Builders FirstSource

Project Information for: **L280515**

Builder: JOHN NORRIS CONST.
Address : 144 SE BUNNY CT
... LAKE CITY, FL 32025
County: COLUMBIA
Truss Count: 28
Design Program: MiTek 20/20 6.3
Building Code: FBC2004/TPI2002

Truss Design Load Information:
Gravity: **Wind:**

Roof (psf): 42.0 Wind Standard: ASCE 7-02 Wind Exposure: B
Floor (psf): N/A Wind Speed (mph): 110
Note: See the individual truss drawings for special loading conditions.

Contractor of Record, responsible for structural engineering:
John David Norris Florida Registered General Contractor License No. RG0066597
Address: 351 NW Corwin GLN Lake City, Florida 32055
Truss Design Engineer: Julius Lee, PE Florida P.E. License No. 34869
Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

Notes:
1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1-2002 Section 2.2
2. The seal date shown on the individual truss component drawings must match the seal date on this index sheet.
3. The Truss Design Engineer's responsibility relative to this structure consists solely of the design of the individual truss components and does not include the design of any additional structural elements including but not limited to continuous lateral bracing elelments in the web and chord planes. See Florida Administrative Code 61G15-31.003 sections 3 c) & 5 and Chapter 2 of the National Design Standard for Metal Plate Connected Wood Truss Construction ANSI/TPI 1-2002 for additional information on the responsibilities of the delegated "Truss Design Engineer". Builders FirstSource and Julius Lee, PE do not accept any additional delegations beyond the scope of work described in the referenced documents above.

No.	Drwg. #	Truss ID	Date
1	J1973087	CJ1	6/13/08
2	J1973088	CJ3	6/13/08
3	J1973089	CJ5	6/13/08
4	J1973090	EJ7	6/13/08
5	J1973091	EJ7C	6/13/08
6	J1973092	HJ9	6/13/08
7	J1973093	T01	6/13/08
8	J1973094	T02	6/13/08
9	J1973095	T03	6/13/08
10	J1973096	T04	6/13/08
11	J1973097	T05	6/13/08
12	J1973098	T06	6/13/08
13	J1973099	T07	6/13/08
14	J1973100	T08	6/13/08
15	J1973101	T09	6/13/08
16	J1973102	T10	6/13/08
17	J1973103	T11	6/13/08
18	J1973104	T12	6/13/08
19	J1973105	T13	6/13/08
20	J1973106	T14	6/13/08
21	J1973107	T15	6/13/08
22	J1973108	T15G	6/13/08
23	J1973109	T16	6/13/08
24	J1973110	T17	6/13/08
25	J1973111	T18	6/13/08
26	J1973112	T19	6/13/08
27	J1973113	T20	6/13/08
28	J1973114	T20G	6/13/08
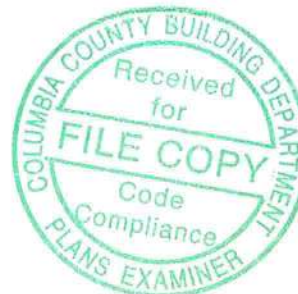
Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ1	JACK	8	1		J1973087
					Job Reference (optional)	

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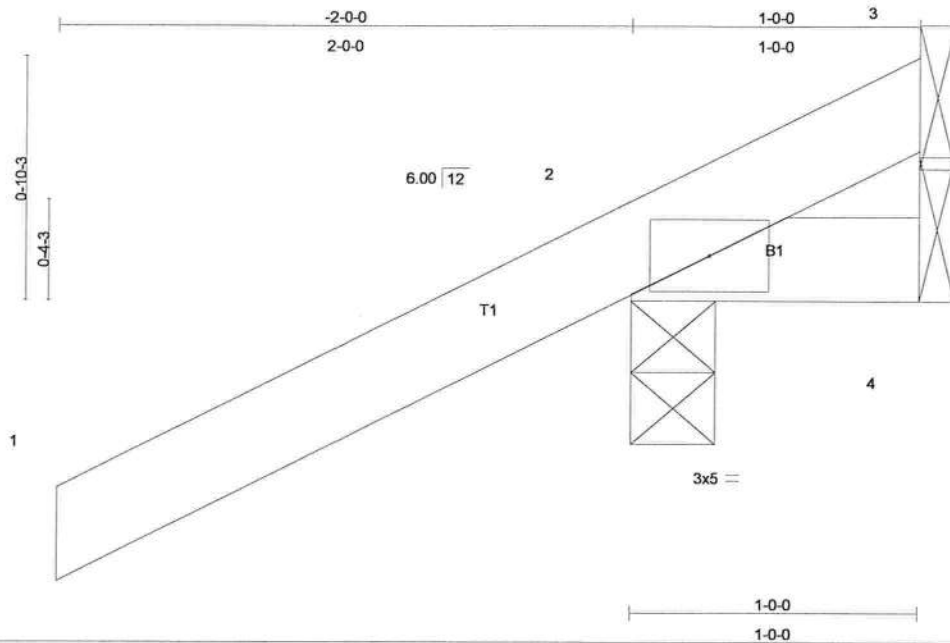
Scale: 1.5"=1'

6.00 [12]

T1   B1

3x5 ≡

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.28	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.01	Vert(TL)	-0.00	2	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 7 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

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

REACTIONS (lb/size)   2=256/0-3-8, 4=5/Mechanical, 3=-90/Mechanical
     Max Horz 2=87(load case 6)
     Max Uplift 2=-286(load case 6), 4=-9(load case 4), 3=-90(load case 1)
     Max Grav 2=256(load case 1), 4=14(load case 2), 3=127(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-69/75
BOT CHORD   2-4=0/0

JOINT STRESS INDEX
     2 = 0.17

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 286 lb uplift at joint 2, 9 lb uplift at joint 4 and 90 lb uplift at joint 3.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ1	JACK	8	1		J1973087
					Job Reference (optional)	

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LOAD CASE(S) Standard

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ3	JACK	8	1		J1973088
					Job Reference (optional)	

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Scale = 1:12.5

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.29	Vert(LL)	0.01	2-4	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.08	Vert(TL)	-0.01	2-4	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 13 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2

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

REACTIONS (lb/size)   3=31/Mechanical, 2=250/0-3-8, 4=14/Mechanical
        Max Horz 2=132(load case 6)
        Max Uplift 3=-28(load case 7), 2=-238(load case 6), 4=-27(load case 4)
        Max Grav 3=31(load case 1), 2=250(load case 1), 4=42(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-57/7
BOT CHORD   2-4=0/0

JOINT STRESS INDEX
    2 = 0.15

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3, 238 lb uplift at joint 2 and 27 lb uplift at joint 4.

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ3	JACK	8	1		J1973088
					Job Reference (optional)	

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LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ5	JACK	8	1		J1973089
					Job Reference (optional)	

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Scale = 1:16.9

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.29	Vert(LL)	0.09	2-4	>663	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.24	Vert(TL)	-0.05	2-4	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 19 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2

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

REACTIONS   (lb/size)   3=103/Mechanical, 2=295/0-3-8, 4=24/Mechanical
Max Horz 2=178(load case 6)
Max Uplift 3=-87(load case 6), 2=-260(load case 6), 4=-46(load case 4)
Max Grav 3=103(load case 1), 2=295(load case 1), 4=72(load case 2)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-88/36
BOT CHORD   2-4=0/0

JOINT STRESS INDEX
   2 = 0.17

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 3, 260 lb uplift at joint 2 and 46 lb uplift at joint 4.

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June 13,2008

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	CJ5	JACK	8	1		J1973089
					Job Reference (optional)	-

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:07 2008 Page 2

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JIM WALTER - BRASWELL RES.	
L280515	EJ7	JACK	26	1		J1973090
					Job Reference (optional)	

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Scale = 1:20.8

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

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.50	Vert(LL)	0.32	2-4	>253	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.45	Vert(TL)	-0.16	2-4	>506	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 26 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

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

REACTIONS (lb/size)   3=154/Mechanical, 2=352/0-4-0, 4=44/Mechanical
Max Horz 2=161(load case 6)
Max Uplift 3=-94(load case 6), 2=-225(load case 6), 4=-64(load case 5)
Max Grav 3=154(load case 1), 2=352(load case 1), 4=93(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-131/54
BOT CHORD   2-4=0/0

JOINT STRESS INDEX
    2 = 0.66

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JIM WALTER - BRASWELL RES.	
L280515	EJ7	JACK	26	1		J1973090
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Apr 19 2006 MiTek Industries, Inc. Fri Jun 13 16:46:37 2008 Page 2

NOTES

1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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

3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 3, 225 lb uplift at joint 2 and 64 lb uplift at joint 4.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	EJ7C	COMMON	3	1		J1973091
					Job Reference (optional)	

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-2-0-0   6-7-0   7-0-0
2-0-0   6-7-0   0-5-0

4x5 ||

Scale: 1/2"=1'

6.00 |12

7-0-0
7-0-0

3x5 =

2x6 ||

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.56	Vert(LL)	-0.04	2-6	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.14	Vert(TL)	-0.08	2-6	>961	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 30 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

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

REACTIONS (lb/size)   2=351/0-3-8, 5=202/Mechanical
                  Max Horz 2=147(load case 6)
                  Max Uplift 2=-146(load case 6), 5=-69(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-168/4, 3-4=0/10, 3-6=-156/209
BOT CHORD   2-6=-75/79, 5-6=0/0

JOINT STRESS INDEX
    2 = 0.53, 3 = 0.58 and 6 = 0.69

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp
   B; enclosed; MWFRS and C-C Exterior(2) -2-0-0 to 7-0-0 zone; Lumber DOL=1.60 plate grip
   DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions
   specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other
   live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146
   lb uplift at joint 2 and 69 lb uplift at joint 5.

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June 13,2008

LOAD CASE(S) Standard

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	HJ9	MONO TRUSS	4	1		J1973092
					Job Reference (optional)	

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LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.61	Vert(LL)	0.10	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.40	Vert(TL)	-0.12	6-7	>984	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.34	Horz(TL)	0.01	5	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 45 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 7-11-9 oc bracing.

REACTIONS   (lb/size)   4=268/Mechanical, 2=456/0-5-11, 5=218/Mechanical
                 Max Horz 2=269(load case 3)
                 Max Uplift 4=-233(load case 3), 2=-401(load case 3), 5=-181(load case 3)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/50, 2-3=-647/363, 3-4=-105/65
BOT CHORD   2-7=-535/599, 6-7=-535/599, 5-6=0/0
WEBS   3-7=-94/190, 3-6=-624/558

JOINT STRESS INDEX
    2 = 0.77, 3 = 0.25, 6 = 0.21 and 7 = 0.13

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 4, 401 lb uplift at joint 2 and 181 lb uplift at joint 5.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	HJ9	MONO TRUSS	4	1		J1973092
					Job Reference (optional)	

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NOTES

5) 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) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
       Vert: 1-2=-54
   Trapezoidal Loads (plf)
       Vert: 2=-3(F=25, B=25)-to-4=-134(F=-40, B=-40), 2=-0(F=5, B=5)-to-5=-25(F=-7, B=-7)

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973093
L280515	T01	HIP	1	2	Job Reference (optional)	

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Simpson HGUS26-2

Plate Offsets (X,Y): [5:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.33	Vert(LL)	-0.24	11-12	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.41	Vert(TL)	-0.47	11-12	>939	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.39	Horz(TL)	0.10	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 398 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 6 SYP No.1D
WEBS   2 X 4 SYP No.3

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

REACTIONS   (lb/size)   8=2571/Mechanical, 2=2521/0-3-8
Max Horz 2=94(load case 5)
Max Uplift 8=-757(load case 3), 2=-765(load case 5)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/51, 2-3=-4949/1594, 3-4=-4418/1475, 4-5=-6508/2135, 5-6=-6429/2087,
6-7=-4339/1387, 7-8=-4856/1495
BOT CHORD   2-14=-1419/4348, 13-14=-2075/6248, 12-13=-2075/6248, 11-12=-2252/6831,
10-11=-1989/6166, 9-10=-1989/6166, 8-9=-1288/4271
WEBS   3-14=-504/1700, 4-14=-2246/815, 4-12=-76/567, 5-12=-464/235, 5-11=-573/294,
6-11=-98/579, 6-9=-2256/847, 7-9=-459/1628

JOINT STRESS INDEX
2 = 0.76, 3 = 0.49, 4 = 0.43, 5 = 0.47, 6 = 0.43, 7 = 0.52, 8 = 0.43, 9 = 0.42, 10 = 0.78, 11 = 0.29, 12 = 0.29, 13 = 0.81 and 14 = 0.44

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Boynton Beach, FL 33435

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T01	HIP	1	**2**		J1973093
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055
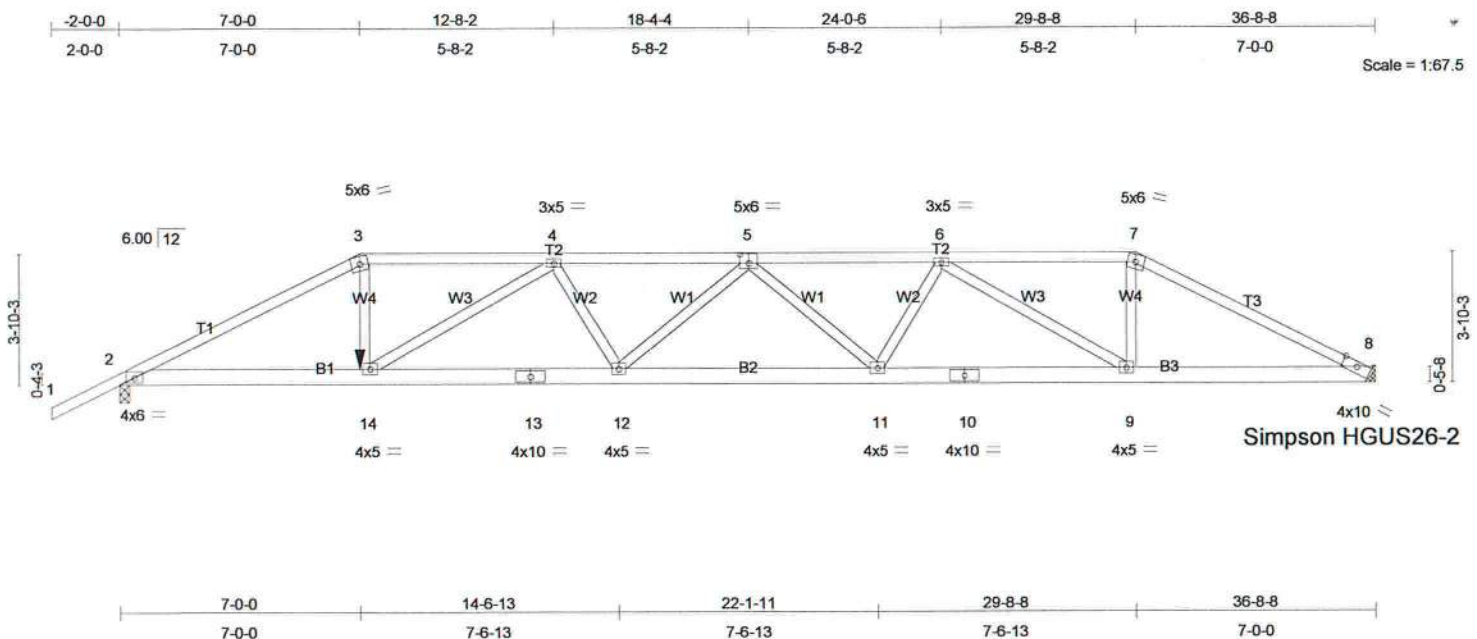6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:10 2008 Page 2

NOTES

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2 X 6 - 2 rows at 0-9-0 oc.
   Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section.
   Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS;
   Lumber DOL=1.60 plate grip DOL=1.60.
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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 757 lb uplift at joint 8 and 765 lb
   uplift at joint 2.

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
       Vert: 1-3=-54, 3-7=-118(F=-64), 7-8=-54, 2-14=-10, 9-14=-22(F=-12), 8-9=-85(F=-75)
   Concentrated Loads (lb)
       Vert: 14=-411(F)

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T02	HIP	1	1		J1973094
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc.   Fri Jun 13 15:58:11 2008   Page 1

Plate Offsets (X,Y):   [1:0-8-0,0-0-6], [5:0-3-0,0-3-0], [8:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.30	Vert(LL)	0.23	11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.56	Vert(TL)	-0.39	9-11	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.74	Horz(TL)	0.13	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 177 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 3-11-13 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-6 oc bracing.

REACTIONS (lb/size)   1=1165/0-3-8, 8=1165/Mechanical
Max Horz 1=-58(load case 4)
Max Uplift 1=-225(load case 5), 8=-225(load case 4)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-2239/1229, 2-3=-2016/1107, 3-4=-1779/1050, 4-5=-2321/1317,
                 5-6=-1779/1050, 6-7=-2016/1107, 7-8=-2239/1229
BOT CHORD   1-13=-1021/1949, 12-13=-1104/2291, 11-12=-1104/2291, 10-11=-1104/2291,
                 9-10=-1104/2291, 8-9=-1021/1949
WEBS   2-13=-215/238, 3-13=-272/583, 4-13=-722/357, 4-11=0/164, 5-11=0/164,
                 5-9=-722/357, 6-9=-272/583, 7-9=-215/238

JOINT STRESS INDEX
   1 = 0.66, 2 = 0.33, 3 = 0.48, 4 = 0.41, 5 = 0.47, 6 = 0.48, 7 = 0.33, 8 = 0.66, 9 = 0.56, 10 = 0.81, 11 = 0.41, 12 = 0.81 and 13 = 0.56

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T02	HIP	1	1		J1973094
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055

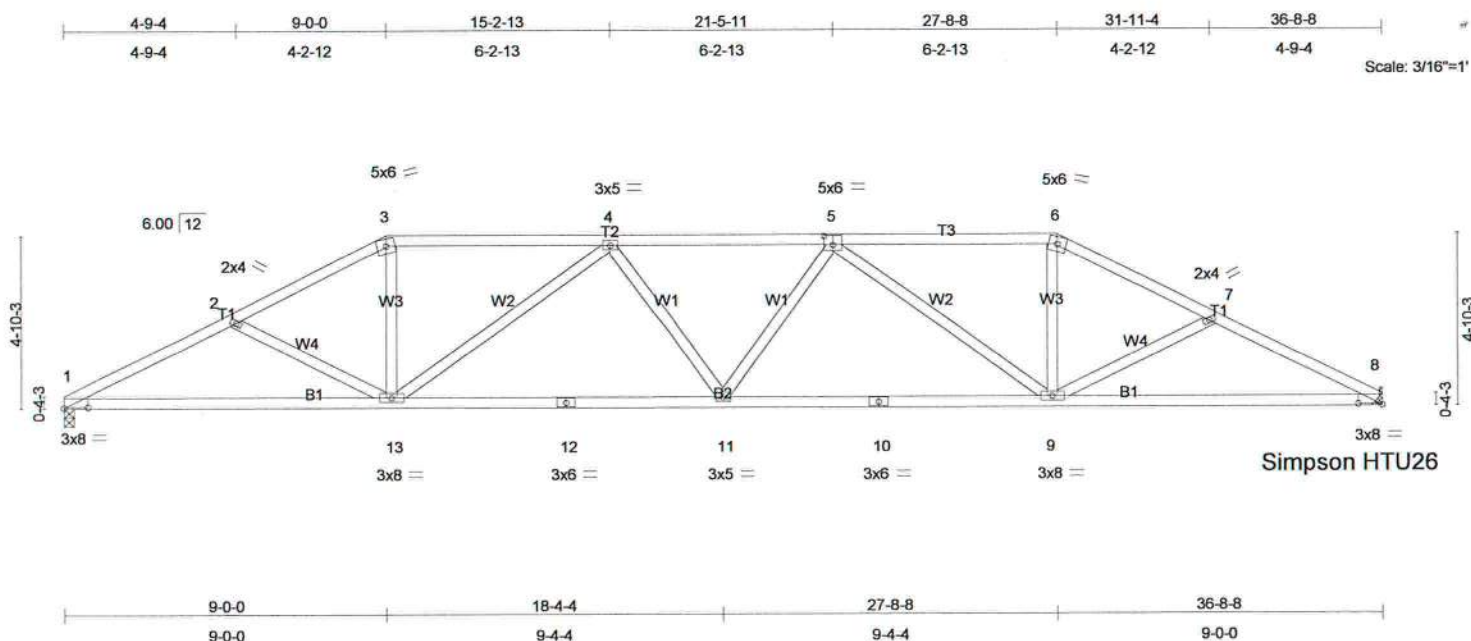6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:11 2008 Page 2

NOTES

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 1 and 225 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973095
L280515	T03	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:12 2008 Page 1

5-9-4	11-0-0	18-4-4	25-8-8	30-11-4	36-8-8
5-9-4	5-2-12	7-4-4	7-4-4	5-2-12	5-9-4

Scale: 3/16"=1'

Plate Offsets (X,Y): [1:0-8-0,0-0-6], [7:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.38	Vert(LL)	0.19	11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.47	Vert(TL)	-0.31	9-11	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.30	Horz(TL)	0.11	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 188 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 3-11-12 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-2-0 oc bracing.

