Called Glenkeen 11-8-07 LH

Columbia County Building Permit Application

For Office Use Only Application # 0711-14 Date Received 11/6/07 By LT Permit # 26406

Application Approved by - Zoning Official cfs Date 11/8/07 Plans Examiner OK JTH Date 11-6-07

Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3

Comments ✓ Disc. Statement

✓ NOC ✓ EH ✓ Deed or PA ☐ Site Plan 07-0828-N ✓ State Road Info ☐ Parent Parcel # ☐ Development Per

Name Authorized Person Signing Permit GLENN L. KEEN Fax 386-961-8820 Phone 386-867-0156

Address 1534 SW DEKle Rd. Lake City, FL. 32024

Owners Name Gaffry J. Keen / Glenn L. Keen Phone 386-755-2541

911 Address 1534 SW DEKle Rd. Lake City, FL. 32024

Contractors Name Glenn Keen / owner builder Phone SAME

Address SAME

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Jason Elyson Const. LLC / Skater Engineering LLC 14952 Main St Alachua, FL. 32615

Mortgage Lenders Name & Address First Security Mortgage

Circle the correct power company - FL Power & Light - (Clay Elec.) - Suwannee Valley Elec. - Progressive Ene

Property ID Number 18-4S-16-03-059-033 Estimated Cost of Construction $25,000.00

Subdivision Name Little Acres Lot 3 Block ___ Unit ___ Phase ___

Driving Directions GO 90 west to Turner Avenue, turn left (Pinemount) go 3 1/2 miles to DEKle Rd. Turn left on DeKle & go 1 1/2 miles to last Brick house on right (DEAD END).

Type of Construction ADDition / New Construction Number of Existing Dwellings on Property 1

Total Acreage .93 Lot Size ___ Do you need a - Culvert Permit or Culvert Waiver or (Have an Existing D

Actual Distance of Structure from Property Lines - Front 51 Side 37' Side 50' Rear 25'

Total Building Height 17' Number of Stories 1 Heated Floor Area 860 Roof Pitch 5/12

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards all laws regulating construction in this jurisdiction.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOU LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

Owner Builder or Authorized Person by Notarized Letter

STATE OF FLORIDA
COUNTY OF COLUMBIA

BARRY COLEMAN
MY COMMISSION # DD 597907
EXPIRES: September 24, 2010
Bonded Thru Budget Notary Services

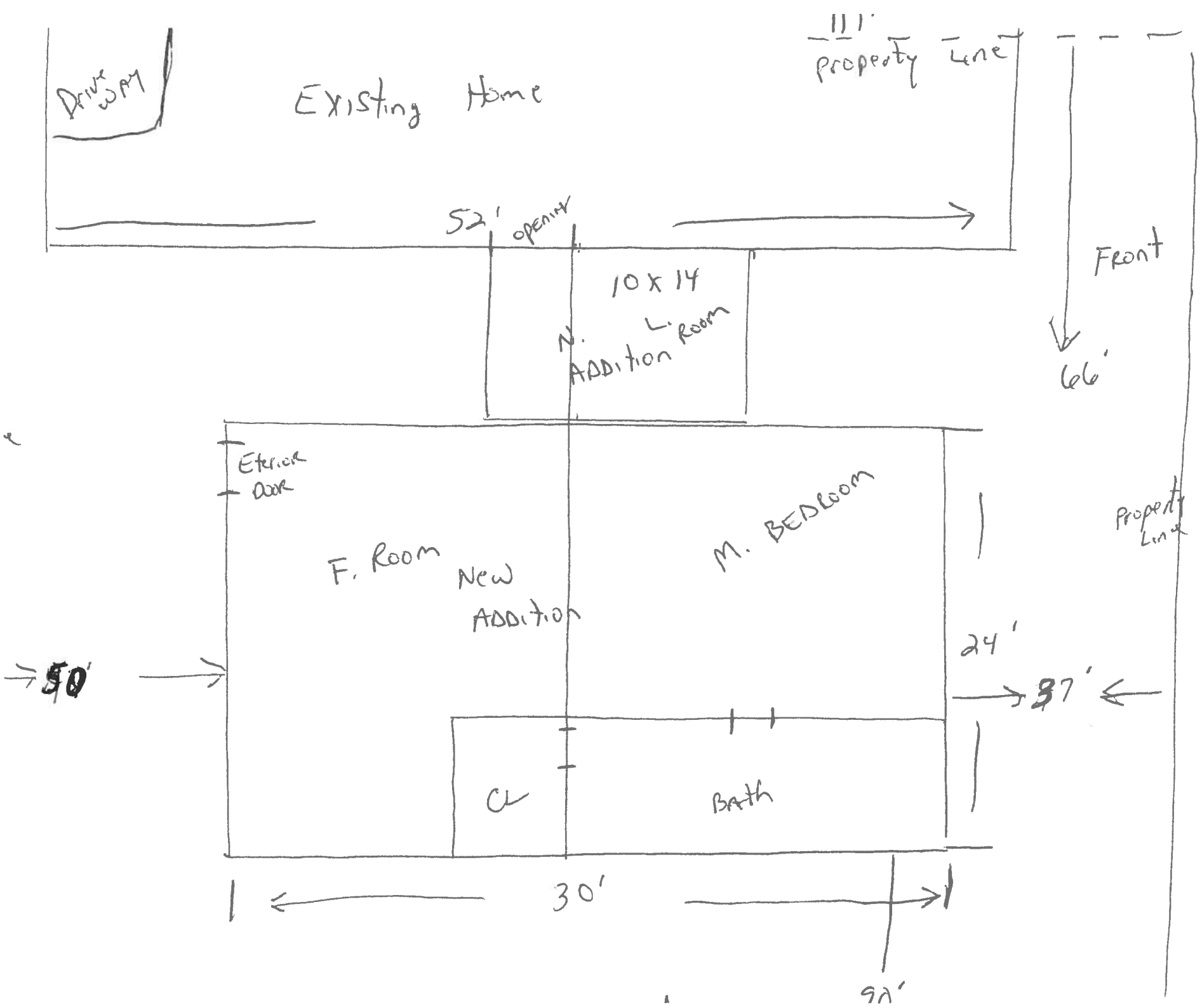
Sworn to (or affirmed) and subscribed before me this 1st day of Nov 20 07.

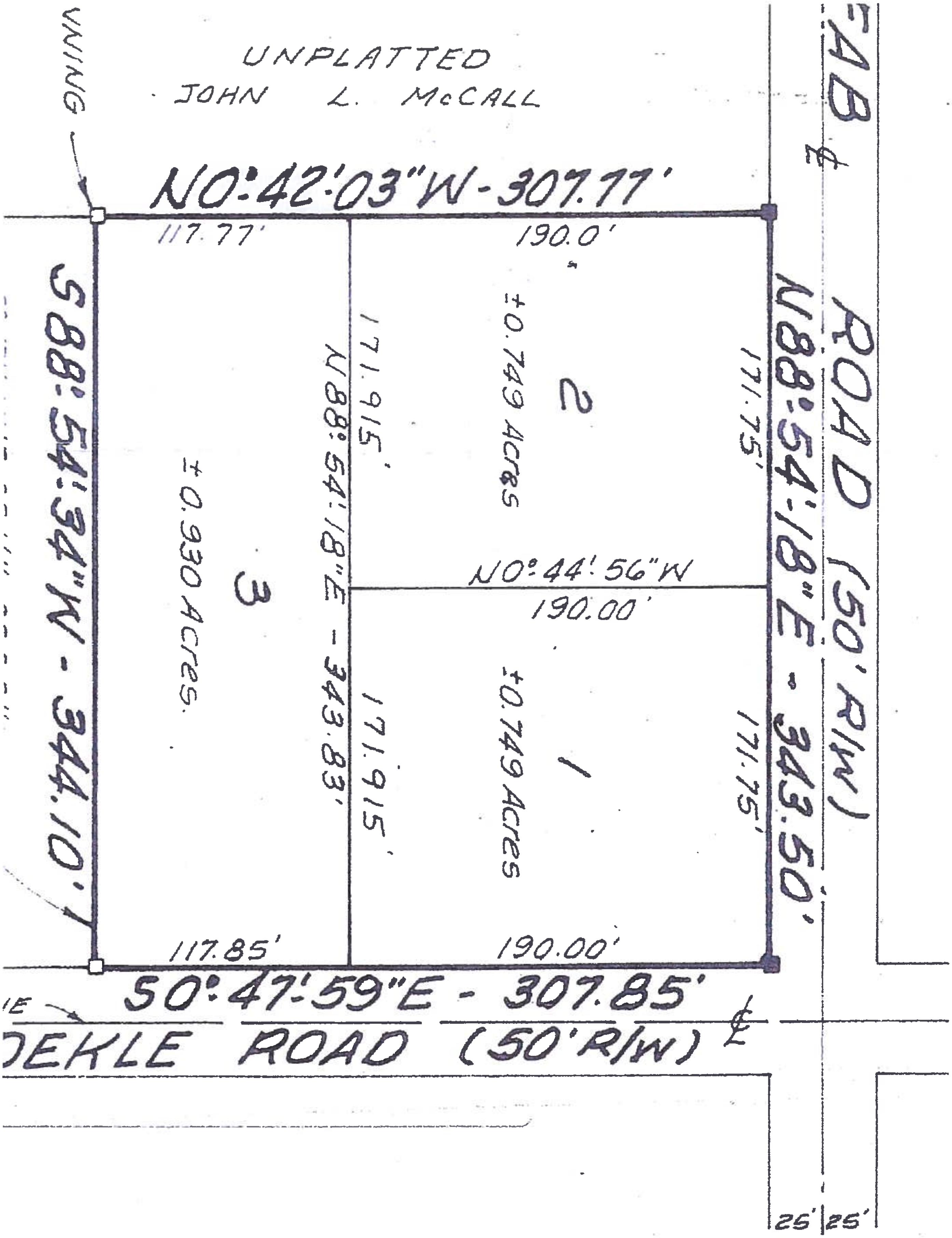
Personally known ✓ or Produced Identification ___

Contractor Signature
Contractors License Number
Competency Card Number
NOTARY STAMP/SEAL

Notary Signature

(Revised Sept. 20


Drive way
Existing Home
111'
Property Line
52'
opening
10 x 14
N. L. Room
Addition
Front
66'
Eterior door
F. Room
New Addition
M. BEDROOM
Property Line
50'
24'
37'
CL
Bath
30'
91'


UNPLATTED
JOHN L. McCALL
N0°42'03"W - 307.77'
117.77'
190.0'
S88°54'34"W - 344.10'
171.915'
N88°54'18"E - 343.83'
±0.749 Acres
2
171.75'
N88°54'18"E - 343.50'
ROAD (50' R/W)
±0.930 Acres
3
N0°44'56"W
190.00'
171.915'
±0.749 Acres
1
171.75'
117.85'
190.00'
S0°47'59"E - 307.85'
DEKLE ROAD (50' R/W)
25'
25'

NOTORIZED DISCLOSURE STATEMENT

FOR OWNER/BUILDER WHEN ACTING AS THER OWN CONTRACTOR AND CLAIMING EXEMPTION OF CONTRACTOR LICENSING REQUIREMENTS IN ACCORDANCE WITH FLORIDA STATUTES, ss. 489.103(7).

