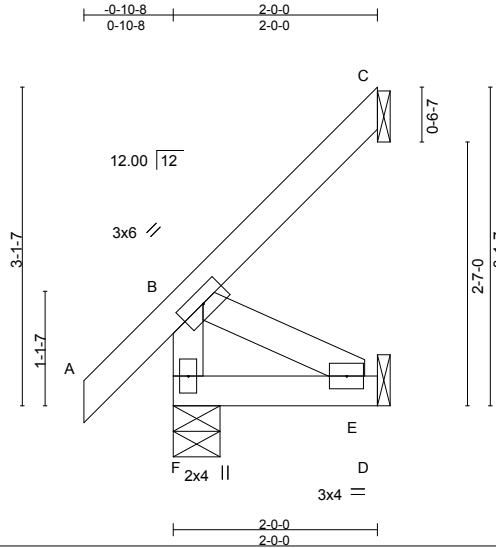
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b> Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p>	<p>ENGINEERING BY <b>TRENCO</b> A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 1238844_MASTER	Truss J13	Truss Type Jack-Open	Qty 5	Ply 1	H&H-NC/Wilmington/ 131241177
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:40 2017 Page 1  
ID: XOjtQcFjQu8X?XjGN5R0bmzVOFF-3RlybYIi68sL?8EwXfHuMI3Q6KOxwhF\_xuNA5UyXBdH



Scale = 1:22.6

<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	2-0-0	TC 0.12	Vert(LL) -0.00	F	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(TL) -0.00	E-F	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(TL) -0.00	C	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-M)	Wind(LL) 0.00	F	>999	240	Weight: 13 lb	FT = 20%
	Code IRC2009/TPI2007							

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* B-E: 2x4 SP No.3	

**REACTIONS.** (lb/size) F=152/0-5-8, C=38/Mechanical, D=19/Mechanical  
Max Horz F=147(LC 8)  
Max Uplift C=-29(LC 7), D=-54(LC 8)  
Max Grav F=152(LC 1), C=38(LC 1), D=38(LC 3)

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

- NOTES-** (8)
- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) C, D.
  - 7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 8) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

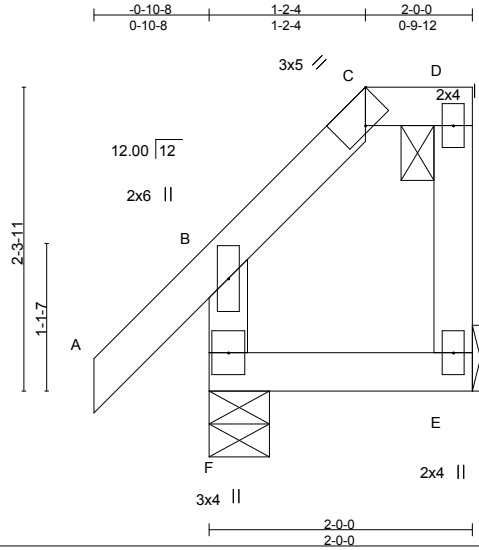
818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J14	Truss Type Half Hip	Qty 2	Ply 1	H&H-NC/Wilmington/ 131241178
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:40 2017 Page 1

ID:XOjtQcFjQu8X?XjGN5R0bmzVOFF-3RlybYII68sL?8EwXfHuMI3PnKN1whB\_xuNA5UyXBdH



Scale = 1:17.5

Plate Offsets (X,Y)-- [C:0-2-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.00	F	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(TL)	-0.00	F	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.00	E	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.00	F	>999	240		
									Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* D-E: 2x4 SP No.3	

**REACTIONS.** (lb/size) E=50/Mechanical, F=148/0-5-8  
Max Horz F=98(LC 7)  
Max Uplift E=-57(LC 7), F=-44(LC 8)

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

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, F.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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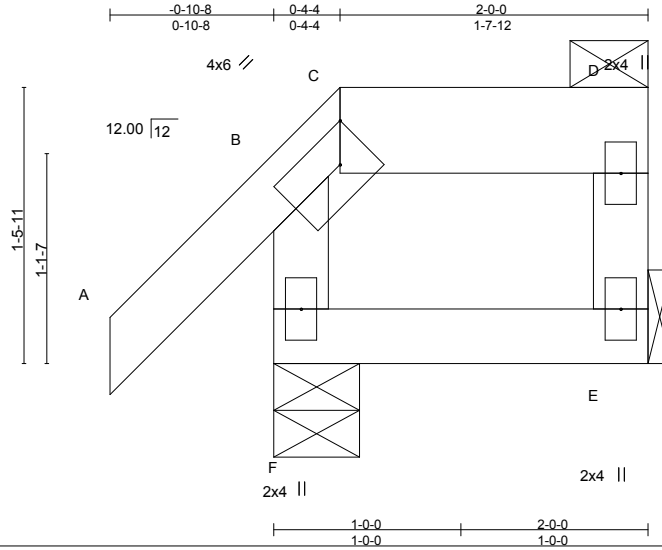


