

PO Box 3850  
Sumter SC 29151

Project Information : Builders FirstSource Job # : 812025\_Master  
 Building Code : IRC2009/TPI2007  
 Lot: C  
 Subdivision: ALL  
 County: Fayetteville  
 Computer Program Used: MiTek 20/20 7.6

Truss Design Information : Gravity Loads  
 Roof (psf) : 40.0  
 Floor (psf) : N/A

Wind Loads  
 Wind Standard : ASCE 7-05  
 Wind Speed (mph) : 130  
 Mean Roof Height (ft.) : 25  
 Exposure : C

Truss #	Truss Label	Drawing #	Seal Date
1	A01	I11432554	11/3/016
2	A02	I11432555	11/3/016
3	A03	I11432556	11/3/016
4	A04	I11432557	11/3/016
5	A05	I11432558	11/3/016
6	A06	I11432559	11/3/016
7	A07	I11432560	11/3/016
8	A08	I11432561	11/3/016
9	A09	I11432562	11/3/016
10	A10	I11432563	11/3/016
11	A11	I11432564	11/3/016
12	A12	I11432565	11/3/016
13	A13	I11432566	11/3/016
14	A14	I11432567	11/3/016
15	A15	I11432568	11/3/016
16	A16	I11432569	11/3/016
17	A17	I11432570	11/3/016
18	A18	I11432571	11/3/016
19	A19	I11432572	11/3/016
20	A20	I11432573	11/3/016
21	A21	I11432574	11/3/016
22	A22	I11432575	11/3/016
23	A23	I11432576	11/3/016

Truss #	Truss Label	Drawing #	Seal Date
24	A24	I11432577	11/3/016
25	A25	I11432578	11/3/016
26	A26	I11432579	11/3/016
27	A27	I11432580	11/3/016
28	A28	I11432581	11/3/016
29	B01	I11432582	11/3/016
30	B02	I11432583	11/3/016
31	B03	I11432584	11/3/016
32	B04	I11432585	11/3/016
33	B05	I11432586	11/3/016
34	B06	I11432587	11/3/016
35	B10	I11432588	11/3/016
36	B11	I11432589	11/3/016
37	C01	I11432590	11/3/016
38	C02	I11432591	11/3/016
39	C03	I11432592	11/3/016
40	C04	I11432593	11/3/016
41	C05	I11432594	11/3/016
42	C11	I11432595	11/3/016
43	C12	I11432596	11/3/016
44	C13	I11432597	11/3/016
45	C14	I11432598	11/3/016
46	C15	I11432599	11/3/016

Truss #	Truss Label	Drawing #	Seal Date
47	C21	I11432600	11/3/016
48	C22	I11432601	11/3/016
49	C23	I11432602	11/3/016
50	C24	I11432603	11/3/016
51	C25	I11432604	11/3/016
52	CP01	I11432605	11/3/016
53	CP02	I11432606	11/3/016
54	CP03	I11432607	11/3/016
55	D01	I11432608	11/3/016
56	D11	I11432609	11/3/016
57	D21	I11432610	11/3/016
58	E01	I11432611	11/3/016
59	E02	I11432612	11/3/016
60	J01	I11432613	11/3/016
61	J02	I11432614	11/3/016
62	J03	I11432615	11/3/016
63	J04	I11432616	11/3/016
64	J05	I11432617	11/3/016
65	J06	I11432618	11/3/016
66	J07	I11432619	11/3/016
67	J08	I11432620	11/3/016
68	J09	I11432621	11/3/016
69	J10	I11432622	11/3/016

Notes:

1. This truss specification package consists of this index sheet and 102 truss design drawings identified by I11432554 thru I11432655. This signed and sealed index sheet indicates acceptance of my professional engineering responsibility solely for listed truss design drawings.
2. Each manufactured truss is designed as an individual building component based on the parameters summarized on each drawing. The suitability and use of each truss component for any particular building is the responsibility of the building designer per ANSI / TPI 1 as referenced by the building code.
3. The seal date shown on the individual truss design drawing must match the seal date on this index sheet.
4. My license renewal date for the state of North Carolina is December 31, 2016.



November 3, 2016

**Project Information :**

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 Computer Program Used: MiTek 20/20 7.6

Truss #	Truss Label	Drawing #	Seal Date
70	J201	I11432623	11/3/016
71	J202	I11432624	11/3/016
72	J203	I11432625	11/3/016
73	J204	I11432626	11/3/016
74	J205	I11432627	11/3/016
75	J206	I11432628	11/3/016
76	J207	I11432629	11/3/016
77	J208	I11432630	11/3/016
78	J209	I11432631	11/3/016
79	J211	I11432632	11/3/016
80	J212	I11432633	11/3/016
81	J214	I11432634	11/3/016
82	J215	I11432635	11/3/016
83	J216	I11432636	11/3/016
84	J217	I11432637	11/3/016
85	J220	I11432638	11/3/016
86	J221	I11432639	11/3/016
87	J222	I11432640	11/3/016
88	J223	I11432641	11/3/016
89	J224	I11432642	11/3/016
90	J225	I11432643	11/3/016
91	J226	I11432644	11/3/016
92	J227	I11432645	11/3/016
93	J228	I11432646	11/3/016
94	J229	I11432647	11/3/016
95	J230	I11432648	11/3/016
96	J231	I11432649	11/3/016
97	J232	I11432650	11/3/016
98	J233	I11432651	11/3/016

Truss #	Truss Label	Drawing #	Seal Date
99	J234	I11432652	11/3/016
100	J235	I11432653	11/3/016
101	J236	I11432654	11/3/016
102	J237	I11432655	11/3/016

Notes:

1. This truss specification package consists of this index sheet and 102 truss design drawings identified by I11432554 thru I11432655. This signed and sealed index sheet indicates acceptance of my professional engineering responsibility solely for listed truss design drawings.
2. Each manufactured truss is designed as an individual building component based on the parameters summarized on each drawing. The suitability and use of each truss component for any particular building is the responsibility of the building designer per ANSI / TPI 1 as referenced by the building code.
3. The seal date shown on the individual truss design drawing must match the seal date on this index sheet.
4. My license renewal date for the state of North Carolina is December 31, 2016.

Job 812025_MASTER	Truss A01	Truss Type GABLE	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37886  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:26:34 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-CpOpnjUpqY2NYRT2X8ik5xwHhq3TKFaf9ITxq6yMx9J

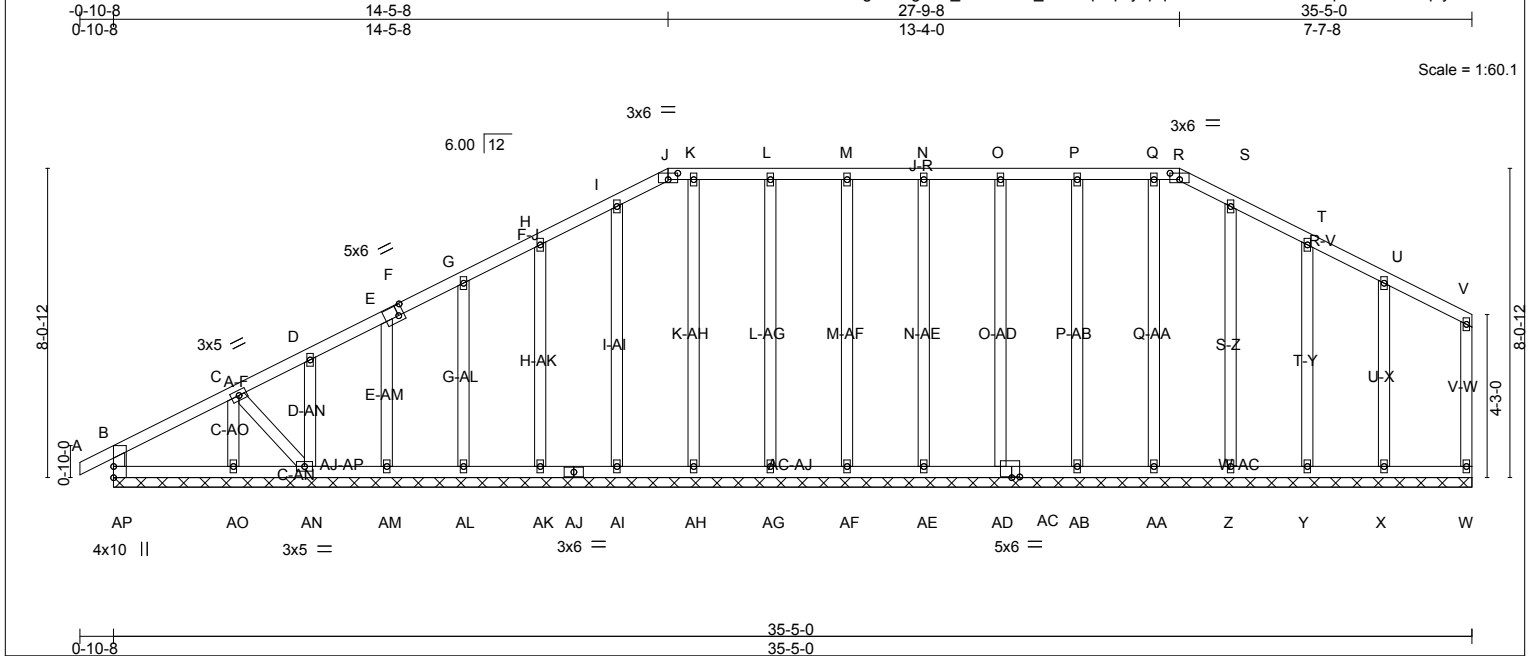


Plate Offsets (X,Y)-- [F:0-1-12,0-3-4], [J:0-3-0,0-2-0], [R:0-3-0,0-2-0], [AC:0-2-8,0-0-4]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.18	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(LL) -0.00 A n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Vert(TL) -0.00 A n/r 120		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Horz(TL) -0.00 W n/a n/a		
				Weight: 264 lb	FT = 20%

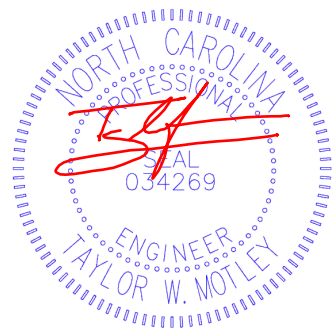
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); J-R.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 35-5-0.  
 (lb) - Max Horz AP=484(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) W, AH, AO, AA except AP=-181(LC 8), AE=-126(LC 6), AF=-125(LC 7), AG=-143(LC 6), AI=-125(LC 8), AK=-182(LC 8), AL=-165(LC 8), AM=-180(LC 8), AN=-482(LC 8), AD=-124(LC 7), AB=-140(LC 6), Z=-109(LC 9), Y=-179(LC 9), X=-197(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) AP, W, AE, AF, AG, AH, AI, AK, AL, AM, AN, AD, AB, AA, Z, Y, X except AO=252(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-AP=-169/271, H-I=-29/295, I-J=-29/362, J-K=-2/361, K-L=-2/361, L-M=-2/361, M-N=-2/361, N-O=-2/361, O-P=-2/361, P-Q=-2/361, Q-R=-2/361, R-S=-29/363, S-T=-29/288  
 BOT CHORD AO-AP=-338/32, AN-AO=-338/32  
 WEBS C-AN=-44/488

- NOTES-** (16)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) W, AH, AO, AA except (jt=lb) AP=181, AE=126, AF=125, AG=143, AI=125, AK=182, AL=165, AM=180, AN=482, AD=124, AB=140, Z=109, Y=179, X=197.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A01	GABLE	3	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:35 2016 Page 2  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-g?yB?3VRbsAEAA2F5sEze8SRQE0i3hqoOPDUNYyMx9l

**NOTES-** (16)

- 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



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

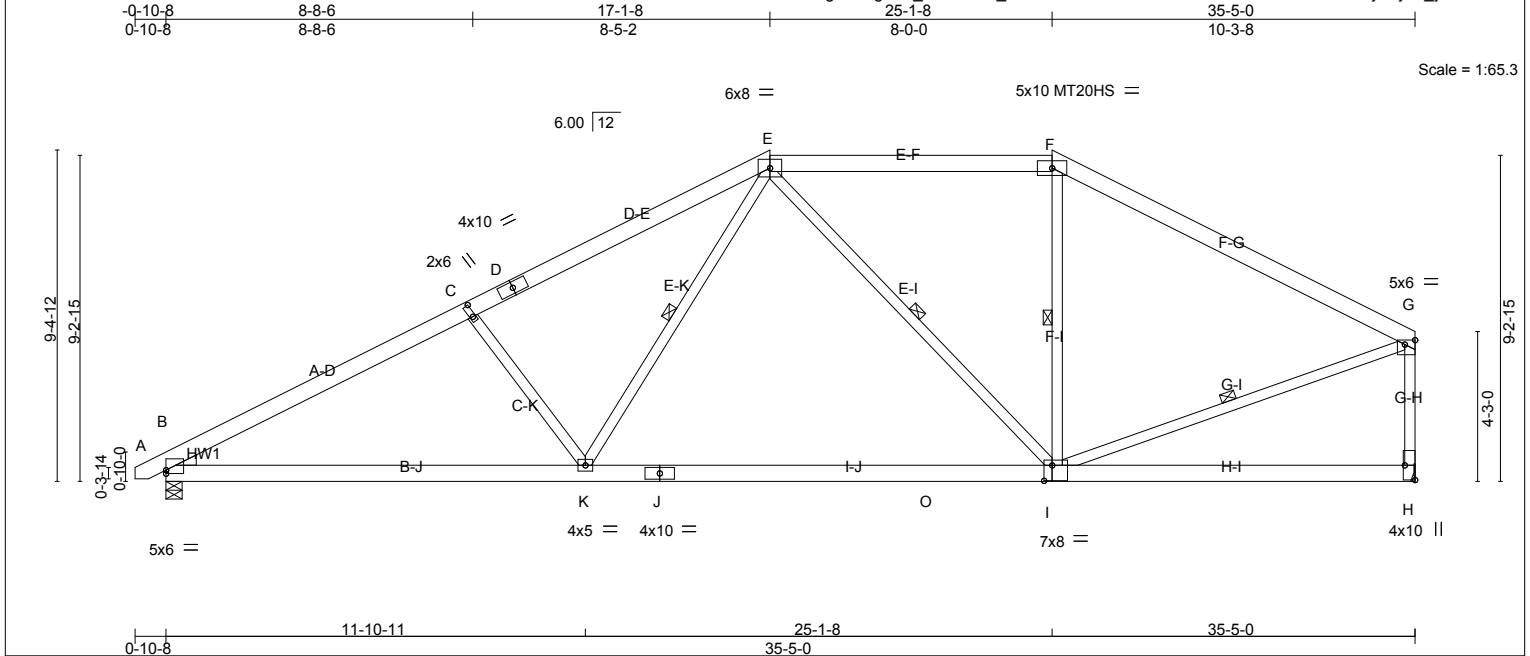
Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A02	Truss Type HIP	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-8CWZCPW3M9I5okdRfZICBM?RWeXVo2Dyd3y2v\_yMx9H  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:26:36 2016 Page 1  
 Job Reference (optional)



<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 Plate Grip DOL 1.15	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.86	Vert(LL) -0.39 I-K >999 360	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.52	Vert(TL) -0.68 I-K >626 240		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Horz(TL) 0.06 H n/a n/a		
			Wind(LL) 0.15 I-K >999 240	Weight: 250 lb	FT = 20%

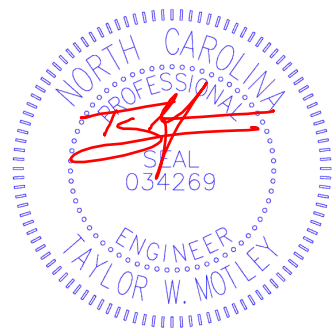
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 G-H: 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

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

**REACTIONS.** (lb/size) B=1452/0-5-8 (min. 0-1-11), H=1410/Mechanical  
 Max Horz B=477(LC 8)  
 Max Uplift B=-1020(LC 8), H=-862(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2386/2099, C-D=-2104/1968, D-E=-2007/2006, E-F=-1231/1416, F-G=-1493/1325, G-H=-1325/1291  
 BOT CHORD B-K=-1984/2031, J-K=-1173/1414, J-O=-1173/1414, I-O=-1173/1414  
 WEBS C-K=-442/849, E-K=-618/785, E-I=-394/403, F-I=-84/296, G-I=-894/1257

- NOTES-** (13)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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, with BCDL = 10.0psf.
  - 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) except (jt=lb) B=1020, H=862.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) 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.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 13) 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  
 November 3, 2016

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 STRUCTURAL ENGINEERS  
 PO Box 3850  
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Job 812025_MASTER	Truss A03	Truss Type HIP	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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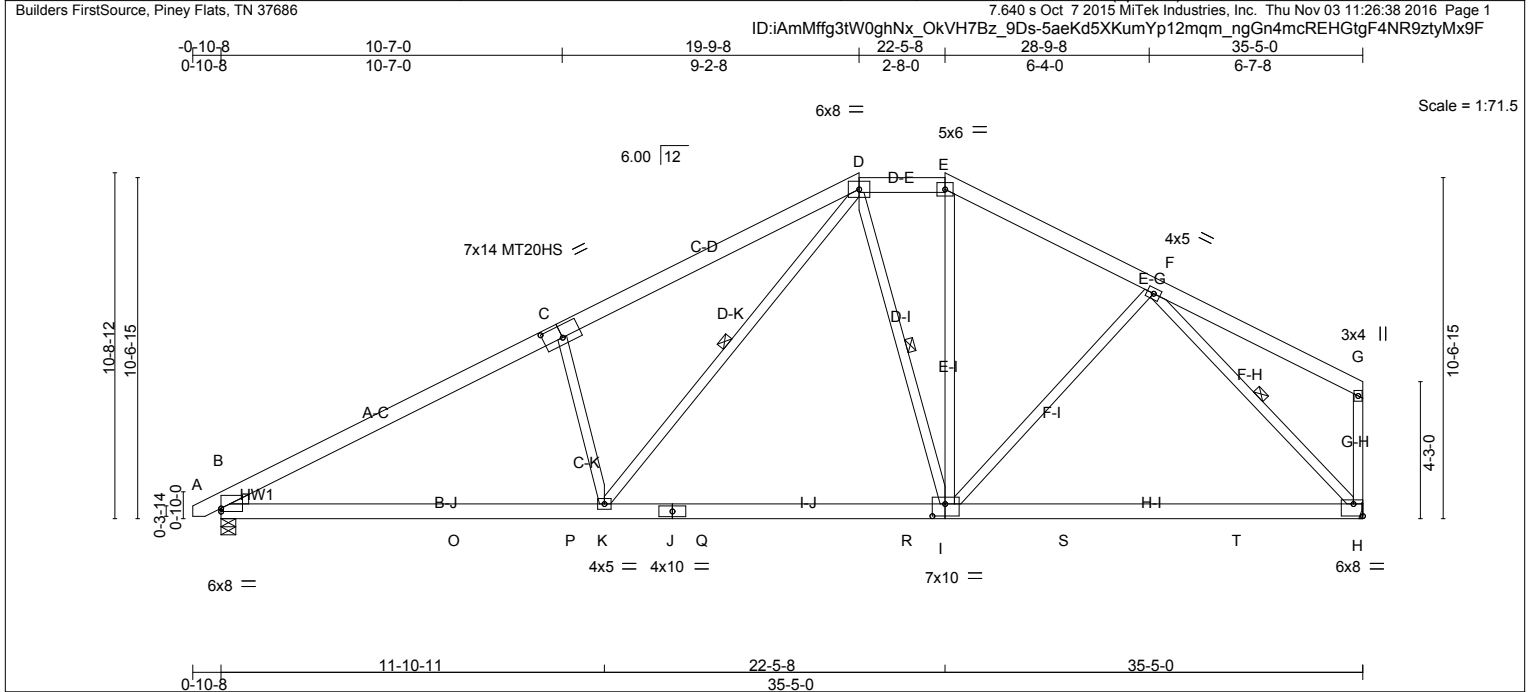


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-7-0,0-4-8], [H:Edge,0-4-8], [I:0-4-12,0-4-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0 Lumber DOL 1.15	TC 0.96	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Rep Stress Incr YES	BC 0.77	Vert(TL) -0.54 H-I >999 360	MT20HS	187/143
BCLL 0.0 *	Code IRC2009/TPI2007	WB 0.84	Horz(TL) 0.07 H n/a n/a	Weight: 266 lb FT = 20%	
BCDL 10.0		(Matrix-S)	Wind(LL) 0.17 K-N >999 240		

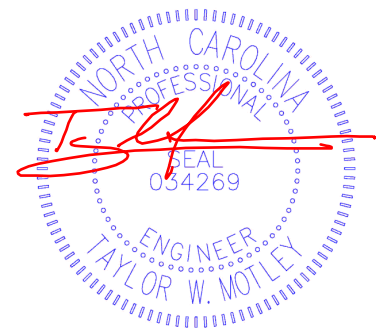
**LUMBER-**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
D-K: 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): D-E.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt D-K, D-I, F-H

**REACTIONS.** (lb/size) B=1452/0-5-8 (min. 0-1-12), H=1410/Mechanical  
Max Horz B=512(LC 8)  
Max Uplift B=-1044(LC 8), H=-900(LC 9)  
Max Grav B=1472(LC 2), H=1495(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-2415/2035, C-D=-2284/2304, D-E=-1281/1446, E-F=-1502/1476, G-H=-195/286  
BOT CHORD B-O=-1882/2060, O-P=-1882/2060, K-P=-1882/2060, J-K=-944/1322, J-Q=-944/1322,  
Q-R=-944/1322, I-R=-944/1322, I-S=-964/1096, S-T=-964/1096, H-T=-964/1096  
WEBS C-K=-568/1029, D-K=-1123/1031, D-I=-358/482, E-I=-375/466, F-I=-46/357,  
F-H=-1519/1422

- NOTES-** (13)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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, with BCDL = 10.0psf.
  - 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) except (jt=lb) B=1044, H=900.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) 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.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
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November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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**MSD MOTLEY STRUCTURAL DESIGN**  
STRUCTURAL ENGINEERS  
PO Box 3850  
Sumter SC 29151



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A04	COMMON	9	1	

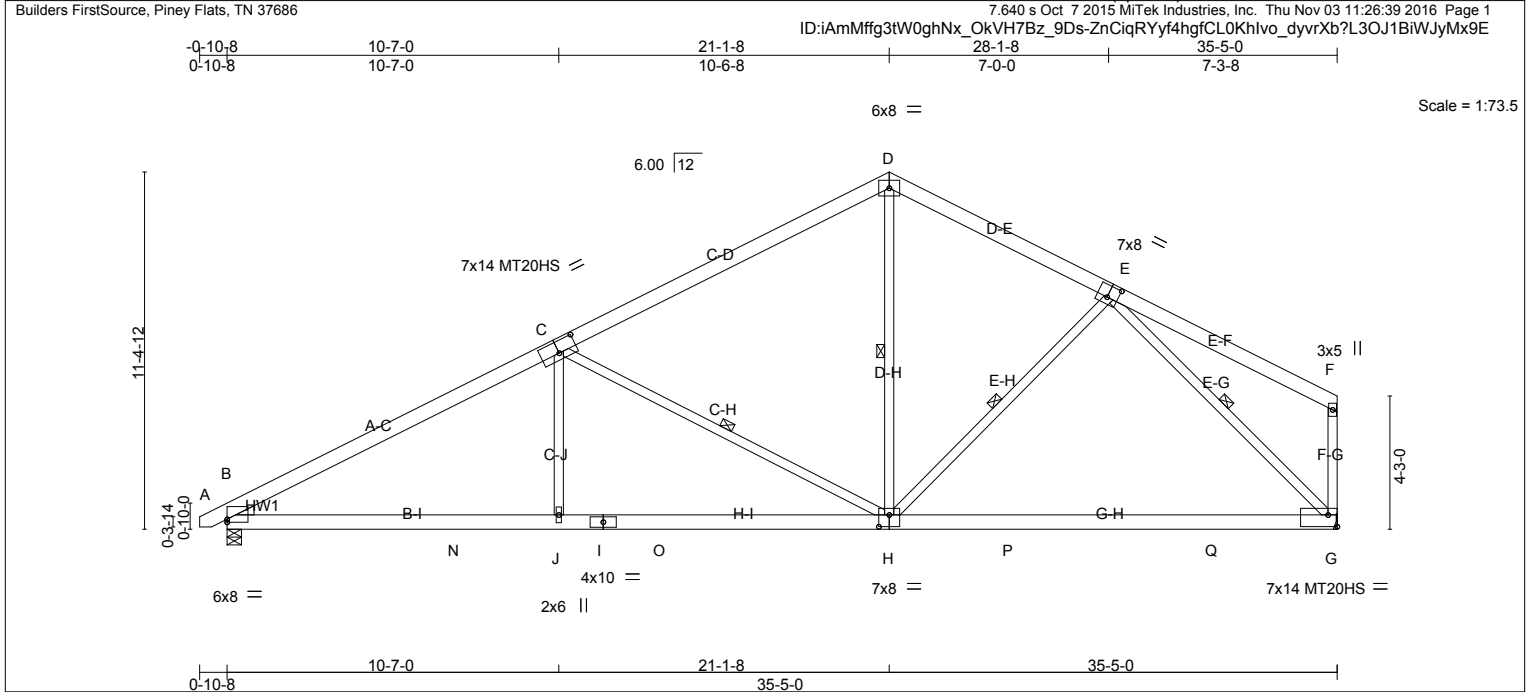


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-7-0,0-4-8], [E:0-4-0,0-4-8], [G:Edge,0-4-8], [H:0-4-0,0-4-8]

<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 0.86	Vert(LL)	-0.44	G-H	>959	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(TL)	-0.89	G-H	>477	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(TL)	0.07	G	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.15	J	>999		Weight: 254 lb FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 F-G: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt C-H, D-H, E-H, E-G

**WEDGE**  
 Left: 2x4 SP No.3

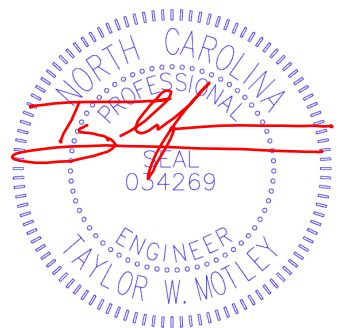
**REACTIONS.** (lb/size) B=1452/0-5-8 (min. 0-1-11), G=1410/Mechanical  
 Max Horz B=532(LC 8)  
 Max Uplift B=-1053(LC 8), G=-916(LC 9)  
 Max Grav B=1452(LC 1), G=1448(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2382/2063, C-D=-1456/1444, D-E=-1402/1502, F-G=-233/341  
 BOT CHORD B-N=-1915/2032, J-N=-1915/2032, I-J=-1913/2037, I-O=-1913/2037, H-O=-1913/2037,  
 H-P=-997/1078, P-Q=-997/1078, G-Q=-997/1078  
 WEBS C-J=0/372, C-H=-973/1233, D-H=-583/749, E-H=-42/362, E-G=-1453/1413

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) 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) except (jt=lb) B=1053, G=916.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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

November 3, 2016



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 Sumter SC 29151

Job 812025_MASTER	Truss A05	Truss Type COMMON	Qty 20	Ply 1	H&H-NC/Jessamine/Master
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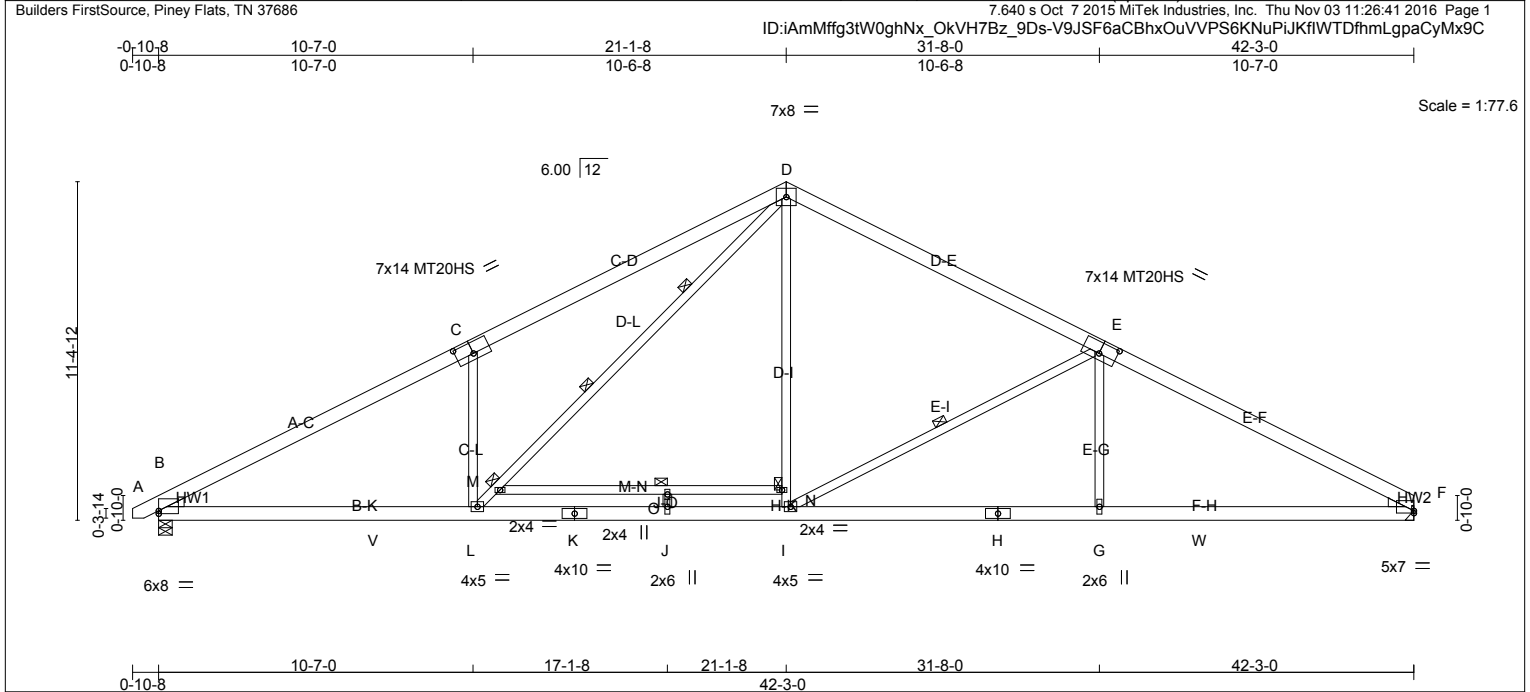


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-7-0,0-4-8], [E:0-7-0,0-4-8], [F:Edge,0-0-15]

<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 0.80	Vert(LL) -0.14 G-I >999 360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(TL) -0.38 G-I >999 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(TL) 0.12 F n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.23 J-L >999 240		Weight: 299 lb FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
D-L: 2x4 SP SS, M-N: 2x4 SP No.2  
WEDGE  
Left: 2x4 SP No.3, Right: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 5-1-1 oc bracing.  
WEBS 1 Row at midpt E-I  
2 Rows at 1/3 pts D-M  
JOINTS 1 Brace at Jt(s): M, N, O

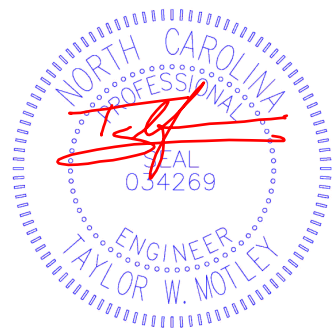
**REACTIONS.** (lb/size) B=1731/0-5-8 (min. 0-2-1), F=1690/Mechanical  
Max Horz B=321(LC 8)  
Max Uplift B=-1228(LC 8), F=-1152(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-2924/2618, C-D=-2928/3192, D-E=-2037/2045, E-F=-2929/2622  
BOT CHORD B-V=-2071/2494, L-V=-2071/2494, K-L=-1055/1703, J-K=-1055/1703, I-J=-1055/1703,  
H-I=-2074/2502, G-H=-2074/2502, G-W=-2077/2499, F-W=-2077/2499  
WEBS I-N=-442/743, D-N=-439/752, E-I=-1028/1186, E-G=0/439, L-M=-1458/1182,  
D-M=-1479/1201, C-L=-669/1194

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) 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) except (jt=lb) B=1228, F=1152.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 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

November 3, 2016



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Sumter SC 29151



Job 812025_MASTER	Truss A06	Truss Type COMMON	Qty 6	Ply 1	H&H-NC/Jessamine/Master
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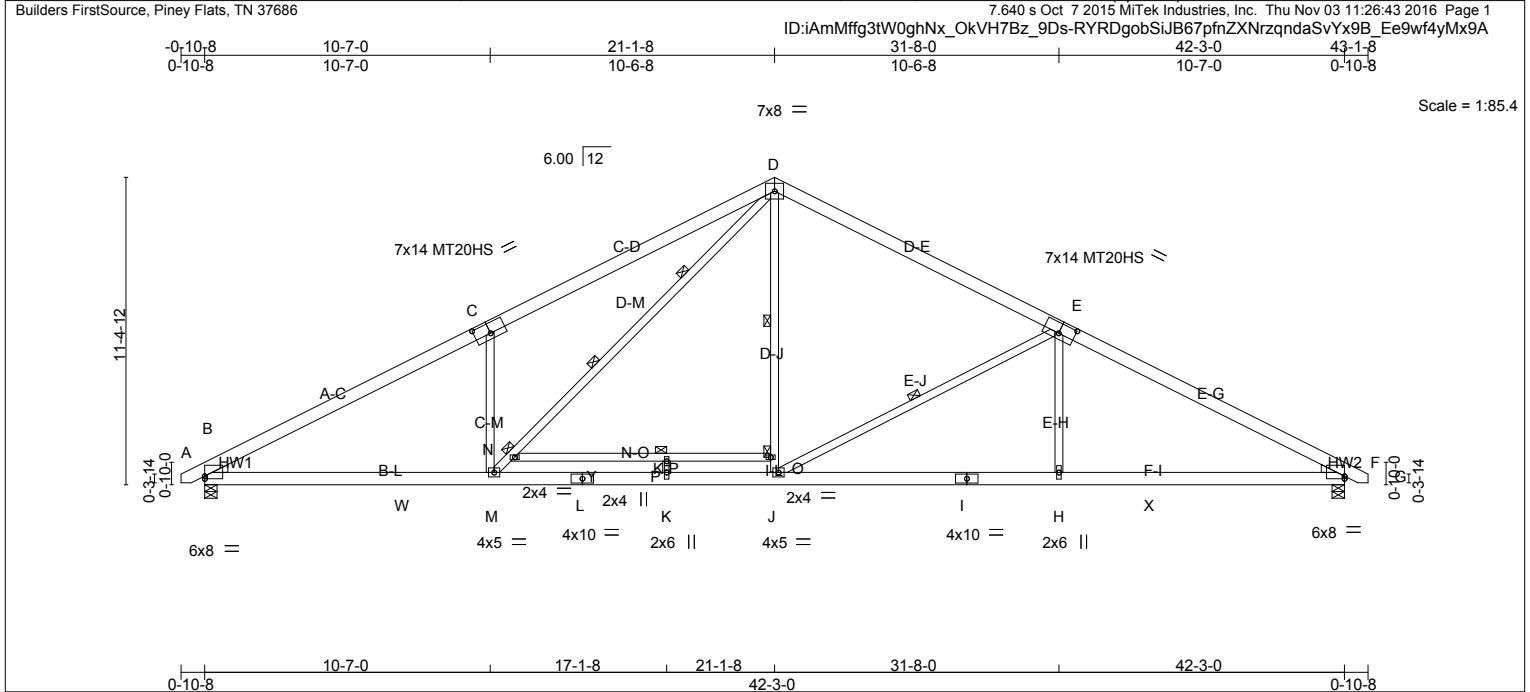


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-7-0,0-4-8], [E:0-7-0,0-4-8], [F:Edge,0-1-3]

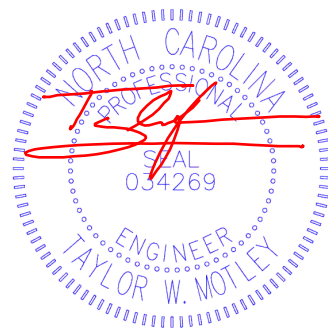
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-1-0	TC 0.94	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.90	Vert(LL) -0.25 K-M >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.83	Vert(TL) -0.50 K-M >999 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) 0.13 F n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.24 K-M >999 240	Weight: 301 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD 2-0-0 oc purlins (3-6-3 max.)
BOT CHORD 2x6 SP No.2	(Switched from sheeted: Spacing > 2-0-0).
WEBS 2x4 SP No.3 *Except*	BOT CHORD Rigid ceiling directly applied or 5-0-4 oc bracing.
D-M: 2x4 SP SS, N-O: 2x4 SP No.2	WEBS 1 Row at midpt D-O, E-J
WEDGE	2 Rows at 1/3 pts D-N
Left: 2x4 SP No.3, Right: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): D, N, O, P

**REACTIONS.** (lb/size) B=1803/0-5-8 (min. 0-2-3), F=1803/0-5-8 (min. 0-2-3)  
 Max Horz B=317(LC 8)  
 Max Uplift B=-1279(LC 8), F=-1279(LC 9)  
 Max Grav B=1828(LC 2), F=1840(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-3171/2725, C-D=-3168/3323, D-E=-2209/2128, E-F=-3190/2729  
 BOT CHORD B-W=-2125/2727, M-W=-2125/2727, L-M=-1069/1883, K-L=-1069/1883, J-K=-1069/1883,  
 I-J=-2128/2750, H-I=-2128/2750, H-X=-2131/2744, F-X=-2131/2744  
 WEBS J-O=-459/889, D-O=-456/973, E-J=-1040/1234, E-H=0/457, M-N=-1518/1244,  
 D-N=-1541/1279, C-M=-697/1244

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1279, F=1279.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



**LOAD CASE(S)** Standard

November 3, 2016

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A06	COMMON	6	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:43 2016 Page 2  
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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-D=-62, D-G=-62, Q-T=-21



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PO Box 3850  
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Job 812025_MASTER	Truss A07	Truss Type COMMON	Qty 9	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:26:45 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-NwZz5UdjEwRpN7pAhyPJ2Ft\_1GdXP4iHhye0jzyMx98  
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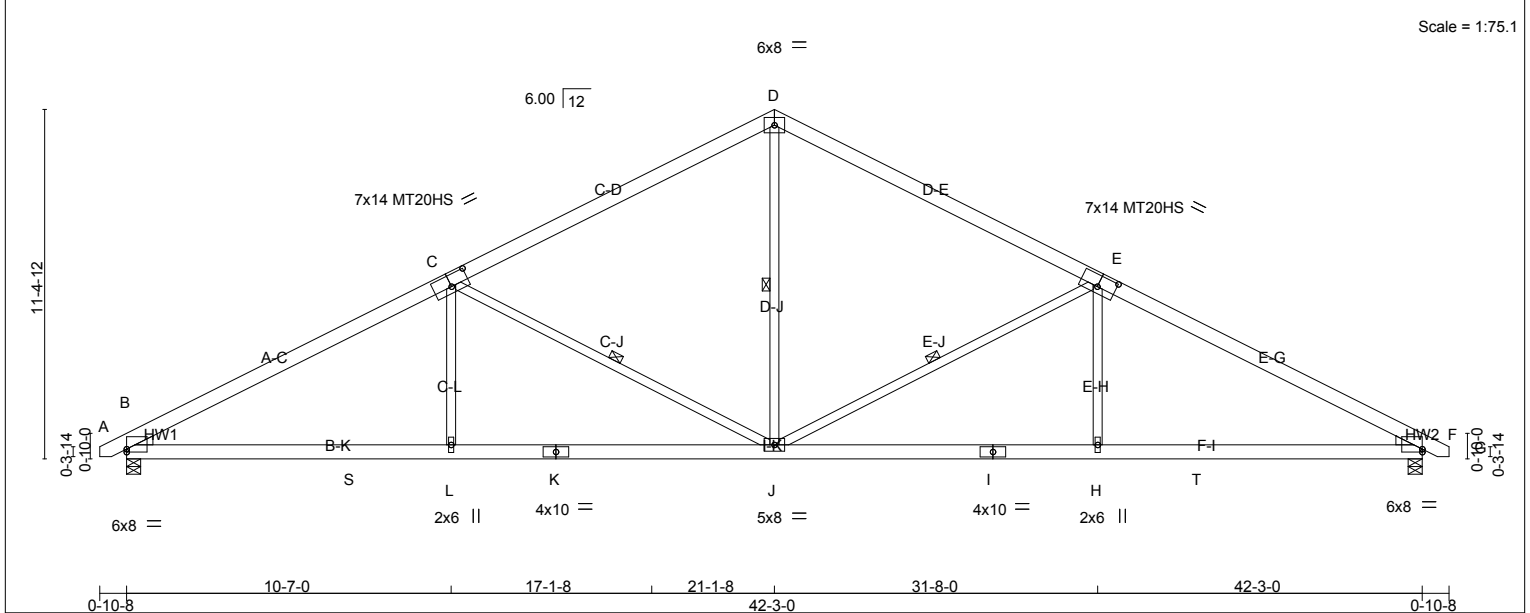


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-7-0,0-4-8], [E:0-7-0,0-4-8], [F:Edge,0-1-3]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-1-0	TC 0.88	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.80	Vert(LL) -0.15 H-J >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.76	Vert(TL) -0.41 H-J >999 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) 0.14 F n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.23 J-L >999 240	Weight: 281 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

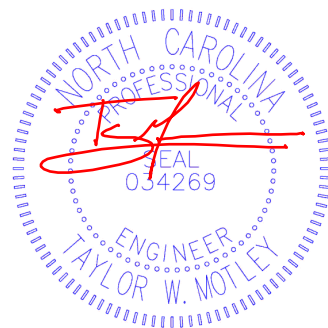
**BRACING-**  
 TOP CHORD 2-0-0 oc purlins (4-2-1 max.)  
 (Switched from sheeted: Spacing > 2-0-0).  
 BOT CHORD Rigid ceiling directly applied or 5-0-4 oc bracing.  
 WEBS 1 Row at midpt D-J, E-J, C-J

**REACTIONS.** (lb/size) B=1803/0-5-8 (min. 0-2-2), F=1803/0-5-8 (min. 0-2-2)  
 Max Horz B=317(LC 8)  
 Max Uplift B=-1279(LC 8), F=-1279(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-3083/2730, C-D=-2121/2126, D-E=-2121/2126, E-F=-3083/2730  
 BOT CHORD B-S=-2129/2649, L-S=-2129/2649, K-L=-2127/2655, J-K=-2127/2655, I-J=-2129/2655,  
 H-I=-2129/2655, H-T=-2131/2649, F-T=-2131/2649  
 WEBS D-J=-1028/1222, E-J=-1059/1237, E-H=0/448, C-L=0/448, C-J=-1059/1237

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1279, F=1279.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A08	Truss Type ROOF SPECIAL	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
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 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:47 2016 Page 1

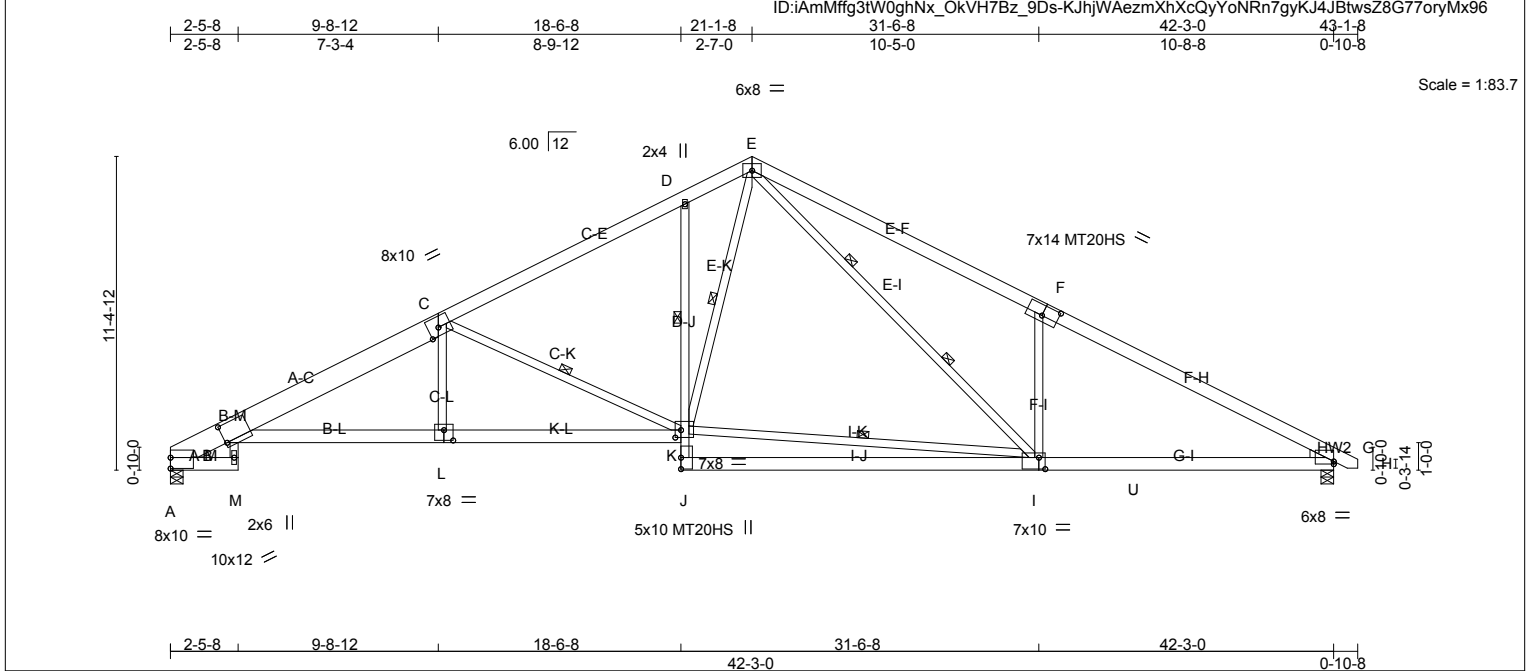


Plate Offsets (X,Y)-- [A:Edge,0-4-12], [B:0-0-10,0-7-14], [C:0-4-8,0-3-8], [F:0-7-0,0-4-8], [G:0-0-0,0-1-3], [I:0-2-12,0-5-0], [K:0-2-8,0-3-4], [L:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.89	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.79	Vert(TL) -0.73 I-J >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Horz(TL) 0.31 G n/a n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL) 0.42 B-L >999 240		
	Code IRC2009/TPI2007			Weight: 329 lb	FT = 20%

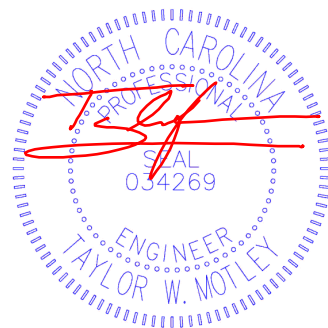
**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 A-C: 2x10 SP DSS  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B-L: 2x6 SP No.1, D-J: 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 I-K,E-I: 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied. Except:  
 1 Row at midpt D-K  
 WEBS 1 Row at midpt C-K, I-K, E-K  
 2 Rows at 1/3 pts E-I

**REACTIONS.** (lb/size) A=1685/0-5-8 (min. 0-2-0), G=1722/0-5-8 (min. 0-2-1)  
 Max Horz A=-317(LC 9)  
 Max Uplift A=-1141(LC 8), G=-1223(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-P=-833/840, B-C=-3409/3044, C-D=-2391/2317, D-E=-2209/2496, E-F=-2897/3126,  
 F-G=-2914/2584  
 BOT CHORD B-L=-2555/3123, K-L=-2547/3128, D-K=-281/448, I-J=-128/393, I-U=-2012/2482,  
 G-U=-2012/2482  
 WEBS C-L=0/336, C-K=-1232/1360, I-K=-946/1379, E-K=-959/1083, E-I=-1298/1095,  
 F-I=-636/1176, B-M=-216/264

- NOTES-** (10)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) A=1141, G=1223.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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.



November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A09	HIP	3	1	

Builders FirstSource, Piney Flats, TN 37886  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:50 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-kuMs8Bhr3S36Tuh7TV?UIJar7HLL4N30rELnOAYMx93

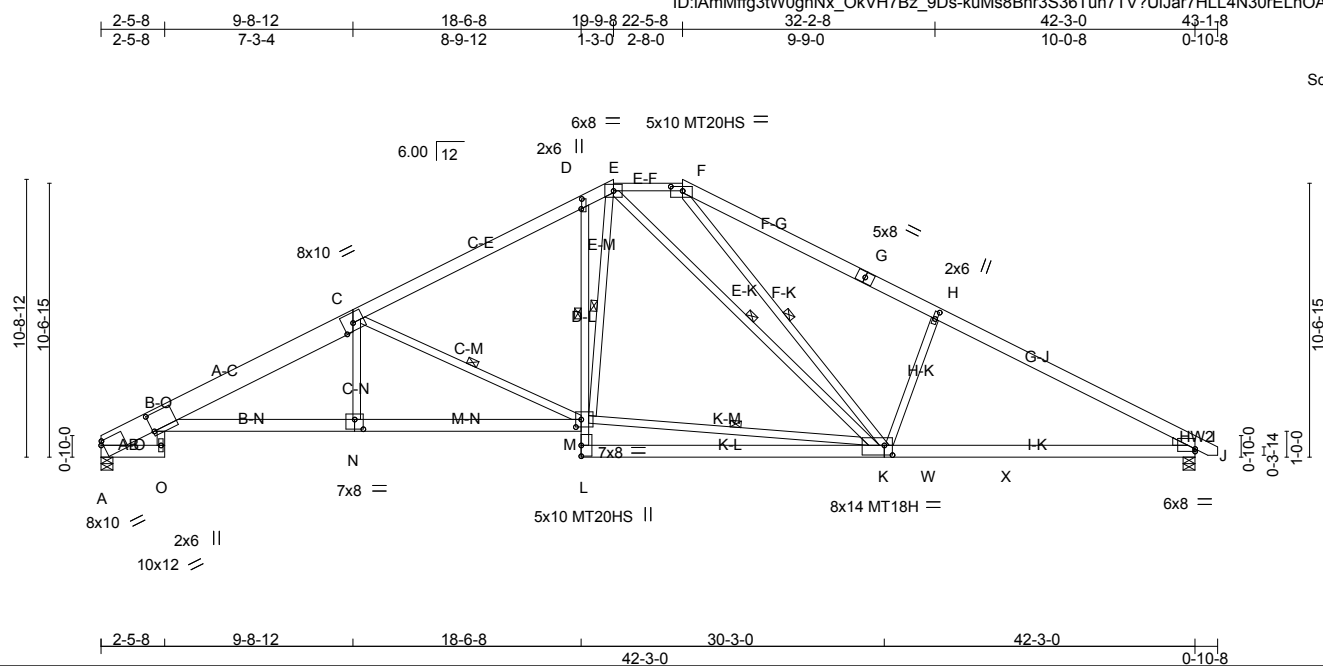


Plate Offsets (X,Y)-- [A:0-1-0,0-1-12], [B:0-0-10,0-7-14], [C:0-4-12,0-3-8], [D:0-4-10,0-0-4], [F:0-5-8,0-2-0], [H:0-3-8,0-1-0], [I:Edge,0-1-3], [K:0-3-12,0-4-8], [M:0-2-8,0-3-8], [N:0-4-0,0-4-8]

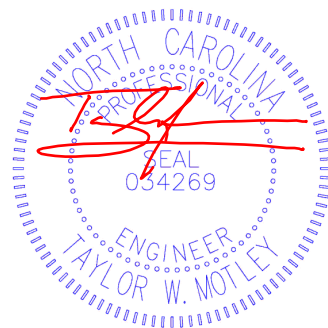
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) -0.20 B-N >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(TL) -0.55 K-L >917 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.62	Horz(TL) 0.32 I n/a n/a	MT18H	244/190
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.42 B-N >999 240	Weight: 340 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* E-F: 2x4 SP No.2, A-C: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-10-0 max.): E-F.
BOT CHORD 2x6 SP No.2 *Except* B-N: 2x6 SP No.1, D-L: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt D-M
WEBS 2x4 SP No.3 *Except* E-K,F-K: 2x4 SP No.2	WEBS 1 Row at midpt C-M, K-M, E-M, E-K, F-K
WEDGE Right: 2x4 SP No.3	

**REACTIONS.** (lb/size) A=1685/0-5-8 (min. 0-2-0), I=1722/0-5-8 (min. 0-2-1)  
 Max Horz A=-298(LC 9)  
 Max Uplift A=-1128(LC 8), I=-1209(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-R=-833/835, B-C=-3411/3016, C-D=-2390/2295, D-E=-2257/2573, E-F=-1751/2176,  
 F-G=-2554/2764, G-H=-2699/2718, H-I=-2906/2613  
 BOT CHORD B-N=-2528/3124, M-N=-2525/3124, D-M=-280/667, K-L=-176/360, K-W=-2049/2481,  
 W-X=-2049/2481, I-X=-2049/2481  
 WEBS C-N=0/339, C-M=-1228/1355, K-M=-962/1509, E-M=-1216/1108, E-K=-443/208,  
 F-K=-799/901, B-O=-214/264, H-K=-554/1016

- NOTES-** (12)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) A=1128, I=1209.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A09	HIP	3	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:50 2016 Page 2  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-kuMs8Bhr3S36Tuh7TV?UIJar7HLL4N30rELnOAYMx93

**LOAD CASE(S)** Standard



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

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Job 812025_MASTER	Truss A10	Truss Type HIP	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:26:52 2016 Page 1  
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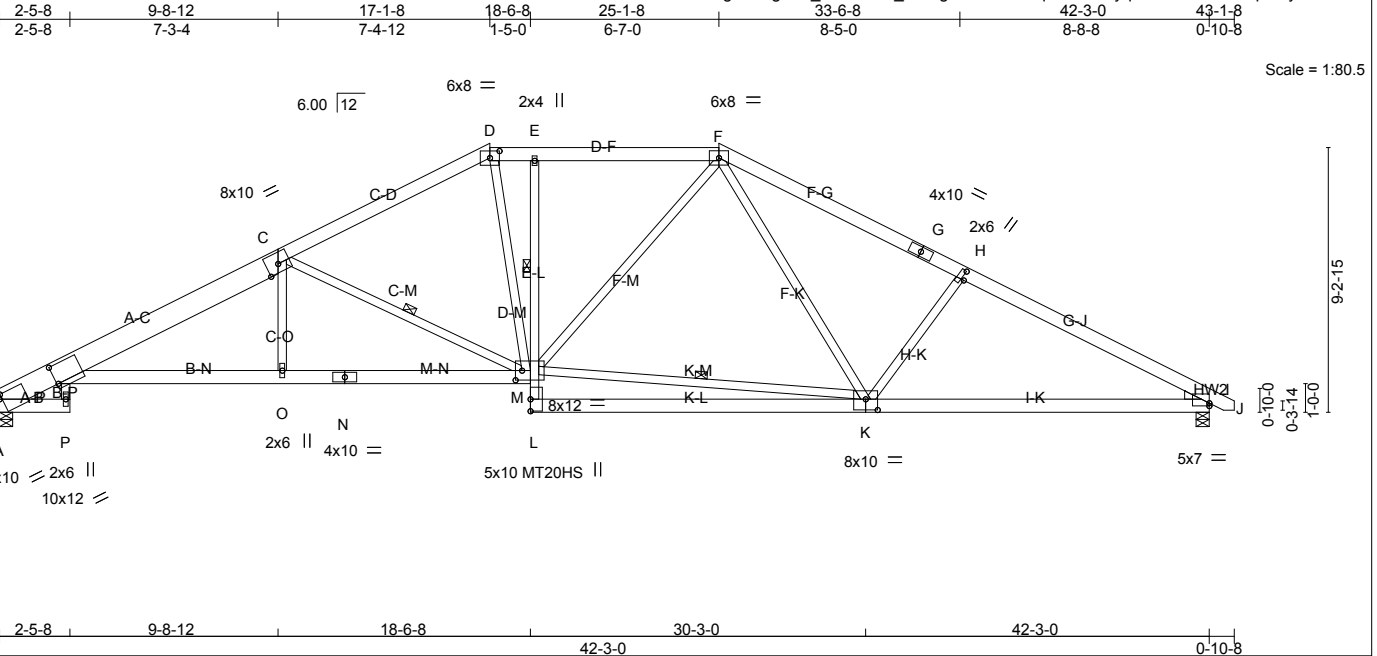
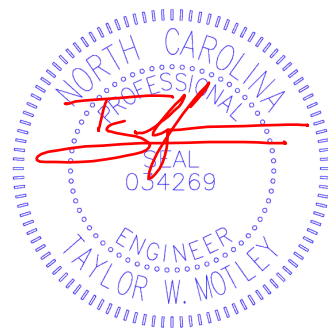


Plate Offsets (X,Y)-- [A:0-1-0,0-1-12], [B:0-0-10,0-7-14], [C:0-5-0,0-3-8], [D:0-4-0,0-2-15], [H:0-3-11,0-1-4], [I:0-0-0,0-1-3], [K:0-5-0,0-4-8], [M:0-2-12,0-4-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0 Lumber DOL 1.15	TC 0.65	in (loc) l/defl L/d	MT20 244/190	MT20HS 187/143
TCDL 10.0	Rep Stress Incr YES	BC 0.77	Vert(TL) -0.20 B-O >999 360	Weight: 327 lb	FT = 20%
BCLL 0.0 *	Code IRC2009/TPI2007	WB 0.89	Horz(TL) 0.33 I n/a n/a		
BCDL 10.0		(Matrix-S)	Wind(LL) 0.40 B-O >999 240		

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* A-C: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x6 SP No.2 *Except* B-N: 2x6 SP No.1, E-L: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SP No.3	1 Row at midpt E-M
WEDGE Right: 2x4 SP No.3	1 Row at midpt C-M, K-M
<b>REACTIONS.</b> (lb/size) A=1685/0-5-8 (min. 0-2-0), I=1722/0-5-8 (min. 0-2-1) Max Horz A=-262(LC 9) Max Uplift A=-1096(LC 8), I=-1178(LC 9)	
<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD B-S=-833/825, B-C=-3383/2928, C-D=-2423/2282, D-E=-2229/2299, E-F=-2223/2302, F-G=-2520/2526, G-H=-2637/2488, H-I=-2933/2625	
BOT CHORD B-O=-2433/3089, N-O=-2428/3093, M-N=-2428/3093, E-M=-275/372, K-L=-189/368, I-K=-2084/2514	
WEBS C-O=0/345, C-M=-1124/1198, D-M=-604/785, K-M=-1189/1664, F-M=-277/471, F-K=-447/564, H-K=-434/823, B-P=-211/264	

- NOTES-** (12)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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) A=1096, I=1178.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A11	Truss Type GABLE	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37866  
 7.640 s Oct 7 2015 Mitek Industries, Inc. Thu Nov 03 11:41:21 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-kSU7x0DCx4oXTinX?w7ky\_9kZObhfgKD7FrNTByMwxS



Scale = 1:78.1

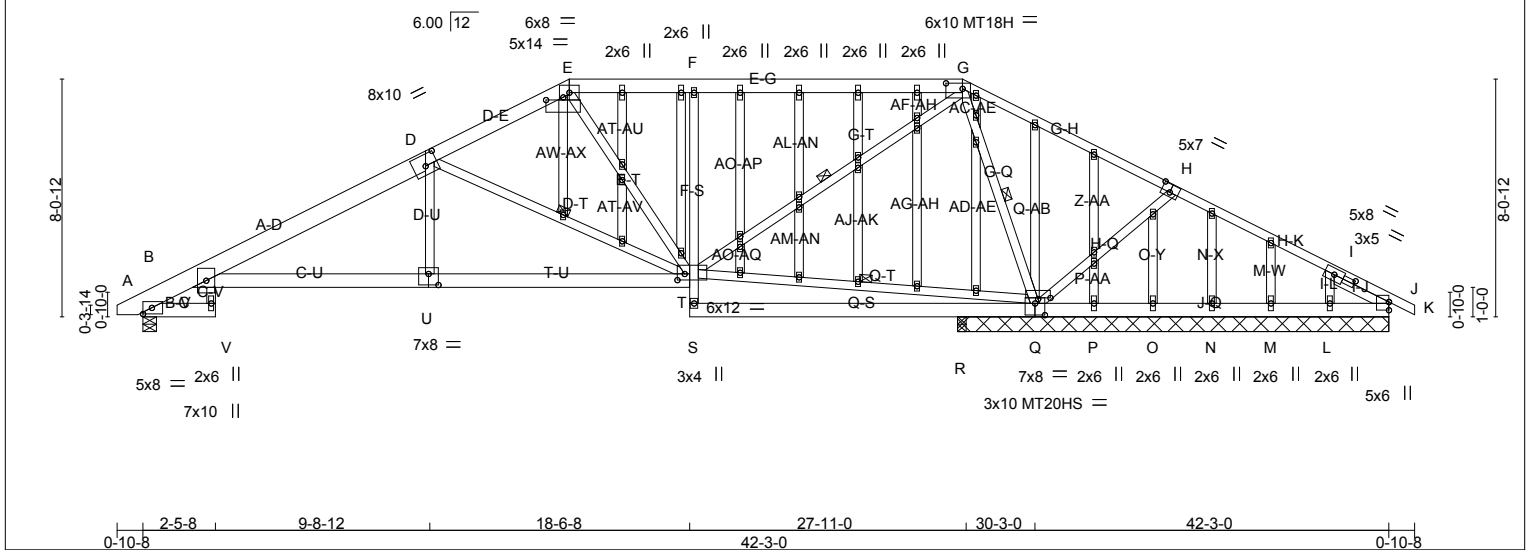


Plate Offsets (X,Y)-- [D:0-5-0,0-4-8], [G:0-6-12,0-2-4], [H:0-3-8,0-3-4], [J:1-3-14,0-1-8], [Q:0-5-0,0-0-7], [R:0-4-0,0-4-12], [T:0-2-15,0-2-8], [U:0-4-0,0-4-8], [AW:0-7-0,0-1-1]

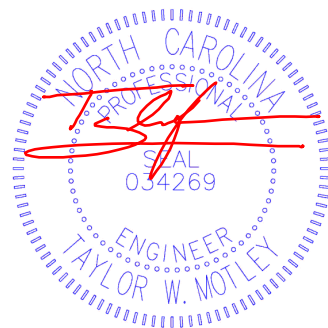
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.65	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.79	Vert(LL) -0.17 C-U >999 360	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.71	Vert(TL) -0.43 C-U >784 240	MT18H	244/190
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Horz(TL) 0.21 R n/a n/a	Weight: 404 lb	FT = 20%
			Wind(LL) 0.37 C-U >912 240		

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* G-H,H-K: 2x4 SP No.2, A-D: 2x8 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): E-G.
BOT CHORD 2x6 SP No.2 *Except* F-S: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt D-T, Q-T, G-T, G-Q
OTHERS 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 2-1-2	

**REACTIONS.** All bearings 14-7-8 except (jt=length) B=0-5-8, R=0-3-8.  
 (lb) - Max Horz B=-221(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) M, N except B=-726(LC 8),  
 Q=-1476(LC 8), J=-549(LC 13), L=-420(LC 9), J=-368(LC 1)  
 Max Grav All reactions 250 lb or less at joint(s) M, N, O, P except B=1031(LC 13),  
 Q=1946(LC 1), J=365(LC 8), L=475(LC 1), R=445(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-448/496, C-D=-1747/1487, D-E=-804/893, E-F=-758/987, F-G=-767/1005,  
 G-H=-687/1151, H-I=-481/928, I-J=-1123/867  
 BOT CHORD C-U=-1081/1558, T-U=-1080/1563, F-T=-517/651, P-Q=-799/613, O-P=-799/613,  
 N-O=-799/613, M-N=-799/613, L-M=-799/613, J-L=-799/613  
 WEBS D-U=0/391, D-T=-1027/1040, E-T=-258/264, Q-T=-338/570, G-T=-1145/1426,  
 G-Q=-1853/1673, H-Q=-421/756

- NOTES-** (15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) M, N except (jt=lb) B=726, Q=1476, J=549, L=420, J=549.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and conforms to standard ANSI/TPI 1.