State law requires construction to be done by licensed contractors. You have applied for a permit under a exemption to that law. The exemption allows you, as the owner of your property, to act as your own contractor with certain restrictions even though you do not have a license. You must provide direct, onsite supervision of the construction yourself. You may build or improve a one-family or two-family residence or a farm outbuilding. You may also build or improve a commercial building, provided your costs do not exceed $75,000. The building or residence must be for your own use or occupancy. It may not be built or substantially improved for sale or lease. If you sell or lease a building you have built or substantially improved yourself within 1 year after the construction is complete, the law will presume that you built or substantially improved it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person to act as your contractor or to supervise people working on your building. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances. You may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on your building who is not licensed must work under your direct supervision and must be employed by you, which means that you must deduct F .I.C.A. and withholding tax and provide workers' compensation for that employee, all as prescribed by law. Your construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

TYPE OF CONSTRUCTION

(✓) Single Family Dwelling
( ) Farm Outbuilding
( ) Two-Family Residence
( ) Other_____

NEW CONSTRUCTION OR IMPROVEMENT

( ) New Construction
(✓) Addition, Alteration, Modification or other Improvement

I Glenn L. Keen **, have been advised of the above disclosure statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes ss.489.103(7) allowing this exception for the construction permitted by Columbia County Building Permit Number _____**

G. L. K

Owner Builder Signature **Date**

The above signer is personally known to me or produced identification _____

NOTARY PUBLIC STATE OF FLORIDA
BARRY COLEMAN
MY COMMISSION # DD 597907
EXPIRES: September 24, 2010
Bonded Thru Budget Notary Services

Notary Signature _____ **Date** 11/1/07 **(Stamp / Seal)**

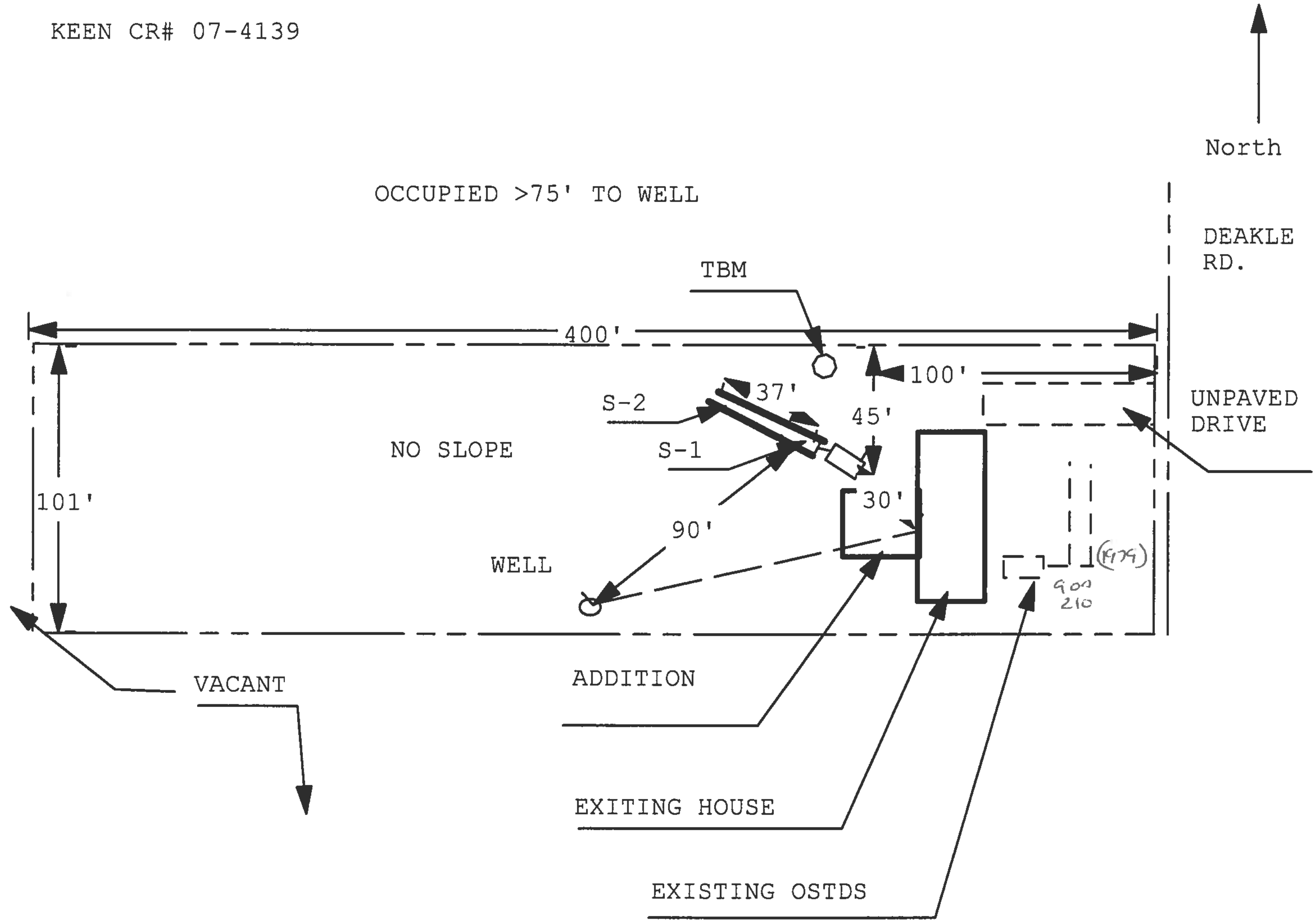
FOR BUILDING USE ONLY

I hereby certify that the above listed owner/builder has been notified of the disclosure statement in Florida Statutes ss 489.103(7).

Date_____ Building Official/Representative_____

Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan
Permit Application Number: 07-0828-N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT



1 inch = 50 feet

Site Plan Submitted By Paul Lloyd **Date** 10/22/07
Plan Approved ✓ **Not Approved**____ **Date** 11/5/07
By [signature] Columbia **CPHU**

Notes:

NOTICE OF COMMENCEMENT

County Clerk's Office Stamp or Seal

Tax Parcel Identification Number 18-4S-16-03-059-033

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this **NOTICE OF COMMENCEMENT**.

1. Description of property *(legal description)*: 3 BDroom, 1 1/2 Bath
   a) Street *(job)* Address: 1534 SW DeKle Rd. Lake City, FL. 32024
2. General description of improvements: Adding on 860 Sq ft. Addition (New Construction)
3. Owner Information
   a) Name and address: Glenn Keen 1534 SW DeKle Rd. LakeCity, FL. 32024
   b) Name and address of fee simple titleholder (if other than owner) _____
   c) Interest in property _____
4. Contractor Information
   a) Name and address: Glenn Keen Owner/Builder
   b) Telephone No.: 386 867-0156 Fax No. (Opt.) 386-961-8820
5. Surety Information
   a) Name and address _____
   b) Amount of Bond: _____
   c) Telephone No.: _____ Fax No. (Opt.) _____
6. Lender
   a) Name and address: _____
   b) Phone No. _____
7. Identity of person within the State of Florida designated by owner upon whom notice

Inst:200712024866 Date:11/6/2007 Time:10:06 AM
DC,P.DeWitt Cason,Columbia County Page 1 of 1

   a) Name and address: _____
   b) Telephone No.: _____ Fax No. (Opt.) _____
8. In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:
   a) Name and address: _____
   b) Telephone No. _____ Fax No. (Opt.) _____
9. Expiration date of Notice of Commencement **(the expiration date is one year from the date of recording unless a different date is specified)**: _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY; A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

STATE OF FLORIDA
COUNTY OF COLUMBIA

10 _____
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager

Glenn L. Keen
Print Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 1st day of November, 20 07, by:

Glenn L. Keen as OWNER **(type of authority, e.g. officer, trustee, attorney fact)** for Glenn L. Keen **(name of party on behalf of whom instrument was executed).**

Personally Known ✓ OR Produced Identification _____ Type _____

Notary Signature _____ Notary Stamp or Seal:

NOTARY PUBLIC STATE OF FLORIDA
BARRY COLEMAN
MY COMMISSION # DD 597907
EXPIRES: September 24, 2010
Bonded Thru Budget Notary Services

—AND—

11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

_____
Signature of Natural Person Signing (in line #10 above.)

FORM 600A-2004R EnergyGauge® 4.5.2

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**KEEN ADDITION**	Builder:	owner
Address:		Permitting Office:	Columbia County
City, State:	**LAKE CITY, FL**	Permit Number:	26406
Owner:	**GLEN KEEN**	Jurisdiction Number:	221000
Climate Zone:	**North**		

1.	New construction or existing	Addition	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	1	
5.	Is this a worst case?	Yes	
6.	Conditioned floor area (ft²)	860 ft²	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		
a.	U-factor: (or Single or Double DEFAULT)	7a. Description (Dble Default)	Area 87.0 ft²
b.	SHGC: (or Clear or Tint DEFAULT)	7b. (Clear)	87.0 ft²
8.	Floor types		
a.	Stem Wall		R=6.0, 860.0ft²
b.	N/A		
c.	N/A		
9.	Wall types		
a.	Frame, Wood, Exterior		R=11.0, 912.0 ft²
b.	N/A		
c.	N/A		
d.	N/A		
e.	N/A		
10.	Ceiling types		
a.	Under Attic		R=30.0, 860.0 ft²
b.	N/A		
c.	N/A		
11.	Ducts		
a.	Sup: Con. Ret: Con. AH: Interior		Sup. R=6.0, 30.0 ft
b.	N/A		

12.	Cooling systems	
a.	Central Unit	Cap: 30.0 kBtu/hr SEER: 13.00
b.	N/A	
c.	N/A	
13.	Heating systems	
a.	Electric Heat Pump	Cap: 30.0 kBtu/hr HSPF: 7.70
b.	N/A	
c.	N/A	
14.	Hot water systems	
a.	Electric Resistance	Cap: 30.0 gallons EF: 0.93
b.	N/A	
c.	Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)	
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	PT,

Glass/Floor Area: 0.10

Total as-built points: 10490
Total base points: 13157

PASS

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

PREPARED BY: Tyson Elsasser

DATE: 10-4-07

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.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 87.0

The higher the score, the more efficient the home.

GLEN KEEN, , LAKE CITY, FL,

1.	New construction or existing	Addition	12.	Cooling systems	
2.	Single family or multi-family	Single family		a. Central Unit	Cap: 30.0 kBtu/hr
3.	Number of units, if multi-family	1			SEER: 13.00
4.	Number of Bedrooms	1		b. N/A	
5.	Is this a worst case?	Yes			
6.	Conditioned floor area (ft²)	860 ft²		c. N/A	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)				
	a. U-factor:	Description Area	13.	Heating systems	
	(or Single or Double DEFAULT)	7a. (Dble Default) 87.0 ft²		a. Electric Heat Pump	Cap: 30.0 kBtu/hr
	b. SHGC:				HSPF: 7.70
	(or Clear or Tint DEFAULT)	7b. (Clear) 87.0 ft²		b. N/A	
8.	Floor types				
	a. Stem Wall	R=6.0, 860.0ft²		c. N/A	
	b. N/A				
	c. N/A		14.	Hot water systems	
9.	Wall types			a. Electric Resistance	Cap: 30.0 gallons
	a. Frame, Wood, Exterior	R=11.0, 912.0 ft²			EF: 0.93
	b. N/A			b. N/A	
	c. N/A				
	d. N/A			c. Conservation credits	
	e. N/A			(HR-Heat recovery, Solar	
10.	Ceiling types			DHP-Dedicated heat pump)	
	a. Under Attic	R=30.0, 860.0 ft²	15.	HVAC credits	PT,
	b. N/A			(CF-Ceiling fan, CV-Cross ventilation,	
	c. N/A			HF-Whole house fan,	
11.	Ducts			PT-Programmable Thermostat,	
	a. Sup: Con. Ret: Con. AH: Interior	Sup. R=6.0, 30.0 ft		MZ-C-Multizone cooling,	
	b. N/A			MZ-H-Multizone heating)	

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 EnergyStar™ 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.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , **LAKE CITY, FL,** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points	
.18	860.0	18.59	2878.0	1.Double, Clear	W	0.0	0.0	6.0	38.52	1.00	231.0	
				2.Double, Clear	W	0.0	0.0	30.0	38.52	1.00	1155.0	
				3.Double, Clear	N	0.0	0.0	6.0	19.20	1.00	115.0	
				4.Double, Clear	N	0.0	0.0	15.0	19.20	1.00	287.0	
				5.Double, Clear	E	0.0	0.0	30.0	42.06	1.00	1261.0	
				As-Built Total:				**87.0**			**3049.0**	
WALL TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior			11.0	912.0	1.70		1550.4	
Exterior	912.0	1.70	1550.4									
Base Total:	**912.0**		**1550.4**	**As-Built Total:**				**912.0**			**1550.4**	
DOOR TYPES	Area X	BSPM =	Points	Type				Area X	SPM =		Points	
Adjacent	0.0	0.00	0.0	1.Exterior Insulated				239.8	4.10		983.0	
Exterior	239.8	6.10	1462.5									
Base Total:	**239.8**		**1462.5**	**As-Built Total:**				**239.8**			**983.0**	
CEILING TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM X SCM =		Points	
Under Attic	860.0	1.73	1487.8	1. Under Attic			30.0	860.0	1.73 X 1.00		1487.8	
Base Total:	**860.0**		**1487.8**	**As-Built Total:**				**860.0**			**1487.8**	
FLOOR TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Slab	0.0(p)	0.0	0.0	1. Stem Wall			6.0	860.0	-4.70		-4042.0	
Raised	860.0	-3.99	-3431.4									
Base Total:			**-3431.4**	**As-Built Total:**				**860.0**			**-4042.0**	
INFILTRATION	Area X	BSPM =	Points					Area X	SPM =		Points	
	860.0	10.21	8780.6					860.0	10.21		8780.6	