REACTIONS (lb/size) 1=1165/0-3-8, 7=1165/Mechanical
Max Horz 1=-71(load case 4)
Max Uplift 1=-211(load case 6), 7=-211(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-2254/1217, 2-3=-1898/1083, 3-4=-1965/1186, 4-5=-1965/1186,
5-6=-1898/1083, 6-7=-2254/1217
BOT CHORD   1-14=-999/1942, 13-14=-999/1942, 12-13=-742/1639, 11-12=-742/1639,
10-11=-742/1639, 9-10=-742/1639, 8-9=-999/1942, 7-8=-999/1942
WEBS   2-14=0/159, 2-13=-347/293, 3-13=-107/306, 3-11=-202/526, 4-11=-422/292,
5-11=-202/526, 5-9=-107/306, 6-9=-347/293, 6-8=0/159

JOINT STRESS INDEX
1 = 0.67, 2 = 0.46, 3 = 0.55, 4 = 0.33, 5 = 0.55, 6 = 0.46, 7 = 0.67, 8 = 0.33, 9 = 0.39, 10 = 0.52, 11 = 0.56, 12 = 0.52, 13 = 0.39 and 14 = 0.33

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T03	HIP	1	1	J1973095
					Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:12 2008 Page 2
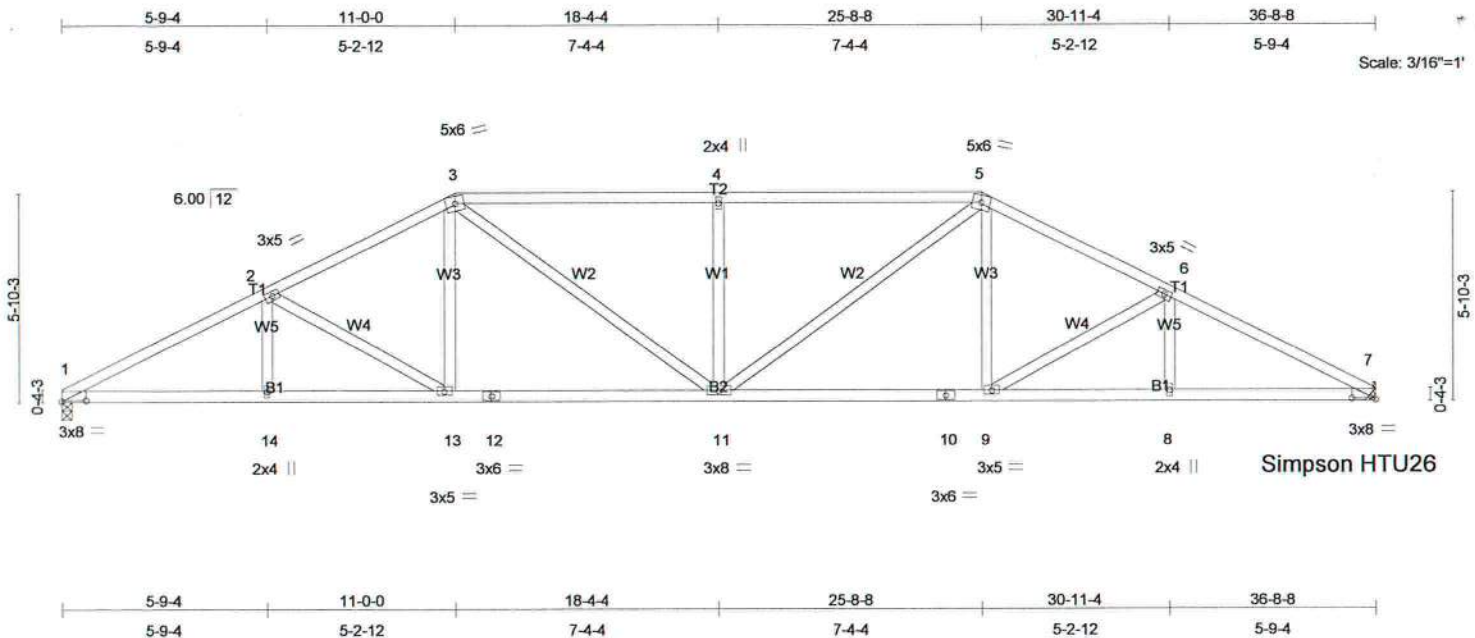
NOTES

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 211 lb uplift at joint 1 and 211 lb uplift at joint 7.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T04	SPECIAL	1	1	Job Reference (optional)	J1973096

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:13 2008 Page 1

Scale = 1:67.0

Plate Offsets (X,Y): [1:0-0-14,Edge], [8:0-8-4,0-0-6], [9:0-3-8,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.61	Vert(LL)	0.50	13	>878	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.83	Vert(TL)	-0.84	12-13	>523	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.73	Horz(TL)	0.50	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 188 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2 *Except*
                B4 2 X 4 SYP No.3
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or
                2-6-11 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 4-4-13 oc
                bracing.

REACTIONS (lb/size)   1=1168/0-3-8, 8=1170/0-3-8
                Max Horz 1=85(load case 5)
                Max Uplift 1=-224(load case 6), 8=-222(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-4123/2171, 2-3=-3366/1731, 3-4=-3724/1929, 4-5=-3724/1929,
                5-6=-2072/1210, 6-7=-2357/1282, 7-8=-2225/1197
BOT CHORD   1-15=-1892/3705, 14-15=-1890/3704, 13-14=-1306/3023, 12-13=-1247/2840,
                10-12=0/102, 6-12=-374/762, 10-11=0/0, 9-10=-21/29, 8-9=-965/1906
WEBS   2-15=0/204, 2-14=-665/554, 3-14=-166/256, 3-13=-505/1227, 4-13=-156/81,
                5-13=-463/1154, 5-12=-1086/527, 9-12=-983/1956, 7-9=-460/296, 7-12=-77/290

JOINT STRESS INDEX
    1 = 0.61, 2 = 0.46, 3 = 0.58, 4 = 0.33, 5 = 0.75, 6 = 0.43, 7 = 0.46, 8 = 0.72, 9 = 0.75, 10 = 0.70, 12 = 0.56, 13 = 0.92, 14 = 0.43 and 15 = 0.33

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

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T04	SPECIAL	1	1	J1973096
					Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc.   Fri Jun 13 15:58:13 2008   Page 2
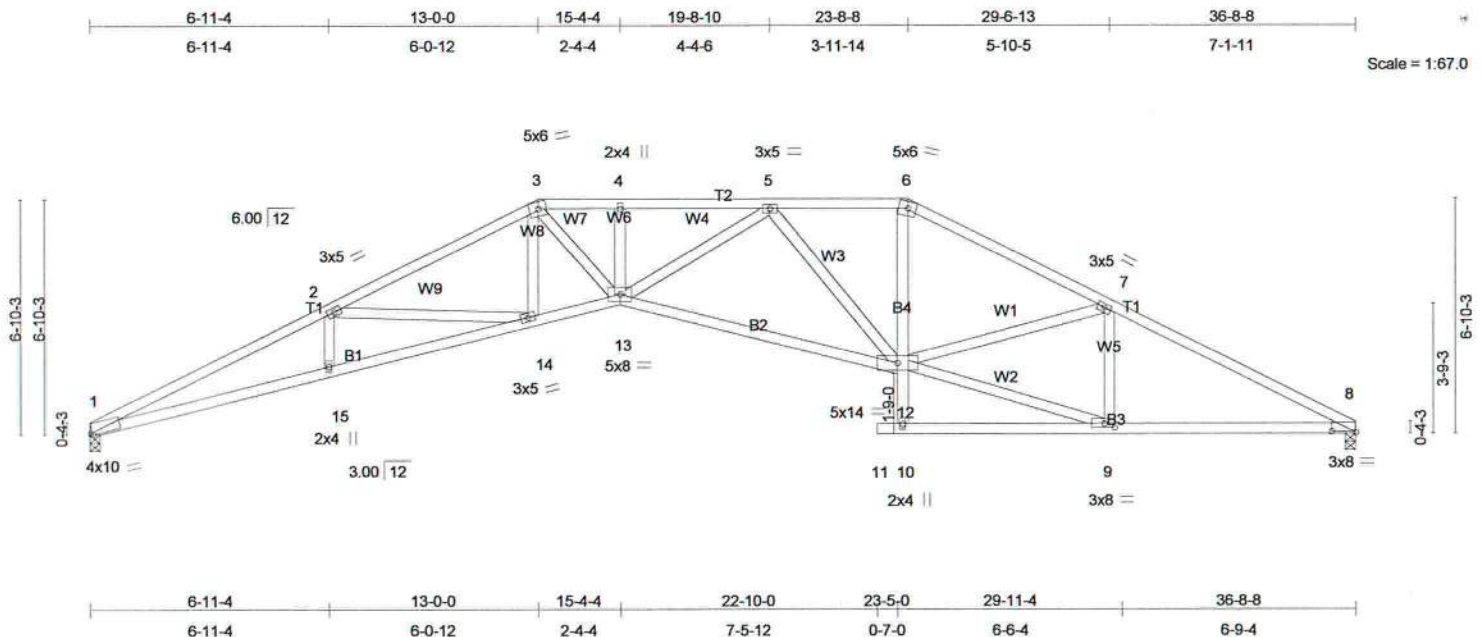
NOTES

2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Bearing at joint(s) 1 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 224 lb uplift at joint 1 and 222 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T05	SPECIAL	1	1		J1973097
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:14 2008 Page 1

Plate Offsets (X,Y): [1:0-0-14,Edge], [6:0-3-0,0-3-0], [7:0-8-0,0-0-6], [9:0-3-8,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.85	Vert(LL)	0.42	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.88	Vert(TL)	-0.74	12-13	>592	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.86	Horz(TL)	0.44	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 191 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2 *Except*
    B3 2 X 4 SYP No.3
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied or 4-6-3 oc bracing.

REACTIONS   (lb/size)   1=1162/0-3-8, 7=1285/0-3-8
    Max Horz 1=-137(load case 7)
    Max Uplift 1=-237(load case 6), 7=-331(load case 7)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-4060/2070, 2-3=-3083/1485, 3-4=-2769/1436, 4-5=-2216/1319,
    5-6=-2309/1239, 6-7=-2179/1159, 7-8=0/47
BOT CHORD   1-13=-1711/3647, 12-13=-1707/3643, 11-12=-697/1998, 10-11=0/90,
    5-11=-151/194, 9-10=-14/34, 7-9=-845/1862
WEBS   2-13=0/237, 2-12=-869/712, 3-12=-375/967, 4-12=-352/976, 4-11=-273/289,
    9-11=-873/1915, 6-11=-57/242, 6-9=-460/292

JOINT STRESS INDEX
    1 = 0.60, 2 = 0.46, 3 = 0.73, 4 = 0.51, 5 = 0.59, 6 = 0.73, 7 = 0.67, 9 = 0.73, 10 = 0.52, 11 = 0.71, 12 = 0.84 and 13 = 0.33

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp
    B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This
    truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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June 13,2008

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

This design is based only upon the parameters shown for an individual building component that is installed and loaded vertically and fabricated with MiTek connectors. Applicability of design parameters and proper incorporation of component into the overall building structure, including all temporary and permanent bracing, is the responsibility of building designer and / or contractor per ANSI / TPI 1 as referenced by the building code. For general guidance regarding storage, delivery, erection and bracing, consult BCSI-1 or HIB-91 Handling Installing and Bracing Recommendation available from the Wood Truss Council of America, 1 WTCA Center, 6300 Enterprise Lane, Madison, WI 53719 or the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T05	SPECIAL	1	1	J1973097
					Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:14 2008 Page 2
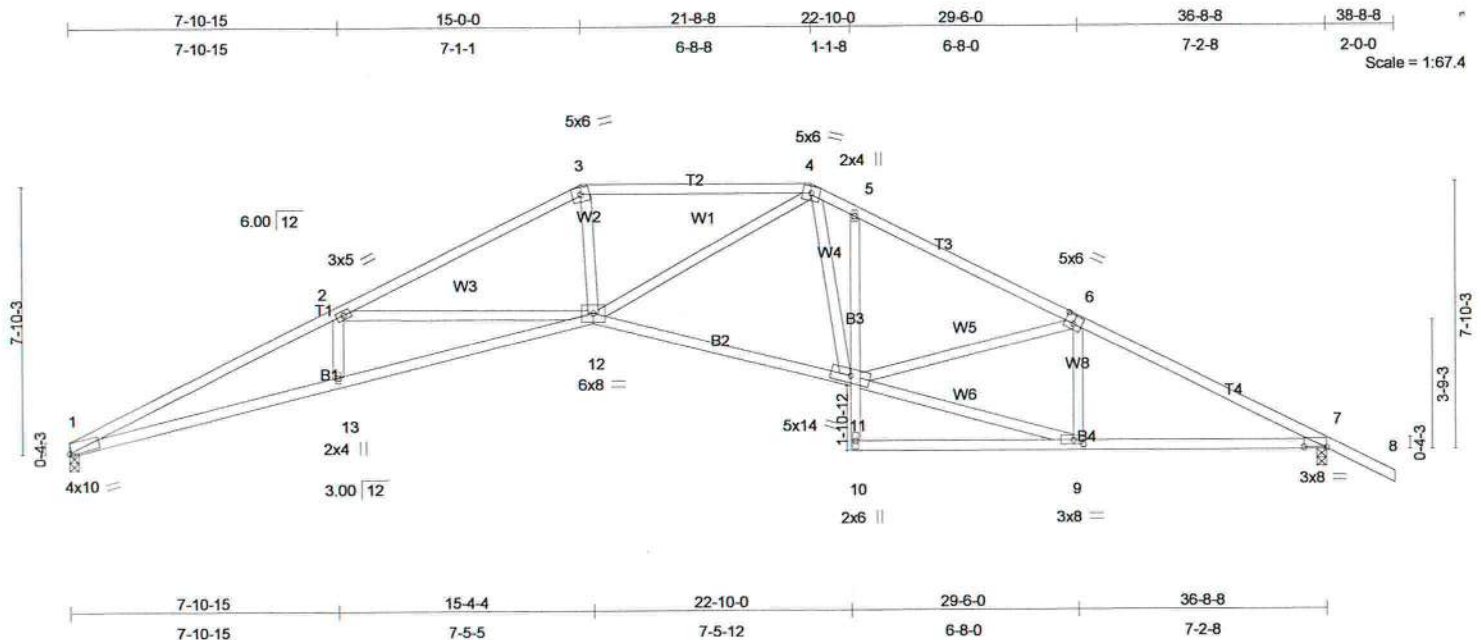
NOTES

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Bearing at joint(s) 1 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 237 lb uplift at joint 1 and 331 lb uplift at joint 7.

LOAD CASE(S) Standard

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June 13, 2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T06	SPECIAL	1	1	Job Reference (optional)	J1973098

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:15 2008 Page 1
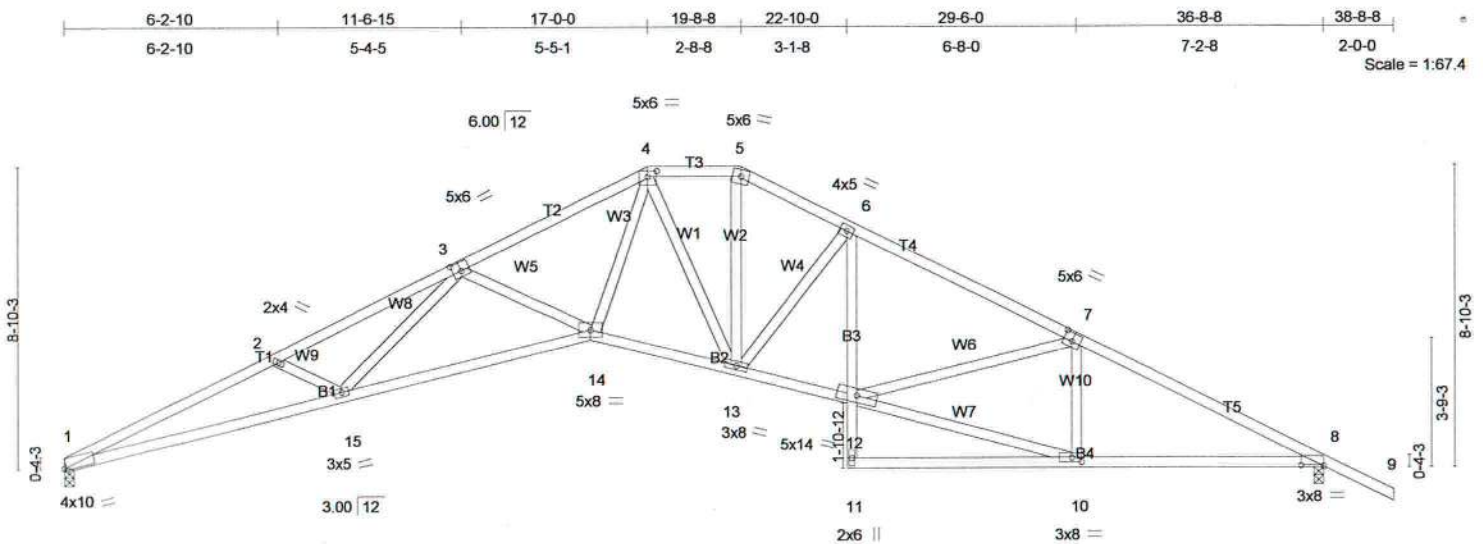
Plate Offsets (X,Y):   [1:0-0-14,Edge], [3:0-3-0,0-3-0], [4:0-3-0,0-2-0], [7:0-3-0,0-3-0], [8:0-8-0,0-0-6], [10:0-3-8,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.46	Vert(LL)	0.43	14-15	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.81	Vert(TL)	-0.75	14-15	>586	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.71	Horz(TL)	0.43	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 203 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2 *Except*
                     B3 2 X 4 SYP No.3
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or
                     2-8-15 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 4-6-7 oc
                     bracing.

REACTIONS (lb/size)   1=1162/0-3-8, 8=1285/0-3-8
                     Max Horz 1=-149(load case 7)
                     Max Uplift 1=-248(load case 6), 8=-342(load case 7)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-4104/2173, 2-3=-3820/2026, 3-4=-2916/1484, 4-5=-1810/1083,
                       5-6=-2052/1171, 6-7=-2284/1256, 7-8=-2178/1174, 8-9=0/47
BOT CHORD   1-15=-1822/3694, 14-15=-1344/3139, 13-14=-677/2106, 12-13=-780/2033,
                       11-12=0/93, 6-12=-49/125, 10-11=-17/77, 8-10=-859/1861
WEBS   2-15=-260/296, 3-15=-301/495, 3-14=-567/484, 4-14=-697/1641, 4-13=-613/216,
                       5-13=-456/781, 6-13=-320/305, 10-12=-882/1877, 7-12=-36/192, 7-10=-442/291

JOINT STRESS INDEX
    1 = 0.61, 2 = 0.33, 3 = 0.58, 4 = 0.83, 5 = 0.36, 6 = 0.47, 7 = 0.72, 8 = 0.67, 10 = 0.71, 11 = 0.60, 12 = 0.93, 13 = 0.62, 14 =
    0.95 and 15 = 0.43

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

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T06	SPECIAL	1	1		J1973098
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:15 2008 Page 2

NOTES

2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Bearing at joint(s) 1 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 248 lb uplift at joint 1 and 342 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T07	SPECIAL	3	1		J1973099
					Job Reference (optional)	

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Plate Offsets (X,Y):   [1:0-0-14,Edge], [2:0-3-0,0-3-0], [6:0-3-0,0-3-0], [7:0-8-4,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.55	Vert(LL)	0.44	11-12	>995	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.83	Vert(TL)	-0.73	10-11	>601	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.84	Horz(TL)	0.43	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 181 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 2-7-13 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 4-6-0 oc bracing.

REACTIONS (lb/size) 1=1162/0-3-8, 7=1285/0-3-8
       Max Horz 1=-157(load case 7)
       Max Uplift 1=-254(load case 6), 7=-348(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-4088/2173, 2-3=-3840/2094, 3-4=-2932/1531, 4-5=-2351/1470,
             5-6=-2354/1298, 6-7=-2209/1203, 7-8=0/47
BOT CHORD   1-12=-1817/3675, 11-12=-1270/3036, 10-11=-548/1787, 9-10=-923/1954,
             7-9=-897/1896
WEBS   2-12=-267/297, 3-12=-435/625, 3-11=-524/451, 4-11=-770/1778, 4-10=-502/633,
             5-10=-338/334, 6-10=-13/185, 6-9=-413/265

JOINT STRESS INDEX
    1 = 0.61, 2 = 0.67, 3 = 0.46, 4 = 0.78, 5 = 0.33, 6 = 0.57, 7 = 0.73, 9 = 0.51, 10 = 0.66, 11 = 0.90 and 12 = 0.44

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T07	SPECIAL	3	1	J1973099
					Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc.   Fri Jun 13 15:58:16 2008   Page 2
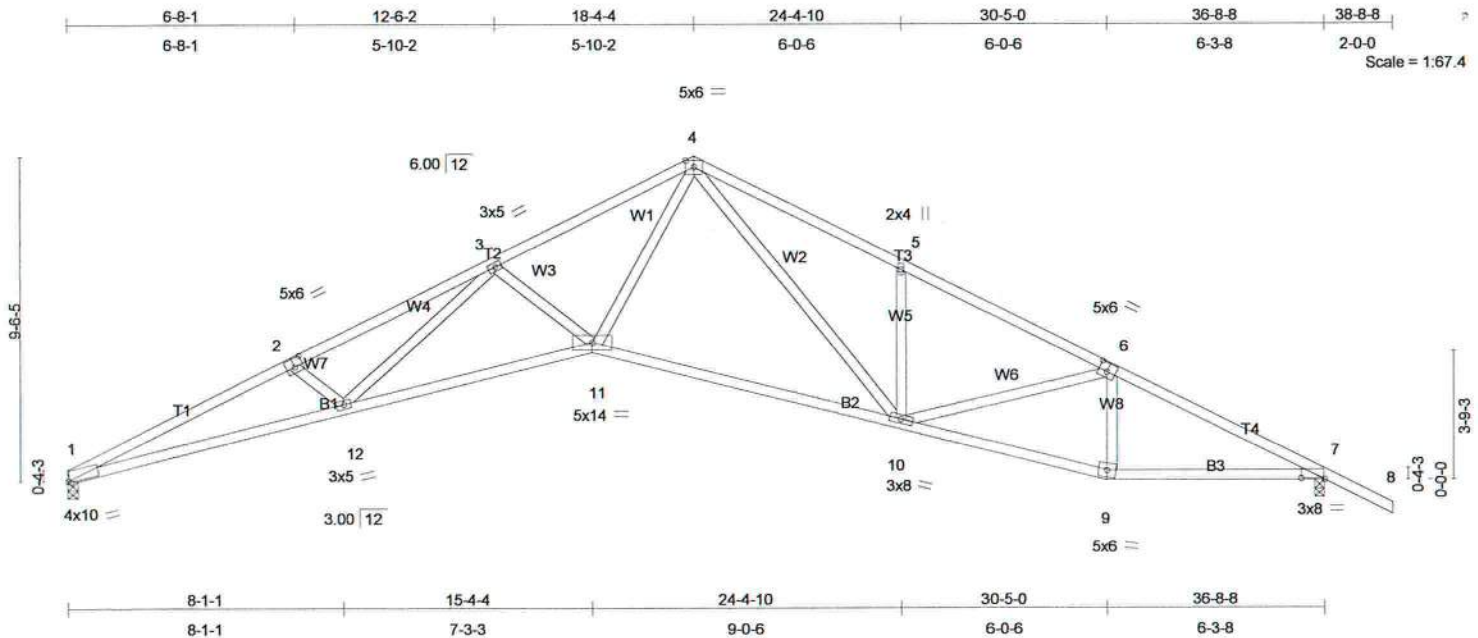
NOTES

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

4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

5) Bearing at joint(s) 1 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 254 lb uplift at joint 1 and 348 lb uplift at joint 7.

