

Water Wells
Pumps & Service

Phone: (386) 752-6677
Fax: (386) 752-1477

Lynch Well Drilling, Inc.

173 SW Young Place
Lake City, FL 32025
www.lynchwelldrilling.com

November 6, 2007

To Whom It May Concern:

As required by building code regulations for Columbia County in order that a building permit can be issued, the following well information is provided with regard to the above-referenced well:

Size of Pump Motor:	1 Horse Power
Size of Pressure Tank:	81-Gallon Bladder Tank
Cycle Stop Valve Used:	No

Should you require any additional information, please contact us.

Sincerely,



Linda Newcomb
Lynch Well Drilling, Inc.

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

Project Name:	Suwannee Model Rev	Builder:	P. Geibeig
Address:		Permitting Office:	Columbia
City, State:	Lake City, FL	Permit Number:	26516
Owner:		Jurisdiction Number:	221000
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 32.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes	c. N/A	
6. Conditioned floor area (ft ²)	1561 ft ²	13. Heating systems	
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		a. Electric Heat Pump/Split	Cap: 32.0 kBtu/hr
a. U-factor:	Description Area		HSPF: 8.50
(or Single or Double DEFAULT)	7a. (Dble Default) 132.0 ft ²	b. N/A	
b. SHGC:		c. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 132.0 ft ²	14. Hot water systems	
8. Floor types		a. Electric Resistance	Cap: 20.0 gallons
a. Slab-On-Grade Edge Insulation	R=0.0, 234.0(p) ft		EF: 0.94
b. N/A		b. N/A	
c. N/A		c. Conservation credits	
9. Wall types		(HR-Heat recovery, Solar	
a. Frame, Wood, Exterior	R=13.0, 1369.6 ft ²	DHP-Dedicated heat pump)	
b. N/A		15. HVAC credits	PT, CF,
c. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
d. N/A		HF-Whole house fan,	
e. N/A		PT-Programmable Thermostat,	
10. Ceiling types		MZ-C-Multizone cooling,	
a. Under Attic	R=30.0, 1561.0 ft ²	MZ-H-Multizone heating)	
b. N/A			
c. N/A			
11. Ducts			
a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 58.0 ft		
b. N/A			

Glass/Floor Area: 0.08

Total as-built points: 17747

Total base points: 22489

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: Delvin A. Mates

DATE: 11/29/07

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL: _____

DATE: _____

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC Overhang Ornt Len Hgt Area X SPM X SOF = Points							
.18	1561.0	18.59	5223.0	1.Double, Clear	N	1.0	6.0	5.0	19.20	0.98	93.0
				2.Double, Clear	E	1.0	6.0	60.0	42.06	0.97	2447.0
				3.Double, Clear	E	1.0	6.0	15.0	42.06	0.97	611.0
				4.Double, Clear	W	1.0	6.0	48.0	38.52	0.97	1794.0
				5.Double, Clear	W	1.0	6.0	4.0	38.52	0.97	149.0
				As-Built Total: 132.0 5094.0							
WALL TYPES Area X BSPM = Points				Type R-Value Area X SPM = Points							
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior			13.0	1369.6	1.50		2054.4
Exterior	1369.6	1.70	2328.3								
Base Total: 1369.6 2328.3				As-Built Total: 1369.6 2054.4							
DOOR TYPES Area X BSPM = Points				Type Area X SPM = Points							
Adjacent	0.0	0.00	0.0	1.Exterior Insulated				39.6	4.10		162.4
Exterior	59.4	6.10	362.3	2.Exterior Insulated				19.8	4.10		81.2
Base Total: 59.4 362.3				As-Built Total: 59.4 243.5							
CEILING TYPES Area X BSPM = Points				Type R-Value Area X SPM X SCM = Points							
Under Attic	1561.0	1.73	2700.5	1. Under Attic			30.0	1561.0	1.73 X 1.00		2700.5
Base Total: 1561.0 2700.5				As-Built Total: 1561.0 2700.5							
FLOOR TYPES Area X BSPM = Points				Type R-Value Area X SPM = Points							
Slab	234.0(p)	-37.0	-8658.0	1. Slab-On-Grade Edge Insulation			0.0	234.0(p)	-41.20		-9640.8
Raised	0.0	0.00	0.0								
Base Total: -8658.0				As-Built Total: 234.0 -9640.8							
INFILTRATION Area X BSPM = Points				Area X SPM = Points							
	1561.0	10.21	15937.8	1561.0 10.21 15937.8							

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT						
Summer Base Points: 17894.0				Summer As-Built Points: 16389.5						
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier	X System Multiplier	X Credit Multiplier	=	Cooling Points
17894.0	0.3250		5815.5	(sys 1: Central Unit 32000btuh , SEER/EFF(13.0) Ducts: Con(S), Con(R), Int(AH), R6.0(INS) 16389	1.00	(1.00 x 1.147 x 0.91)	0.260	0.902		4014.1
				16389.5	1.00	1.044	0.260	0.902		4014.1

PERMIT #:

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT						
Winter Base Points: 15826.8				Winter As-Built Points: 14471.9						
Total Winter Points	X	System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier	X System Multiplier	X Credit Multiplier	= Heating Points	
						(DM x DSM x AHU)				
				(sys 1: Electric Heat Pump 32000 btuh ,EFF(8.5) Ducts:Con(S),Con(R),Int(AH),R6.0						
				14471.9	1.000	(1.000 x 1.169 x 0.93)	0.401	0.950	5996.3	
15826.8		0.5540	8768.0	14471.9	1.00	1.087	0.401	0.950	5996.3	

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

BASE				AS-BUILT					
WATER HEATING				Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit = Total Multiplier
Number of Bedrooms	X	Multiplier	= Total						
3		2635.00	7905.0	20.0	0.94	3	1.00	2578.94	1.00 7736.8
				As-Built Total:					7736.8

CODE COMPLIANCE STATUS							
BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
5816	8768	7905	22489	4014	5996	7737	17747

PASS

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 88.3

The higher the score, the more efficient the home.