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , **LAKE CITY, FL,**	PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 12727.9			**Summer As-Built Points:**					**11808.8**
Total Summer Points	X System Multiplier	= Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points
			(sys 1: Central Unit 30000btuh ,SEER/EFF(13.0) Ducts:Con(S),Con(R),Int(AH),R6.0(INS)					
			11809	1.00	(1.00 x 1.147 x 0.91)	0.260	0.950	3044.4
12727.9	**0.3250**	**4136.6**	**11808.8**	**1.00**	**1.044**	**0.260**	**0.950**	**3044.4**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , **LAKE CITY, FL,** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	860.0	20.17	3122.0	1.Double, Clear	W	0.0	0.0	6.0	20.73	1.00	124.0	
				2.Double, Clear	W	0.0	0.0	30.0	20.73	1.00	621.0	
				3.Double, Clear	N	0.0	0.0	6.0	24.58	1.00	147.0	
				4.Double, Clear	N	0.0	0.0	15.0	24.58	1.00	368.0	
				5.Double, Clear	E	0.0	0.0	30.0	18.79	1.00	563.0	
				As-Built Total:				**87.0**			**1823.0**	
WALL TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Adjacent	0.0	0.00	0.0	1. Frame, Wood, Exterior			11.0	912.0	3.70		3374.4	
Exterior	912.0	3.70	3374.4									
Base Total:	**912.0**		**3374.4**	**As-Built Total:**				**912.0**			**3374.4**	
DOOR TYPES	Area X	BWPM =	Points	Type				Area X	WPM =		Points	
Adjacent	0.0	0.00	0.0	1.Exterior Insulated				239.8	8.40		2014.0	
Exterior	239.8	12.30	2949.0									
Base Total:	**239.8**		**2949.0**	**As-Built Total:**				**239.8**			**2014.0**	
CEILING TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM X WCM =		Points	
Under Attic	860.0	2.05	1763.0	1. Under Attic			30.0	860.0	2.05 X 1.00		1763.0	
Base Total:	**860.0**		**1763.0**	**As-Built Total:**				**860.0**			**1763.0**	
FLOOR TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Slab	0.0(p)	0.0	0.0	1. Stem Wall			6.0	860.0	2.46		2113.1	
Raised	860.0	0.96	825.6									
Base Total:			**825.6**	**As-Built Total:**				**860.0**			**2113.1**	
INFILTRATION	Area X	BWPM =	Points					Area X	WPM =		Points	
	860.0	-0.59	-507.4					860.0	-0.59		-507.4	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , **LAKE CITY, FL,**	PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**11526.6**	**Winter As-Built Points:**					**10580.1**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 30000 btuh ,EFF(7.7) Ducts:Con(S),Con(R),Int(AH),R6.0					
			10580.1	1.000	(1.000 x 1.169 x 0.93)	0.443	0.950	4839.2
11526.6	**0.5540**	**6385.8**	**10580.1**	**1.00**	**1.087**	**0.443**	**0.950**	**4839.2**

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: , **LAKE CITY, FL,** PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X Multiplier	= Total		Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total	
1	2635.00	2635.0		30.0	0.93	1	1.00	2606.67	1.00	2606.7	
				As-Built Total:							**2606.7**

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
4137	**6386**	**2635**	**13157**	**3044**	**4839**	**2607**	**10490**

PASS

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 cir 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.	

Elaine R. Davis / Megan Marable
American Title Services of Lake City, Inc.
321 SW Main Boulevard, Suite 105
Lake City, Florida 32025

File Number: 07-376

Inst:200712024937 Date 11/6/2007 Time 3:35 PM
Doc Stamp-Deed:0.70
DC,P DeWitt Cason,Columbia County Page 1 of 1

Warranty Deed

Made this October 31, 2007 A.D.

By Betty J. Keen, whose address is: 1534 SW Dekel Road, Lake City, Florida 32024, hereinafter called the grantor,

to **Betty J. Keen and Glenn L. Keen and Tscharna Keen, husband and wife**, as joint tenants with right of survivorship, whose post office address is: 1534 SW Dekel Road, Lake City, Florida 32024, hereinafter called the grantee:

(Whenever used herein the term "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Columbia County, Florida, viz:

Lot 3, of Little Acres, according to the Plat thereof, as recorded in Plat Book 4, at Page 122, of the Public Records of Columbia County, Florida

Parcel ID Number: **03059-033**

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31, 2006.

In Witness Whereof, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in our presence:

Elaine R. Davis
Witness Printed Name Elaine R. Davis

Megan M. Marable
Witness Printed Name Megan M. Marable

Betty J. Keen (Seal)
Betty J. Keen
Address:

(Seal)
Address:

State of Florida
County of Columbia

The foregoing instrument was acknowledged before me this 31st day of October, 2007, by Betty J. Keen, who is/are personally known to me or who has produced drivers license as identification.

Megan M Marable
Notary Public
Print Name:

My Commission Expires:

MEGAN M. MARABLE
MY COMMISSION # DD 412865
EXPIRES: March 30, 2009
Bonded Thru Notary Public Underwriters

DHD Individual Warranty Deed - Legal on Face
Closers' Choice

SCHAFER ENGINEERING, LLC

7104 NW 42ND LANE GAINESVILLE FL 32606 PH: 386-462-1340 – 352-375-6329

November 7, 2007

Job: Elixson Addition

Re: Ap: 071110-10

Dear Sir:

The original wind load analysis has been reviewed as to the installation of the new foundation.

After the review of the above mentioned project we recommend the following:

Drill and epoxy (2) - #5 rebar with a minimum of 7" embedment connecting the existing foundation into the new foundation.

If you have any questions or if we can be any further assistance, please feel free to contact us at your convenience.

Bruce Schafer, P.E. #48984
7104 N. W. 42nd Lane
Gainesville, Florida 32606

Schafer Engineering LLC

14952 Main St. Alachua FL 32615

Prepared for:

JASON ELIXSON CONSTRUCTION
THE KEEN ADDITION

By:

Schafer Engineering, LLC

386-462-1340 / 352-375-6329

NO COPIES ARE TO BE PERMITTED

SCHAFER ENGINEERING LLC

Trusses: Pre-engineered with manufacturer's required bracing system installed.
Roof sheathing: Type OSB Size 7/16 Fastener type nails 8d/.113 Ring Shank

Interior zone spacing: Interior 6 in. Periphery 4 in.
Edge and end zone spacing: Interior 6 in. Periphery 4 in.

Top double pl: Type Spruce Grade #1 #2 Size 2 x 4 Nail spacing 10 in.

Studs: Type Spruce Grade #1 #2 Size 2 x 4
Interior stud spacing 16 in. Composite (yes or no) Y
End stud spacing 16 in. Composite (yes or no) Y

Shearwall siding: Type OSB Thickness 7/16 in.
44' Trans: Fastener 8d / 131 Spacing: Int 8 in. Edge 4 in.
34' Long: Fastener 8d / 131 Spacing: Int 8 in. Edge 4 in.

Allowable unit shear on shearwalls: 314 **pounds per linear foot**
Unit shear transferred from diaphragm: Trans: 76 Long: 64

Wall tension transferred by: Siding nails 8d/131 @ 4 O.C. edges

Foundation anchor bolts: Concrete strength 3000 psi Size 1/2 in. Shape L
Washer 2" Embedment 7 in. Location of first anchor bolt from corner 8 in.

Anchor Bolts @ 48" O.C. Model A307 Loc. from corner 8 in.

Type of foundation: 1 #5 rebar continuous required in bond beam.
Floor slab 4 in. CMU: Size 8 x 16 in. Height 24 in. Reinf. # 5 at 72 in.
Monolithic footing: Depth 20 in. Bottom width 12 in. Reinf. 2 # 5 bars

Footing: Width 20 in. Depth 10 in. Reinforcing 2 # 5 bars
Interior Footings: 16" W X 10" D

Porch Columns: _____ **Column Fasteners:** _____

Special Comments: _____

NOTE:
1. Balloon frame ALL gable ends unless this summary is accompanied by Gable End Wall Brace detail.
2. All trusses must bear on exterior walls & porch beams.
3. All walls to be nailed with same nailing pattern as shear walls.
4. This is a wind load only, NOT a structural analysis.
5. This wind load is not valid without a raised, embossed seal.
6. It is assumed that ideal soil conditions and pad preparations are provided.
7. Fiber mesh or WWM may be used in concrete slab.
8. Trusses must be anchored and supported in accordance to the truss engineering.
9. Wind design and analysis valid for one use only, no copies permitted.
10. The foundation is for minimum design use and may be increased.
11. All headers over 12 feet to be pre-engineered.

10-3-07

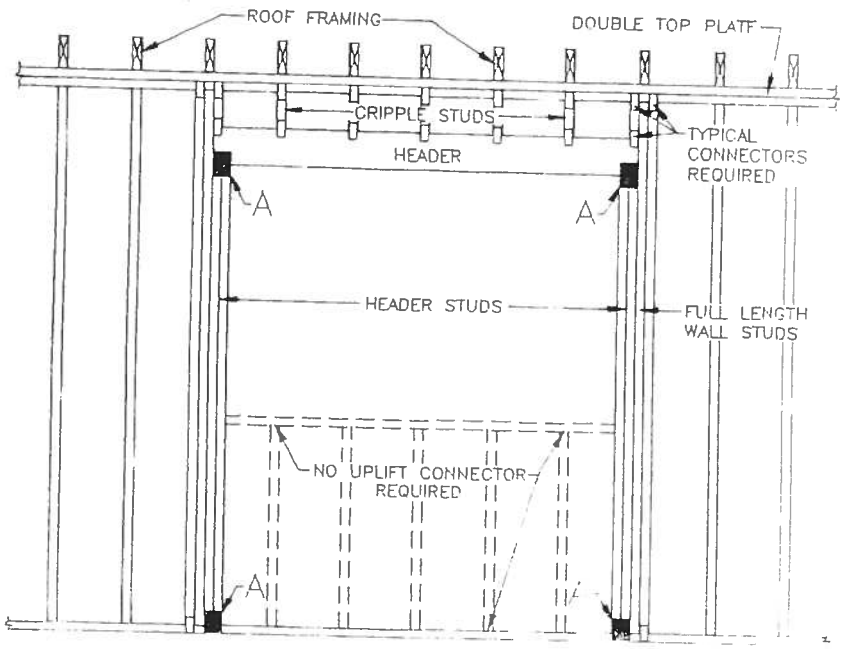
48984
7104 NW 42nd Ln
Gainesville, Fl

Unsupported Wall Height	Stud Spacing	Maximum Header Span (ft.)					
		3'	6'	9'	12'	15'	18'
		Number of Header Studs Supporting End of Header					
		1[1]	1	2	2	2	2
		Number of Full-Length Studs at Each End of Header					
10' or less	12 in.	2	2	3	3	3	3
	16 in.	2	2	3	3	3	3
	24 in.	1	2	2	2	2	2
greater than 10'	12 in.	2	2	3	4	5	5
	16 in.	2	2	3	3	4	4
	24 in.	1	2	2	2	3	3

1 The header stud shall not be required if the header is supported by a suitable framing anchor.

Uplift connection requirement at points A (top and bottom of header studs). Uplift load per framing member above the header from Table 307F1 or 307A, as appropriate, multiplied by the number of framing members displaced divided by two.

NOTE Uplift connection is required at each end of header and at bottom of header studs in addition to connectors at wall studs and at top and bottom of cripples.



TIE-DOWN TABLES

HEADERS				
Uplift Force Lbs	Top Connector **	Rating Lbs	Bottom Connector **	Rating Lbs
to 455	LSTA9	725	H3	455
to 910	LSTA12	905	2-H3	910
to 1265	LSTA18	1265	LTT19	1350
to 1750	2-LSTA12	1810	LTT20	1750
to 2530	2-LSTA18	2530	HD2A-2.5	2565
to 2865	3-LSTA18	3255	HD2A-3.5	2865
to 3700	3-LSTA24	3880	HD5A-3	3700
Total uplift for each truss resting on the header and divide by 2 to determine the uplift force. Use proper bolt anchors sufficient to support required load.				

TRUSSES/GIRDERS		
Uplift Force Lbs	Top Connector **	Bottom Connector **
to 500	H2.5	N/A
501-1049	H10	N/A
1050-1350	TS22	LTT19
1351-1750	2-TS22	LTT20
1751-2570	2-TS22	HD2A
2571-3665	3-TS22	HD5A
3666-5260	2-MST148	HTT22
5261-8300	2-MST48	HD10A
Two 12d common toenails are required per truss/rafter per bearing point into plate. Use proper bolt anchors. Strap rafters to truss or at each end with minimum uplift resistance of 450# each end. Strap ridge beam at each end with minimum uplift resistance of 1000#. It is the contractors' responsibility to provide a continuous load path from truss/rafter/ridge beam to foundation.		