LOAD CASE(S) Standard

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T08	SPECIAL	4	1	Job Reference (optional)	J1973100

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-2-0-0	6-8-1	12-6-2	18-4-4	24-4-10	30-5-0	36-8-8	38-8-8
2-0-0	6-8-1	5-10-2	5-10-2	6-0-6	6-0-6	6-3-8	2-0-0

Scale = 1:70.2

	8-1-1	15-4-4	24-4-10	30-5-0	30-6-11	36-8-8
	8-1-1	7-3-3	9-0-6	6-0-6	0-1-11	6-1-13

Plate Offsets (X,Y): [3:0-3-0,0-3-0], [7:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.39	Vert(LL)	0.23	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.59	Vert(TL)	-0.43	12-13	>836	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.54	Horz(TL)	0.26	10	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 184 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 3-4-5 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 5-11

Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size)   2=1021/0-3-8, 10=1543/0-3-8
      Max Horz 2=-144(load case 7)
      Max Uplift 2=-311(load case 6), 10=-588(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/46, 2-3=-2959/1272, 3-4=-2708/1194, 4-5=-1805/680, 5-6=-837/332, 6-7=-842/199, 7-8=-846/714, 8-9=0/47
BOT CHORD   2-13=-983/2639, 12-13=-479/1999, 11-12=-101/988, 10-11=-616/954, 8-10=-565/896
WEBS   3-13=-266/293, 4-13=-387/600, 4-12=-520/441, 5-12=-392/1281, 5-11=-427/201, 6-11=-334/326, 7-11=-758/1320, 7-10=-1321/922

JOINT STRESS INDEX
    2 = 0.68, 3 = 0.54, 4 = 0.46, 5 = 0.56, 6 = 0.33, 7 = 0.73, 8 = 0.55, 10 = 0.63, 11 = 0.56, 12 = 0.90 and 13 = 0.43

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June 13, 2008

Continued on page 2

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T08	SPECIAL	4	1		J1973100
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:17 2008 Page 2
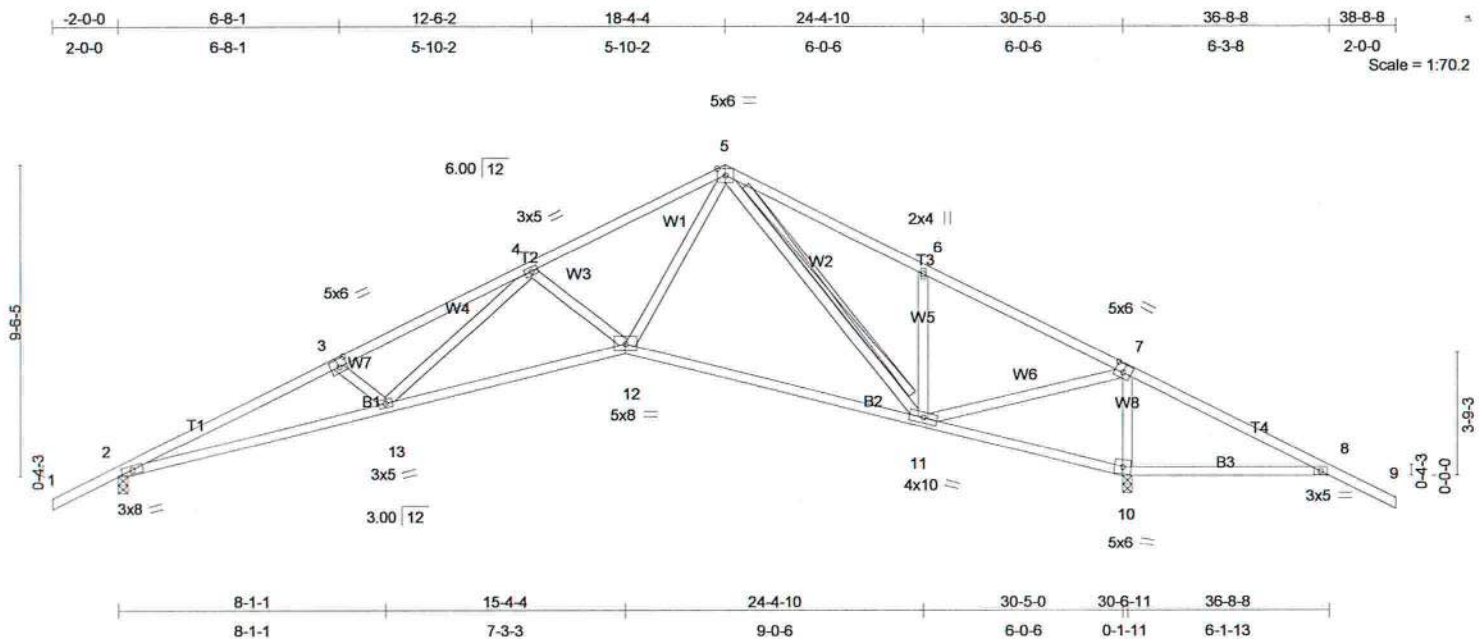
NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; cantilever right exposed ; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Bearing at joint(s) 2 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 311 lb uplift at joint 2 and 588 lb uplift at joint 10.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973101
L280515	T09	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:18 2008 Page 1

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

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.94	Vert(LL)	-0.26	11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.60	Vert(TL)	-0.50	11-12	>734	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	1.00	Horz(TL)	0.12	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 176 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 6 SYP No.1D
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 2-5-3 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-6-5 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 4-12, 6-8
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size)   8=2151/Mechanical, 2=2096/0-3-8
Max Horz 2=165(load case 5)
Max Uplift 8=-741(load case 4), 2=-654(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/51, 2-3=-4025/1311, 3-4=-3578/1218, 4-5=-4750/1603, 5-6=-3673/1225,
6-7=-120/42, 7-8=-330/167
BOT CHORD   2-12=-1204/3525, 11-12=-1673/4758, 10-11=-1592/4557, 9-10=-1592/4557,
8-9=-1070/3012
WEBS   3-12=-357/1234, 4-12=-1372/577, 4-11=-14/170, 5-11=-22/269, 5-9=-1236/513,
6-9=-282/1202, 6-8=-3362/1195

JOINT STRESS INDEX
2 = 0.79, 3 = 0.88, 4 = 0.79, 5 = 0.41, 6 = 0.85, 7 = 0.87, 8 = 0.85, 9 = 0.85, 10 = 0.95, 11 = 0.41 and 12 = 0.78

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T09	HIP	1	1		J1973101
					Job Reference (optional)	

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NOTES

1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS;
   Lumber DOL=1.60 plate grip DOL=1.60.
2) Provide adequate drainage to prevent water ponding.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 741 lb uplift at joint 8 and 654 lb
   uplift at joint 2.
6) 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) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
           Vert: 1-3=-54, 3-7=-118(F=-64), 2-12=-10, 8-12=-22(F=-12)
   Concentrated Loads (lb)
           Vert: 12=-411(F)

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973102
L280515	T10	HIP	1	1	Job Reference (optional)	

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Plate Offsets (X,Y):   [2:0-1-9,0-0-7], [6:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.89	Vert(LL)	-0.15	2-12	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.54	Vert(TL)	-0.28	2-12	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.91	Horz(TL)	0.06	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 165 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-7-6 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-5-6 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 5-12
             Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
             Brace must cover 90% of web length.

REACTIONS (lb/size)   8=969/Mechanical, 2=1093/0-3-8
Max Horz 2=195(load case 6)
Max Uplift 8=-265(load case 5), 2=-262(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1791/898, 3-4=-1575/808, 4-5=-1384/785, 5-6=-1663/909,
             6-7=-1213/648, 7-8=-928/528
BOT CHORD   2-12=-944/1533, 11-12=-909/1663, 10-11=-909/1663, 9-10=-662/1235, 8-9=-27/50
WEBS   3-12=-180/182, 4-12=-103/401, 5-12=-330/153, 5-10=-210/196, 6-10=-295/510,
             6-9=-677/450, 7-9=-737/1379

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JOINT STRESS INDEX
2 = 0.86, 3 = 0.33, 4 = 0.77, 5 = 0.39, 6 = 0.58, 7 = 0.64, 8 = 0.51, 9 = 0.78, 10 = 0.39, 11 = 0.54 and 12 = 0.56

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T10	HIP	1	1		J1973102
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:19 2008 Page 2
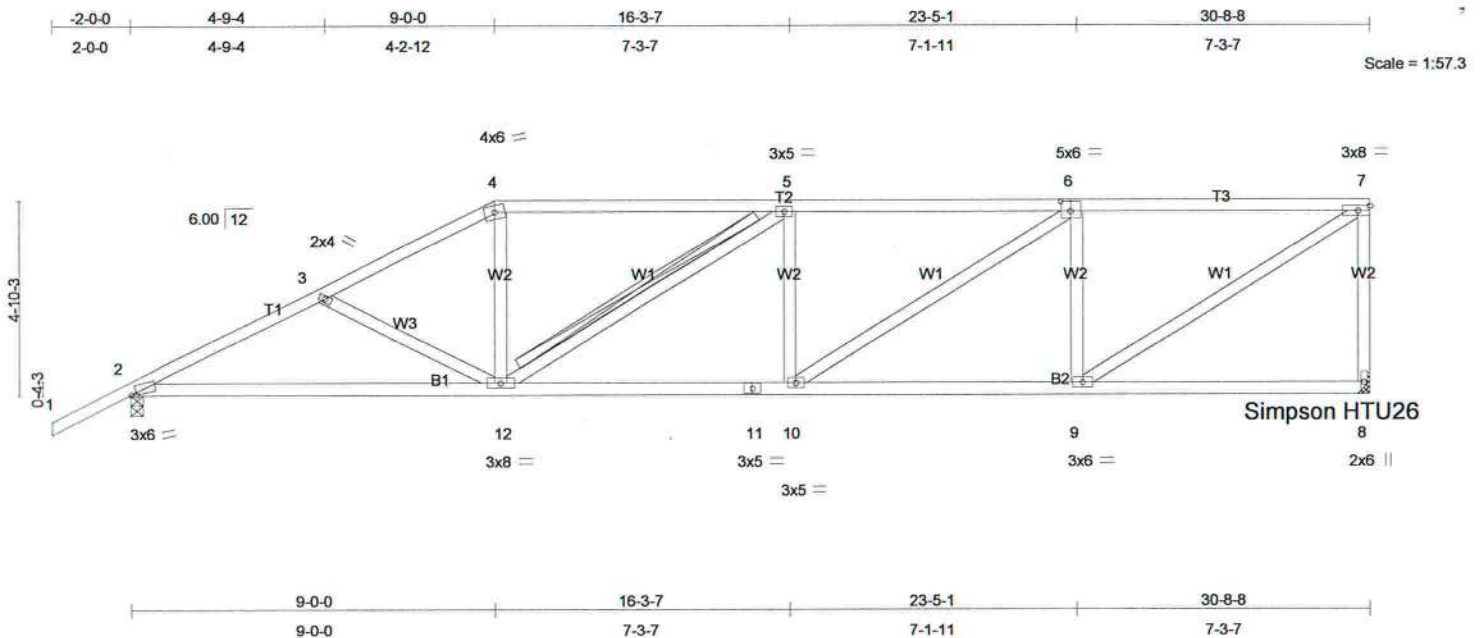
NOTES

1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) Provide adequate drainage to prevent water ponding.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 265 lb uplift at joint 8 and 262 lb uplift at joint 2.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973103
L280515	T11	HIP	1	1	Job Reference (optional)	*

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Simpson HTU26

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

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.37	Vert(LL)	-0.30	2-12	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.65	Vert(TL)	-0.56	2-12	>650	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.35	Horz(TL)	0.06	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 169 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 5-12, 5-9

Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size)   2=1093/0-3-8, 8=969/Mechanical
     Max Horz 2=177(load case 6)
     Max Uplift 2=-280(load case 6), 8=-182(load case 4)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1768/934, 3-4=-1463/793, 4-5=-1262/776, 5-6=-765/506, 6-7=-901/498, 7-8=-946/531
BOT CHORD   2-12=-895/1512, 11-12=-681/1324, 10-11=-681/1324, 9-10=-681/1324, 8-9=-22/24
WEBS   3-12=-290/276, 4-12=-85/365, 5-12=-212/112, 5-10=0/190, 5-9=-741/378, 6-9=0/175, 7-9=-425/872

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JOINT STRESS INDEX
   2 = 0.89, 3 = 0.33, 4 = 0.82, 5 = 0.56, 6 = 0.76, 7 = 0.71, 8 = 0.38, 9 = 0.81, 10 = 0.33, 11 = 0.45 and 12 = 0.56

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T11	HIP	1	1		J1973103
					Job Reference (optional)	

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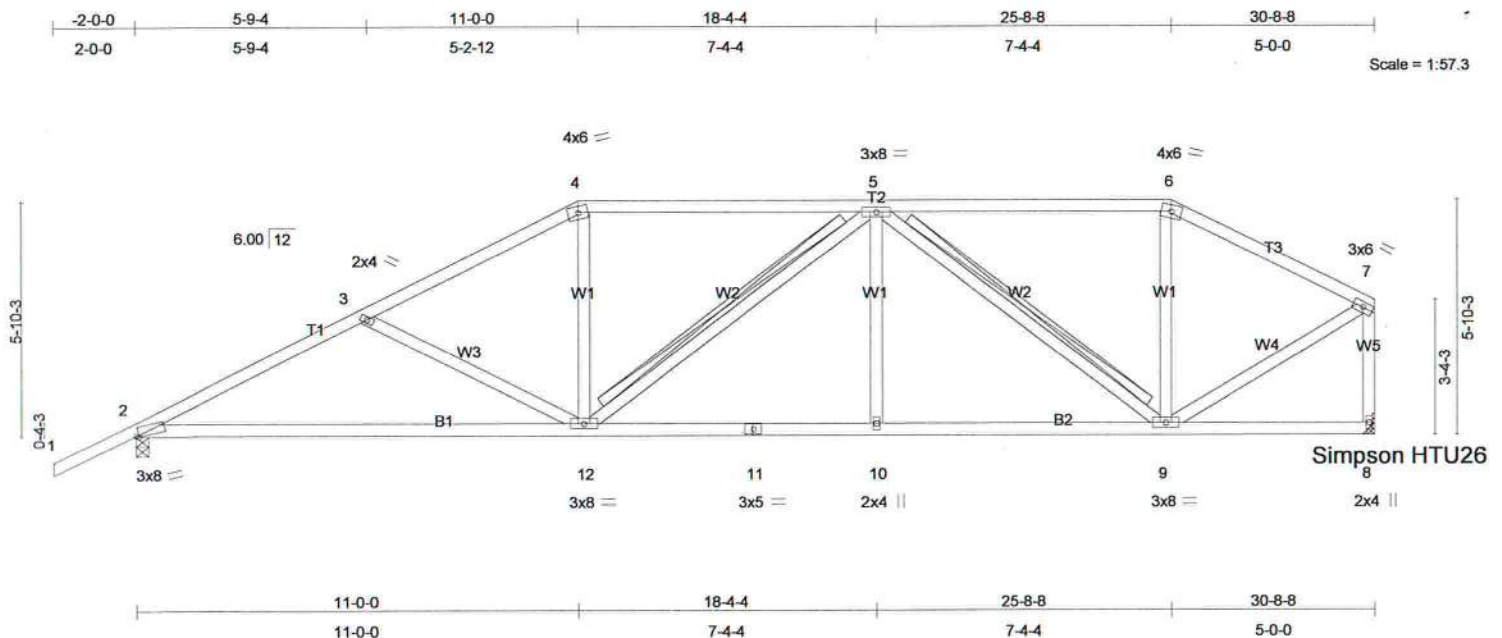
NOTES

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

2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 280 lb uplift at joint 2 and 182 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973104
L280515	T12	HIP	1	1	Job Reference (optional)	'

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Scale = 1:57.3

Plate Offsets (X,Y): [2:0-1-9,0-0-7], [7:Edge,0-1-12]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.63	Vert(LL)	0.10	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.35	Vert(TL)	-0.15	12-13	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.38	Horz(TL)	0.05	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 180 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-9-8 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 4-10

Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size)   2=1093/0-3-8, 8=969/Mechanical
Max Horz 2=189(load case 6)
Max Uplift 2=-292(load case 6), 8=-158(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1781/908, 3-4=-1338/769, 4-5=-1096/720, 5-6=-1096/720, 6-7=-989/557, 7-8=-930/545
BOT CHORD   2-13=-866/1513, 12-13=-866/1513, 11-12=-577/1120, 10-11=-577/1120, 9-10=-405/818, 8-9=-58/73
WEBS   3-13=0/205, 3-12=-444/326, 4-12=-125/326, 4-10=-73/120, 5-10=-287/160, 6-10=-220/508, 6-9=-287/207, 7-9=-378/814

JOINT STRESS INDEX
2 = 0.77, 3 = 0.46, 4 = 0.52, 5 = 0.33, 6 = 0.63, 7 = 0.69, 8 = 0.53, 9 = 0.52, 10 = 0.56, 11 = 0.39, 12 = 0.39 and 13 = 0.33

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T12	HIP	1	1		J1973104
					Job Reference (optional)	

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NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 2 and 158 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13, 2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T13	HIP	1	1		J1973105
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:21 2008 Page 1
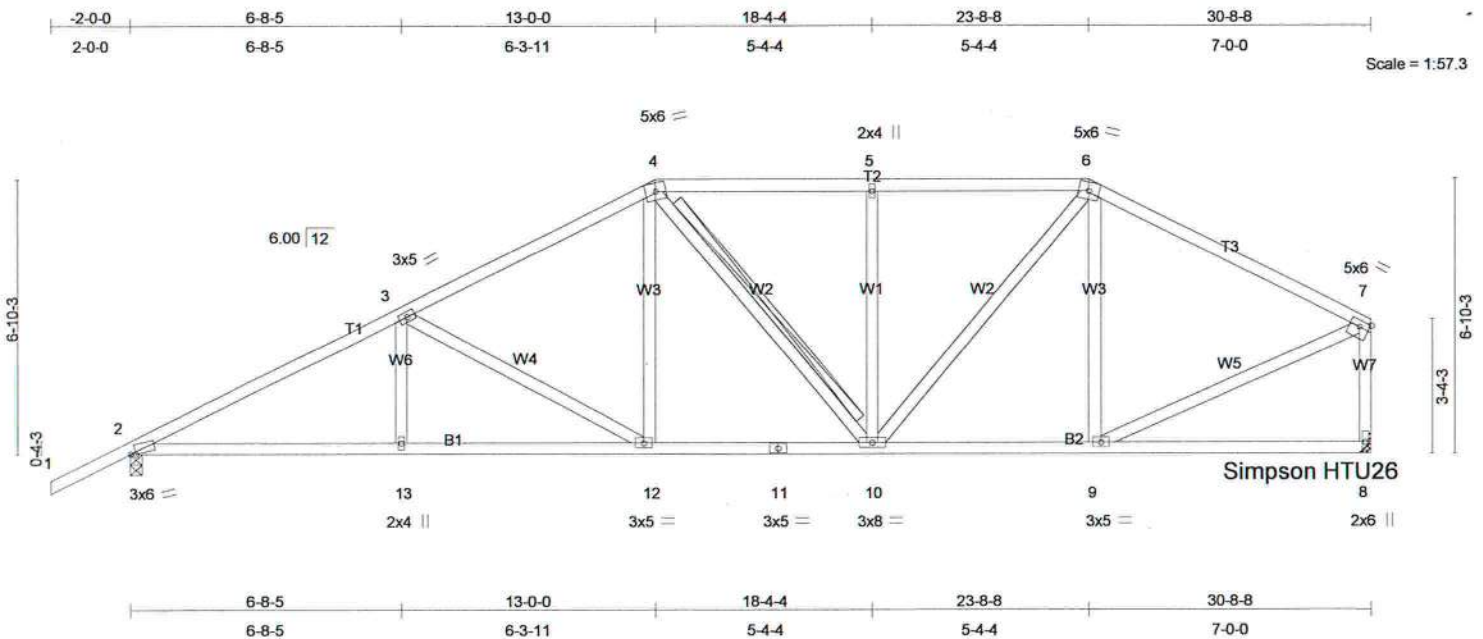
Scale = 1:59.5