, , Lake City, FL,

1. New construction or existing	New	___	12. Cooling systems	
2. Single family or multi-family	Single family	___	a. Central Unit	Cap: 32.0 kBtu/hr
3. Number of units, if multi-family	1	___		SEER: 13.00
4. Number of Bedrooms	3	___	b. N/A	___
5. Is this a worst case?	Yes	___	c. N/A	___
6. Conditioned floor area (ft ²)	1561 ft ²	___		___
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		___	13. Heating systems	
a. U-factor:	Description Area	___	a. Electric Heat Pump/Split	Cap: 32.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 132.0 ft ²	___		HSPF: 8.50
b. SHGC:		___	b. N/A	___
(or Clear or Tint DEFAULT)	7b. (Clear) 132.0 ft ²	___	c. N/A	___
8. Floor types		___	14. Hot water systems	
a. Slab-On-Grade Edge Insulation	R=0.0, 234.0(p) ft	___	a. Electric Resistance	Cap: 20.0 gallons
b. N/A	___	___		EF: 0.94
c. N/A	___	___	b. N/A	___
9. Wall types		___	c. Conservation credits	___
a. Frame, Wood, Exterior	R=13.0, 1369.6 ft ²	___	(HR-Heat recovery, Solar	
b. N/A	___	___	DHP-Dedicated heat pump)	
c. N/A	___	___	15. HVAC credits	PT, CF, ___
d. N/A	___	___	(CF-Ceiling fan, CV-Cross ventilation,	
e. N/A	___	___	HF-Whole house fan,	
10. Ceiling types		___	PT-Programmable Thermostat,	
a. Under Attic	R=30.0, 1561.0 ft ²	___	MZ-C-Multizone cooling,	
b. N/A	___	___	MZ-H-Multizone heating)	
c. N/A	___	___		
11. Ducts		___		
a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 58.0 ft	___		
b. N/A	___	___		

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____



**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStarTM designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.
EnergyGauge® (Version: FLRCPB v4.5.2)

BUILDING INPUT SUMMARY REPORT

PROJECT	Title:	Suwannee Model Rev	Family Type:	Single	Address Type:	Street Address		
	Owner:	(blank)	New/Existing:	New	Lot #:	N/A		
	# of Units:	1	Bedrooms:	3	Subdivision:	N/A		
	Builder Name:	P. Geibeig	Conditioned Area:	1561	Platbook:	N/A		
	Climate:	North	Total Stories:	1	Street:	(blank)		
	Permit Office:	(blank)	Worst Case:	Yes	County:	Columbia		
	Jurisdiction #:	(blank)	Rotate Angle:	0	City, St, Zip:	Lake City, FL,		
FLOORS	#	Floor Type	R-Val	Area/Perimeter	Units			
	1	Slab-On-Grade Edge Insulation	0.0	234.0(p) ft	1			
DOORS	#	Door Type	Orientation	Area	Units			
	1	Insulated	Exterior	39.6 ft²	1			
CEILINGS	#	Ceiling Type	R-Val	Area	Base Area	Units		
	1	Under Attic	30.0	1561.0 ft²	1561.0 ft²	1		
COOLING	#	System Type	Efficiency	Capacity				
	1	Central Unit	SEER: 13.00	32.0 kBtu/hr				
WALLS	#	Wall Type	Location	R-Val	Area	Units		
	1	Frame - Wood	Exterior	13.0	1369.6 ft²	1		
HEATING	#	System Type	Efficiency	Capacity				
	1	Electric Heat Pump/Split	HSPF: 8.50	32.0 kBtu/hr				
WINDOWS	#	Panes	Tint	Ornt	Area	OH Length	OH Hght	Units
	1	Double	Clear	N	5.0 ft²	1.0 ft	6.0 ft	1
DUCTS	#	Supply Location	Return Location	Air Handler Location	Supply R-Val	Supply Length		
	1	Cond.	Cond.	Interior	6.0	58.0 ft		
WATER	#	System Type	EF	Cap.	Conservation Type	Con. EF		
	1	Electric Resistance	0.94	20.0	None	0.00		
REFR.	#	Use Default?	Annual Operating Cost	Electric Rate				
	1	Yes	N/A	N/A				
MISC	Rater Name:	CodeOnlyPro	Class #:	3	Pool Size:	0		
	Rater Certification #:	CodeOnlyPro	Duct Leakage Type:	N/A	Pump Size:	0.00 hp		
	Area Under Fluorescent:	0.0	Visible Duct Disconnects:	N/A	Dryer Type:	Electric		
	Area Under Incandescent:	1561.0	Leak Free Duct System Proposed:	No	Stove Type:	Electric		
	NOTE: Not all Rating info shown		HRV/ERV System Present?:	No	Avg Ceil Hgt:			

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: , Lake City, FL,

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

Columbia County Building Department Culvert Permit

Culvert Permit No.
000001498

DATE 12/17/2007 PARCEL ID # 11-4S-16-02911-303

APPLICANT TRENT GIEBEIG PHONE 397-0545

ADDRESS 697 SE HOLLY TERR LAKE CITY FL 32055

OWNER LSJ PROPERTIES PHONE 752-2874

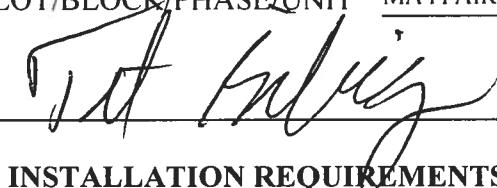
ADDRESS 143 SW VAN COURT LAKE CITY FL 32024

CONTRACTOR TRENT GIEBEIG PHONE 397-0545

LOCATION OF PROPERTY 247S, TR ON MAYFAIR LANE, TR ON VAN COURT, 2ND ON RIGHT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT MAYFAIR 3

SIGNATURE



INSTALLATION REQUIREMENTS



Culvert size will be 18 inches in diameter with a total length of 32 feet, leaving 24 feet of driving surface. Both ends will be mitered 4 foot with a 4 : 1 slope and poured with a 4 inch thick reinforced concrete slab.