	Top Connector **	Rating Lbs	Bottom Connector **	Rating
BEAM SEATS	LSTA18*	1200	LTT19*	1250
POSTS (max 17' spacing)	2-LSTA18	2400	ABU44	2300
*or per truss engineering Use proper bolt anchors All beams to be sheathed or strapped to Double Top Plate when applicable.				

CRIPPLES	Sheathing nailing alone adequate w/8d nails @ 3" O.C.

STUDS
Wall sheathing nailing Adequate exterior walls bottom w/8d nails.
Use SP1 & SP2 @32" O.C. on all interior non-sheathed bearing walls.
Interior anchor bolts to be ½" x 8" A307 or ½" x 7" wedge anchor or equivalent.

** Equivalent Simpson hardware, or other manufacturer, may be substituted for any of the hardware specified on this page as long as it meets the required load capacities/uplift resistance.

NOTE:

1. For nailing into SPF members, multiply table values by .86
2. See truss engineering for anchor tie-down values.

ASCE 7-02

10/3/07

Wind Load Design per ASCE 7-02

User Input Data		
Structure Type	Building	
Basic Wind Speed (V)	110	mph
Structural Category	II	
Exposure	B	
Struc Nat Frequency (n1)	1	Hz
Slope of Roof (Theta)	22.6	Deg
Type of Roof	Hipped	
Eave Height (Eht)	8.00	ft
Ridge Height (RHt)	13.48	ft
Mean Roof Height (Ht)	10.54	ft
Width Perp. to Wind (B)	34.00	ft
Width Parallel to Wind (L)	30.00	ft
Damping Ratio (beta)	0.01	

Red values should be changed only through "Main Menu"

Calculated Parameters		
Type of Structure		
Height/Least Horizontal Dim	0.35	
Flexible Structure	No	

Calculated Parameters		
Importance Factor	1	
Hurricane Prone Region (V>100 mph)		
Table C6-4 Values		
Alpha =	7.000	
zg =	1200.000	
At =	0.143	
Bt =	0.840	
Am =	0.250	
Bm =	0.450	
Cc =	0.300	
l =	320.00	ft
Epsilon =	0.333	
Zmin =	30.00	ft

Gust Factor Category I: Rigid Structures - Simplified Method			
Gust1	For rigid structures (Nat Freq > 1 Hz) use 0.85	0.85	
Gust Factor Category II: Rigid Structures - Complete Analysis			
Zm	Zmin	30.00	ft
Izm	Cc * (33/z)^0.167	0.3048	
Lzm	l*(zm/33)^Epsilon	309.99	ft
Q	(1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5	0.9184	
Gust2	0.925*((1+1.7*Izm*3.4*Q)/(1+1.7*3.4*Izm))	0.8769	
Gust Factor Category III: Flexible or Dynamically Sensitive Structures			
Vhref	V*(5280/3600)	161.33	ft/s
Vzm	bm*(zm/33)^Am*Vhref	70.89	ft/s
NF1	NatFreq*Lzm/Vzm	4.37	Hz
Rn	(7.47*NF1)/(1+10.302*NF1)^1.667	0.0552	
Nh	4.6*NatFreq*Ht/Vzm	0.68	
Nb	4.6*NatFreq*B/Vzm	2.21	
Nd	15.4*NatFreq*Depth/Vzm	6.52	
Rh	1/Nh-(1/(2*Nh^2)*(1-Exp(-2*Nh)))	0.6654	
Rb	1/Nb-(1/(2*Nb^2)*(1-Exp(-2*Nb)))	0.3518	
Rd	1/Nd-(1/(2*Nd^2)*(1-Exp(-2*Nd)))	0.1417	
RR	((1/Beta)*Rn*Rh*Rb*(0.53+0.47*Rd))^0.5	0.8778	
gg	+(2*LN(3600*n1))^0.5+0.577/(2*LN(3600*n1))^0.5	4.19	
Gust3	0.925*((1+1.7*Izm*(3.4^2*Q^2+GG^2*RR^2)^0.5)/(1+1.7*3.4*Izm))	1.17	

Gust Factor Summary			
Main Wind-force resisting system:		**Components and Cladding:**	
Gust Factor Category:	I	Gust Factor Category:	I
Gust Factor (G)	0.88	Gust Factor (G)	0.88

ASCE 7-02

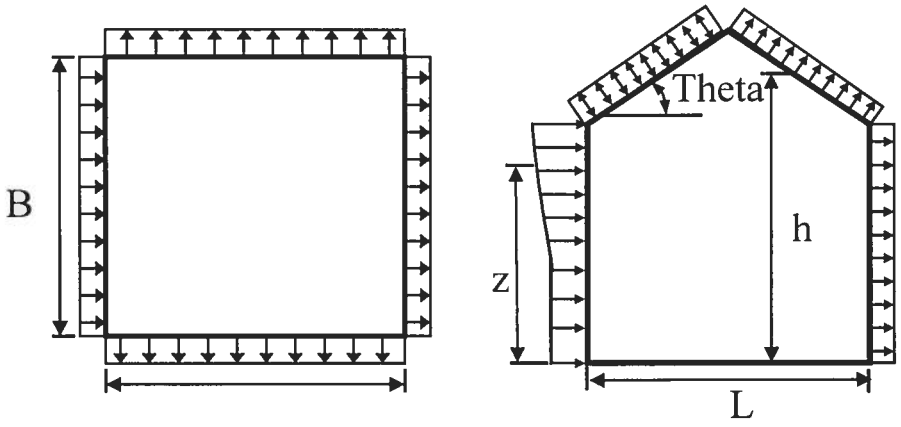
Wind Load Design per ASCE 7-02

6.5.12.2.1 Design Wind Pressure - Buildings of All Heights (Non-flexible)

Elev.	Kz	Kzt	Kd	qz	Pressure (lb/ft^2)	
					Windward Wall*	
ft			1.00	lb/ft^2	+GCpi	-GCpi
15	0.70	1.00	1.00	21.70	12.02	18.43

Figure 6-3 - External Pressure Coefficients, Cp

Loads on Main Wind-Force Resisting Systems



Variable	Formula	Value	Units
Kh	2.01*(15/zg)^(2/Alpha)	0.57	
Kht	Topographic factor (Fig 6-2)	1.00	
Qh	.00256*(V)^2*ImpFac*Kh*Kht*Kd	17.80	psf

Wall Pressure Coefficients, Cp	
Surface	Cp
Windward Wall (See Figure 6.5.12.2.1 for Pressures)	0.80

Roof Pressure Coefficients, Cp	
Roof Area (sq. ft.)	-
Reduction Factor	1.00

Description	Cp	Pressure (psf)	
		+GCpi	-GCpi
Leeward Walls (Wind Dir Parallel to 34 ft wall)	-0.50	-11.01	-4.60
Leeward Walls (Wind Dir Parallel to 30 ft wall)	-0.47	-10.59	-4.18
Side Walls	-0.70	-14.13	-7.72
Roof - Normal to Ridge (Theta>=10)			
Windward - Max Negative	-0.29	-7.71	-1.30
Windward - Max Positive	0.19	-0.21	6.20
Leeward Normal to Ridge	-0.60	-12.57	-6.16
Overhang Top	-0.29	-4.50	-4.50
Overhang Bottom	0.80	0.70	0.70
Roof - Parallel to Ridge (All Theta)			
Dist from Windward Edge: 0 ft to 5.27 ft	-0.90	-17.25	-10.84
Dist from Windward Edge: 5.27 ft to 10.54 ft	-0.90	-17.25	-10.84
Dist from Windward Edge: 10.54 ft to 21.08 ft	-0.50	-11.01	-4.60
Dist from Windward Edge: > 21.08 ft	-0.30	-7.89	-1.48

ASCE 7-02

Wind Load Design per ASCE 7-02

* Horizontal distance from windward edge

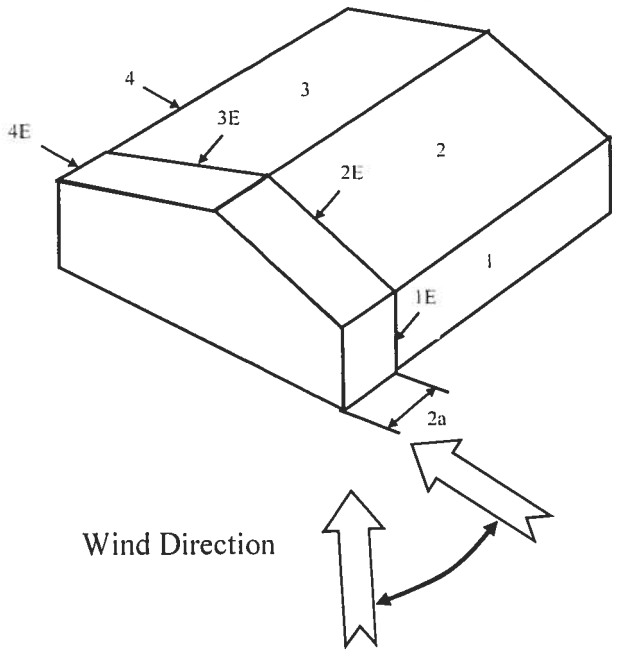
Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht <= 60 ft

Kh =	2.01*(15/zg)^(2/Alpha)	=	0.57
Kht =	Topographic factor (Fig 6-2)	=	1.00
Qh =	0.00256*(V)^2*ImpFac*Kh*Kht*Kd	=	17.80

Case A						
Surface	**GCpf**	**+GCpi**	**-GCpi**	**qh (psf)**	**Min P (psf)**	**Max P (psf)**
1	0.54	0.18	-0.18	21.70	7.76	15.58
2	-0.46	0.18	-0.18	21.70	-13.80	-5.99
3	-0.47	0.18	-0.18	21.70	-14.04	-6.23
4	-0.41	0.18	-0.18	21.70	-12.90	-5.09
5	0.00	0.18	-0.18	21.70	-3.91	3.91
6	0.00	0.18	-0.18	21.70	-3.91	3.91
1E	0.77	0.18	-0.18	21.70	12.83	20.65
2E	-0.72	0.18	-0.18	21.70	-19.57	-11.75
3E	-0.65	0.18	-0.18	21.70	-17.98	-10.16
4E	-0.60	0.18	-0.18	21.70	-16.89	-9.08
5E	0.00	0.18	-0.18	21.70	-3.91	3.91
6E	0.00	0.18	-0.18	21.70	-3.91	3.91

* p = qh * (GCpf - GCpi)



ASCE 7-02

Wind Load Design per ASCE 7-02

Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht <= 60 ft

Kh =	2.01*(15/zg)^(2/Alpha)	=	0.57
Kht =	Topographic factor (Fig 6-2)	=	1.00
Qh =	0.00256*(V)^2*ImpFac*Kh*Kht*Kd	=	17.80

Case B						
Surface	**GCpf**	**+GCpi**	**-GCpi**	**qh (psf)**	**Min P (psf)**	**Max P (psf)**
1	-0.45	0.18	-0.18	21.70	-13.67	-5.86
2	-0.69	0.18	-0.18	21.70	-18.88	-11.07
3	-0.37	0.18	-0.18	21.70	-11.94	-4.12
4	-0.45	0.18	-0.18	21.70	-13.67	-5.86
5	0.40	0.18	-0.18	21.70	4.77	12.59
6	-0.29	0.18	-0.18	21.70	-10.20	-2.39
1E	-0.48	0.18	-0.18	21.70	-14.32	-6.51
2E	-1.07	0.18	-0.18	21.70	-27.13	-19.31
3E	-0.53	0.18	-0.18	21.70	-15.41	-7.60
4E	-0.48	0.18	-0.18	21.70	-14.32	-6.51
5E	0.61	0.18	-0.18	21.70	9.33	17.14
6E	-0.43	0.18	-0.18	21.70	-13.24	-5.43

* p = qh * (GCpf - GCpi)