November 3, 2016

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 STRUCTURAL ENGINEERS  
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 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A11	GABLE	3	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:41:21 2016 Page 2  
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**NOTES-** (15)

- 13) 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.
- 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.

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A12	Truss Type HALF HIP GIRDER	Qty 1	Ply 2	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-RpzeEco7iXKhgQS23cAq9Q?XFJpyQpGU8omJkbyMx8v  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:00 2016 Page 1

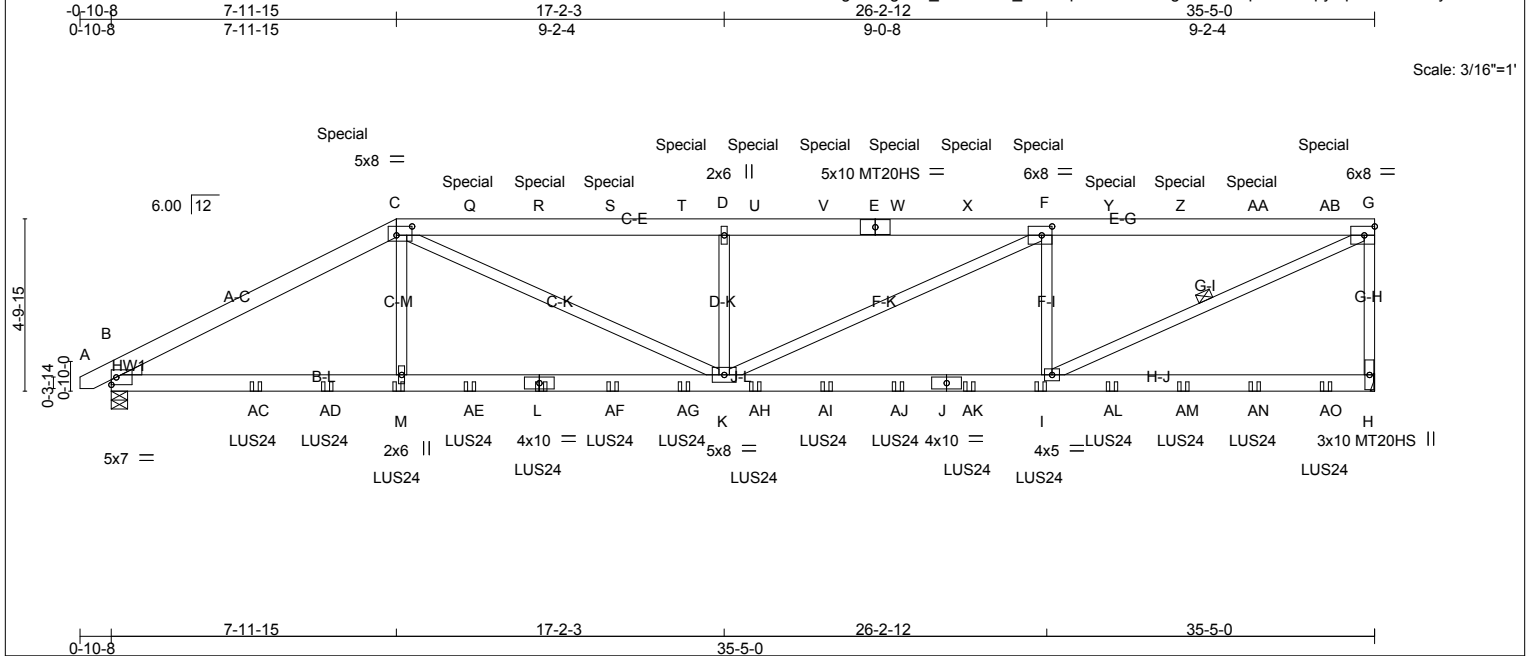


Plate Offsets (X,Y)-- [C:0-5-4,0-3-0], [F:0-3-8,0-3-0]

<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 0.94	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.11 I-K >999	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Vert(TL) -0.28 I-K >999		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.08 H n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.42 I-K >999	Weight: 474 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 C-E: 2x6 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2 \*Except\*  
 C-K,F-K,G-I: 2x4 SP No.1

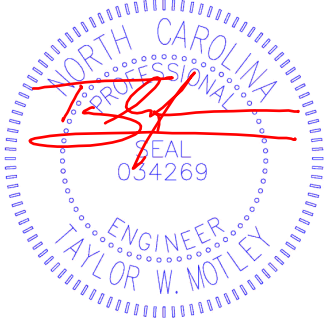
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): C-G.  
 BOT CHORD Rigid ceiling directly applied or 6-8-12 oc bracing.  
 WEBS 1 Row at midpt G-I

**WEDGE**  
 Left: 2x4 SP No.3

**REACTIONS.** (lb/size) H=2105/Mechanical, B=2065/0-5-8 (min. 0-1-8)  
 Max Horz B=391(LC 6)  
 Max Uplift H=3398(LC 7), B=2829(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-3544/5161, C-Q=-4431/7104, Q-R=-4431/7104, R-S=-4431/7104, S-T=-4431/7104, D-T=-4431/7104, D-U=-4431/7104, U-V=-4431/7104, E-V=-4431/7104, E-W=-4431/7104, W-X=-4431/7104, F-X=-4431/7104, F-Y=-3441/5555, Y-Z=-3441/5555, Z-AA=-3441/5555, AA-AB=-3441/5555, G-AB=-3441/5555, G-H=-1969/3318  
 BOT CHORD B-AC=-4689/3057, AC-AD=-4689/3057, M-AD=-4689/3057, M-AE=-4695/3068, L-AE=-4695/3068, L-AF=-4695/3068, AF-AG=-4695/3068, K-AG=-4695/3068, K-AH=-5555/3441, AH-AI=-5555/3441, AI-AJ=-5555/3441, J-AJ=-5555/3441, J-AK=-5555/3441, I-AK=-5555/3441  
 WEBS C-M=-209/512, C-K=-2792/1615, D-K=-839/1755, F-K=-1721/1100, F-I=-1315/2501, G-I=-6068/3761

- 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; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - Refer to girder(s) for truss to truss connections.



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A12	HALF HIP GIRDER	1	2	Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

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 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-RpzeEco7iXKhgQS23cAq9Q?XFJpyQpGU8omJkbyMx8v

**NOTES-**

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=3398, B=2829.
- 12) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-0-11 from the left end to 34-0-11 to connect truss(es) J203 (1 ply 2x4 SP), J202 (1 ply 2x4 SP), J201 (1 ply 2x4 SP) to front face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.
- 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 116 lb down and 254 lb up at 7-11-15, 129 lb down and 260 lb up at 10-0-11, 129 lb down and 260 lb up at 12-0-11, 129 lb down and 260 lb up at 14-0-11, 129 lb down and 260 lb up at 16-0-11, 129 lb down and 260 lb up at 18-0-11, 129 lb down and 260 lb up at 20-0-11, 129 lb down and 260 lb up at 22-0-11, 129 lb down and 260 lb up at 24-0-11, 129 lb down and 260 lb up at 26-0-11, 129 lb down and 260 lb up at 28-0-11, 129 lb down and 260 lb up at 30-0-11, and 129 lb down and 260 lb up at 32-0-11, and 129 lb down and 260 lb up at 34-0-11 on top chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-C=-60, C-G=-60, H-N=-20

Concentrated Loads (lb)

Vert: C=-53(F) L=-27(F) M=-27(F) F=-53(F) I=-27(F) Q=-53(F) R=-53(F) S=-53(F) T=-53(F) U=-53(F) V=-53(F) W=-53(F) X=-53(F) Y=-53(F) Z=-53(F) AA=-53(F) AB=-53(F) AC=-112(F) AD=-75(F) AE=-27(F) AF=-27(F) AG=-27(F) AH=-27(F) AI=-27(F) AJ=-27(F) AK=-27(F) AL=-27(F) AM=-27(F) AN=-27(F) AO=-27(F)

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

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PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A13	HALF HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:01 2016 Page 1  
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 Job Reference (optional)

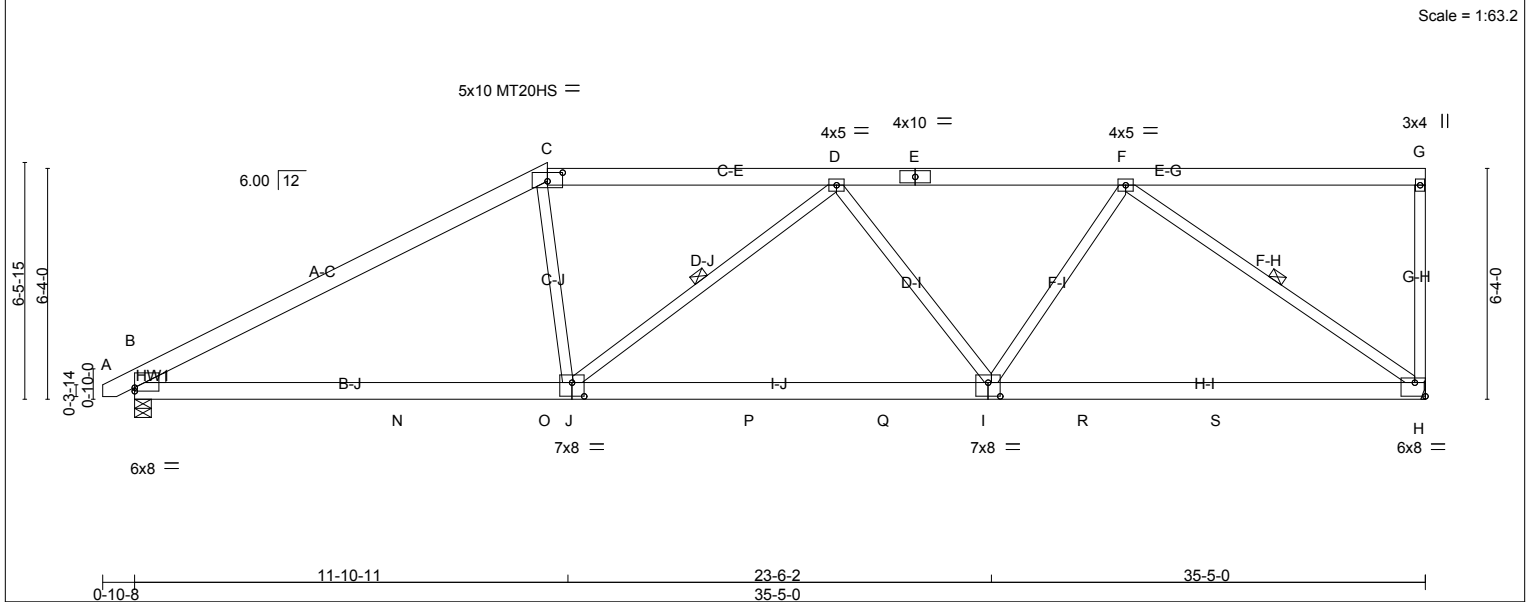


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-5-0,0-2-14], [H:Edge,0-4-8], [I:0-4-0,0-4-8], [J:0-4-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.82	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(TL) -0.42 H-I >999 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.98	Horz(TL) 0.09 H n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.23 J-M >999 240		
				Weight: 236 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-11-10 max.): C-G.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt D-J, F-H

**REACTIONS.** (lb/size) H=1410/Mechanical, B=1452/0-5-8 (min. 0-1-11)  
 Max Horz B=523(LC 8)  
 Max Uplift H=-1090(LC 9), B=-928(LC 8)  
 Max Grav H=1411(LC 2), B=1452(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2309/1792, C-D=-2016/1833, D-E=-1975/1583, E-F=-1975/1583, G-H=-210/259  
 BOT CHORD B-N=-1832/1958, N-O=-1832/1958, J-O=-1832/1958, J-P=-1922/2164, P-Q=-1922/2164,  
 I-Q=-1922/2164, I-R=-1387/1548, R-S=-1387/1548, H-S=-1387/1548  
 WEBS C-J=-161/565, D-J=-392/494, D-I=-396/587, F-I=-363/789, F-H=-1872/1699

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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, with BCDL = 10.0psf.
  - 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) except (jt=lb) H=1090, B=928.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) 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.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

November 3, 2016





Job 812025_MASTER	Truss A14	Truss Type HALF HIP	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:02 2016 Page 1  
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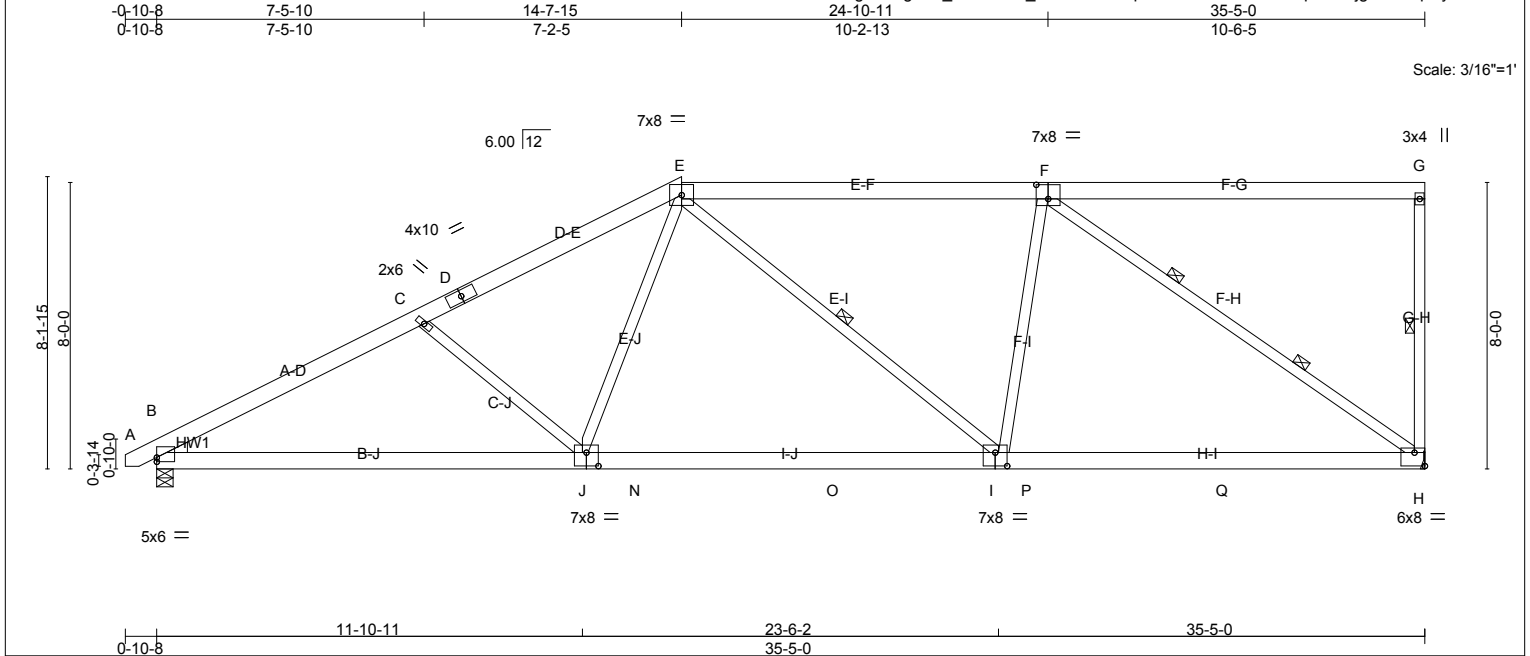


Plate Offsets (X,Y)-- [B:Edge,0-1-7], [F:0-4-0,0-4-12], [H:Edge,0-4-8], [I:0-4-0,0-4-8], [J:0-4-0,0-4-8]

<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 0.75	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(TL) -0.41 I-J >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Horz(TL) 0.08 H n/a n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL) 0.17 I-J >999 240	Weight: 250 lb	FT = 20%
	Code IRC2009/TPI2007				

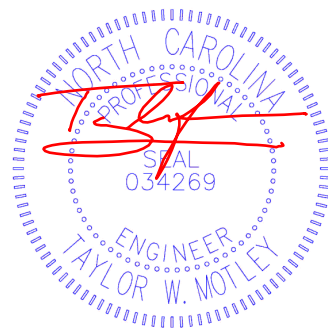
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-1 max.): E-G.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* F-H: 2x4 SP No.1	WEBS 1 Row at midpt G-H, E-I 2 Rows at 1/3 pts F-H
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) H=1410/Mechanical, B=1452/0-5-8 (min. 0-1-11)  
 Max Horz B=668(LC 8)  
 Max Uplift H=-1077(LC 9), B=-956(LC 8)  
 Max Grav H=1436(LC 2), B=1452(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2399/1989, C-D=-2097/1711, D-E=-2022/1744, E-F=-1618/1368, G-H=-257/327  
 BOT CHORD B-J=-2263/2051, J-N=-1608/1646, N-O=-1608/1646, I-O=-1608/1646, I-P=-1355/1521,  
 P-Q=-1355/1521, H-Q=-1355/1521  
 WEBS C-J=-356/712, E-J=-333/564, E-I=-117/345, F-I=-72/539, F-H=-1845/1653

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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) except (jt=lb) H=1077, B=956.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A15	Truss Type HIP	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMfg3tW0ghNx\_OkVH7Bz\_9Ds-KaC94\_rdmq792mpIRFmJG9E1w8?Mhs43QkXtMyMx8r  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:04 2016 Page 1

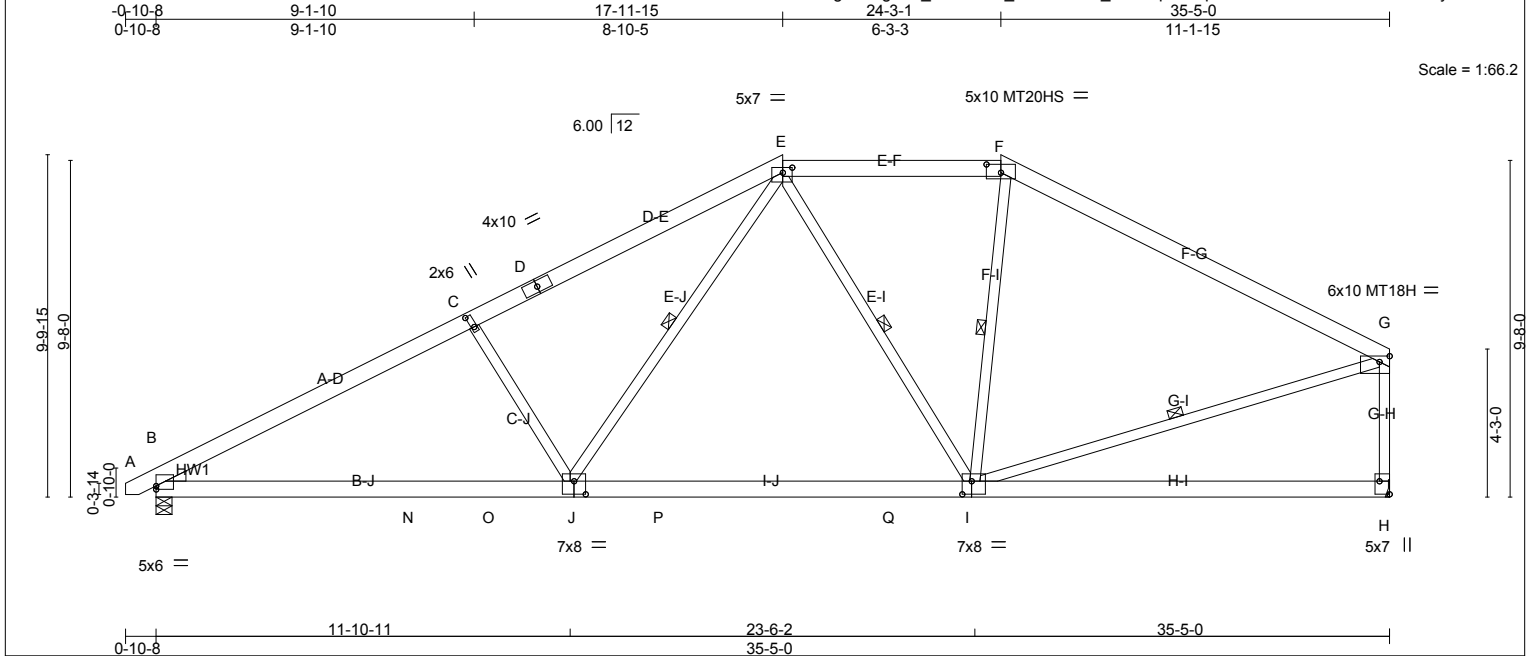


Plate Offsets (X,Y)-- [B:Edge.0-1-3], [C:0-4-4,0-1-0], [E:0-3-4,0-1-12], [F:0-5-0,0-2-14], [G:Edge.0-2-0], [H:Edge.0-3-8], [I:0-3-4,0-4-8], [J:0-4-0,0-4-8]

<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 0.89	Vert(LL)	-0.22	I-J	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(TL)	-0.38	I-J	>999	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(TL)	0.05	H	n/a	MT18H	244/190
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.15	I-J	>999		Weight: 253 lb FT = 20%

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

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

**REACTIONS.** (lb/size) B=1452/0-5-8 (min. 0-1-11), H=1410/Mechanical  
 Max Horz B=488(LC 8)  
 Max Uplift B=-1029(LC 8), H=-875(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2367/2098, C-D=-2135/2024, D-E=-2026/2064, E-F=-1259/1468, F-G=-1529/1384, G-H=-1300/1313  
 BOT CHORD B-N=-1975/2024, N-O=-1975/2024, J-O=-1975/2024, J-P=-1091/1356, P-Q=-1091/1356, I-Q=-1091/1356  
 WEBS C-J=-483/904, E-J=-754/857, E-I=-329/364, F-I=-81/284, G-I=-883/1217

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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, with BCDL = 10.0psf.
  - 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) except (jt=lb) B=1029, H=875.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) 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.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



**LOAD CASE(S)** Standard  
 November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A16	Truss Type HIP	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:05 2016 Page 1  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-onmXHKsGX3y\_mBL0s9m?sTiSgkTr5B1DH4U4PpyMx8q  
 24-10-9 33-5-2 42-3-0 43-1-8  
 0-10-8 8-9-14 17-4-7 7-6-3 8-6-9 8-9-14 0-10-8

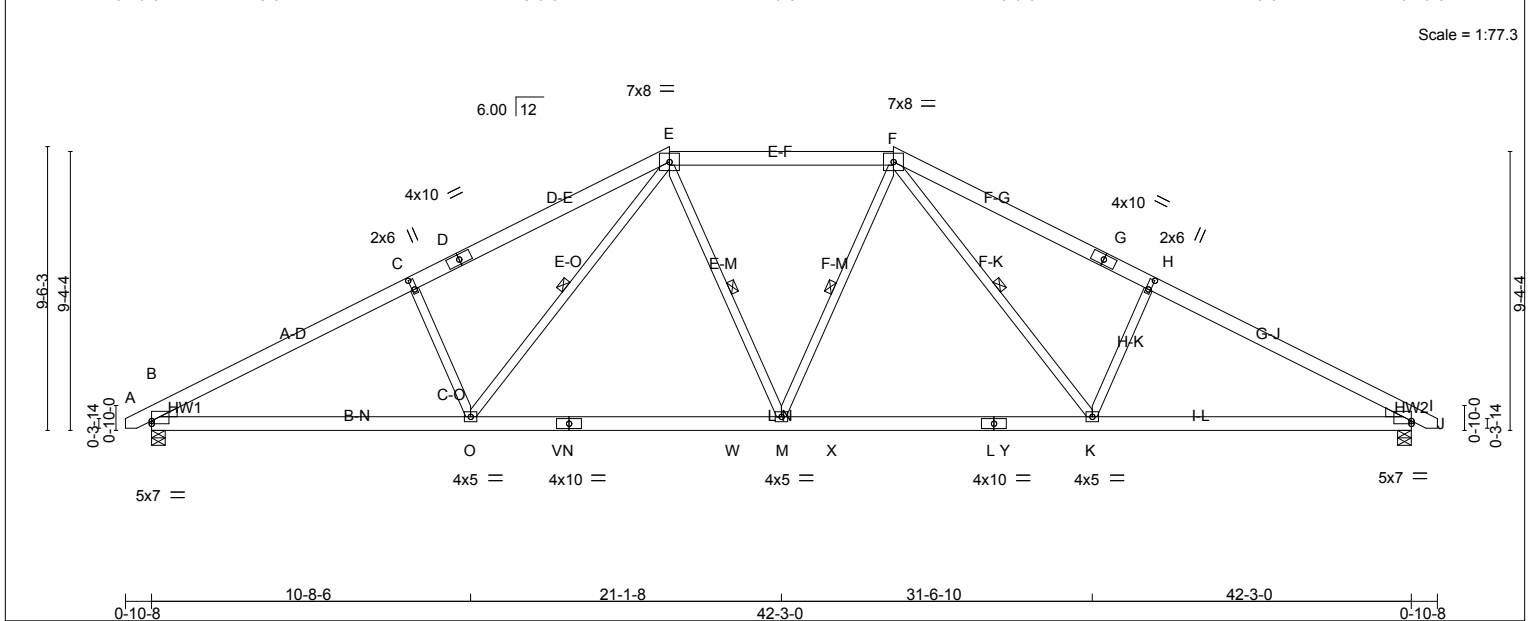


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-4-4,0-1-0], [H:0-4-4,0-1-0], [I:0-0-0,0-1-3]

<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 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.76	Vert(LL) -0.21 K-M >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.48	Vert(TL) -0.45 K-M >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.12 I n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.23 M-O >999 240	Weight: 288 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-11-0 max.): E-F.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt E-O, E-M, F-M, F-K

**REACTIONS.** (lb/size) B=1731/0-5-8 (min. 0-2-1), I=1731/0-5-8 (min. 0-2-1)  
 Max Horz B=-253(LC 9)  
 Max Uplift B=-1186(LC 8), I=-1186(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2954/2626, C-D=-2781/2686, D-E=-2684/2725, E-F=-2104/2138, F-G=-2684/2725, G-H=-2781/2686, H-I=-2954/2626  
 BOT CHORD B-O=-2080/2537, O-V=-1305/2007, N-V=-1305/2007, N-W=-1305/2007, M-W=-1305/2007, M-X=-1306/2007, L-X=-1306/2007, L-Y=-1306/2007, K-Y=-1306/2007, I-K=-2082/2537  
 WEBS C-O=-427/827, E-O=-766/722, E-M=-84/376, F-M=-84/376, F-K=-765/722, H-K=-427/827

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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=1186, I=1186.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

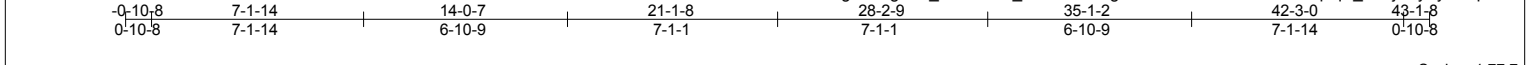
**LOAD CASE(S)** Standard



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A17	HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-GzKvVgtulN4rOLvCPsHEOhEeYkq8qY\_MWjDdyFyMx8p  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:06 2016 Page 1



Scale = 1:77.7

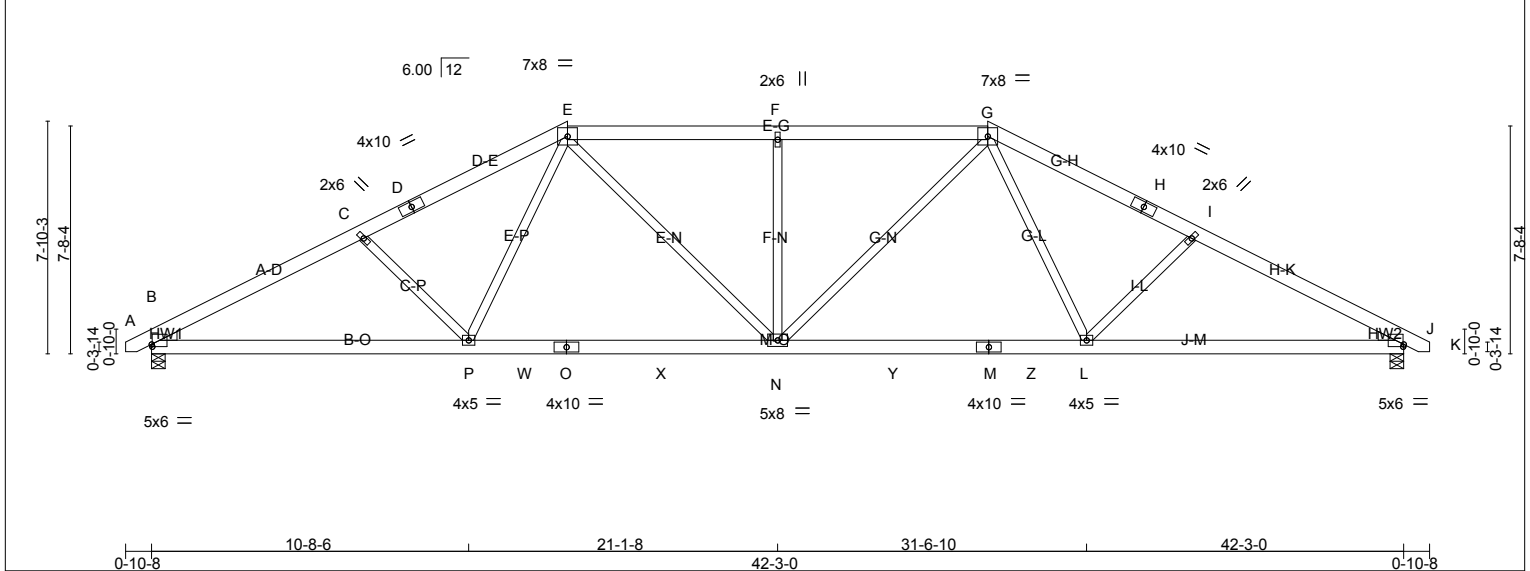


Plate Offsets (X,Y)-- [B:0-0-4,0-0-15], [J:0-0-4,0-0-15]

<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 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.20 N-P >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.88	Vert(TL) -0.45 N-P >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.13 J n/a n/a	Weight: 289 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.24 N-P >999 240		

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

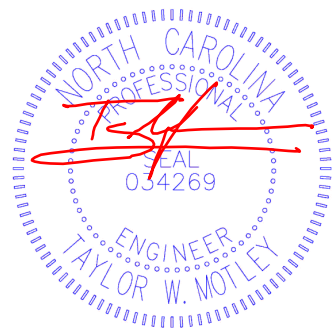
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (4-5-4 max.): E-G.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=1731/0-5-8 (min. 0-2-1), J=1731/0-5-8 (min. 0-2-1)  
 Max Horz B=208(LC 8)  
 Max Uplift B=-1139(LC 8), J=-1139(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2983/2640, C-D=-2716/2461, D-E=-2626/2487, E-F=-2530/2476, F-G=-2530/2476,  
 G-H=-2626/2487, H-I=-2716/2461, I-J=-2983/2640  
 BOT CHORD B-P=-2121/2563, P-W=-1552/2187, O-W=-1552/2187, O-X=-1552/2187, N-X=-1552/2187,  
 N-Y=-1553/2187, M-Y=-1553/2187, M-Z=-1553/2187, L-Z=-1553/2187, J-L=-2124/2563  
 WEBS C-P=-300/627, E-P=-324/501, E-N=-457/630, F-N=-483/600, G-N=-457/630, G-L=-324/501,  
 I-L=-300/627

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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 bracing (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1139, J=1139.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A18	HIP	1	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:10 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-9kaQL1wOLcaGtzDzeiMAZXPEiLBPmO6yRLBr50yMx8l

**LOAD CASE(S)** Standard



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



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Job 812025_MASTER	Truss A19	Truss Type ROOF SPECIAL	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:11 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-dx7oYNx06vj7U6oACQtP5kyT7IZnVnU5g?xOdSyMx8k

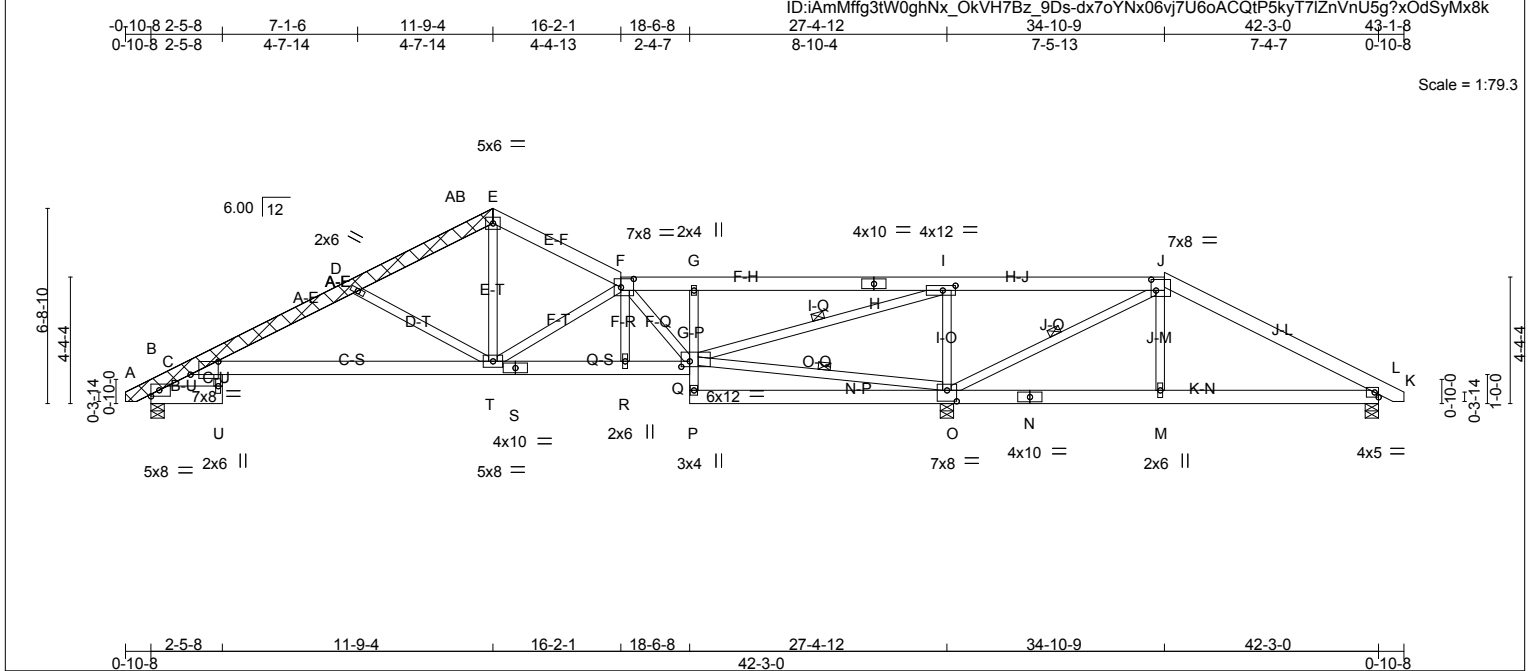


Plate Offsets (X,Y)-- [C:0-11-8,0-5-6], [F:0-5-4,0-3-8], [I:0-5-4,0-2-0], [J:0-2-0,0-4-8], [O:0-4-0,0-4-8], [Q:0-3-8,0-2-4]

<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 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.53	Vert(LL) -0.13 C-T >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.99	Vert(TL) -0.39 C-T >842 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.15 O n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.26 C-T >999 240	Weight: 365 lb	FT = 20%

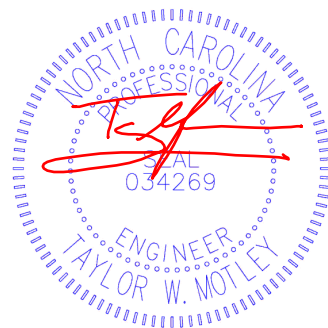
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 B-U: 2x8 SP DSS, G-P: 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 C-U: 2x4 SP No.2  
 OTHERS 2x6 SP No.2  
 LBR SCAB A-E 2x6 SP No.2 both sides

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (6-0-0 max.): F-J.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt J-O, O-Q, I-Q

**REACTIONS.** (lb/size) B=943/0-5-8 (min. 0-1-8), O=2299/0-5-8 (min. 0-2-11), K=232/0-5-8 (min. 0-1-8)  
 Max Horz B=181(LC 8)  
 Max Uplift B=-671(LC 8), O=-1591(LC 9), K=-311(LC 9)  
 Max Grav B=943(LC 1), O=2299(LC 1), K=312(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-359/425, C-D=-1735/1595, D-AB=-1206/1122, E-AB=-1087/1146, E-F=-1169/1136,  
 F-G=-999/1068, G-H=-1005/1087, H-I=-1005/1087, I-J=-915/1332, J-K=-176/271  
 BOT CHORD C-T=-1267/1614, S-T=-943/1309, R-S=-943/1309, Q-R=-938/1307, G-Q=-398/523,  
 N-O=-203/268, M-N=-203/268, K-M=-209/266  
 WEBS C-U=-186/258, D-T=-702/856, E-T=-640/766, F-T=-453/552, F-Q=-480/389,  
 I-O=-1303/1322, J-O=-1376/1181, J-M=0/286, O-Q=-1227/1083, I-Q=-2045/2403

- NOTES-**
- Attached 14-3-6 scab A to E, both face(s) 2x6 SP No.2 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-4 from end at joint A, nail 2 row(s) at 7" o.c. for 3-11-0.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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=671, O=1591, K=311.
  - This truss is in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



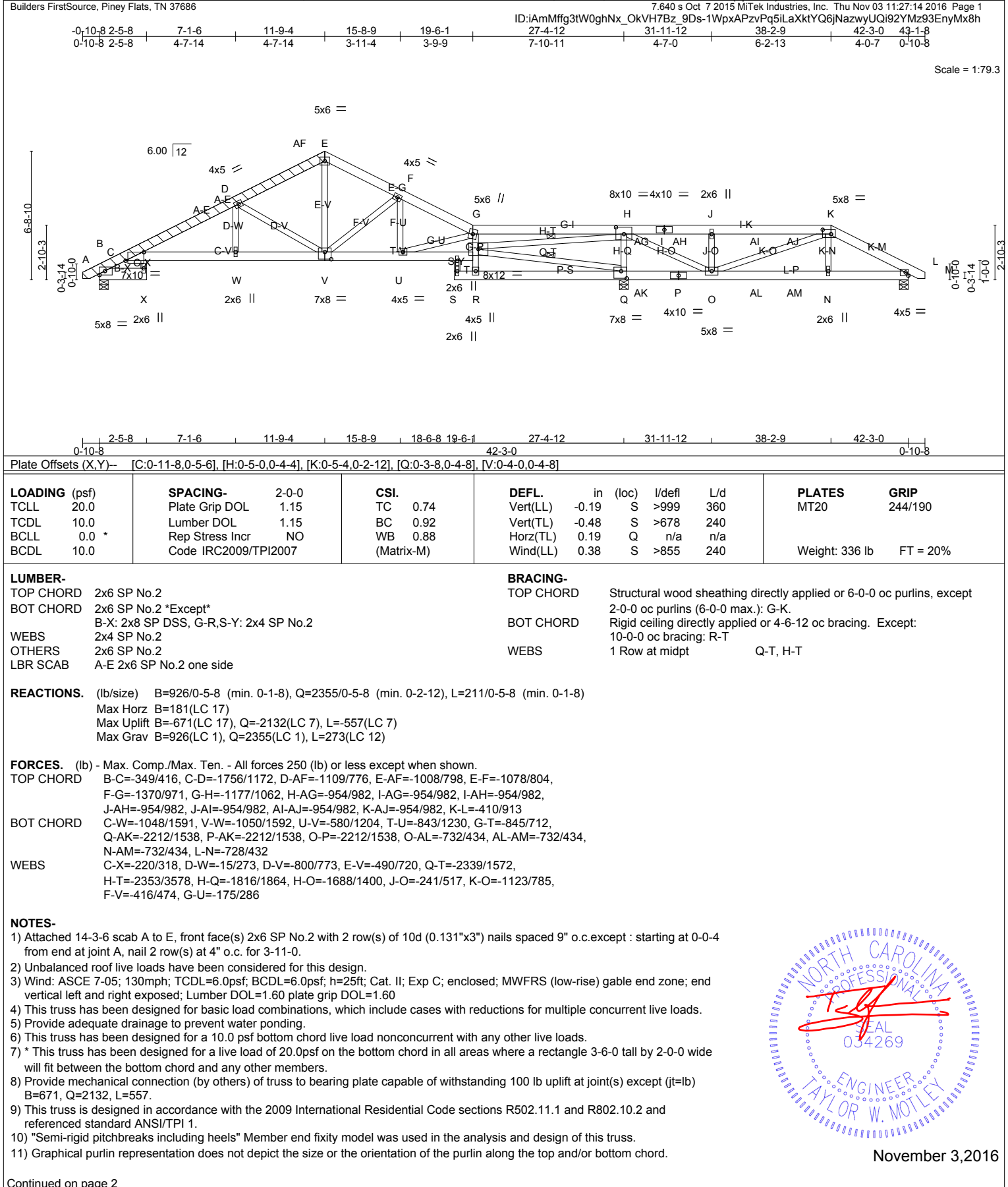
November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss A20	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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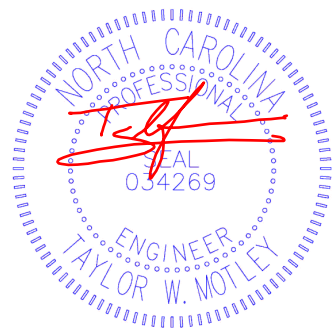
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.74	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.92	Vert(LL) -0.19 S >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.88	Vert(TL) -0.48 S >678 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) 0.19 Q n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.38 S >855 240	Weight: 336 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): G-K.
BOT CHORD 2x6 SP No.2 *Except* B-X: 2x8 SP DSS, G-R,S-Y: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 4-6-12 oc bracing. Except: 10-0-0 oc bracing: R-T
WEBS 2x4 SP No.2	WEBS 1 Row at midpt Q-T, H-T
OTHERS 2x6 SP No.2	
LBR SCAB A-E 2x6 SP No.2 one side	

**REACTIONS.** (lb/size) B=926/0-5-8 (min. 0-1-8), Q=2355/0-5-8 (min. 0-2-12), L=211/0-5-8 (min. 0-1-8)  
 Max Horz B=181(LC 17)  
 Max Uplift B=671(LC 17), Q=2132(LC 7), L=557(LC 7)  
 Max Grav B=926(LC 1), Q=2355(LC 1), L=273(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-349/416, C-D=-1756/1172, D-AF=-1109/776, E-AF=-1008/798, E-F=-1078/804, F-G=-1370/971, G-H=-1177/1062, H-AG=-954/982, I-AG=-954/982, I-AH=-954/982, J-AH=-954/982, J-AI=-954/982, AI-AJ=-954/982, K-AJ=-954/982, K-L=-410/913  
 BOT CHORD C-W=-1048/1591, V-W=-1050/1592, U-V=-580/1204, T-U=-843/1230, G-T=-845/712, Q-AK=-2212/1538, P-AK=-2212/1538, O-P=-2212/1538, O-AL=-732/434, AL-AM=-732/434, N-AM=-732/434, L-N=-728/432  
 WEBS C-X=-220/318, D-W=-15/273, D-V=-800/773, E-V=-490/720, Q-T=-2339/1572, H-T=-2353/3578, H-Q=-1816/1864, H-O=-1688/1400, J-O=-241/517, K-O=-1123/785, F-V=-416/474, G-U=-175/286

- NOTES-**
- 1) Attached 14-3-6 scab A to E, front face(s) 2x6 SP No.2 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-4 from end at joint A, nail 2 row(s) at 4" o.c. for 3-11-0.
  - 2) Unbalanced roof live loads have been considered for this design.
  - 3) Wind: ASCE 7-05; 130mph; 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
  - 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) 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) except (jt=lb) B=671, Q=2132, L=557.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 3, 2016

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A20	ROOF SPECIAL GIRDER	1	1	

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:14 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-1WpxAPzvPq5iLaXktYQ6jNazwyUQI92YMz93EnyMx8h

**NOTES-**

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 106 lb up at 28-1-13, 108 lb down and 106 lb up at 30-1-13, 108 lb down and 106 lb up at 32-1-13, 108 lb down and 106 lb up at 34-1-13, and 108 lb down and 106 lb up at 36-1-13, and 108 lb down and 183 lb up at 38-2-9 on top chord, and 8 lb down and 65 lb up at 28-1-13, 8 lb down and 65 lb up at 30-1-13, 8 lb down and 65 lb up at 32-1-13, 8 lb down and 65 lb up at 34-1-13, and 8 lb down and 65 lb up at 36-1-13, and 89 lb up at 38-1-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-E=-60, E-G=-60, G-K=-60, K-M=-60, X-Z=-20, C-T=-20, R-S=-20, R-AC=-20  
 Concentrated Loads (lb)  
 Vert: P=1(B) O=1(B) N=1(B) AK=1(B) AL=1(B) AM=1(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



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Job 812025_MASTER	Truss A21	Truss Type HALF HIP GIRDER	Qty 1	Ply 2	H&H-NC/Jessamine/Master Job Reference (optional)
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:17 2016 Page 2  
ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-R4V3pQ?nilTHC1FJZg\_pL?CQQ9devVV\_2xOjr6yMx8e

**NOTES-**

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=4120, B=3257.
- 12) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 120 lb down and 311 lb up at 9-9-8, 132 lb down and 316 lb up at 11-10-4, 132 lb down and 316 lb up at 13-10-4, 132 lb down and 316 lb up at 15-10-4, 132 lb down and 316 lb up at 17-10-4, 132 lb down and 316 lb up at 19-10-4, 132 lb down and 316 lb up at 21-10-4, 132 lb down and 316 lb up at 23-10-4, 132 lb down and 316 lb up at 25-10-4, 132 lb down and 316 lb up at 27-10-4, 132 lb down and 316 lb up at 29-10-4, and 132 lb down and 316 lb up at 31-10-4, and 132 lb down and 316 lb up at 33-10-4 on top chord, and 69 lb down and 119 lb up at 3-10-4, 52 lb down and 122 lb up at 5-10-4, 85 lb down and 290 lb up at 7-10-4, 37 lb down and 95 lb up at 9-10-4, 37 lb down and 95 lb up at 11-10-4, 37 lb down and 95 lb up at 13-10-4, 37 lb down and 95 lb up at 15-10-4, 37 lb down and 95 lb up at 17-10-4, 37 lb down and 95 lb up at 19-10-4, 37 lb down and 95 lb up at 21-10-4, 37 lb down and 95 lb up at 23-10-4, 37 lb down and 95 lb up at 25-10-4, 37 lb down and 95 lb up at 27-10-4, 37 lb down and 95 lb up at 29-10-4, and 37 lb down and 95 lb up at 31-10-4, and 37 lb down and 95 lb up at 33-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-C=-60, C-G=-60, H-N=-20

Concentrated Loads (lb)

Vert: C=-48(F) E=-48(F) L=-27(F) M=-27(F) Q=-48(F) R=-48(F) S=-48(F) T=-48(F) U=-48(F) V=-48(F) W=-48(F) X=-48(F) Y=-48(F) Z=-48(F) AA=-48(F) AB=-64(F) AC=-52(F) AE=-85(F) AF=-27(F) AG=-27(F) AH=-27(F) AI=-27(F) AJ=-27(F) AK=-27(F) AL=-27(F) AM=-27(F) AN=-27(F) AO=-27(F) AP=-27(F)

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

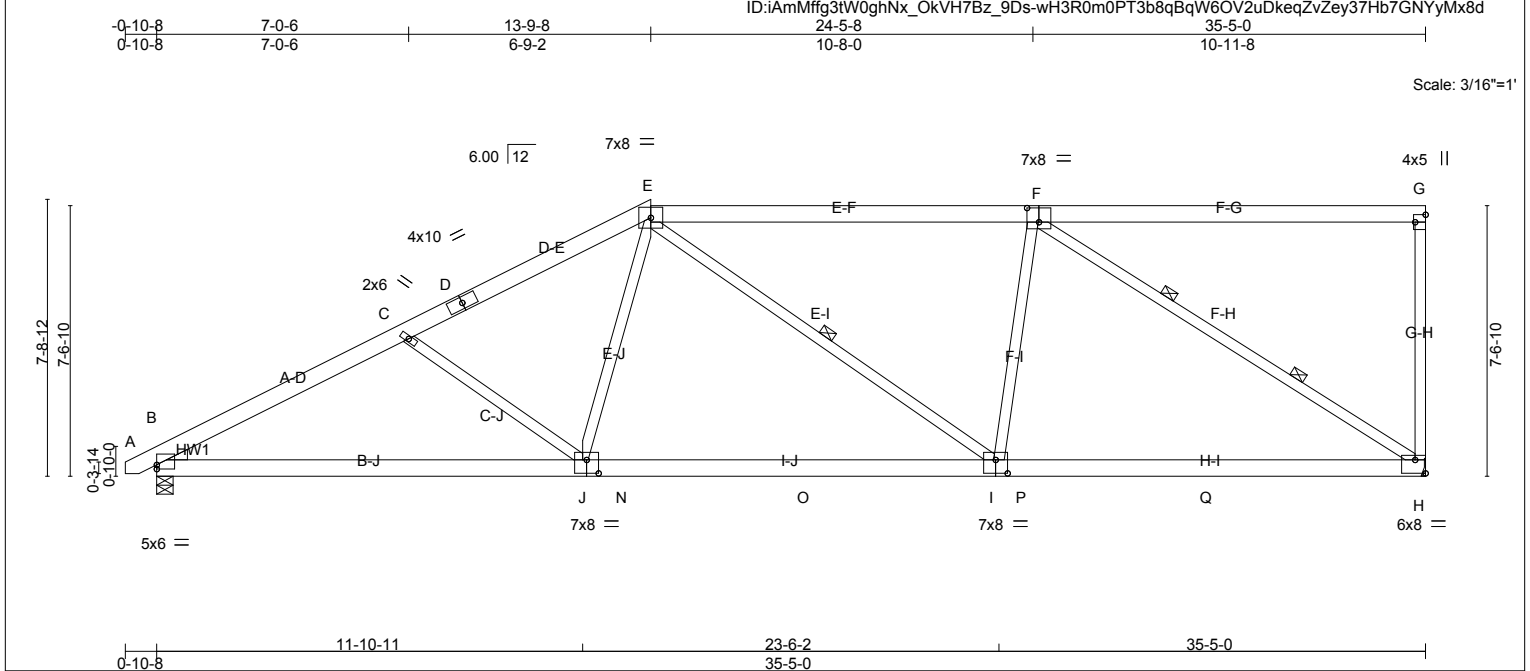
Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A22	HALF HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:18 2016 Page 1  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-wH3R0m0PT3b8qBqW6OV2uDkeqZvZey37Hb7GNYyMx8d



<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 Plate Grip DOL 1.15	TC 0.81	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(LL) -0.16 I-J >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.94	Vert(TL) -0.41 H-I >999 240		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Horz(TL) 0.08 H n/a n/a		
			Wind(LL) 0.18 I-J >999 240	Weight: 248 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-10-14 max.): E-G.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* F-H: 2x4 SP No.1	WEBS 1 Row at midpt E-I 2 Rows at 1/3 pts F-H
WEDGE Left: 2x4 SP No.3	

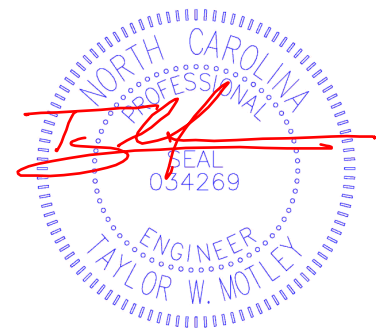
**REACTIONS.** (lb/size) H=1410/Mechanical, B=1452/0-5-8 (min. 0-1-11)  
 Max Horz B=630(LC 8)  
 Max Uplift H=-1081(LC 9), B=-950(LC 8)  
 Max Grav H=1418(LC 2), B=1452(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2403/2011, C-D=-2094/1719, D-E=-1956/1744, E-F=-1710/1455, G-H=-263/333  
 BOT CHORD B-J=-2244/2055, J-N=-1657/1711, N-O=-1657/1711, I-O=-1657/1711, I-P=-1452/1633,  
 P-Q=-1452/1633, H-Q=-1452/1633  
 WEBS C-J=-314/652, E-J=-244/533, E-I=-152/299, F-I=-23/523, F-H=-1923/1720