Simpson HTU26

Plate Offsets (X,Y):   [2:0-1-9,0-0-7], [3:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.62	Vert(LL)	-0.13	8-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.44	Vert(TL)	-0.23	8-9	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.84	Horz(TL)	0.06	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 176 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-3-9 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-9-12 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 3-11, 4-9
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS   (lb/size)   2=1093/0-3-8, 8=969/Mechanical
                Max Horz 2=201(load case 6)
                Max Uplift 2=-302(load case 6), 8=-172(load case 7)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1742/902, 3-4=-1205/723, 4-5=-837/617, 5-6=-979/631, 6-7=-109/79, 7-8=-147/118
BOT CHORD   2-12=-846/1468, 11-12=-846/1467, 10-11=-498/1004, 9-10=-498/1004, 8-9=-382/691
WEBS   3-12=0/250, 3-11=-537/400, 4-11=-157/369, 4-9=-329/164, 5-9=-63/207, 6-9=-51/286, 6-8=-1008/582

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JOINT STRESS INDEX
    2 = 0.76, 3 = 0.82, 4 = 0.69, 5 = 0.66, 6 = 0.43, 7 = 0.45, 8 = 0.77, 9 = 0.56, 10 = 0.33, 11 = 0.39 and 12 = 0.33

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T13	HIP	1	1		J1973105
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:22 2008 Page 2

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 302 lb uplift at joint 2 and 172 lb uplift at joint 8.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T14	HIP	1	1	Job Reference (optional)	J1973106

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:23 2008 Page 1
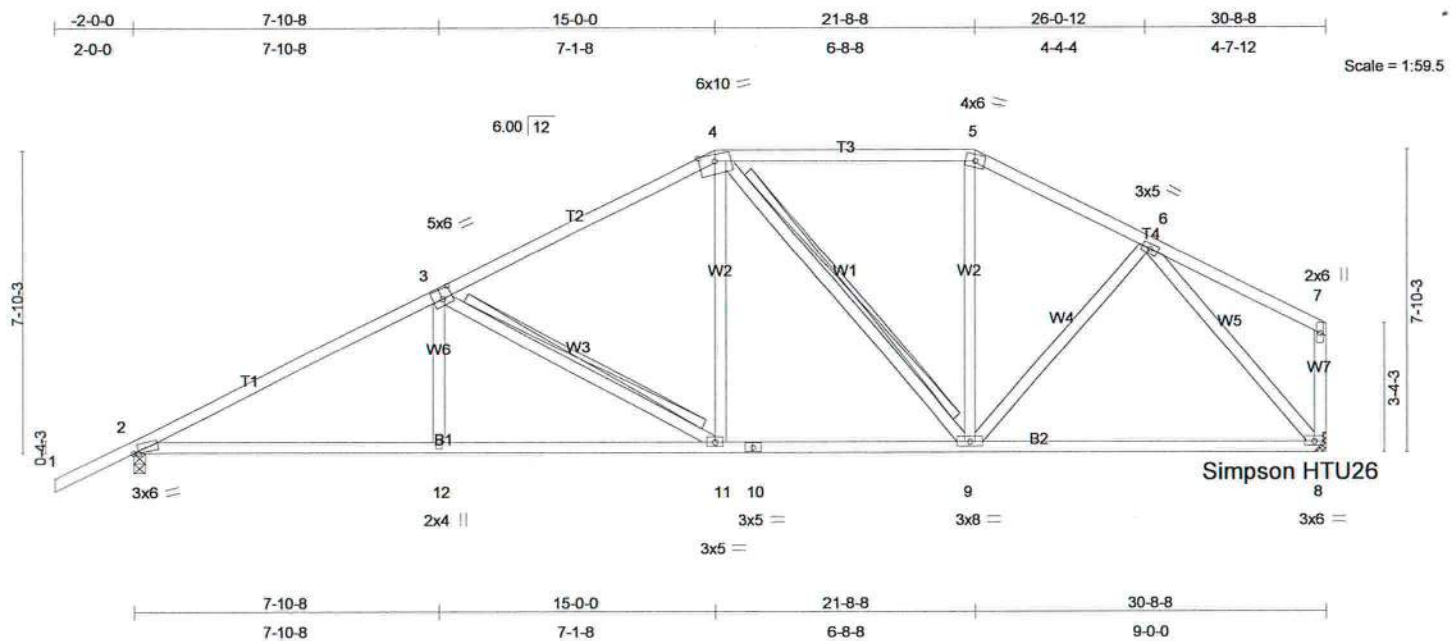
Plate Offsets (X,Y): [2:0-1-9,0-0-7], [3:0-3-0,0-3-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.32	Vert(LL)	-0.12	12-14	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.45	Vert(TL)	-0.24	12-14	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.27	Horz(TL)	0.05	9	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 195 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-7-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-6-5 oc bracing.
WEBS   T-Brace: 2 X 4 SYP No.3 - 4-12, 6-12, 6-11, 7-11
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c.,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size)   2=1093/0-3-8, 9=969/Mechanical
     Max Horz 2=213(load case 6)
     Max Uplift 2=-310(load case 6), 9=-185(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1798/964, 3-4=-1580/900, 4-5=-1039/689, 5-6=-864/679, 6-7=-978/654, 7-8=-880/516, 8-9=-944/557
BOT CHORD   2-14=-927/1538, 13-14=-697/1231, 12-13=-697/1231, 11-12=-372/806, 10-11=-402/743, 9-10=-21/28
WEBS   3-14=-253/246, 4-14=-115/361, 4-12=-504/405, 5-12=-140/242, 6-12=-104/322, 6-11=-78/52, 7-11=-39/167, 7-10=-409/290, 8-10=-454/851

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JOINT STRESS INDEX
    2 = 0.77, 3 = 0.39, 4 = 0.46, 5 = 0.71, 6 = 0.62, 7 = 0.46, 8 = 0.69, 9 = 0.41, 10 = 0.56, 11 = 0.39, 12 = 0.66, 13 = 0.40 and 14 = 0.45

June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T14	HIP	1	1	J1973106
					Job Reference (optional)

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 310 lb uplift at joint 2 and 185 lb uplift at joint 9.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T15	COMMON	1	1		J1973107
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:23 2008 Page 1
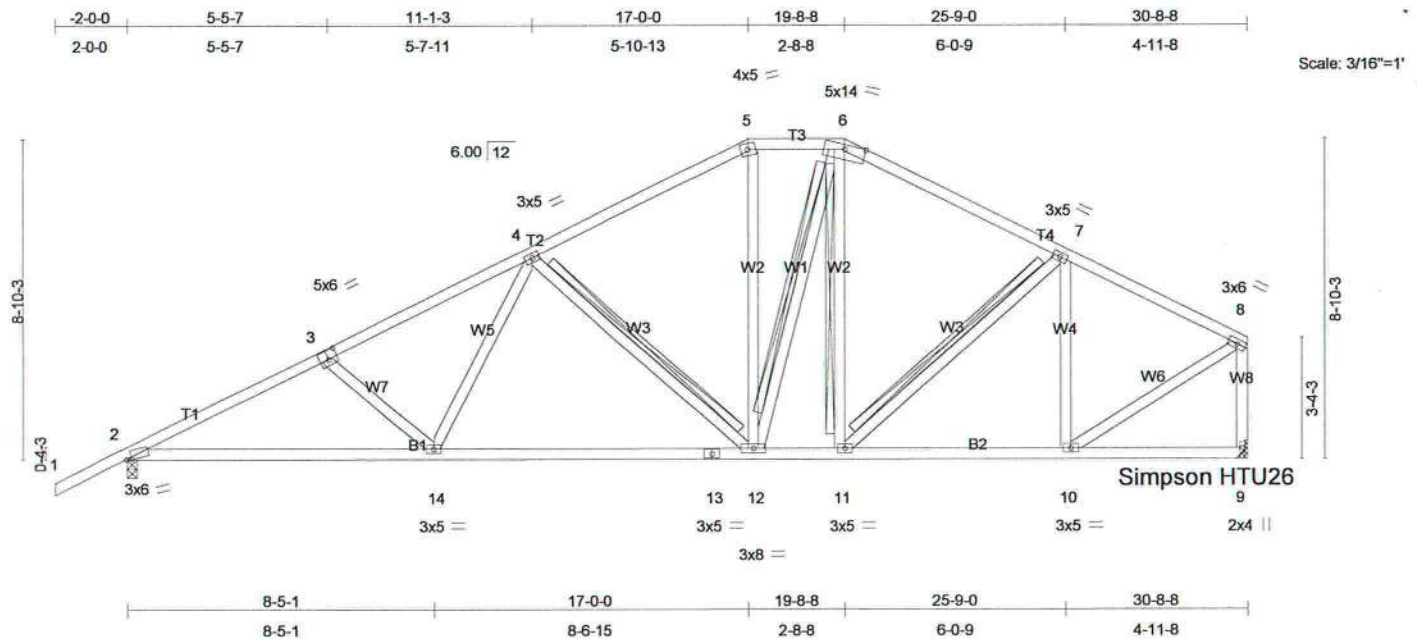
Plate Offsets (X,Y): [2:0-1-12,Edge], [6:0-1-12,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	0.15	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.22	8-10	>999	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.16	Horz(TL)	0.03	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 91 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 5-2-7 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 8-9-0 oc bracing.

REACTIONS (lb/size)   2=894/0-3-8, 6=894/0-3-8
Max Horz 2=92(load case 6)
Max Uplift 2=-276(load case 6), 6=-276(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1416/749, 3-4=-1280/749, 4-5=-1280/749, 5-6=-1416/749, 6-7=0/47
BOT CHORD   2-10=-502/1196, 9-10=-262/838, 8-9=-262/838, 6-8=-502/1196
WEBS   3-10=-199/187, 4-10=-267/506, 4-8=-267/506, 5-8=-199/187

JOINT STRESS INDEX
2 = 0.76, 3 = 0.33, 4 = 0.62, 5 = 0.33, 6 = 0.76, 8 = 0.42, 9 = 0.80 and 10 = 0.42

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T15	COMMON	1	1		J1973107
					Job Reference (optional)	

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NOTES

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 2 and 276 lb uplift at joint 6.

6) 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) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
          Vert: 1-4=-54, 4-7=-54, 2-10=-10, 8-10=-70(F=-60), 6-8=-10

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973108
L280515	T15G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:25 2008 Page 1
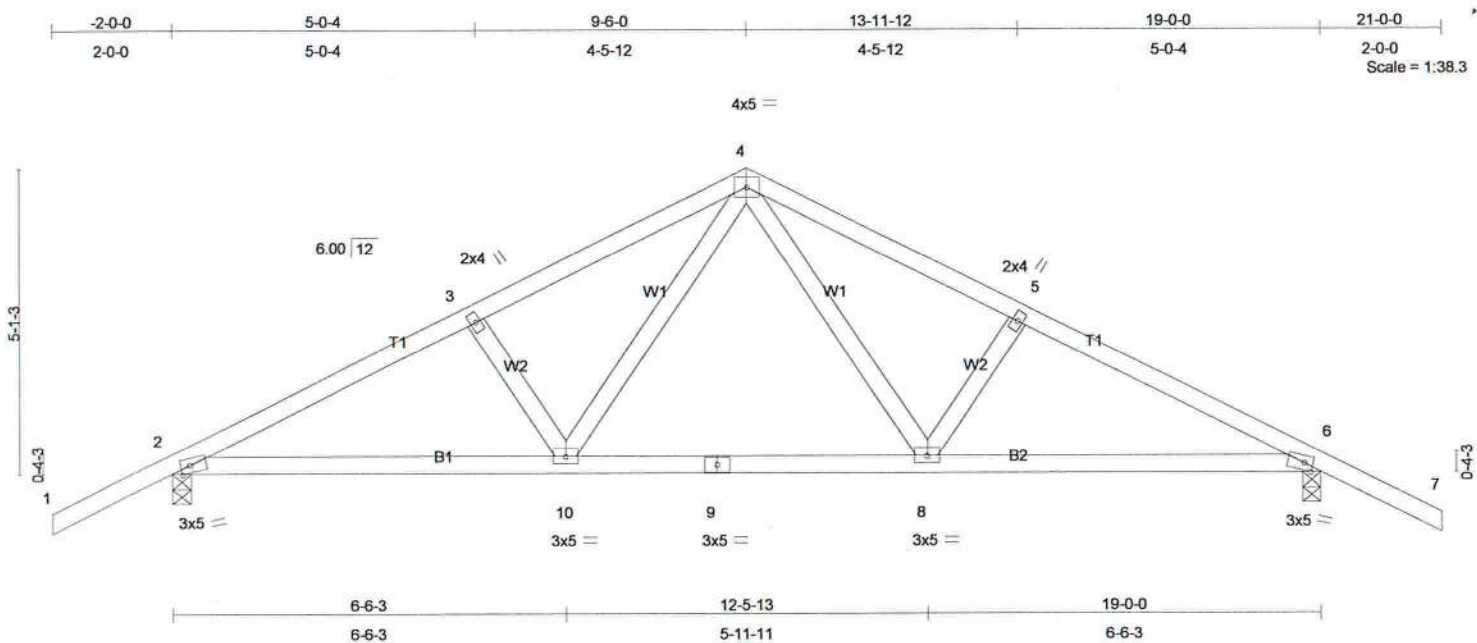
Plate Offsets (X,Y): [2:0-3-8,Edge], [2:0-1-8,Edge], [12:0-3-8,Edge], [12:0-1-8,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.26	Vert(LL)	-0.02	13	n/r	120	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.05	Vert(TL)	-0.03	13	n/r	90		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 96 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
OTHERS   2 X 4 SYP No.3

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

REACTIONS (lb/size)   2=239/19-0-0, 12=239/19-0-0, 17=129/19-0-0, 19=132/19-0-0, 20=115/19-0-0, 21=166/19-0-0, 16=132/19-0-0, 15=115/19-0-0, 14=166/19-0-0
    Max Horz 2=-100(load case 7)
    Max Uplift 2=-185(load case 6), 12=-200(load case 7), 19=-81(load case 6), 20=-98(load case 6), 21=-65(load case 7), 16=-80(load case 7), 15=-97(load case 7), 14=-68(load case 7)
    Max Grav 2=239(load case 10), 12=239(load case 11), 17=129(load case 1), 19=136(load case 10), 20=115(load case 1), 21=166(load case 10), 16=136(load case 11), 15=115(load case 1), 14=166(load case 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-61/37, 3-4=-52/50, 4-5=-24/88, 5-6=-20/138, 6-7=-23/191, 7-8=-23/191, 8-9=-20/138, 9-10=-24/78, 10-11=-19/38, 11-12=-32/15, 12-13=0/47
BOT CHORD   2-21=-7/114, 20-21=-7/114, 19-20=-7/114, 18-19=-7/114, 17-18=-7/114, 16-17=-7/114, 15-16=-7/114, 14-15=-7/114, 12-14=-7/114
WEBS   7-17=-110/0, 6-19=-115/102, 5-20=-99/117, 4-21=-137/102, 8-16=-115/102, 9-15=-99/117, 10-14=-137/102

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T15G	GABLE	1	1		J1973108
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:25 2008 Page 2

JOINT STRESS INDEX

2 = 0.49, 2 = 0.18, 3 = 0.00, 3 = 0.00, 4 = 0.33, 5 = 0.33, 6 = 0.33, 7 = 0.24, 8 = 0.33, 9 = 0.33, 10 = 0.33, 11 = 0.00, 11 = 0.00 , 12 = 0.49, 12 = 0.18, 14 = 0.33, 15 = 0.33, 16 = 0.33, 17 = 0.33, 18 = 0.18, 19 = 0.33, 20 = 0.33 and 21 = 0.33

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 2, 200 lb uplift at joint 12, 81 lb uplift at joint 19, 98 lb uplift at joint 20, 65 lb uplift at joint 21, 80 lb uplift at joint 16, 97 lb uplift at joint 15 and 68 lb uplift at joint 14.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T16	COMMON	3	1		J1973109
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:26 2008 Page 1
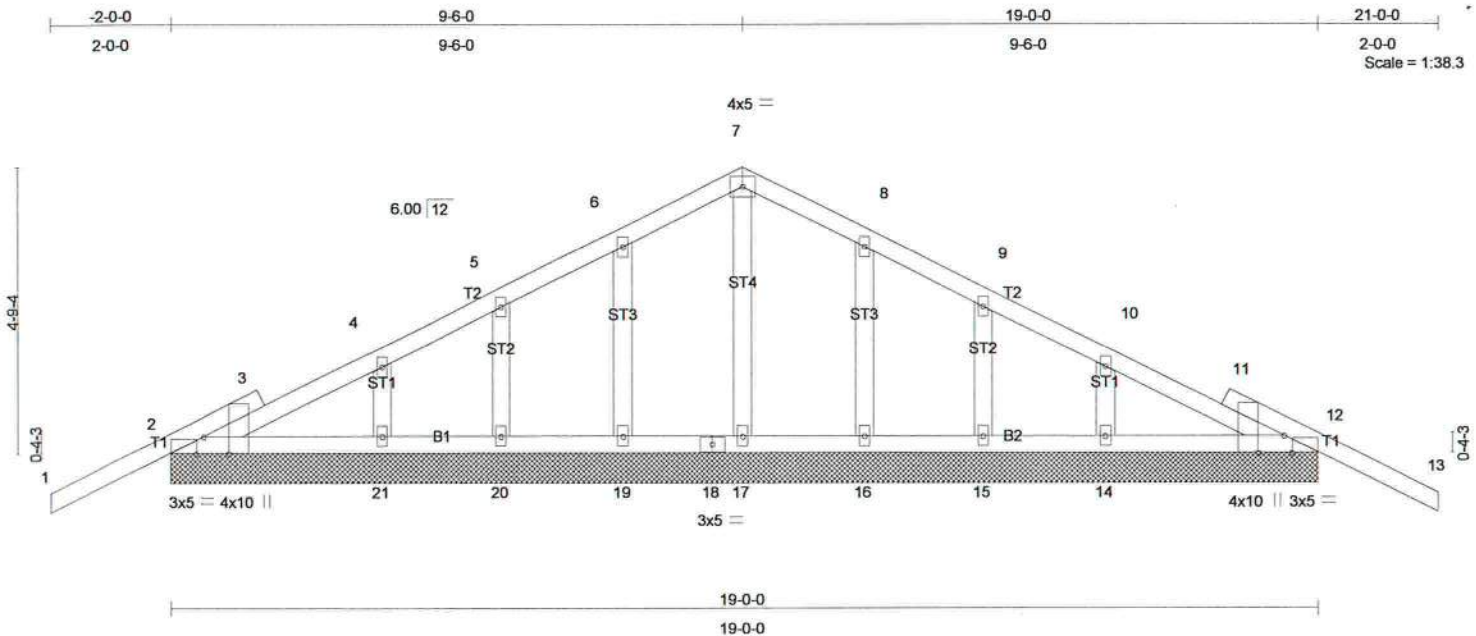
Scale = 1:35.7

Plate Offsets (X,Y): [2:0-1-12,Edge], [6:0-1-12,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	0.14	7-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.54	Vert(TL)	-0.22	7-9	>999	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.19	Horz(TL)	0.04	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 88 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or
             5-1-5 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 7-8-0 oc
             bracing.