INSTALLATION NOTE: Turnouts will be required as follows:

- a) a majority of the current and existing driveway turnouts are paved, or;
- b) the driveway to be served will be paved or formed with concrete.

Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.



Culvert installation shall conform to the approved site plan standards.



Department of Transportation Permit installation approved standards.



Other _____

ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED
DURING THE INSTALLATION OF THE CULVERT.

135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Phone: 386-758-1008 Fax: 386-758-2160

Amount Paid 25.00



Summary Energy Code Results

Residential Whole Building Performance Method A

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

11/28/2007

Building Loads			
Base		As-Built	
Summer:	17894 points	Summer:	16389 points
Winter:	15827 points	Winter:	14472 points
Hot Water:	7273 points	Hot Water:	7273 points
Total:	40993 points	Total:	38134 points

Energy Use			
Base		As-Built	
Cooling:	5816 points	Cooling:	4014 points
Heating:	8768 points	Heating:	5996 points
Hot Water:	7905 points	Hot Water:	7737 points
Total:	22489 points	Total:	17747 points

PASS
e-Ratio: 0.79

Residential System Sizing Calculation

Summary

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

Lake City, FL

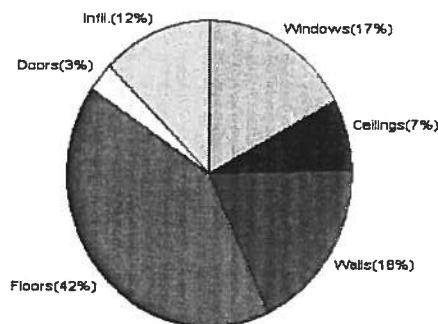
11/28/2007

Location for weather data: Gainesville - Defaults: Latitude(29) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)					
Winter design temperature	33	F	Summer design temperature	92	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	17	F
Total heating load calculation	24607	Btuh	Total cooling load calculation	17743	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	130.0	32000	Sensible (SHR = 0.75)	150.2	24000
Heat Pump + Auxiliary(0.0kW)	130.0	32000	Latent	452.2	8000
			Total (Electric Heat Pump)	180.4	32000

WINTER CALCULATIONS

Winter Heating Load (for 1561 sqft)

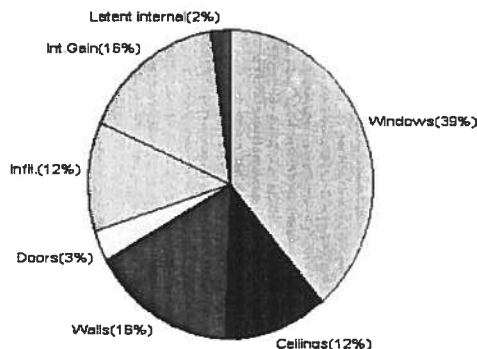
Load component			Load	
Window total	132	sqft	4249	Btuh
Wall total	1370	sqft	4498	Btuh
Door total	59	sqft	769	Btuh
Ceiling total	1561	sqft	1839	Btuh
Floor total	234	sqft	10216	Btuh
Infiltration	75	cfm	3035	Btuh
Duct loss			0	Btuh
Subtotal			24607	Btuh
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			24607	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1561 sqft)

Load component			Load	
Window total	132	sqft	6890	Btuh
Wall total	1370	sqft	2857	Btuh
Door total	59	sqft	582	Btuh
Ceiling total	1561	sqft	2088	Btuh
Floor total			0	Btuh
Infiltration	37	cfm	697	Btuh
Internal gain			2860	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			15974	Btuh
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			1369	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			400	Btuh
Total latent gain			1769	Btuh
TOTAL HEAT GAIN			17743	Btuh



Version 8
For Florida residences only

EnergyGauge® System Sizing

PREPARED BY: Debbie Motes

DATE: 11-29-07

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F

11/28/2007

This calculation is for Worst Case. The house has been rotated 180 degrees.

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	S	5.0		32.2	161 Btuh
2	2, Clear, Metal, 0.87	W	60.0		32.2	1931 Btuh
3	2, Clear, Metal, 0.87	W	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	E	48.0		32.2	1545 Btuh
5	2, Clear, Metal, 0.87	E	4.0		32.2	129 Btuh
	Window Total		132(sqft)			4249 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1370		3.3	4498 Btuh
	Wall Total		1370			4498 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Exterior		40		12.9	513 Btuh
2	Insulated - Exterior		20		12.9	256 Btuh
	Door Total		59			769Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shin	30.0	1561		1.2	1839 Btuh
	Ceiling Total		1561			1839Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	234.0 ft(p)		43.7	10216 Btuh
	Floor Total		234			10216 Btuh
	Envelope Subtotal:					21572 Btuh
Infiltration	Type	ACH	X	Volume(cuft)	walls(sqft)	CFM=
	Natural	0.32		14049	1370	74.9
						3035 Btuh
Ductload					(DLM of 0.000)	0 Btuh
All Zones	Sensible Subtotal All Zones					24607 Btuh

WHOLE HOUSE TOTALS

	Subtotal Sensible	24607 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	24607 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

11/28/2007

EQUIPMENT

1. Electric Heat Pump/Split	#(Outside) #(Inside)	32000 Btuh
-----------------------------	----------------------	------------

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)



Version 8
For Florida residences only

System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F
This calculation is for Worst Case. The house has been rotated 180 degrees.