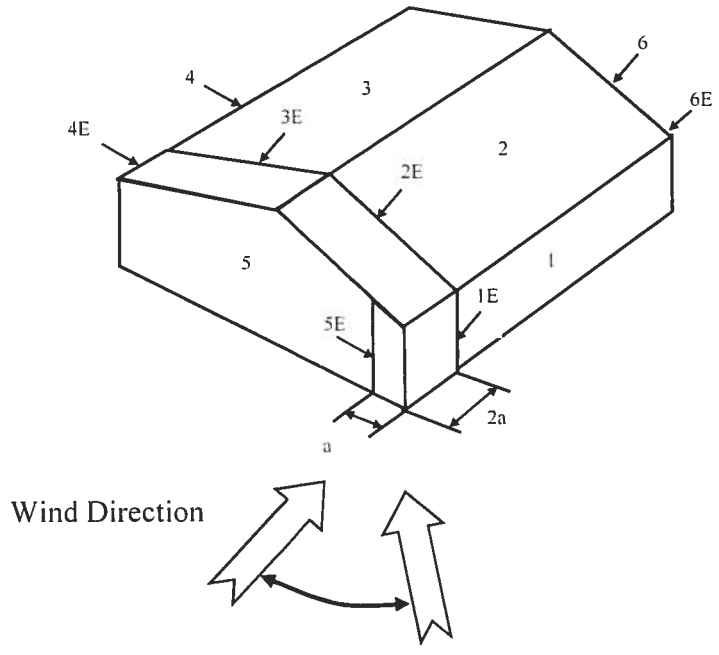
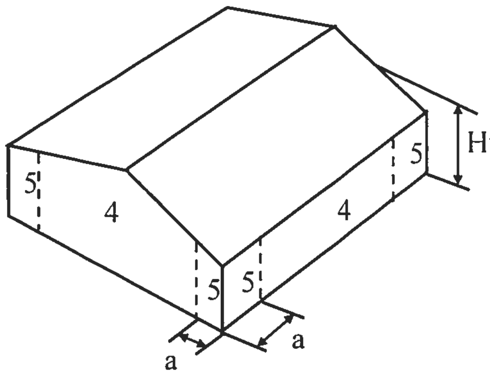


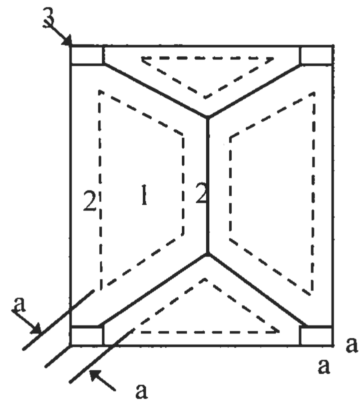
Figure 6-5 - External Pressure Coefficients, GCp

Loads on Components and Cladding for Buildings w/ Ht <= 60 ft

ASCE 7-02

Wind Load Design per ASCE 7-02





Hipped Roof
10 < Theta <= 30

a = 3 ==> 3.00 ft

Component	Width (ft)	Length (ft)	Area (ft^2)	Zone	GCp		Wind Press (lb/ft^2)	
					Max	Min	Max	Min
	16	7	112.00	5	0.81	-1.03	17.71	-21.53
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
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	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					

Note: * Enter Zone 1 through 5, or 1H through 3H for overhangs.

Table 6-7 Internal Pressure Coefficients for Buildings, Gcpi

Condition	Gcpi	
	Max +	Max -
Open Buildings	0.00	0.00

Partially Enclosed Buildings	0.55	-0.55
Enclosed Buildings	0.18	-0.18
Enclosed Buildings	**0.18**	**-0.18**

Table 6-8 External Pressure Coefficients for Arched Roofs, Cp

r (Rise-to-Span Ratio) = 0.3

Condition	Variable	Cp		
		Windward Quarter	Center Half	Leeward Quarter
Roof on Elevated Structure	Cp	0.13	-1	-0.5
	P (+GCpi) - psf	-1.25	-18.81	-11.01
	P (-GCpi) -psf	5.16	-12.41	-4.60
Roof Springing from Ground	Cp	0.42	-1	-0.5
	P (+GCpi) - psf	3.35	-18.81	-11.01
	P (-GCpi) -psf	3.35	-18.81	-11.01

Table 6-9 Force Coefficients for Monoslope Roofs over Open Buildings, Cf

Variable	Description	Value	
L	Roof dimension normal to wind direction	30.00	ft
B	Roof dimension parallel to wind direction	34.00	ft
L/B	Ratio of L to B	0.882	
Theta	Slope of Roof	22.6	Deg
Cf	Force Coefficient	1.04	
X	Distance to center of pressure from windward edge	0.35	ft

COLUMBIA COUNTY BUILDING DEPARTMENT

Revised 10-01-05

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2004 and FLORIDA RESIDENTIAL CODE 2004 WITH AMENDMENTS ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE OCTOBER 1, 2005

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 16 OF THE FLORIDA BUILDING CODE 2004 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1609 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ——— 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE ———110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

GENERAL REQUIREMENTS: Two (2) complete sets of plans containing the following:

Applicant	Plans Examiner	
☑	☐	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☑	☐	Designers name and signature on document (FBC 106.1). If licensed architect or engineer, official seal shall be affixed.
☑	☐	**Site Plan including:** a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
☑	☐	**Wind-load Engineering Summary, calculations and any details required** Plans or specifications must state compliance with FBC Section 1609. *The following information must be shown as per section 1603.1.4 FBC* a. Basic wind speed (3-second gust), miles per hour (km/hr). b. Wind importance factor, Iw, and building classification from Table 1604.5 or Table 6-1, ASCE 7 and building classification in Table 1-1, ASCE 7. c. Wind exposure, if more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated. d. The applicable enclosure classifications and, if designed with ASCE 7, internal pressure coefficient. e. Components and Cladding. The design wind pressures in terms of psf (kN/m²) to be used for the design of exterior component and cladding materials not specifally designed by the registered design professional.
		Elevations including:
☑	☐	a) All sides
☑	☐	b) Roof pitch
☑	☐	c) Overhang dimensions and detail with attic ventilation

☐ ☐ d) Location, size and height above roof of chimneys.
☐ ☐ e) Location and size of skylights
☑ ☐ f) Building height
☑ ☐ e) Number of stories

Floor Plan including:

☑ ☐ a) Rooms labeled and dimensioned.
☑ ☐ b) Shear walls identified.
☑ ☐ c) Show product approval specification as required by Fla. Statute 553.842 and Fla. Administrative Code 9B-72 (see attach forms).
☑ ☐ d) Show safety glazing of glass, where required by code.
☑ ☐ e) Identify egress windows in bedrooms, and size.
☐ ☐ f) Fireplace (gas vented), (gas non-vented) or wood burning with hearth, (Please circle applicable type).
☐ ☐ g) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails.
☑ ☐ h) Must show and identify accessibility requirements (accessible bathroom)

Foundation Plan including:

☑ ☐ a) Location of all load-bearing wall with required footings indicated as standard or monolithic and dimensions and reinforcing.
☐ ☐ b) All posts and/or column footing including size and reinforcing
☐ ☐ c) Any special support required by soil analysis such as piling
☐ ☐ d) Location of any vertical steel.

Roof System:

☑ ☐ a) Truss package including:
1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.
2. Roof assembly (FBC 106.1.1.2)Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

☐ ☐ b) Conventional Framing Layout including:
1. Rafter size, species and spacing
2. Attachment to wall and uplift
3. Ridge beam sized and valley framing and support details
4. Roof assembly (FBC 106.1.1.2)Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

☑ ☐ a) Masonry wall
1. All materials making up wall
2. Block size and mortar type with size and spacing of reinforcement
3. Lintel, tie-beam sizes and reinforcement
4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
5. *All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation shall be designed by a Windload engineer using the engineered roof truss plans.*
6. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)
7. Fire resistant construction (if required)
8. Fireproofing requirements
9. Shoe type of termite treatment (termiticide or alternative method)
10. Slab on grade
    a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)
    b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports
11. Indicate where pressure treated wood will be placed
12. Provide insulation R value for the following:

a. Attic space
b. Exterior wall cavity
c. Crawl space (if applicable)

☑ ☐ b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers) shall be designed by a Windload engineer using the engineered roof truss plans.
7. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termiticide or alternative method)
11. Slab on grade
    a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed
    b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
    a. Attic space
    b. Exterior wall cavity
    c. Crawl space (if applicable)

☐ ☐ c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

Floor Framing System:

☐ ☐ a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer

☐ ☐ b) Floor joist size and spacing

☐ ☐ c) Girder size and spacing

☐ ☐ d) Attachment of joist to girder

☐ ☐ e) Wind load requirements where applicable

☑ ☐ **Plumbing Fixture layout**

Electrical layout including:

☑ ☐ a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified

☑ ☐ b) Ceiling fans

☑ ☐ c) Smoke detectors

☑ ☐ d) Service panel and sub-panel size and location(s)

☑ ☐ e) Meter location with type of service entrance (overhead or underground)

☑ ☐ f) Appliances and HVAC equipment

☑ ☐ g) Arc Fault Circuits (AFCI) in bedrooms

☑ ☐ h) Exhaust fans in bathroom

HVAC information

☑ ☐ a) Energy Calculations (dimensions shall match plans)

☑ ☐ b) Manual J sizing equipment or equivalent computation

☐ ☐ c)Gas System Type (LP or Natural) Location and BTU demand of equipment

☑ ☐ **Disclosure Statement for Owner Builders**

☑ ☐ ***Notice Of Commencement Required Before Any Inspections Will Be Done**

☑ ☐ **Private Potable Water**

a) Size of pump motor
b) Size of pressure tank
c) Cycle stop valve if used

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

1. **Building Permit Application:** A current Building Permit Application form is to be completed and submitted for all residential projects.

2. **Parcel Number:** The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested.

3. **Environmental Health Permit or Sewer Tap Approval:** A copy of the Environmental Health permit, existing septic approval or sewer tap approval is required before a building permit can be issued. (386) 758-1058 **(Toilet facilities shall be provided for construction workers)**

4. **City Approval:** **If the project is to be located within the city limits of the Town of Fort White,** prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit. **(386) 497-2321**

5. **Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.8 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.7 of the Columbia County Land Development Regulations. **CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.**
A development permit will also be required. Development permit cost is **$50.00**

6. **Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit **($25.00)** must be made. If the applicant feels that a culvert is not needed, *they may apply for a culvert waiver* ***($50.00)***. *All culvert waivers are sent to the Columbia County Public* Works Department for approval or denial. **If the project is to be located on a F.D.O.T. maintained road, than an F.D.O.T. access permit is required.**

7. **911 Address:** If the project is located in an area where the 911 address has been issued, then the proper paperwork from the 911 Addressing Department must be submitted. (386) 752-8787

ALL REQUIRED INFORMATION IS TO BE SUBMITTED FOR REVIEW. YOU WILL BE NOTIFIED WHEN YOUR APPLICATION AND PLANS ARE APPROVED AND READY TO PERMIT. PLEASE DO NOT EXPECT OR REQUEST THAT PERMIT APPLICATIONS BE REVIEWED OR APPROVED WHILE YOU ARE HERE – TIME WILL NOT ALLOW THIS –PLEASE DO NOT ASK

PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING			
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG			
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING			
B. SOFFITS			
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. NON-STRUCT METAL			
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER			
5. STRUCT COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR ENVELOPE PRODUCTS			
A.			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

APPLICANT SIGNATURE

11/5/07
DATE

R-1305 01-04

AAMA/NWWDA 101/I.S.2-97
TEST REPORT SUMMARY

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 650 Fin
TYPE: Aluminum Single Hung Window

Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft^2
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

REVIEWED
NO. 18354

Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC.
650 West Market Street
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01
Test Date: 03/07/02
Report Date: 03/26/02
Expiration Date: 03/07/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

Overall Size: 4' 4-1/4" wide by 6' 0-3/8" high

Active Sash Size: 4' 1-3/4" wide by 3' 0-5/8" high

Daylight Opening Size: 3' 11-3/8" wide by 2' 9-1/2" high

Screen Size: 4' 0-1/4" wide by 2' 11-1/8" high

Finish: All aluminum was white.

Glazing Details: The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap around...

Test Specimen Description: (Continued)

Weatherstripping:

Description	Quantity	Location
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

Sash Construction: The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

Screen Construction: The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

Hardware:

Description	Quantity	Location
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft^2	0.3 cfm/ft^2 max

***Note #1**: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.*

	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 25.9 psf (positive)	0.42"*	0.26" max.
	@ 34.7 psf (negative)	0.43"*	0.26" max.

**Exceeds L/175 for deflection, but passes all other test requirements.*

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 38.9 psf (positive)	0.02"	0.18" max.
	@ 52.1 psf (negative)	0.02"	0.18" max.

ALLEN H. REEVES CERTIFICATE

Test Specimen Description: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.2	Deglazing Test (ASTM E 987)		
	In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
Optional Performance			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.
	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 67.5 psf (positive)	0.05"	
	@ 70.8 psf (negative)	0.05"	0.18" max.