REACTIONS (lb/size)   6=771/0-3-8, 2=900/0-3-8
              Max Horz 2=105(load case 6)
              Max Uplift 6=-179(load case 7), 2=-277(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1429/771, 3-4=-1293/771, 4-5=-1318/813, 5-6=-1456/815
BOT CHORD   2-9=-600/1208, 8-9=-361/851, 7-8=-361/851, 6-7=-651/1239
WEBS   3-9=-199/189, 4-9=-261/506, 4-7=-327/543, 5-7=-218/219

JOINT STRESS INDEX
   2 = 0.77, 3 = 0.33, 4 = 0.59, 5 = 0.33, 6 = 0.77, 7 = 0.42, 8 = 0.79 and 9 = 0.42

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp
   B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This
   truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other
   live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T16	COMMON	3	1		J1973109
					Job Reference (optional)	

NOTES

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 6 and 277 lb uplift at joint 2.
6) 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) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
           Vert: 1-4=-54, 4-6=-54, 2-9=-10, 7-9=-70(F=-60), 6-7=-10

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973110
L280515	T17	HOWE	1	**2**	Job Reference (optional)	

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Plate Offsets (X,Y): [8:0-6-0,0-6-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.31	Vert(LL)	-0.11	7-8	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.43	Vert(TL)	-0.21	7-8	>999	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.46	Horz(TL)	0.04	5	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 239 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 8 SYP 2400F 2.0E
WEBS   2 X 4 SYP No.2

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

REACTIONS (lb/size)   1=4884/0-3-8, 5=3516/0-3-8
Max Horz 1=-111(load case 6)
Max Uplift 1=-1317(load case 5), 5=-1001(load case 6)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=-8132/2180, 2-3=-5888/1594, 3-4=-5876/1603, 4-5=-7289/1908, 5-6=0/53
BOT CHORD   1-9=-1947/7255, 8-9=-1947/7255, 8-10=-1661/6476, 10-11=-1661/6476,
             7-11=-1661/6476, 5-7=-1661/6476
WEBS   2-9=-545/1961, 2-8=-2393/709, 3-8=-1342/4963, 4-8=-1479/428, 4-7=-278/1151

JOINT STRESS INDEX
1 = 0.70, 2 = 0.83, 3 = 0.70, 4 = 0.83, 5 = 0.70, 7 = 0.31, 8 = 0.46 and 9 = 0.31

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2 X 8 - 2 rows at 0-7-0 oc.
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T17	HOWE	1	**2**		J1973110
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:27 2008 Page 2
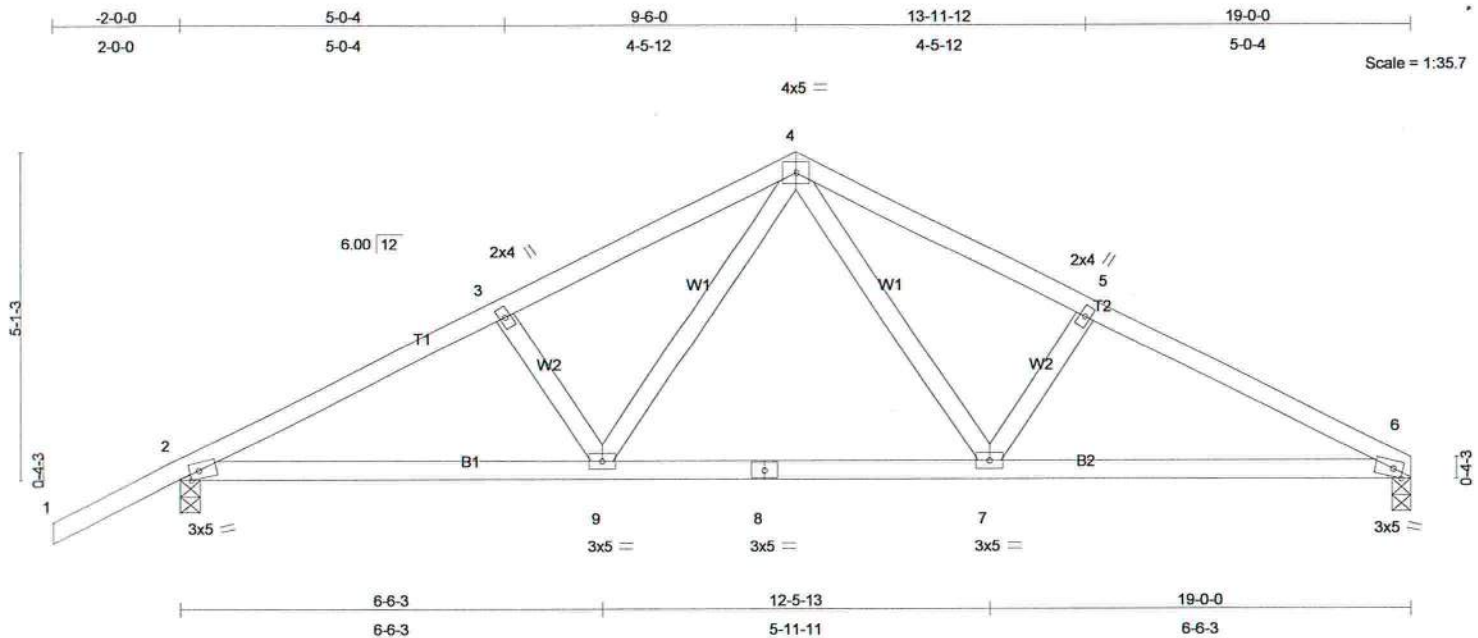
NOTES

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

4) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS;
Lumber DOL=1.60 plate grip DOL=1.60.

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

6) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1317 lb uplift at joint 1 and 1001 lb
uplift at joint 5.

LOAD CASE(S) Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-6=-54, 1-10=-465(B=-455), 5-10=-10
Concentrated Loads (lb)
Vert: 11=-2151(F)

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Builders
FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973111
L280515	T18	HIP	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc.   Fri Jun 13 15:58:27 2008   Page 1
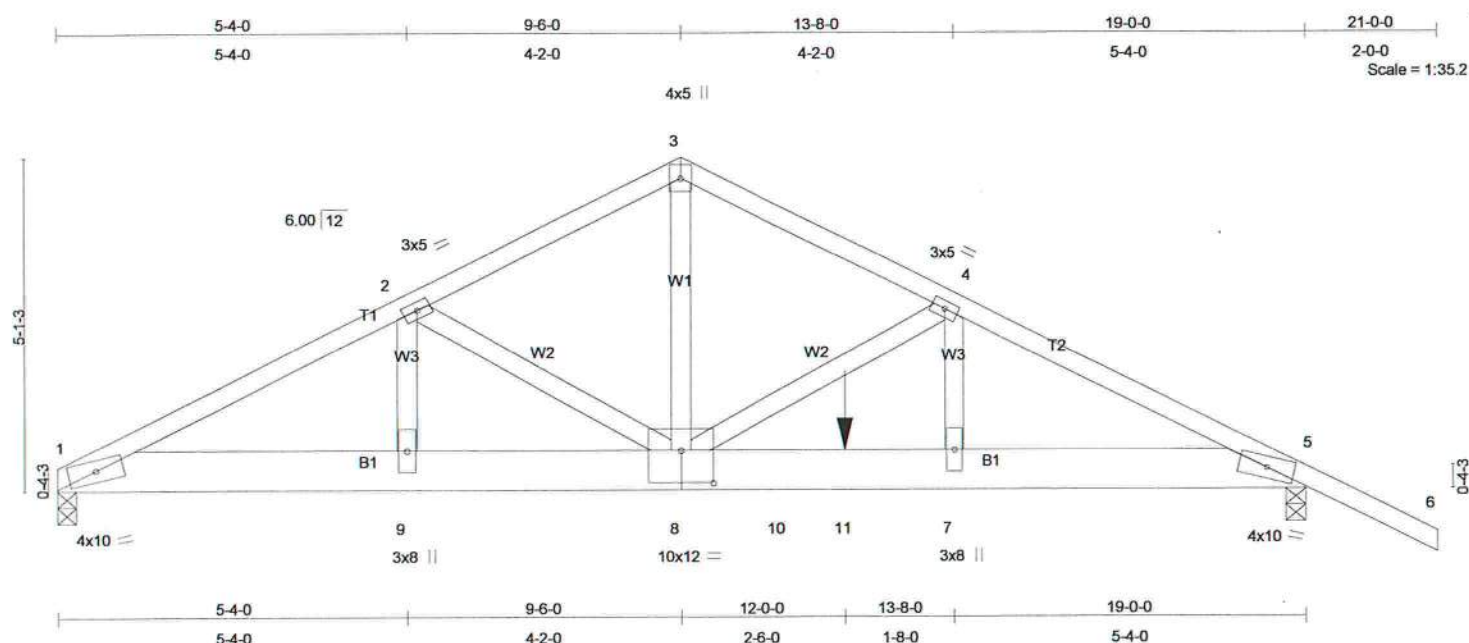
Plate Offsets (X,Y):   [2:0-1-8,0-0-7], [5:0-1-8,0-0-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.40	Vert(LL)	0.12	2-8	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.42	Vert(TL)	-0.14	2-8	>999	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.19	Horz(TL)	0.04	5	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 72 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
WEBS   2 X 4 SYP No.3

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-4-10 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 7-5-6 oc bracing.

REACTIONS   (lb/size)   2=1103/0-3-8, 5=1103/0-3-8
                Max Horz   2=77(load case 5)
                Max Uplift 2=-595(load case 5), 5=-595(load case 6)

FORCES   (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-1778/804, 3-4=-1526/770, 4-5=-1781/805, 5-6=0/47
BOT CHORD   2-8=-674/1503, 7-8=-684/1523, 5-7=-658/1506
WEBS   3-8=-262/480, 3-7=-146/159, 4-7=-303/592

JOINT STRESS INDEX
   2 = 0.77, 3 = 0.87, 4 = 0.76, 5 = 0.77, 7 = 0.43 and 8 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.
L280515	T18	HIP	1	1	J1973111
					Job Reference (optional)

NOTES

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 595 lb uplift at joint 2 and 595 lb uplift at joint 5.

7) 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) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-3=-54, 3-4=-118(F=-64), 4-6=-54, 2-8=-10, 7-8=-22(F=-12), 5-7=-10

Concentrated Loads (lb)

Vert: 8=-411(F) 7=-411(F)

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Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T19	QUEENPOST	2	1		J1973112
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:28 2008 Page 1

Plate Offsets (X,Y): [2:0-0-10,Edge], [6:0-0-10,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.29	Vert(LL)	0.19	2-8	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.32	Vert(TL)	-0.12	2-8	>999	240		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.20	Horz(TL)	-0.02	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 75 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-7-15 oc bracing.

REACTIONS (lb/size) 2=619/0-3-8, 6=619/0-3-8
Max Horz 2=83(load case 6)
Max Uplift 2=-404(load case 6), 6=-404(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-3=-802/1064, 3-4=-590/942, 4-5=-590/942, 5-6=-802/1064, 6-7=0/47
BOT CHORD 2-8=-810/663, 6-8=-810/663
WEBS 3-8=-217/243, 4-8=-670/331, 5-8=-217/243

JOINT STRESS INDEX
2 = 0.74, 3 = 0.13, 4 = 0.43, 5 = 0.13, 6 = 0.74 and 8 = 0.17

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

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June 13,2008

Continued on page 2

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T19	QUEENPOST	2	1		J1973112
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055　　　　　6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:28 2008 Page 2
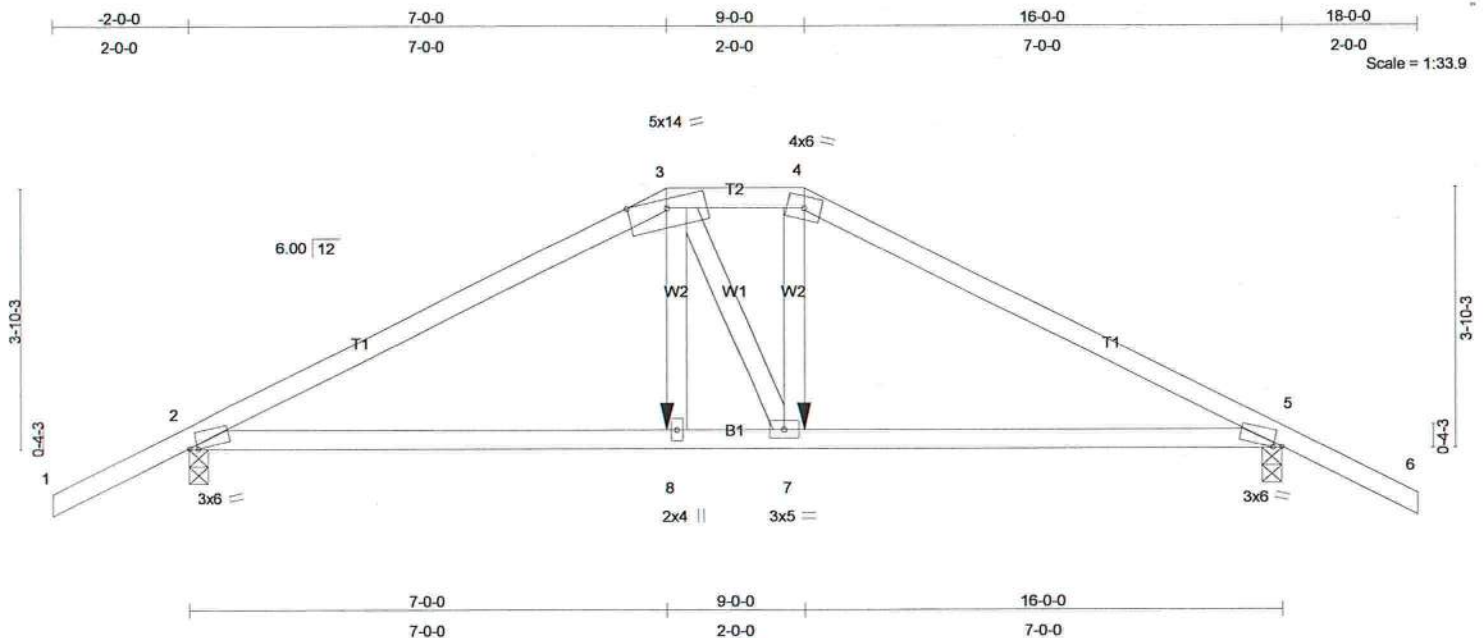
NOTES

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 404 lb uplift at joint 2 and 404 lb uplift at joint 6.

LOAD CASE(S) Standard

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June 13, 2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T20	COMMON	1	2	Job Reference (optional)	J1973113

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-2-0-0	3-10-8	6-7-0	9-3-8	13-2-0
2-0-0	3-10-8	2-8-8	2-8-8	3-10-8

Scale = 1:25.4

3-10-8	6-7-0	7-0-0	9-3-8	13-2-0
3-10-8	2-8-8	0-5-0	2-3-8	3-10-8

Plate Offsets (X,Y):   [2:0-5-0,0-1-7], [6:0-5-0,0-1-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.22	Vert(LL)	-0.06	7-8	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.28	Vert(TL)	-0.11	7-8	>999	240		
BCLL	10.0	* Rep Stress Incr	NO	WB	0.35	Horz(TL)	0.02	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 166 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 8 SYP 2400F 2.0E
WEBS 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   6=3999/0-3-8, 2=2281/0-3-8
Max Horz 2=94(load case 5)
Max Uplift 6=-1083(load case 6), 2=-673(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/54, 2-3=-4266/1115, 3-4=-4536/1241, 4-5=-4533/1234, 5-6=-6364/1715
BOT CHORD   2-9=-969/3785, 8-9=-969/3785, 8-10=-1506/5684, 10-11=-1506/5684,
7-11=-1506/5684, 6-7=-1506/5684
WEBS   3-9=-469/184, 3-8=-113/411, 4-8=-1041/3829, 5-8=-1989/583, 5-7=-457/1734

JOINT STRESS INDEX
2 = 0.70, 3 = 0.74, 4 = 0.54, 5 = 0.74, 6 = 0.70, 7 = 0.27, 8 = 0.35 and 9 = 0.27

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2 X 8 - 2 rows at 0-4-0 oc.
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in
the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads
noted as (F) or (B), unless otherwise indicated.
Continued on page 2

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June 13,2008

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T20	COMMON	1	2		J1973113
					Job Reference (optional)	

Builders FirstSource, Lake City, Fl 32055   6.300 s Feb 15 2006 MiTek Industries, Inc. Fri Jun 13 15:58:29 2008 Page 2
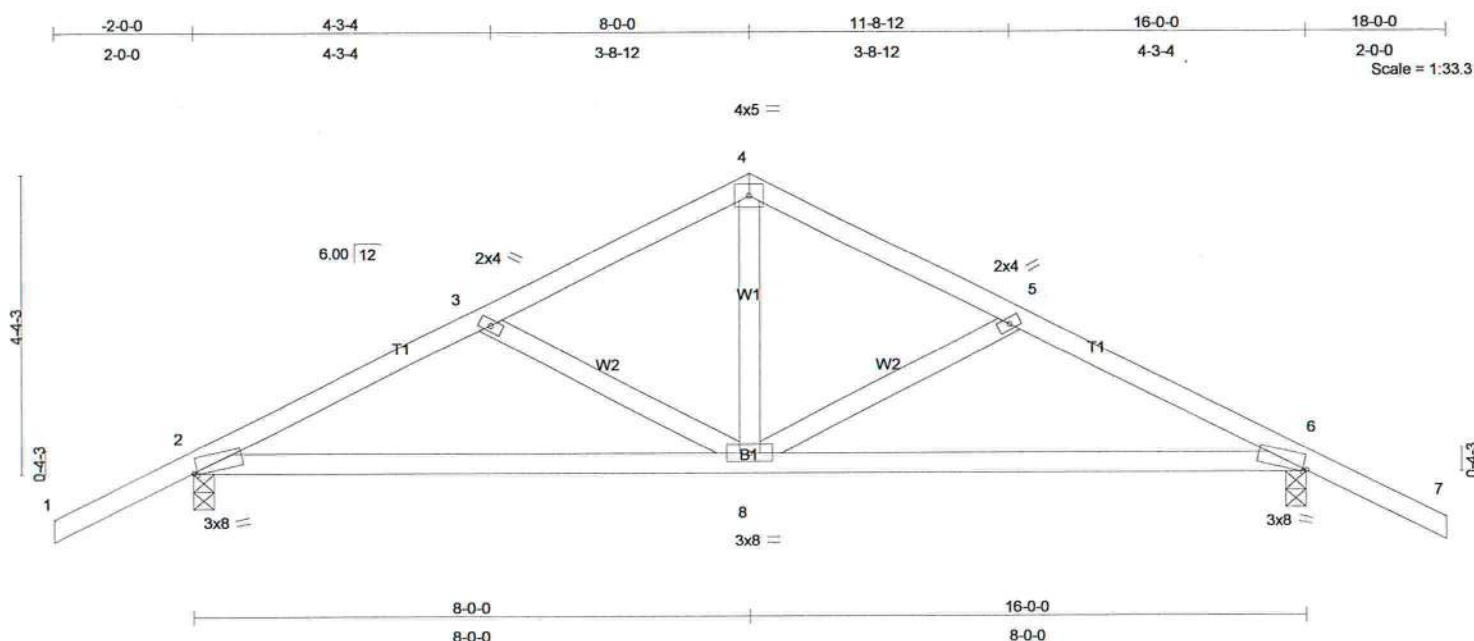
NOTES

3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS;
   Lumber DOL=1.60 plate grip DOL=1.60.
5) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1083 lb uplift at joint 6 and 673 lb
   uplift at joint 2.

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
          Vert: 1-4=-54, 4-6=-54, 2-11=-10, 6-11=-561(F=-551)
   Concentrated Loads (lb)
          Vert: 10=-2575(F)

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June 13,2008

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	
L280515	T20G	GABLE	1	1		J1973114
					Job Reference (optional)	

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

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.26	Vert(LL)	-0.01	9	n/r	120	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.09	Vert(TL)	-0.01	9	n/r	90		
BCLL	10.0	* Rep Stress Incr	YES	WB	0.05	Horz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 61 lb	

LUMBER
TOP CHORD   2 X 4 SYP No.2
BOT CHORD   2 X 4 SYP No.2
OTHERS   2 X 4 SYP No.3

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

REACTIONS (lb/size)   2=223/13-2-0, 8=223/13-2-0, 11=117/13-2-0, 12=247/13-2-0,
10=247/13-2-0
Max Horz 2=80(load case 6)
Max Uplift 2=-188(load case 6), 8=-199(load case 7), 12=-125(load case 6),
10=-129(load case 7)
Max Grav 2=235(load case 10), 8=235(load case 11), 11=117(load case 1),
12=249(load case 10), 10=249(load case 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD   1-2=0/47, 2-3=-64/59, 3-4=-47/142, 4-5=0/97, 5-6=0/97, 6-7=-23/142, 7-8=-35/59,
8-9=0/47
BOT CHORD   2-12=-84/143, 11-12=-84/143, 10-11=-84/143, 8-10=-84/143
WEBS   5-11=-123/5, 4-12=-198/186, 6-10=-198/186

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JOINT STRESS INDEX
2 = 0.49, 2 = 0.00, 3 = 0.00, 3 = 0.00, 4 = 0.10, 5 = 0.05, 6 = 0.10, 7 = 0.00, 7 = 0.00, 8 = 0.49, 8 = 0.00, 10 = 0.10, 11 = 0.04
and 12 = 0.10

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

June 13,2008

Continued on page 2

Builders FirstSource

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS - HOWELL RES.	J1973114
L280515	T20G	GABLE	1	1	Job Reference (optional)	

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NOTES

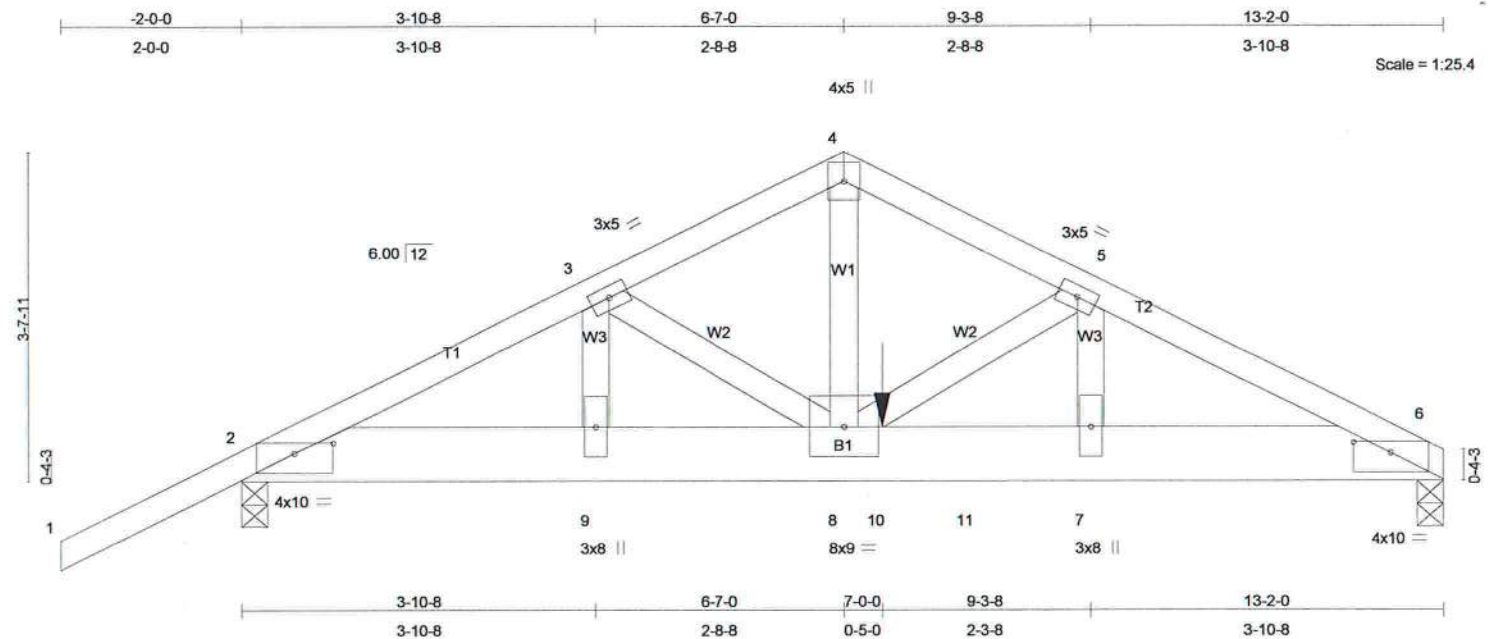2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"

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

5) Gable requires continuous bottom chord bearing.