11/28/2007

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	S	5.0		32.2	161 Btuh
2	2, Clear, Metal, 0.87	W	60.0		32.2	1931 Btuh
3	2, Clear, Metal, 0.87	W	15.0		32.2	483 Btuh
4	2, Clear, Metal, 0.87	E	48.0		32.2	1545 Btuh
5	2, Clear, Metal, 0.87	E	4.0		32.2	129 Btuh
Window Total			132(sqft)			4249 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1370		3.3	4498 Btuh
Wall Total			1370			4498 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Exterior		40		12.9	513 Btuh
2	Insulated - Exterior		20		12.9	256 Btuh
Door Total			59			769Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shin	30.0	1561		1.2	1839 Btuh
Ceiling Total			1561			1839Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	234.0	ft(p)	43.7	10216 Btuh
Floor Total			234			10216 Btuh
Zone Envelope Subtotal:						21572 Btuh
Infiltration	Type	ACH	X	Volume(cuft)	walls(sqft)	CFM=
	Natural	0.32		14049	1370	74.9
						3035 Btuh
Ductload	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond)(DLM of 0.000)					0 Btuh
Zone #1	Sensible Zone Subtotal					24607 Btuh

WHOLE HOUSE TOTALS

	Subtotal Sensible	24607 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	24607 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

11/28/2007

EQUIPMENT

1. Electric Heat Pump/Split	#(Outside) #(Inside)	32000 Btuh
-----------------------------	----------------------	------------

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)



Version 8
For Florida residences only

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F
This calculation is for Worst Case. The house has been rotated 180 degrees.

11/28/2007

Component Loads for Whole House

Window	Type*	Ornt	Overhang		Window Area(sqft)			HTM		Load
	Pn/SHGC/U/InSh/ExSh/IS		Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2, Clear, 0.87, B-D, N,F	S	1ft.	6ft.	5.0	5.0	0.0	19	23	93 Btuh
2	2, Clear, 0.87, B-D, N,F	W	1ft.	6ft.	60.0	0.0	60.0	19	55	3326 Btuh
3	2, Clear, 0.87, B-D, N,F	W	1ft.	6ft.	15.0	0.0	15.0	19	55	832 Btuh
4	2, Clear, 0.87, B-D, N,F	E	1ft.	6ft.	48.0	6.6	41.4	19	55	2417 Btuh
5	2, Clear, 0.87, B-D, N,F	E	1ft.	6ft.	4.0	0.0	4.0	19	55	222 Btuh
Window Total					132 (sqft)					6890 Btuh
Walls	Type	R-Value/U-Value		Area(sqft)		HTM		Load		
1	Frame - Wood - Ext	13.0/0.09		1369.6		2.1		2857 Btuh		
Wall Total					1370 (sqft)			2857 Btuh		
Doors	Type			Area (sqft)		HTM		Load		
1	Insulated - Exterior			39.6		9.8		388 Btuh		
2	Insulated - Exterior			19.8		9.8		194 Btuh		
Door Total					59 (sqft)			582 Btuh		
Ceilings	Type/Color/Surface	R-Value		Area(sqft)		HTM		Load		
1	Vented Attic/Light/Shingle	30.0		1561.0		1.3		2088 Btuh		
Ceiling Total					1561 (sqft)			2088 Btuh		
Floors	Type	R-Value		Size		HTM		Load		
1	Slab On Grade	0.0		234 (ft(p))		0.0		0 Btuh		
Floor Total					234.0 (sqft)			0 Btuh		
Envelope Subtotal:										12417 Btuh
Infiltration	Type	ACH		Volume(cuft)		wall area(sqft)		CFM=		Load
SensibleNatural		0.16		14049		1370		74.9		697 Btuh
Internal gain	Occupants		Btuh/occupant		Appliance		Load			
		2		X 230 +		2400		2860 Btuh		
Sensible Envelope Load:										15974 Btuh
Duct load	(DGM of 0.000)									0 Btuh
Sensible Load All Zones										15974 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

11/28/2007

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	15974 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	15974 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	15974 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	1369 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (2 people @ 200 Btuh per person)	400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	1769 Btuh
	TOTAL GAIN	17743 Btuh

EQUIPMENT

1. Central Unit	#	32000 Btuh
-----------------	---	------------

*Key: Window types (Pn - Number of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(U - Window U-Factor or 'DEF' for default)

(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))

(ExSh - Exterior shading device: none(N) or numerical value)

(BS - Insect screen: none(N), Full(F) or Half(H))

(Ornt - compass orientation)



Version 8
For Florida residences only

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

Lake City, FL

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F
This calculation is for Worst Case. The house has been rotated 180 degrees.

11/28/2007

Component Loads for Zone #1: Main

Window	Type*	Ornt	Overhang		Window Area(sqft)			HTM		Load
	Pn/SHGC/U/InSh/ExSh/IS		Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2, Clear, 0.87, B-D, N,F	S	1ft.	6ft.	5.0	5.0	0.0	19	23	93 Btuh
2	2, Clear, 0.87, B-D, N,F	W	1ft.	6ft.	60.0	0.0	60.0	19	55	3326 Btuh
3	2, Clear, 0.87, B-D, N,F	W	1ft.	6ft.	15.0	0.0	15.0	19	55	832 Btuh
4	2, Clear, 0.87, B-D, N,F	E	1ft.	6ft.	48.0	6.6	41.4	19	55	2417 Btuh
5	2, Clear, 0.87, B-D, N,F	E	1ft.	6ft.	4.0	0.0	4.0	19	55	222 Btuh
Window Total					132 (sqft)					6890 Btuh
Walls	Type	R-Value/U-Value		Area(sqft)		HTM		Load		
1	Frame - Wood - Ext	13.0/0.09		1369.6		2.1		2857 Btuh		
Wall Total					1370 (sqft)			2857 Btuh		
Doors	Type			Area (sqft)		HTM		Load		
1	Insulated - Exterior			39.6		9.8		388 Btuh		
2	Insulated - Exterior			19.8		9.8		194 Btuh		
Door Total					59 (sqft)			582 Btuh		
Ceilings	Type/Color/Surface	R-Value		Area(sqft)		HTM		Load		
1	Vented Attic/Light/Shingle	30.0		1561.0		1.3		2088 Btuh		
Ceiling Total					1561 (sqft)			2088 Btuh		
Floors	Type	R-Value		Size		HTM		Load		
1	Slab On Grade	0.0		234 (ft(p))		0.0		0 Btuh		
Floor Total					234.0 (sqft)			0 Btuh		
Zone Envelope Subtotal:										12417 Btuh
Infiltration	Type	ACH		Volume(cuft)		wall area(sqft)		CFM=		Load
	SensibleNatural	0.16		14049		1370		37.5		697 Btuh
Internal gain	Occupants		Btuh/occupant		Appliance		Load			
	2		X 230 +		2400		2860 Btuh			
Sensible Envelope Load:										15974 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond) (DGM of 0.000)								0 Btuh	
Sensible Zone Load										15974 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Lake City, FL