*Exceeds L/175 for deflection, but passes all other test requirements.

LEN N. REEVES

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

Allen N. Reeves, P.E.
Director - Engineering Services
1 APRIL 2002

MAH:nlb
01-41134.01

ALLEN N. REEVES
CERTIFICATE
NO. 19259
STATE OF

AAMA/NWWDA 101/I.S.2-97
TEST REPORT

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 650
TYPE: Aluminum Triple Single Hung Window

Title of Test	Summary of Results
AAMA Rating	H-R35 112 x 72
Uniform Load Deflection Test Pressure	+35.3 psf -47.2 psf
Operating Force	25 lb max.
Air Infiltration	0.16 cfm/ft^2
Water Resistance Test Pressure	5.25 psf
Uniform Load Structural Test Pressure	+53.0 psf -52.5 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-41641.01 for complete test specimen description and data.

ALLEN N. REEVES NO. 18354

Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC.
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: 01-41641.01
Test Date: 05/13/02
And: 05/16/02
Report Date: 06/05/02
Expiration Date: 05/16/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to witness testing on a Series/Model 650, aluminum triple single hung window at their facility located in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-R35 112 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.*

Test Specimen Description:

Series/Model: 650

Type: Aluminum Triple Single Hung Window

Overall Size: 9' 3-1/2" wide by 5' 11-11/16" high

Active Sash Size (3): 3' 0-1/4" wide by 2' 10-3/4" high

Fixed Daylight Opening Size (3): 2' 8-1/4" wide by 2' 9-1/8" high

Screen Size (3): 2' 9-1/8" wide by 2' 11" high

ALLEN N. REEVES CERTIFICATE NO. 18254

Test Specimen Description: (Continued)

Glazing Details: The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

Weatherstripping

Description	Quantity	Location
0.230" high by 0.270" backed polypile with center fin	Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" by 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam filled vinyl bulb seal	1 Row	Active sash, bottom rail

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. The meeting rail was secured to the frame utilizing two 1-1/4" screws. The mullions were secured utilizing four #8 x 1-1/4" screws through the head and sill into the mullion screw boss.

Sash Construction: The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each stiles' screw boss.

Screen Construction: The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

Test Specimen Description: (Continued)

Hardware:

Description	Quantity	Location
Metal cam lock with keeper	1	Midspan of each active meeting rail with adjacent keepers
Plastic tilt latch	2	Each active sash meeting rail ends
Metal tilt pin	2	Each active sash bottom rail ends
Balance assembly	2	Each active sash contained one in each jamb
Screen plunger	2	Each screen contained two 4" from rail ends on top rail

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized

Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

Test Results:

The results are tabulated as follows

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.1	Operating Force	25 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.16 cfm/ft^2	0.3 cfm/ft^2 max

***Note #1**: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.*

Water Resistance (ASTM E 547-00)
(with and without screen)

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.1.4.1	Uniform Load Deflection (ASTM E 330-97)		
	(Measurements reported were taken on the mullion)		
	(Loads were held for 52 seconds)		
	@ 15.0 psf (positive)	0.15"	0.41" max
	@ 15.0 psf (negative)	0.29"	0.41" max
2.1.4.2	Uniform Load Structural (ASTM E 330-97)		
	(Measurements reported were taken on the mullion)		
	(Loads were held for 10 seconds)		
	@ 22.5 psf (positive)	0.01"	0.29" max.
	@ 22.5 psf (negative)	0.01"	0.29" max.
2.2 6.2	Deglazing Test (ASTM E 987-88)		
	In operating direction at 70 lbs		
	Right sash, meeting rail	0.12"/25%	0.50"/100%
	Right sash, bottom rail	0.12"/25%	0.50"/100%
	Middle sash, meeting rail	0.12"/25%	0.50"/100%
	Middle sash, bottom rail	0.12"/25%	0.50"/100%
	Left sash, meeting rail	0.12"/25%	0.50"/100%
	Left sash, bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Right sash, right stile	0.06"/12%	0.50"/100%
	Right sash, left stile	0.06"/12%	0.50"/100%
	Middle sash, right stile	0.06"/12%	0.50"/100%
	Middle sash, left stile	0.06"/12%	0.50"/100%
	Left sash, right stile	0.06"/12%	0.50"/100%
	Left sash, left stile	0.06"/12%	0.50"/100%
2 8	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

ALLEN N. REEVES CERTIFICATE

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
	Optional Performance		
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 5.25 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 52 seconds)		
	@ 35.3 psf (positive)	0.46"*	0.41" max
	@ 47.2 psf (negative)	0.67"*	0.41" max
	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds)		
	@ 53.0 psf (positive)	0.03"	0.29" max
	@ 52.5 psf (negative)	0.02"	0.29" max

**Exceeds L/175 for deflection, but meets all other test requirements.*

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC

Mark A. Hess
Technician

MAH:nlb
01-41641.01

Allen N. Reeves, P.E.
Director - Engineering Services
7 JUNE 2002

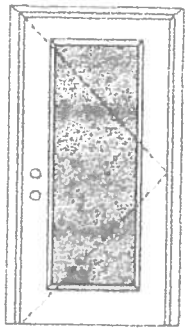
ALLEN N. REEVES CERTIFICATE NO. 19256

X
Glazed Outswing Unit

COP-WL-JH4161-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Warnock Hersey

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Note:
Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".

Single Door
Maximum unit size = 3'0" x 6'8"

Design Pressure
+40.5/-40.5
Limited water unless special threshold design is used

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7 national standard or local building codes specify the edition required

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0011-02 and MAD-WL-MA0041-02

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02

APPROVED DOOR STYLES:

1/4 GLASS:


100 Series


133, 135 Series


136 Series


680 Series


822 Series

1/2 GLASS:


105 Series*


150, 160 Series


129 Series*


200 Series*


12 R/L, 23 R/L, 24 R/L Series*


107 Series*


108 Series


304 Series

X
Glazed Outswing Unit

COP-WL-JH4161-02

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

3/4 GLASS:

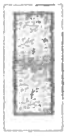

404 Series

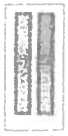

410 Series

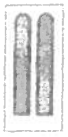

450 Series

FULL GLASS:


109 Series


114, 120, 122 Series


152 Series


149 Series


300 Series

CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9, 10, 11, 12, NCTL 210-1864-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258

Unit Tested in Accordance with Miami-Dade BCCO PA202

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections)

Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

Warnock Hersey

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

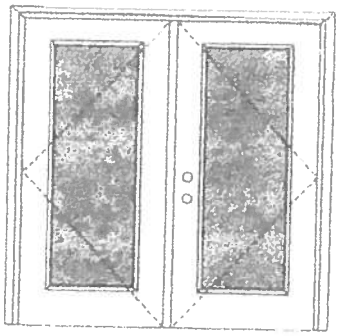
Johnson EntrySystems

XX
Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Double Door
Maximum unit size = 6'0" x 6'8"

Design Pressure
+40.5/-40.5
Limited water unless special threshold design is used

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7 (National) state or local building codes specify the edition required.

Note:
Units of other sizes are covered by this report as long as the panels used do not exceed 3'0" x 6'8".

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0012-02 and MAD-WL-MA0041-02

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0002-02

APPROVED DOOR STYLES:

1/4 GLASS:


100 Series


133, 135 Series


136 Series


680 Series


822 Series

1/2 GLASS:


105 Series*


106, 160 Series*


129 Series*


200 Series*


12 R/L, 23 R/L, 24 R/L Series*


107 Series*


108 Series


804 Series

COP-WL-JH4162-02

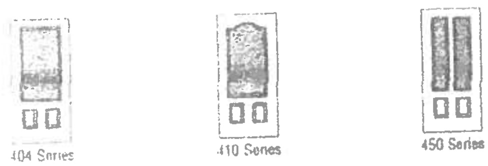
XX

Glazed Outswing Unit

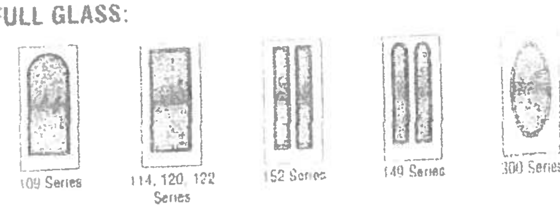
WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

3/4 GLASS:



FULL GLASS:



CERTIFIED TEST REPORTS:

NCTL 210-1897 7, 8, 9, 10, 11, 12; NCTL 210-1864 5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258

Unit Tested in Accordance with Miami-Dade BCCO PA202

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

State of Florida, Professional Engineer

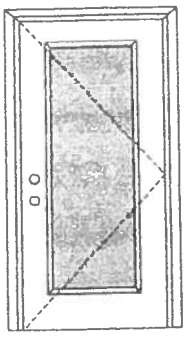
Warnock Hersey

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A.001 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Glazed Outswing Unit

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Warnock Hersey

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Note:
Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".

Single Door
Maximum unit size = 3'0" x 6'8"

Design Pressure
+40.5/-40.5
Limited water unless special threshold design is used

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7 national, state or local building codes specify the edition required

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0011-02 and MAD-WL-MA0041-02.

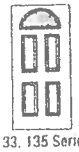
MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

APPROVED DOOR STYLES:

1/4 GLASS:


100 Series

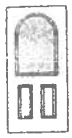

133, 135 Series


136 Series


680 Series


822 Series

1/2 GLASS:


105 Series*


106, 160 Series*


129 Series*


200 Series*


12 R/L, 23 R/L, 24 R/L Series*


107 Series*


108 Series


304 Series

*This glass kit may also be used in the following door styles: 5-panel, 5-panel with scroll; Eyebrow 5-panel, Eyebrow 5-panel with scroll.

Johnson™ EntrySystems

June 17, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

PREMDOR® Collection Premium Quality Doors

Exclusively from Masonite®
Masonite International Corporation

X
Glazed Outswing Unit

COP-WL-JH4161-02

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

3/4 GLASS:

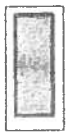

404 Series

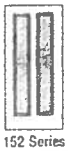

410 Series


450 Series

FULL GLASS:


109 Series


114, 120, 122 Series


152 Series


149 Series


300 Series

CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1864-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

Warnock Hersey

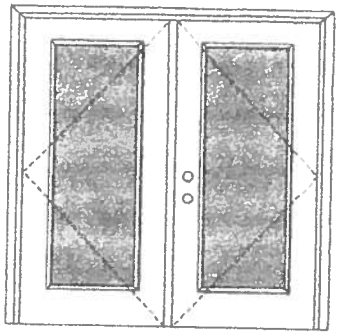
Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center

XX
Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Double Door
Maximum unit size = 6'0" x 6'8"

Design Pressure
+40.5/-40.5
Limited water unless special threshold design is used

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required

Warnock Hersey

Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website (www.oltsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Note:
Units of other sizes are covered by this report as long as the panels used do not exceed 3'0" x 6'8".

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0012-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0002-02

APPROVED DOOR STYLES:

1/4 GLASS:


100 Series


133, 135 Series


136 Series


680 Series


822 Series

1/2 GLASS:


105 Series*


106, 160 Series*


129 Series*


200 Series*


12 R/L 23 R/L, 24 R/L Series*


107 Series*


108 Series


304 Series

* This glass kit may also be used in the following door styles: 5-panel, 5 panel with scroll, Eyebrow 5-panel, [illegible]

COP-WL-JH4162-02

XX
Glazed Outswing Unit

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:
3/4 GLASS:


404 Series


410 Series


450 Series

FULL GLASS:


109 Series


114, 120, 122 Series


152 Series


149 Series


300 Series

CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1864-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top and rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

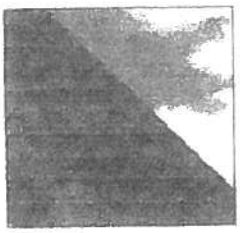
Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

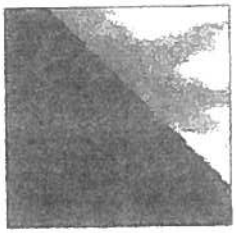
Warnock Hersey

Test Data Review Certificate #30264474 and COP/Test Report Validation Matrix #30264474-001 provides additional information available from the ITS/WH website (www.etisemko.com), the Masonite website (www.masonite.com) or the Masonite technical center

ELK Roofing Products Specifications – Tuscaloosa, AL



PRESTIQUE®
HIGH DEFINITION®



RAISED PROFILE®

Prestique Plus *High Definition* and Prestique Gallery Collection

Product size	13¼"x 39⅜"
Exposure	5⅝"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq ft
Squares/Pallet	11

50-year limited warranty period. 5-7**years non-prorated coverage for shingles and application labor with prorated coverage for remainder of limited warranty period, plus an option for transferability*. 5-year limited wind warranty*. Wind Coverage: standard 80 mph, extended 110 mph***

Prestique *High Definition*

Product size	13¼"x 39⅜"
Exposure	5⅝"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq ft.
Squares/Pallet	14

40-year limited warranty period. 5-7**years non-prorated coverage for shingles and application labor with prorated coverage for remainder of limited warranty period, plus an option for transferability*. 5-year limited wind warranty*. Wind Coverage: standard 80 mph, extended 90 mph***

High Definition

Product size	13¼"x 39⅜"
Exposure	5⅝"
Pieces/Bundle	22
Bundles/Square	3/100 sq ft.
Squares/Pallet	16

30-year limited warranty period. 5-7**years non-prorated coverage for shingles and application labor with prorated coverage for remainder of limited warranty period, plus an option for transferability*. 5-year limited wind warranty*. Wind Coverage: standard 80 mph.