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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) except (jt=lb) H=1081, B=950.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard

November 3, 2016





Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A23	HALF HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghN<sub>x</sub>\_OKVH7Bz\_9Ds-OTcqE612ENj?SLPig50HQQHswzEbNqJHVFtpv?yMx8c  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:19 2016 Page 1

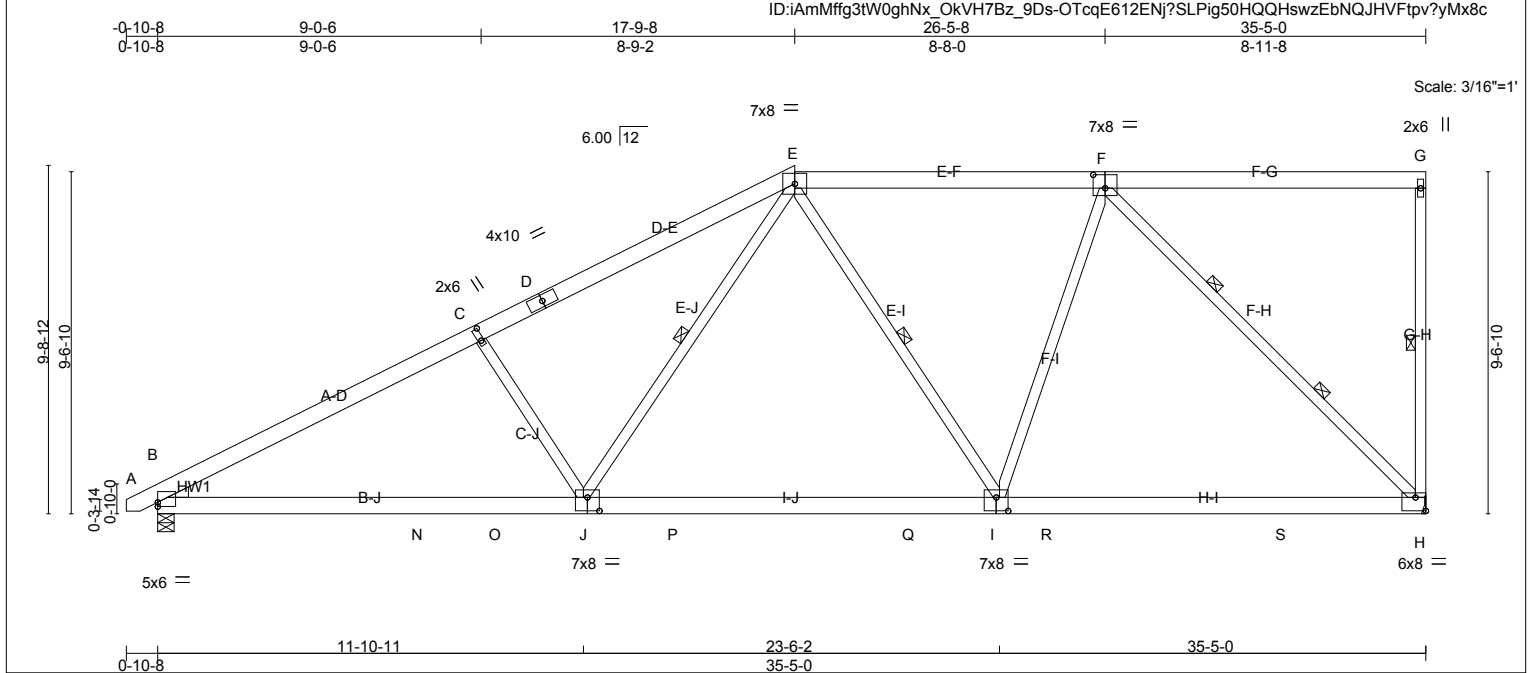


Plate Offsets (X,Y)-- [B:Edge,0-1-7], [C:0-4-4,0-1-0], [F:0-4-0,0-4-8], [H:Edge,0-4-8], [I:0-4-0,0-4-8], [J:0-4-0,0-4-8]

<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 0.59	Vert(LL)	-0.20	H-I	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(TL)	-0.45	H-I	>944		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.88	Horz(TL)	0.07	H	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.15	I-J	>999	Weight: 257 lb	FT = 20%

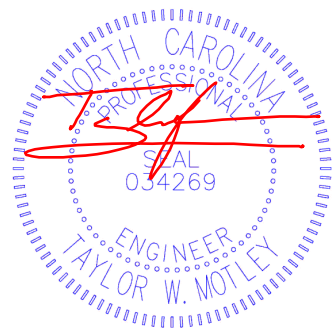
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x6 SP No.2	2-0-0 oc purlins (5-11-3 max.): E-G.
WEBS 2x4 SP No.3 *Except*	Rigid ceiling directly applied.
F-H: 2x4 SP No.2	1 Row at midpt G-H, E-J, E-I
WEBSITE Left: 2x4 SP No.3	2 Rows at 1/3 pts F-H

**REACTIONS.** (lb/size) H=1410/Mechanical, B=1452/0-5-8 (min. 0-1-12)  
 Max Horz B=803(LC 8)  
 Max Uplift H=-1061(LC 9), B=-968(LC 8)  
 Max Grav H=1506(LC 2), B=1457(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2435/1879, C-D=-2201/1788, D-E=-2098/1827, E-F=-1374/1146, G-H=-219/278  
 BOT CHORD B-N=-2286/2087, N-O=-2286/2087, J-O=-2286/2087, J-P=-1424/1464, P-Q=-1424/1464,  
 I-Q=-1424/1464, I-R=-1042/1149, R-S=-1042/1149, H-S=-1042/1149  
 WEBS C-J=-464/883, E-J=-718/790, E-I=-269/538, F-I=-318/702, F-H=-1624/1487

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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) except (jt=lb) H=1061, B=968.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

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Job 812025_MASTER	Truss A24	Truss Type HALF HIP	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID: iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Kskaeo3lm\_zihfZ5oW2IVrM9unvzrITazZMw\_tyMx8a  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:21 2016 Page 1  
 Job Reference (optional)

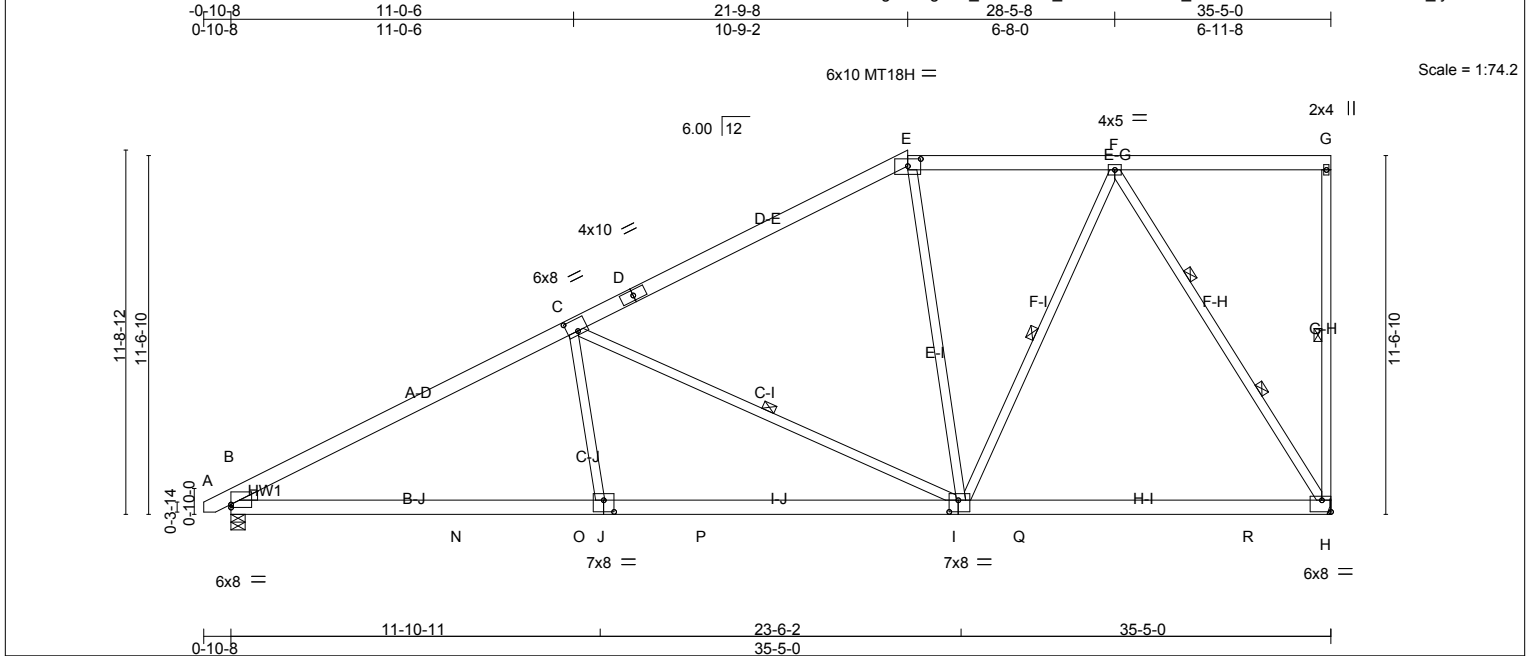


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [C:0-4-0,0-4-8], [E:0-5-0,0-2-12], [H:Edge,0-4-8], [I:0-3-8,0-4-8], [J:0-4-0,0-4-8]

<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 0.82	Vert(LL)	-0.33	H-I	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(TL)	-0.57	H-I	>738	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(TL)	0.07	H	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.19	J-M	>999		
								Weight: 271 lb	FT = 20%

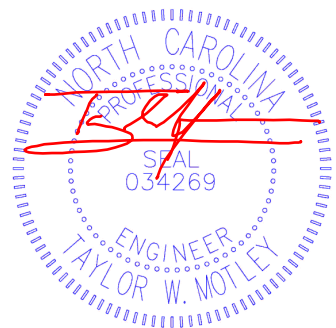
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): E-G.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* C-I,F-H: 2x4 SP No.2	WEBS 1 Row at midpt G-H, C-I, F-I 2 Rows at 1/3 pts F-H
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (lb/size) H=1410/Mechanical, B=1452/0-5-8 (min. 0-1-11)  
 Max Horz B=977(LC 8)  
 Max Uplift H=-1036(LC 9), B=-965(LC 8)  
 Max Grav H=1484(LC 2), B=1453(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2357/1697, C-D=-1309/925, D-E=-1176/974, E-F=-1074/1035  
 BOT CHORD B-N=-2275/2008, N-O=-2275/2008, J-O=-2275/2008, J-P=-2255/2073, I-P=-2255/2073,  
 I-Q=-735/716, Q-R=-735/716, H-R=-735/716  
 WEBS C-J=0/461, C-I=-1124/1310, E-I=0/259, F-I=-718/860, F-H=-1342/1401

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) H=1036, B=965.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard  
 November 3, 2016



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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A25	HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-o2lys83wX15ZJp8HLDa\_22vNRAGsauBjCD5UWKyMx8Z  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:22 2016 Page 1

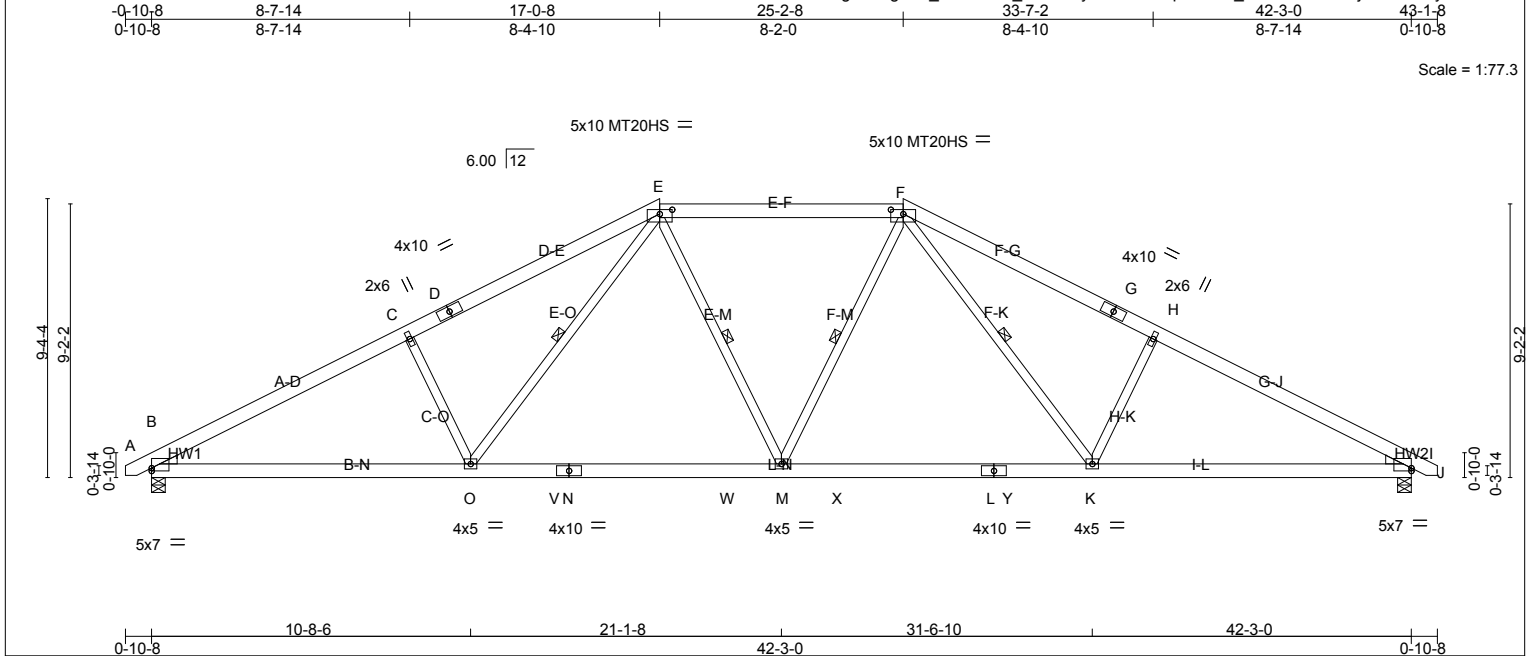


Plate Offsets (X,Y)-- [B:Edge,0-1-3], [E:0-5-0,0-1-12], [F:0-5-0,0-1-12], [I:Edge,0-1-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.76	Vert(LL) -0.21 K-M >999 360	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.42	Vert(TL) -0.45 K-M >999 240		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Horz(TL) 0.12 I n/a n/a		
			Wind(LL) 0.23 M-O >999 240	Weight: 286 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

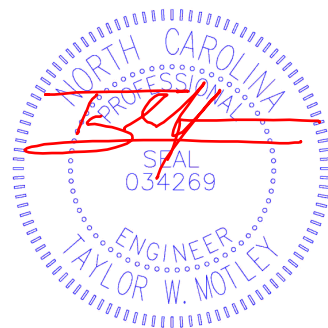
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (4-9-5 max.): E-F.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt E-O, E-M, F-M, F-K

**REACTIONS.** (lb/size) B=1731/0-5-8 (min. 0-2-1), I=1731/0-5-8 (min. 0-2-1)  
 Max Horz B=248(LC 8)  
 Max Uplift B=-1182(LC 8), I=-1182(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2957/2627, C-D=-2768/2655, D-E=-2675/2693, E-F=-2131/2149, F-G=-2675/2693,  
 G-H=-2768/2655, H-I=-2957/2627  
 BOT CHORD B-O=-2084/2534, O-V=-1336/2025, N-V=-1336/2025, N-W=-1336/2025, M-W=-1336/2025,  
 M-X=-1336/2025, L-X=-1336/2025, L-Y=-1336/2025, K-Y=-1336/2025, I-K=-2086/2534  
 WEBS C-O=-407/798, E-O=-708/684, E-M=-79/372, F-M=-79/372, F-K=-708/684, H-K=-407/798

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) 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, with BCDL = 10.0psf.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=1182, I=1182.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A26	HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Dd\_5U96opDT8AGss1M7hghXpGOImn9A9uBK87eyMx8W  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:25 2016 Page 1

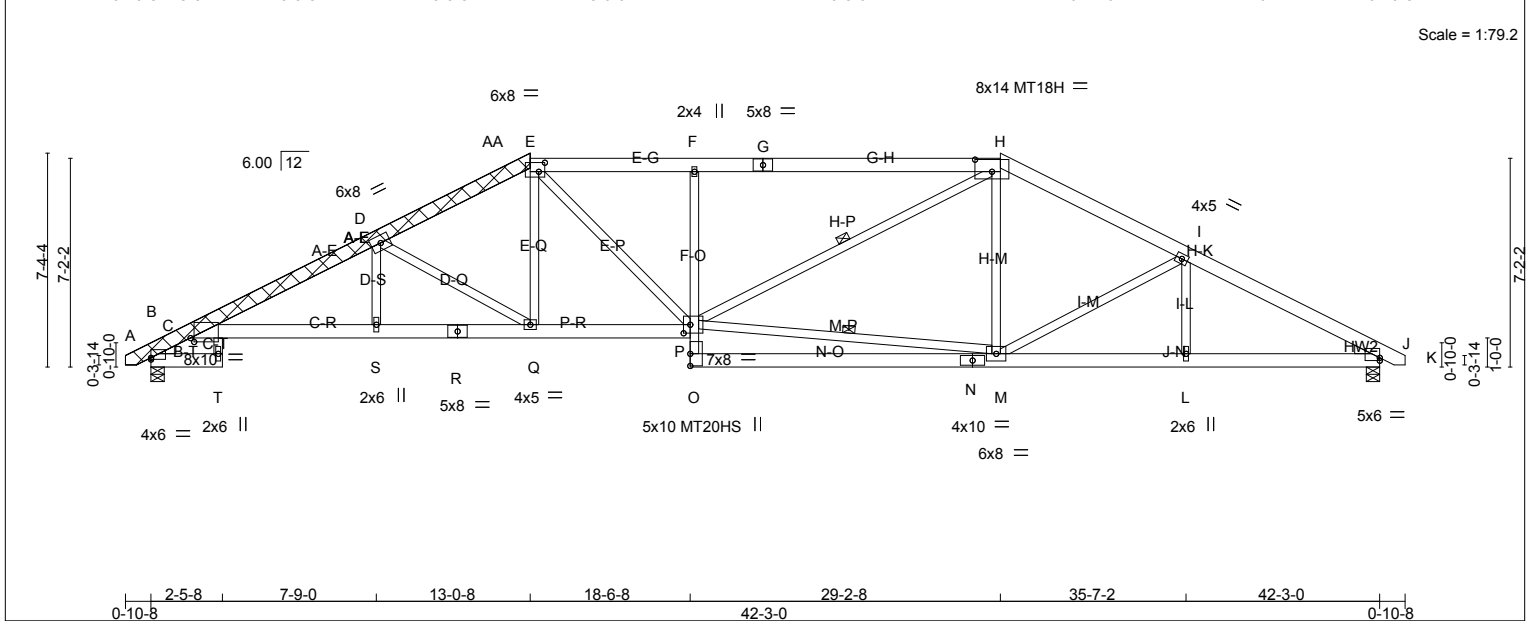


Plate Offsets (X,Y)-- [B:Edge,0-0-11], [C:0-1-8,0-1-10], [E:0-2-8,0-3-12], [H:0-7-0,0-5-0], [J:Edge,0-1-3], [P:0-2-12,0-3-8]

LOADING (psf)	SPACING-	CS.I.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.24 P-Q >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.79	Vert(TL) -0.61 P-Q >827 240	MT18H	244/190
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.37 J n/a n/a	Weight: 386 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.43 P-Q >999 240		

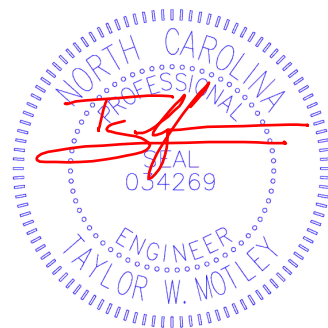
**LUMBER-**  
 TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 C-R: 2x6 SP DSS, F-O: 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 C-T: 2x4 SP No.2  
 OTHERS 2x6 SP No.2  
 LBR SCAB A-E 2x6 SP No.2 both sides  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (2-10-11 max.): E-H.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt M-P, H-P

**REACTIONS.** (lb/size) B=1743/0-5-8 (min. 0-2-1), J=1732/0-5-8 (min. 0-2-1)  
 Max Horz B=195(LC 8)  
 Max Uplift B=-1116(LC 8), J=-1123(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-729/720, C-D=-3826/3246, D-AA=-3034/2670, E-AA=-2919/2695, E-F=-3126/2937,  
 F-G=-3121/2942, G-H=-3121/2944, H-I=-2625/2378, I-J=-2971/2565  
 BOT CHORD C-S=-2762/3503, R-S=-2765/3504, Q-R=-2765/3504, P-Q=-1866/2655, F-P=-628/778,  
 N-O=-226/466, M-N=-226/466, L-M=-2065/2552, J-L=-2065/2552  
 WEBS D-S=-2/283, D-Q=-1007/1059, E-Q=-492/659, E-P=-692/781, M-P=-1423/1865,  
 H-P=-796/1022, H-M=-57/363, I-M=-282/505

- NOTES-**
- 1) Attached 15-8-7 scab A to E, both face(s) 2x6 SP No.2 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-4 from end at joint A, nail 2 row(s) at 4" o.c. for 3-11-0.
  - 2) Unbalanced roof live loads have been considered for this design.
  - 3) Wind: ASCE 7-05; 130mph; 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
  - 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 MT20 plates unless otherwise indicated.
  - 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) except (jt=lb) B=1116, J=1123.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) 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.



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 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A26	HIP	1	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:25 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Dd\_5U96opDT8AGss1M7hghXpGOImn9A9uBK87eyMx8W

**LOAD CASE(S)** Standard



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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A27	HIP	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:28 2016 Page 1

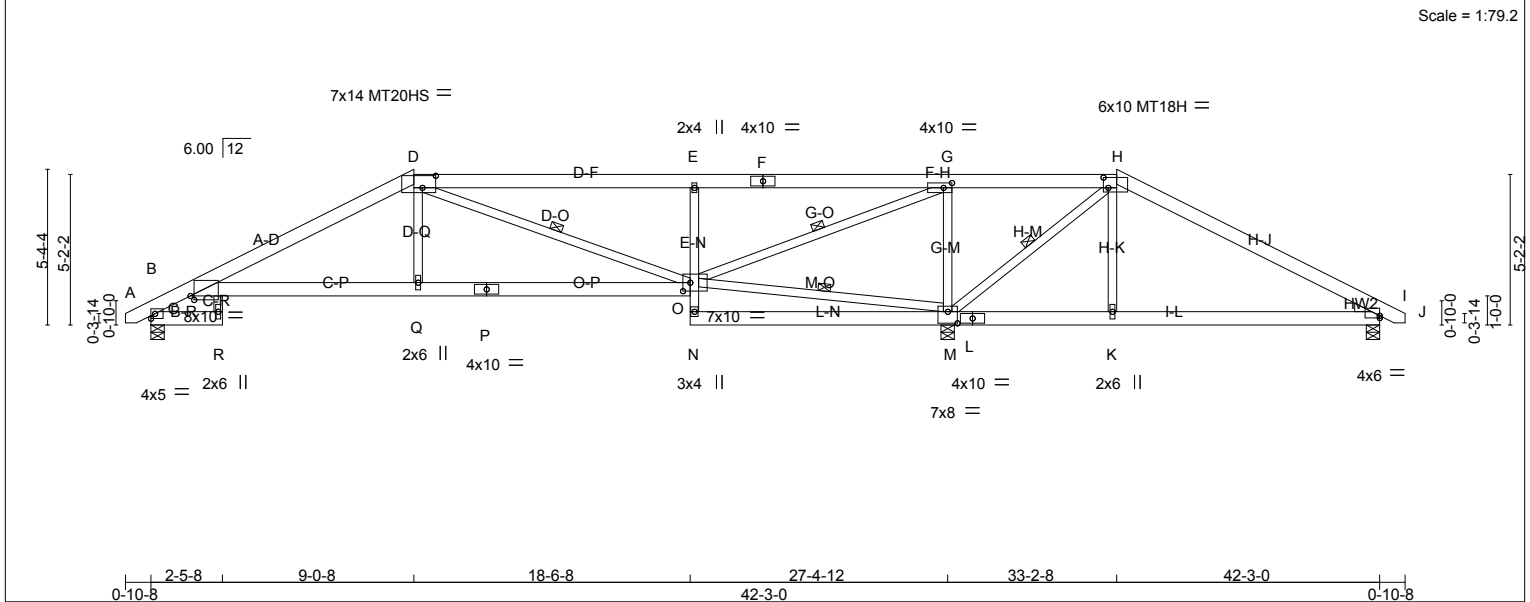
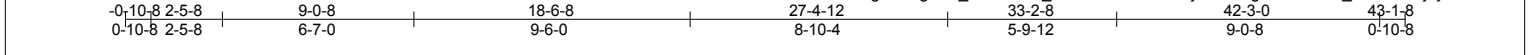


Plate Offsets (X,Y)-- [C:0-1-8,0-1-10], [D:0-5-8,0-5-0], [G:0-3-8,0-2-0], [H:0-2-0,0-4-4], [I:Edge,0-0-15], [M:0-4-0,0-4-12], [O:0-3-0,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.92	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.79	Vert(LL) -0.19 C-Q >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.88	Vert(TL) -0.48 C-Q >688 240	MT18H	244/190
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.24 M n/a n/a	Weight: 286 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.40 C-Q >834 240		

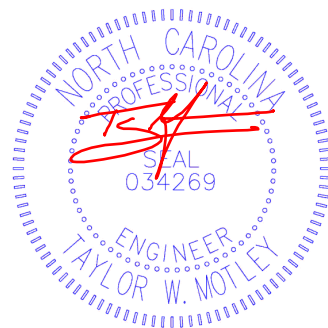
**LUMBER-**  
 TOP CHORD 2x6 SP No.1 \*Except\*  
 D-F,F-H: 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 C-P: 2x6 SP No.1, E-N: 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 C-R: 2x4 SP No.2  
 WEDGE  
 Right: 2x4 SP No.3

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

**REACTIONS.** (lb/size) B=908/0-5-8 (min. 0-1-8), M=2391/0-5-8 (min. 0-2-13), I=175/0-5-8 (min. 0-1-8)  
 Max Horz B=142(LC 8)  
 Max Uplift B=-615(LC 8), M=-1603(LC 7), I=-362(LC 9)  
 Max Grav B=908(LC 1), M=2391(LC 1), I=266(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-356/406, C-D=-1526/1270, D-E=-801/865, E-F=-778/852, F-G=-778/852,  
 G-H=-848/1367, H-I=-505/652  
 BOT CHORD C-Q=-881/1355, P-Q=-882/1368, O-P=-882/1368, E-O=-585/747, L-M=-533/514,  
 K-L=-533/514, I-K=-538/512  
 WEBS D-Q=0/455, D-O=756/567, M-O=-1262/1169, G-O=-1738/2134, G-M=-1289/1200,  
 H-M=-1289/1102, H-K=0/306

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=615, M=1603, I=362.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

**LOAD CASE(S)** Standard

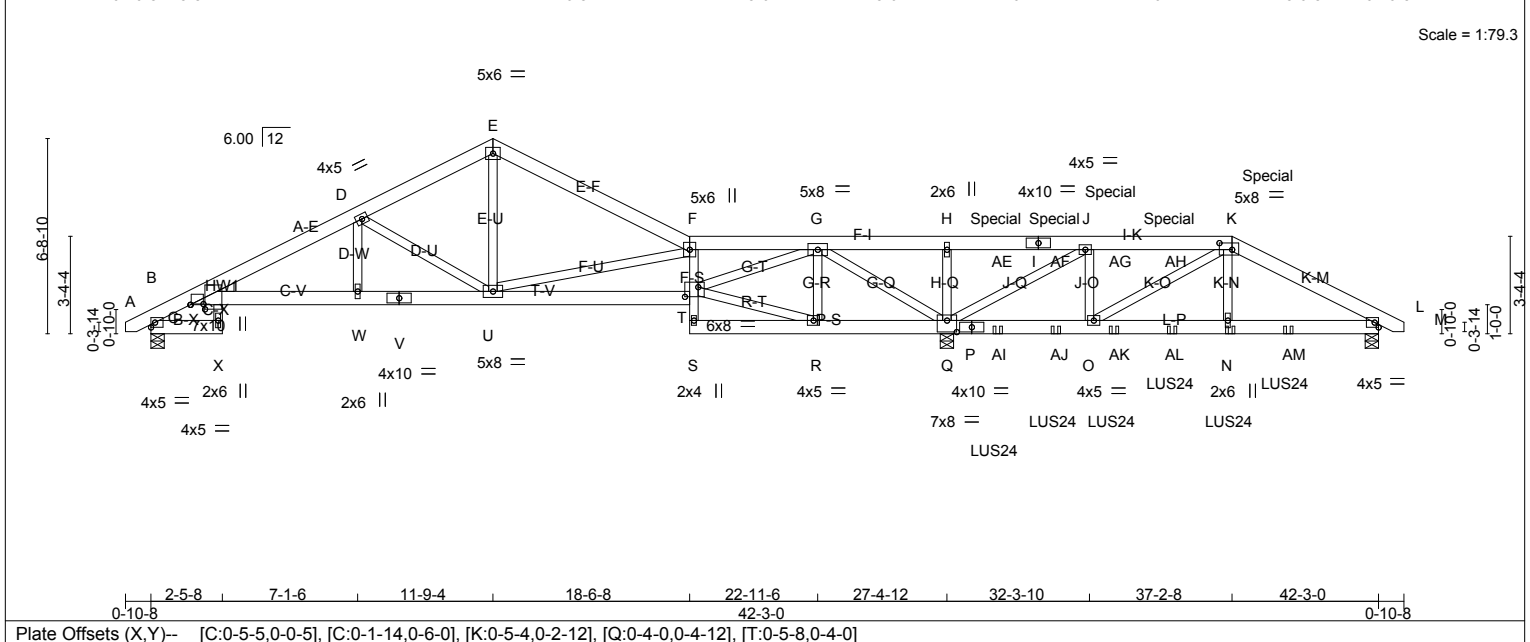
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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Job 812025_MASTER	Truss A28	Truss Type ROOF SPECIAL GIRDER	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Zbn\_XtAxel6RG1ppvjnsNKEjEP\_sSN5u1S1vosyMx8R  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:30 2016 Page 1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.13	C-W	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(TL)	-0.33	C-W	>995		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.94	Horz(TL)	0.21	Q	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.28	C-W	>999	Weight: 295 lb	FT = 20%

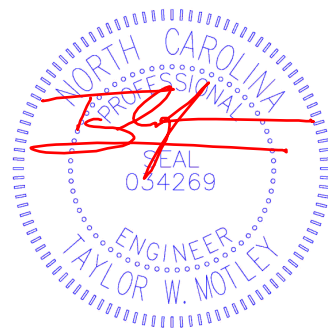
**LUMBER-**  
 TOP CHORD 2x6 SP No.2 \*Except\*  
 A-E: 2x6 SP DSS  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 C-V: 2x6 SP No.1, F-S: 2x4 SP No.2  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-10-5 oc purlins, except 2-0-0 oc purlins (5-11-14 max.); F-K.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (lb/size) B=887/0-5-8 (min. 0-1-8), Q=2436/0-5-8 (min. 0-2-14), L=166/0-5-8 (min. 0-1-8)  
 Max Horz B=181(LC 6)  
 Max Uplift B=649(LC 17), Q=2363(LC 7), L=682(LC 7)  
 Max Grav B=887(LC 1), Q=2436(LC 1), L=242(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-347/410, C-D=-1673/1142, D-E=-1042/765, E-F=-1035/719, F-G=-1015/943,  
 G-H=-1424/2340, H-AE=-1424/2340, I-AE=-1424/2340, I-AF=-1424/2340, J-AF=-1424/2340,  
 J-AG=-897/945, AG-AH=-897/945, K-AH=-897/945, K-L=-503/1029  
 BOT CHORD C-W=-1005/1496, V-W=-1009/1499, U-V=-1009/1499, T-U=-745/1093, F-T=-682/602,  
 Q-R=-636/647, P-Q=-945/1068, P-AI=-945/1068, AI-AJ=-945/1068, O-AJ=-945/1068,  
 O-AK=-823/532, AK-AL=-823/532, N-AL=-823/532, N-AM=-814/532, L-AM=-814/532  
 WEBS D-W=-74/279, D-U=-755/760, E-U=-323/550, F-U=-391/575, R-T=-701/691,  
 G-T=-1131/1767, G-R=-94/300, G-Q=-2034/1403, H-Q=-336/486, J-Q=-1620/2074,  
 J-O=-440/545, K-O=-989/683

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=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
  - 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) except (jt=lb) B=649, Q=2363, L=682.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 29-1-12 from the left end to 39-1-12 to connect truss(es) J234 (1 ply 2x4 SP), J235 (1 ply 2x4 SP) to back face of bottom chord.



November 3, 2016

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	A28	ROOF SPECIAL GIRDER	1	1	

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:30 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Zbn\_XtAxel6RG1ppvjsNKEjEP\_sSN5u1S1vosyMx8R

**NOTES-**

- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 144 lb up at 29-1-12, 112 lb down and 144 lb up at 31-1-12, 112 lb down and 144 lb up at 33-1-12, and 112 lb down and 144 lb up at 35-1-12, and 112 lb down and 144 lb up at 37-2-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-E=-60, E-F=-60, F-K=-60, K-M=-60, X-Y=-20, C-T=-20, S-AB=-20  
 Concentrated Loads (lb)  
 Vert: N=1(B) AI=1(B) AJ=1(B) AK=1(B) AL=1(B) AM=-17(B)



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

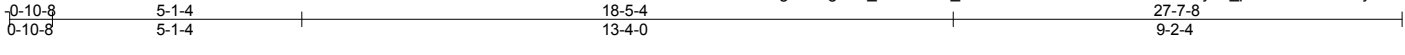
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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B01	GABLE	3	1	

Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:31 2016 Page 1  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-1nLMIDAZP3EluBK0NcE5vyn0\_pUIB2z2G6nSKlyMx8Q



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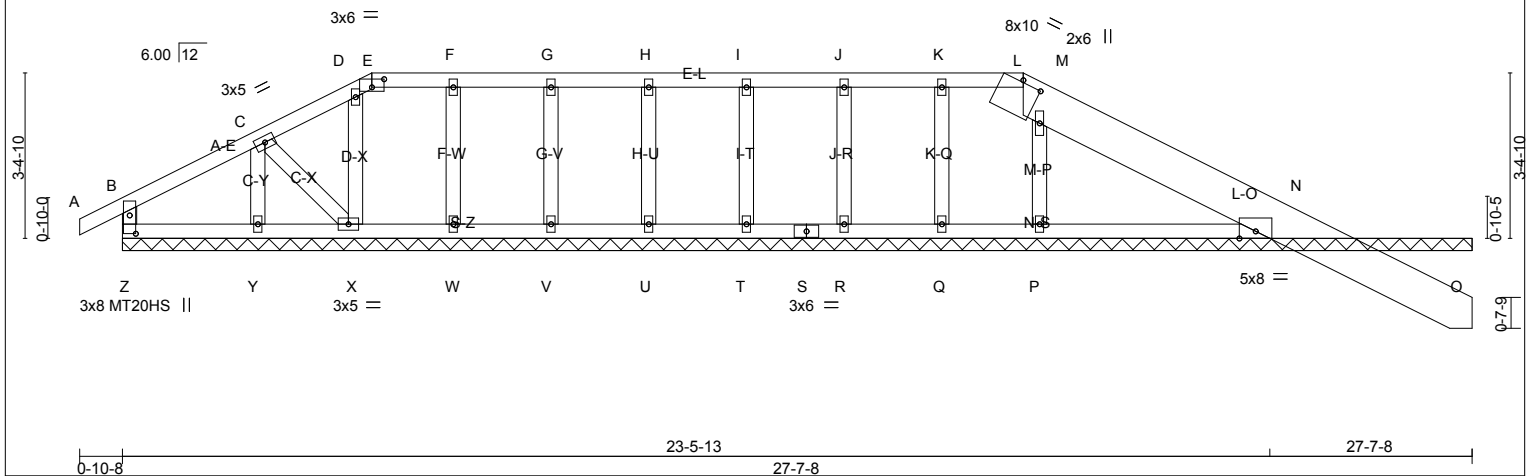


Plate Offsets (X,Y)-- [E:0-3-0,0-2-0], [L:0-5-0,0-0-9], [Z:0-4-8,0-1-8]

<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 0.14	Vert(LL) 0.00 A n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(TL) -0.00 A n/r 120	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(TL) 0.01 O n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)			Weight: 145 lb FT = 20%

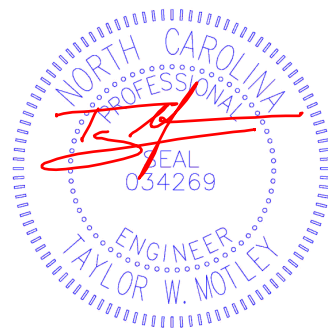
**LUMBER-**  
 TOP CHORD 2x4 SP No.2 \*Except\*  
 L-O: 2x10 SP No.1  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); E-L.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: Y-Z,X-Y.

**REACTIONS.** All bearings 27-7-8.  
 (lb) - Max Horz Z=-212(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) O, Y except Z=-241(LC 8), U=-125(LC 7), V=-128(LC 6), W=-123(LC 7), X=-157(LC 8), T=-126(LC 7), R=-126(LC 6), Q=-129(LC 7), P=-125(LC 9), N=-372(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) Z, O, U, V, W, X, Y, T, R, Q except P=270(LC 1), N=417(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-Z=-153/315

- NOTES-** (17)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 MT20 plates unless otherwise indicated.
  - 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) O, Y except (jt=lb) Z=241, U=125, V=128, W=123, X=157, T=126, R=126, Q=129, P=125, N=372.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) O.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.



November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss B02	Truss Type Hip	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
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 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:33 2016 Page 1  
 Job Reference (optional)

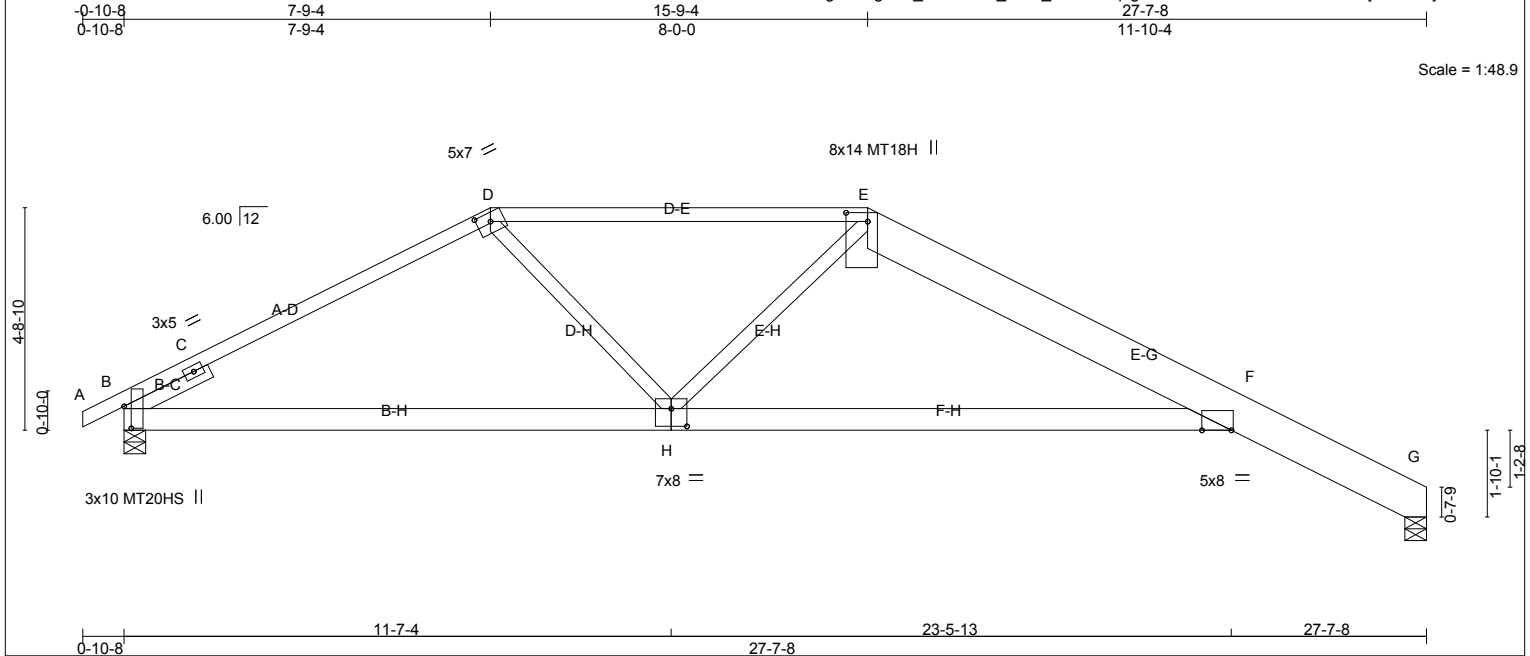


Plate Offsets (X,Y)-- [B:0-5-9,0-1-13], [D:0-3-8,0-2-3], [E:0-2-4,0-5-8], [F:0-7-8,Edge], [H:0-4-0,0-4-8]

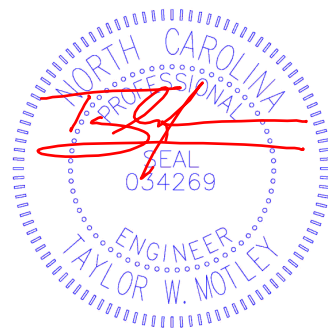
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.30	H-O	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(TL)	-0.82	H-O	>402	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(TL)	0.33	G	n/a	MT18H	244/190
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.57	H-O	>572		Weight: 154 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except* E-G: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-10-9 max.): D-E.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied. Except: 6-4-0 oc bracing: F-H
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) G=1104/0-5-8 (min. 0-1-9), B=1150/0-5-8 (min. 0-1-8)  
 Max Horz B=-273(LC 9)  
 Max Uplift G=-732(LC 9), B=-760(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-733/125, C-D=-1690/1506, D-E=-1707/1571, E-F=-1824/1591, F-G=-479/474  
 BOT CHORD B-H=-903/1440, F-H=-1140/1725  
 WEBS D-H=-126/498, E-H=-111/275

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Bearing at joint(s) G considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) G=732, B=760.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



**LOAD CASE(S)** Standard  
 November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B03	HIP	3	1	

Builders FirstSource, Piney Flats, TN 37866  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:34 2016 Page 1  
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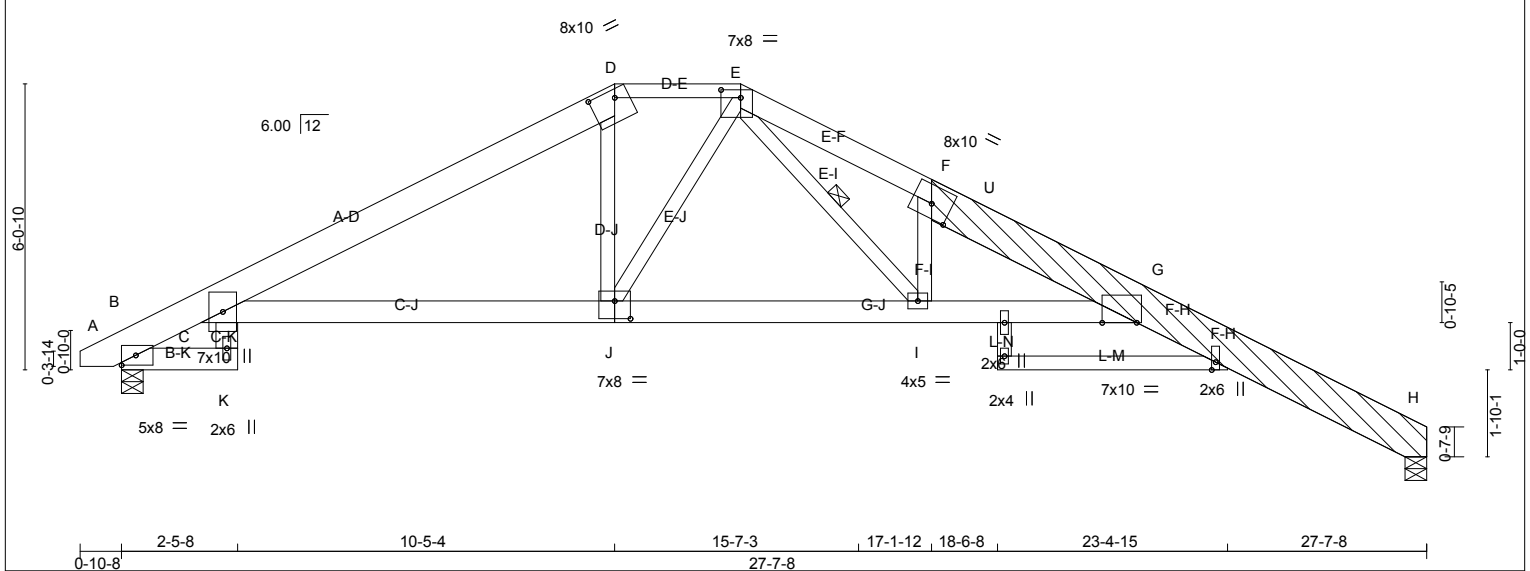
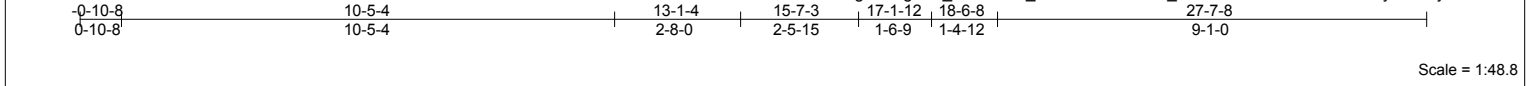


Plate Offsets (X,Y)-- [D:0-6-7,0-2-1], [E:0-5-0,0-2-0], [F:0-5-0,0-3-8], [G:0-8-12,Edge], [J:0-4-0,0-4-8]

<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 0.87	Vert(LL)	-0.33	I-T	>998	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(TL)	-0.83	I-T	>396		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(TL)	0.66	H	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.59	I-T	>554		
								Weight: 235 lb	FT = 20%

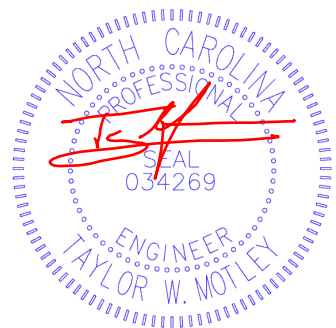
**LUMBER-**  
 TOP CHORD 2x8 SP DSS \*Except\*  
 D-E: 2x4 SP No.2, E-F: 2x6 SP No.2, F-H: 2x10 SP No.1  
 BOT CHORD 2x6 SP No.2 \*Except\*  
 L-M: 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 C-K: 2x6 SP No.2  
 OTHERS 2x10 SP No.1  
 LBR SCAB F-H 2x10 SP No.1 one side

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

**REACTIONS.** (lb/size) B=1133/0-5-8 (min. 0-1-8), H=1108/0-5-8 (min. 0-1-8)  
 Max Horz B=-306(LC 9)  
 Max Uplift B=-758(LC 8), H=-760(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-515/668, C-D=-1834/1504, D-E=-1624/1575, E-F=-3133/2845, F-U=-2660/2298,  
 G-H=-474/503  
 BOT CHORD C-J=-861/1625, I-J=-887/1621, G-I=-1955/2782  
 WEBS D-J=-113/330, F-I=-1158/1223, E-I=-1560/1711

- NOTES-** (13)
- Attached 12-0-0 scab F to H, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-15 from end at joint F, nail 2 row(s) at 3" o.c. for 2-0-0; starting at 2-9-15 from end at joint F, nail 2 row(s) at 3" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Bearing at joint(s) H considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=758, H=760.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B03	HIP	3	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:35 2016 Page 2  
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**LOAD CASE(S)** Standard



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



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Job 812025_MASTER	Truss B04	Truss Type ROOF SPECIAL	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37886  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:37 2016 Page 1  
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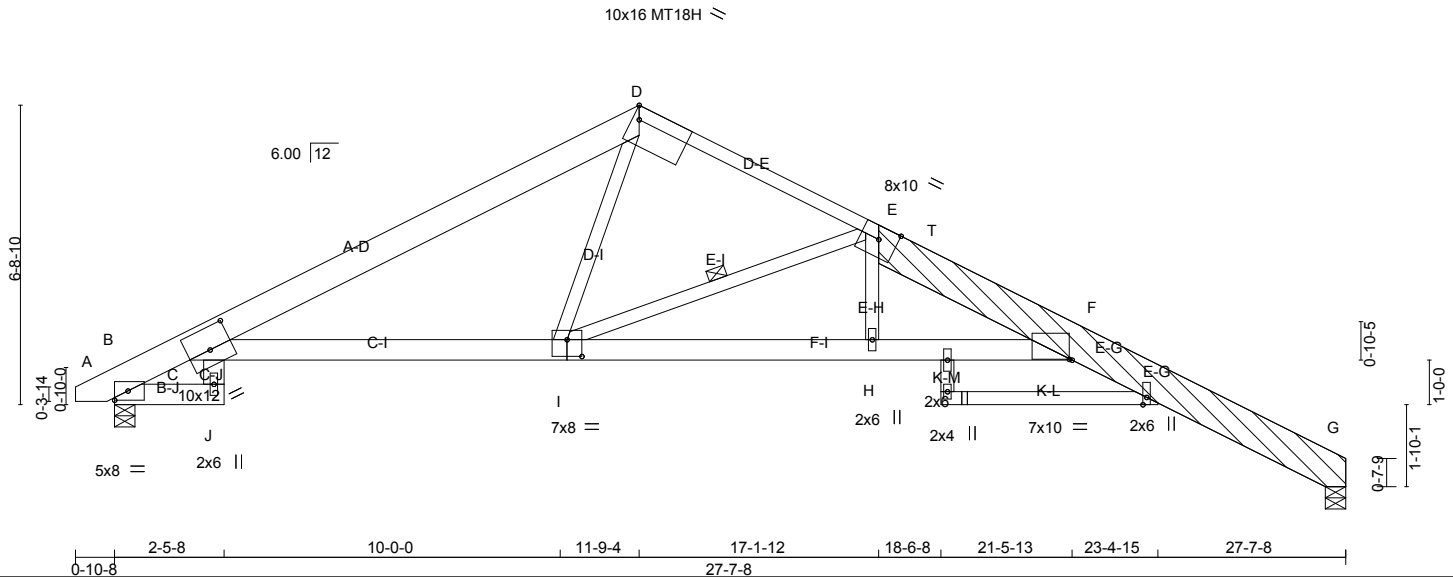


Plate Offsets (X,Y)-- [C:0-6-0,0-5-14], [D:Edge,0-3-8], [F:0-0-12,0-0-4], [I:0-4-0,0-4-8]

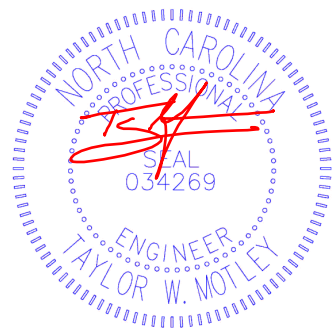
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.87	Vert(LL) -0.33	H-S	>992	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.86	Vert(TL) -0.83	H-S	>394	240	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(TL) 0.68	G	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.60	H-S	>547	240		
							Weight: 231 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP DSS *Except* D-E: 2x4 SP No.2, E-G: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x6 SP No.2 *Except* C-I: 2x6 SP No.1, K-L: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except* C-J: 2x6 SP No.2	WEBS 1 Row at midpt E-I
OTHERS 2x10 SP No.1	
LBR SCAB E-G 2x10 SP No.1 one side	

**REACTIONS.** (lb/size) B=1133/0-5-8 (min. 0-1-8), G=1108/0-5-8 (min. 0-1-8)  
 Max Horz B=-323(LC 9)  
 Max Uplift B=-776(LC 8), G=-773(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-515/673, C-D=-1775/1451, D-E=-1511/1405, E-T=-2559/2257, F-G=-474/507  
 BOT CHORD C-I=-771/1544, H-I=-1917/2700, F-H=-1919/2692  
 WEBS E-H=0/250, E-I=-1498/1400, D-I=-569/846

- NOTES-** (12)
- Attached 12-0-0 scab E to G, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-1-7 from end at joint E, nail 2 row(s) at 3" o.c. for 2-0-0; starting at 2-9-15 from end at joint E, nail 2 row(s) at 3" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - 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.
  - Bearing at joint(s) G considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=776, G=773.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

**LOAD CASE(S)** Standard

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 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151



Job 812025_MASTER	Truss B05	Truss Type HIP GIRDER	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37866  
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 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:40 2016 Page 1

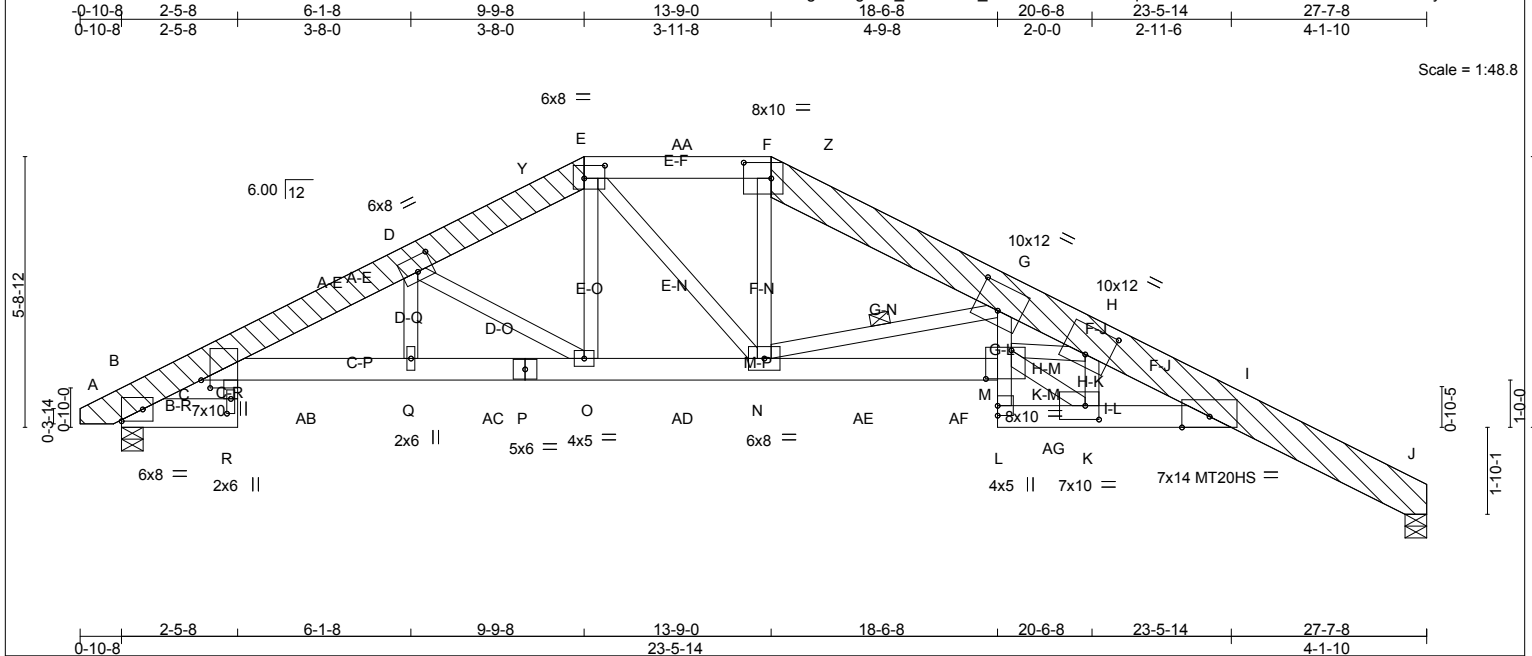


Plate Offsets (X,Y)-- [B:Edge,0-3-0], [C:0-2-0,0-2-5], [D:0-4-0,0-3-12], [E:0-5-4,0-3-4], [F:0-7-0,0-4-0], [G:0-6-0,0-6-8], [H:0-6-0,0-7-0], [K:0-3-8,0-3-8], [M:0-6-8,0-7-4], [R:0-3-12,0-1-0]

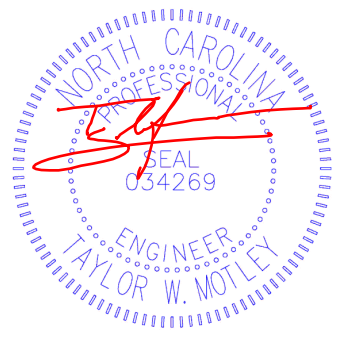
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.98	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.94	Vert(LL) -0.33 M >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.83	Vert(TL) -0.83 M-N >395 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.68 J n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.99 M-N >332 240		
				Weight: 311 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x8 SP DSS *Except* E-F: 2x6 SP No.2, F-J: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins, except 2-0-0 oc purlins (4-3-12 max.): E-F.
BOT CHORD 2x6 SP No.1 *Except* B-R: 2x8 SP DSS, G-L: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-11-4 oc bracing. Except: 3-2-0 oc bracing: I-L
WEBS 2x4 SP No.2 *Except* K-M: 2x4 SP No.1	WEBS 1 Row at midpt G-N
OTHERS 2x8 SP DSS	
LBR SCAB A-E 2x8 SP DSS one side F-J 2x10 SP No.1 one side	

**REACTIONS.** (lb/size) J=1509/0-5-8 (min. 0-1-12), B=1602/0-5-8 (min. 0-1-14)  
 Max Horz B=-295(LC 7)  
 Max Uplift J=-1722(LC 7), B=-2020(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-750/1231, C-D=-3610/4771, D-Y=-2822/3885, E-Y=-2744/3896, E-AA=-2768/3903, F-AA=-2768/3903, F-Z=-2767/3919, G-Z=-2882/3893, G-H=-6252/7765, H-I=-4557/5569, I-J=-660/814  
 BOT CHORD C-AB=-4403/3434, Q-AB=-4395/3425, Q-AC=-4401/3429, P-AC=-4401/3429, O-P=-4401/3429, O-AD=-3132/2472, N-AD=-3132/2472, N-AE=-6138/5172, AE-AF=-6153/5181, M-AF=-6159/5185, G-M=-3827/3321, L-AG=-371/324, K-AG=-371/324, I-K=-5142/4418  
 WEBS C-R=-541/450, D-O=-1148/1523, E-O=-925/686, E-N=-598/528, F-N=-599/481, G-N=-2544/3015, H-K=-2578/3130, K-M=-5860/5028, H-M=-1069/755

- NOTES-**
- Attached 12-0-13 scab A to E, front face(s) 2x8 SP DSS with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-11-5 from end at joint A, nail 2 row(s) at 3" o.c. for 3-2-15.
  - Attached 15-9-9 scab F to J, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-1-1 from end at joint F, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-6-4 from end at joint F, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 6-7-2 from end at joint F, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 8-10-5 from end at joint F, nail 2 row(s) at 2" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Bearing at joint(s) J considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify truss on existing surface.