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

11/28/2007

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	15974 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	15974 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	15974 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	1369 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (2 people @ 200 Btuh per person)	400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	1769 Btuh
	TOTAL GAIN	17743 Btuh

EQUIPMENT

1. Central Unit	#	32000 Btuh
-----------------	---	------------

*Key: Window types (Pn - Number of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(U - Window U-Factor or 'DEF' for default)

(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))

(ExSh - Exterior shading device: none(N) or numerical value)

(BS - Insect screen: none(N), Full(F) or Half(H))

(Ornt - compass orientation)



Version 8
For Florida residences only

Residential Window Diversity

MidSummer

Project Title:
Suwannee Model Rev

Code Only
Professional Version
Climate: North

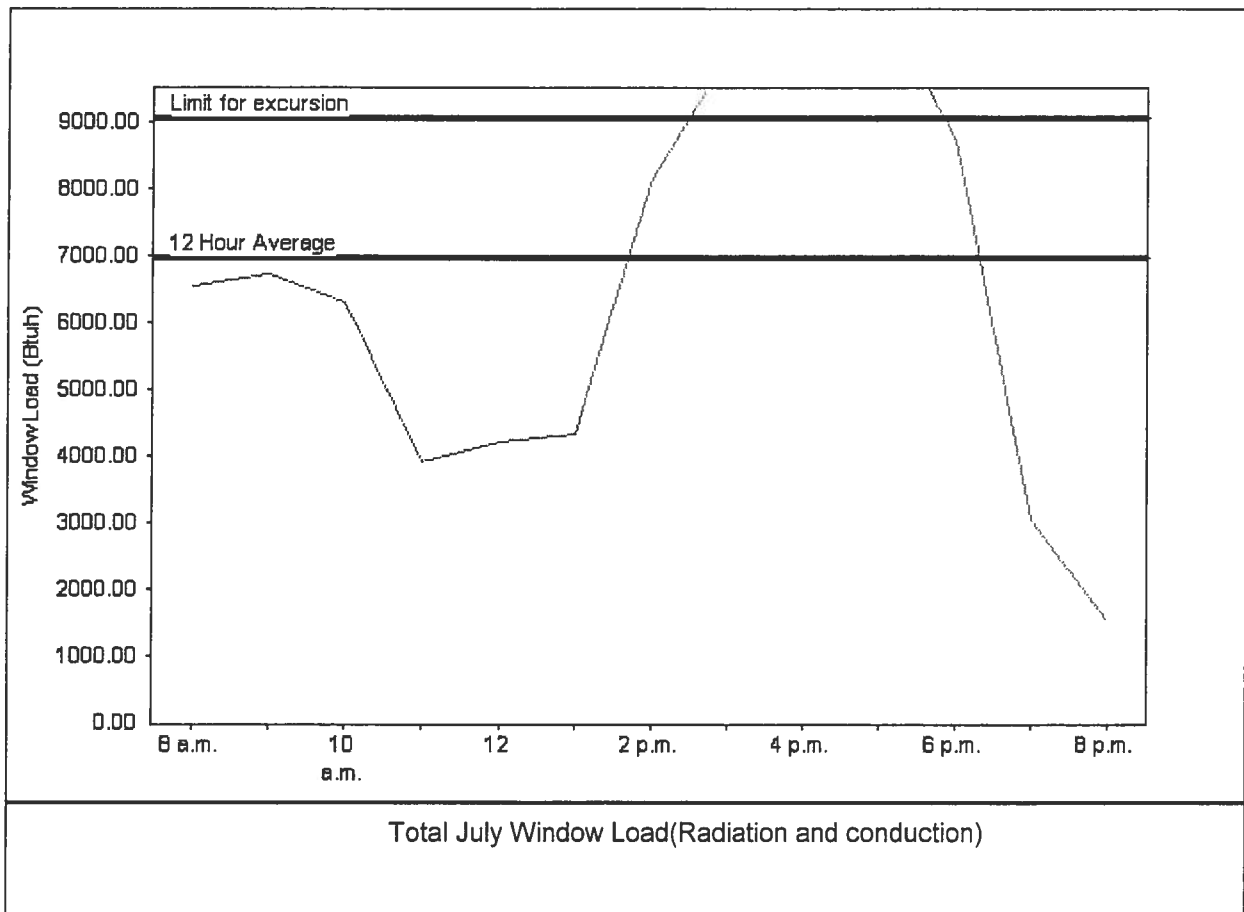
Lake City, FL

11/28/2007

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	6987 Btuh
Summer setpoint	75 F	Peak window load for July	10930 Btu
Summer temperature difference	17 F	Excursion limit(130% of Ave.)	9083 Btuh
Latitude	29 North	Window excursion (July)	1847 Btuh

WINDOW Average and Peak Loads



This application has glass areas that produce large heat gains for part of the day. Variable air volume devices are required to overcome spikes in solar gain for one or more rooms. Install a zoned system or provide zone control for problem rooms. Single speed equipment may not be suitable for the application.