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss J15	Truss Type Half Hip	Qty 2	Ply 1	H&H-NC/Wilmington/ I31241179
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:40 2017 Page 1  
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Scale = 1:12.3

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.00	F	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(TL)	-0.00	F	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.00	E	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.00	F	>999	240		
									Weight: 12 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* C-D: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* D-E: 2x4 SP No.3	

**REACTIONS.** (lb/size) E=50/Mechanical, F=140/0-5-8  
Max Horz F=59(LC 7)  
Max Uplift E=-25(LC 7), F=-45(LC 8)  
Max Grav E=62(LC 14), F=140(LC 1)

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

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 100mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-10-8 to 1-10-4 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E, F.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss PB01	Truss Type GABLE	Qty 6	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241180
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Builders FirstSource, Sumter, SC 29153

7.640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:41 2017 Page 1  
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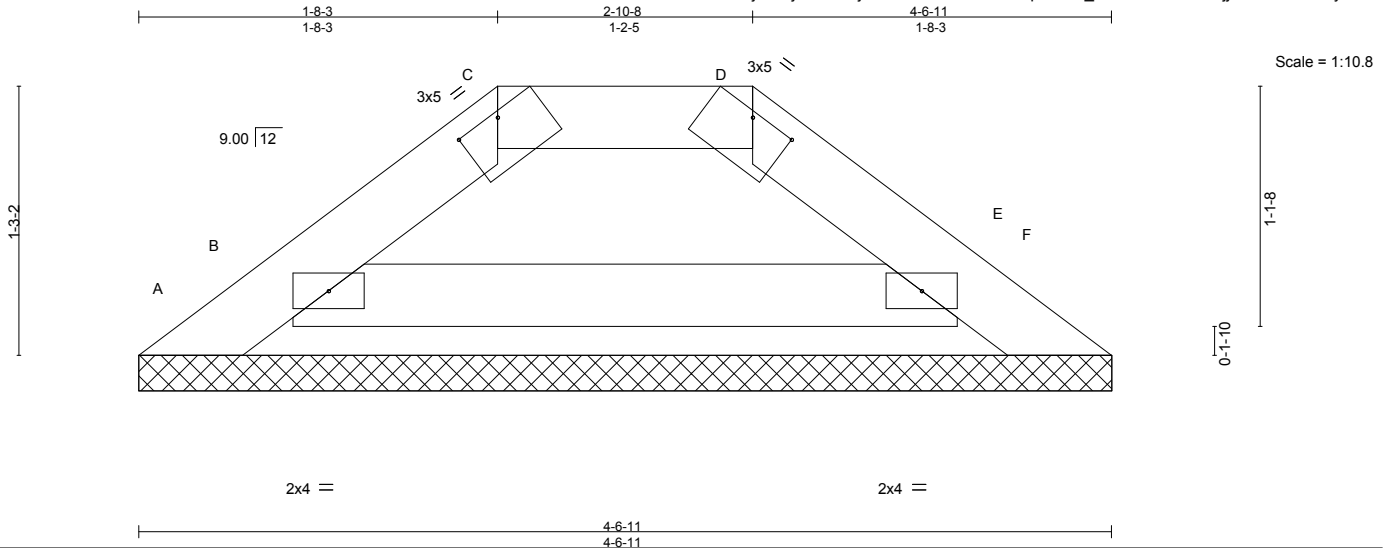


Plate Offsets (X,Y)-- [C:0-2-8,0-0-5], [D:0-2-8,0-0-5]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(TL) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) 0.00 F n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)		Weight: 13 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins, except 2-0-0 oc purlins: C-D.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) A=-11/4-6-11, F=-11/4-6-11, B=175/4-6-11, E=175/4-6-11  
Max Horz A=-35(LC 6)  
Max Uplift A=-30(LC 6), F=-25(LC 3), B=-34(LC 7), E=-13(LC 6)  
Max Grav A=21(LC 7), B=175(LC 1), E=175(LC 1)

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

**NOTES-** (14)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, F, B, E.
- 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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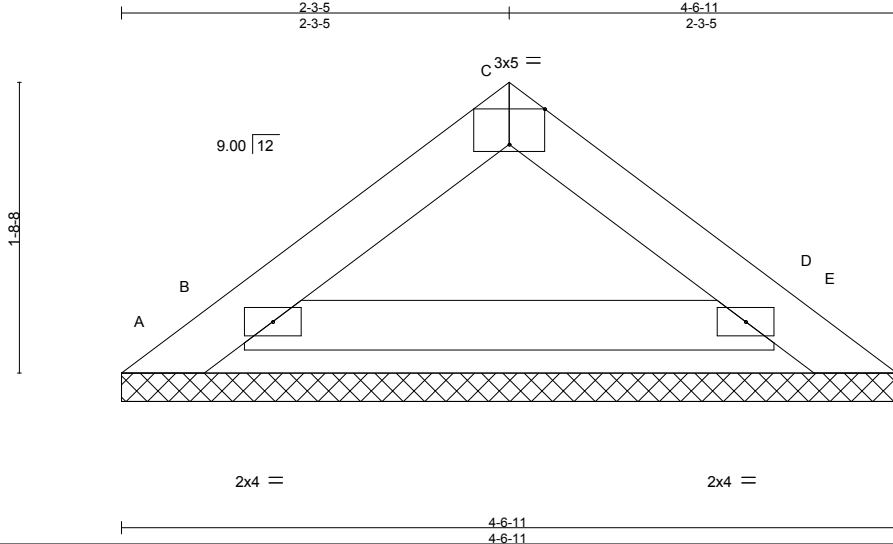