November 3, 2016

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 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B05	HIP GIRDER	1	1	

Builders FirstSource, Piney Flats, TN 37686

ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-GW0melHDHqM0TaWkP?uDnrlLbRM9owBNK0SR9HyMx8H  
7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:40 2016 Page 2

**NOTES-**

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) J=1722, B=2020.
- 12) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 117 lb down and 294 lb up at 9-9-8, and 131 lb down and 294 lb up at 11-10-4, and 117 lb down and 294 lb up at 13-9-0 on top chord, and 99 lb down and 160 lb up at 3-10-4, 49 lb down and 106 lb up at 5-10-4, 101 lb down and 288 lb up at 7-10-4, 58 lb down and 106 lb up at 9-10-4, 58 lb down and 106 lb up at 11-10-4, 58 lb down and 106 lb up at 13-8-4, 101 lb down and 288 lb up at 15-8-4, and 49 lb down and 106 lb up at 17-8-4, and 199 lb down and 169 lb up at 19-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-E=-60, E-F=-60, F-I=-60, I-J=-82, R-S=-20, C-M=-20, L-V=-20

Concentrated Loads (lb)

Vert: E=-52(B) F=-52(B) Q=-49(B) O=-39(B) N=-39(B) AA=-52(B) AB=-99(B) AC=-101(B) AD=-39(B) AE=-101(B) AF=-49(B) AG=-199(B)

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Job 812025_MASTER	Truss B06	Truss Type ROOF SPECIAL	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37886 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:42 2016 Page 1

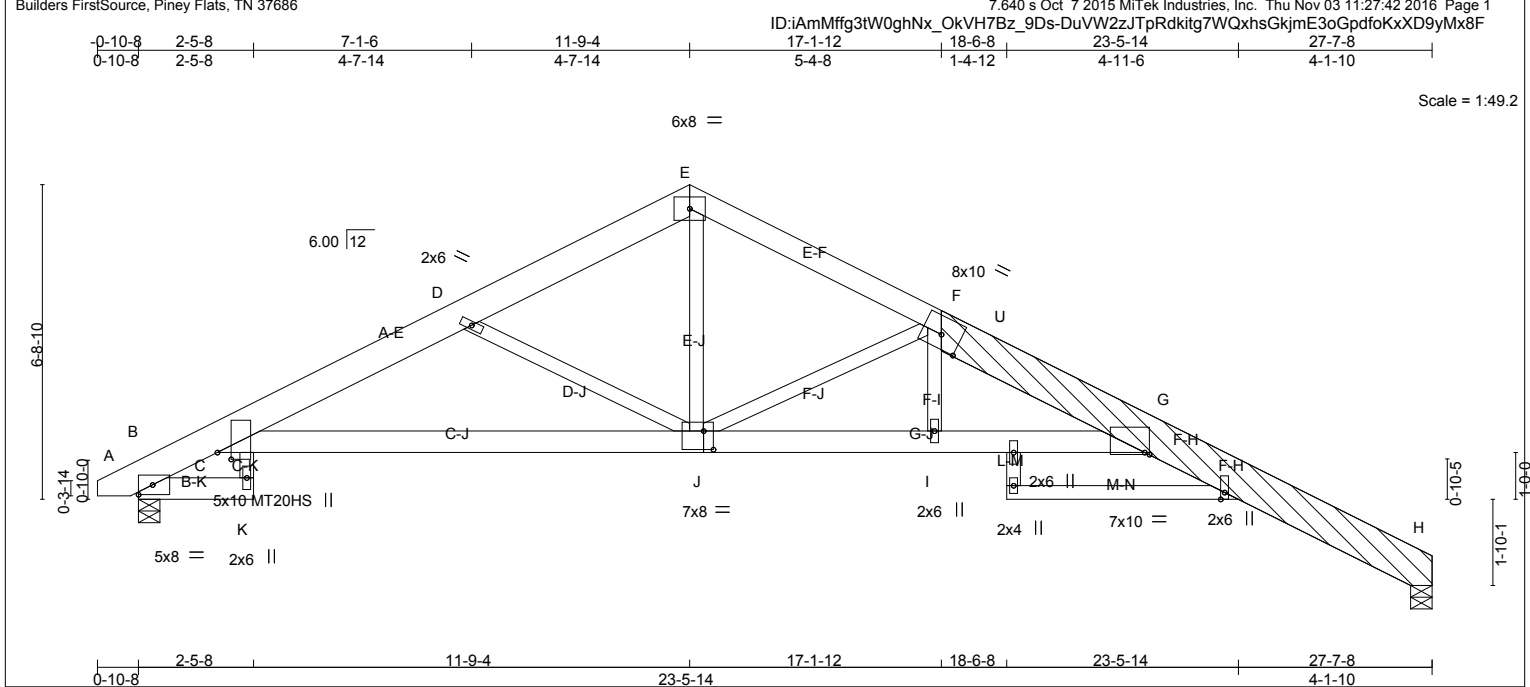


Plate Offsets (X,Y)-- [C:0-1-12,0-3-9], [F:0-5-0,0-3-8], [G:0-1-4,0-0-8], [J:0-2-8,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.31 I-T >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.90	Vert(TL) -0.80 I-T >412 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.62 H n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.57 I-T >577 240	Weight: 240 lb	FT = 20%

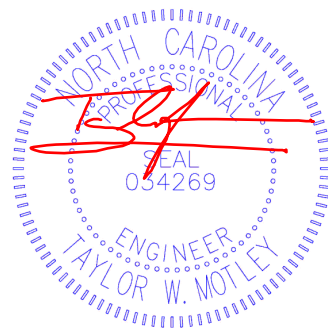
**LUMBER-**  
TOP CHORD 2x8 SP DSS \*Except\*  
E-F: 2x6 SP No.2, F-H: 2x10 SP No.1  
BOT CHORD 2x6 SP No.2 \*Except\*  
L-M,M-N: 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
C-K: 2x4 SP No.2  
OTHERS 2x10 SP No.1  
LBR SCAB F-H 2x10 SP No.1 one side

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

**REACTIONS.** (lb/size) B=1135/0-5-8 (min. 0-1-8), H=1108/0-5-8 (min. 0-1-8)  
Max Horz B=-321(LC 9)  
Max Uplift B=-775(LC 8), H=-773(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-499/662, C-D=-2377/2090, D-E=-1717/1546, E-F=-1774/1589, F-U=-2692/2408, G-H=-474/507  
BOT CHORD C-J=-1572/2250, I-J=-2065/2829, G-I=-2063/2821  
WEBS D-J=-898/967, E-J=-1002/1250, F-J=-1466/1453

- NOTES-**
- Attached 12-0-0 scab F to H, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-15 from end at joint F, nail 2 row(s) at 3" o.c. for 2-0-0; starting at 2-9-15 from end at joint F, nail 2 row(s) at 3" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - 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.
  - Bearing at joint(s) H considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=775, H=773.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



November 3, 2016

**LOAD CASE(S)** Standard

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B10	HIP GIRDER	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-dTBfh?LL6M?ZL0ICZUOUvMCAS3HTBM6UIACqUyMx8C  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:45 2016 Page 1

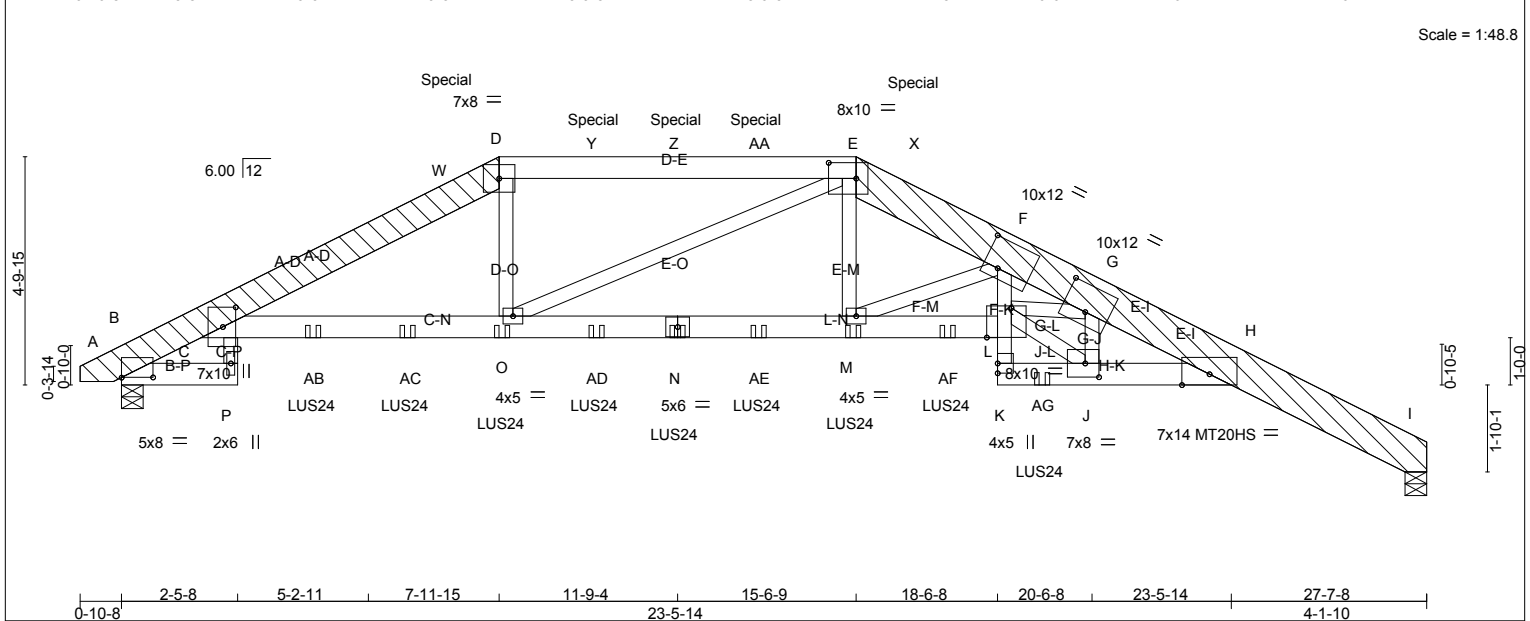


Plate Offsets (X,Y)-- [B:0-8-0,0-0-1], [C:0-5-0,0-3-5], [E:0-7-0,0-4-0], [F:0-3-12,0-7-8], [G:0-6-0,0-6-12], [J:0-3-8,0-3-8], [L:0-6-4,0-7-8]

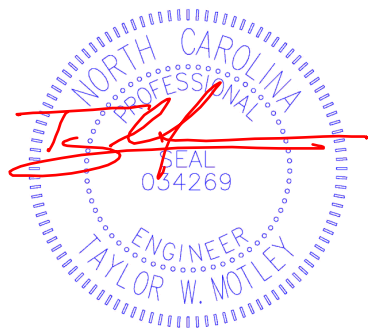
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.99	Vert(LL) -0.31 L >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.95	Vert(TL) -0.80 K >413 240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.84	Horz(TL) -0.66 I n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.89 L >368 240		Weight: 280 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x8 SP DSS *Except* D-E: 2x6 SP No.1, E-I: 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins, except 2-0-0 oc purlins (3-11-11 max.): D-E.
BOT CHORD 2x6 SP No.1 *Except* B-P: 2x6 SP No.2, F-K: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 3-1-2 oc bracing. Except: 3-3-0 oc bracing: H-K
WEBS 2x4 SP No.2 *Except* J-L: 2x4 SP No.1	
OTHERS 2x8 SP DSS	
LBR SCAB A-D 2x8 SP DSS one side E-I 2x10 SP No.1 one side	

**REACTIONS.** (lb/size) I=1523/0-5-8 (min. 0-1-13), B=1650/0-5-8 (min. 0-1-15)  
 Max Horz B=-271(LC 7)  
 Max Uplift I=-1648(LC 7), B=-1958(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-723/1120, C-W=-3274/3986, D-W=-3133/4016, D-Y=-3061/3954, Y-Z=-3061/3954, Z-AA=-3061/3954, E-AA=-3061/3954, E-X=-3482/4385, F-X=-3549/4368, F-G=-6424/7428, G-H=-4606/5294, H-I=-667/782  
 BOT CHORD C-AB=-3571/3043, AB-AC=-3562/3037, O-AC=-3556/3031, O-AD=-3904/3514, N-AD=-3904/3514, N-AE=-3904/3514, M-AE=-3904/3514, M-AF=-5876/5340, L-AF=-5890/5350, F-L=-3738/3441, K-AG=-381/353, J-AG=-381/353, H-J=-4877/4465  
 WEBS D-O=-537/636, E-O=-612/625, E-M=-694/756, F-M=-2053/2224, G-J=-2619/2965, J-L=-5523/5051, G-L=-1147/887

- NOTES-**
- Attached 10-0-11 scab A to D, front face(s) 2x8 SP DSS with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-7-6 from end at joint A, nail 2 row(s) at 4" o.c. for 3-6-14; starting at 7-11-3 from end at joint A, nail 2 row(s) at 7" o.c. for 2-0-0.
  - Attached 13-9-7 scab E to I, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-1-1 from end at joint E, nail 2 row(s) at 4" o.c. for 2-0-0; starting at 2-6-2 from end at joint E, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-7-0 from end at joint E, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 6-10-3 from end at joint E, nail 2 row(s) at 2" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Bearing at joint(s) I considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.



November 3, 2016

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	B10	HIP GIRDER	1	1	Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MITEK Industries, Inc. Thu Nov 03 11:27:45 2016 Page 2  
ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-dTBfh?LL6M?IZL0iCZUOUvMCAS3HTBM6UIACqUyMx8C

**NOTES-**

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) I=1648, B=1958.
- 12) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 4-0-11 from the left end to 19-5-13 to connect truss(es) J207 (1 ply 2x4 SP), J208 (1 ply 2x4 SP), J209 (1 ply 2x4 SP), J211 (1 ply 2x4 SP), J212 (1 ply 2x4 SP) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.
- 17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 232 lb up at 7-11-15, 126 lb down and 232 lb up at 10-0-11, 126 lb down and 232 lb up at 11-9-4, and 126 lb down and 232 lb up at 13-5-13, and 112 lb down and 232 lb up at 15-6-9 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 18) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: A-D=-60, D-E=-60, E-H=-60, H-I=-82, P-Q=-20, C-L=-20, K-T=-20

Concentrated Loads (lb)

Vert: D=-50(B) E=-50(B) N=-41(B) O=-41(B) M=-41(B) Y=-50(B) Z=-50(B) AA=-50(B) AB=-129(B) AC=-80(B) AD=-41(B) AE=-41(B) AF=-80(B) AG=-189(B)



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Job 812025_MASTER	Truss B11	Truss Type HIP	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37886  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-ZsJP6hNcezf0pY4JzWszZKRaWfM\_x6tPxcfluNyMx8A  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:47 2016 Page 1

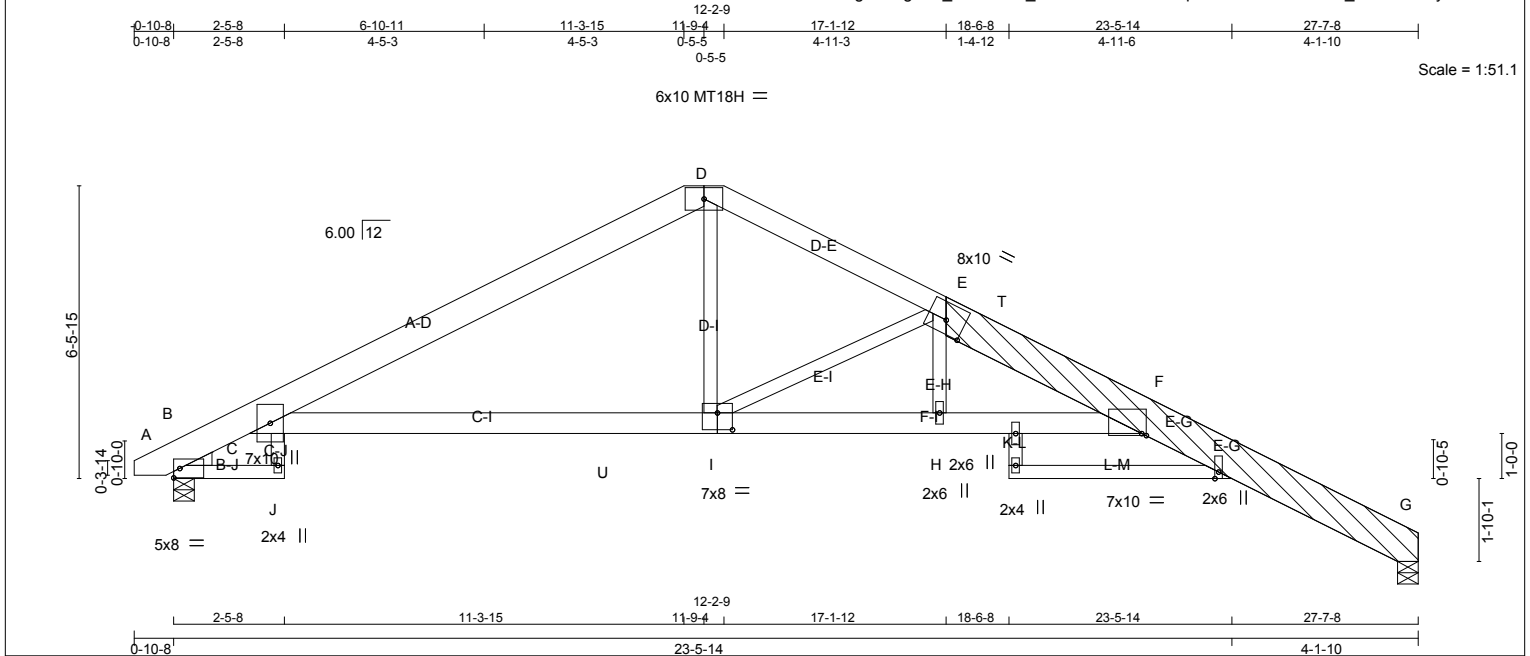


Plate Offsets (X,Y)-- [E:0-5-0,0-3-8], [F:0-1-4,0-0-8], [I:0-4-0,0-4-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.87	Vert(TL) -0.33 H-S >999 360	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr YES	WB 0.77	Horz(TL) 0.71 G n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.60 C-I >548 240	Weight: 231 lb	FT = 20%

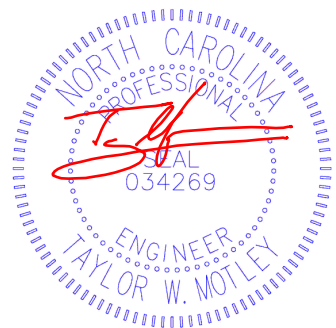
**LUMBER-**  
 TOP CHORD 2x8 SP DSS \*Except\*  
 D-E: 2x6 SP No.2, E-G: 2x10 SP No.1  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 F-I,C-I: 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 C-J: 2x4 SP No.2  
 OTHERS 2x10 SP No.1  
 LBR SCAB E-G 2x10 SP No.1 one side  
 WEDGE Left: 2x4 SP No.3

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

**REACTIONS.** (lb/size) B=1135/0-5-8 (min. 0-1-8), G=1108/0-5-8 (min. 0-1-8)  
 Max Horz B=-318(LC 9)  
 Max Uplift B=-776(LC 8), G=-773(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-476/639, C-D=-1789/1509, D-E=-1837/1667, E-T=-2633/2338, F-G=-474/506  
 BOT CHORD C-U=-858/1592, I-U=-861/1587, H-I=-1989/2762, F-H=-1989/2757  
 WEBS D-I=-554/832, E-I=-1256/1226

- NOTES-**
- Attached 12-0-0 scab E to G, front face(s) 2x10 SP No.1 with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-15 from end at joint E, nail 2 row(s) at 3" o.c. for 2-0-0; starting at 2-9-15 from end at joint E, nail 2 row(s) at 3" o.c. for 3-0-5.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - 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.
  - Bearing at joint(s) G considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=776, G=773.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



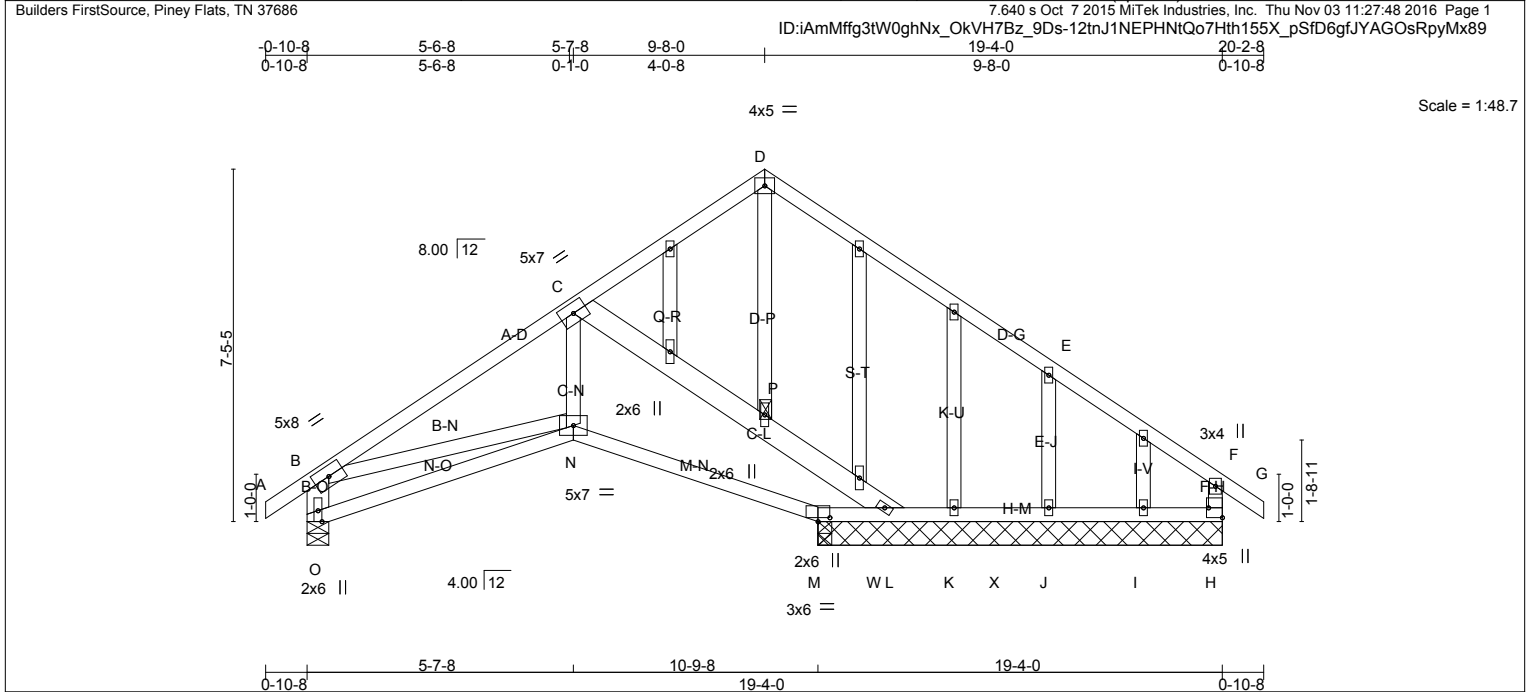
November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C01	Truss Type GABLE	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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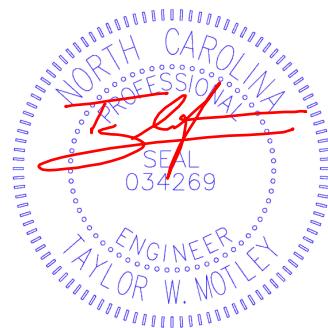
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.03	N	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(TL)	-0.09	N-O	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.38	Horz(TL)	0.08	H	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.05	N	>999	Weight: 132 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	JOINTS 1 Brace at Jt(s): P
B-O,C-L: 2x6 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 8-6-8 except (jt=length) O=0-5-8.  
 (lb) - Max Horz O=502(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) I except O=-488(LC 8), M=-248(LC 1), M=-248(LC 1), L=-360(LC 8), J=-525(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) M, K, I except O=829(LC 1), H=502(LC 1), L=642(LC 1), J=479(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1443/585, C-D=-424/370, D-E=-473/301, E-F=-399/51, B-O=-840/650, F-H=-364/86  
 BOT CHORD N-O=-630/607, M-N=-560/1171, M-W=-523/1101, L-W=-523/1101, K-L=-27/297, K-X=-27/297, J-X=-27/297, I-J=-27/297, H-I=-27/297  
 WEBS C-P=-995/672, L-P=-1038/669, C-N=-294/678, B-N=-7/907, E-J=-388/595

- NOTES-** (14)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; TCDF=6.0psf; BCDF=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 2x4 MT20 unless otherwise indicated.
  - 6) Gable studs spaced at 2-0-0 oc.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 9) Bearing at joint(s) O considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) I except (jt=lb) O=488, M=248, L=360, J=525.
  - 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 12) 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.
  - 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



November 3, 2016

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	C01	GABLE	3	1	

Builders FirstSource, Piney Flats, TN 37686

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ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-12tnJ1NEPHNtQo7Hth155X\_pSfD6gfJYAGOsRpyMx89

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.

**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-C=-60, C-D=-72(F=-12), D-F=-72(F=-12), F-G=-72(F=-12), N-O=-20, M-N=-20, M-W=-20, H-W=-32(F=-12), C-L=-42(F)

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

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	C02	Roof Special	6	1	

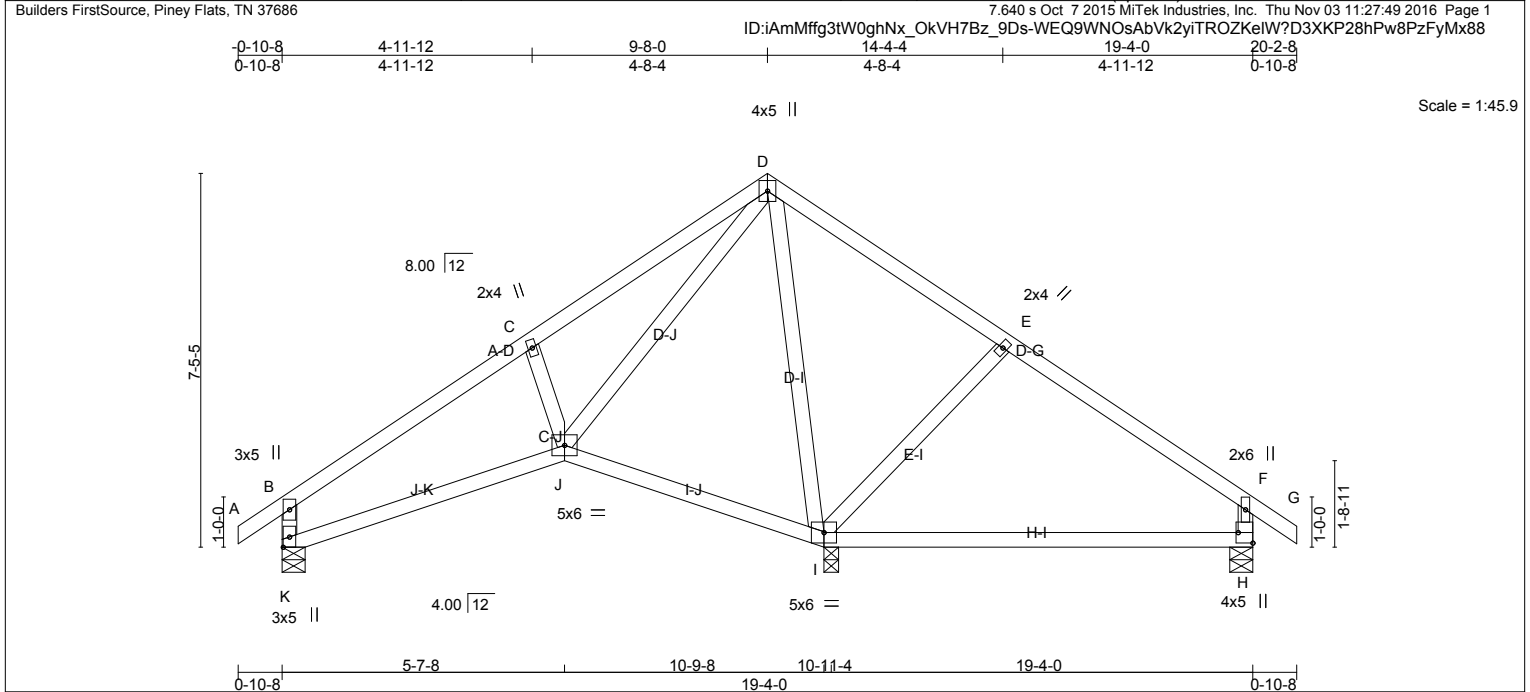


Plate Offsets (X,Y)--	[H:Edge.0-3-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.54	Vert(LL) -0.14	H-I	>704	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.55	Vert(TL) -0.36	H-I	>278	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.59	Horz(TL) 0.04	I	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL) 0.03	J	>999	240		
								Weight: 101 lb	FT = 20%

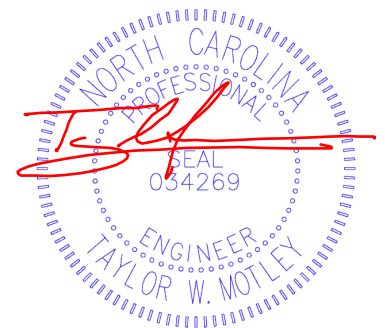
<b>LUMBER-</b>	<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS 2x4 SP No.3		

**REACTIONS.** (lb/size) K=375/0-5-8 (min. 0-1-8), I=1015/0-3-8 (min. 0-1-8), H=255/0-5-8 (min. 0-1-8)  
 Max Horz K=501(LC 7)  
 Max Uplift K=-355(LC 8), I=-584(LC 8), H=-383(LC 9)  
 Max Grav K=387(LC 13), I=1015(LC 1), H=334(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-421/369, C-D=-329/543, D-E=-95/287, E-F=-194/304, B-K=-407/476, F-H=-251/436  
 BOT CHORD J-K=-522/623, I-J=-110/365  
 WEBS C-J=-238/503, D-J=-559/536, D-I=-628/386, E-I=-287/493

- NOTES-** (10)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Bearing at joint(s) K considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) K=355, I=584, H=383.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum wallboard 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.

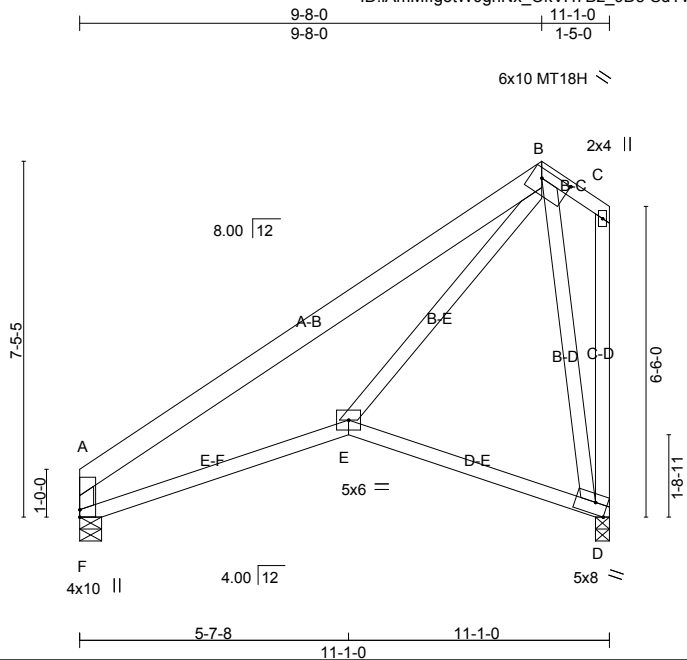
**LOAD CASE(S)** Standard



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	C03	Scissor	9	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-SdYwx2Q6iClSHGssYpboAcF3tDutzW\_sEdW18yMx86  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:51 2016 Page 1  
 Job Reference (optional)



Scale: 1/4"=1'

Plate Offsets (X,Y)-- [B:0-7-4,0-2-4], [D:0-3-0,Edge], [F:0-1-14,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 0.90	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.55	Vert(LL) -0.04 D-E >999 360	MT18H	244/190
BCLL 0.0 *	Lumber DOL 1.15	WB 0.54	Vert(TL) -0.08 D-E >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.07 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) -0.10 D-E >999 240	Weight: 78 lb	FT = 20%

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

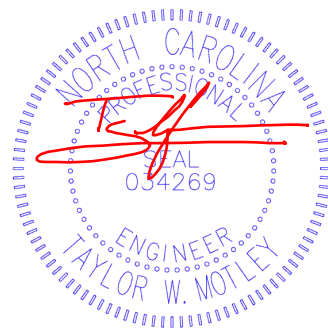
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) F=432/0-5-8 (min. 0-1-8), D=432/0-3-8 (min. 0-1-8)  
 Max Horz F=543(LC 8)  
 Max Uplift F=-161(LC 8), D=-484(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD A-B=-511/120, B-C=-254/117, C-D=-446/181, A-F=-482/373  
 BOT CHORD E-F=-351/358  
 WEBS B-E=-215/423, B-D=-567/1054

- NOTES-** (11)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - 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.
  - Bearing at joint(s) F, D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) F=161, D=484.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C04	Truss Type Common Girder	Qty 3	Ply 2	H&H-NC/Jessamine/Master
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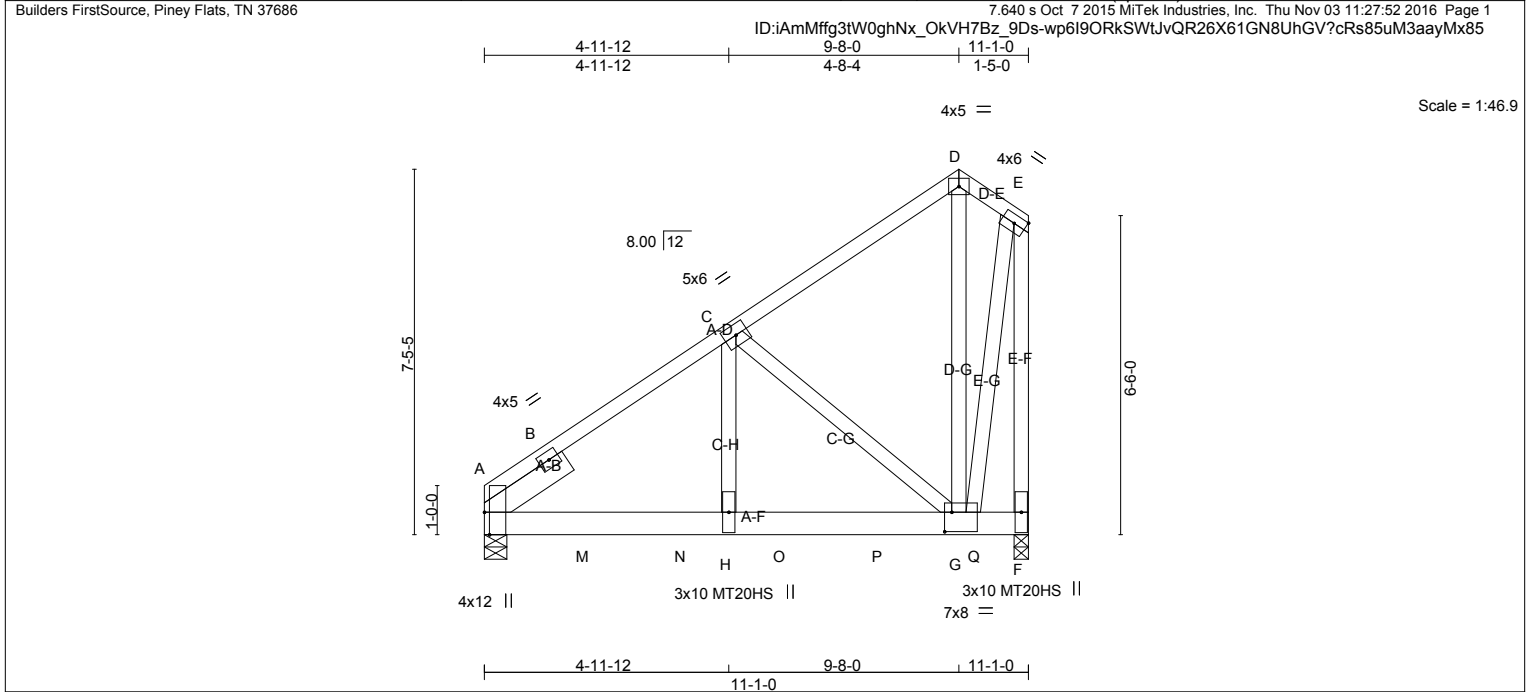


Plate Offsets (X,Y)-- [A:0-5-8,Edge], [G:0-1-12,0-4-12]

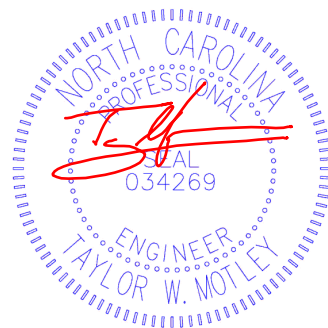
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.65	Vert(LL) -0.06	G-H >999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(TL) -0.14	G-H >947	240		MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.47	Horz(TL) 0.02	F n/a	n/a			
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.10	G-H >999	240			
							Weight: 185 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Left 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) A=3536/0-5-8 (min. 0-2-1), F=4292/0-3-8 (min. 0-2-9)  
 Max Horz A=509(LC 6)  
 Max Uplift A=-2191(LC 6), F=-3031(LC 6)  
 Max Grav A=3536(LC 1), F=4340(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD A-B=-2718/1625, B-C=-3991/2473, C-D=-1009/612, D-E=-961/663, E-F=-4284/2945  
 BOT CHORD A-M=-2391/3266, M-N=-2391/3266, H-N=-2391/3266, H-O=-2391/3266, O-P=-2391/3266,  
 G-P=-2391/3266  
 WEBS C-H=-2239/3551, C-G=-3232/2408, D-G=-661/942, E-G=-2634/3807

- NOTES-** (13)
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - 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) A=2191, F=3031.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1390 lb down and 874 lb up at 2-0-12, 1475 lb down and 912 lb up at 4-0-12, 1428 lb down and 928 lb up at 6-0-12, and 1428 lb down and 928 lb up at 8-0-12, and 1429 lb down and 927 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 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.



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

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Job 812025_MASTER	Truss C04	Truss Type Common Girder	Qty 3	Ply <b>2</b>	H&H-NC/Jessamine/Master Job Reference (optional)
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:52 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-wp6I9ORkSWtJvQR26X61GN8UhgV?cRs85uM3aayMx85

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: A-D=-60, D-E=-60, F-I=-20
- Concentrated Loads (lb)
  - Vert: M=-1390(B) N=-1390(B) O=-1390(B) P=-1390(B) Q=-1392(B)



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

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Job 812025_MASTER	Truss C05	Truss Type Roof Special Girder	Qty 3	Ply 2	H&H-NC/Jessamine/Master
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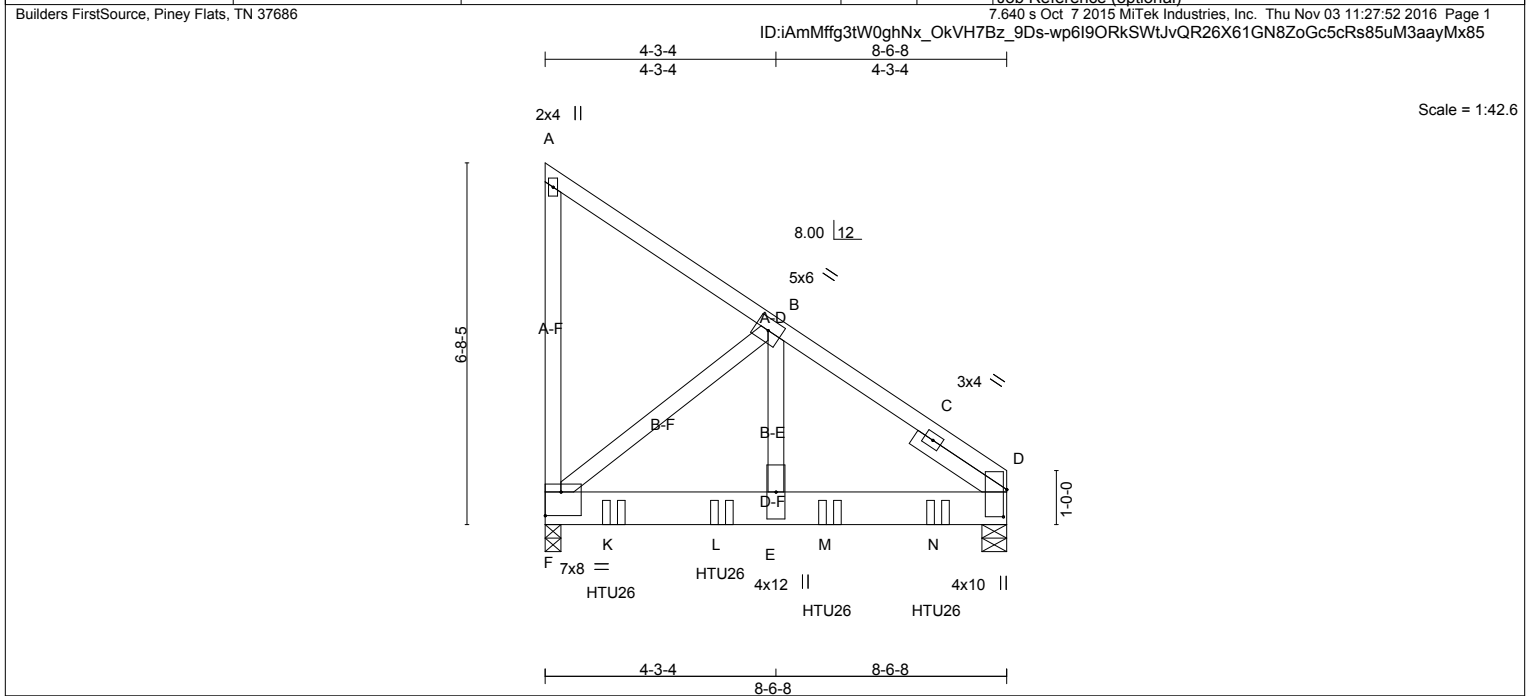


Plate Offsets (X,Y)-- [D:0-6-1,0-0-12], [F:Edge,0-5-4]

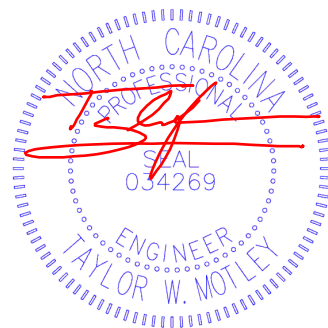
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.32	Vert(LL) -0.02	E-F	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.29	Vert(TL) -0.05	E-F	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.47	Horz(TL) 0.00	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.04	E-F	>999	240	Weight: 130 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	
SLIDER Right 2x4 SP No.3 2-0-0	

**REACTIONS.** (lb/size) D=3617/0-5-8 (min. 0-2-2), F=3733/0-3-8 (min. 0-2-3)  
 Max Horz F=-486(LC 7)  
 Max Uplift D=-2359(LC 7), F=-2825(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-3324/2121, C-D=-2394/1524  
 BOT CHORD F-K=-1668/2727, K-L=-1668/2727, E-L=-1668/2727, E-M=-1668/2727, M-N=-1668/2727,  
 D-N=-1668/2727  
 WEBS B-F=-3498/2696, B-E=-2617/3809

- 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.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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.
  - Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical 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) except (jt=lb) D=2359, F=2825.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-3-4 from the left end to 7-3-4 to connect truss(es) A05 (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - 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  
 November 3, 2016  
 Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151



Job 812025_MASTER	Truss C05	Truss Type Roof Special Girder	Qty 3	Ply <b>2</b>	H&H-NC/Jessamine/Master <b>Job Reference (optional)</b>
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:52 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-wp6I9ORkSWtJvQR26X61GN8ZoGc5cRs85uM3aayMx85

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: A-D=-60, F-G=-20
- Concentrated Loads (lb)
  - Vert: K=-1670(B) L=-1670(B) M=-1670(B) N=-1670(B)

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

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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	C11	GABLE	1	1	

Builders FirstSource, Piney Flats, TN 37686 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:27:54 2016 Page 1

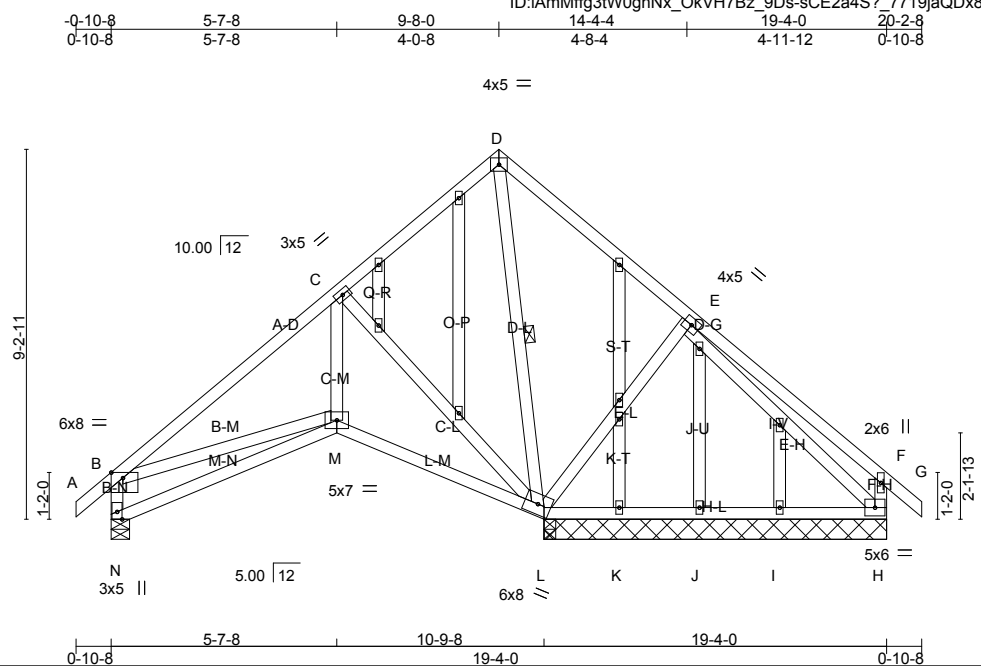


Plate Offsets (X,Y)-- [B:0-3-8,Edge] Scale = 1:57.4

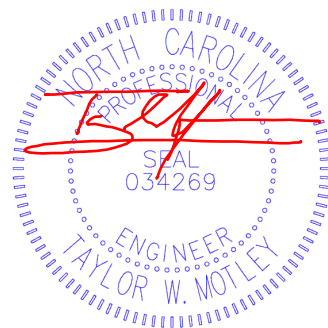
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.45	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.22	Vert(LL) -0.03 M-N >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.59	Vert(TL) -0.07 M-N >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.03 L n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.02 M >999 240	Weight: 158 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt D-L
B-N,F-H: 2x4 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 8-6-8 except (jt=length) N=0-5-8.  
 (lb) - Max Horz N=625(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except N=-328(LC 9), L=-716(LC 8), H=-396(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) K, J, I except N=390(LC 1), L=932(LC 1), L=932(LC 1), H=277(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-388/177, C-D=-194/407, D-E=-126/348, E-F=-160/440, B-N=-391/493, F-H=-239/541  
 BOT CHORD M-N=-763/730, L-M=-480/708  
 WEBS C-M=-344/603, C-L=-585/624, D-L=-422/212, E-L=-246/562, B-M=-20/377

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Bearing at joint(s) N considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 328 lb uplift at joint N, 716 lb uplift at joint L and 396 lb uplift at joint H.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.



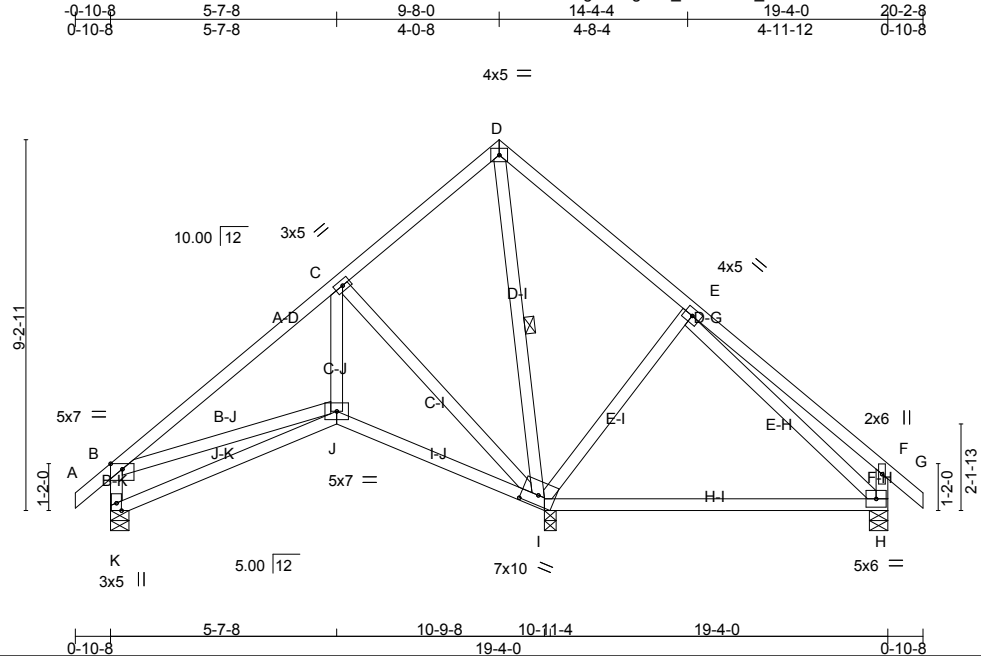
**LOAD CASE(S)** Standard November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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Job 812025_MASTER	Truss C12	Truss Type Roof Special	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID: iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-KOoRnQTdlRFum9dnffku0m\_nUbRpmganrbjBvyMx82  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:55 2016 Page 1  
 Job Reference (optional)



Scale = 1:57.3

Plate Offsets (X,Y)-- [1:0-5-0,0-2-14]

<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 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.13 H-I >770 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.59	Vert(TL) -0.33 H-I >309 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) 0.03 I n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.02 J >999 240	Weight: 129 lb	FT = 20%

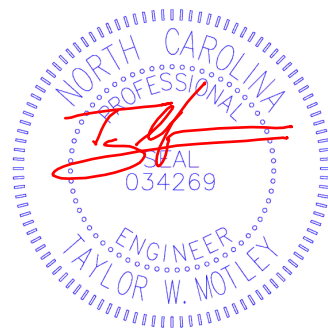
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt D-I

**REACTIONS.** (lb/size) K=396/0-5-8 (min. 0-1-8), I=967/0-3-8 (min. 0-1-8), H=282/0-5-8 (min. 0-1-8)  
 Max Horz K=625(LC 7)  
 Max Uplift K=-325(LC 9), I=-693(LC 8), H=-367(LC 9)  
 Max Grav K=396(LC 1), I=967(LC 1), H=342(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-399/171, C-D=-204/399, D-E=-139/338, E-F=-283/390, B-K=-396/489, F-H=-310/508  
 BOT CHORD J-K=-760/731, I-J=-477/711  
 WEBS C-J=-349/600, C-I=-583/629, D-I=-400/226, E-I=-257/558, B-J=-17/377, E-H=-177/294

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) 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.
  - 6) Bearing at joint(s) K considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 325 lb uplift at joint K, 693 lb uplift at joint I and 367 lb uplift at joint H.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



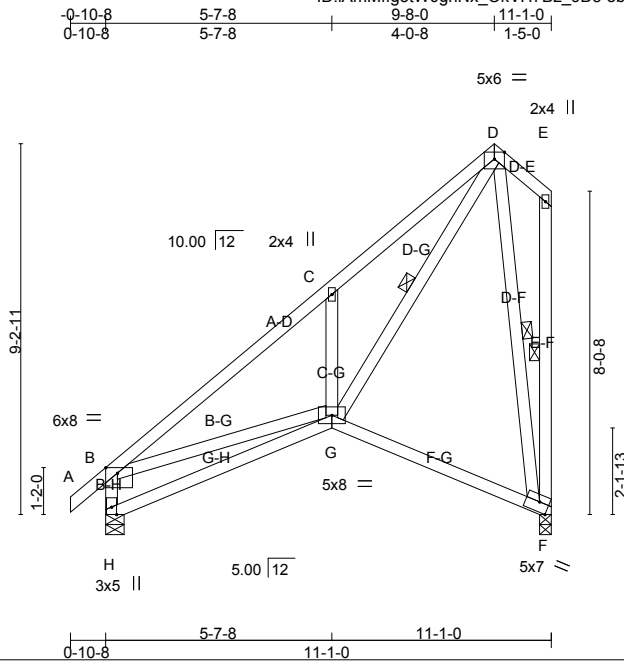
November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C13	Truss Type Scissor	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37866  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-obLp?mUFWkNIO1kpLMBzQDJ8ru?4YHEj0VKHjLyMx81  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:56 2016 Page 1  
 Job Reference (optional)



Scale = 1:57.3

Plate Offsets (X,Y)-- [B:0-3-8,Edge], [F:0-2-15,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 0.70	in (loc) l/def L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.23	Vert(LL) -0.03 F-G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.38	Vert(TL) -0.08 F-G >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.05 F n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.05 G >999 240	Weight: 91 lb	FT = 20%

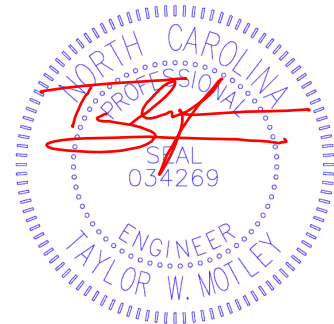
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt D-G, E-F, D-F

**REACTIONS.** (lb/size) H=496/0-5-8 (min. 0-1-8), F=429/0-3-8 (min. 0-1-8)  
 Max Horz H=776(LC 8)  
 Max Uplift H=-175(LC 8), F=-583(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-613/390, C-D=-596/872, B-H=-499/590  
 BOT CHORD G-H=-989/227  
 WEBS C-G=-303/705, D-G=-1157/640, B-G=0/250, D-F=-382/646

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Bearing at joint(s) H, F considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint H and 583 lb uplift at joint F.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



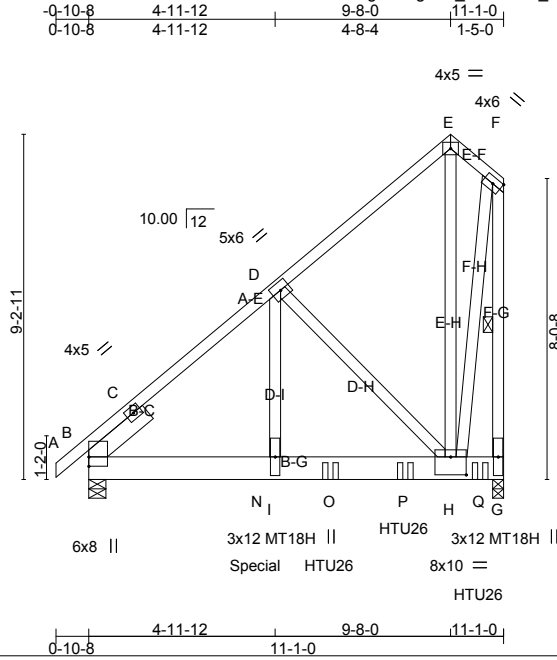
November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C14	Truss Type Common Girder	Qty 1	Ply 2	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:57 2016 Page 1  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-HnvBC6UtH2Vc0BJ?v4iCzRsMQHKuHFyF94qFoyMx80



Scale = 1:61.6

Plate Offsets (X,Y)-- [H:0-5-0,0-5-12]

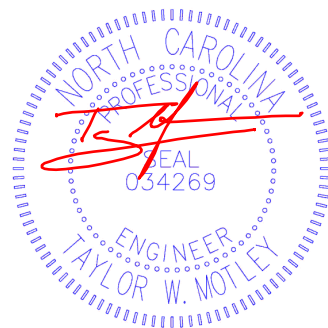
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL) -0.05	H-I	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(TL) -0.12	H-I	>999	240	MT18H	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.69	Horz(TL) -0.01	G	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.12	H-I	>999	240		
								Weight: 226 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 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt F-G
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (lb/size) B=2661/0-5-8 (min. 0-1-9), G=4528/0-3-8 (min. 0-2-11)  
 Max Horz B=725(LC 6)  
 Max Uplift B=-2924(LC 6), G=-4311(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1843/2243, C-D=-3223/3462, D-E=-778/653, E-F=-707/684, F-G=-3581/3479  
 BOT CHORD B-N=-3060/2399, I-N=-3060/2399, I-O=-3060/2399, O-P=-3060/2399, H-P=-3060/2399  
 WEBS D-I=-4139/3274, D-H=-2682/3646, E-H=-818/758, F-H=-3090/3156

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 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; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - 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 2924 lb uplift at joint B and 4311 lb uplift at joint G.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-5-8 from the left end to 10-5-8 to connect truss(es) A13 (1 ply 2x6 SP), A14 (1 ply 2x6 SP), A15 (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2085 lb down and 3410 lb up at 4-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



November 3, 2016

LOAD CASE(S) Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C14	Truss Type Common Girder	Qty 1	Ply <b>2</b>	H&H-NC/Jessamine/Master <b>Job Reference (optional)</b>
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:57 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-HnvBC6UtH2Vc0BJ?v4iCzRsMQHKuHFYtF94qFoyMx80

**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, G-J=-20

Concentrated Loads (lb)

Vert: N=-2085(B) O=-1390(B) P=-1390(B) Q=-1396(B)



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

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PO Box 3850  
Sumter SC 29151



Job 812025_MASTER	Truss C15	Truss Type Roof Special Girder	Qty 1	Ply 2	H&H-NC/Jessamine/Master
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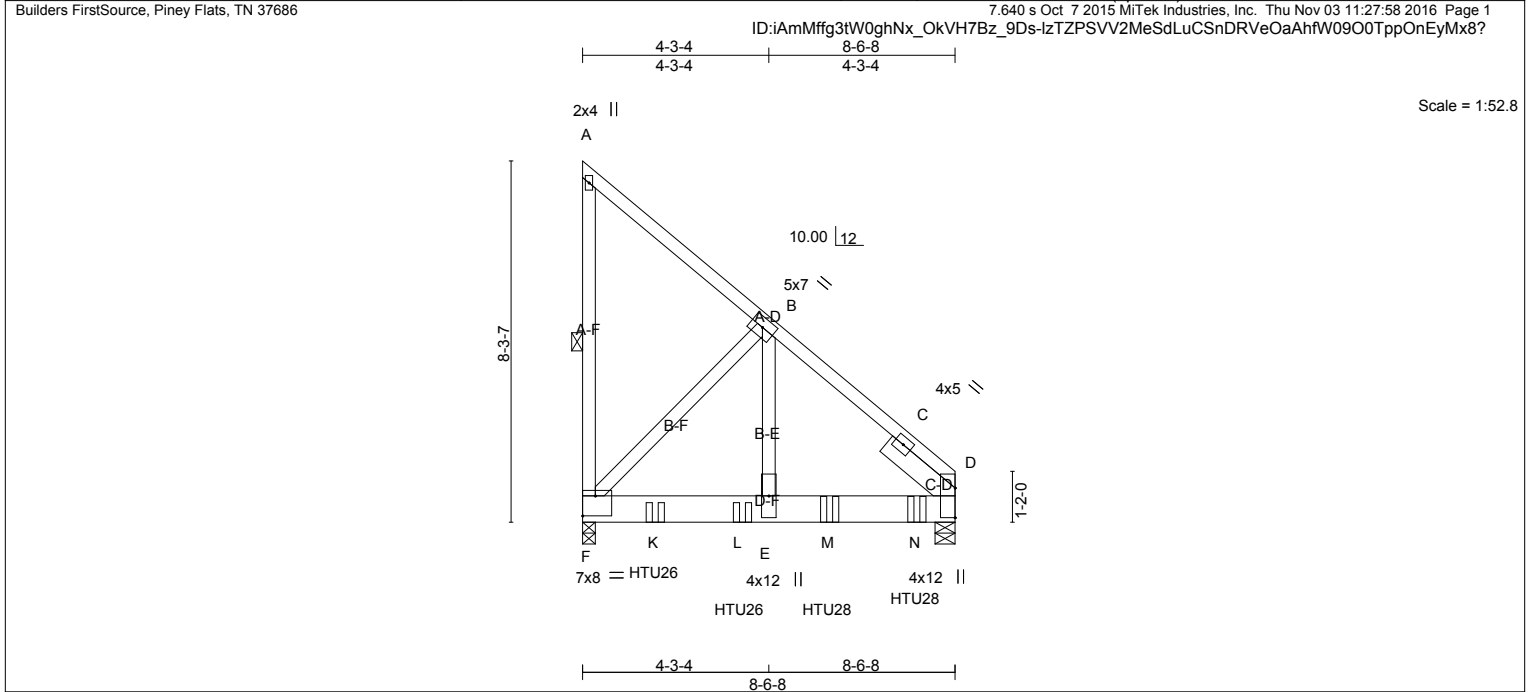


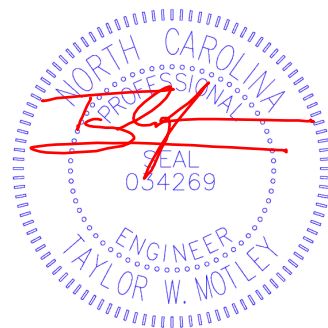
Plate Offsets (X,Y)-- [F:Edge,0-5-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL) -0.02	E-F >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(TL) -0.05	E-F >999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.46	Horz(TL) 0.00	D n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.04	E-F >999	240	Weight: 145 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	2x8 SP DSS	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.2	WEBS	1 Row at midpt A-F
SLIDER	Right 2x6 SP No.2 1-11-12		
<b>REACTIONS.</b>	(lb/size) F=3418/0-3-8 (min. 0-2-0), D=3933/0-5-8 (min. 0-2-5) Max Horz F=-608(LC 7) Max Uplift F=-2715(LC 7), D=-2468(LC 7)		
<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		
TOP CHORD	B-C=-2876/1747, C-D=-2104/1382		
BOT CHORD	F-K=-1334/2165, K-L=-1334/2165, E-L=-1334/2165, E-M=-1334/2165, M-N=-1334/2165, D-N=-1334/2165		
WEBS	B-F=-3086/2496, B-E=-2648/3782		

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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.
  - Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical 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 2715 lb uplift at joint F and 2468 lb uplift at joint D.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Use Simpson Strong-Tie HTU26 (20-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-0 from the left end to 3-8-0 to connect truss(es) A05 (1 ply 2x6 SP) to back face of bottom chord.
  - Use Simpson Strong-Tie HTU28 (26-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-8-0 from the left end to 7-8-0 to connect truss(es) A05 (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

Continued on page 2



November 3, 2016

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STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C15	Truss Type Roof Special Girder	Qty 1	Ply <b>2</b>	H&H-NC/Jessamine/Master Job Reference (optional)
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:27:58 2016 Page 2  
ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-lzTZPSV2MeSdLuCSnDRVeOaAhfW09O0TppOnEyMx8?