Raised Profile

Product size	13¼"x 38⅞"
Exposure	5⅝"
Pieces/Bundle	22
Bundles/Square	3/100 sq ft
Squares/Pallet	16

30-year limited warranty period. 5-7**years non-prorated coverage for shingles and application labor with prorated coverage for remainder of limited warranty period, plus an option for transferability*. 5-year limited wind warranty*. Wind Coverage: standard 70 mph

HIP AND RIDGE SHINGLES

Seal-A-Ridge® with *FLX*
Size: 12"x 12"
Exposure: 6⅛"
Pieces/Bundle: 45
Coverage: 4 Bundles = 100 linear feet

Ventilated RidgeCrest® with *FLX*
Size: 13"x13"
Exposure: 9"
Pieces/Box: 26
Coverage: 5 boxes = 100 linear feet

Elk Starter Strip

52 Bundles/Pallet
18 Pallets/Truck
936 Bundles/Truck
19 Pieces/Bundle
1 Bundle = 120.33 linear feet

Available Colors (Check Availability): Antique Slate, Weatheredwood, Shakewood, Sablewood, Hickory, Barkwood, Forest Green, Wedgewood, Birchwood, Sandalwood, Gallery Collection, Balsam Forest™, Weathered Sage™, Sienna Sunset™

All Prestique, Raised Profile and Seal A-Ridge, and Prestique Starter Strip roofing products contain sealant which activates with the sun's heat, bonding shingles into a wind and weather resistant cover that resists blow-offs and leaks.

Check for availability with built-in StainGuard® treatment to inhibit the discoloration of roofing granules caused by the growth of certain types of algae.

All Prestique and Raised Profile shingles meet UL® Wind Resistant (UL 997) and Class "A" Fire Ratings (UL 790), and ASTM Specifications D 3018, Type-I; D 3161, Type-I; E 108 and the requirements of ASTM D 3462.

All Prestique and Raised Profile shingles have approval from the Florida Building Code Commission, Metro-Dade County, ICBO, and Texas Department of Insurance

*See actual limited warranty for conditions and limitations.
** Effective January 1, 2004, the seven year non-prorated Umbrella Coverage Period applies only when a full Elk Roof System is installed with the original installation of the Elk shingles, all in accordance with Elk's application instructions for such products. A full Elk roof system includes Elk Hip and Ridge shingles on all hips and ridges, Elk Starter Strip along all rake and eave edges, an Elk ventilation system, and Elk All-Climate Self-Adhering Underlayment in all valleys. Additionally, Elk All-Climate Self-Adhering Underlayment is required along the rake and eave edges of the roof in and north of the states of VA, KY, MO, KS, CO, UT, NV, & OR.
***For a limited Wind Warranty up to 110 mph for Prestique Gallery Collection, Prestique Plus, or 90 mph for Prestique I or Grande, at least six (6) properly placed NAILS and Elk Starter Strip shingles are required. See application instructions printed on the shingle wrapper for additional requirements.

Specifications

Scope: Work includes furnishing all labor, materials and equipment necessary to complete installation of (name) shingles specified herein. Color shall be (name of color). Hip and ridge type to be Elk Seal-A-Ridge with formula *FLX*.

All exposed metal surfaces (flashing, vents, etc.) to be painted with matching Elk roof accessory paint.

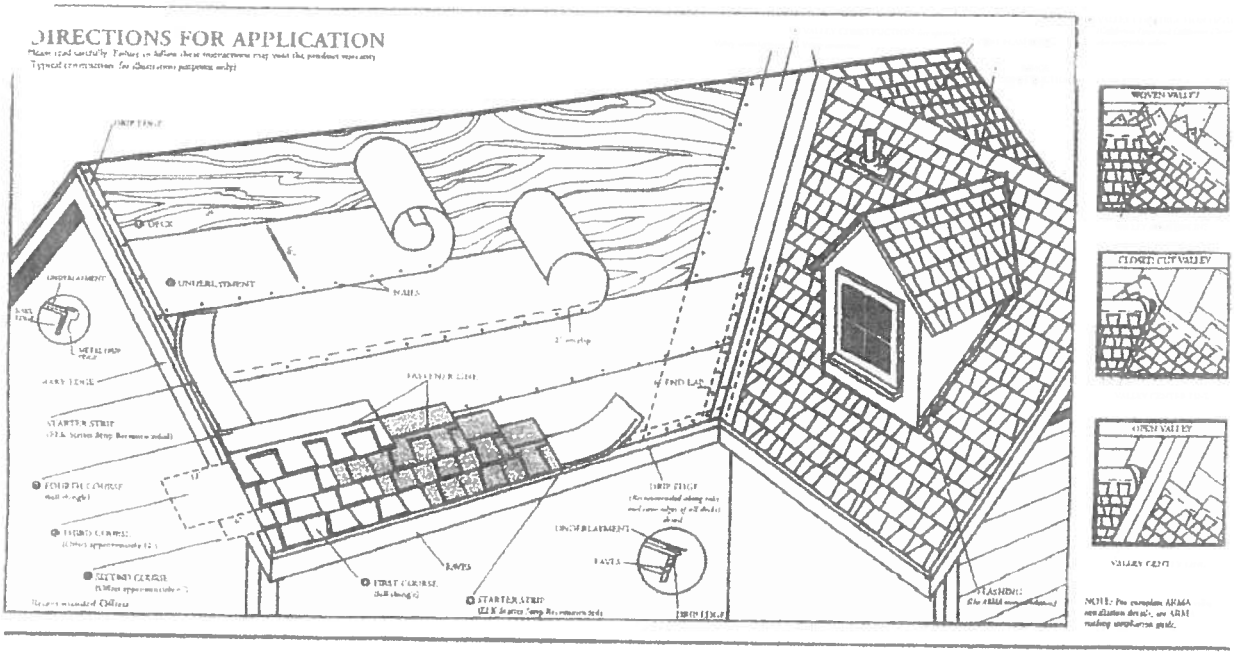
Preparation of Roof Deck: Roof deck to be dry, well seasoned 1" x 6" (25.4mm x 152.4mm) boards, exterior grade plywood (exposure 1 rated sheathing) at least 3/8" (9.525mm) thick conforming to the specifications of the American Plywood Association, 7/16" (11.074mm) oriented strandboard or chipboard. Most fire retardant plywood decks are NOT approved substrates for Elk shingles. Consult Elk Field Services for more

Materials: Underlayment for standard roof slopes, 4" per foot (101.6/304.8mm) or greater: apply non-perforated No. 15 or 30 asphalt-saturated felt underlayment. For Low slopes(4" per foot (101.6/304.8mm) to a minimum of 2" per foot (50.8/304.8mm)), use two ply of underlayment overlapped a minimum of 19". Fasteners shall be of sufficient length and holding power for securing material as required by the application instructions printed on shingle wrapper.

For areas where algae is a problem, shingles shall be (name) with StainGuard treatment, as manufactured by the Elk Tuscaloosa plant. Hip and ridge type to be Seal-A-Ridge with formula *FLX* with StainGuard treatment.

Complete application instructions are published by Elk and printed on the back of every shingle bundle. All warranties are contingent upon the correct installation as shown on the instructions. These instructions are the minimum required to meet Elk application requirements. In some areas, building codes may require additional application techniques or methods beyond our instructions. In these cases, the local code must be followed. Under no circumstances will Elk accept application requirements less than those contained in its application instructions.

For specifications in CSI format, call 800.354.SPEC (7732) or e-mail specinfo@elkcorp.com



DIRECTIONS FOR APPLICATION

These application instructions are the minimum required to meet Elk's application requirements. Your failure to follow these instructions may void the product warranty. In some areas, the building codes may require additional application techniques or methods beyond our instructions. In these cases, the local code must be followed. Under no circumstances will Elk accept application requirements that are less than those printed here. Shingles should not be jammed tightly together. All attics should be properly ventilated. Note: It is not necessary to remove tape on back of shingle.

❶ DECK PREPARATION

Roof decks should be dry, well-seasoned 1" x 6" boards or exterior grade plywood minimum 3/8" thick and conform to the specifications of the American Plywood Association or 7/16" oriented strandboard, or 7/16" chipboard.

❷ UNDERLAYMENT

Apply underlayment (Non-Perforated No. 15 or 30 asphalt saturated felt). Elk Versashield® or self adhering underlayment is also acceptable. Cover drip edge at eaves only.

For low slope(2/12 up to 4/12), completely cover the deck with two plies of underlayment overlapping a minimum of 19". Begin by fastening a 19" wide strip of underlayment placed along the eaves. Place a full 36" wide sheet over the starter, horizontally placed along the eaves and completely overlapping the starter strip.

EAVE FLASHING FOR ICE DAMS (ASK A ROOFING CONTRACTOR, REFER TO ARMA MANUAL OR CHECK LOCAL CODES)

For standard slope (4/12 to less than 21/12), use coated roll roofing at no less than 50 pounds over the felt underlayment extending from the eave edge to a point at least 24" beyond the inside wall of the living space below or one layer of a self-adhered eave and flashing membrane.

For low slope (2/12 up to 4/12), use a continuous layer of asphalt plastic cement between the two plies of underlayment from the eave edge up roof to a point at least 24" beyond the inside wall of the living space below or one layer of a self-adhered eave and flashing membrane.

Consult the Elk Technical Services Department for application specifications over other decks and other slopes.

❸ STARTER SHINGLE COURSE

USE AN ELK STARTER STRIP OR THE HEADLAP OF A STRIP SHINGLE WITH THE ADHESIVE STRIP POSITIONED AT THE EAVE EDGE. With at least 3" trimmed from the end of the first shingle, start at the rake edge overhanging the eave and rake edges 1/2" to 3/4". Fasten 2" from the lower edge and 1" from each side.

❹ FIRST COURSE

Start at rake and continue course with full shingles laid flush with the starter course. Shingles may be applied with a course alignment of 45° on the roof.

❺ SECOND COURSE

Offset the second course of shingles with respect to the first by approximately 6". Other offsets are approved if greater than 4".

❻ THIRD COURSE

Offset the next course by 6" with respect to the second course or consistent with the original offset.

❼ FOURTH COURSE

Start at the rake and continue with full shingles across roof.

FIFTH AND SUCCEEDING COURSES

Repeat application as shown for second, third and fourth courses. Do not rack shingles straight up the roof. Offsets may be adjusted around valleys and penetrations.

❽ VALLEY CONSTRUCTION

Open woven and closed cut valleys are acceptable when applied by Asphalt Roofing Manufacturing Association (ARMA) recommended procedures. For metal valleys, use 36" wide vertical underlayment prior to applying metal flashing (secure edge with nails). Nails are to be within 6" of valley center.

❾ RIDGE CONSTRUCTION

For ridge construction Elk recommends Class "A" Z®Ridge or Seal-A-Ridge® with formula *FLX*™ or RidgeCrest™ with *FLX* (See ridge package for installation instructions). Vented RidgeCrest or 3-tab shingles are also approved.

FASTENERS

While nailing is the preferred method for Elk shingles, Elk will accept fastening methods according to the following instructions.

Using the fastener line as a reference, nail or staple the shingle in the double thickness common bond area. For shingles without a fastener line, nails or staples must be placed between and/or in the sealant dots.

NAILS: Corrosive resistant, 3/8" head, minimum 12-gauge roofing nails. Elk recommends 1 1/4" for new roofs and 1-1/2" for roof overs. In cases where you are applying shingles to a roof that has an exposed overhang, for new roofs only, 3/4" ring shank nails are allowed to be used from the eave's edge to a point up the roof that is past the outside wall line. 1" ring shank nails allowed for re-roof.