6) Gable studs spaced at 2-0-0 oc.

7) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 188 lb uplift at joint 2, 199 lb uplift at joint 8, 125 lb uplift at joint 12 and 129 lb uplift at joint 10.

LOAD CASE(S) Standard

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June 13,2008

Builders FirstSource

Symbols

PLATE LOCATION AND ORIENTATION

* Center plate on joint unless dimensions indicate otherwise. Dimensions are in inches. Apply plates to both sides of truss and securely seat.

1 3/4"

1/8"

1/8"

* For 4 x 2 orientation, locate plates 1/8" from outside edge of truss and vertical web.

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

PLATE SIZE

4 X 4

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

LATERAL BRACING

Indicates location of required continuous lateral bracing.

BEARING
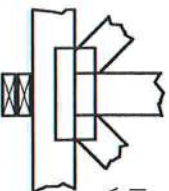
Indicates location of joints at which bearings (supports) occur.

Numbering System

```
        TOP CHORD
J2 ────────────────── J3          TOP CHORDS
J1    C1                           J4
   C2         TOP CHORDS
C8      W1
              BOTTOM CHORDS
J8        W2              J7
   C7        W3
        C6      W4        J5
           W5      C4
              C5   J6
        C5
        TOP CHORD
```

WEBS ARE NUMBERED FROM LEFT TO RIGHT
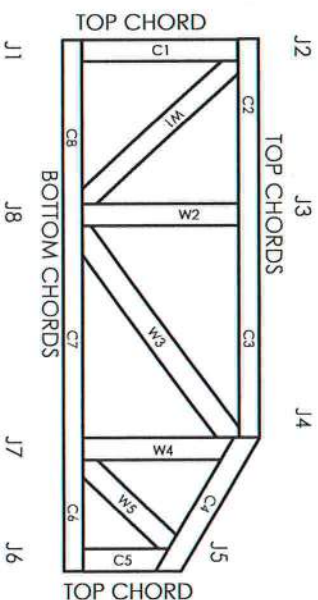
JOINTS AND CHORDS ARE NUMBERED CLOCKWISE AROUND THE TRUSS STARTING AT THE LOWEST JOINT FARTHEST TO THE LEFT.

CONNECTOR PLATE CODE APPROVALS

BOCA	96-31, 96-67
ICBO	3907, 4922
SBCCI	9667, 9432A
WISC/DILHR	960022-W, 970036-N
NER	561

MiTek Engineering Reference Sheet: MII-7473

MiTek®

TEE-LOK®

⚠ General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

2. Cut members to bear tightly against each other.

3. Place plates on each face of truss at each joint and embed fully. Avoid knots and wane at joint locations.

4. Unless otherwise noted, locate chord splices at ¼ panel length (± 6" from adjacent joint.)

5. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

6. Unless expressly noted, this design is not applicable for use with fire retardant or preservative treated lumber.

7. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.

8. Plate type, size and location dimensions shown indicate minimum plating requirements.

9. Lumber shall be of the species and size, and in all respects, equal to or better than the grade specified.

10. Top chords must be sheathed or purlins provided at spacing shown on design.

11. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.

12. Anchorage and / or load transferring connections to trusses are the responsibility of others unless shown.

13. Do not overload roof or floor trusses with stacks of construction materials.

14. Do not cut or alter truss member or plate without prior approval of a professional engineer.

15. Care should be exercised in handling, erection and installation of trusses.

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ASCE 7-02: 130 MPH WIND SPEED, 15' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

GABLE VERTICAL SPACING / SPECIES	GRADE	NO BRACES	(1) 1X4 "L" BRACE * GROUP A	GROUP B	(1) 2X4 "L" BRACE * GROUP A	GROUP B	(2) 2X4 "L" BRACE ** GROUP A	GROUP B	(1) 2X6 "L" BRACE ** GROUP A	GROUP B	(2) 2X6 "L" BRACE **
24" O.C.											
SPF	#1 / #2	3'4"	6'10"	6'0"	6'11"	7'1"	8'6"	8'8"	10'10"	11'2"	12'11"
SPF	#3	3'3"	4'11"	4'6"	6'6"	6'6"	8'0"	8'3"	10'5"	10'1"	12'11"
SPF	STUD	3'3"	4'11"	4'5"	6'5"	6'6"	8'0"	8'3"	10'5"	10'0"	12'11"
SPF	STANDARD	3'3"	4'2"	4'11"	5'6"	6'6"	7'5"	8'3"	8'3"	8'8"	11'6"
HF	#1	3'3"	5'10"	5'6"	6'3"	7'5"	8'3"	8'11"	10'2"	11'8"	12'11"
HF	#2	3'6"	5'10"	6'3"	6'8"	7'5"	8'3"	8'3"	10'10"	11'8"	12'11"
HF	#3	3'8"	6'3"	6'8"	6'10"	8'3"	8'11"	9'5"	10'3"	11'8"	13'11"
HF	STUD	3'10"	6'8"	7'2"	7'11"	8'7"	9'6"	10'3"	10'4"	12'11"	13'11"
HF	STANDARD	3'4"	4'3"	4'3"	5'8"	7'8"	8'5"	10'3"	8'10"	13'7"	12'0"
DFL	STANDARD	3'10"	6'8"	7'11"	8'1"	9'4"	9'11"	12'5"	10'10"	14'0"	14'0"
16" O.C.											
SPF	#1 / #2	3'9"	5'3"	5'3"	6'11"	7'11"	8'11"	9'4"	10'10"	12'9"	14'0"
SPF	#3	4'2"	7'4"	7'11"	7'11"	9'4"	10'2"	12'4"	12'4"	14'0"	14'0"
SPF	STUD	4'2"	6'11"	6'10"	7'10"	9'2"	10'5"	12'6"	12'4"	14'0"	14'0"
SP	#1	4'3"	6'11"	6'10"	8'2"	9'2"	10'5"	13'5"	13'5"	14'0"	14'0"
SP	#2	5'2"	7'2"	7'2"	8'9"	10'2"	12'5"	13'8"	13'8"	14'0"	14'0"
HF	#3	5'8"	7'2"	8'0"	8'9"	10'5"	12'5"	13'8"	13'8"	14'0"	14'0"
HF	STANDARD	5'2"	6'0"	6'0"	7'11"	10'8"	13'5"	14'0"	12'0"	14'0"	14'0"
12" O.C.											
SPF	#1 / #2	4'2"	6'11"	8'8"	8'8"	9'5"	10'8"	12'5"	10'3"	14'0"	14'0"
SPF	#3	4'7"	8'0"	8'9"	9'5"	11'2"	13'8"	14'0"	12'9"	14'0"	14'0"
SP	#2	4'8"	8'0"	8'9"	10'6"	13'8"	14'0"	14'0"	14'0"	14'0"	14'0"
SP	#1	4'8"	7'1"	7'1"	9'3"	12'5"	14'0"	14'0"	13'8"	14'0"	14'0"
HF	STANDARD	6'1"	7'1"	8'1"	10'5"	14'0"	14'0"	14'0"	14'0"	14'0"	14'0"
DFL	STANDARD	4'3"	6'1"	6'1"	8'0"	10'5"	13'6"	14'0"	12'0"	14'0"	14'0"

VERTICAL LENGTH SHOWN IN TABLE ABOVE.

DIAGONAL BRACE OPTION:
VERTICAL LENGTH MAY BE DOUBLED WHEN DIAGONAL BRACE IS USED. CONNECT DIAGONAL BRACE FOR 544# AT EACH END. MAX WEB TOTAL LENGTH IS 14'.

CONNECT DIAGONAL AT MIDPOINT OF VERTICAL WEB.

2X4 SP #2N, DF-L #2, SPF #1/#2, OR BETTER DIAGONAL BRACE, SINGLE OR DOUBLE CUT (AS SHOWN) AT UPPER END.

GABLE TRUSS

SYMM ABOUT ₵

18" | 18"

2X4 #8N OR BETTER

CONTINUOUS BEARING

REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

WARNING
TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

BRACING GROUP SPECIES AND GRADES:

GROUP A:

SPRUCE-PINE-FIR		HEM-FIR	
#1 / #2	#3	#1	STUD
STUD	STANDARD	#2	STANDARD
		#3	

GROUP B:

HEM-FIR		SOUTHERN PINE	
#1 & BTR		#1	
#2		#2	

DOUGLAS FIR-LARCH		SOUTHERN PINE	
#1 / #2	#3	#3	STUD
STUD	STANDARD	STANDARD	

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 130 PLF OVER CONTINUOUS BEARING (6 PSF x DEAD LOAD).

GABLE END SUPPORTS LOAD FROM 4'-0" OUTLOOKERS WITH 2'-0" OVERHANG, OR 12" PLYWOOD OVERHANG.

* FOR (1) "L" BRACE: SPACE NAILS AT 8" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.

** FOR (2) "L" BRACES: SPACE NAILS AT 3" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.

ATTACH EACH "L" BRACE WITH 10d NAILS.

"L" BRACING MUST BE A MINIMUM OF 80% OF WEB MEMBER LENGTH.

GABLE VERTICAL PLATE SIZES

VERTICAL LENGTH	NO SPLICE
LESS THAN 4'-0"	1X4 OR 2X3
GREATER THAN 4'-0", BUT LESS THAN 11'-6"	2X4
GREATER THAN 11'-6"	2.5X4

+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.

JULIUS LEE'S CONS. ENGINEERS P.A.
1455 SE 4th AVENUE
DELRAY BEACH, FL 32444-2161

No. 34869
STATE OF FLORIDA

REF	ASCE7-02-GAB13015
DATE	11/26/03
DRWG	MITEK STD GABLE 15 I ET
	-ENG
MAX. TOT. LD.	60 PSF
MAX. SPACING	24.0"

MAX GABLE VERTICAL LENGTH

ASCE 7-02: 130 MPH WIND SPEED, 30' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

GABLE VERTICAL SPACING	SPECIES	GRADE	NO BRACES	(1) 1X4 "L" BRACE * GROUP A	GROUP B	(1) 2X4 "L" BRACE # GROUP A	GROUP B	(2) 2X4 "L" BRACE ** GROUP A	GROUP B	(1) 2X6 "L" BRACE + GROUP A	GROUP B	(2) 2X6 "L" BRACE ++ GROUP A	GROUP B
24" O.C.	SPF	#1 / #2	3'2"	5'6"	6'8"	6'6"	6'10"	7'10"	8'0"	10'3"	12'3"	12'3"	12'7"
	HF	STANDARD	3'1"	4'5"	6'10"	5'10"	7'10"	7'3"	8'9"	9'1"	11'9"	12'3"	12'3"
		STUD	4'6"	6'0"	5'10"	6'0"	7'10"	7'9"	8'5"	7'10"	9'1"	10'7"	10'7"
	SP	#1	3'8"	5'6"	6'6"	6'0"	6'9"	7'0"	8'1"	9'4"	11'1"	12'3"	13'2"
		#2	3'6"	5'11"	6'8"	6'0"	7'0"	7'10"	8'5"	10'3"	11'1"	12'3"	13'2"
		#3	3'3"	4'8"	5'11"	5'11"	7'0"	7'10"	8'1"	8'3"	9'4"	10'7"	10'7"
	DFL	STANDARD	3'3"	4'8"	6'0"	5'11"	7'10"	8'0"	9'4"	8'3"	12'3"	12'3"	12'8"
		STUD	4'8"	5'11"	5'11"	6'0"	7'10"	7'10"	9'3"	8'3"	9'4"	10'10"	10'10"
16" O.C.	SPF	#1 / #2	3'10"	5'1"	6'1"	7'10"	8'1"	9'1"	9'9"	12'1"	14'0"	14'0"	14'0"
	HF	STANDARD	3'7"	5'5"	6'6"	7'0"	8'11"	8'2"	9'4"	11'1"	14'0"	14'0"	14'0"
		STUD	5'5"	7'2"	7'6"	7'2"	8'11"	9'2"	9'9"	9'1"	11'1"	12'11"	14'0"
	SP	#2	3'9"	6'7"	7'4"	6'2"	7'8"	8'11"	9'2"	11'9"	12'8"	14'0"	14'0"
		#1	4'0"	6'4"	6'5"	6'10"	8'1"	8'6"	9'2"	10'7"	12'8"	14'0"	14'0"
		#3	3'8"	5'7"	7'3"	6'7"	8'1"	8'11"	9'3"	9'7"	11'4"	14'0"	14'0"
	DFL	STANDARD	3'8"	5'6"	7'3"	7'1"	8'5"	8'11"	10'1"	9'4"	14'0"	14'0"	14'0"
		STUD	5'11"	7'3"	7'3"	7'4"	8'5"	8'11"	11'4"	9'3"	11'4"	13'3"	14'0"
12" O.C.	SPF	#1 / #2	4'0"	5'4"	6'3"	8'3"	8'11"	9'10"	10'4"	12'11"	14'0"	14'0"	14'0"
	HF	STANDARD	3'11"	5'4"	6'3"	7'1"	9'6"	9'8"	10'7"	11'1"	14'0"	14'0"	14'0"
		STUD	5'4"	6'3"	6'3"	7'1"	9'6"	9'10"	10'7"	9'7"	11'1"	14'0"	14'0"
	SP	#1	4'4"	6'6"	7'6"	6'9"	8'3"	10'5"	10'7"	13'11"	14'0"	14'0"	14'0"
		#2	4'2"	6'6"	7'6"	7'0"	8'9"	9'10"	10'4"	13'11"	14'0"	14'0"	14'0"
		#3	4'5"	6'11"	8'3"	7'6"	9'0"	10'0"	10'4"	11'5"	13'3"	14'0"	14'0"
	DFL	STANDARD	4'5"	6'8"	8'6"	8'3"	9'10"	10'4"	11'0"	12'0"	14'0"	14'0"	14'0"
		STUD	5'6"	6'4"	6'4"	8'5"	9'10"	9'10"	11'4"	10'10"	13'1"	14'0"	14'0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

SPRUCE-PINE-FIR		HEM-FIR
#1 / #2	#2	STANDARD
#3		STUD
STANDARD		
STUD		

DOUGLAS FIR-LARCH		SOUTHERN PINE
#1	#3	STANDARD
#2	STANDARD	STUD
	STUD	

GROUP B:

HEM-FIR		DOUGLAS FIR-LARCH
#1 & BTR		#1
		#2

SOUTHERN PINE	
#1	
#2	

GABLE TRUSS DETAIL NOTES:

GABLE END DEFLECTION CRITERIA IS L/240.

PROVIDE LIVE LOAD DEFLECTION CRITERIA FOR 100 PLF OVER CONTINUOUS BEARING (5 PSF TC DEAD LOAD).

GABLE END SUPPORTS LOAD FROM 4'-0" OUTLOOKERS WITH 2'-0" OVERHANG, OR 12' PLYWOOD OVERHANG.

* ATTACH EACH "L" BRACE WITH 10d NAILS.
\# FOR (1) "L" BRACE; SPACE NAILS AT 8" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.
** FOR (2) "L" BRACES; SPACE NAILS AT 3" O.C. IN 18" END ZONES AND 6" O.C. BETWEEN ZONES.
\+ "L" BRACING MUST BE A MINIMUM OF 80% OF MEMBER LENGTH.

GABLE VERTICAL PLATE SIZES

VERTICAL LENGTH	NO SPLICE
LESS THAN 4' 0"	1X4 OR 2X3
GREATER THAN 4' 0", BUT LESS THAN 11' 8"	2X4
GREATER THAN 11' 8"	2.5X4

\+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.

REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.
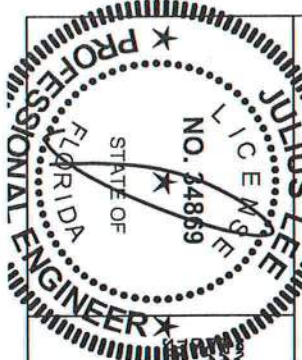
CONTINUOUS BEARING

2X4 #2N OR BETTER

"L" BRACE
15"
18"
STUD AS ABOVE

GABLE TRUSS

2X4 SP OR HF #2 OR BETTER DIAGONAL BRACE, SINGLE CUT (AS SHOWN) AT UPPER END

VERTICAL LENGTH SHOWN IN TABLE ABOVE.

CONNECT DIAGONAL AT MIDSPAN OF VERTICAL WEB.

DIAGONAL BRACE OPTION:
VERTICAL LENGTH MAY BE DOUBLED WHEN DIAGONAL BRACE IS USED. CONNECT DIAGONAL BRACE FOR 50% TOTAL LENGTH IS 14'.

TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR, SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

TYPICAL ATTIC TRUSS BRACING

2x6 (3).10d

2x4 24"0/c (2).12d

TYPICAL ALTERNATE BRACING DETAIL FOR EXTERIOR FLAT GIRDER TRUSS
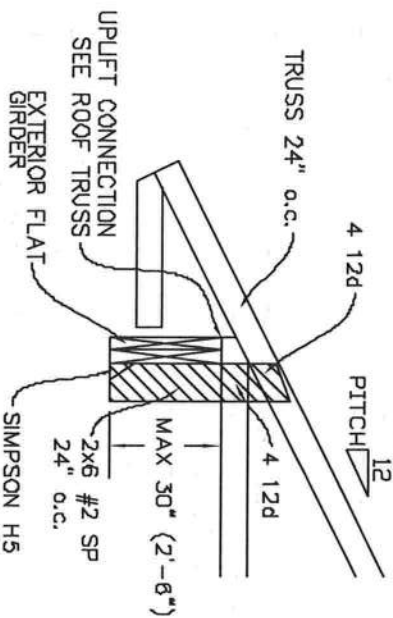
TRUSS 24" o.c.

UPLIFT CONNECTION SEE ROOF TRUSS

EXTERIOR FLAT GIRDER

4 12d

4 12d

PITCH 12

MAX 30" (2'-6")

2x6 #2 SP 24" o.c.

SIMPSON H5

GABLE END TRUSS DETAIL

2x4 24" 0/c (3).12d
BACK 3 TRUSSES

STACK ABOUT ℄
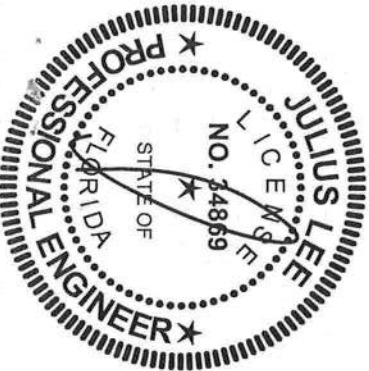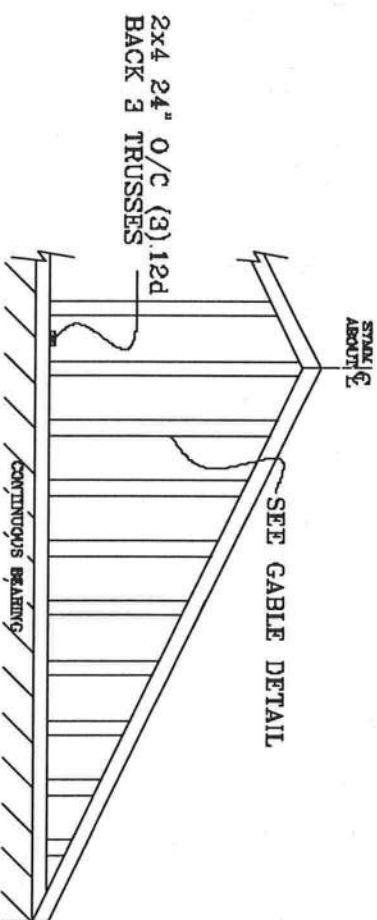
MINIMUM BC BRACING ON GABLE TRUSS OTHER PERMANENT BRACING DESIGNS BY ARCHITECT OR EOR

CONTINUOUS BEARING

SEE GABLE DETAIL

TYPICAL WALL GIRDER VERTICAL WEB BRACING DETAIL

2x4 LEDGER 12d 4"0/c
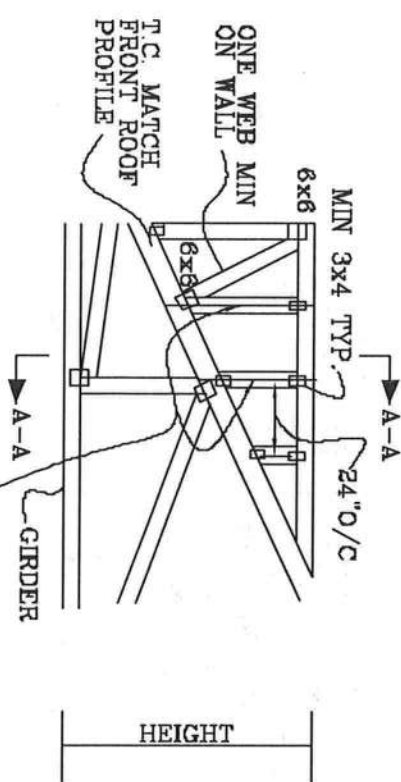
SEE ROOF TRUSSES FOR UPLIFT

ROOF 24" 0/C

T.C. MATCH FRONT ROOF PROFILE

ONE WEB MIN ON WALL

6x6

6x6

MIN 3x4 TYP.