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: A-D=-60, F-G=-20
- Concentrated Loads (lb)
  - Vert: K=-1670(B) L=-1670(B) M=-1670(B) N=-1671(B)

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

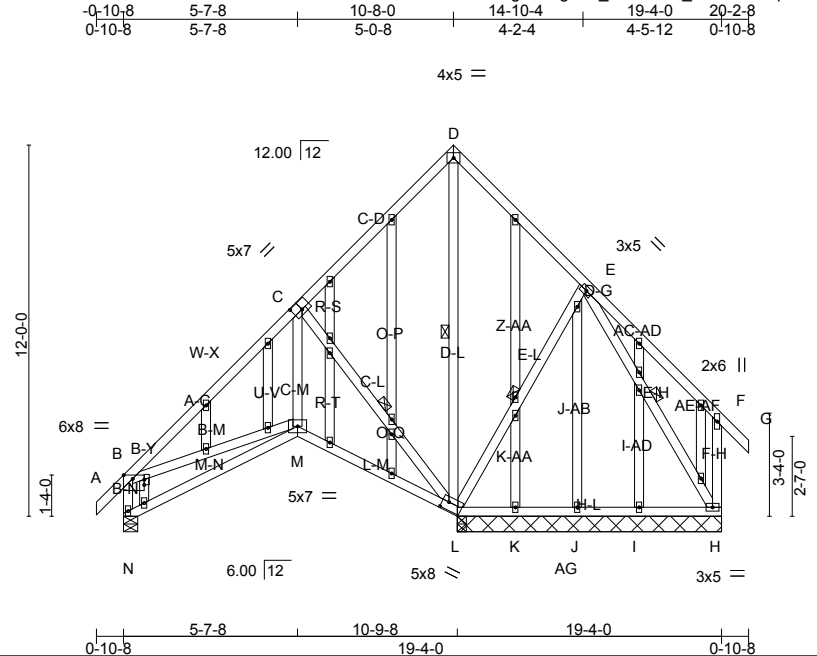
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PO Box 3850  
Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	C21	GABLE	1	1	

Builders FirstSource, Piney Flats, TN 37866  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-hMbKq7XlazuAte2aaCFvb3Ur9VMiU4wJx7lUr7yMx7z  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:00 2016 Page 1  
 Job Reference (optional)



Scale = 1:74.5

Plate Offsets (X,Y)-- [B:0-2-0,0-0-0], [B:0-3-8,Edge], [C:0-3-8,0-3-4], [L:0-2-8,0-3-0]

<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 0.68	Vert(LL) -0.03 M-N >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.25	Vert(TL) -0.09 M-N >999 240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.40	Horz(TL) 0.05 H n/a n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.03 M >999 240		
					Weight: 213 lb	FT = 20%

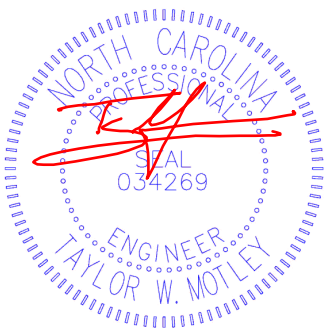
**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 B-N,F-H: 2x4 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 5-8-8 oc bracing.  
 WEBS 1 Row at midpt C-L, D-L, E-L, E-H

**REACTIONS.** All bearings 8-6-8 except (jt=length) N=0-5-8.  
 (lb) - Max Horz N=883(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except N=-341(LC 9), L=-871(LC 8), H=-319(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) K, J, I except N=394(LC 1), L=919(LC 1), H=919(LC 1), H=279(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-385/129, C-D=-312/541, D-E=-141/436, E-F=-96/549, B-N=-387/483, F-H=-187/633  
 BOT CHORD M-N=-1073/945, L-M=-697/903, K-L=-42/269, K-AG=-42/269, J-AG=-42/269, I-J=-42/269, H-I=-42/269  
 WEBS C-M=-624/871, C-L=-738/882, D-L=-597/354, E-L=-203/646, B-M=-29/497, E-H=-341/92

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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.
  - 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.
  - Bearing at joint(s) N considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 341 lb uplift at joint N, 871 lb uplift at joint L and 319 lb uplift at joint H.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



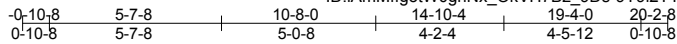
**LOAD CASE(S)** Standard  
 November 3, 2016

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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss C22	Truss Type Roof Special	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-9Y9i2TYOLH01Uodn8wm87H00uvguDXNSAn22NZyMx7y  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:01 2016 Page 1  
 Job Reference (optional)



4x5 =

Scale = 1:75.3

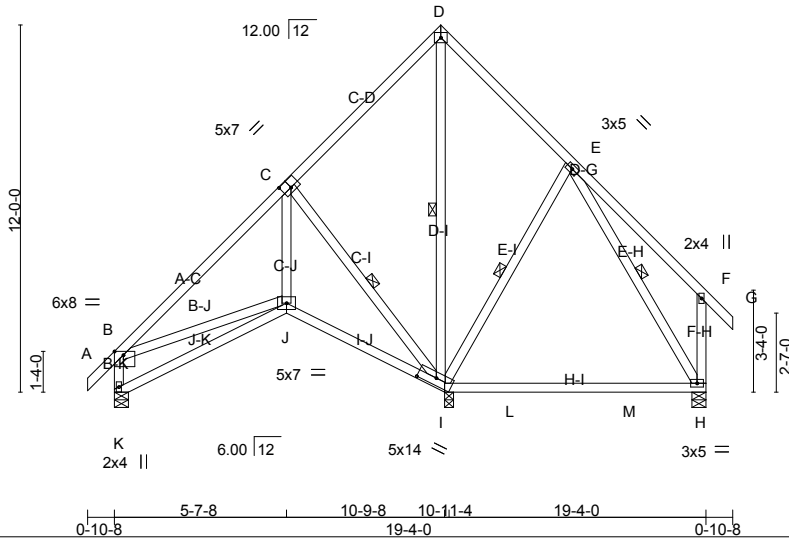


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [C:0-3-8,0-3-4], [I:0-7-4,0-2-12]

<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 0.68	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.20 H-I >504 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.39	Vert(TL) -0.41 H-I >248 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-M)	Horz(TL) 0.05 H n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.03 J >999 240	Weight: 149 lb	FT = 20%

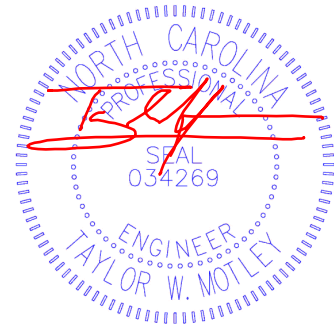
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt C-I, D-I, E-I, E-H

**REACTIONS.** (lb/size) K=400/0-5-8 (min. 0-1-8), I=958/0-3-8 (min. 0-1-8), H=287/0-5-8 (min. 0-1-8)  
 Max Horz K=883(LC 7)  
 Max Uplift K=-337(LC 9), I=-837(LC 8), H=-286(LC 9)  
 Max Grav K=400(LC 1), I=958(LC 1), H=348(LC 16)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-395/131, C-D=-309/528, D-E=-138/428, E-F=-137/533, B-K=-391/480, F-H=-206/621  
 BOT CHORD J-K=-1069/942, I-J=-707/913, I-L=-32/274, L-M=-32/274, H-M=-32/274  
 WEBS C-J=-634/873, C-I=-740/890, D-I=-579/350, E-I=-206/646, B-J=-18/489, E-H=-332/116

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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) 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) Bearing at joint(s) K considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 337 lb uplift at joint K, 837 lb uplift at joint I and 286 lb uplift at joint H.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss C23	Truss Type Scissor	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMfg3tW0ghNx\_OkVH7Bz\_9Ds-dlj4FpY06a8u6yBzhdHNgUZ8PI27ysVcORnbv?yMx7x  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:02 2016 Page 1  
 Job Reference (optional)

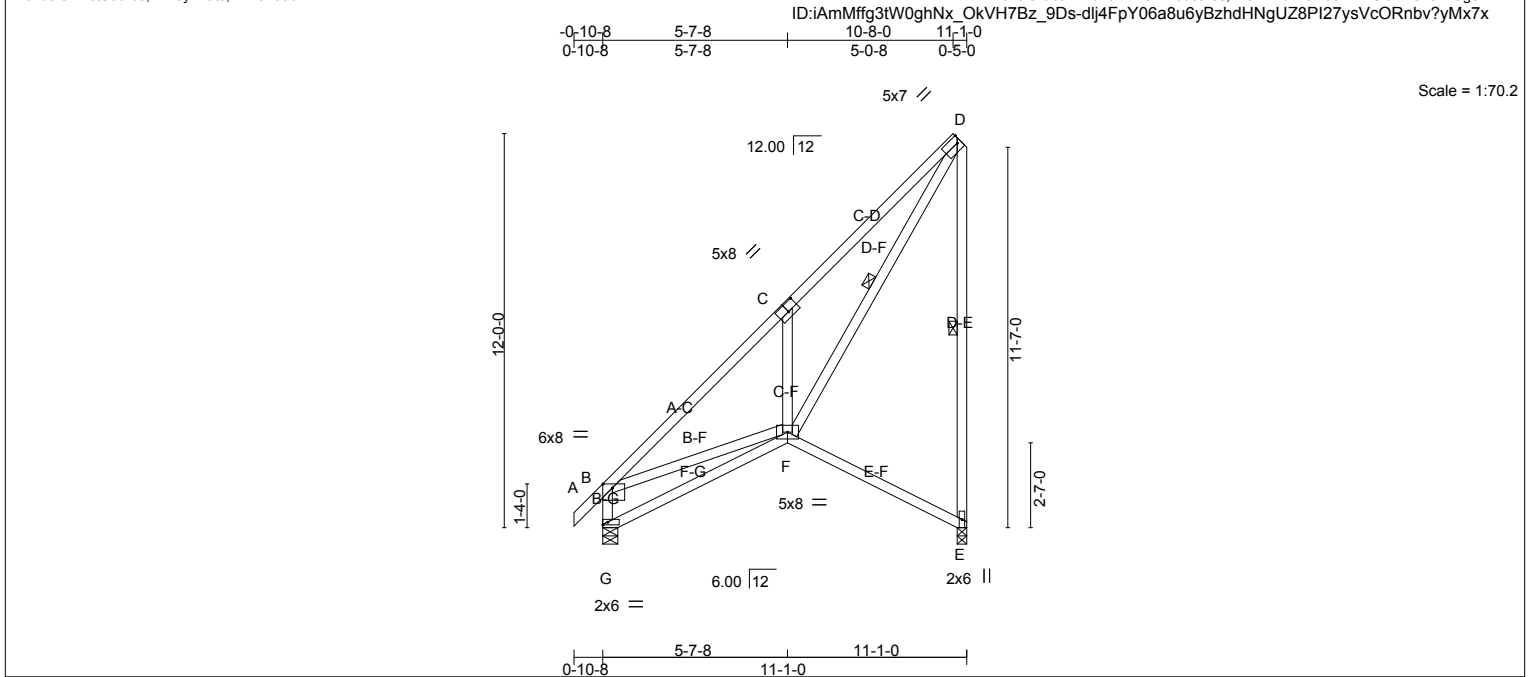


Plate Offsets (X,Y)-- [B:0-3-8,Edge], [C:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.89	Vert(LL)	-0.04	E-F	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.25	Vert(TL)	-0.10	E-F	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.91	Horz(TL)	-0.09	E	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-M)	Wind(LL)	0.07	F	>999		
	Code IRC2009/TPI2007						Weight: 91 lb	FT = 20%

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

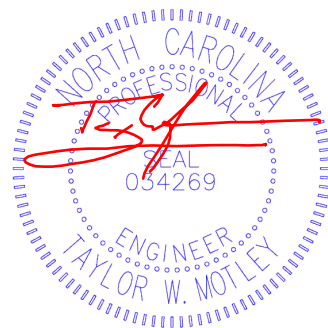
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 5-0-12 oc bracing.  
 WEBS 1 Row at midpt D-F, D-E

**REACTIONS.** (lb/size) G=496/0-5-8 (min. 0-1-8), E=429/0-3-8 (min. 0-1-8)  
 Max Horz G=1117(LC 8)  
 Max Uplift E=-925(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-587/163, C-D=-604/883, B-G=-485/494, D-E=-379/959  
 BOT CHORD F-G=-1368/170  
 WEBS C-F=-355/978, D-F=-1618/664, B-F=0/399

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) G, E 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 capable of withstanding 925 lb uplift at joint E.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss C24	Truss Type Common Girder	Qty 1	Ply 2	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-5xHST9ZetuGk6m9FKpcCi6M2iLChMvId5X8SRyMx7w  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:03 2016 Page 1

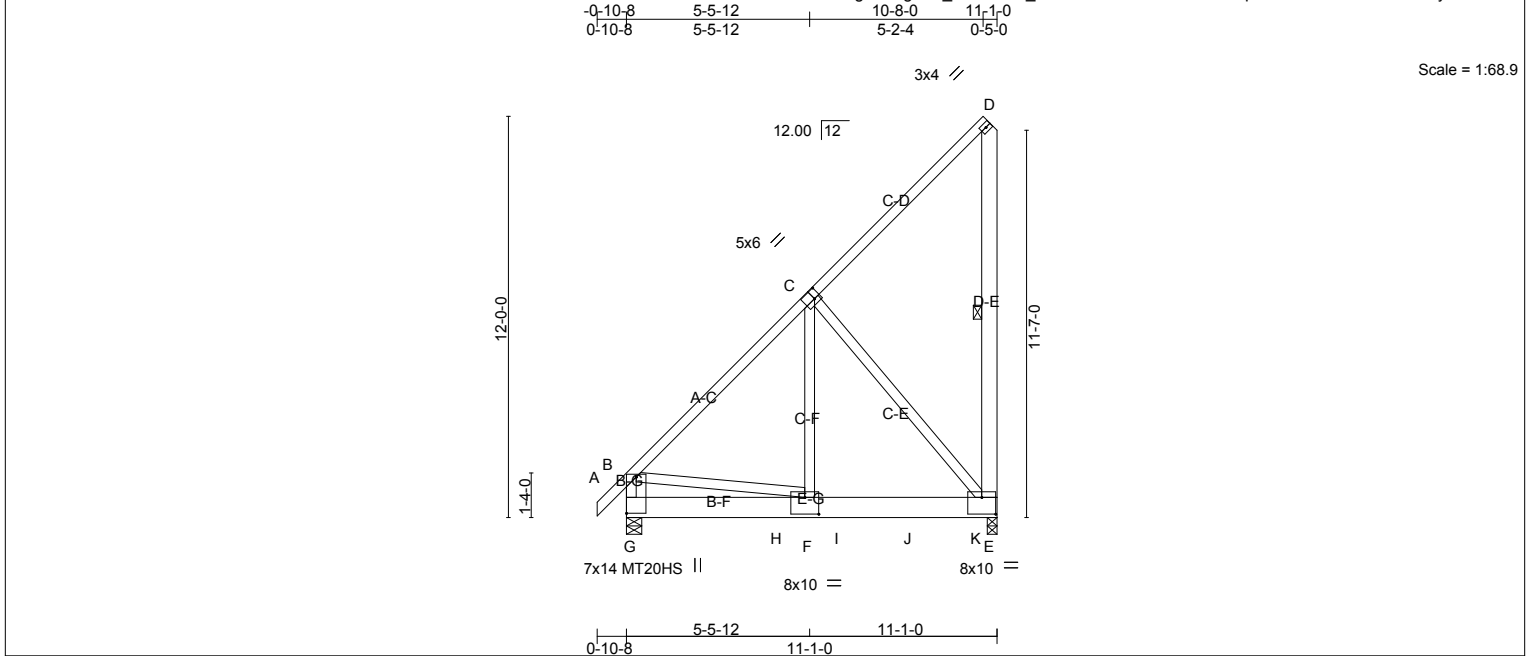


Plate Offsets (X,Y)-- [C:0-2-4,0-3-4], [E:0-5-0,0-6-0], [F:0-5-0,0-6-0], [G:Edge,0-3-8]

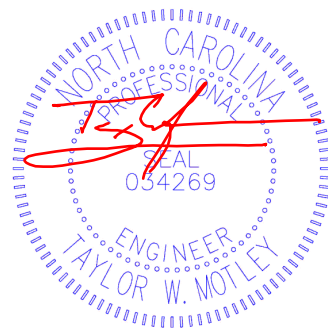
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(LL) -0.04 E-F >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.73	Vert(TL) -0.09 E-F >999 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.01 E n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.08 F-G >999 240		
				Weight: 228 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 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* D-E: 2x6 SP No.2	WEBS 1 Row at midpt D-E

**REACTIONS.** (lb/size) G=2627/0-5-8 (min. 0-1-9), E=4499/0-3-8 (min. 0-2-10)  
 Max Horz G=1097(LC 6)  
 Max Uplift G=-3073(LC 4), E=-5060(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-2855/3254, C-D=-290/72, B-G=-2465/2634, D-E=-124/357  
 BOT CHORD G-H=-1552/259, F-H=-1552/259, F-I=-2770/1914, I-J=-2770/1914, J-K=-2770/1914  
 E-K=-2770/1914  
 WEBS C-F=-5100/3830, B-F=-2070/1708, C-E=-2940/4263

- NOTES-**
- 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: 2x8 - 2 rows staggered at 0-3-0 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.
  - Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - 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 3073 lb uplift at joint G and 5060 lb uplift at joint E.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2031 lb down and 4132 lb up at 4-6-4, 1397 lb down and 1093 lb up at 6-5-8, and 1486 lb down and 1073 lb up at 8-5-8, and 1470 lb down and 1045 lb up at 10-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



**LOAD CASE(S)** Standard  
 November 3, 2016  
 Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151



Job 812025_MASTER	Truss C24	Truss Type Common Girder	Qty 1	Ply <b>2</b>	H&H-NC/Jessamine/Master Job Reference (optional)
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:04 2016 Page 2  
ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Z7qqgVaGeCOcLGLLp2KriveXo6hRQplvsIGI\_uyMx7v

**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=-60, E-G=-20

Concentrated Loads (lb)

Vert: H=-2031(B) I=-1390(B) J=-1390(B) K=-1396(B)



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

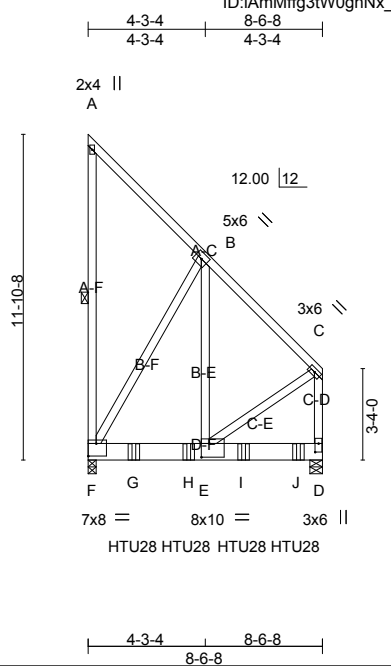
Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
Sumter SC 29151

Job 812025_MASTER	Truss C25	Truss Type Roof Special Girder	Qty 1	Ply 2	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMfg3tW0ghNx\_OkVH7Bz\_9Ds-Z7qqgVaGeCOcLGLp2KrvvecU6jRQrHvsiGI\_uyMx7v  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:04 2016 Page 1



Scale = 1:84.0

Plate Offsets (X,Y)-- [D:0-3-12,0-1-8], [E:0-3-8,0-6-0], [F:Edge,0-5-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.34	Vert(LL) -0.02	D-E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.26	Vert(TL) -0.05	D-E	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.63	Horz(TL) 0.00	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.04	D-E	>999	240		
							Weight: 186 lb	FT = 20%

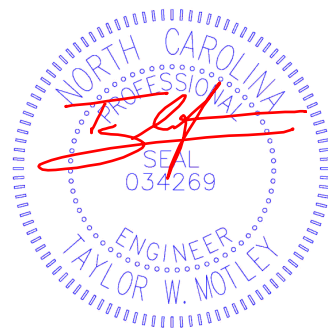
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt A-F

**REACTIONS.** (lb/size) D=3993/0-5-8 (min. 0-2-6), F=3349/0-3-8 (min. 0-2-0)  
 Max Horz F=-847(LC 7)  
 Max Uplift D=-2495(LC 5), F=-3004(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD A-F=-99/263, B-C=-1899/1135, C-D=-2291/1360  
 BOT CHORD F-G=-924/1289, G-H=-924/1289, E-H=-924/1289  
 WEBS B-F=-2555/2370, B-E=-2456/3209, C-E=-1033/1531

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 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.
  - Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical 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 2495 lb uplift at joint D and 3004 lb uplift at joint F.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - Use Simpson Strong-Tie HTU28 (26-10d Girder, 14-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-0 from the left end to 7-8-0 to connect truss(es) A05 (1 ply 2x6 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.

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



November 3, 2016

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information</b> available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.</p>	 STRUCTURAL ENGINEERS PO Box 3850 Sumter SC 29151
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Job 812025_MASTER	Truss C25	Truss Type Roof Special Girder	Qty 1	Ply <b>2</b>	H&H-NC/Jessamine/Master Job Reference (optional)
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Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:04 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Z7qqgVaGeCOcLGLLp2KrivecU6jRQrHvsIGi\_uyMx7v

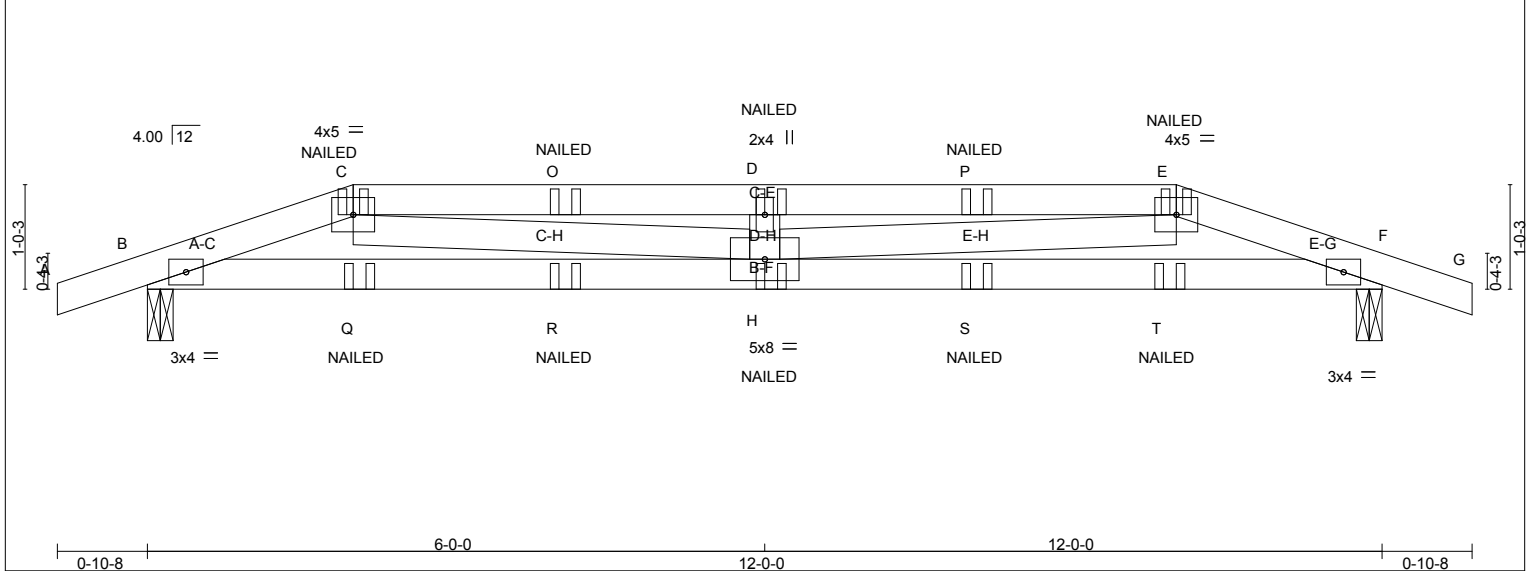
**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: G=-1670(B) H=-1670(B) I=-1670(B) J=-1672(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	CP01	Hip Girder	1	1	



<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 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.44	Vert(LL) -0.08 H >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.36	Vert(TL) -0.19 H >742 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.02 F n/a n/a	Weight: 51 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.25 H >566 240		

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-10-13 oc purlins, except  
2-0-0 oc purlins (4-1-2 max.): C-E.  
BOT CHORD Rigid ceiling directly applied or 5-3-6 oc bracing.

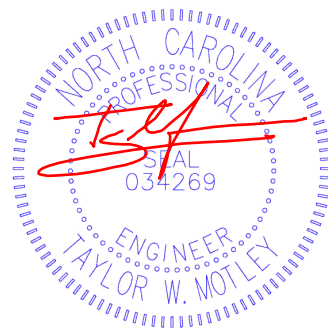
**REACTIONS.** (lb/size) B=548/0-3-0 (min. 0-1-8), F=548/0-3-0 (min. 0-1-8)  
Max Horz B=40(LC 4)  
Max Uplift B=-762(LC 4), F=-762(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD B-C=-973/1281, C-O=-1762/2373, D-O=-1762/2373, D-P=-1762/2373, E-P=-1762/2373, E-F=-973/1284  
BOT CHORD B-Q=-1176/908, Q-R=-1176/908, H-R=-1176/908, H-S=-1145/908, S-T=-1145/908, F-T=-1145/908  
WEBS C-H=-1190/891, D-H=-236/287, E-H=-1192/891

- NOTES-** (13)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left and right exposed; porch 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 762 lb uplift at joint B and 762 lb uplift at joint F.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails. For more details refer to MiTek's ST-TOENAIL Detail.
  - 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

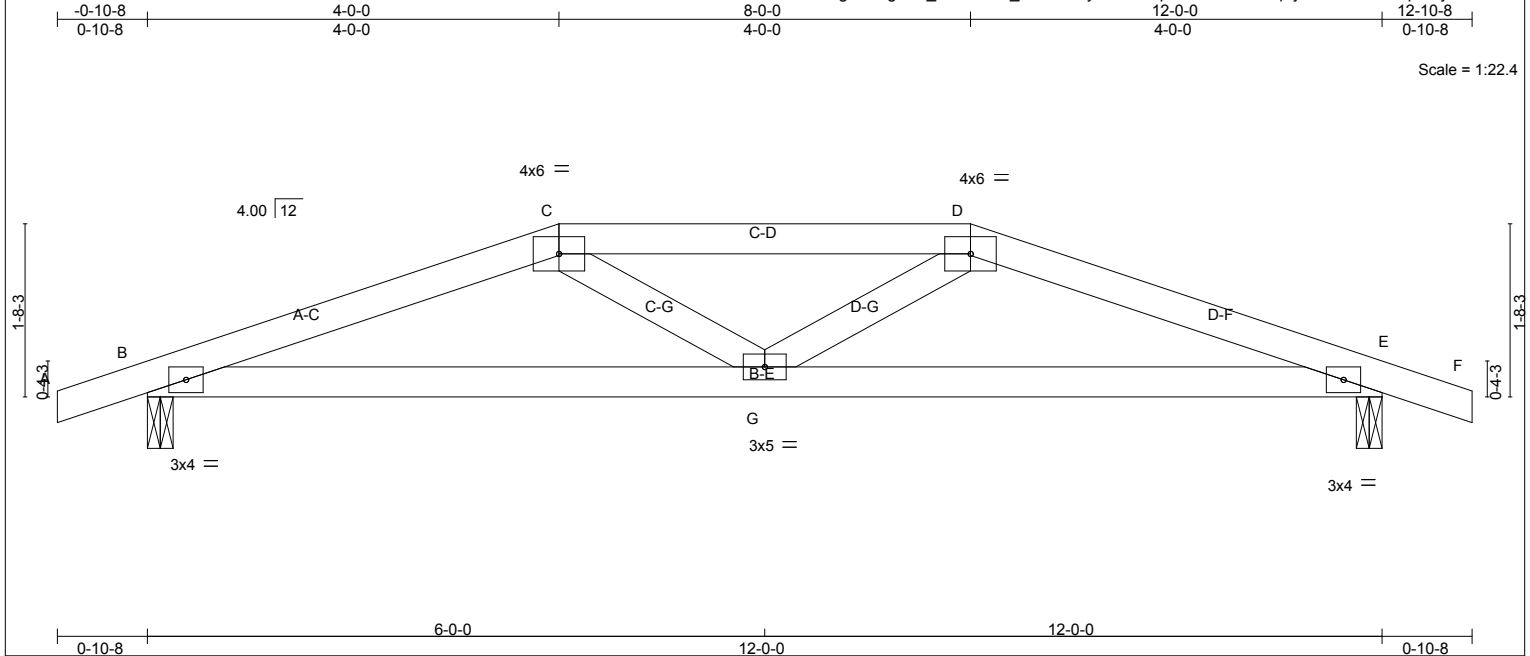
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: A-C=-60, C-E=-60, E-G=-60, I-L=-20  
Concentrated Loads (lb)  
Vert: H=6(B) Q=-6(B) R=-6(B) S=-6(B) T=-6(B)



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	CP02	Hip	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:06 2016 Page 1  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-WWyb5BbW9peKbZVkwTMJqKjvxwMztsECJ3lp2myMx7t



<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 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.38	Vert(LL) -0.02 G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Vert(TL) -0.07 G-J >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.02 E n/a n/a	Weight: 46 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.12 G-M >999 240		

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

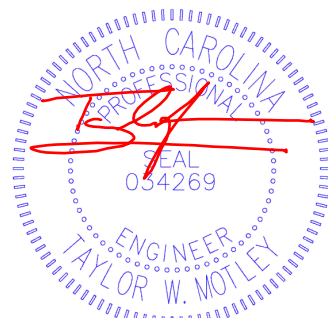
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-10-8 max.): C-D.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=532/0-3-0 (min. 0-1-8), E=533/0-3-0 (min. 0-1-8)  
 Max Horz B=59(LC 6)  
 Max Uplift B=-740(LC 6), E=-740(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-905/2053, C-D=-909/2414, D-E=-905/2052  
 BOT CHORD B-G=-1834/831, E-G=-1837/831  
 WEBS C-G=-498/195, D-G=-498/195

- NOTES-** (11)
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) 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 740 lb uplift at joint B and 740 lb uplift at joint E.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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



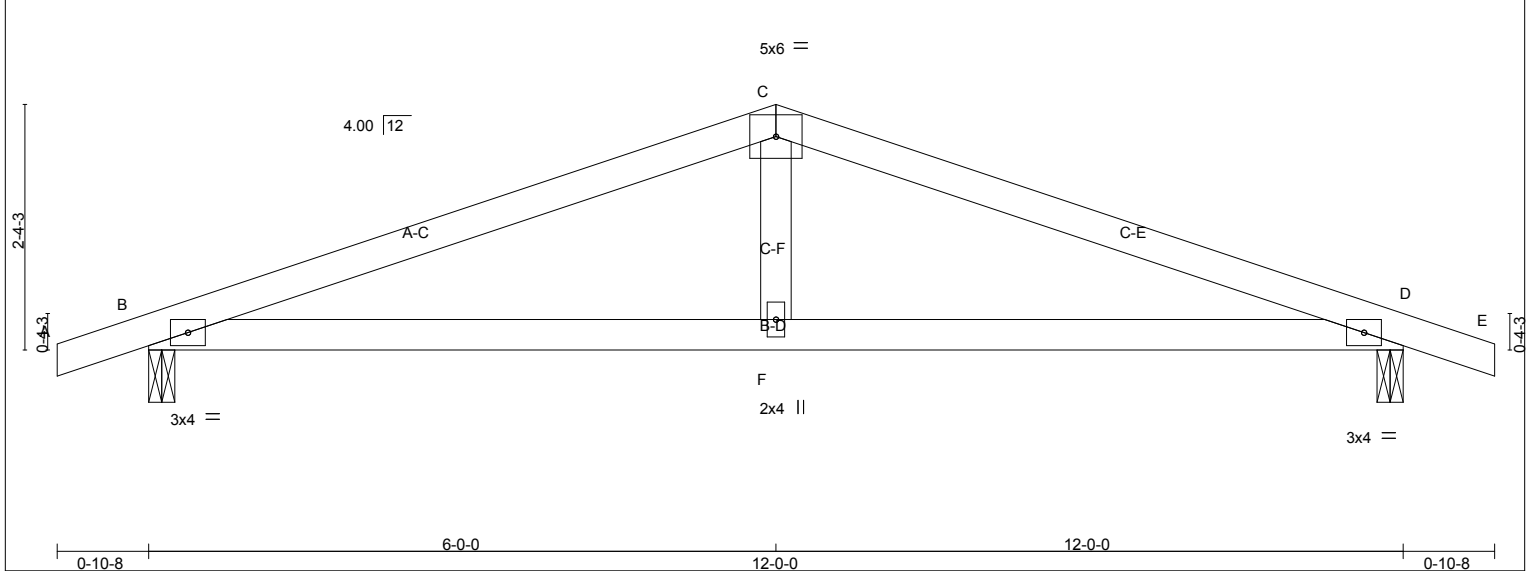
November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss CP03	Truss Type Common	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-\_iWzIWc9w7mBCj4wUAAtYNYG3PJhocJLLYjVMbDyMx7s  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:07 2016 Page 1  
 Job Reference (optional)  
 Scale = 1:22.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.62	Vert(LL)	-0.02	F-I	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.47	Vert(TL)	-0.07	F-I	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Horz(TL)	-0.02	D	n/a		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Wind(LL)	0.12	F-L	>999		
	Code IRC2009/TPI2007						Weight: 42 lb	FT = 20%

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

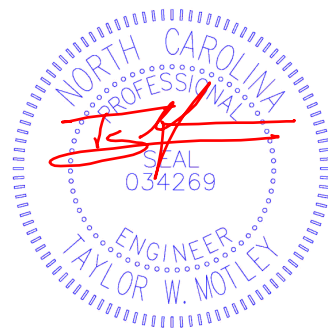
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=532/0-3-0 (min. 0-1-8), D=533/0-3-0 (min. 0-1-8)  
 Max Horz B=-77(LC 7)  
 Max Uplift B=-721(LC 8), D=-721(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-781/1856, C-D=-781/1856  
 BOT CHORD B-F=-1611/695, D-F=-1611/695  
 WEBS C-F=-621/234

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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; 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 721 lb uplift at joint B and 721 lb uplift at joint D.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard

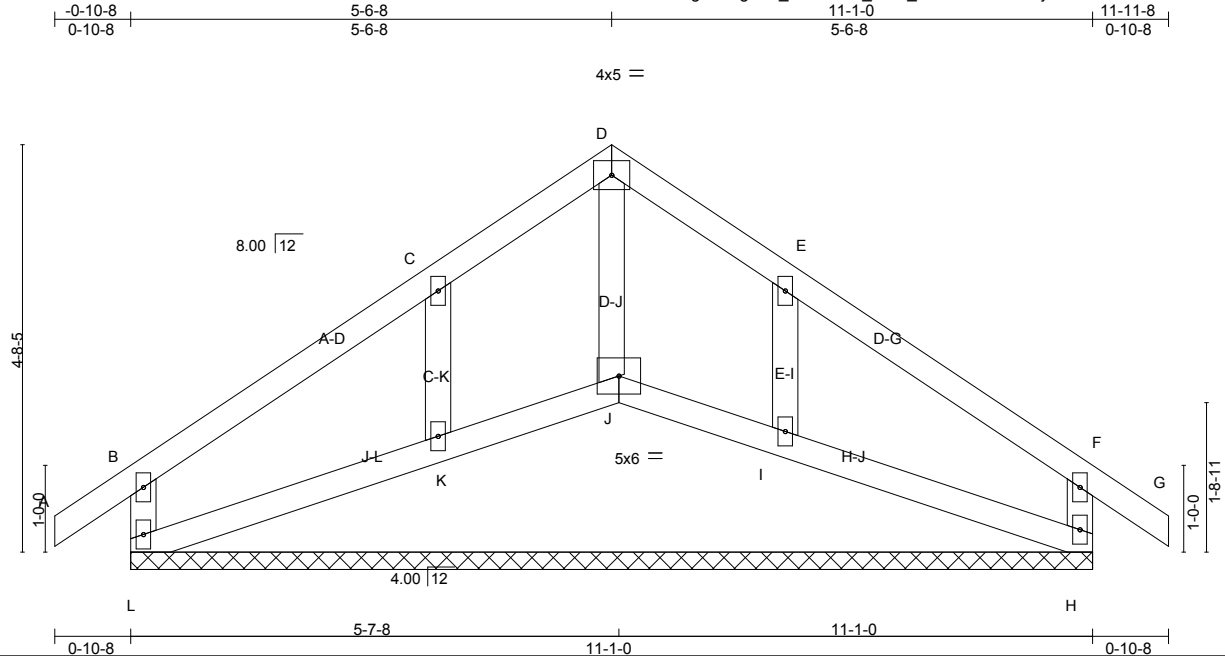


November 3, 2016



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	D01	GABLE	3	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMfg3tW0ghNx\_OkVH7Bz\_9Ds-\_iWzIWc9w7mBCj4wUAtYNYG9fJmrcJCLYjVMbDyMx7s  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:07 2016 Page 1  
 Job Reference (optional)



Scale = 1:26.5

<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 0.22	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) 0.00 G n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(TL) 0.00 G n/r 120		
BCDL 10.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.00 H n/a n/a		
	Code IRC2009/TPI2007			Weight: 52 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 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

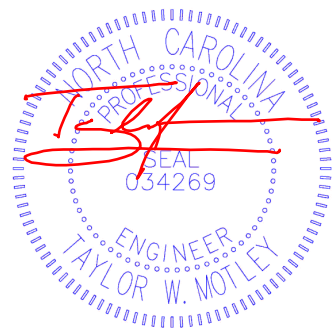
**REACTIONS.** All bearings 11-1-0.  
 (lb) - Max Horz L=323(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except L=-273(LC 9), H=-319(LC 9), K=-341(LC 8), I=-335(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) L, H except J=409(LC 9), K=254(LC 13), I=254(LC 14)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD C-D=-86/429, D-E=-85/444, E-F=-97/257, B-L=-187/373, F-H=-186/382  
 WEBS D-J=-378/10, C-K=-185/361, E-I=-186/358

- NOTES-** (15)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 273 lb uplift at joint L, 319 lb uplift at joint H, 341 lb uplift at joint K and 335 lb uplift at joint I.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) J, K, I.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.

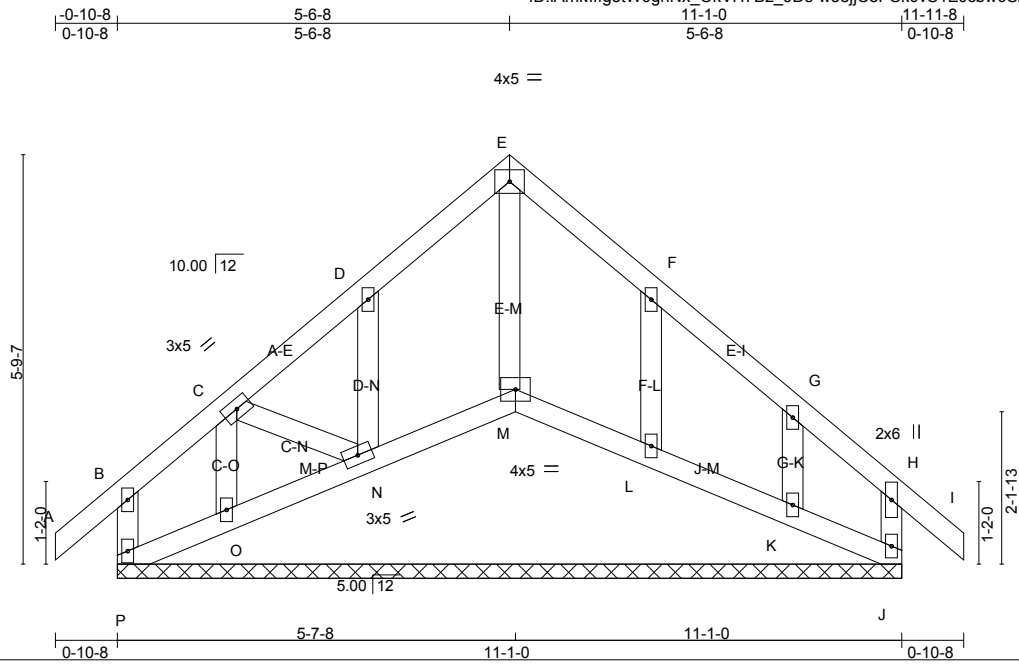
**LOAD CASE(S)** Standard

November 3, 2016



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	D11	GABLE	1	1	

Builders FirstSource, Piney Flats, TN 37886  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-w5ejjCePsk0vS1EJcbw0SszLUH7TB4Dse?1\_Tf5yMx7q  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:09 2016 Page 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 0.27	Vert(LL)	-0.00	I	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(TL)	-0.00	I	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(TL)	0.00	J	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)					Weight: 64 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 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

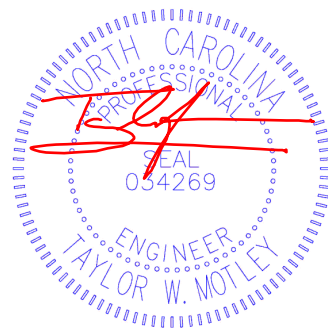
**REACTIONS.** All bearings 11-1-0.  
 (lb) - Max Horz P=402(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) M except P=-241(LC 9), J=-207(LC 9), N=-405(LC 8), O=-202(LC 6), L=-246(LC 9), K=-262(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) P, J, O, L, K except M=568(LC 9), N=289(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD C-D=-214/344, D-E=-79/443, E-F=-37/435, B-P=-103/274  
 BOT CHORD O-P=-364/401, N-O=-358/397  
 WEBS E-M=-426/78, D-N=-135/289, F-L=-135/286, G-K=-88/257, C-N=-272/319

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) M except (jt=lb) P=241, J=207, N=405, O=202, L=246, K=262.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) M, N, O, L, K.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

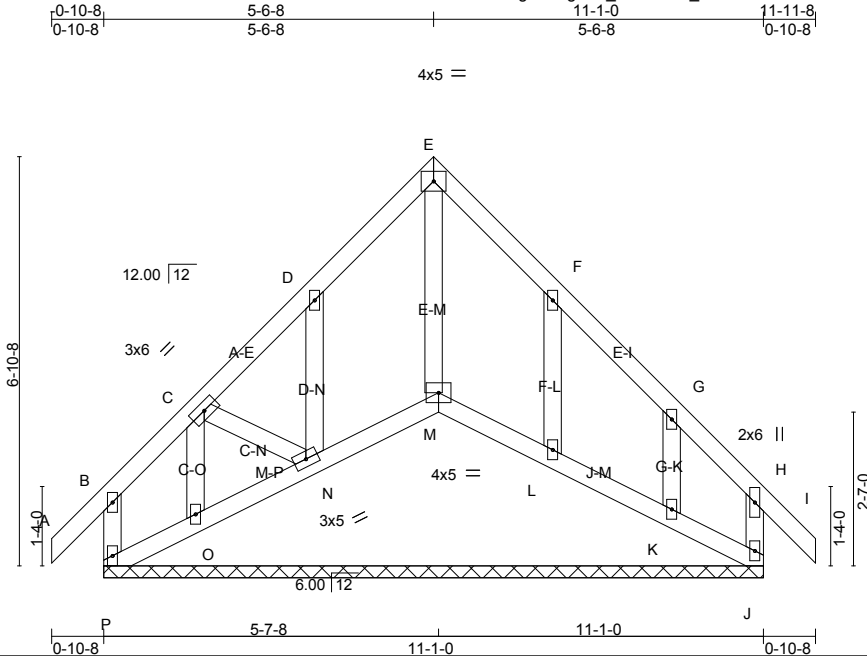
**LOAD CASE(S)** Standard

November 3, 2016



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	D21	GABLE	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:10 2016 Page 1  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-OHC6xYe1D28I3BpV9JRF\_AudxXospetnEhj0BXyMx7p



Scale = 1:38.7

<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 0.34	Vert(LL)	-0.00	I	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(TL)	-0.00	I	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(TL)	0.01	J	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix)					Weight: 71 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

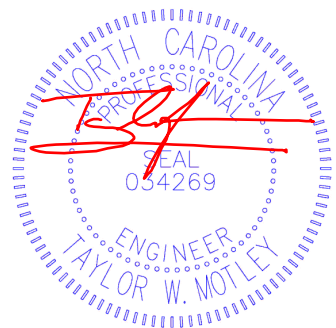
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 11-1-0.  
 (lb) - Max Horz P=481(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) except P=-315(LC 9), M=-118(LC 7), J=-226(LC 9), N=-547(LC 7), O=-331(LC 6), L=-290(LC 9), K=-341(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) P, J, L, K except M=861(LC 9), N=390(LC 6), O=334(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD C-D=-276/450, D-E=-100/583, E-F=-42/568, F-G=-32/317, B-P=-103/329  
 BOT CHORD O-P=-460/500, N-O=-451/493  
 WEBS E-M=-673/100, D-N=-135/340, C-O=-335/368, F-L=-135/336, G-K=-87/317, C-N=-341/401

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 315 lb uplift at joint P, 118 lb uplift at joint M, 226 lb uplift at joint J, 547 lb uplift at joint N, 331 lb uplift at joint O, 290 lb uplift at joint L and 341 lb uplift at joint K.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) M, N, O, L, K.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss E01	Truss Type GABLE	Qty 5	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37866  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-sTIU8uff\_LGchLNij0yUXORghx3fY6WxTLTak\_yMx70  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:11 2016 Page 1  
 Job Reference (optional)

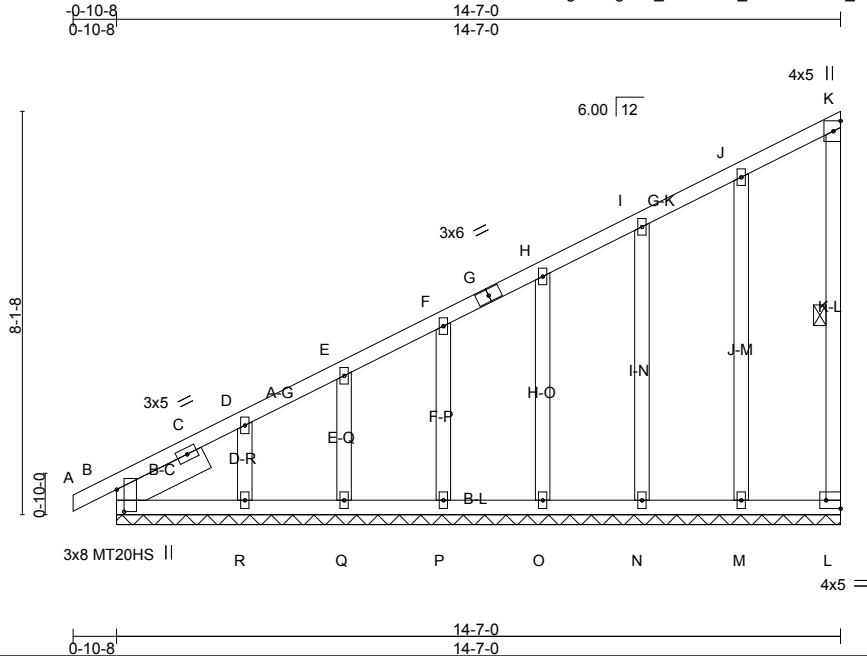


Plate Offsets (X,Y)-- [B:0-5-5,0-1-13], [L:Edge,0-2-0]

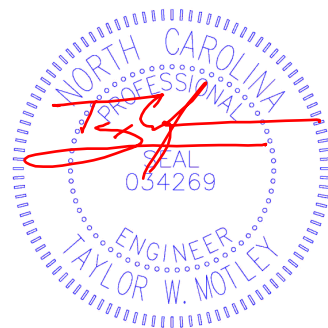
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(LL) 0.00 A n/r 120	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Vert(TL) 0.00 A n/r 120		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Horz(TL) 0.01 L n/a n/a		
				Weight: 100 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-2-12 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	WEBS 1 Row at midpt K-L
OTHERS 2x4 SP No.3	
SLIDER Left 2x6 SP No.2 2-0-0	

**REACTIONS.** All bearings 14-7-0.  
 (lb) - Max Horz B=683(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) B except L=-107(LC 7), M=-184(LC 8), N=-163(LC 8), O=-171(LC 8), P=-174(LC 8), Q=-144(LC 8), R=-319(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) L, M, N, O, P, Q, R except B=304(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-1068/0, C-D=-1033/35, D-E=-802/47, E-F=-709/76, F-G=-592/99, G-H=-582/105, H-I=-478/132, I-J=-374/195  
 BOT CHORD B-R=-182/304, Q-R=-182/304, P-Q=-182/304, O-P=-182/304, N-O=-182/304, M-N=-182/304, L-M=-182/304  
 WEBS J-M=-125/338, I-N=-120/262, D-R=-142/504

- NOTES-** (13)
- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCCL=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) All plates are MT20 plates unless otherwise indicated.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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) B except (it=lb) L=107, M=184, N=163, O=171, P=174, Q=144, R=319.
  - 11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 12) "Semi-rigid pitchbreaks including heels" Member end finity model was used in the analysis and design of this truss.
  - 13) 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.