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss PB02	Truss Type GABLE	Qty 135	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	I31241181
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:41 2017 Page 1  
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Scale = 1:13.5

Plate Offsets (X,Y)-- [C:0-2-8,Edge]

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 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(TL)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	0.00	E	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

- All bearings 4-6-11.  
(lb) - Max Horz A=-47(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) A, E, B, D  
Max Grav All reactions 250 lb or less at joint(s) A, E, B, D

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

NOTES- (12)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, E, B, D.
- "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

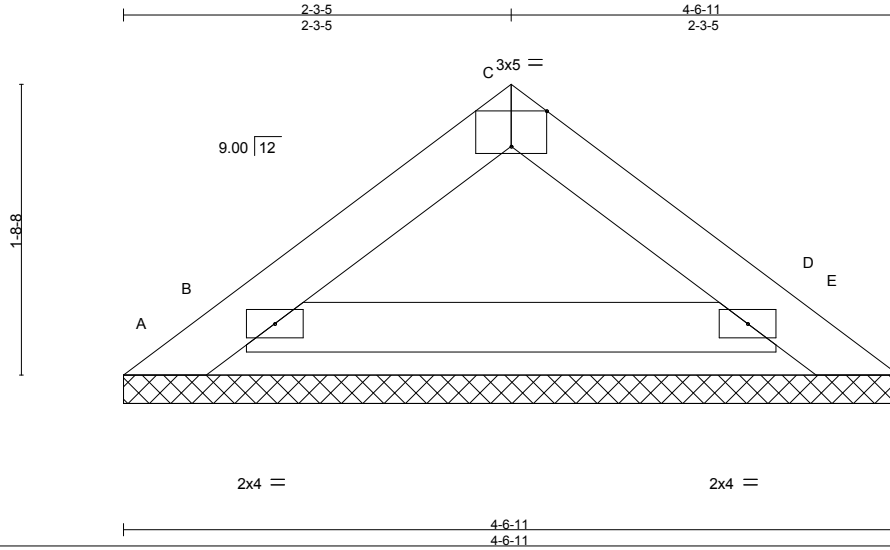


818 Soundside Road  
Edenton, NC 27932

Job 1238844_MASTER	Truss PB03	Truss Type GABLE	Qty 8	Ply 1	H&H-NC/Wilmington/ Job Reference (optional)	131241182
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Builders FirstSource, Sumter, SC 29153

7,640 s Aug 16 2017 MiTek Industries, Inc. Tue Oct 03 07:31:42 2017 Page 1  
ID:XOjtQcFjQu8X?XjGN5R0bmzVOFf?qQj0EJYem73ERNIf4JMSj8nu73CObgHOCsH9MyXBdF



Scale = 1:13.5

Plate Offsets (X,Y)-- [C:0-2-8,Edge]

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 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(TL)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	0.00	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)							
									Weight: 13 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-6-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

All bearings 4-6-11.  
(lb) - Max Horz A=-59(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) A, E, B, D  
Max Grav All reactions 250 lb or less at joint(s) A, E, B, D

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

**NOTES-** (12)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-05; 100mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
- 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) A, E, B, D.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 12) This manufactured truss is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



October 3, 2017

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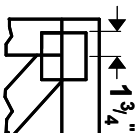
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



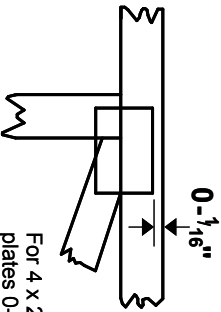
818 Soundside Road  
Edenton, NC 27932

# 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- $\frac{1}{16}$ " from outside edge of truss.



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

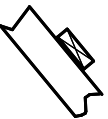
\* Plate location details available in **MITek 2020 software** or upon request.

## PLATE SIZE

### 4 X 4

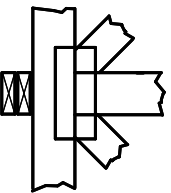
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



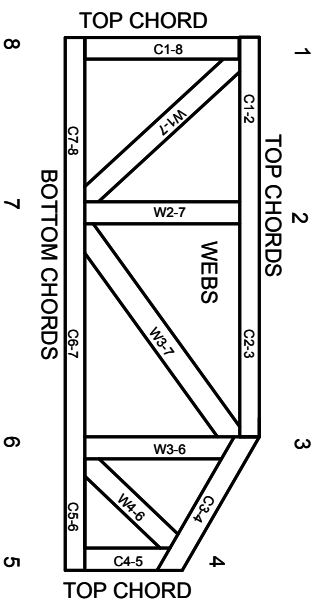
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 10/03/2015



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor-I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.