A-A

24"0/C

A-A

GIRDER

SEE GABLE EEND DETAIL FOR T-BRACE BEHIND EACH VERTICAL
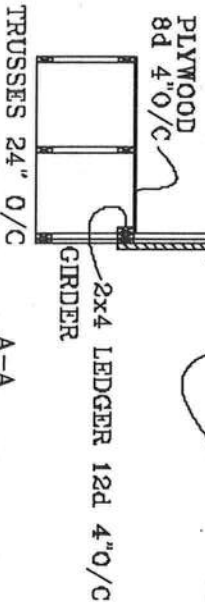
HEIGHT

PLYWOOD
8d 4"0/C

TRUSSES 24" 0/C

2x4 LEDGER 12d 4"0/C

GIRDER

A-A

PIGGYBACK DETAIL

TOP CHORD 2X4	#2 OR BETTER
BOT CHORD 2X4	#2 OR BETTER
WEBS 2X4	#3 OR BETTER

REFER TO SEALED DESIGN FOR DASHED PLATES.

SPACE PIGGYBACK VERTICALS AT 4' OC MAX.

TOP AND BOTTOM CHORD SPLICES MUST BE STAGGERED SO THAT ONE SPLICE IS NOT DIRECTLY OVER ANOTHER.

PIGGYBACK BOTTOM CHORD MAY BE OMITTED. ATTACH VERTICAL WEBS TO TRUSS TOP CHORD WITH 1.5X3 PLATE.

ATTACH PURLINS TO TOP OF FLAT TOP CHORD. IF PIGGYBACK IS SOLID LUMBER OR THE BOTTOM CHORD IS OMITTED, PURLINS MAY BE APPLIED BENEATH THE TOP CHORD OF SUPPORTING TRUSS.

REFER TO ENGINEER'S SEALED DESIGN FOR REQUIRED PURLIN SPACING.

THIS DETAIL IS APPLICABLE FOR THE FOLLOWING WIND CONDITIONS:

110 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, 1 MI FROM COAST CAT 1 EXP C, WIND TC DL=5 PSF, WIND BC DL=5 PSF

110 MPH WIND, 30' MEAN HGT, FBC ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF WIND TC DL=5 PSF, WIND BC DL=5 PSF

130 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=6 PSF, WIND BC DL=6 PSF

20' FLAT TOP CHORD MAX SPAN

12 MAX

EITHER PLATE LOCATION IS ACCEPTABLE

OPTIONAL SPLICE

MAX SIZE OF 2X12 #2 OR BETTER

FRONT FACE (£,*) PLATES MAY BE OFFSET FROM BACK FACE PLATES AS LONG AS BOTH FACES ARE SPACED 4' OC MAX.

ATTACH PIGGYBACK WITH 3X6 TRULOX OR ALPINE PIGGYBACK SPECIAL PLATE.

2' TYP.

C-TYP.

D-SPLICE

ATTACH TRULOX PLATES WITH (8) 0.120" X 1.375" NAILS, OR EQUAL, PER FACE PER PLY. (4) NAILS IN EACH MEMBER TO BE CONNECTED. REFER TO DRAWING 160 TL FOR TRULOX INFORMATION.

JOINT TYPE		SPANS UP TO		
	30'	34'	38'	52'
A	2X4	2.5X4	2.5X4	3X5
B	4X6	5X6	5X6	5X6
C	1.5X3	1.5X4	1.5X4	1.5X4
D	5X4	5X6	5X5	5X6
E	4X8 OR 3X6 TRULOX AT 4' OC, ROTATED VERTICALLY			

WEB BRACING CHART

WEB LENGTH	REQUIRED BRACING
0' TO 7'9"	NO BRACING
7'9" TO 10'	1X4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER. ATTACH WITH 8d NAILS AT 4" OC.
10' TO 14'	2x4 "T" BRACE, SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 16d NAILS AT 4" OC.
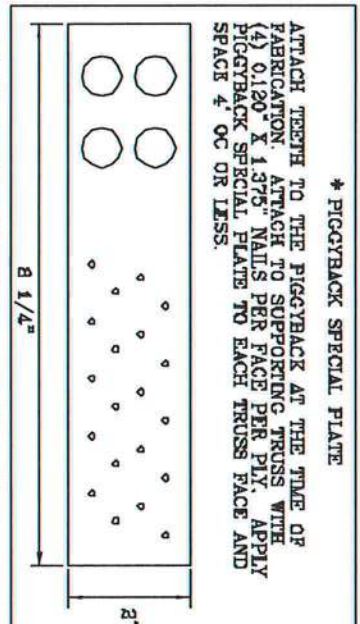
* PIGGYBACK SPECIAL PLATE

ATTACH TEETH TO THE PIGGYBACK AT THE TIME OF FABRICATION. ATTACH TO SUPPORTING TRUSS WITH (4) 0.120" X 1.375" NAILS PER FACE PER PLY. APPLY PIGGYBACK SPECIAL PLATE TO EACH TRUSS FACE AND SPACE 4' OC OR LESS.
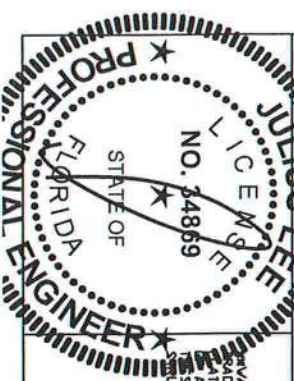
8 1/4"

2"

THIS DRAWING REPLACES DRAWINGS 634,018 634,017 & 847,045

MAX LOADING		
55 PSF AT	1.33 DUR. FAC.	
50 PSF AT	1.25 DUR. FAC.	
47 PSF AT	1.15 DUR. FAC.	
SPACING	24.0"	

REF	PIGGYBACK	
DATE	09/12/07	
DRWG	MITEK STD PIGGY
ENG	JL	

JULIUS LEE'S
CONS. ENGINEERS P.A.
1466 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

JULIUS LEE
★ LICENSE ★
NO. 34869
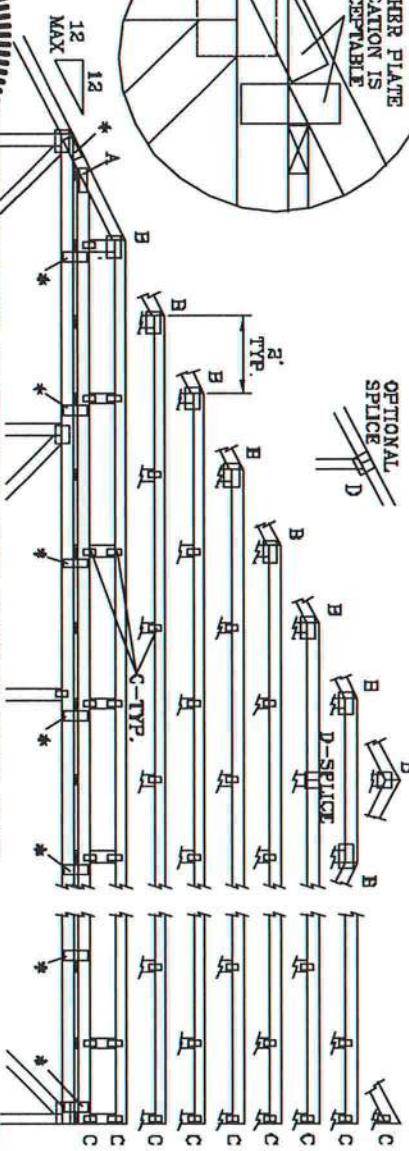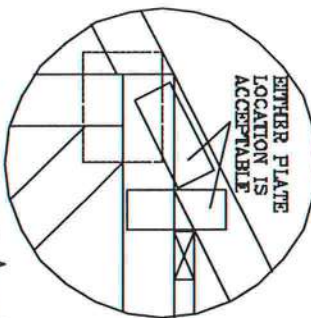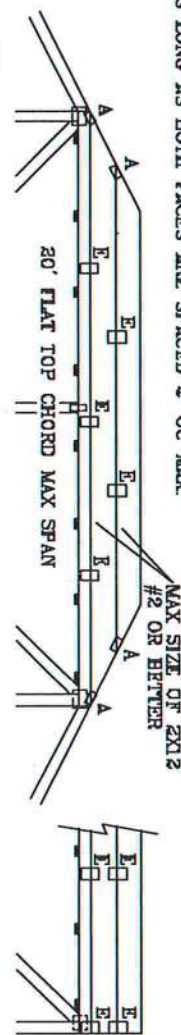STATE OF FLORIDA
PROFESSIONAL ENGINEER

REVIEWED
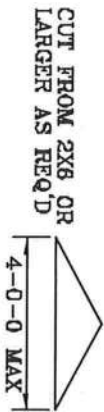By julius lee at 11:59 am, Jun 11, 2008

VALLEY TRUSS DETAIL

* TOP CHORD 2X4 SP #2 OR SPF #1/#2 OR BETTER.
  BOT CHORD 2X3(*) OR 2X4 SP #2N OR SPF #1/#2 OR BETTER.
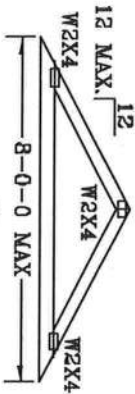 WEBS 2X4 SP #3 OR BETTER.

* 2X3 MAY BE RIPPED FROM A 2X6 (PITCHED OR SQUARE).

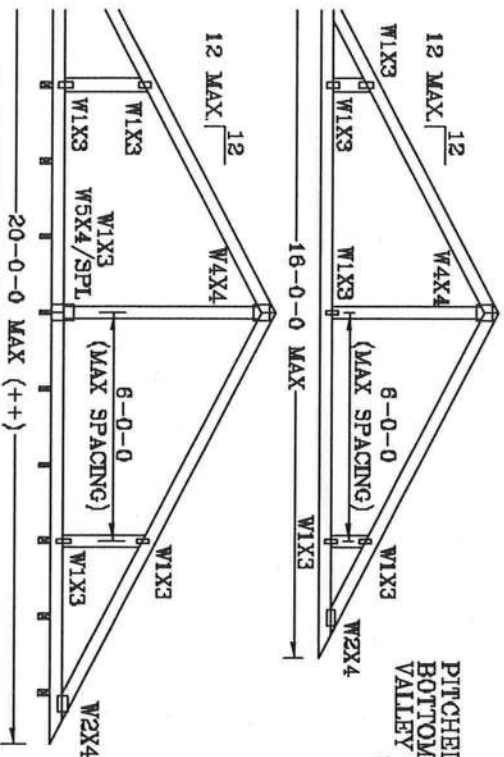** ATTACH EACH VALLEY TO EVERY SUPPORTING TRUSS WITH:
  (2) 16d BOX (0.135" X 3.5") NAILS TOE-NAILED FOR
  PROPERLY ATTACHED TRUSS OR (3) 16d FOR
  ASCE 7-02 110 MPH WIND, 15' MEAN HEIGHT, ENCLOSED
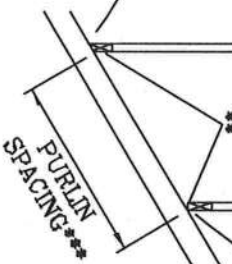 BUILDING, EXP. C, RESIDENTIAL, WIND TC DL=5 PSF.

UNLESS SPECIFIED ON ENGINEER'S SEALED DESIGN, APPLY 1X4 "T"-BRACE, 80%
LENGTH OF WEB, VALLEY WEB, SAME SPECIES AND GRADE OR BETTER, ATTACHED
WITH 8d BOX (0.13" X 2.5") NAILS AT 6" OC, OR CONTINUOUS LATERAL BRACING,
EQUALLY SPACED, FOR VERTICAL VALLEY WEBS GREATER THAN 7'9".

MAXIMUM VALLEY VERTICAL HEIGHT MAY NOT EXCEED 12'0".

TOP CHORD OF TRUSS BENEATH VALLEY SET MUST BE BRACED WITH:
PROPERLY ATTACHED, RATED SHEATHING APPLIED PRIOR TO VALLEY TRUSS
INSTALLATION
  OR
PURLINS AT 24" OC OR AS OTHERWISE SPECIFIED ON ENGINEERS' SEALED DESIGN
  OR
BY VALLEY TRUSSES USED IN LIEU OF PURLIN SPACING AS SPECIFIED ON
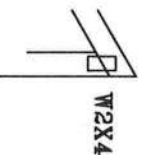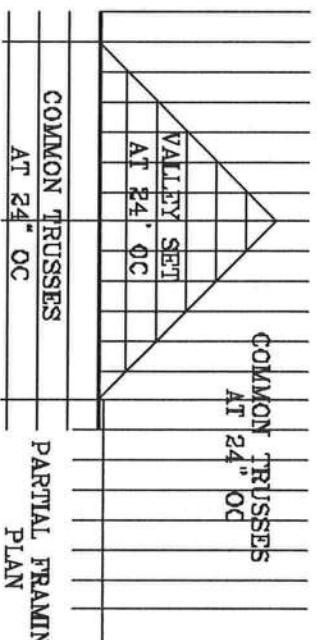ENGINEERS' SEALED DESIGN.

*** NOTE THAT THE PURLIN SPACING FOR BRACING THE TOP CHORD OF THE TRUSS
BENEATH THE VALLEY IS MEASURED ALONG THE SLOPE OF THE TOP CHORD.

++ LARGER SPANS MAY BE BUILT AS LONG AS THE VERTICAL HEIGHT DOES
NOT EXCEED 12'0".

BOTTOM CHORD MAY BE SQUARE OR PITCHED CUT AS SHOWN.

CUT FROM 2X6 OR
LARGER AS REQ'D

SUPPORTING TRUSSES AT 24" OC MAXIMUM SPACING.

WARNING! TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND
BRACING. REFER TO BCSI 1-03 GUIDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS
PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF
AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING
THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED
STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

12 MAX. 12
12 MAX. 12
12 MAX. 12

W1X3
W2X4
W4X4
W5X4/SPL
W1X3
W2X4

8-0-0 MAX
18-0-0 MAX
20-0-0 MAX (++)
4-0-0 MAX

6-0-0 (MAX SPACING)
6-0-0 (MAX SPACING)

PITCHED
BOTTOM CHORD
VALLEY

TOE-NAILED **

VALLEY
SPACING

PURLIN
SPACING ***

SQUARE CUT
BOTTOM CHORD
VALLEY

W2X4

OPTIONAL STUB
END DETAIL

OPTIONAL HIP
JOINT DETAIL

W4X4

VALLEY SET
AT 24' OC

COMMON TRUSSES
AT 24" OC

COMMON TRUSSES
AT 24" OC

PARTIAL FRAMING
PLAN

THIS DRAWING REPLACES DRAWING A105

TC LL	20	20	PSF
TC DL	7	15	PSF
BC DL	5	5	PSF
BC LL	0	0	PSF
TOT. LD.	32	40	PSF
DURFAC 1.25	1.25		
SPACING	24"		

REF	VALLEY DETAIL
DATE	11/26/03
DRWG	VALTRUSS1103
-ENG	JL

JULIUS LEE'S
CONS. ENGINEERS P.A.
1655 SW 4th AVENUE
DELRAY BEACH, FL 33444-2101

No. 34869
STATE OF FLORIDA

TOE-NAIL DETAIL

TOE-NAILS TO BE DRIVEN AT AN ANGLE OF APPROXIMATELY THIRTY DEGREES WITH THE PIECE AND STARTED APPROXIMATELY ONE-THIRD THE LENGTH OF THE NAIL FROM THE END OF THE MEMBER.

THE NUMBER OF TOE-NAILS TO BE USED IN A SPECIFIC APPLICATION IS DEPENDENT UPON PROPERTIES FOR THE CHORD SIZE, LUMBER SPECIES, AND NAIL TYPE. PROPER CONSTRUCTION PRACTICES AS WELL AS GOOD JUDGEMENT SHOULD DETERMINE THE NUMBER OF NAILS TO BE USED.

PER ANSI/AF&PA NDS-2001 SECTION 12.4.1 - EDGE DISTANCE, END DISTANCE, SPACING: "EDGE DISTANCES, END DISTANCES AND SPACINGS FOR NAILS AND SPIKES SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD."

THIS DETAIL DISPLAYS A TOE-NAILED CONNECTION FOR JACK FRAMING INTO A SINGLE OR DOUBLE PLY SUPPORTING GIRDER.

MAXIMUM VERTICAL RESISTANCE OF 16d (0.162"X3.5") COMMON TOE-NAILS

NUMBER OF TOE-NAILS	SOUTHERN PINE		DOUGLAS FIR-LARCH		HEM-FIR		SPRUCE PINE FIR	
	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES
2	197#	256#	181#	234#	156#	203#	154#	198#
3	296#	383#	271#	351#	234#	304#	230#	298#
4	394#	511#	361#	468#	312#	406#	307#	397#
5	493#	639#	452#	585#	390#	507#	384#	496#

ALL VALUES MAY BE MULTIPLIED BY APPROPRIATE DURATION OF LOAD FACTOR.

JACK
30°
1 1/8"
OPTIONAL (2) PLY GIRDER

ALTERNATIVE CONDITION
30°-60°
JACK
1 1/8"
OPTIONAL (2) PLY GIRDER

JULIUS LEE'S CONS. ENGINEERS P.A.
1435 ST 4th AVENUE
DELRAY BEACH, FL 33444-2181

JULIUS LEE
LICENSE NO. 34869
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

No. 34869
STATE OF FLORIDA

TC LL	PSF	REF	TOE-NAIL
TC DL	PSF	DATE	09/12/07
BC DL	PSF	DRWG	CNTONAIL1103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.	1.00		
SPACING			

THIS DRAWING REPLACES DRAWING 784040

1/2" DIAMETER BOLT SPACING FOR LOAD APPLIED PARALLEL TO GRAIN.

* GRADE AND SPECIES AS SPECIFIED ON THE ALPINE DESIGN.

BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM
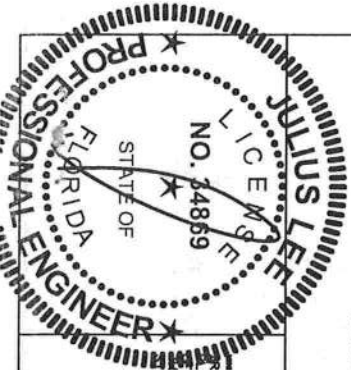OF 1/16" LARGER THAN BOLT DIAMETER.

TYPICAL LOCATION OF 1/2" DIAMETER THRU BOLTS. BOLT
QUANTITIES AS NOTED ON SEALED DESIGN MUST BE APPLIED
IN ONE OF THE PATTERNS SHOWN BELOW.

WASHERS REQUIRED UNDER BOLT HEAD AND NUT
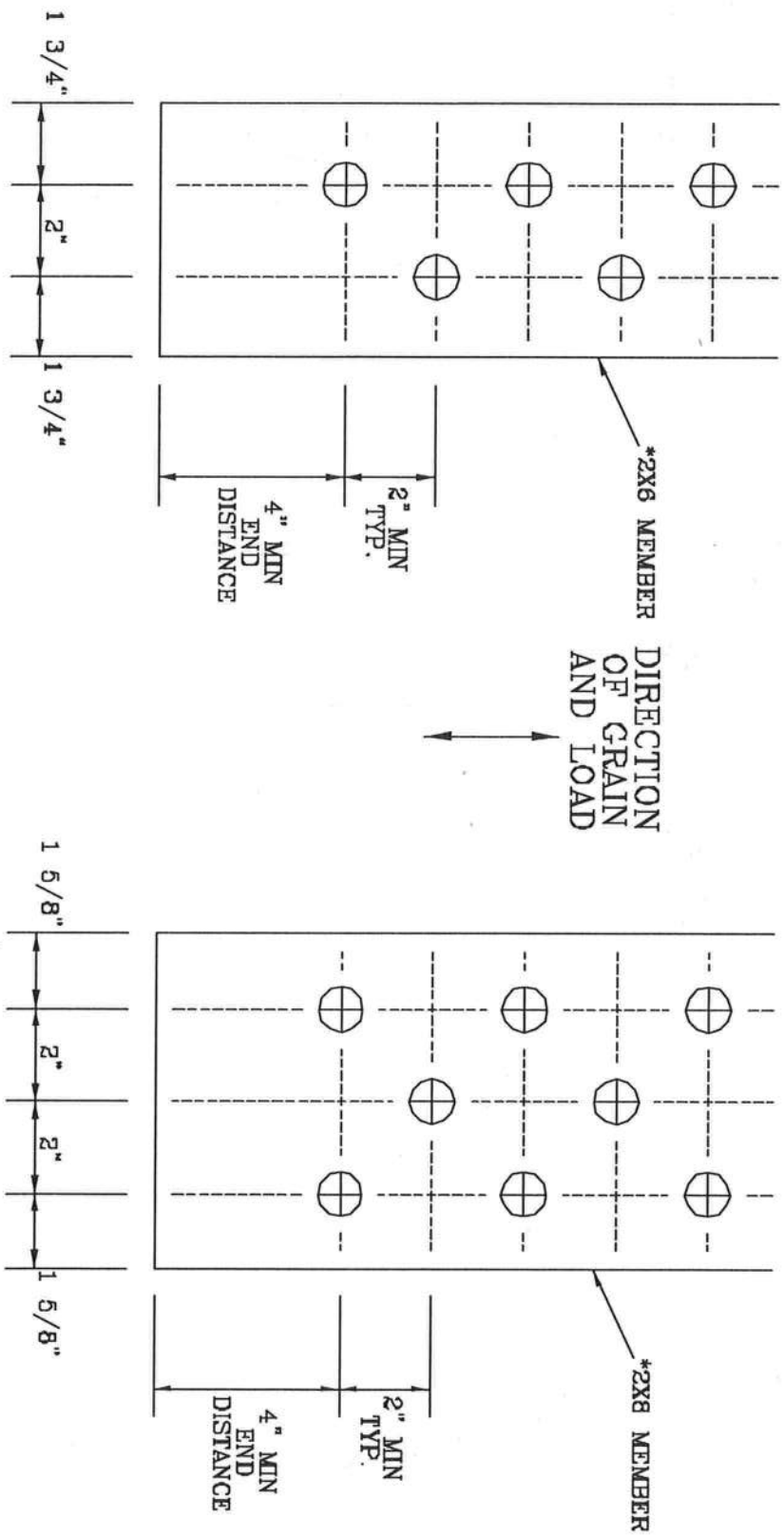
2X6 DETAIL

1 3/4" 2" 1 3/4"

4" MIN END DISTANCE

2" MIN TYP.