November 3, 2016

**LOAD CASE(S)** Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss E02	Truss Type Monopitch	Qty 15	Ply 1	H&H-NC/Jessamine/Master
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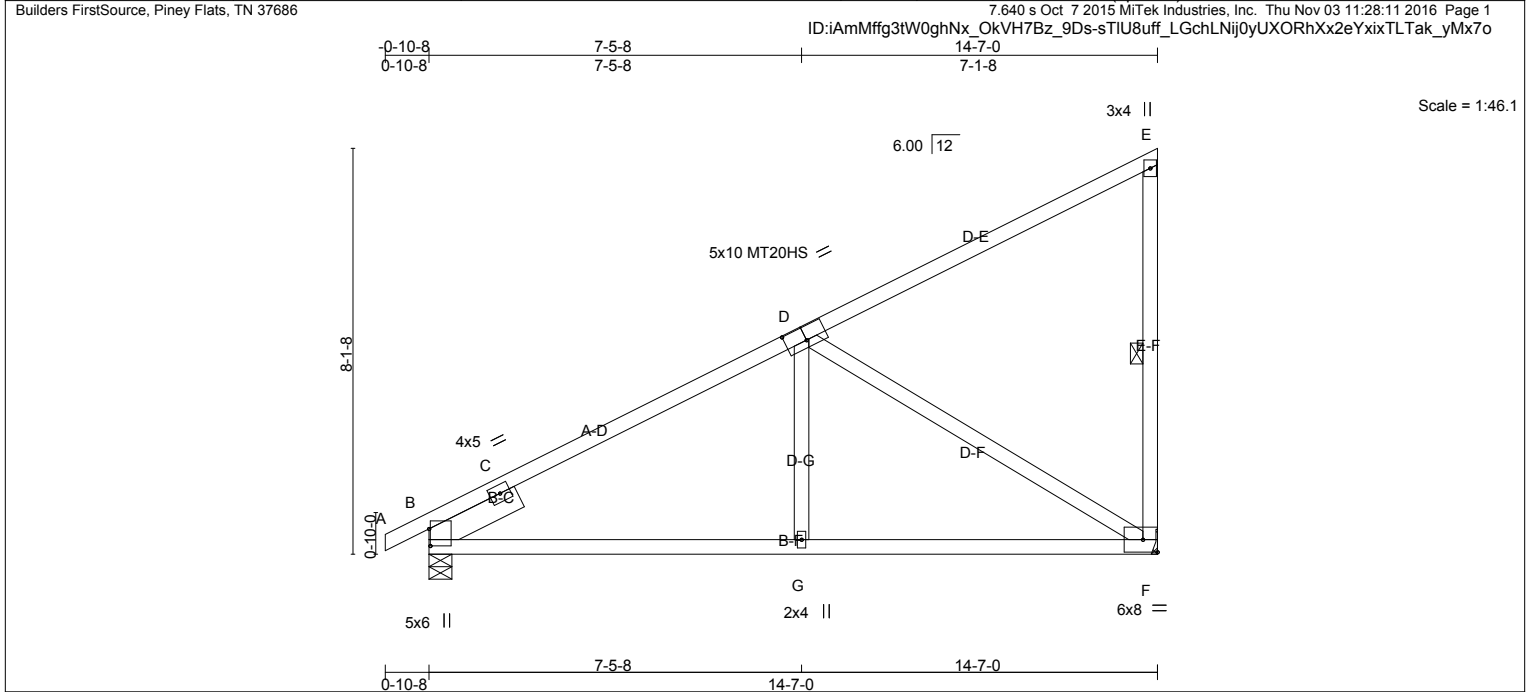


Plate Offsets (X,Y)-- [B:0-4-1,0-0-5], [D:0-5-0,0-3-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.06	F-G	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(TL) -0.14	F-G	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(TL) -0.04	B	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.13	G-J	>999	240		
							Weight: 81 lb	FT = 20%

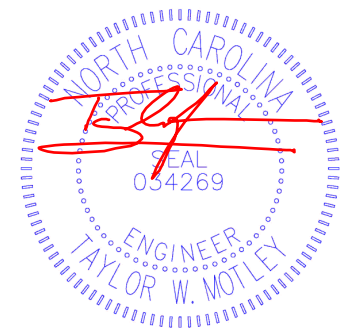
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt E-F
SLIDER Left 2x6 SP No.2 2-0-0	

**REACTIONS.** (lb/size) B=632/0-5-8 (min. 0-1-8), F=576/Mechanical  
 Max Horz B=681(LC 8)  
 Max Uplift B=-372(LC 8), F=-632(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-360/0, C-D=-566/308, E-F=-169/316  
 BOT CHORD B-G=-813/580, F-G=-813/579  
 WEBS D-G=0/313, D-F=-661/935

- NOTES-** (10)
- 1) Wind: ASCE 7-05; 130mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=372, F=632.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

PO Box 3850  
Sumter SC 29151

Job 812025_MASTER	Truss J01	Truss Type Monopitch	Qty 29	Ply 1	H&H-NC/Jessamine/Master
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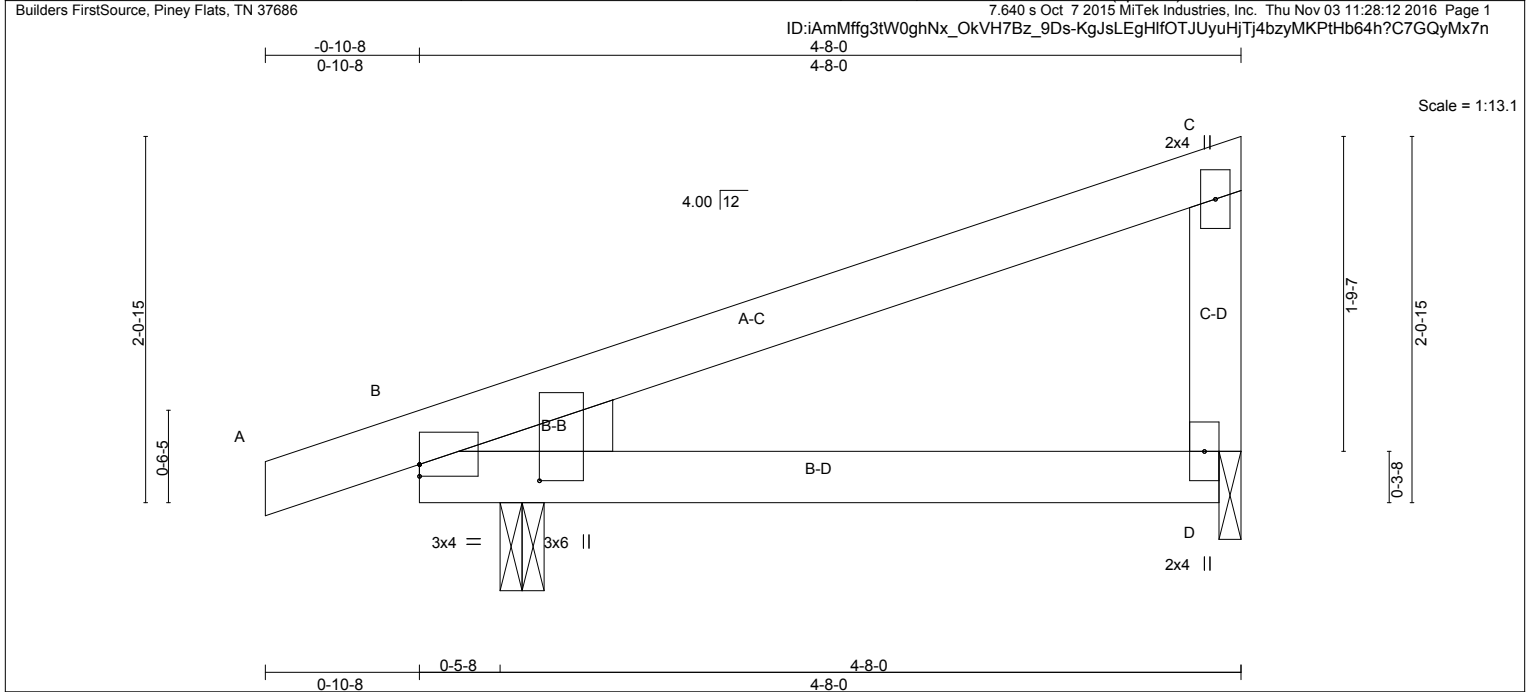


Plate Offsets (X,Y)-- [B:Edge,0-0-13], [B:0-1-2,0-8-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.41	Vert(LL) -0.01	D-I	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(TL) -0.03	D-I	>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) 0.07	D-I	>795	240		
							Weight: 19 lb	FT = 20%

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

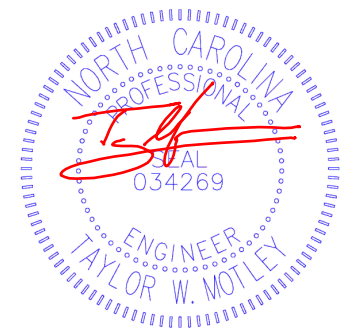
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=265/0-3-0 (min. 0-1-8), D=149/0-1-8 (min. 0-1-8)  
 Max Horz B=166(LC 6)  
 Max Uplift B=-362(LC 6), D=-232(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD C-D=-101/259

- NOTES-** (10)
- 1) Wind: ASCE 7-05; 130mph; 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; 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=362, D=232.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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



November 3, 2016



Job 812025_MASTER	Truss J02	Truss Type Monopitch	Qty 20	Ply 1	H&H-NC/Jessamine/Master
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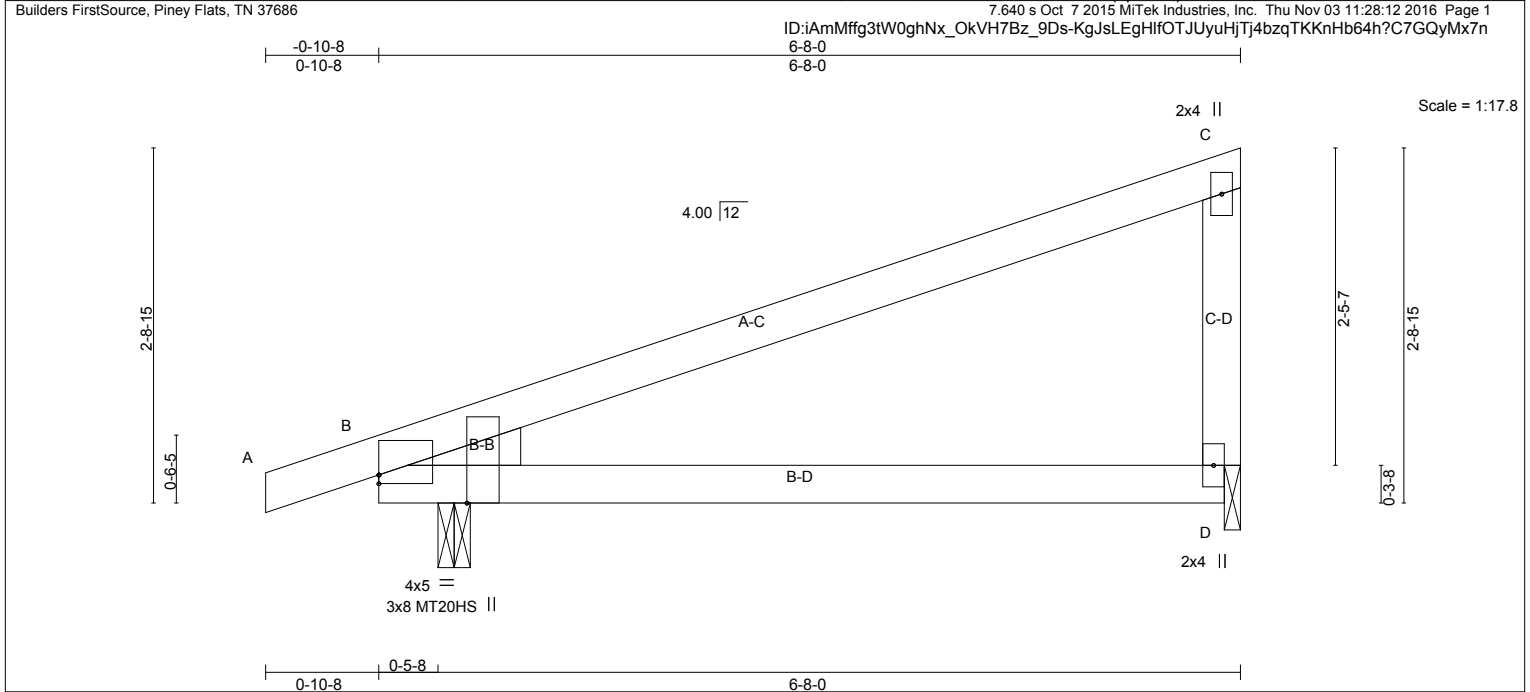


Plate Offsets (X,Y)-- [B:Edge,0-0-13], [B:0-2-10,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.92	Vert(LL) -0.05	D-I	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.74	Vert(TL) -0.14	D-I	>546	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.04	B	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-S)	Wind(LL) 0.31	D-I	>256	240		
							Weight: 26 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
WEDGE  
Left: 2x4 SP No.3

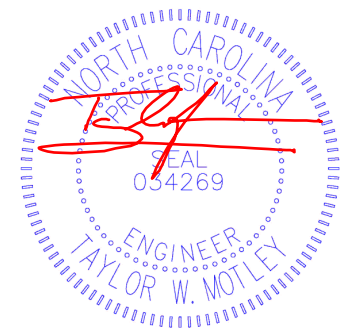
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=341/0-3-0 (min. 0-1-8), D=233/0-1-8 (min. 0-1-8)  
Max Horz B=224(LC 6)  
Max Uplift B=-455(LC 6), D=-359(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD C-D=-158/374

- NOTES-** (11)
- 1) Wind: ASCE 7-05; 130mph; 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; 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=455, D=359.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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



November 3, 2016

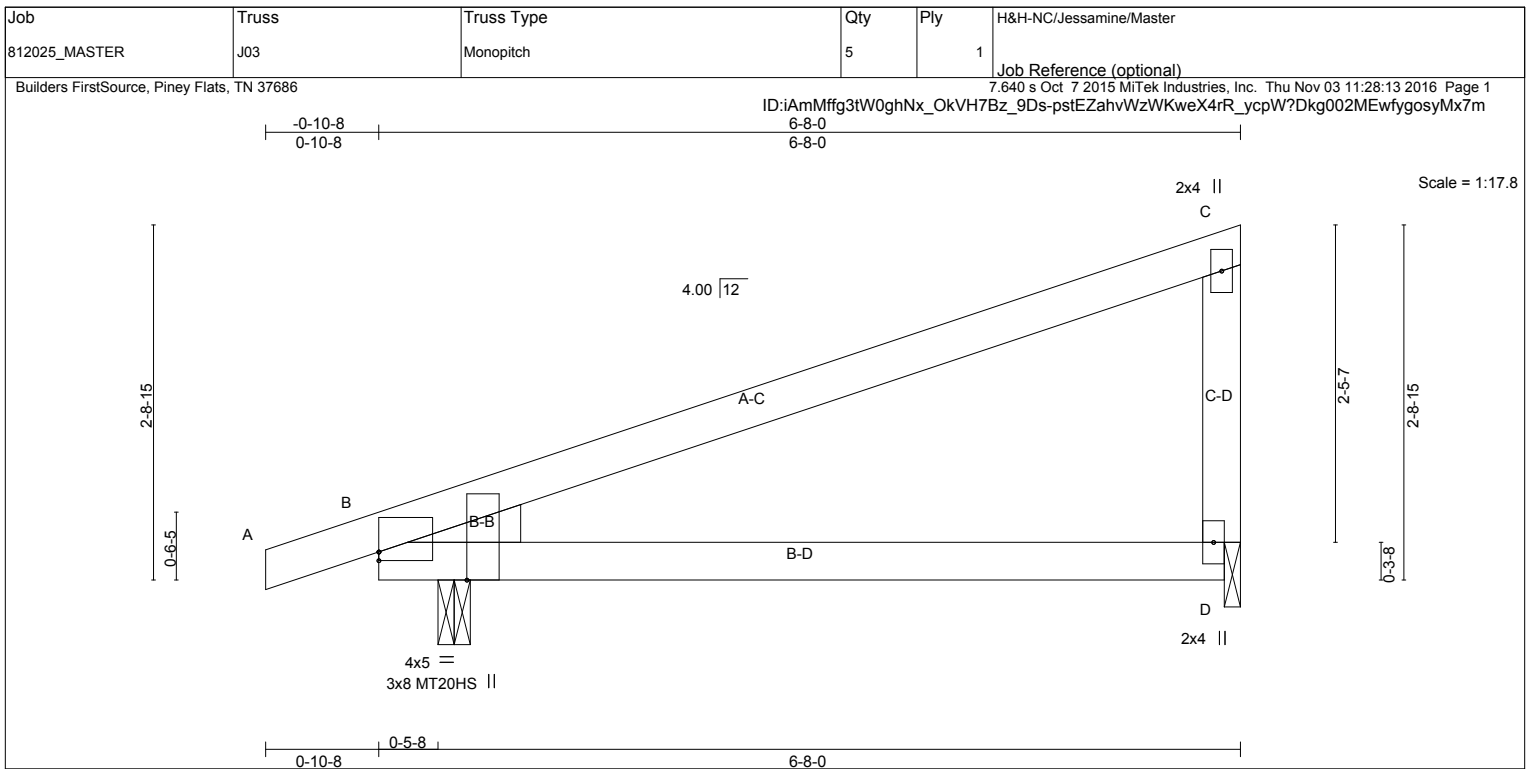


Plate Offsets (X,Y)--	[B:Edge,0-0-13], [B:0-2-10,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.92	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.74	Vert(LL) -0.05 D-I >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.14 D-I >546 240	Weight: 26 lb FT = 20%	
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.04 B n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.31 D-I >256 240		

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.3  
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=341/0-3-0 (min. 0-1-8), D=233/0-1-8 (min. 0-1-8)  
Max Horz B=224(LC 6)  
Max Uplift B=-455(LC 6), D=-359(LC 6)

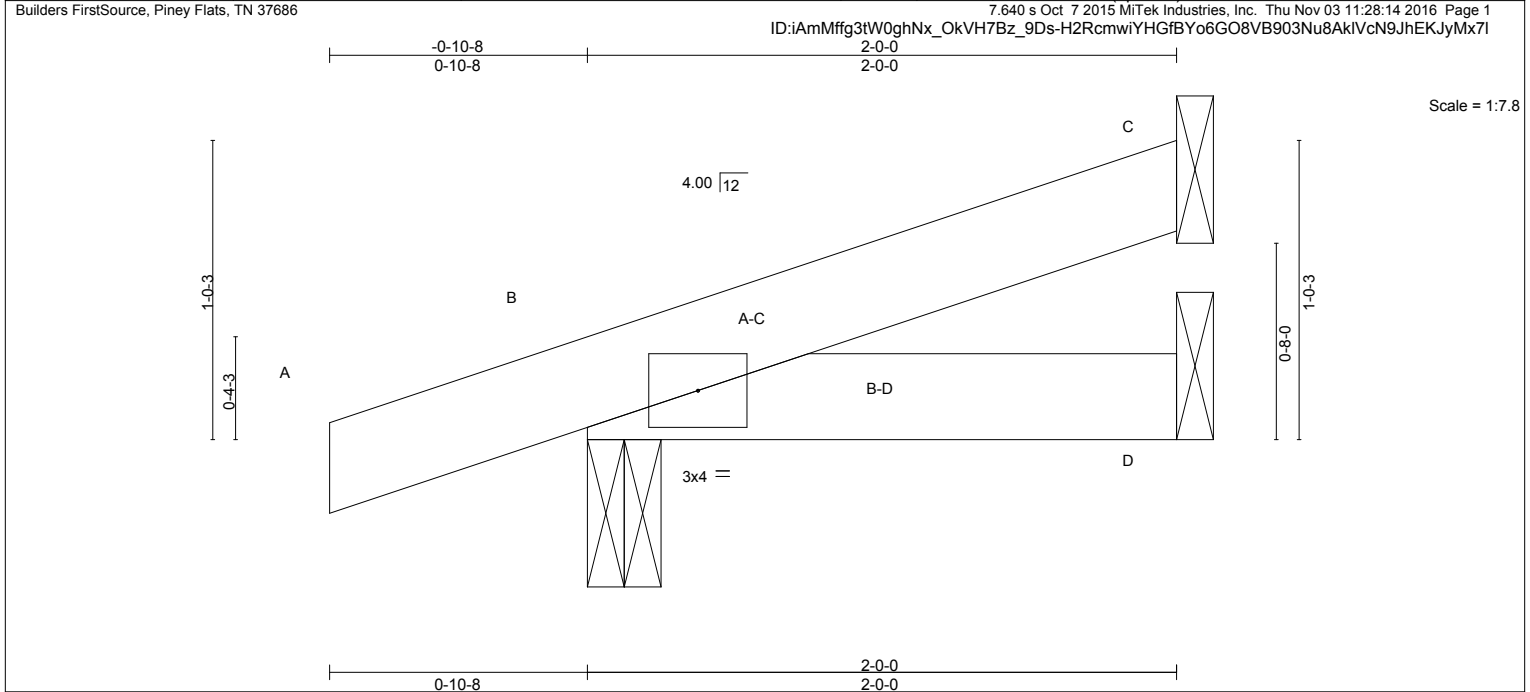
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD C-D=-158/374

- NOTES-** (11)
- 1) Wind: ASCE 7-05; 130mph; 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; 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Bearing at joint(s) D considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) D.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) B=455, D=359.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) 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

November 3, 2016

Job 812025_MASTER	Truss J04	Truss Type Jack-Open	Qty 5	Ply 1	H&H-NC/Jessamine/Master
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	G	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(TL)	-0.00	G	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.00	B	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.00	G	>999		
								Weight: 8 lb	FT = 20%

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

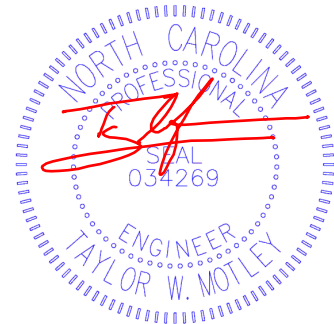
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) C=42/Mechanical, B=146/0-3-0 (min. 0-1-8), D=23/Mechanical  
 Max Horz B=93(LC 6)  
 Max Uplift C=-61(LC 6), B=-217(LC 6), D=-37(LC 6)  
 Max Grav C=42(LC 1), B=146(LC 1), D=31(LC 3)

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

- NOTES-** (9)
- 1) Wind: ASCE 7-05; 130mph; 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 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) 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 except (jt=B) B=217.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

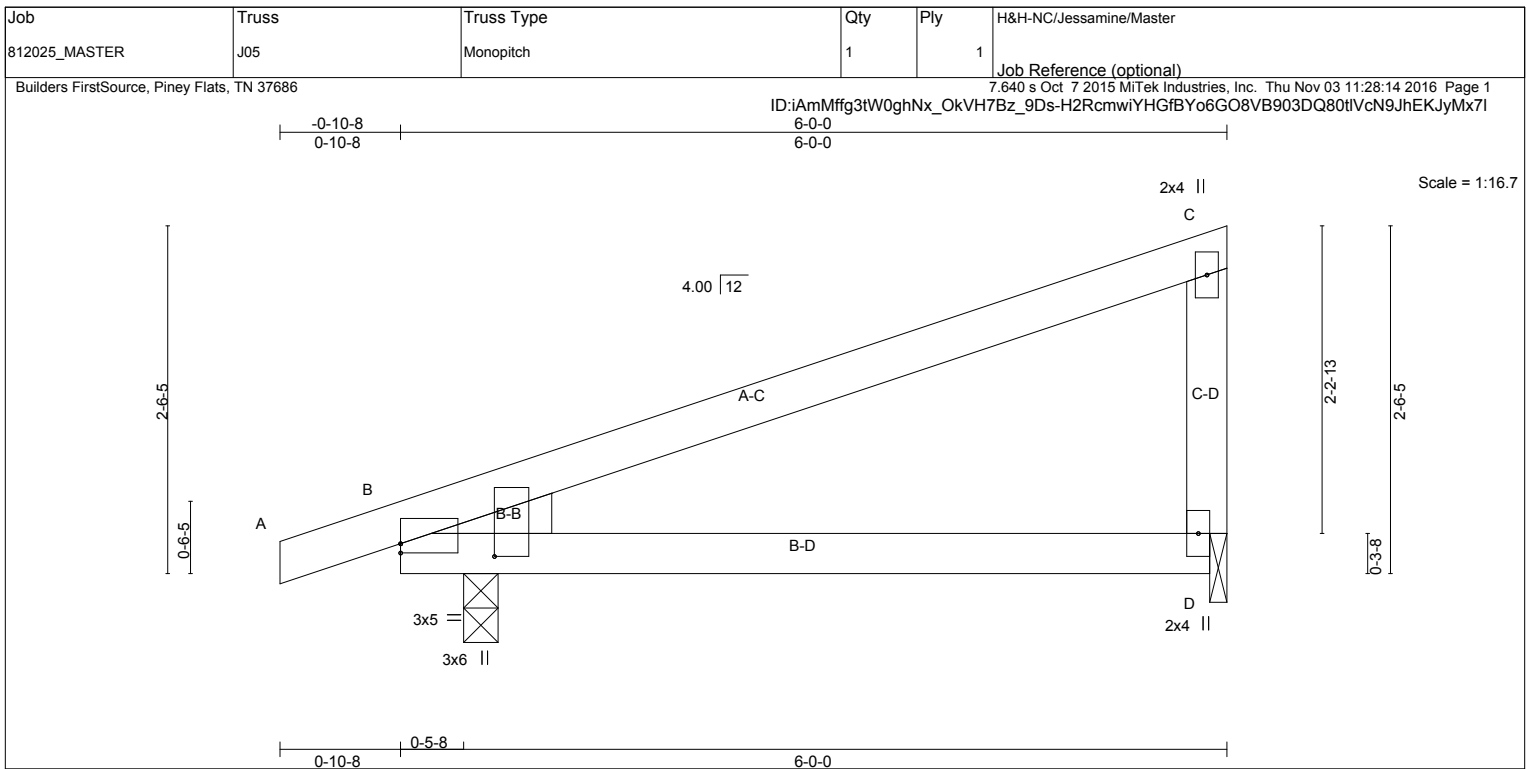


Plate Offsets (X,Y)-- [B:Edge,0-0-13], [B:0-1-2,0-8-3]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.03 D-I >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.10 D-I >723 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.03 B n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.21 D-I >331 240	Weight: 24 lb	FT = 20%

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

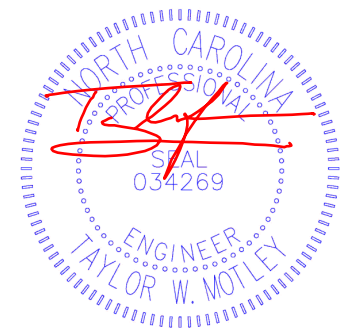
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=315/0-3-0 (min. 0-1-8), D=206/0-1-8 (min. 0-1-8)  
Max Horz B=205(LC 6)  
Max Uplift B=-424(LC 6), D=-317(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD C-D=-141/345

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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; 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=424, D=317.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

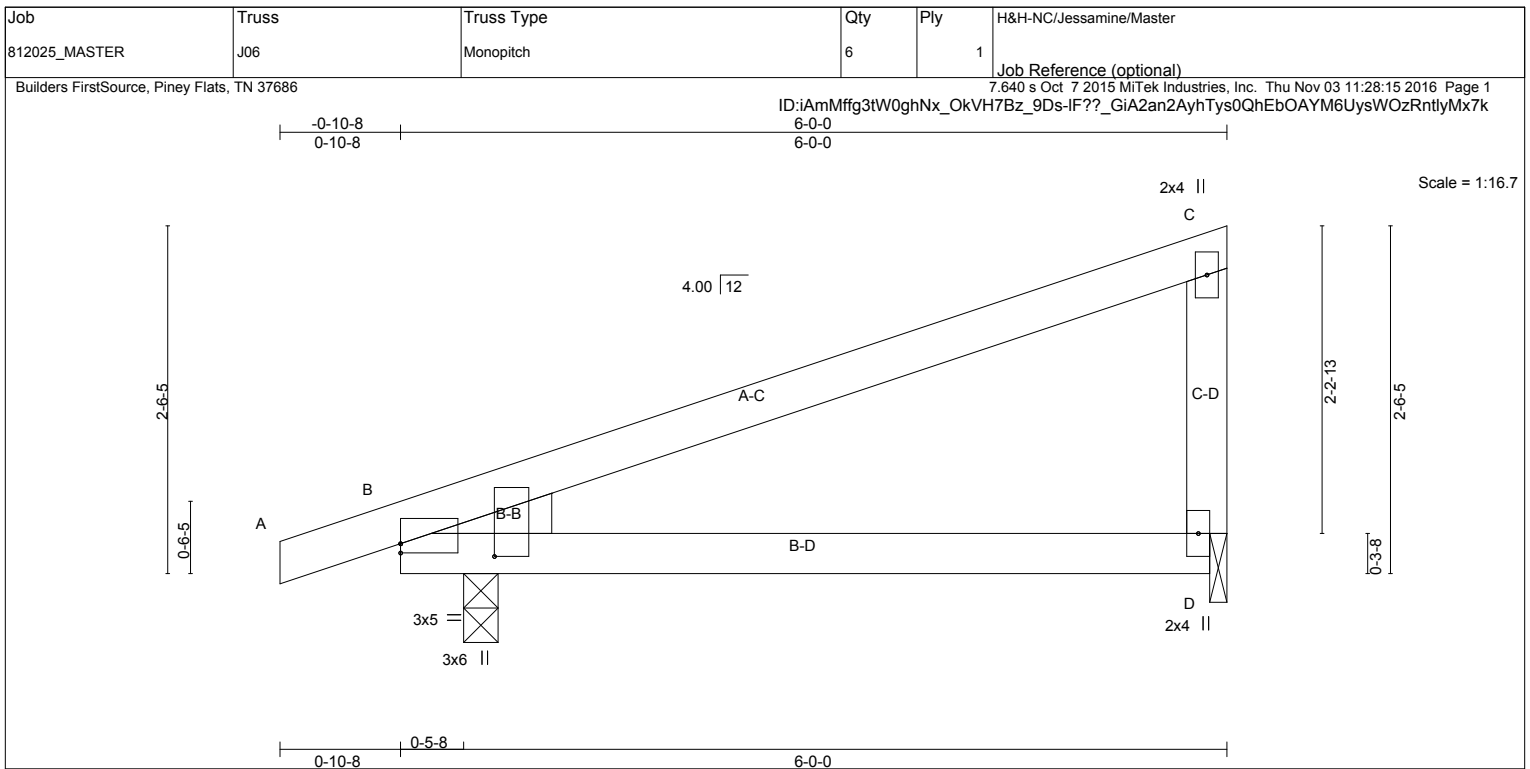


Plate Offsets (X,Y)-- [B:Edge,0-0-13], [B:0-1-2,0-8-3]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.76	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.77	Vert(LL) -0.03 D-I >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.10 D-I >723 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.03 B n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.21 D-I >331 240	Weight: 24 lb	FT = 20%

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

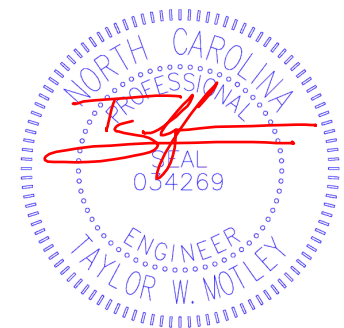
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) B=315/0-3-0 (min. 0-1-8), D=206/0-1-8 (min. 0-1-8)  
Max Horz B=205(LC 6)  
Max Uplift B=-424(LC 6), D=-317(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD C-D=-141/345

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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; 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=424, D=317.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J07	Truss Type Half Hip	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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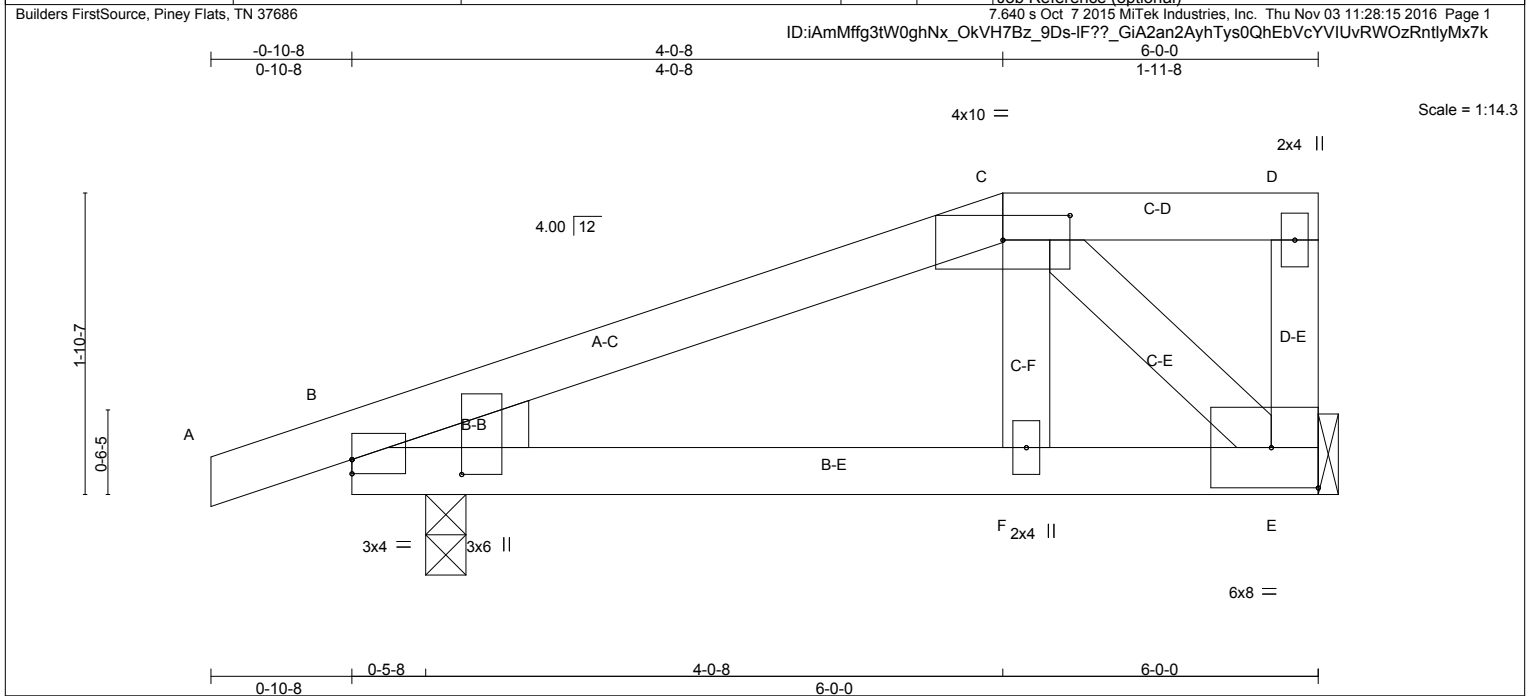


Plate Offsets (X,Y)-- [B:0-1-2,0-8-3], [B:Edge,0-1-1], [C:0-5-0,0-1-13]

<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 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.18	Vert(LL) -0.00 F-K >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.22	Vert(TL) -0.01 F-K >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.00 B n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.02 F-K >999 240	Weight: 28 lb	FT = 20%

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

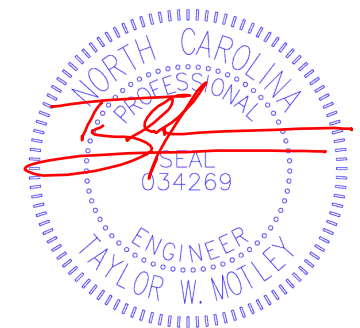
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) E=206/Mechanical, B=315/0-3-0 (min. 0-1-8)  
 Max Horz B=153(LC 6)  
 Max Uplift E=-299(LC 6), B=-442(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-203/490  
 BOT CHORD B-F=-522/162, E-F=-555/169  
 WEBS C-F=-365/122, C-E=-224/737

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) E=299, B=442.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016



Job 812025_MASTER	Truss J08	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:16 2016 Page 1  
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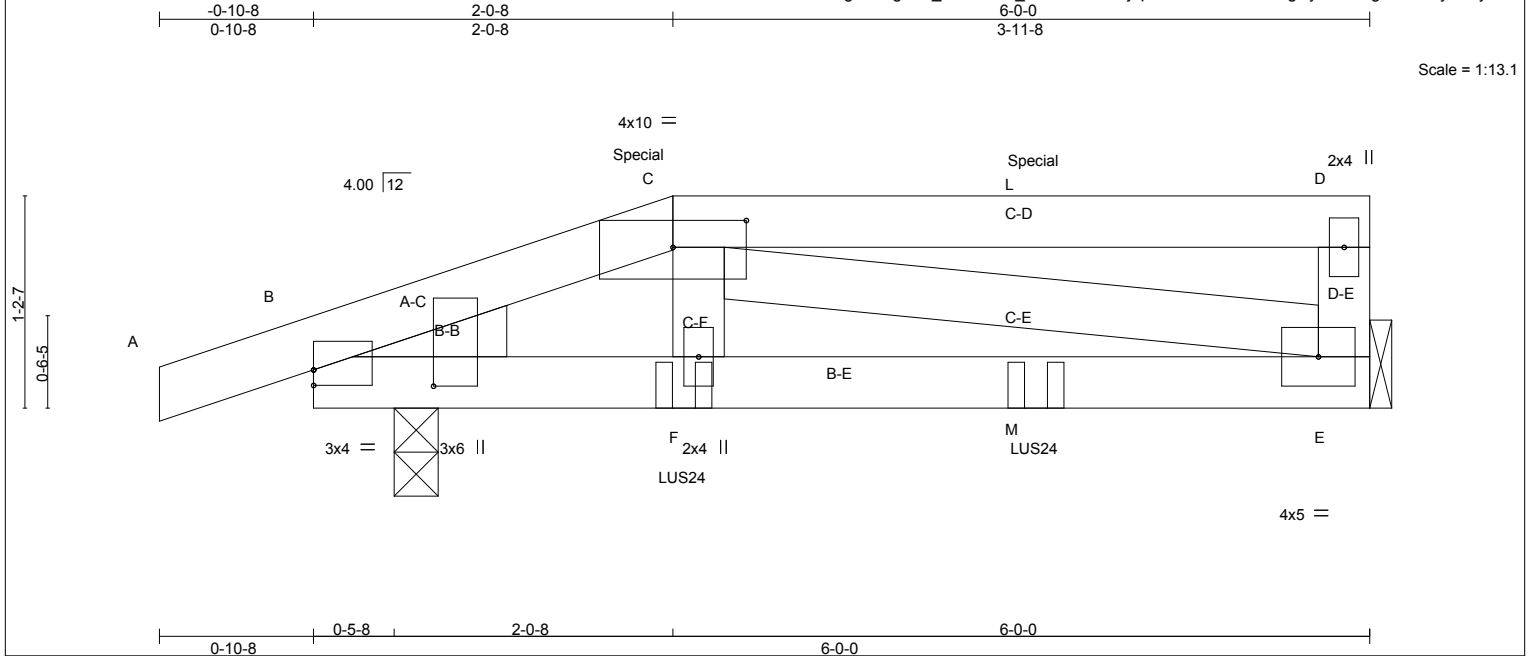


Plate Offsets (X,Y)-- [B:0-1-2,0-8-3], [B:Edge,0-1-1], [C:0-5-0,0-1-13]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0 Lumber DOL 1.15	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Rep Stress Incr NO	BC 0.19	Vert(TL) -0.01 E-F >999 360		
BCLL 0.0 *	Code IRC2009/TPI2007	WB 0.06	Horz(TL) -0.00 E n/a n/a		
BCDL 10.0		(Matrix-M)	Wind(LL) 0.03 E-F >999 240	Weight: 28 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

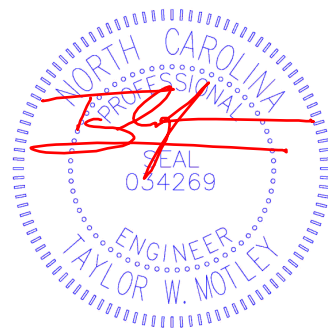
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.  
 BOT CHORD Rigid ceiling directly applied or 9-7-8 oc bracing.

**REACTIONS.** (lb/size) E=203/Mechanical, B=312/0-3-0 (min. 0-1-8)  
 Max Horz B=95(LC 4)  
 Max Uplift E=-289(LC 4), B=-458(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C=-259/369  
 BOT CHORD B-F=-344/225, F-M=-357/237, E-M=-357/237  
 WEBS C-E=-244/367

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left exposed; end vertical left exposed; porch left exposed; 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) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) E=289, B=458.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-1-4 from the left end to 4-1-4 to connect truss(es) J09 (1 ply 2x4 SP) to front face of bottom chord.
  - 12) Fill all nail holes where hanger is in contact with lumber.
  - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3 lb down and 2 lb up at 2-0-8, and 3 lb down and 2 lb up at 4-1-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - 14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



November 3, 2016

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J08	Half Hip Girder	1	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:16 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-DRZNBbjopuvvn6GfWZYfER8gwyrODO5gccALPByMx7]

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: A-C=-60, C-D=-60, E-G=-20

Concentrated Loads (lb)

Vert: F=3(F) M=3(F)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.



PO Box 3850  
Sumter SC 29151

Job 812025_MASTER	Truss J09	Truss Type Jack-Open	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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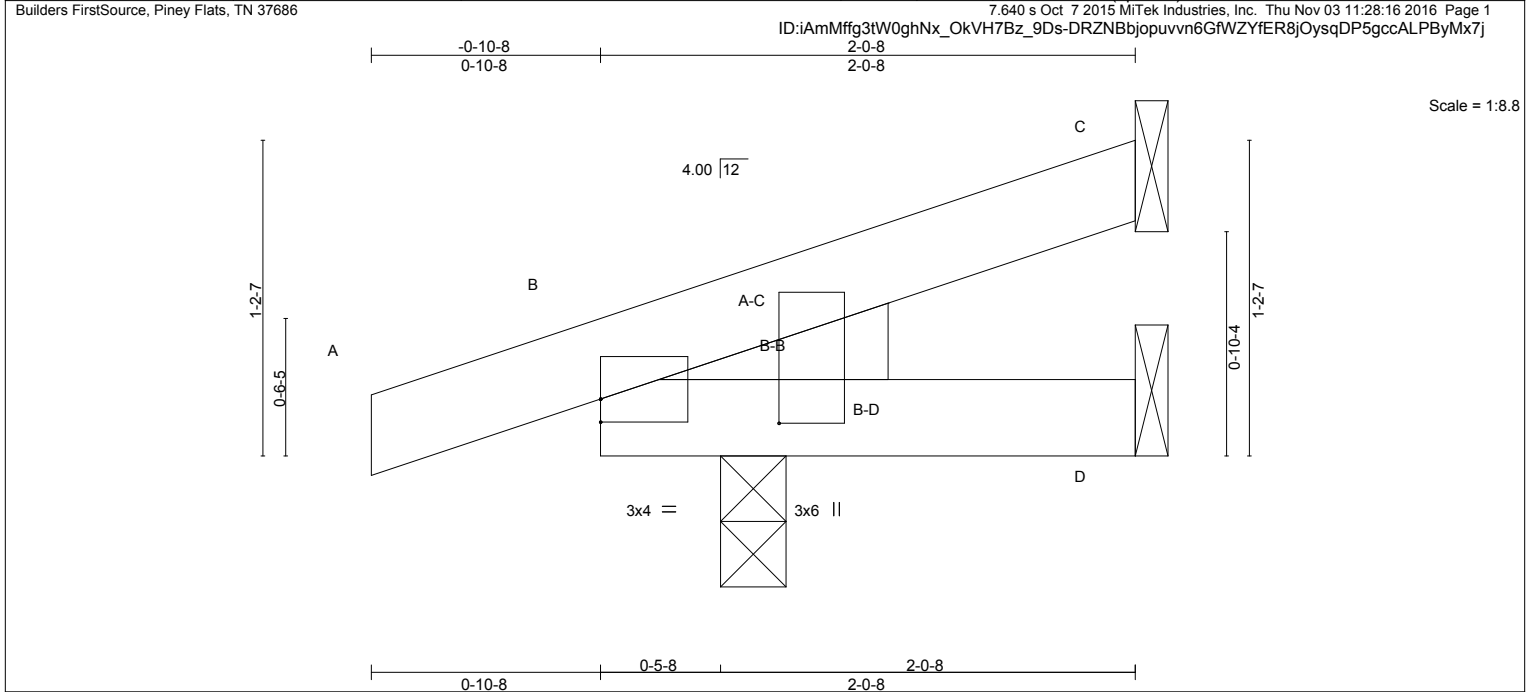


Plate Offsets (X,Y)-- [B:Edge,0-1-1], [B:0-1-2,0-8-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.00	E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(TL) -0.00	E	>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	E	>999	240		
							Weight: 9 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 2-0-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

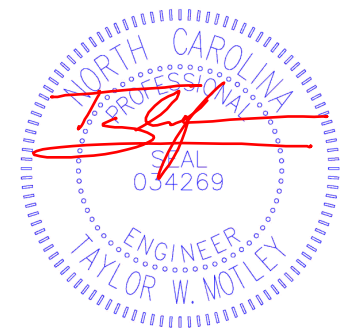
**REACTIONS.** (lb/size) C=19/Mechanical, D=5/Mechanical, B=186/0-3-0 (min. 0-1-8)  
Max Horz B=93(LC 6)  
Max Uplift C=-31(LC 9), D=-24(LC 9), B=-272(LC 6)  
Max Grav C=19(LC 1), D=19(LC 3), B=186(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-05; 130mph; 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; 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) 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 except (jt=lb) B=272.
- 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J10	Monopitch Girder	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-hd7IPxkQaB1mPGrr4H3unfhpCL42ysLprGwuxdyMx7l  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:17 2016 Page 1

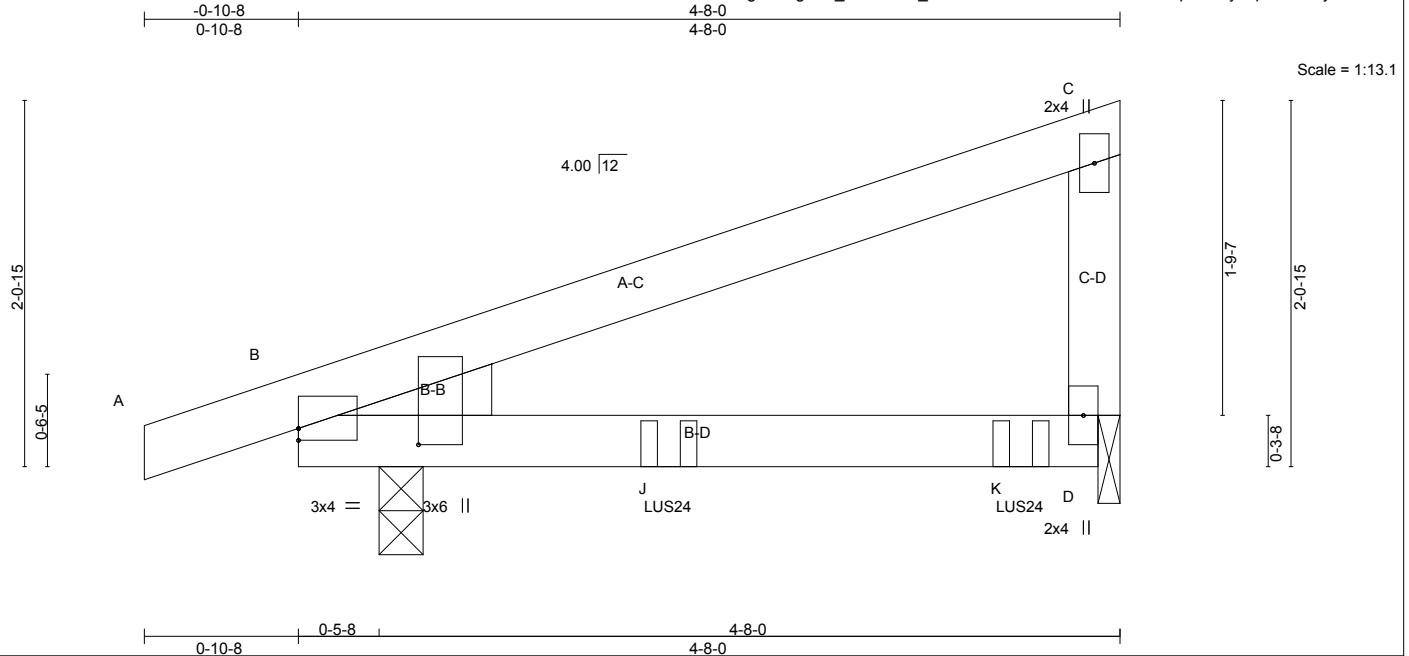


Plate Offsets (X,Y)-- [B:Edge.0-0-13], [B:0-1-2,0-8-3]

<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 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(LL) -0.03 D-I >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.09 D-I >627 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.02 B n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.11 D-I >488 240	Weight: 19 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 or 4-8-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

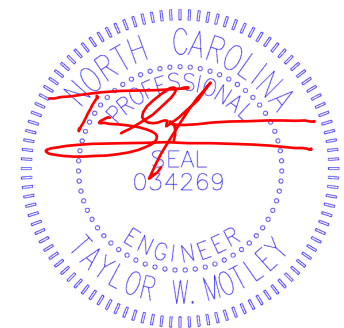
**REACTIONS.** (lb/size) B=394/0-3-0 (min. 0-1-8), D=395/0-1-8 (min. 0-1-8)  
 Max Horz B=164(LC 5)  
 Max Uplift B=-471(LC 4), D=-519(LC 6)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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
  - 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=471, D=519.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-1-4 from the left end to 4-1-4 to connect truss(es) J08 (1 ply 2x4 SP), J07 (1 ply 2x4 SP) to back face of bottom chord.
  - 11) Fill all nail holes where hanger is in contact with lumber.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

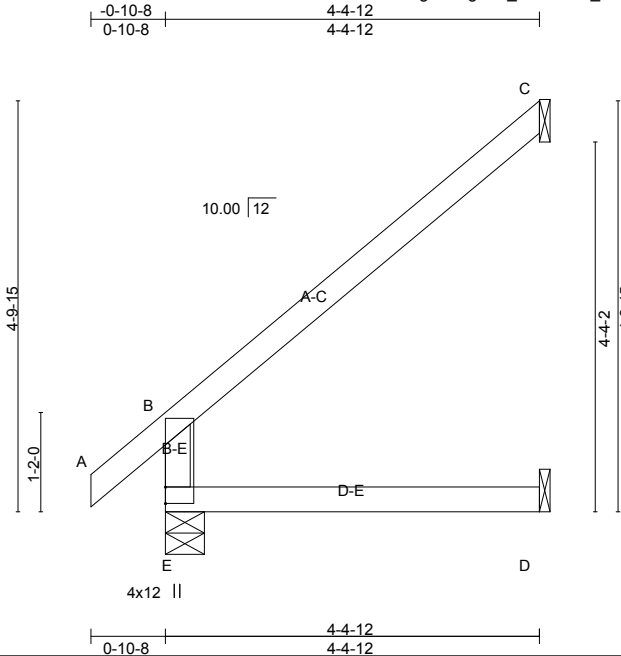
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-C=-60, D-E=-20  
 Concentrated Loads (lb)  
 Vert: J=-183(B) K=-191(B)



November 3, 2016

Job 812025_MASTER	Truss J201	Truss Type Jack-Open	Qty 14	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-9qh7cH2LV9d1PQ2d\_a7JsDsFIP?hJb4wgRU4yMx7h  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:18 2016 Page 1  
 Job Reference (optional)



<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 0.90	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.63	Vert(LL) -0.01 D-E >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.04 D-E >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.11 C n/a n/a	Weight: 18 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.08 D-E >661 240		

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

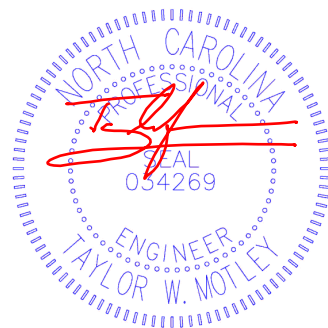
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) E=236/0-5-8 (min. 0-1-8), C=113/Mechanical, D=47/Mechanical  
 Max Horz E=448(LC 8)  
 Max Uplift E=-44(LC 8), C=-286(LC 8), D=-45(LC 8)  
 Max Grav E=236(LC 1), C=113(LC 1), D=79(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) E, D except (jt=lb) C=286.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J202	Truss Type Half Hip	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-9qh7cHl2LV9d1PQ2d\_a7JsDyzlSwhIOz4wgRU4yMx7h  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:18 2016 Page 1  
 Job Reference (optional)

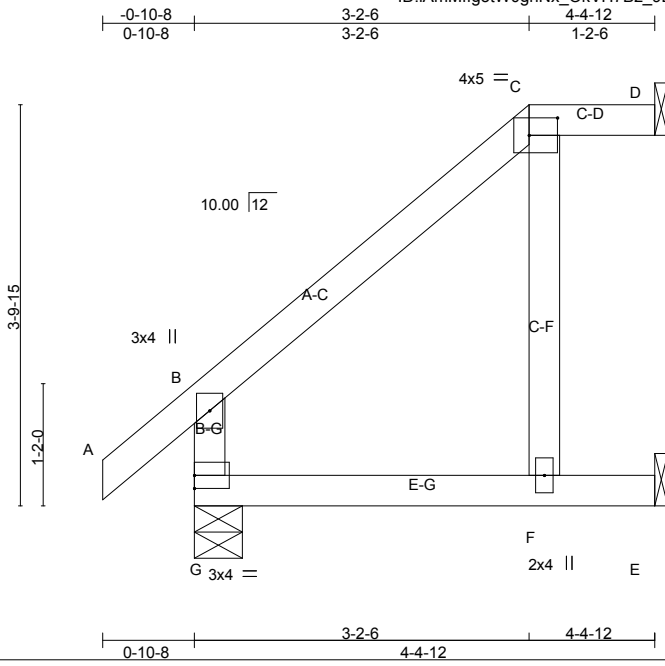


Plate Offsets (X,Y)-- [C:0-3-4,0-2-0]

<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 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.44	Vert(LL) -0.02 F-G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(TL) -0.04 F-G >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.14 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.09 F-G >545 240	Weight: 22 lb	FT = 20%

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

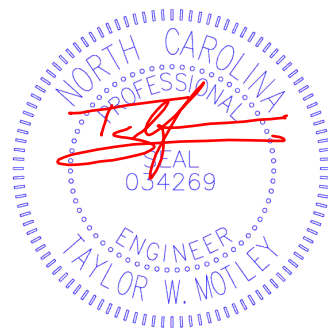
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) D=65/Mechanical, G=236/0-5-8 (min. 0-1-8), E=95/Mechanical  
 Max Horz G=370(LC 8)  
 Max Uplift D=-60(LC 7), G=-115(LC 8), E=-174(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS C-F=-71/262

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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 except (jt=lb) G=115, E=174.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J203	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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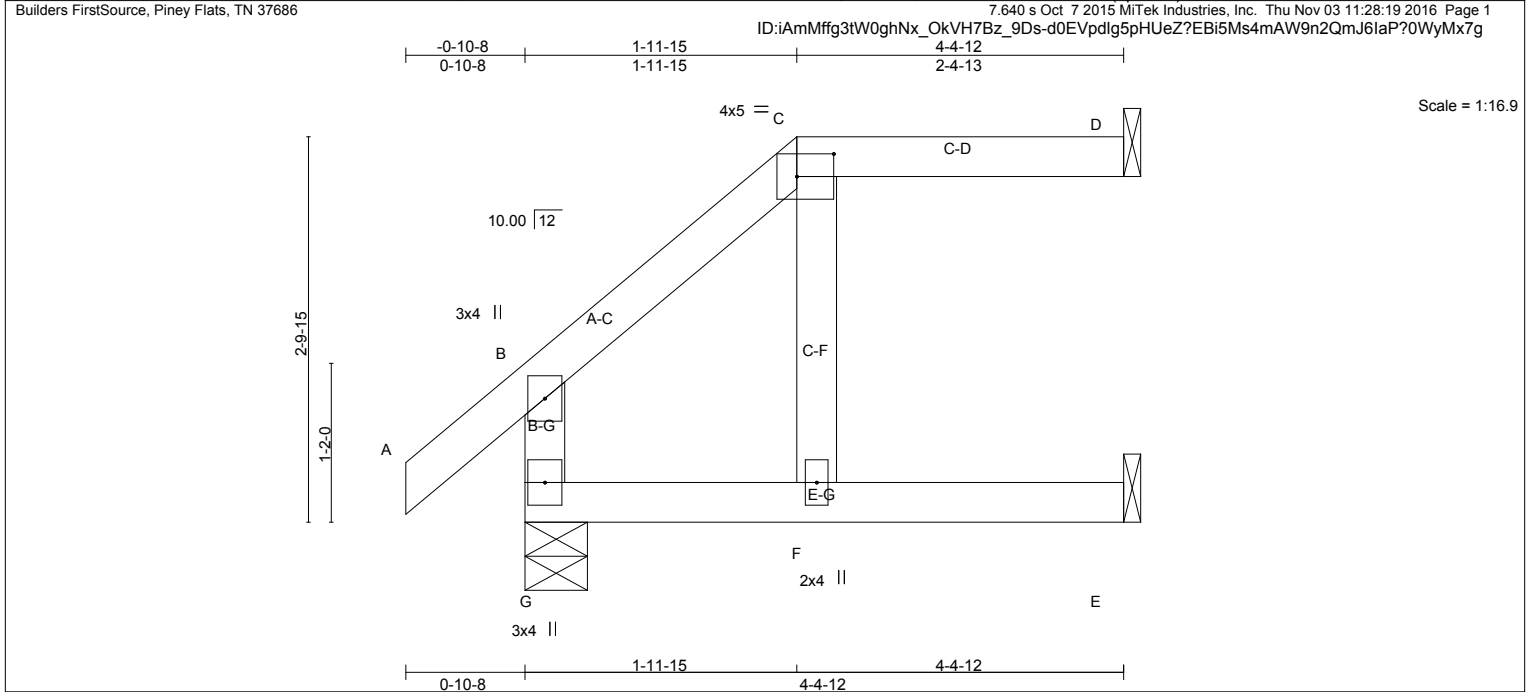


Plate Offsets (X,Y)-- [C:0-3-4,0-2-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL 2-0-0 1.15	TC 0.35	Vert(LL) -0.02	F	>999	360	MT20
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(TL) -0.07	F	>740	240	
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(TL) -0.18	D	n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.11	F	>441	240	Weight: 20 lb FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2		TOP CHORD	Structural wood sheathing directly applied or 4-4-12 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			

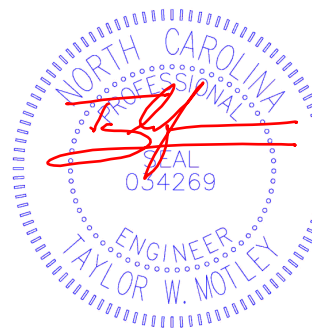
**REACTIONS.** (lb/size) D=198/Mechanical, G=289/0-5-8 (min. 0-1-8), E=132/Mechanical  
 Max Horz G=283(LC 6)  
 Max Uplift D=-338(LC 7), G=-279(LC 6), E=-144(LC 6)  
 Max Grav D=198(LC 1), G=289(LC 1), E=169(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) D=338, G=279, E=144.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 198 lb up at 1-11-15, and 84 lb down and 213 lb up at 4-4-0 on top chord, and 57 lb down and 39 lb up at 2-0-11, and 71 lb down and 35 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