EnergyGauge® System Sizing for Florida residences only

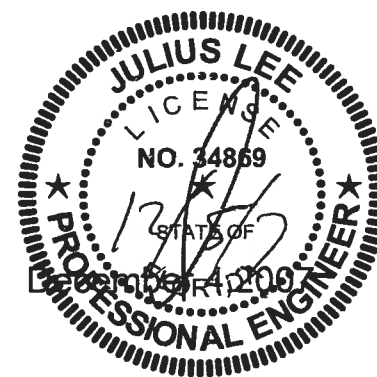
PREPARED BY: Deivid Motes

DATE: 11-29-07



**Project Information for: L262515**

Builder: GIEBEIG HOMES
Lot : 3
Subdivision: MAYFAIR
County: COLUMBIA
Truss Count: 25
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:

Brian T. Giebeig Florida Registered Residential Contractor License No. RR282811523

Address: Trent Giebeig Construction, Inc. 462 Southwest Fairlington Court Lake City, Florida 32025

Truss Design Engineer: Julius Lee, PE Florida P.E. License No. 34869

Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

Notes:

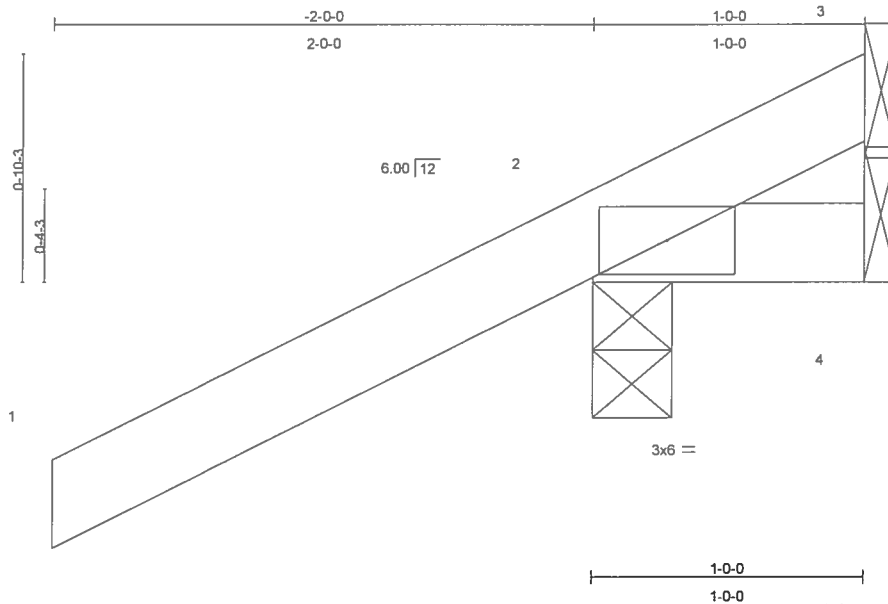
1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1-2002 Section 2.2
2. The seal date shown on the individual truss component drawings must match the seal date on this index sheet.
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 elements 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	J1914805	CJ1	12/4/07
2	J1914806	CJ3	12/4/07
3	J1914807	CJ5	12/4/07
4	J1914808	EJ7	12/4/07
5	J1914809	HJ9	12/4/07
6	J1914810	T01	12/4/07
7	J1914811	T01G	12/4/07
8	J1914812	T02	12/4/07
9	J1914813	T02G	12/4/07
10	J1914814	T03	12/4/07
11	J1914815	T04	12/4/07
12	J1914816	T05	12/4/07
13	J1914817	T06	12/4/07
14	J1914818	T07	12/4/07
15	J1914819	T08	12/4/07
16	J1914820	T09	12/4/07
17	J1914821	T10	12/4/07
18	J1914822	T11	12/4/07
19	J1914823	T12	12/4/07
20	J1914824	T13	12/4/07
21	J1914825	T14	12/4/07
22	J1914826	T15	12/4/07
23	J1914827	T16	12/4/07
24	J1914828	T17	12/4/07
25	J1914829	T18	12/4/07

Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ1	JACK	10	1	J1914805
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:00 2007 Page 1



LOADING (psf)	SPACING	2'-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" oc purlins.
BOT CHORD Rigid ceiling directly applied or 10'-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 = 0.14

NOTES

- Wind: ASCE 7-02; 110mph (3-second gust); h=14ft; 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.
- *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
- 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.

Continued on page 2

John A. Lee
Truss Design Engineer
Phone: 813-810-3881
1000 Coastal Hwy SE
Dothan, AL 36024

December 4, 2007

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'Oonofrio Drive, Madison, WI 53719



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ1	JACK	10	1	J1914805
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:01 2007 Page 2

LOAD CASE(S) Standard

John M. Lowe
Truss Design Engineer
Truss Plate Institute, Inc. 53719
1100 Enterprise Lane, Madison, WI 53719
608.261.1111

December 4, 2007

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

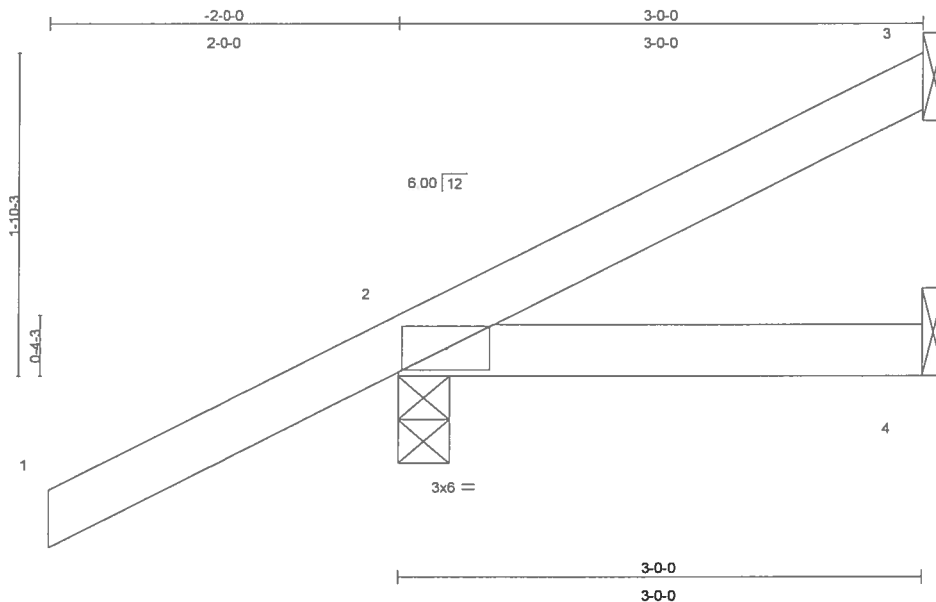
This design is based only upon the parameters shown for an individual building component that is installed and loaded vertically and fabricated with MiTek connectors. Applicability of design parameters and proper incorporation of component into the overall building structure, including all temporary 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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ3	JACK	10	1	J1914806
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:01 2007 Page 1



Scale = 1:12.5

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in (loc)	I/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 = 0.13

NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=14ft; 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.