*2X6 MEMBER

DIRECTION OF GRAIN AND LOAD

2X8 DETAIL

1 5/8" 2" 2" 1 5/8"

4" MIN END DISTANCE

2" MIN TYP.

*2X8 MEMBER

JULIUS LEE'S
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1405 SV 4th AVENUE
DELRAY BEACH, FL 33444-2101

No: 34869
STATE OF FLORIDA

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE
LICENSE
NO. 34869
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS DRAWING REPLACES DRAWING A828,016

|	REF	BOLT SPACING
TC LL	PSF	DATE	11/26/03
TC DL	PSF	DRWG	CNBOLTSP11C3
BC DL	PSF		
BC LL	PSF	—ENG	JL
TOT. LD.	PSF		
DUR. FAC.			
SPACING			

TRULOX CONNECTION DETAIL

11 GAUGE (0.120" X 1.375") NAILS REQUIRED FOR TRULOX PLATE ATTACHMENT. FILL ROWS COMPLETELY WHERE SHOWN (⊕).

* NAILS MAY BE OMITTED FROM THESE ROWS.

THIS DETAIL MAY BE USED WITH SO. PINE, DOUGLAS-FIR OR HEM-FIR CHORDS WITH A MINIMUM 1.00 DURATION OF LOAD OR SPRUCE-PINE-FIR CHORDS WITH A MINIMUM 1.15 DURATION OF LOAD. CHORD SIZE OF BOTH TRUSSES MUST EXCEED THE TRULOX PLATE WIDTH.

TRULOX PLATE IS CENTERED ON THE CHORDS AND BENT BETWEEN NAIL ROWS.

REFER TO ENGINEER'S SEALED DESIGN REFERENCING THIS DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT SHOWN.

SUPPORTING TRUSS
TRULOX PLATE
SUPPORTED TRUSS
3" MIN
3" MIN
60° MAX
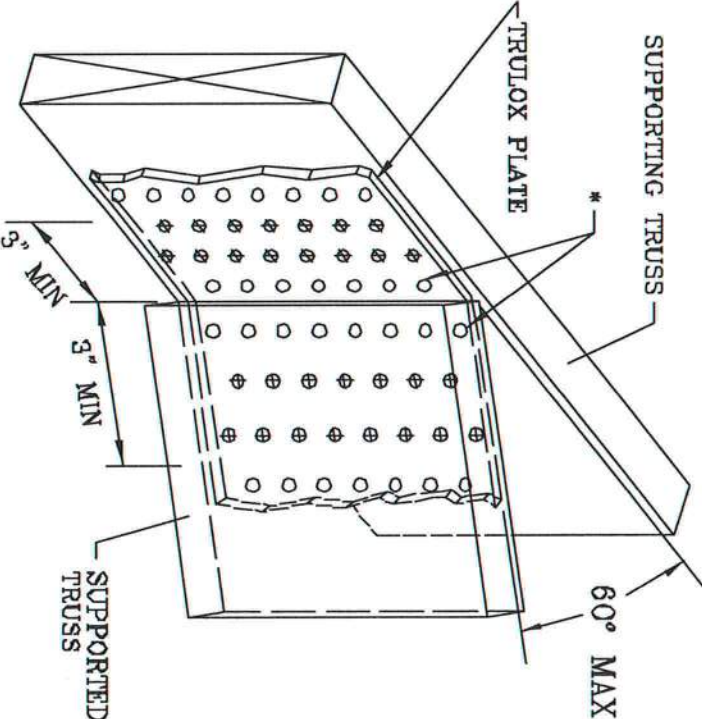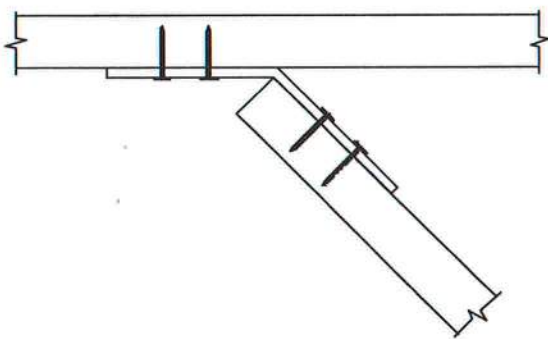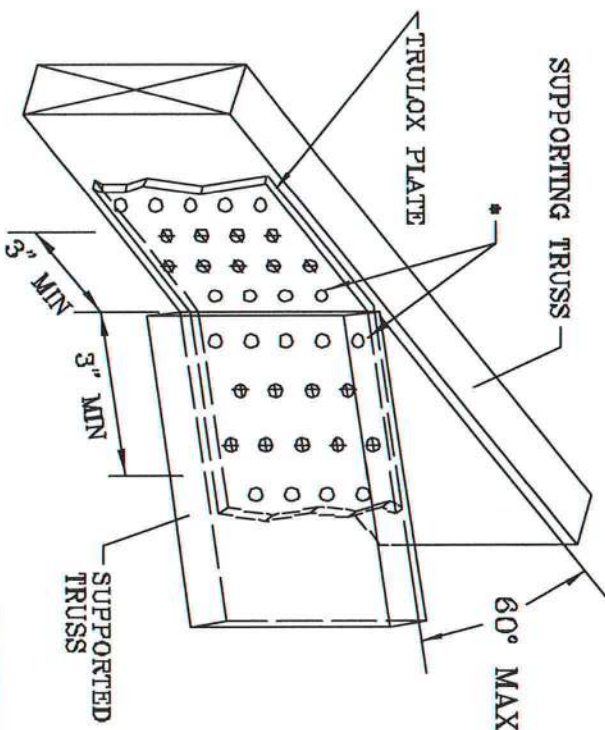
MINIMUM 3X6 TRULOX PLATE

SUPPORTING TRUSS
TRULOX PLATE
SUPPORTED TRUSS
3" MIN
3" MIN
60° MAX

MINIMUM 5X6 TRULOX PLATE

TRULOX PLATE SIZE	REQUIRED NAILS PER TRUSS	MAXIMUM LOAD UP OR DOWN
3X6	9	350#
6X6	15	990#

THIS DRAWING REPLACES DRAWINGS 1,168,989 1,158,989/R
1,154,844   1,152,217   1,152,017   1,159,154 & 1,151,524

REF	TRULOX
DATE	11/26/03
DRWG	CNTRULOX1103
ENG	JL

STRONG BACK DETAIL
SYSTEM—42 OR FLAT TRUSS

TO BEARING

10'-0" O/C MAX

(3) 10d

2x6 #2 SP
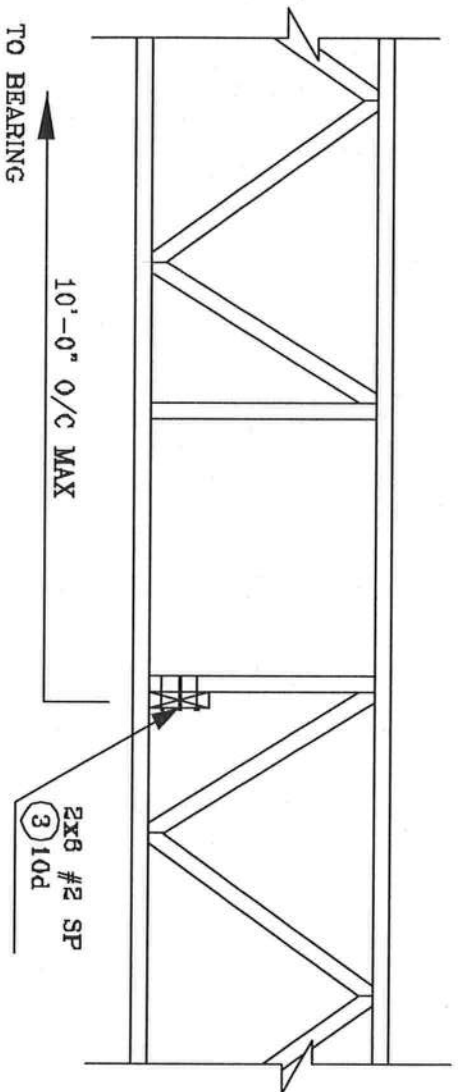
ALTERNATE DETAIL FOR
STRONG BACK WITH VERTICAL
NOT LINING UP
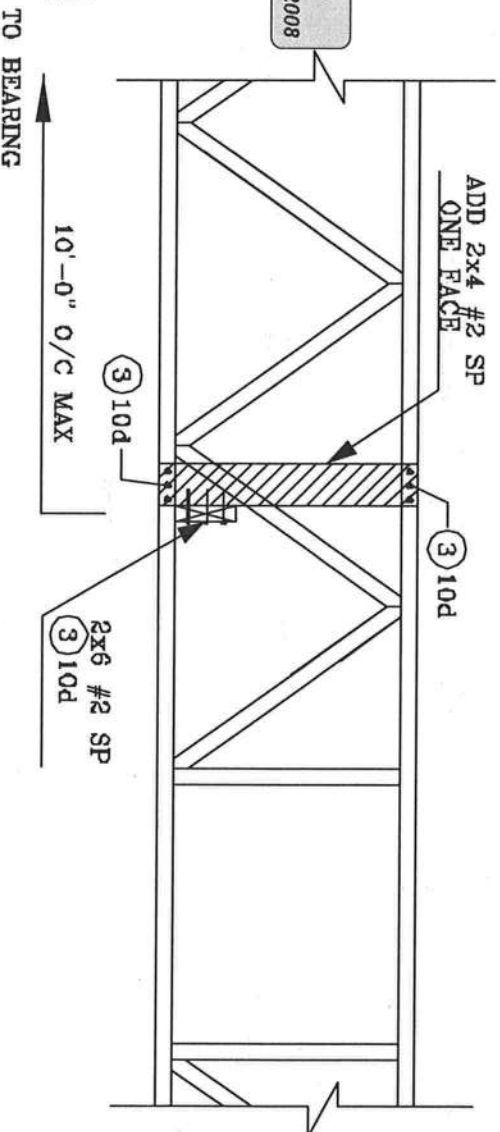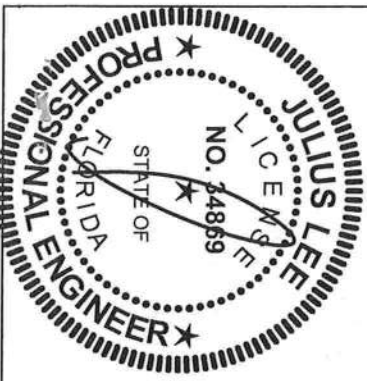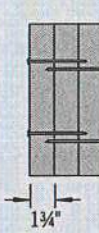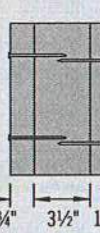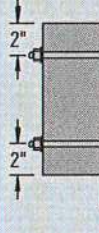
TO BEARING

10'-0" O/C MAX

ADD 2x4 #2 SP
ONE FACE

(3) 10d

(3) 10d

2x6 #2 SP
(3) 10d

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Maximum Uniform Load Applied to Either Outside Member (PLF)

Connector Type	Number of Rows	Connector On-Center Spacing	Assembly A 3½" 2-ply	Assembly B 5¼" 3-ply	Assembly C 5¼" 2-ply	Assembly D 7" 3-ply	Assembly E 7" 2-ply	Assembly F 7" 4-ply
10d (0.128" x 3") Nail[1]	2	12"	370	**_280_**	280	**_245_**		
	3	12"	555	**_415_**	415	**_370_**		
½" A307 Through Bolts[2][4]	2	24"	505	380	520	465	860	340
		19.2"	635	475	655	580	1,075	425
		16"	760	570	785	695	1,290	505
SDS ¼" x 3½"[4]	2	24"	680	**_510_**	510	**_455_**		
		19.2"	850	**_640_**	640	**_565_**		
		16"	1,020	**_765_**	765	**_680_**		
SDS ¼" x 6"[3][4]	2	24"				**_455_**	465	455
		19.2"				**_565_**	580	565
		16"				**_680_**	695	680
USP WS35[4]	2	24"	480	**_360_**	360	**_320_**		
		19.2"	600	**_450_**	450	**_400_**		
		16"	715	**_540_**	540	**_480_**		
USP WS6[3][4]	2	24"				**_350_**	525	350
		19.2"				**_440_**	660	440
		16"				**_525_**	790	525
3⅜" TrussLok[4]	2	24"	635	**_475_**	475	**_425_**		
		19.2"	795	**_595_**	595	**_530_**		
		16"	955	**_715_**	715	**_635_**		
5" TrussLok[4]	2	24"		**_500_**	500	**_445_**	**_480_**	445
		19.2"		**_625_**	625	**_555_**	**_600_**	555
		16"		**_750_**	750	**_665_**	**_725_**	665
6¾" TrussLok[4]	2	24"				445	620	445
		19.2"				555	770	555
		16"				665	925	665

(1) Nailed connection values may be doubled for 6" on-center or tripled for 4" on-center nail spacing.

(2) Washers required. Bolt holes to be 9/16" maximum.

(3) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

(4) 24" on-center bolted and screwed connection values may be doubled for 12" on-center spacing.

General Notes

- Connections are based on NDS® 2005 or manufacturer's code report.

- Use specific gravity of 0.5 when designing lateral connections.

- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.

- **_Bold Italic_** cells indicate **Connector Pattern** must be installed on both sides. Stagger fasteners on opposite side of beam by ½ the required **Connector Spacing**.

- Verify adequacy of beam in allowable load tables on pages 16–33.

- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).

- Minimum end distance for bolts and screws is 6".

- Beams wider than 7" require special consideration by the design professional.
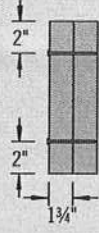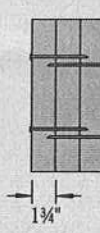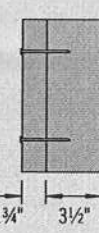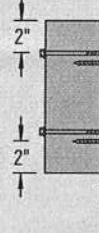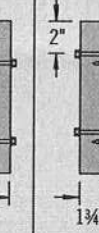
Uniform Load Design Example

300 PLF   415 PLF
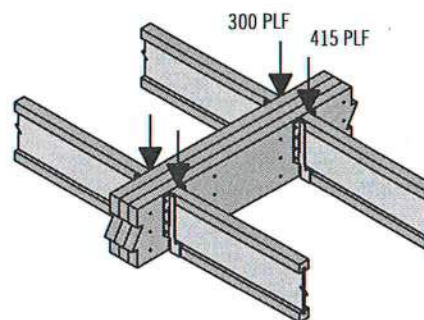
First, check the allowable load tables on pages 16–33 to verify that three pieces can carry the total load of 715 plf with proper live load deflection criteria. Maximum load applied to either outside member is 415 plf. For a 3-ply 1¾" assembly, two rows of 10d (0.128" x 3") nails at 12" on-center is good for only 280 plf. Therefore, use three rows of 10d (0.128" x 3") nails at 12" on-center (good for 415 plf).

Alternates:
Two rows of ½" bolts or SDS ¼" x 3½" screws at 19.2" on-center.

Point Load—Maximum Point Load Applied to Either Outside Member (lbs)

Connector Type	Number of Connectors	Connector Pattern					
		Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
		3½" 2-ply	5¼" 3-ply	5¼" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail	6	1,110	835	835	740		
	12	2,225	1,670	1,670	1,485		
	18	3,335	2,505	2,505	2,225		
	24	4,450	3,335	3,335	2,965		
SDS Screws ¼" x 3½" or WS35 ¼" x 6" or WS6[1]	4	1,915	1,435[4]	1,435	1,275	1,860[2]	1,405[2]
	6	2,870	2,150[4]	2,150	1,915	2,785[2]	2,110[2]
	8	3,825	2,870[4]	2,870	2,550	3,715[2]	2,810[2]
3⅜" or 5" TrussLok™	4	2,545	1,910[4]	1,910	1,695	1,925[3]	1,775[3]
	6	3,815	2,860[4]	2,860	2,545	2,890[3]	2,665[3]
	8	5,090	3,815[4]	3,815	3,390	3,855[3]	3,550[3]

(1) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.
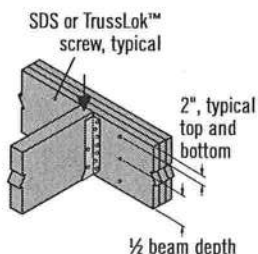
(2) 6" long screws required.

(3) 5" long screws required.

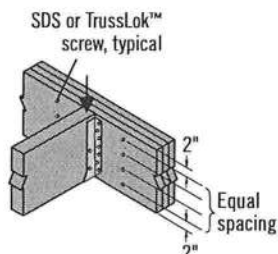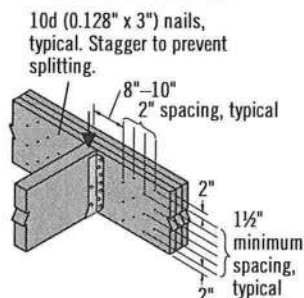(4) 3½" and 3⅝" long screws must be installed on both sides.

Connections

4 or 6 or Screw Connection

SDS or TrussLok™ screw, typical

2", typical top and bottom

½ beam depth

8 Screw Connection

SDS or TrussLok™ screw, typical

2"

Equal spacing

2"

Nail Connection

10d (0.128" x 3") nails, typical. Stagger to prevent splitting.

8"–10"

2" spacing, typical

2"

1½" minimum spacing, typical

2"

There must be an equal number of nails on each side of the connection

Point Load Design Example

3,000 lbs

14"
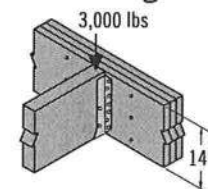
First, verify that a 3-ply 1¾" x 14" beam is capable of supporting the 3,000 lb point load as well as all other loads applied. The 3,000 lb point load is being transferred to the beam with a face mount hanger. For a 3-ply 1¾" assembly, eight 3⅜" TrussLok™ screws are good for 3,815 lbs with a face mount hanger.

MULTIPLE-MEMBER CONNECTIONS FOR TOP-LOADED BEAMS

1¾" Wide Pieces

- Minimum of three rows of 10d (0.128" x 3") nails at 12" on-center.

- Minimum of four rows of 10d (0.128" x 3") nails at 12" on-center for 14" or deeper.

- If using 12d–16d (0.148"–0.162" diameter) nails, the number of nailing rows may be reduced by one.

- Minimum of two rows of SDS, WS, or TrussLok™ screws at 16" on-center. Use 3⅜" minimum length with two or three plies; 5" minimum for 4-ply members. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. For 3- or 4-ply members, connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.

- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

3½" Wide Pieces

- Minimum of two rows of SDS, WS, or TrussLok™ screws, 5" minimum length, at 16" on-center. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. Connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.

- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

- Minimum of two rows of ½" bolts at 24" on-center staggered.

L6
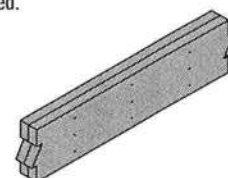
Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

Roof truss layout — labels and dimensions:

Dimensions: 38'8"8, 12'6"0, 77"0, 13'2"0, 11'10"0, 6'0"0, 19'0"0, 2'0"0, 4'3"8, 6'0"0, 70'0, 16'0"0, 50'0"0, 265'0", 7'0"0, 1'10"8, 10'0"8, 41'0"0, 12'6"0, 53'6"0

Truss / member labels:
CJ1, CJ3, CJ5, HJ9, T20, T20G, 2PLY, (3) EJ7C, HGUS26-2, (12) EJ7, T18, T012-PLY, 1-PLY, T02, T03, T04, T05, T06, (2) T19, (2) EJ7, (3) T07, VAULTED CLG., (4) T08, T14, T13, T12, T11, T10, T09, 1-PLY, (3) T16, 2-PLY, T15G, T15, T17, (12) EJ7

TRUSS END DETAIL
APPROVED TRUSS ANCHOR BY BUILDER
PLUMB CUT OVERHANG
HEEL HEIGHT = HEEL
BOTTOM = BOT
TOP = TOP
6, 12, 12, 3, 24"DH

ROOF PITCH(S)
6/12

OVERHANG
2'-0"

BEARING HEIGHT SCHEDULE
9'-0"