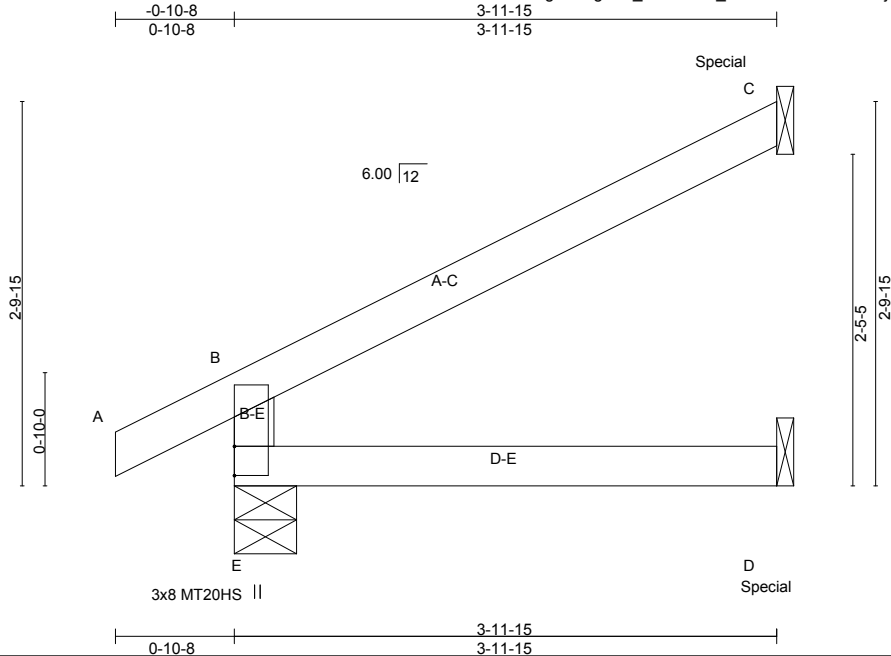
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, C-D=-60, E-G=-20
Concentrated Loads (lb)
Vert: C=-63(B) D=-84(B) E=-42(B) F=-35(B)



November 3, 2016

Job 812025_MASTER	Truss J204	Truss Type Jack-Open	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-5Cot1zmIs6PLGjaQIPcbOHJHQZ9V9D5FXE9YYyMx7f  
 7.640 s Oct 7 2015 MITek Industries, Inc. Thu Nov 03 11:28:20 2016 Page 1



Scale = 1:17.0

<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 0.60	Vert(LL)	-0.01	D-E	>999	360	MT20HS
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(TL)	-0.03	D-E	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.03	C	n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.03	D-E	>999	240	
									Weight: 15 lb FT = 20%

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

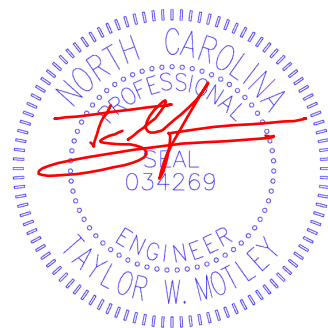
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) E=221/0-5-8 (min. 0-1-8), C=123/Mechanical, D=55/Mechanical  
 Max Horz E=253(LC 8)  
 Max Uplift E=-171(LC 8), C=-229(LC 8), D=-27(LC 8)  
 Max Grav E=221(LC 1), C=123(LC 1), D=97(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-188/330

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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 except (jt=lb) E=171, C=229.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 22 lb down and 119 lb up at 3-11-3 on top chord, and 25 lb down and 17 lb up at 3-11-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-B=-60, B-C=-60, D-E=-20  
 Concentrated Loads (lb)  
 Vert: C=-22(B) D=-12(B)



November 3, 2016



Job 812025_MASTER	Truss J205	Truss Type Jack-Open	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds-5Cot1zmls6PLGjaQlPcbOHJIUZAc9D5FXE9YyyMx7f  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:20 2016 Page 1  
 Job Reference (optional)

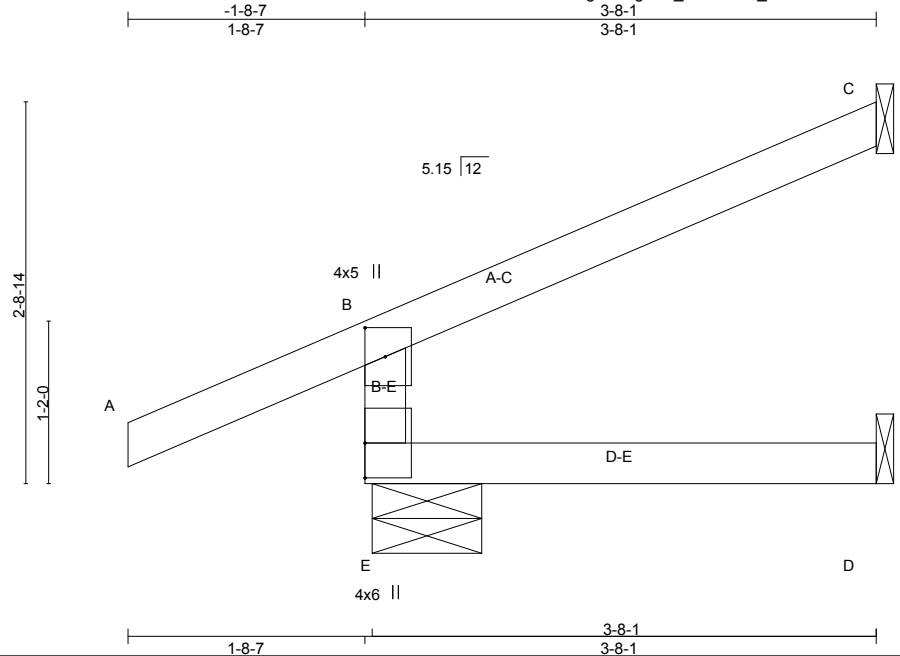


Plate Offsets (X,Y)-- [B:0-2-8,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.53	Vert(LL) -0.01	D-E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(TL) -0.02	D-E	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.03	C	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.02	D-E	>999	240	Weight: 15 lb	FT = 20%

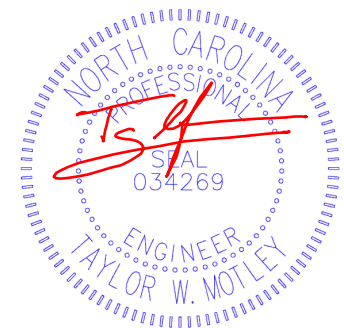
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) E=279/0-9-7 (min. 0-1-8), C=79/Mechanical, D=30/Mechanical  
 Max Horz E=266(LC 8)  
 Max Uplift E=-283(LC 8), C=-132(LC 8), D=-6(LC 8)  
 Max Grav E=279(LC 1), C=79(LC 1), D=63(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-240/463

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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 except (jt=lb) E=283, C=132.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J206	Jack-Open	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-aOMGEJnxdQXCut8dJ67qxVrVkzX1ugBPmuu54PyMx7e  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:21 2016 Page 1  
 Job Reference (optional)

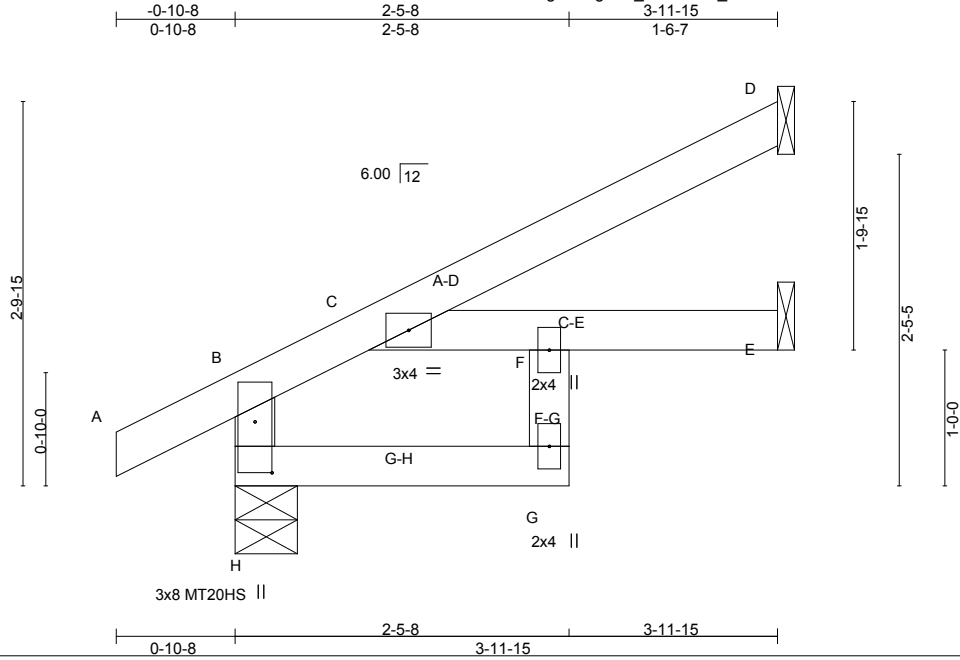


Plate Offsets (X,Y)-- [H:0-4-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.01	K	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(TL) -0.02	F	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(TL) -0.03	E	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.03	F-K	>999	240		
							Weight: 18 lb	FT = 20%

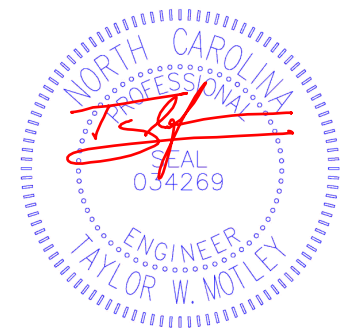
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-15 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* F-G: 2x4 SP No.2	

**REACTIONS.** (lb/size) H=265/0-5-8 (min. 0-1-8), D=78/Mechanical, E=48/Mechanical  
 Max Horz H=253(LC 8)  
 Max Uplift H=-195(LC 8), D=-115(LC 8), E=-23(LC 8)  
 Max Grav H=265(LC 1), D=78(LC 1), E=67(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-H=-249/370

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E except (jt=lb) H=195, D=115.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss J207	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37866  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-2bweSfoZOkf3V1jpsqe3UiOjeMo5d78Y?YefdryMx7d  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:22 2016 Page 1

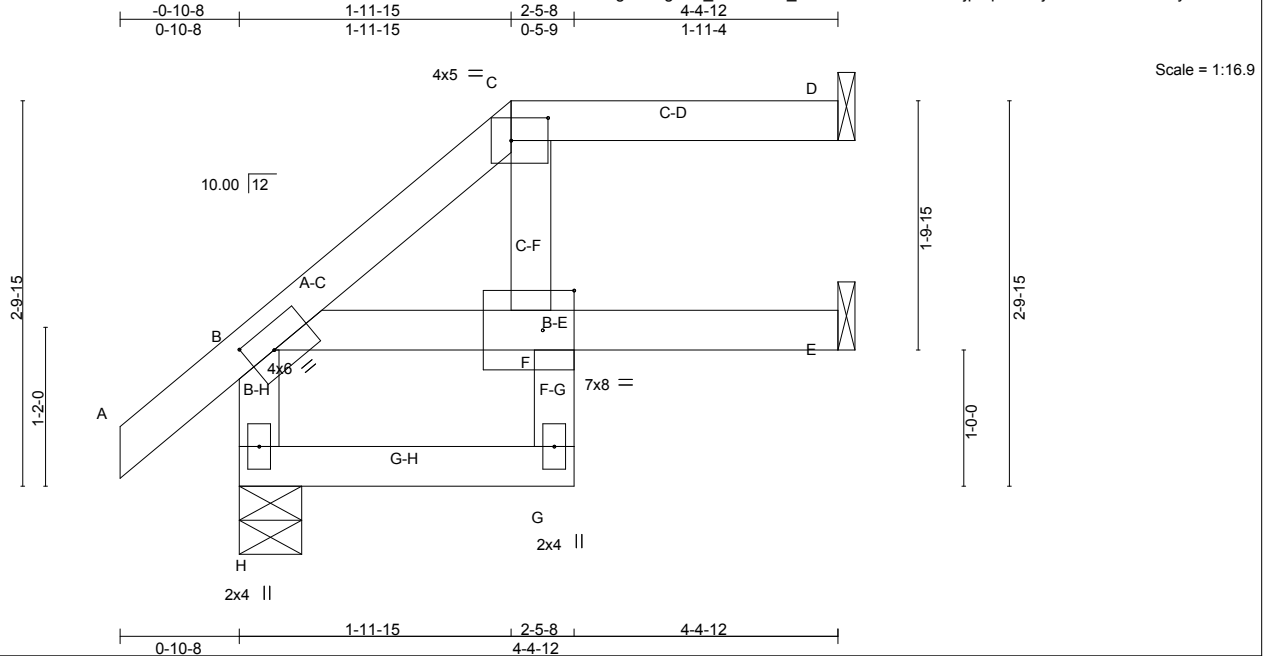


Plate Offsets (X,Y)-- [B:0-2-5,0-2-0], [C:0-3-4,0-2-0], [F:0-2-12,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.23	Vert(LL) -0.02	F	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(TL) -0.05	E-F	>970	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(TL) -0.09	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.08	E-F	>655	240	Weight: 23 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-12 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	

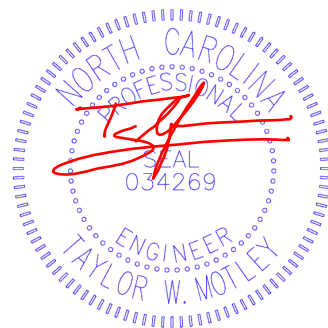
**REACTIONS.** (lb/size) D=140/Mechanical, H=288/0-5-8 (min. 0-1-8), E=139/Mechanical  
 Max Horz H=287(LC 17)  
 Max Uplift D=-202(LC 7), H=-281(LC 6), E=-167(LC 6)  
 Max Grav D=141(LC 12), H=288(LC 1), E=151(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-H=-260/327  
 BOT CHORD G-H=-253/94

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; 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) except (jt=lb) D=202, H=281, E=167.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 81 lb down and 198 lb up at 1-11-15, and 39 lb down and 99 lb up at 4-4-0 on top chord, and 57 lb down and 39 lb up at 2-3-12, and 41 lb down and 31 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

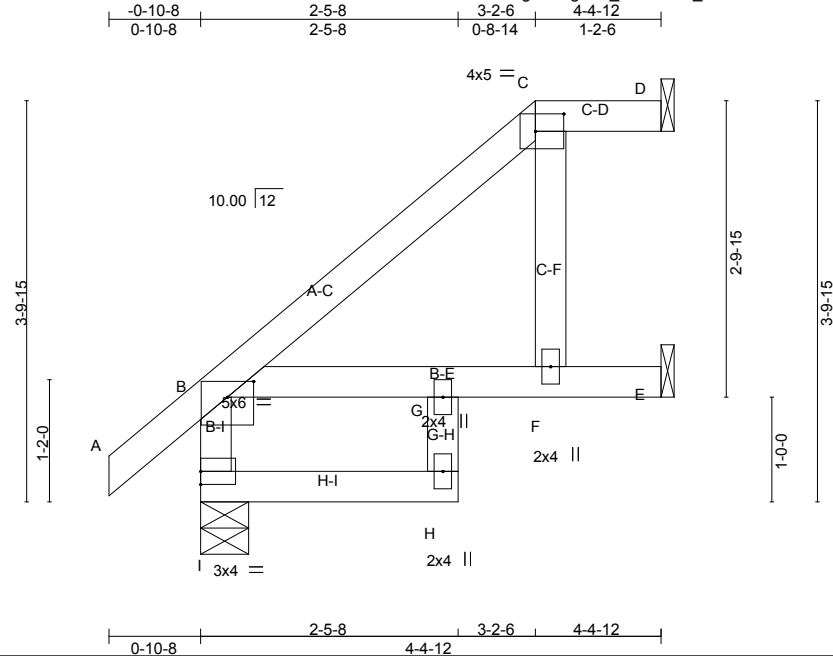
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, C-D=-60, G-H=-20, E-F=-20
Concentrated Loads (lb)
Vert: C=-63(F) D=-39(F) G=-35(F) E=-35(F)



November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J208	Half Hip	1	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-2bweSfoZOkf3V1jpsqe3UiOdxMpid6ZY?YefdryMx7d  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:22 2016 Page 1



Scale = 1:22.0

Plate Offsets (X,Y)-- [B:0-3-0,0-1-13], [C:0-3-4,0-2-0]

<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 0.60	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.02 G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Vert(TL) -0.04 G >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.13 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.09 H >557 240	Weight: 25 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 G-H: 2x4 SP No.2

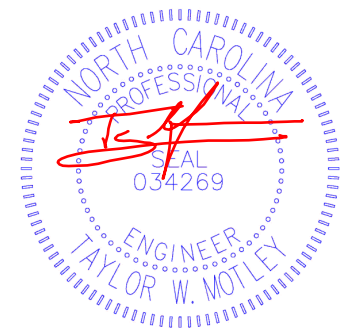
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) D=61/Mechanical, I=236/0-5-8 (min. 0-1-8), E=99/Mechanical  
 Max Horz I=374(LC 8)  
 Max Uplift D=-71(LC 9), I=-119(LC 8), E=-166(LC 8)  
 Max Grav D=61(LC 1), I=236(LC 1), E=100(LC 13)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) I=119, E=166.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J209	Truss Type Jack-Open	Qty 5	Ply 1	H&H-NC/Jessamine/Master
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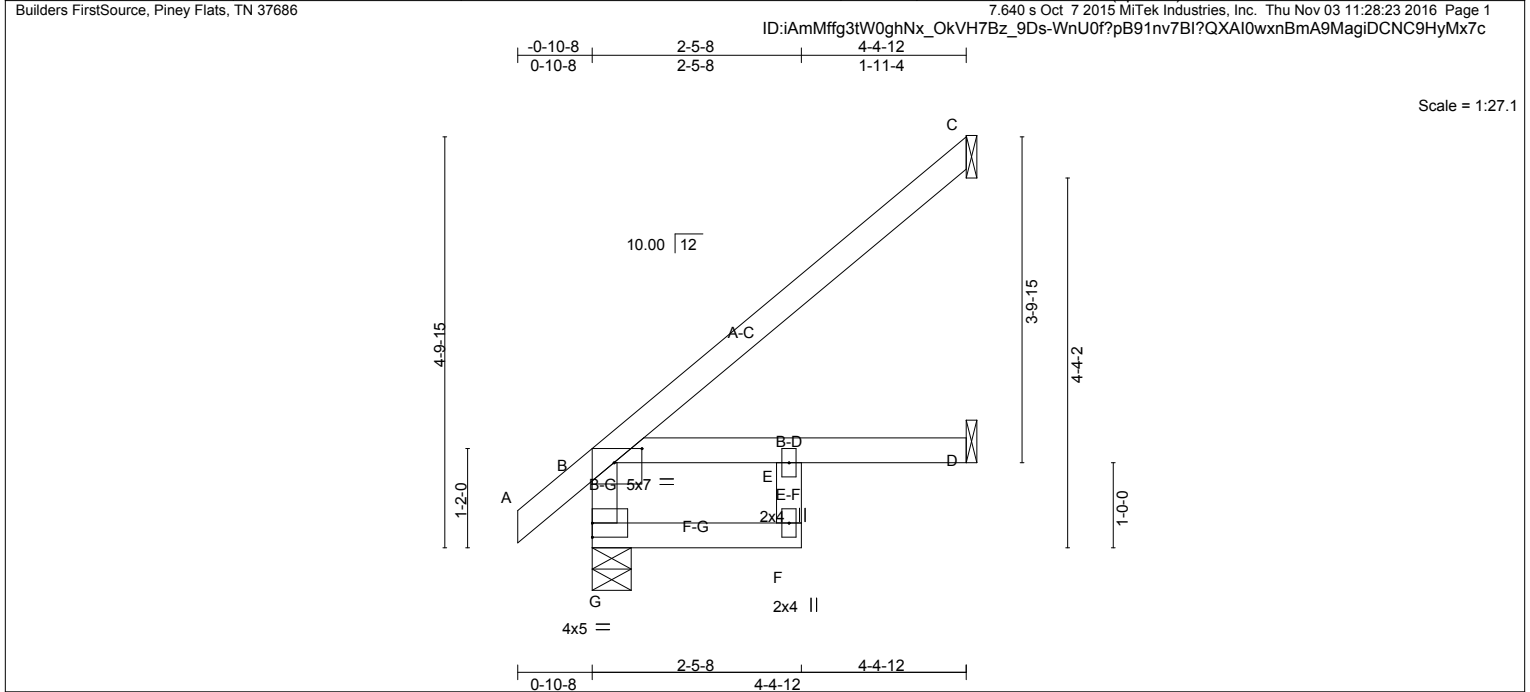


Plate Offsets (X,Y)-- [B:0-3-15,0-2-0]

<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 0.69	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.44	Vert(LL) -0.02 F >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Vert(TL) -0.05 F >938 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.09 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.08 B-E >609 240	Weight: 22 lb	FT = 20%

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

**REACTIONS.** (lb/size) G=267/0-5-8 (min. 0-1-8), C=110/Mechanical, D=61/Mechanical  
 Max Horz G=452(LC 8)  
 Max Uplift G=-29(LC 8), C=-259(LC 8), D=-67(LC 8)  
 Max Grav G=267(LC 1), C=110(LC 1), D=97(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-G=-256/149

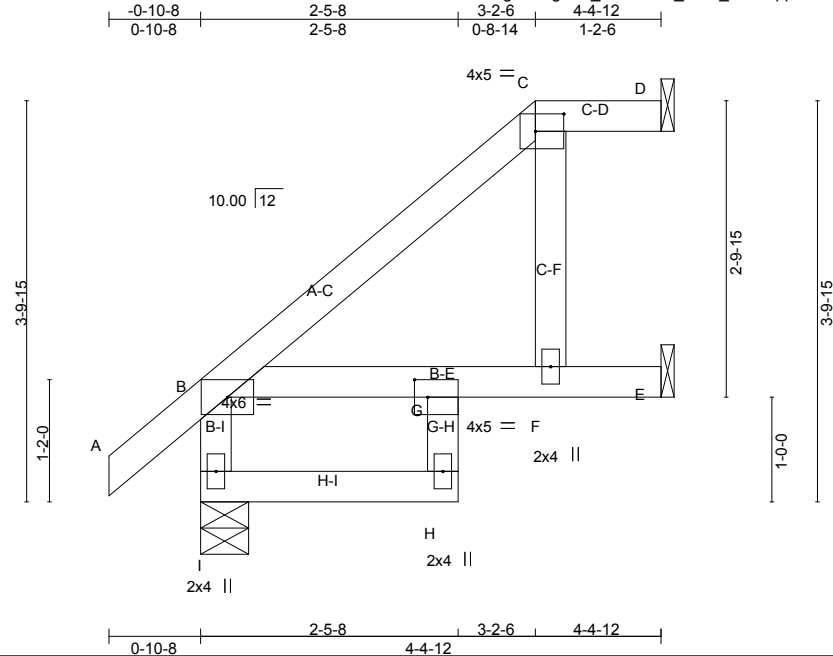
- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been 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) G, D except (jt=lb) C=259.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard

November 3, 2016

Job 812025_MASTER	Truss J211	Truss Type Half Hip	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_OkVH7Bz\_9Ds\_z2OtKppwLvmIKtB\_FhXZ7T2IAU551DrSs7mhkyMx7b  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:24 2016 Page 1  
 Job Reference (optional)



Scale = 1:22.0

Plate Offsets (X,Y)-- [C:0-3-4,0-2-0], [G:0-1-8,0-2-0]

<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 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.45	Vert(LL) -0.01 G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Vert(TL) -0.04 F-G >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.08 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.06 F-G >802 240	Weight: 25 lb	FT = 20%

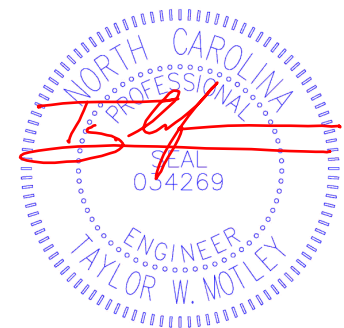
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) D=60/Mechanical, I=236/0-5-8 (min. 0-1-8), E=100/Mechanical  
 Max Horz I=374(LC 8)  
 Max Uplift D=-71(LC 9), I=-119(LC 8), E=-166(LC 8)  
 Max Grav D=60(LC 1), I=236(LC 1), E=100(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 BOT CHORD H-I=-293/56, B-G=-52/283

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) I=119, E=166.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

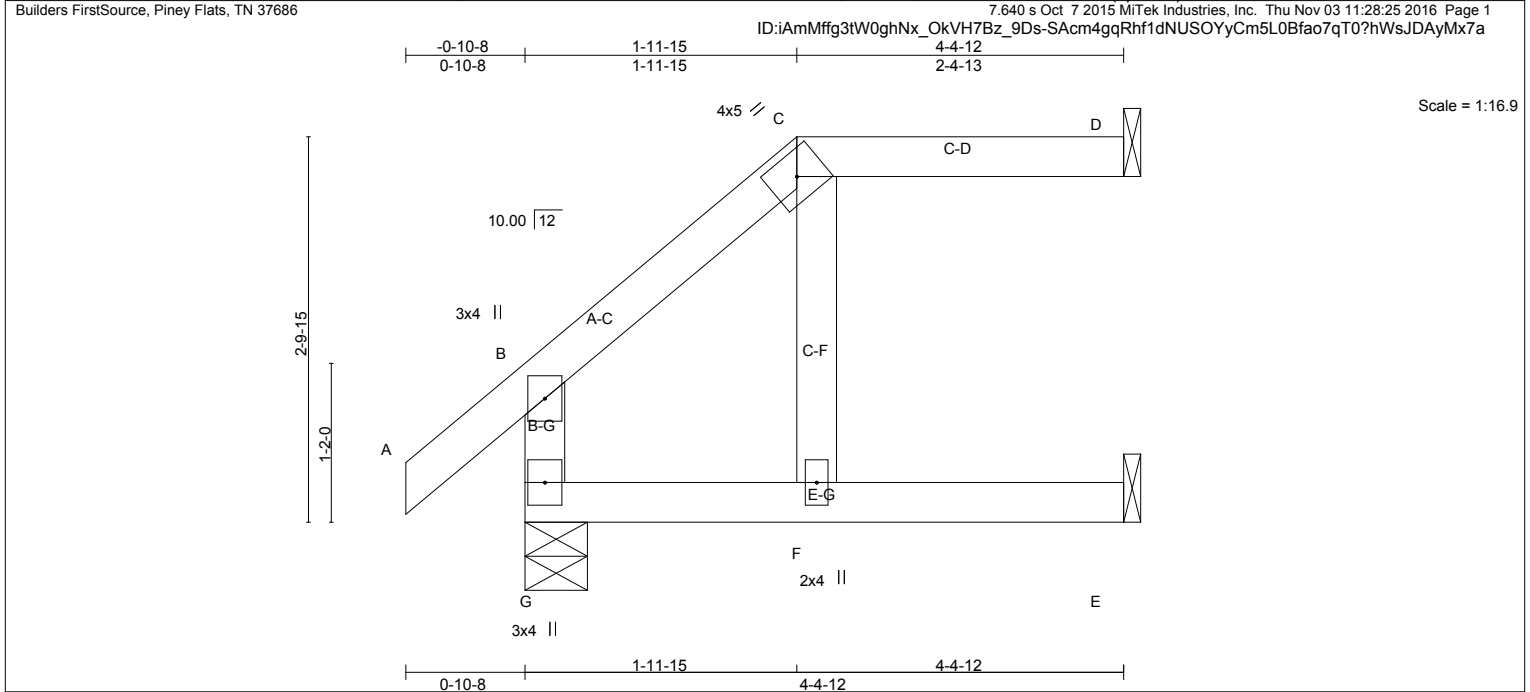
**LOAD CASE(S)** Standard



November 3, 2016



Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J212	Half Hip Girder	1	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 0.44	Vert(LL)	-0.04	F	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.59	Vert(TL)	-0.10	F	>498		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(TL)	-0.17	D	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.11	F	>477		
								Weight: 20 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-4-12 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) D=326/Mechanical, G=367/0-5-8 (min. 0-1-8), E=209/Mechanical  
Max Horz G=283(LC 6)  
Max Uplift D=-200(LC 7), G=-227(LC 6), E=-150(LC 6)

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

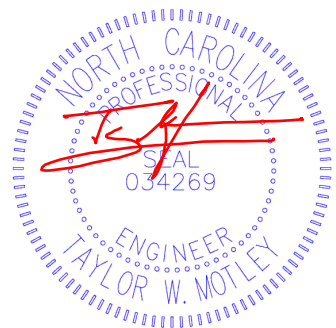
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed 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) except (jt=lb) D=200, G=227, E=150.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 182 lb down and 78 lb up at 1-11-15, and 185 lb down and 92 lb up at 4-4-0 on top chord, and 75 lb down and 68 lb up at 2-0-11, and 82 lb down and 63 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
Vert: A-B=-60, B-C=-60, C-D=-60, E-G=-20

Concentrated Loads (lb)  
Vert: C=-163(B) D=-185(B) E=-82(B) F=-75(B)



November 3, 2016



Job 812025_MASTER	Truss J214	Truss Type GABLE COMMON	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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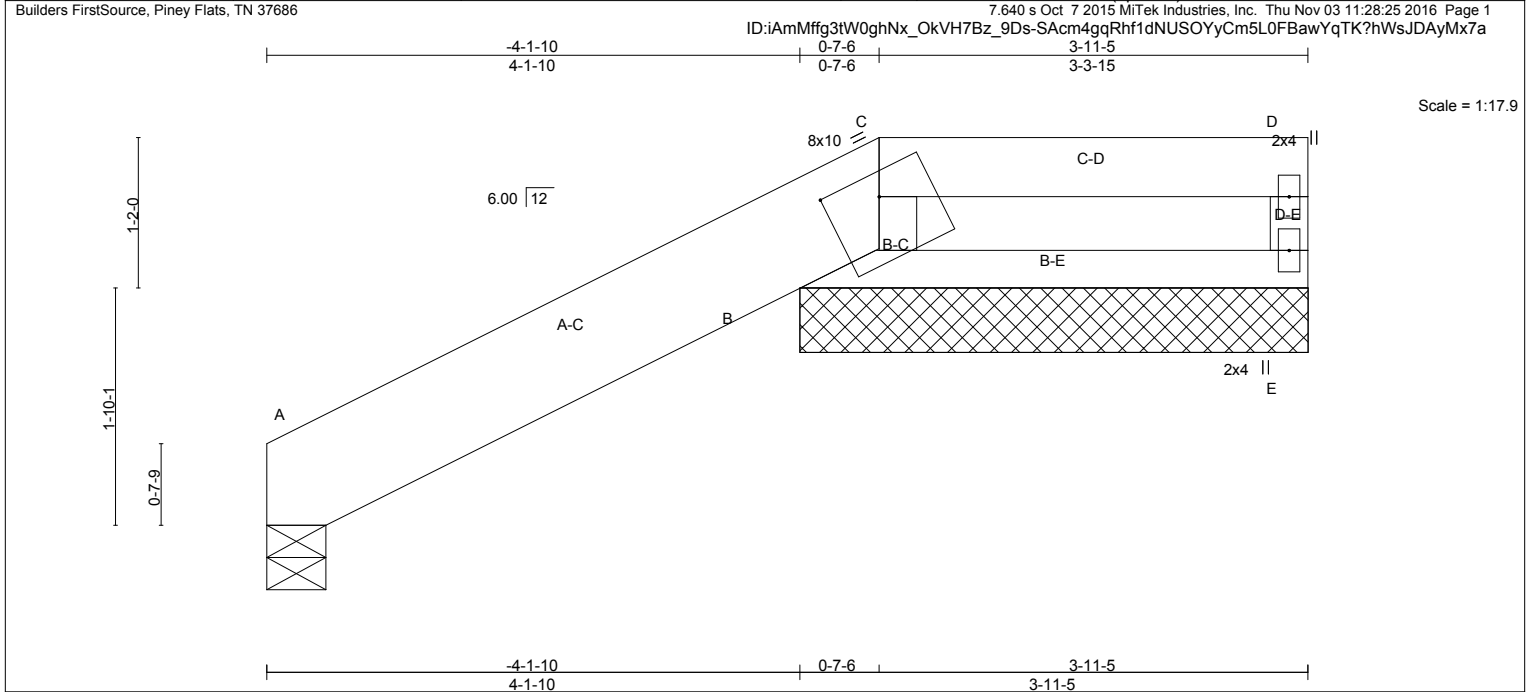


Plate Offsets (X,Y)-- [C:0-5-1,0-2-3]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.15	Vert(LL) -0.01	B-E	>999	360	
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(TL) -0.02	B-E	>999	240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) 0.00	E	n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007	(Matrix)	Wind(LL) -0.00	B	>999	240	
							<b>PLATES</b> MT20
							<b>GRIP</b> 244/190
							Weight: 37 lb FT = 20%

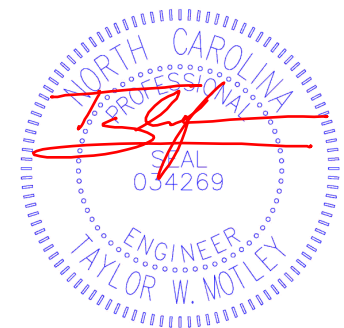
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x10 SP No.1 *Except* C-D: 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) A=119/0-5-8 (min. 0-1-8), E=126/3-11-5 (min. 0-1-8), B=380/3-11-5 (min. 0-1-8)  
 Max Horz B=179(LC 8)  
 Max Uplift A=-117(LC 8), E=-96(LC 6), B=-272(LC 8)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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) Provide adequate drainage to prevent water ponding.
  - 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) Bearing at joint(s) A considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E except (jt=lb) A=117, B=272.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss J215	Truss Type Jack-Open	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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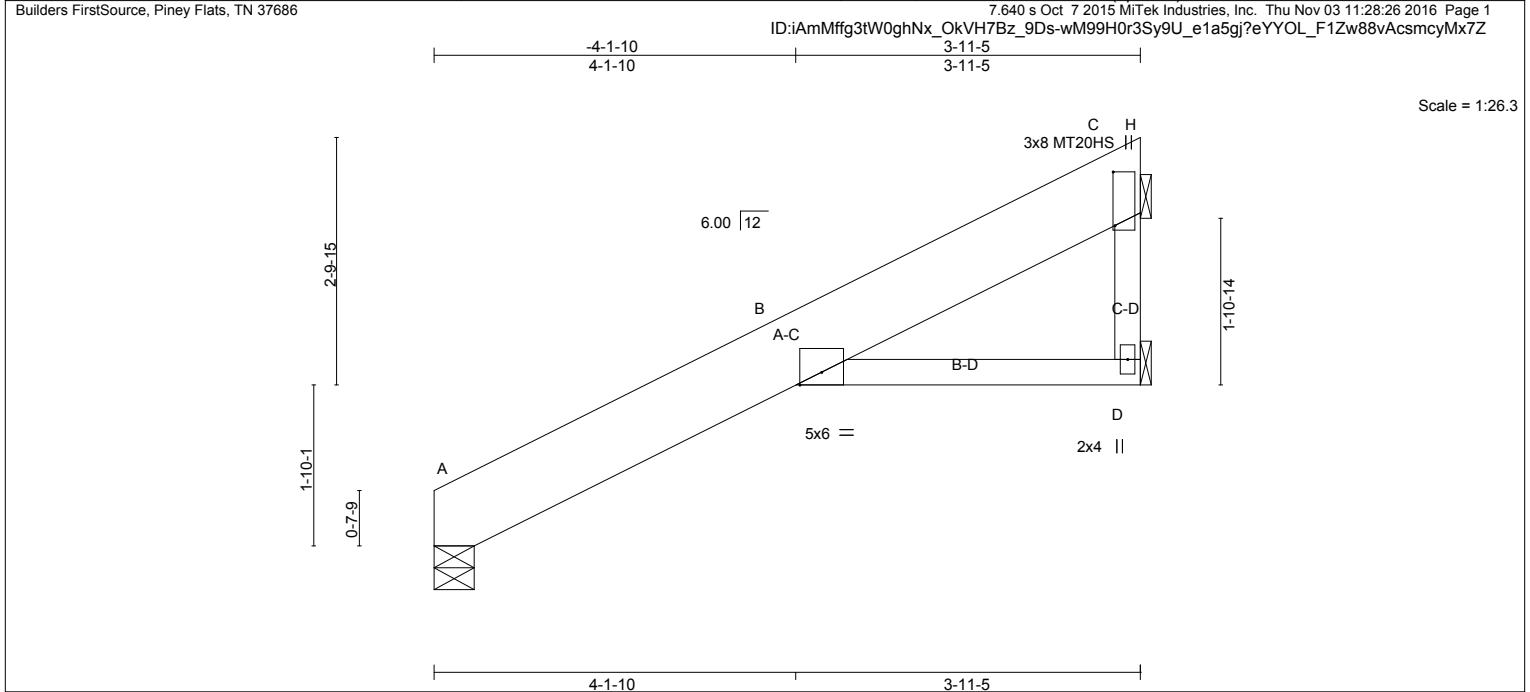


Plate Offsets (X,Y)--	[C:0-7-6,0-0-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.02	E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(TL) -0.06	E	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(TL) -0.03	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.06	E	>999	240		
							Weight: 45 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-11-5 oc purlins.
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) A=321/0-5-8 (min. 0-1-8), D=95/Mechanical, C=223/Mechanical  
 Max Horz C=341(LC 8)  
 Max Uplift A=-319(LC 8), D=-56(LC 8), C=-109(LC 8)

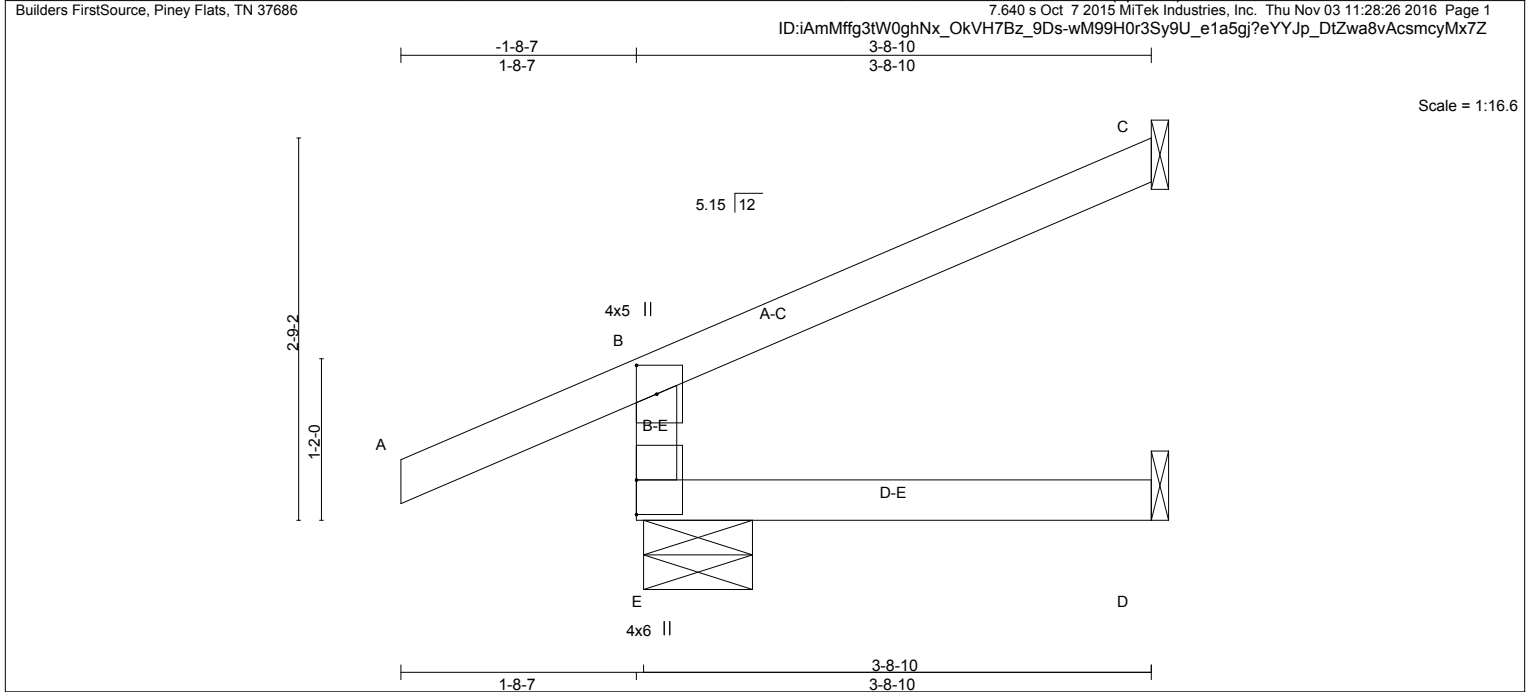
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD A-B=-129/281

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Bearing at joint(s) A considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) A=319, C=109.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard

November 3, 2016

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J216	Jack-Open	1	1	



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.01	D-E	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(TL)	-0.02	D-E	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.03	C	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.02	D-E	>999	Weight: 15 lb	FT = 20%

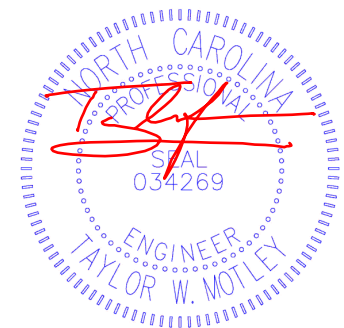
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-10 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) E=280/0-9-7 (min. 0-1-8), C=80/Mechanical, D=31/Mechanical  
 Max Horz E=268(LC 8)  
 Max Uplift E=-284(LC 8), C=-134(LC 8), D=-6(LC 8)  
 Max Grav E=280(LC 1), C=80(LC 1), D=64(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-241/466

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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 except (jt=lb) E=284, C=134.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

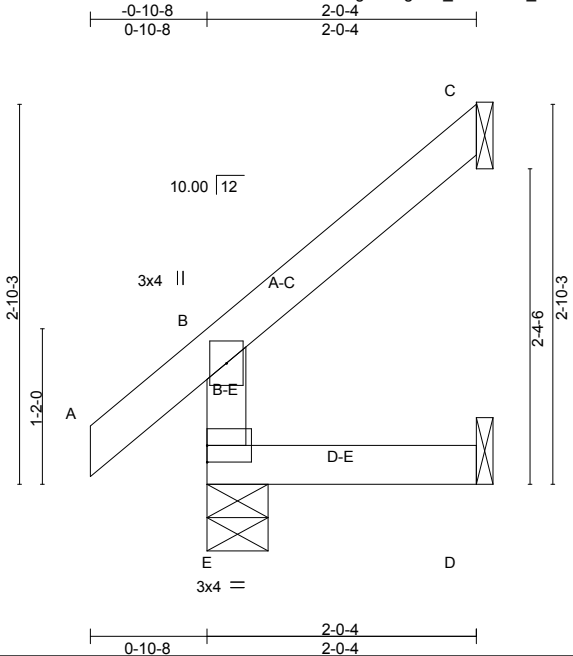
**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J217	Truss Type Jack-Open	Qty 6	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID: iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-OYjXVMshDGHcocmfNEEBm5XCNaQINqH8qLQI2yMx7Y  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:27 2016 Page 1  
 Job Reference (optional)



Scale = 1:17.3

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL) -0.00	E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(TL) -0.00	D-E	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL) -0.02	C	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.01	D-E	>999	240	Weight: 10 lb	FT = 20%

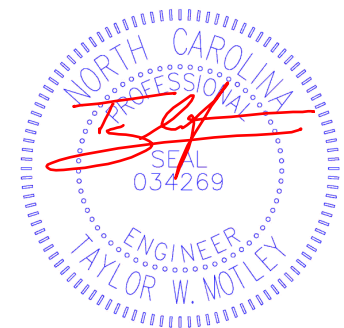
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) E=151/0-5-8 (min. 0-1-8), C=40/Mechanical, D=16/Mechanical  
 Max Horz E=276(LC 8)  
 Max Uplift E=-36(LC 8), C=-136(LC 8), D=-55(LC 8)  
 Max Grav E=151(LC 1), C=40(LC 1), D=34(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) E, D except (jt=lb) C=136.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard

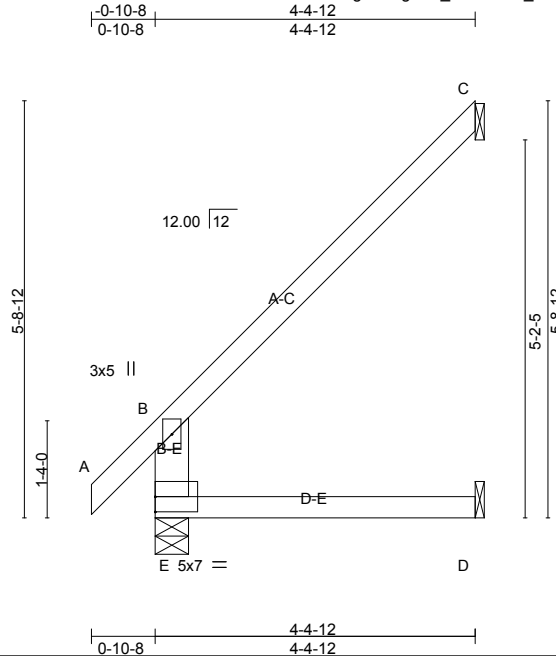


November 3, 2016

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.</p>	<p>MSD MOTLEY STRUCTURAL DESIGN STRUCTURAL ENGINEERS</p> <p>PO Box 3850 Sumter SC 29151</p>
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Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J220	Jack-Open	13	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID: iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-OYjXVMshDGHLocmfNEEBm5QANPFINqH8qLQI2yMx7Y  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:27 2016 Page 1  
 Job Reference (optional)



<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 0.82	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.94	Vert(LL) -0.01 D-E >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(TL) -0.04 D-E >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.18 C n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.11 D-E >450 240	Weight: 21 lb	FT = 20%

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

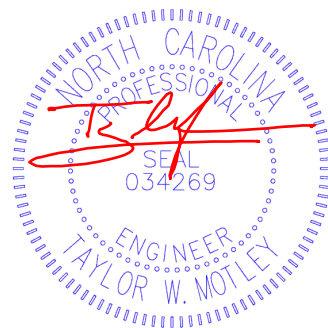
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) E=239/0-5-8 (min. 0-1-8), C=108/Mechanical, D=47/Mechanical  
 Max Horz E=544(LC 8)  
 Max Uplift C=-343(LC 8), D=-83(LC 8)  
 Max Grav E=239(LC 1), C=108(LC 1), D=77(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-C--303/59

**NOTES-**  
 1) Wind: ASCE 7-05; 130mph; 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 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 except (jt=lb) C=343.  
 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.  
 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.

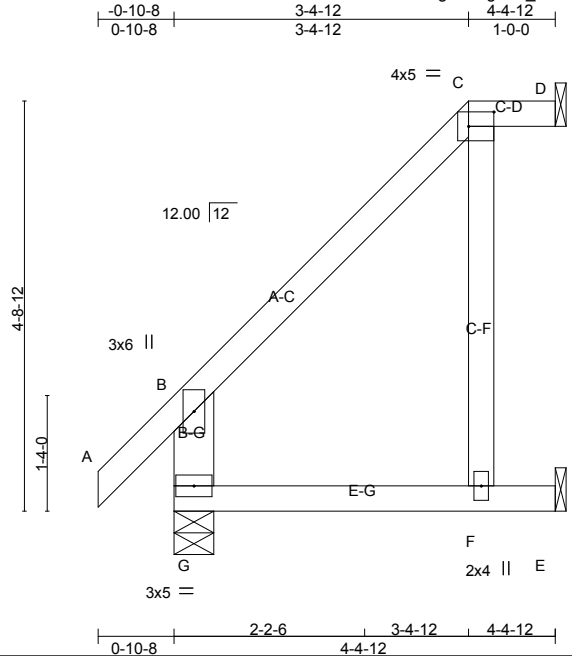
**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J221	Truss Type Half Hip	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMfg3tW0ghNx\_OkVH7Bz\_9Ds-sIHviisK\_aPCEyBzD41TjzefgnqP1pTRNU5zqVqMx7X  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:28 2016 Page 1



Scale = 1:26.6

Plate Offsets (X,Y)-- [C:0-3-8,0-2-0]

<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 0.52	Vert(LL)	-0.01	F-G	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(TL)	-0.04	F-G	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(TL)	-0.22	D	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-S)	Wind(LL)	0.12	F-G	>406		
								Weight: 26 lb	FT = 20%

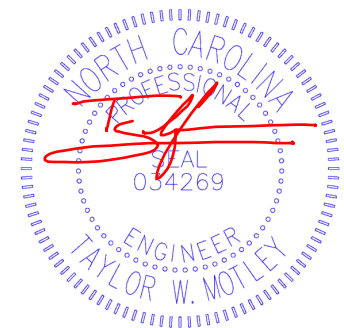
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
BOT CHORD 2x4 SP No.2	2-0-0 oc purlins: C-D.
WEBS 2x6 SP No.2 *Except* C-F: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) D=50/Mechanical, G=239/0-5-8 (min. 0-1-8), E=105/Mechanical  
 Max Horz G=468(LC 8)  
 Max Uplift D=-45(LC 9), G=-41(LC 8), E=-278(LC 8)  
 Max Grav D=52(LC 14), G=239(LC 1), E=105(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS C-F=-81/349

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-05; 130mph; 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 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, G except (jt=lb) E=278.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

PO Box 3850  
Sumter SC 29151



Job 812025_MASTER	Truss J222	Truss Type Half Hip	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-LxrHw2tytY3r6m9noGiGBAqYBBMmGGac8qXMxyMx7W  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:29 2016 Page 1  
 Job Reference (optional)

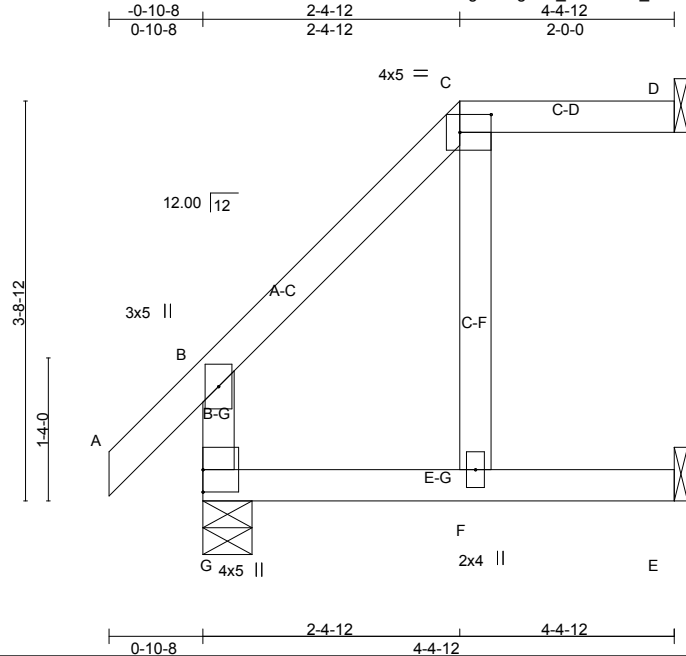


Plate Offsets (X,Y)-- [C:0-3-8,0-2-0]

<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 0.57	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.02 F >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.07	Vert(TL) -0.05 F >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.21 D n/a n/a	Weight: 23 lb	FT = 20%
	Code IRC2009/TPI2007		Wind(LL) 0.10 F-G >489 240		

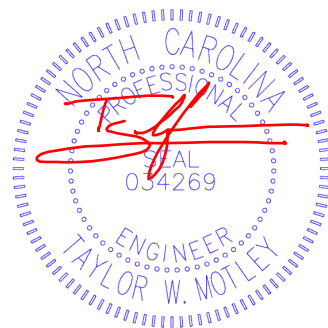
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) D=88/Mechanical, G=236/0-5-8 (min. 0-1-8), E=72/Mechanical  
 Max Horz G=374(LC 8)  
 Max Uplift D=-108(LC 7), G=-111(LC 8), E=-110(LC 8)  
 Max Grav D=88(LC 1), G=236(LC 1), E=74(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) D=108, G=111, E=110.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J223	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:29 2016 Page 1  
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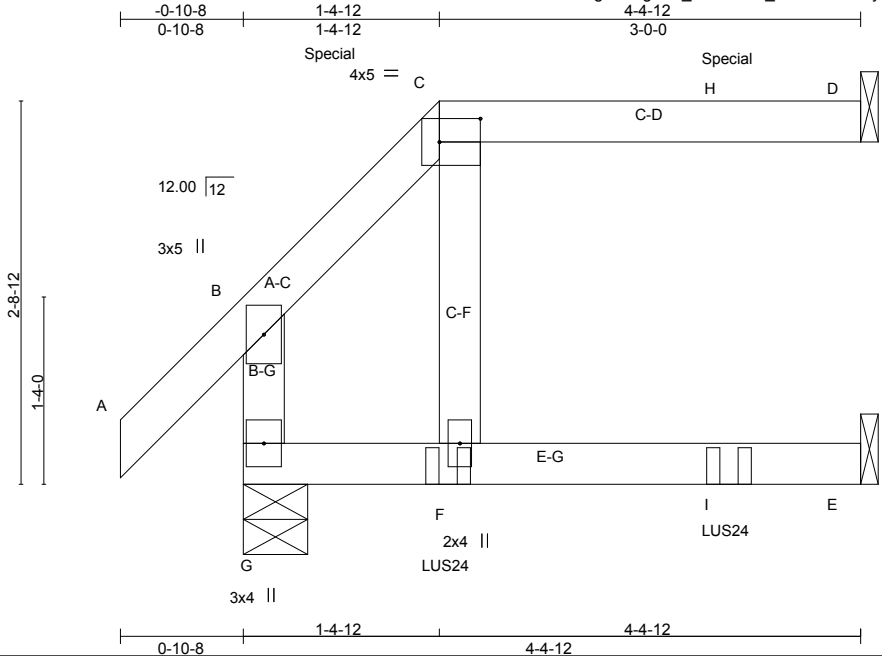


Plate Offsets (X,Y)-- [C:0-3-8,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 2-0-0 Lumber DOL 1.15	TC 0.38	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Rep Stress Incr NO	BC 0.49	Vert(LL) -0.02 E-F >999 360		
BCLL 0.0 *	Code IRC2009/TPI2007	WB 0.03	Vert(TL) -0.06 E-F >830 240		
BCDL 10.0		(Matrix-M)	Horz(TL) -0.21 D n/a n/a		
			Wind(LL) 0.11 E-F >467 240	Weight: 21 lb	FT = 20%

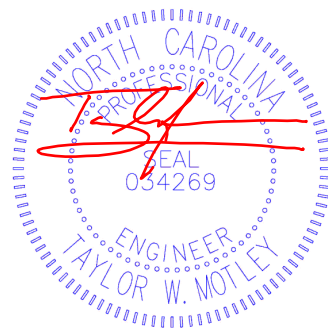
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (lb/size) D=137/Mechanical, G=282/0-5-8 (min. 0-1-8), E=82/Mechanical  
 Max Horz G=287(LC 17)  
 Max Uplift D=-222(LC 7), G=-292(LC 6), E=-105(LC 6)  
 Max Grav D=138(LC 12), G=282(LC 1), E=109(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) D=222, G=292, E=105.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-5-8 from the left end to 3-5-8 to connect truss(es) J224 (1 ply 2x4 SP) to back face of bottom chord.
  - Fill all nail holes where hanger is in contact with lumber.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 136 lb up at 1-4-12, and 38 lb down and 143 lb up at 3-5-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-B=-60, B-C=-60, C-D=-60, E-G=-20



November 3, 2016

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.**  
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**MSD MOTLEY STRUCTURAL DESIGN**  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J223	Half Hip Girder	1	1	

Job Reference (optional)

Builders FirstSource, Piney Flats, TN 37686

7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:29 2016 Page 2  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-LxrHw2tYtY3r6m9noGiGBAtfBCImHoac8qXMxyMx7W

**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: C=-35(B) F=-15(B) H=-38(B) I=-17(B)

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Job 812025_MASTER	Truss J224	Truss Type Jack-Open	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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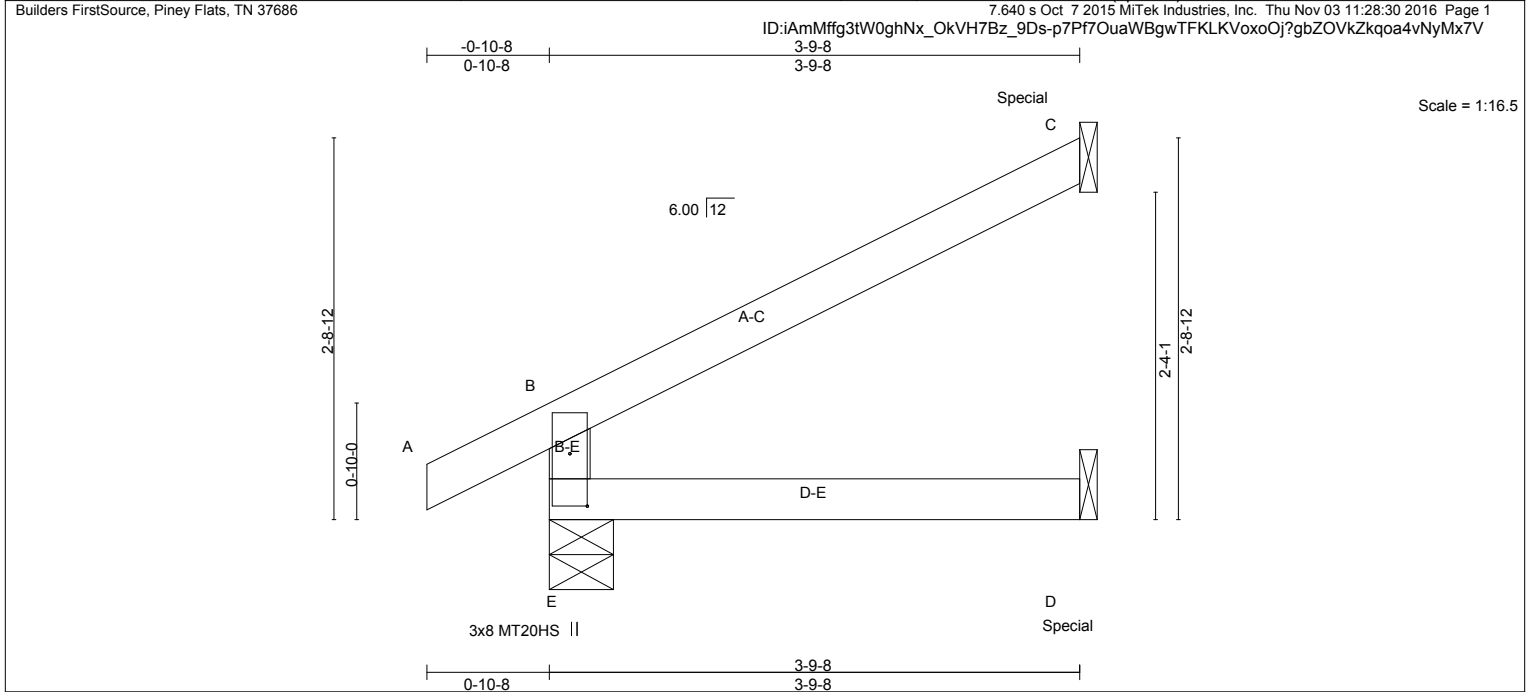