Continued on page 2

John A. Lee
Truss Design Engineer
Florida P.E. No. 51783
1300 Central Bay Blvd
Dayton Beach, FL 32117

December 4, 2007

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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ3	JACK	10	1	J1914806
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:01 2007 Page 2

LOAD CASE(S) Standard

Julius Lee
Truss Design Engineer
Florida PE No. 24880
1800 Coastal Bay Blvd
Gwynn Beach, FL 32438

December 4, 2007

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

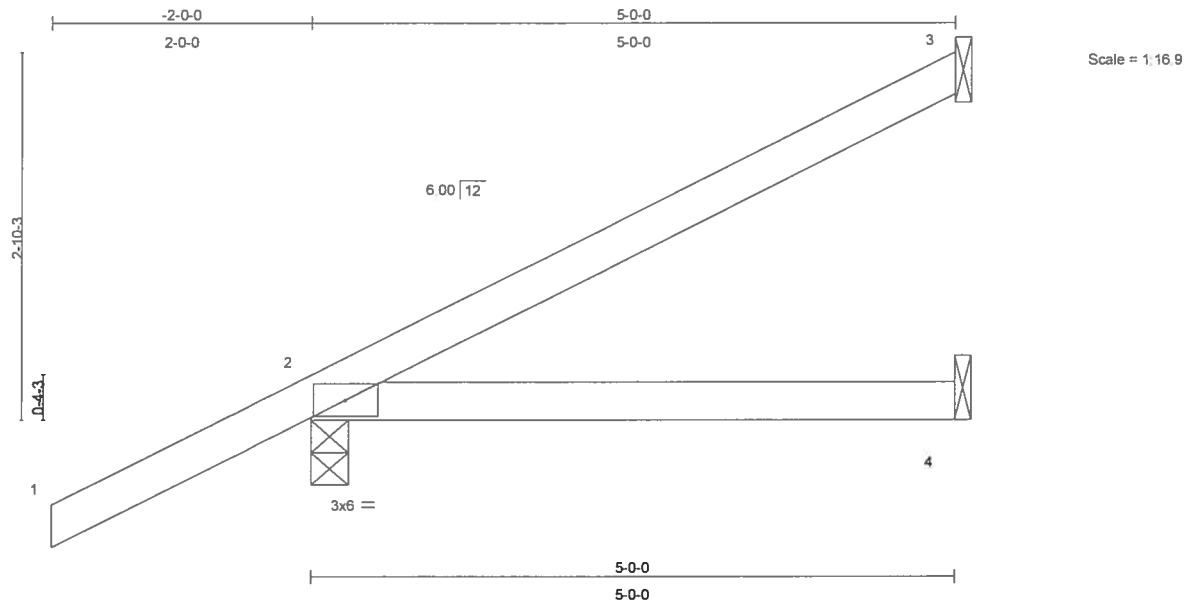
This design is based only upon the parameters shown for an individual building component that is installed and loaded vertically and fabricated with MiTek connectors. Applicability of design parameters and proper incorporation of component into the overall building structure, including all temporary 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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ5	JACK	10	1	J1914807
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:02 2007 Page 1



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 = 0.14

NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=14ft; 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.

Continued on page 2

John A. Lee
Truss Design Engineer
Phone 813.210.2100
Fax 813.210.2101
jlee@bfs.com

December 4, 2007

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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	CJ5	JACK	10	1	J1914807
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:02 2007 Page 2

LOAD CASE(S) Standard

Justin A. Lewis
Truss Design Engineer
Florida P.E. No. 35838
11000 Central Bay Blvd.
Daytona Beach, FL 32115

December 4, 2007

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

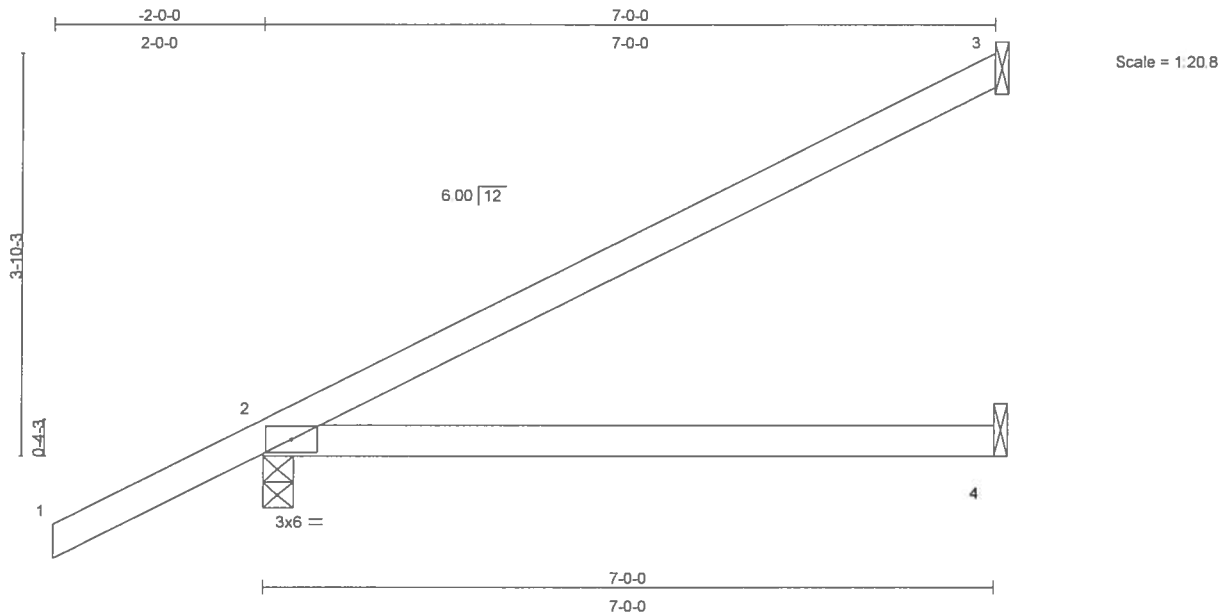
This design is based only upon the parameters shown for an individual building component that is installed and loaded vertically and fabricated with MiTek connectors. Applicability of design parameters and proper incorporation of component into the overall building structure, including all temporary 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



Job	Truss	Truss Type	Qty	Ply	HOME BY HOUSECRAFT - MOAKE RES.
L262515	EJ7	JACK	20	1	J1914808
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Apr 19 2006 MiTek Industries, Inc. Tue Dec 04 13:57:18 2007 Page 1



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)	0.33	2-4	>250	360	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.45	Vert(TL)	-0.16	2-4	>501	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=352/0-3-8, 4=45/Mechanical
Max Horz 2=161(load case 6)
Max Uplift 3=-94(load case 6), 2=-224(load case 6), 4=-65(load case 5)
Max Grav 3=154(load case 1), 2=352(load case 1), 4=94(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 = 0.58

NOTES

1) Wind: ASCE 7-02; 110mph (3-second gust); h=14ft; 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.

Builders FirstSource
Truss Design Engineer
Florida P.E. No. 38881
1800 Coastal Way Blvd
Gwynn Beach, FL 33435

December 4, 2007

Continued on page 2

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'Oonofrio Drive, Madison, WI 53719.



Job	Truss	Truss Type	Qty	Ply	HOME BY HOUSECRAFT - MOAKE RES.
L262515	EJ7	JACK	20	1	J1914808
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Apr 19 2006 MiTek Industries, Inc. Tue Dec 04 13:57:18 2007 Page 2

NOTES

- 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, 224 lb uplift at joint 2 and 65 lb uplift at joint 4.

LOAD CASE(S) Standard

Justin L. Lane
Truss Design Engineer
Trusses P.E. No. 24868
1100 Coastal Pkwy Blvd
Daytona Beach, FL 32115

December 4, 2007

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

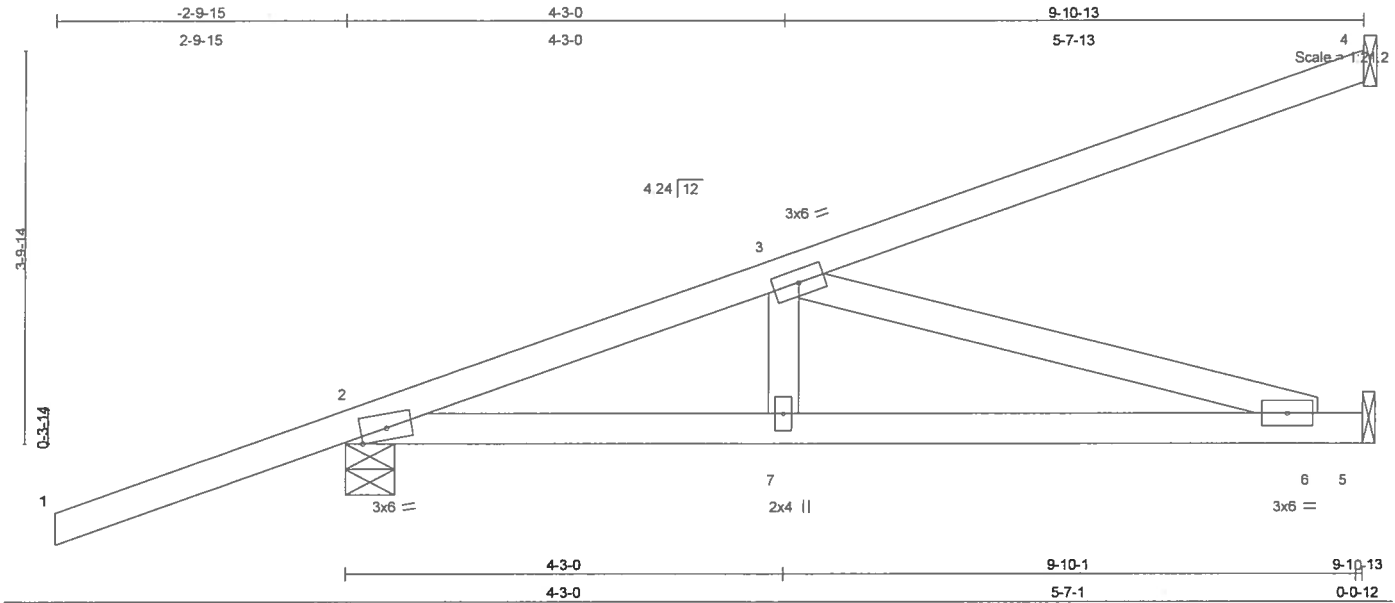
This design is based only upon the parameters shown for an individual building component that is installed and loaded vertically and fabricated with MiTek connectors. Applicability of design parameters and proper incorporation of component into the overall building structure, including all temporary 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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	HJ9	MONO TRUSS	5	1	J1914809
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:03 2007 Page 1



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	>986	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=-624/557

JOINT STRESS INDEX

2 = 0.77, 3 = 0.22, 6 = 0.17 and 7 = 0.13

NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=14ft; 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.

John R. Lee
Truss Design Engineer
Florida PE No. 34888
1300 Coastal Bay Blvd
Deerfield Beach, FL 33442

December 4, 2007

Continued on page 2

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



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 3 MAYFAIR
L262515	HJ9	MONO TRUSS	5	1	J1914809
Job Reference (optional)					

Builders FirstSource, Lake City, FL 32055

6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:03 2007 Page 2

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)

Justin Lee
Truss Design Engineer
Florida PE No. 21593
1100 Coastal Bay Blvd
Boynton Beach, FL 33435

December 4, 2007

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.



6.300 s Feb 15 2006 MiTek Industries, Inc. Tue Dec 04 09:26:04 2007 Page 1