Plate Offsets (X,Y)-- [E:0-4-8,0-1-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.55	Vert(LL) -0.01	D-E	>999	360	MT20HS
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(TL) -0.02	D-E	>999	240	<b>GRIP</b>
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.02	C	n/a	n/a	187/143
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.02	D-E	>999	240	Weight: 14 lb FT = 20%

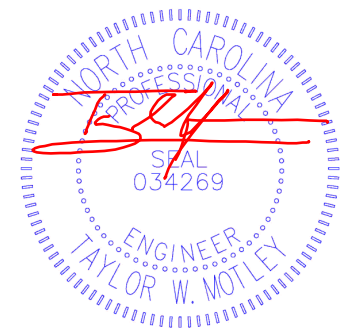
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) E=213/0-5-8 (min. 0-1-8), C=95/Mechanical, D=35/Mechanical  
 Max Horz E=244(LC 8)  
 Max Uplift E=-168(LC 8), C=-167(LC 8), D=-28(LC 8)  
 Max Grav E=213(LC 1), C=95(LC 1), D=70(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-182/320

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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 except (jt=lb) E=168, C=167.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2 lb down and 61 lb up at 3-8-12 on top chord, and 3 lb down and 18 lb up at 3-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

<b>LOAD CASE(S)</b> Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, D-E=-20
Concentrated Loads (lb)
Vert: D=5(B)



November 3, 2016

Job 812025_MASTER	Truss J225	Truss Type Jack-Open	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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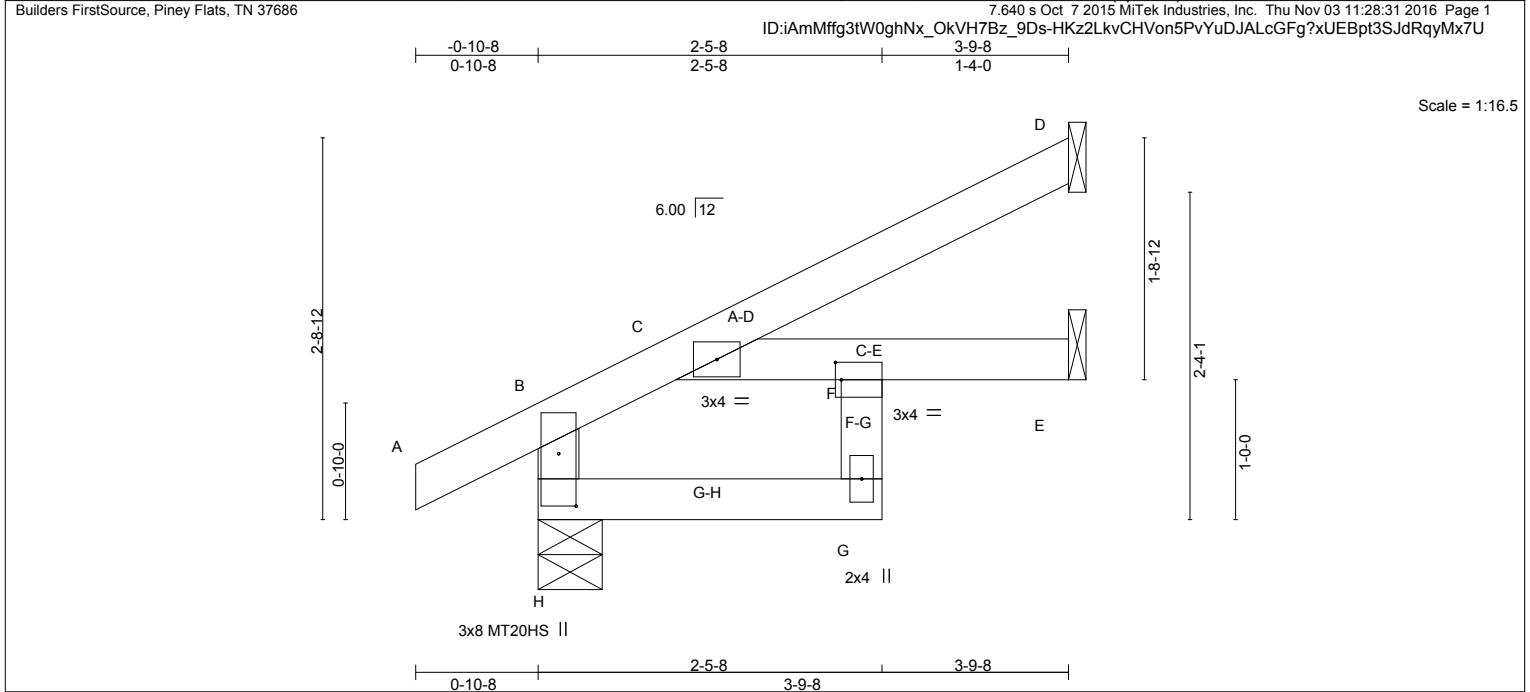


Plate Offsets (X,Y)-- [F:0-0-8,0-1-8], [H:0-4-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.21	Vert(LL) -0.00	F	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(TL) -0.01	F	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.01	E	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.01	F	>999	240		
							Weight: 17 lb	FT = 20%

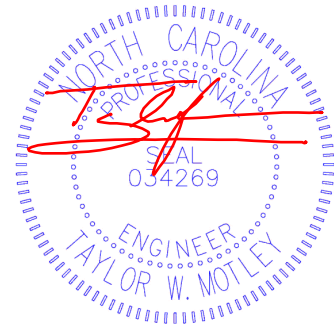
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) H=248/0-5-8 (min. 0-1-8), D=68/Mechanical, E=58/Mechanical  
 Max Horz H=244(LC 8)  
 Max Uplift H=-178(LC 8), D=-99(LC 8), E=-45(LC 8)  
 Max Grav H=248(LC 1), D=68(LC 1), E=76(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-H=-225/327

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, E except (jt=lb) H=178.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J226	Truss Type Jack-Open Structural Gable	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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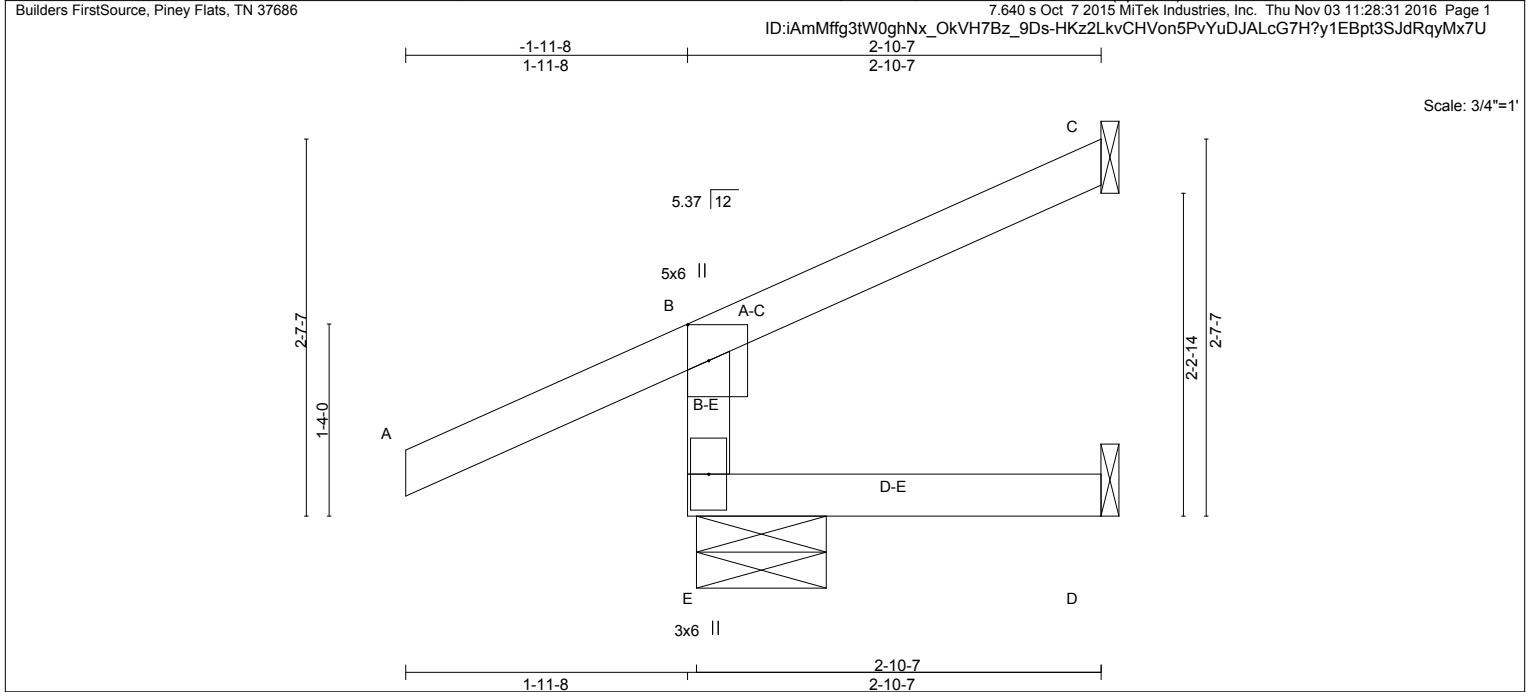


Plate Offsets (X,Y)--	[B:0-3-0,0-1-12]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.00	D-E	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(TL) -0.00	D-E	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.02	C	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.01	D-E	>999	240		
							Weight: 14 lb	FT = 20%

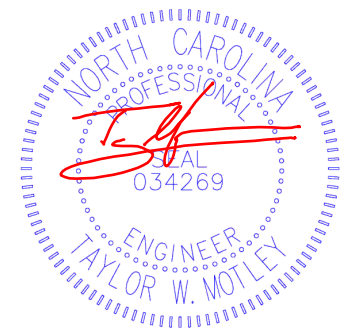
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) C=42/Mechanical, E=282/0-10-13 (min. 0-1-8), D=15/Mechanical  
 Max Horz E=218(LC 8)  
 Max Uplift C=-80(LC 8), E=-313(LC 8), D=-5(LC 8)  
 Max Grav C=42(LC 1), E=282(LC 1), D=46(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-244/473

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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; cantilever left exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 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) C, D except (jt=lb) E=313.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

**LOAD CASE(S)** Standard

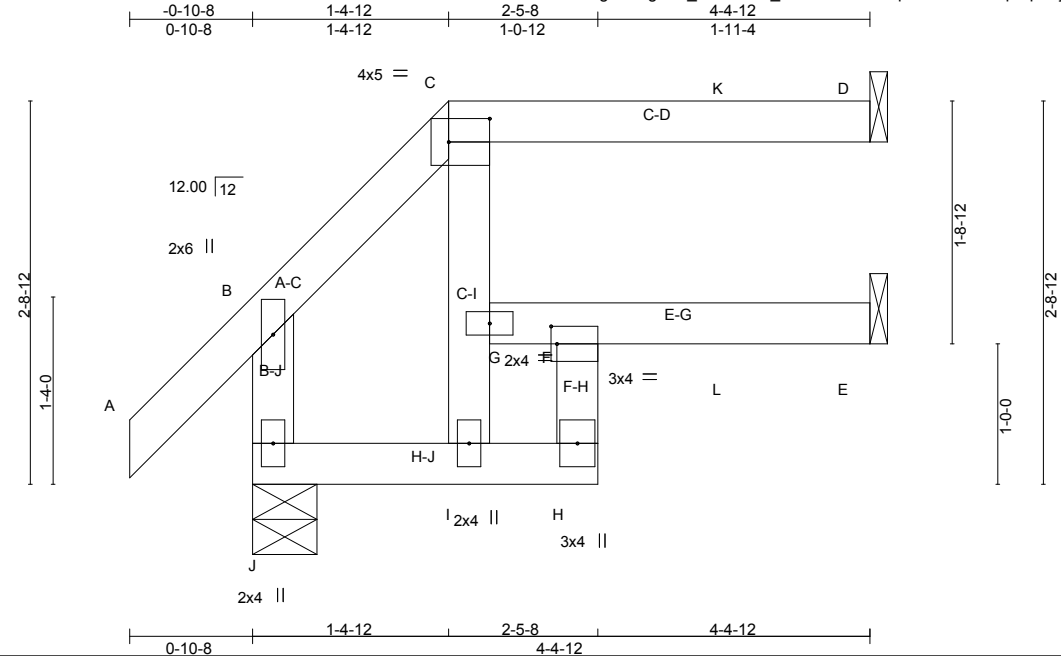


November 3, 2016



Job 812025_MASTER	Truss J227	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37886  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-IWXQY4wq2oweIZUkSwqPupoPJ0EEzam1163BzGyMx7T  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:32 2016 Page 1



Scale = 1:16.4

Plate Offsets (X,Y)-- [C:0-3-8,0-2-0], [F:0-0-8,0-1-8]

<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 0.26	Vert(LL) -0.02	F >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(TL) -0.06	E-F >878	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.28	Horz(TL) -0.13	D n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.08	E-F >633	240	Weight: 23 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-12 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	

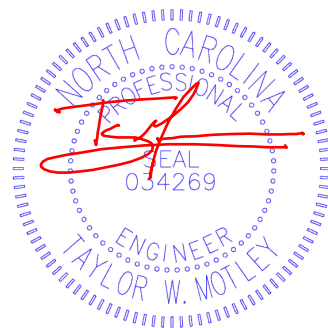
**REACTIONS.** (lb/size) D=106/Mechanical, J=290/0-5-8 (min. 0-1-8), E=116/Mechanical  
 Max Horz J=287(LC 6)  
 Max Uplift D=-149(LC 4), J=-276(LC 6), E=-146(LC 6)  
 Max Grav D=107(LC 12), J=290(LC 1), E=139(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS G-I=-172/272

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) D=149, J=276, E=146.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 141 lb up at 1-4-12, and 15 lb down and 74 lb up at 3-5-8 on top chord, and 30 lb down and 40 lb up at 1-6-8, and 39 lb down and 56 lb up at 3-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, C-D=-60, H-J=-20, F-G=-20, E-F=-20
Concentrated Loads (lb)
Vert: C=-35(F) I=-15(F) K=-12(F) L=-39(F)



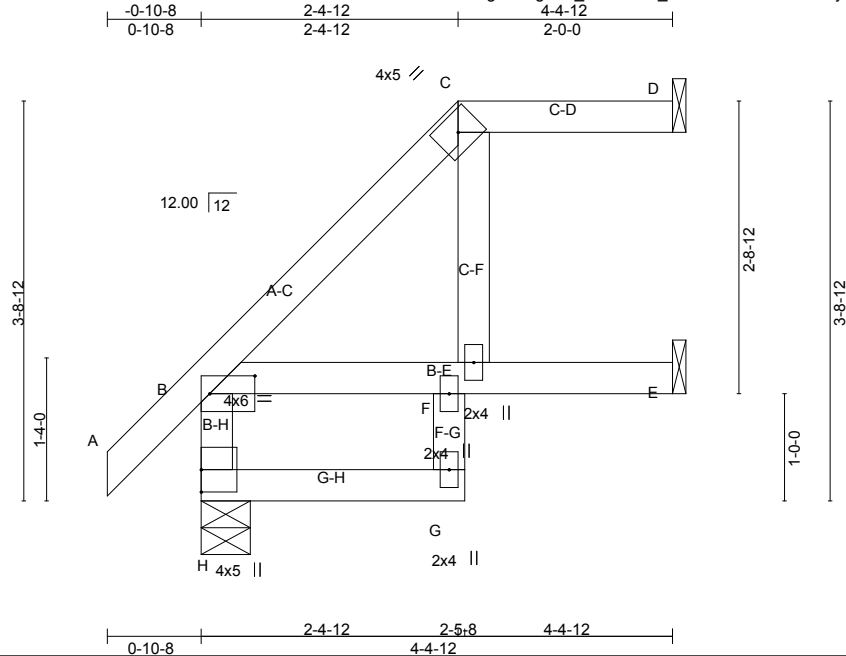
November 3, 2016

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Job 812025_MASTER	Truss J228	Truss Type Half Hip	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-Di5omPwSo62VKj3w0eLeQ1LVXoYVi5ZAWmokViyMx7S  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:33 2016 Page 1



Scale = 1:21.5

Plate Offsets (X,Y)-- [B:0-5-1,0-2-0]

<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 0.64	Vert(LL)	-0.02	F >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(TL)	-0.04	G >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(TL)	-0.19	D n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL)	0.09	F >555	240	Weight: 26 lb	FT = 20%

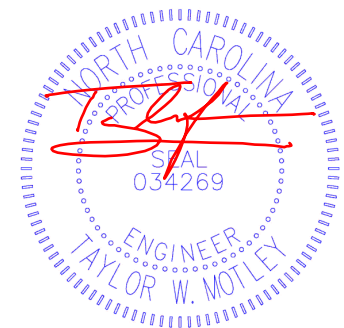
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* F-G: 2x4 SP No.2	

**REACTIONS.** (lb/size) D=91/Mechanical, H=236/0-5-8 (min. 0-1-8), E=69/Mechanical  
 Max Horz H=364(LC 8)  
 Max Uplift D=-127(LC 9), H=-103(LC 8), E=-94(LC 8)  
 Max Grav D=91(LC 1), H=236(LC 1), E=74(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-H=-215/316

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) E except (jt=lb) D=127, H=103.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.

**LOAD CASE(S)** Standard



November 3, 2016

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 PO Box 3850  
 Sumter SC 29151

Job	Truss	Truss Type	Qty	Ply	H&H-NC/Jessamine/Master
812025_MASTER	J229	Half Hip	2	1	

Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMffg3tW0ghNx\_7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:34 2016 Page 1  
 OkVH7Bz\_9Ds-hveAzlx4ZQAMyte6ZLstzEufqCtjRX2JIQYH28yMx7R

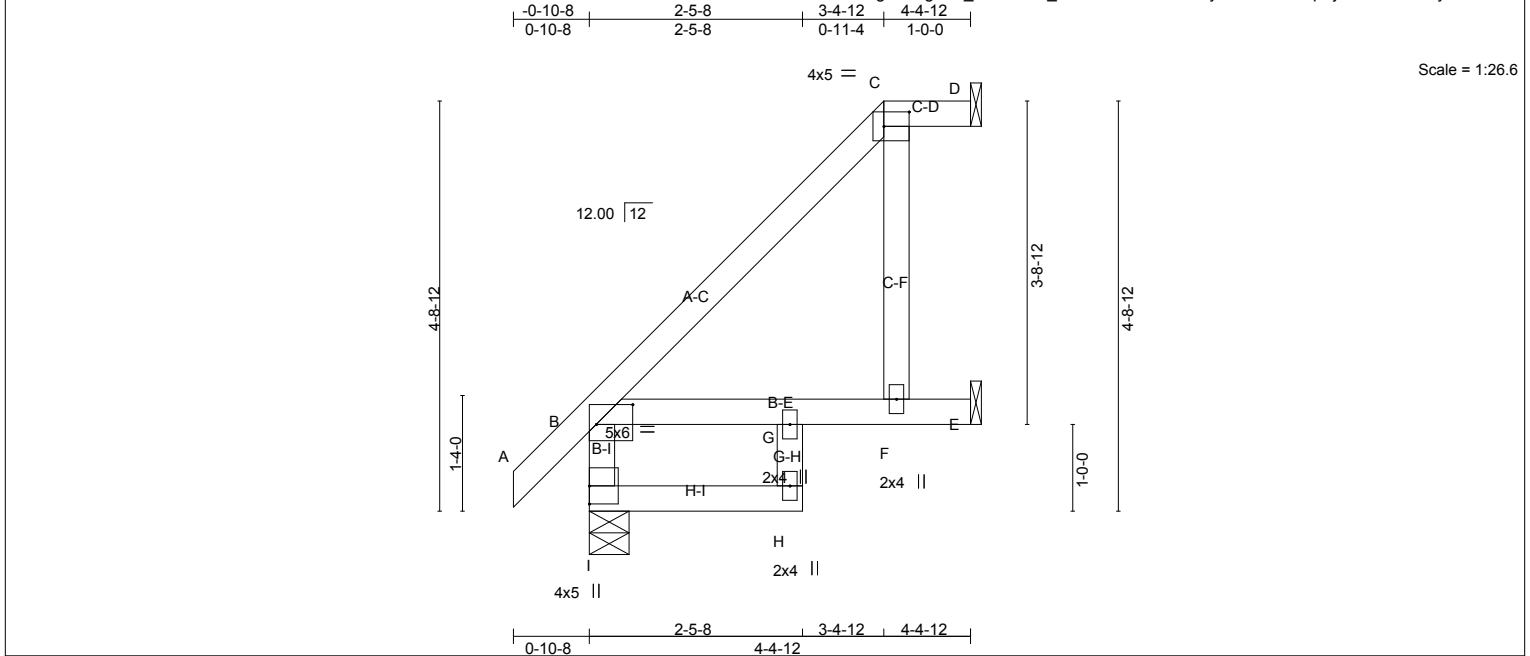


Plate Offsets (X,Y)-- [B:0-5-1,0-2-12], [C:0-3-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.67	Vert(LL) -0.02	G	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.63	Vert(TL) -0.05	G	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(TL) -0.22	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.12	H	>406	240		
							Weight: 28 lb	FT = 20%

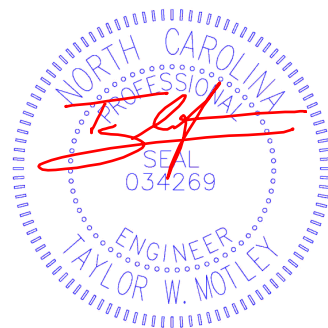
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins: C-D.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* G-H: 2x4 SP No.2	

**REACTIONS.** (lb/size) D=39/Mechanical, I=236/0-5-8 (min. 0-1-8), E=121/Mechanical  
 Max Horz I=451(LC 8)  
 Max Uplift D=-44(LC 9), I=-31(LC 8), E=-276(LC 8)  
 Max Grav D=42(LC 14), I=236(LC 1), E=121(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS C-F=-97/327

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, I except (jt=Ib) E=276.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss J230	Truss Type Jack-Open	Qty 3	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-95CYA5yKjICZ1DJ73N6VSMrcEwA?dT\_4HrabyMx7Q  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:35 2016 Page 1  
 Job Reference (optional)

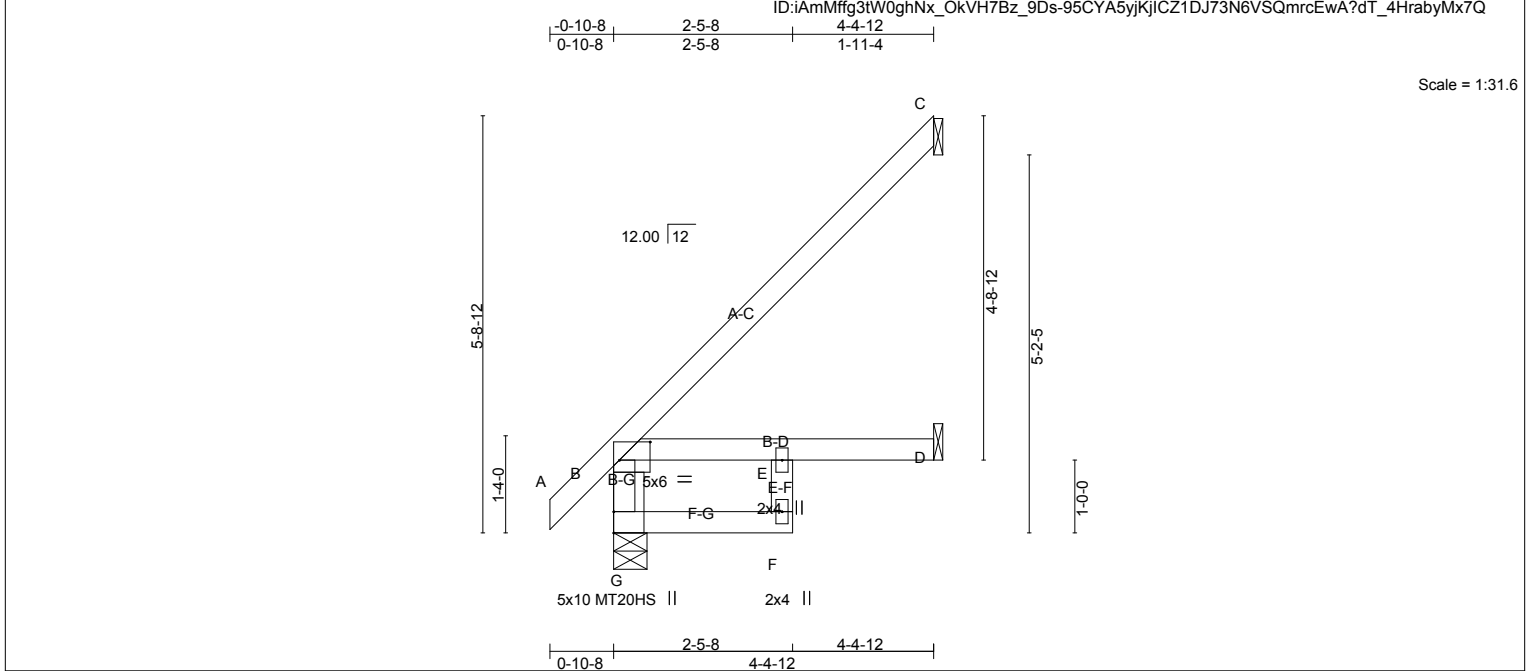


Plate Offsets (X,Y)-- [B:0-5-1,0-3-0]

<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 0.91	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(LL) -0.02 F >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Vert(TL) -0.06 F >902 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix-S)	Horz(TL) -0.13 C n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.10 B-E >481 240	Weight: 24 lb	FT = 20%

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

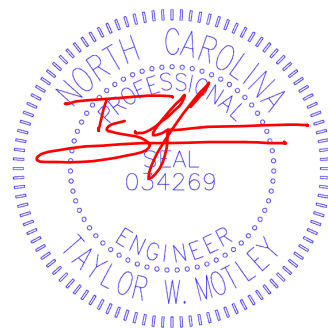
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (lb/size) G=271/0-5-8 (min. 0-1-8), C=112/Mechanical, D=59/Mechanical  
 Max Horz G=527(LC 8)  
 Max Uplift C=-320(LC 8), D=-94(LC 8)  
 Max Grav G=271(LC 1), C=112(LC 1), D=98(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-G=-253/168, B-C=-290/61

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) C=320.
  - 8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 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.

**LOAD CASE(S)** Standard



November 3, 2016

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss engineer/designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult **ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information** available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

MSD MOTLEY  
 STRUCTURAL DESIGN  
 STRUCTURAL ENGINEERS  
 PO Box 3850  
 Sumter SC 29151

Job 812025_MASTER	Truss J231	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:AmMfg3tW0ghNx\_OkVH7Bz\_9Ds-dHmxORzL51Q3BAoVhmvL2fz390bLvSRcDk1O61yMx7P  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:36 2016 Page 1  
 Job Reference (optional)

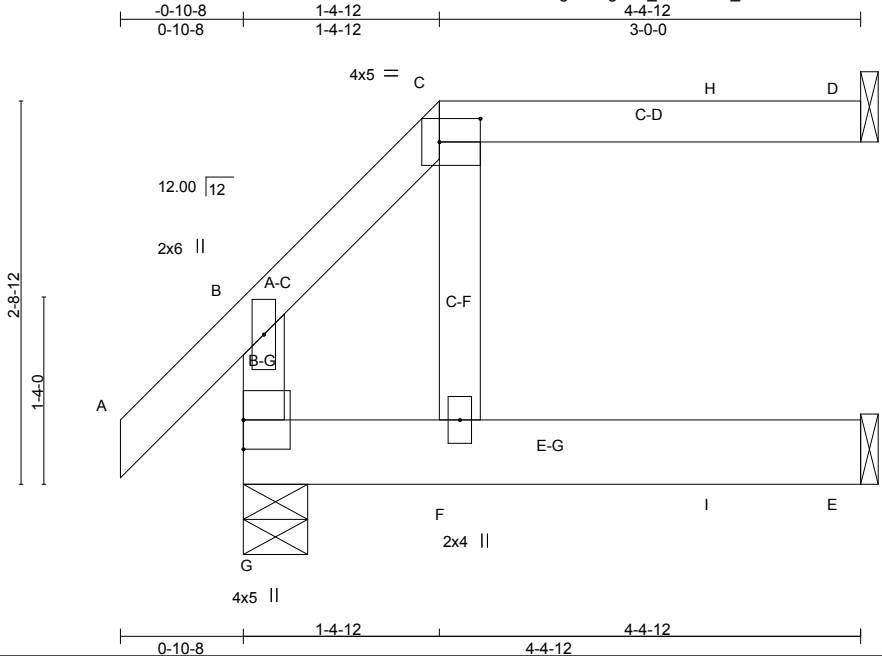


Plate Offsets (X,Y)-- [C:0-3-8,0-2-0]

<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 0.42	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.43	Vert(LL) -0.02 E-F >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(TL) -0.04 E-F >999 240		
BCDL 10.0	Rep Stress Incr NO	(Matrix-M)	Horz(TL) -0.08 D n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) 0.04 E-F >999 240	Weight: 24 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-4-12 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) D=201/Mechanical, G=444/0-5-8 (min. 0-1-8), E=216/Mechanical  
 Max Horz G=284(LC 17)  
 Max Uplift D=-127(LC 4), G=-254(LC 6), E=-154(LC 6)  
 Max Grav D=202(LC 12), G=444(LC 1), E=219(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS C-F=-283/201

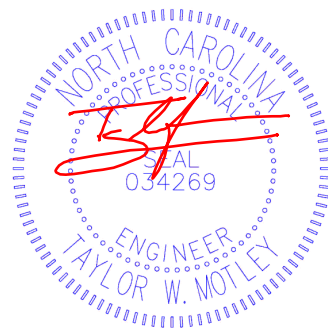
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) D=127, G=254, E=154.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 171 lb down and 51 lb up at 1-4-12, and 156 lb down and 57 lb up at 3-5-8 on top chord, and 78 lb down and 79 lb up at 1-5-8, and 79 lb down and 78 lb up at 3-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
 Vert: A-B=-60, B-C=-60, C-D=-60, E-G=-20

Concentrated Loads (lb)  
 Vert: C=-153(B) F=-78(B) H=-156(B) I=-79(B)



November 3, 2016

Job 812025_MASTER	Truss J232	Truss Type GABLE COMMON	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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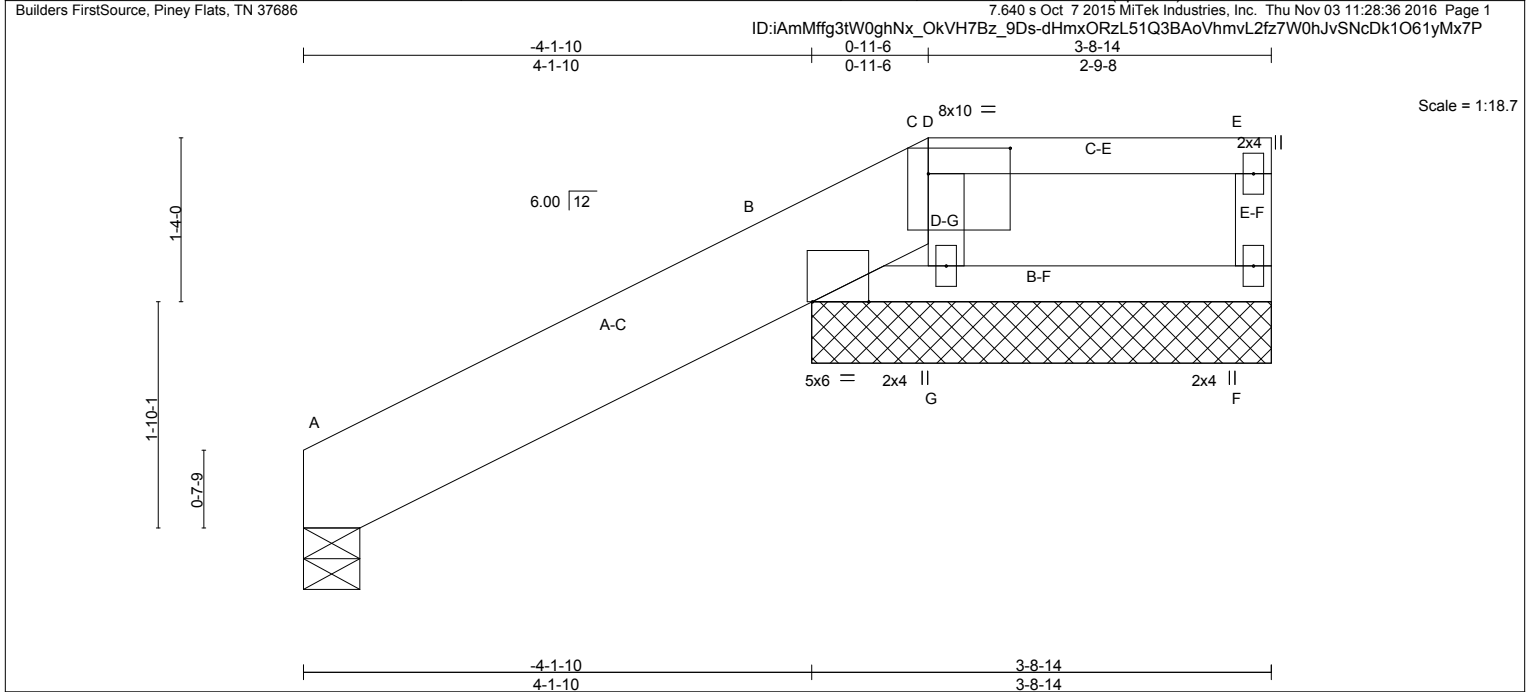


Plate Offsets (X,Y)-- [B:0-5-8,0-0-0], [C:0-8-0,0-2-8]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 F-G >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(TL) -0.00 F-G >999 240		
BCDL 10.0	Rep Stress Incr YES	(Matrix)	Horz(TL) -0.00 A n/a n/a		
	Code IRC2009/TPI2007		Wind(LL) -0.00 G >999 240	Weight: 35 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x10 SP No.1 *Except* C-E: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-14 oc purlins, except end verticals, and 2-0-0 oc purlins: C-E.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 3-8-14 except (jt=length) A=0-5-8.  
 (lb) - Max Horz B=232(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) F except A=-121(LC 8), B=-221(LC 8), G=-107(LC 6)  
 Max Grav All reactions 250 lb or less at joint(s) A, F, G except B=326(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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) Provide adequate drainage to prevent water ponding.
  - 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) Bearing at joint(s) A considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) F except (jt=lb) A=121, B=221, G=107.
  - 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

November 3, 2016



Job 812025_MASTER	Truss J233	Truss Type Jack-Open	Qty 2	Ply 1	H&H-NC/Jessamine/Master
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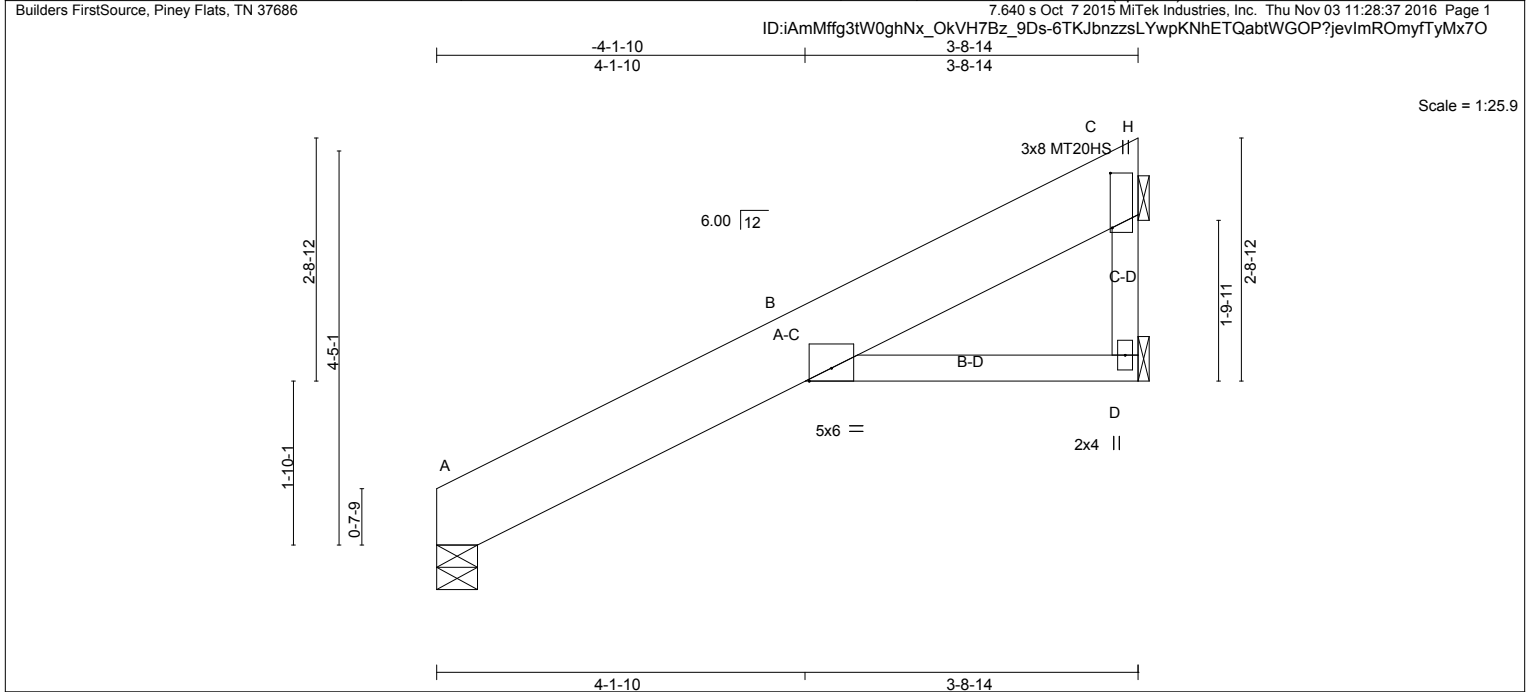


Plate Offsets (X,Y)-- [C:0-7-6,0-0-4]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.26	Vert(LL) -0.02	E	>999	360	MT20
TCDL 10.0	Lumber DOL 1.15	BC 0.16	Vert(TL) -0.05	E	>999	240	MT20HS
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.03	D	n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.06	E	>999	240	Weight: 44 lb FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x10 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-8-14 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	

**REACTIONS.** (lb/size) A=313/0-5-8 (min. 0-1-8), D=98/Mechanical, C=213/Mechanical  
 Max Horz C=424(LC 8)  
 Max Uplift A=-323(LC 8), D=-67(LC 8), C=-82(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD A-B=-126/287

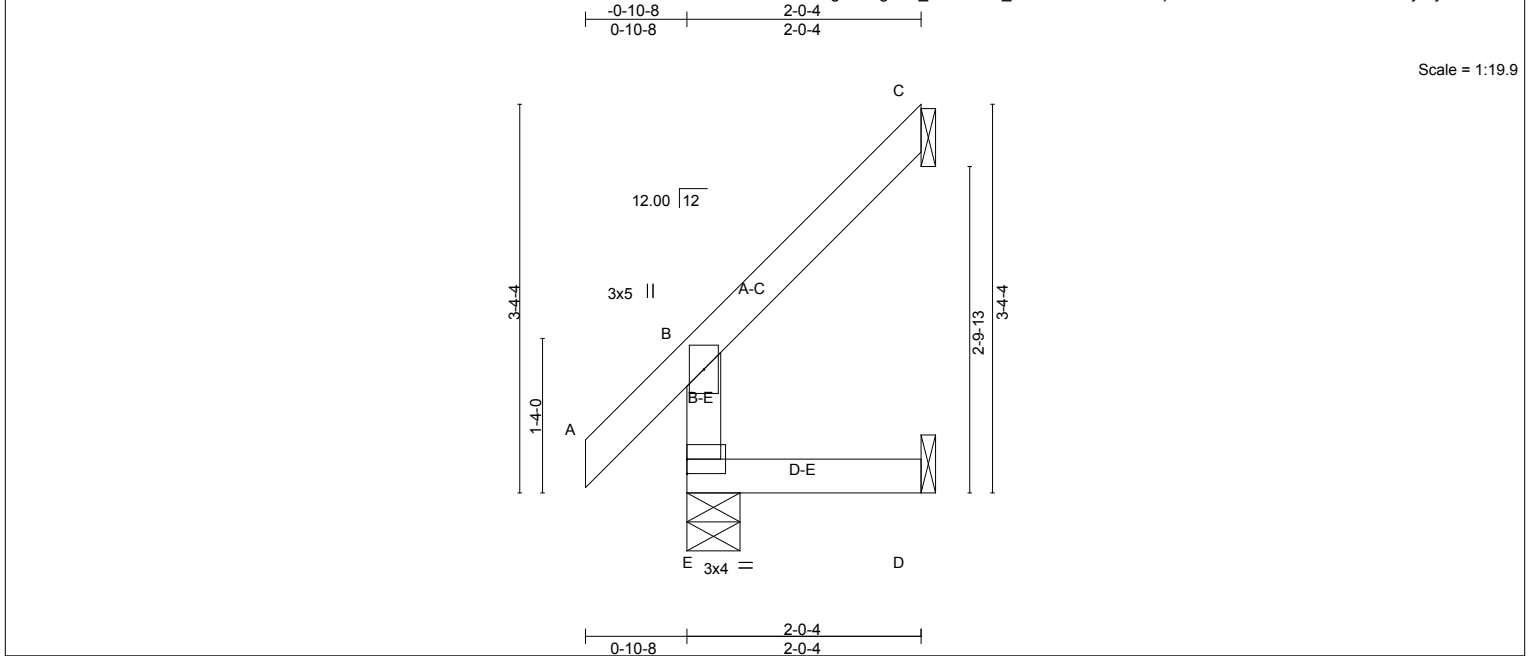
- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Bearing at joint(s) A considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D, C except (jt=lb) A=323.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard

November 3, 2016

Job 812025_MASTER	Truss J234	Truss Type Jack-Open	Qty 5	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-6TKJbnzzsLYwpKNhETQabtWCQPzEevImROmyfTyMx7O  
 Job Reference (optional)  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:37 2016 Page 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 0.52	Vert(LL) -0.00	E >999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(TL) -0.00	D-E >999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(TL) -0.04	C n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007		(Matrix-M)	Wind(LL) 0.01	D-E >999	240	Weight: 11 lb	FT = 20%

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

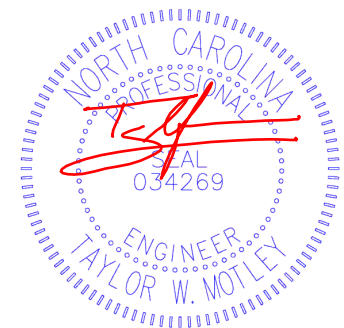
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 2-0-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) E=151/0-5-8 (min. 0-1-8), C=39/Mechanical, D=16/Mechanical  
 Max Horz E=331(LC 8)  
 Max Uplift E=-18(LC 6), C=-174(LC 8), D=-86(LC 8)  
 Max Grav E=151(LC 1), C=39(LC 1), D=34(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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) E, D except (jt=lb) C=174.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

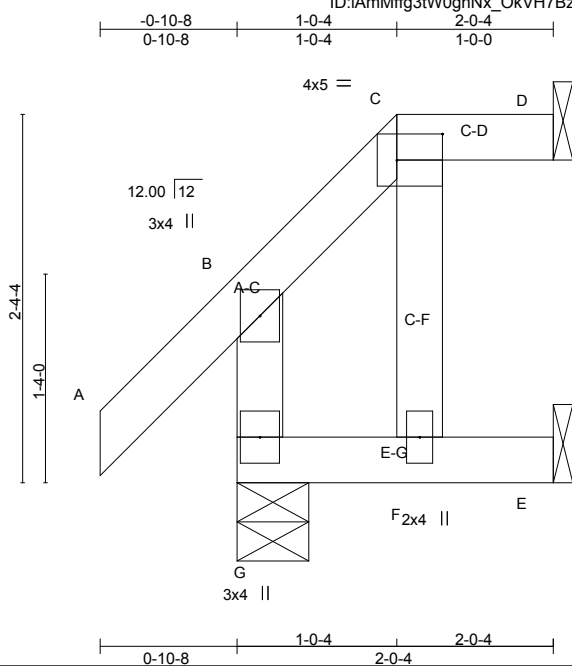
**LOAD CASE(S)** Standard



November 3, 2016

Job 812025_MASTER	Truss J235	Truss Type Half Hip Girder	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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Builders FirstSource, Piney Flats, TN 37686  
 ID:iAmMffg3tW0ghNx\_OkVH7Bz\_9Ds-aguhp7\_bdegnQUyuoBxp742RzpKINMlv2WVWBwyMx7N  
 7.640 s Oct 7 2015 MiTek Industries, Inc. Thu Nov 03 11:28:38 2016 Page 1  
 Job Reference (optional)



Scale = 1:14.7

Plate Offsets (X,Y)-- [C:0-3-8,0-2-0]

LOADING (psf)	SPACING-	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	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(TL) -0.00	F	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.02	Horz(TL) -0.03	D	n/a	n/a		
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.01	F	>999	240		
							Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-4 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	

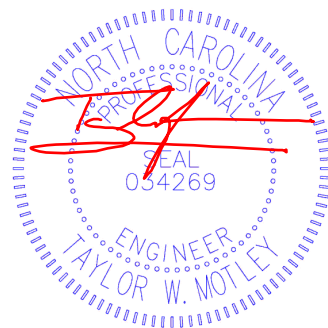
**REACTIONS.** (lb/size) D=41/Mechanical, G=165/0-5-8 (min. 0-1-8), E=29/Mechanical  
 Max Horz G=255(LC 6)  
 Max Uplift D=-80(LC 7), G=-116(LC 6), E=-111(LC 6)  
 Max Grav D=44(LC 12), G=165(LC 1), E=39(LC 3)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-05; 130mph; 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
  - 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) D except (jt=lb) G=116, E=111.
  - This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - "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.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 99 lb up at 1-0-4 on top chord, and 17 lb down and 35 lb up at 1-1-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: A-B=-60, B-C=-60, C-D=-60, E-G=-20  
 Concentrated Loads (lb)  
 Vert: C=-16(B) F=-12(B)



November 3, 2016

Job 812025_MASTER	Truss J236	Truss Type Jack-Open	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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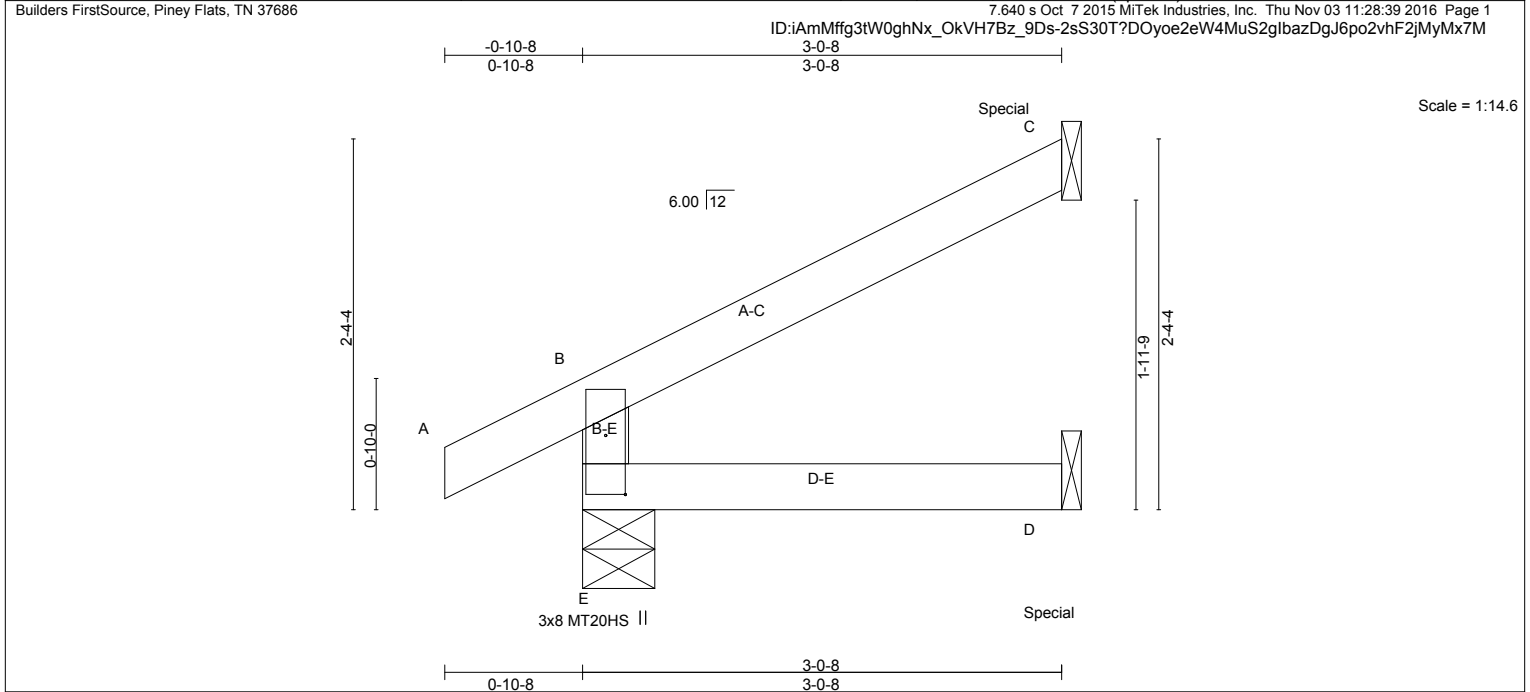


Plate Offsets (X,Y)-- [E:0-4-8,0-1-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.39	Vert(LL) -0.00	D-E	>999	360	MT20HS
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(TL) -0.01	D-E	>999	240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(TL) -0.01	C	n/a	n/a	
BCDL 10.0	Code IRC2009/TPI2007	(Matrix-M)	Wind(LL) 0.01	D-E	>999	240	
							Weight: 12 lb FT = 20%

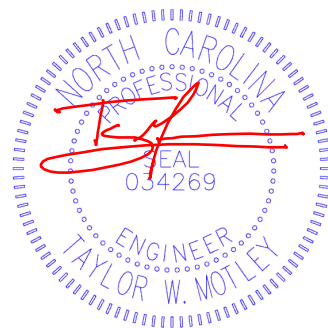
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) E=186/0-5-8 (min. 0-1-8), C=72/Mechanical, D=22/Mechanical  
 Max Horz E=211(LC 8)  
 Max Uplift E=-154(LC 8), C=-128(LC 8), D=-25(LC 8)  
 Max Grav E=186(LC 1), C=72(LC 1), D=53(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-159/283

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; 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 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 except (jt=lb) E=154, C=128.
  - 7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 146 lb down and 45 lb up at 2-11-12 on top chord, and 15 lb up at 2-11-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

<b>LOAD CASE(S)</b> Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: A-B=-60, B-C=-60, D-E=-20
Concentrated Loads (lb)
Vert: D=8(F)



November 3, 2016

Job 812025_MASTER	Truss J237	Truss Type Jack-Open Structural Gable	Qty 1	Ply 1	H&H-NC/Jessamine/Master
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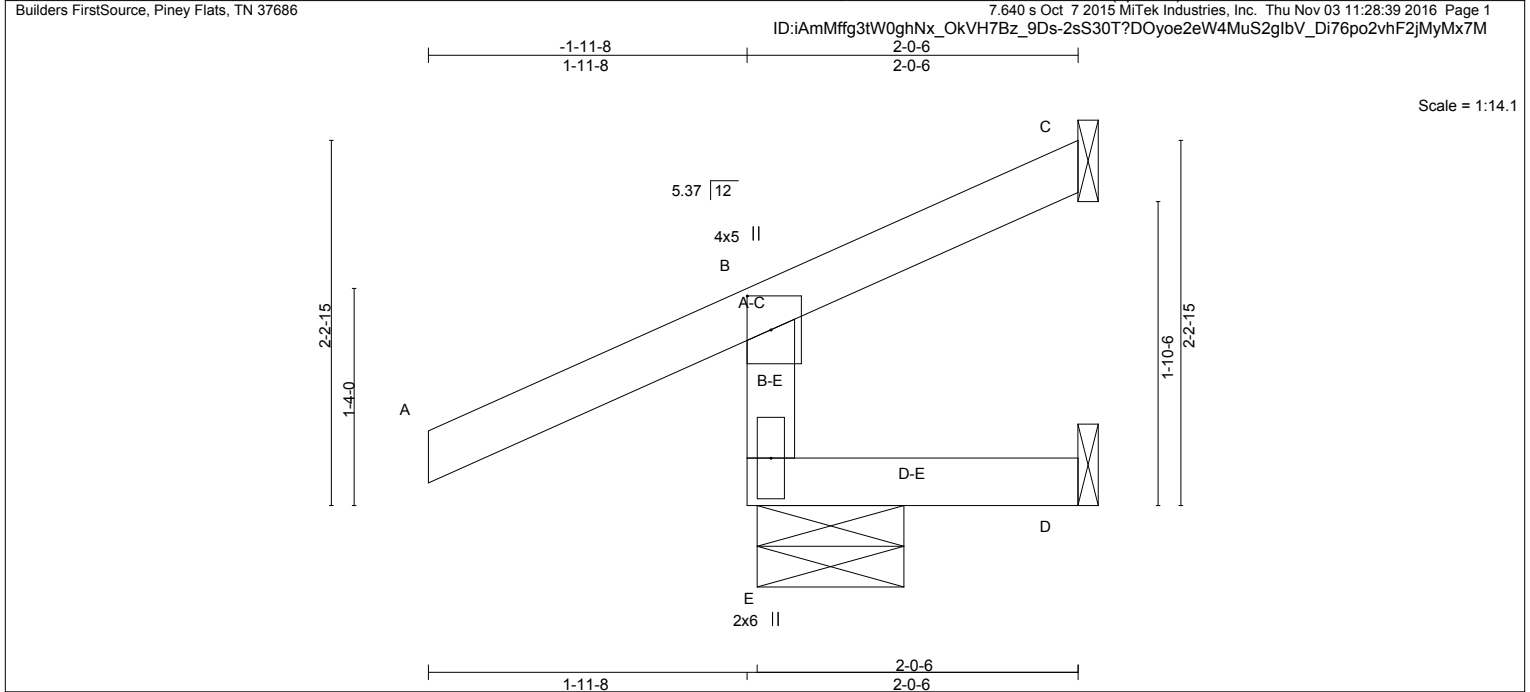


Plate Offsets (X,Y)-- [B:0-2-8,0-1-12]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>
TCLL 20.0	2-0-0	TC 0.71	Vert(LL) 0.00	E	>999	360	MT20
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(TL) 0.00	E	>999	240	
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(TL) -0.01	C	n/a	n/a	
BCDL 10.0	Rep Stress Incr YES	(Matrix-M)	Wind(LL) 0.00	D-E	>999	240	
	Code IRC2009/TPI2007						Weight: 11 lb FT = 20%

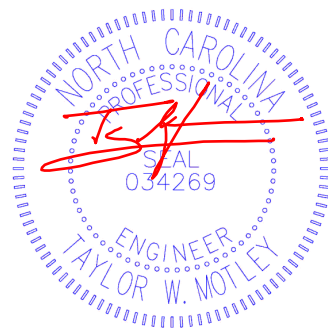
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x4 SP No.2		TOP CHORD	Structural wood sheathing directly applied or 2-0-6 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3			

**REACTIONS.** (lb/size) C=-1/Mechanical, E=272/10-10-13 (min. 0-1-8), D=1/Mechanical  
 Max Horz E=185(LC 8)  
 Max Uplift C=-38(LC 9), E=-323(LC 8), D=-8(LC 8)  
 Max Grav C=4(LC 6), E=272(LC 1), D=29(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD B-E=-236/468

- NOTES-**
- 1) Wind: ASCE 7-05; 130mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 3) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 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) C, D except (jt=lb) E=323.
  - 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

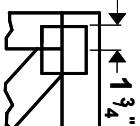
**LOAD CASE(S)** Standard



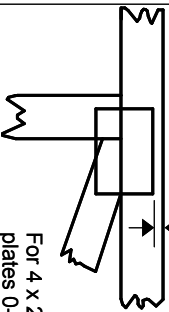
November 3, 2016

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in 1/16-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



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



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

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

## PLATE SIZE

**4 X 4**

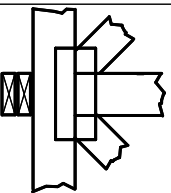
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

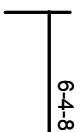


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

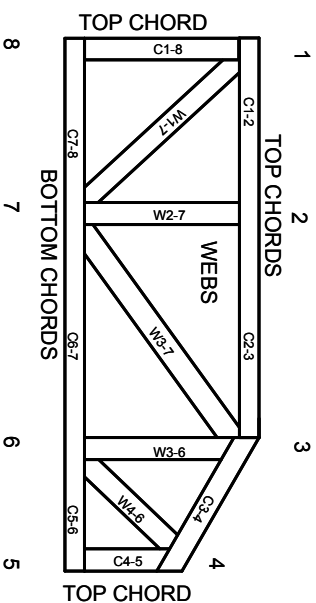
## Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing. Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



dimensions shown in 1/16-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, ER-5243, 9604B, 9730, 95-43, 96-31, 9667A  
NER-487, NER-561  
95110, 84-32, 96-67, ER-3907, 9432A

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PO Box 3850  
552 S Pike W  
Sumter SC 29151



# 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 BCS11.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.