STAPLES: Corrosive resistant, 16 gauge minimum, crown width minimum of 15/16". Note: An improperly adjusted staple gun can result in raised staples that can cause a fish-mouthed appearance and can prevent sealing.

Fasteners should be long enough to obtain 3/4" deck penetration or penetration through deck, whichever is less. This product meets the requirements of the IRC 2003 code when fastened with 4 nails.

MANSARD APPLICATIONS

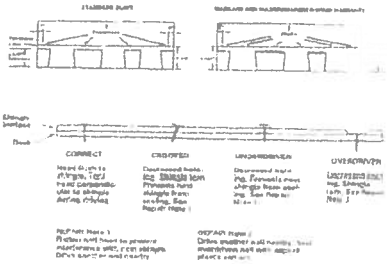
Correct fastening is critical to the performance of the roof. For slopes exceeding 60° (or 21/12) use six fasteners per shingle. Locate fasteners in the fastener area 1" from each side edge with the remaining four fasteners equally spaced along the length of the double thickness (laminated) area. Only fastening methods according to the above instructions are acceptable.

LIMITED WIND WARRANTY

- For a Limited Wind Warranty, all Prestique and Raised Profile™ shingles must be applied with 4 properly placed fasteners, or in the case of mansard applications, 6 properly placed fasteners per shingle.
- For a Limited Wind Warranty up to 110 MPH for Prestique Gallery Collection or Prestique Plus or 90 MPH for Prestique I, shingles must be applied with 6 properly placed NAILS per shingle. SHINGLES APPLIED WITH STAPLES WILL NOT QUALIFY FOR THIS ENHANCED LIMITED WIND WARRANTY. Also, Elk Starter Strip shingles must be applied at the eaves and rake edges to qualify Prestique Plus, Prestique Gallery Collection and Prestique I shingles for this enhanced Limited Wind Warranty. Under no circumstances should the Elk Shingles or the Elk Starter Strip overhang the eaves or rake edge more than 3/4 of an inch.

HELP STOP BLOW-OFFS AND CALL-BACKS

A minimum of four fasteners must be driven into the 6 THICKNESS (laminated) area of the shingle. Nails or must be placed along and through - the 'fastener line products without fastener lines, nail or staple between d line with sealant dots. CAUTION: Do not use fastener l shingle alignment.



Refer to local codes which in some areas may require specific application techniques beyond those Elk has specified.

All Prestique and Raised Profile shingles have a U.L.® Wind Resistance Rating when applied in accordance with these instructions using nails or staples on re-roofs as well as new construction.

CAUTION TO WHOLESALER: Careless and improper storage or handling can harm fiberglass shingles. Keep these shingles completely covered, dry, reasonably cool, and protected from the weather. Do not store near various sources of heat. Do not store in direct sunlight until applied. DO NOT DOUBLE STACK. Systematically rotate all stock so that the material that has been stored the longest will be the first to be moved out.

ELK

Residential System Sizing Calculation

Summary

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

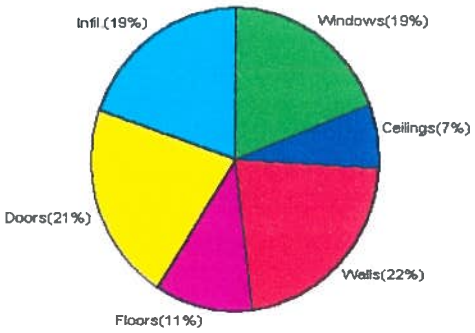
Location for weather data: Gainesville - Defaults: Latitude(29) Altitude(152 ft.) Temp Range(M)
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)

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	**14604**	**Btuh**	**Total cooling load calculation**	**15895**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	205.4	30000	Sensible (SHR = 0.75)	154.6	22500
Heat Pump + Auxiliary(0.0kW)	205.4	30000	Latent	559.3	7500
			Total (Electric Heat Pump)	188.7	30000

WINTER CALCULATIONS

Winter Heating Load (for 860 sqft)

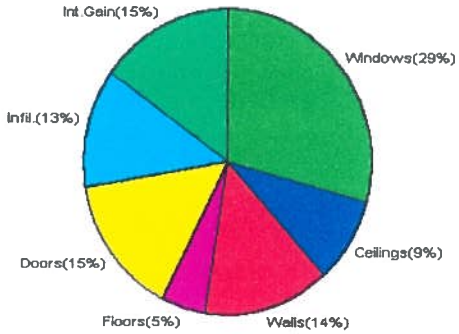
Load component			Load	
Window total	87	sqft	2801	Btuh
Wall total	912	sqft	3201	Btuh
Door total	240	sqft	3105	Btuh
Ceiling total	860	sqft	1013	Btuh
Floor total	860	sqft	1651	Btuh
Infiltration	70	cfm	2833	Btuh
Duct loss			0	Btuh
Subtotal			**14604**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**14604**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 860 sqft)

Load component			Load	
Window total	87	sqft	4663	Btuh
Wall total	912	sqft	2258	Btuh
Door total	240	sqft	2350	Btuh
Ceiling total	860	sqft	1424	Btuh
Floor total			776	Btuh
Infiltration	37	cfm	683	Btuh
Internal gain			2400	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			**14554**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			1341	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			0	Btuh
Total latent gain			**1341**	**Btuh**
TOTAL HEAT GAIN			**15895**	**Btuh**



Version 8
For Florida residences only

EnergyGauge® System Sizing
PREPARED BY: Jason Elyson
DATE: 10-4-07

Residential Window Diversity

MidSummer

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

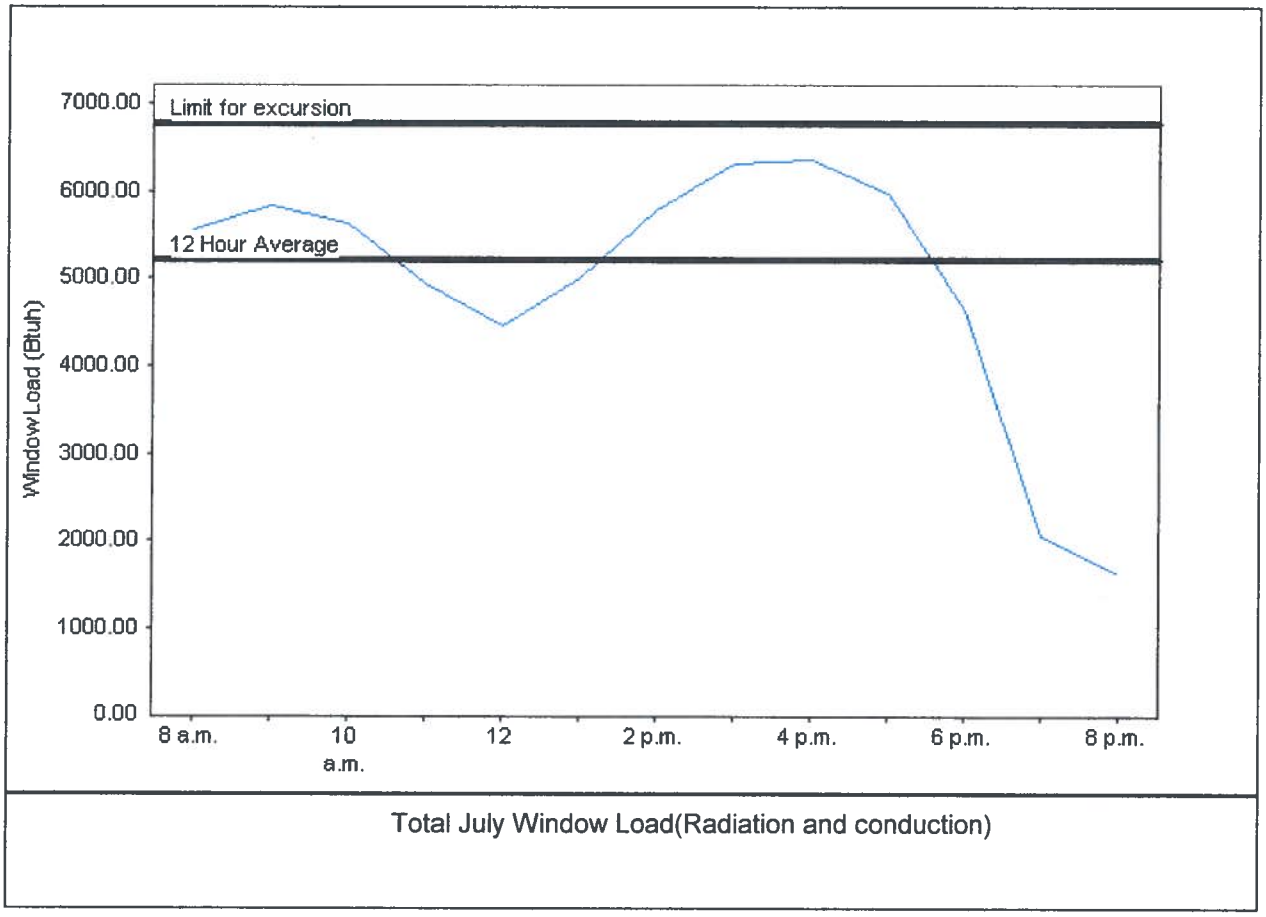
Code Only
Professional Version
Climate: North

10/9/2007

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	5211 Btuh
Summer setpoint	75 F	Peak window load for July	6359 Btuh
Summer temperature difference	17 F	Excusion limit(130% of Ave.)	6774 Btuh
Latitude	29 North	Window excursion (July)	None

WINDOW Average and Peak Loads



Total July Window Load(Radiation and conduction)

The midsummer window load for this house does not exceed the window load excursion limit.

This house has adequate midsummer window diversity.

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: Jason Elyson

DATE: 10-4-07

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F

10/9/2007

This calculation is for Worst Case. The house has been rotated 90 degrees.

Component Loads for Zone #1: Main

Window	Type* Pn/SHGC/U/InSh/ExSh/IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2, Clear, 0.87, B-M, N,H	E	0ft.	0ft.	6.0	0.0	6.0	21	62	374 Btuh
2	2, Clear, 0.87, B-M, N,H	E	0ft.	0ft.	30.0	0.0	30.0	21	62	1871 Btuh
3	2, Clear, 0.87, B-M, N,H	S	0ft.	0ft.	6.0	0.0	6.0	21	26	156 Btuh
4	2, Clear, 0.87, B-M, N,H	S	0ft.	0ft.	15.0	0.0	15.0	21	26	390 Btuh
5	2, Clear, 0.87, B-M, N,H	W	0ft.	0ft.	30.0	0.0	30.0	21	62	1871 Btuh
	Window Total				87 (sqft)					4663 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	11.0/0.09	912.0	2.5	2258 Btuh
	Wall Total		912 (sqft)		2258 Btuh
Doors	Type		Area (sqft)	HTM	Load
1	Insulated - Exterior		239.8	9.8	2350 Btuh
	Door Total		240 (sqft)		2350 Btuh
Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	860.0	1.7	1424 Btuh
	Ceiling Total		860 (sqft)		1424 Btuh
Floors	Type	R-Value	Size	HTM	Load
1	Stem Wall with Stem Wall Insul	6.0	860 (sqft)	0.9	776 Btuh
	Floor Total		860.0 (sqft)		776 Btuh
			Zone Envelope Subtotal:		11471 Btuh

Infiltration	Type	ACH	Volume(cuft)	wall area(sqft)	CFM=	Load
	SensibleNatural	0.32	6880	912	36.7	683 Btuh
Internal gain	Occupants		Btuh/occupant		Appliance	Load
	0	X	230	+	2400	2400 Btuh
				Sensible Envelope Load:		14554 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond)				(DGM of 0.000)	0 Btuh
				Sensible Zone Load		**14554 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**14554 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**14554 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**14554 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	1341 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (0 people @ 200 Btuh per person)	0 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**1341 Btuh**
	TOTAL GAIN	**15895 Btuh**

EQUIPMENT

1. Central Unit	#	30000 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 - Whole House Component Details

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 10/9/2007

This calculation is for Worst Case. The house has been rotated 90 degrees.

Component Loads for Whole House

	Type*		Overhang		Window Area(sqft)			HTM		Load
Window	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2, Clear, 0.87, B-M, N,H	E	0ft.	0ft.	6.0	0.0	6.0	21	62	374 Btuh
2	2, Clear, 0.87, B-M, N,H	E	0ft.	0ft.	30.0	0.0	30.0	21	62	1871 Btuh
3	2, Clear, 0.87, B-M, N,H	S	0ft.	0ft.	6.0	0.0	6.0	21	26	156 Btuh
4	2, Clear, 0.87, B-M, N,H	S	0ft.	0ft.	15.0	0.0	15.0	21	26	390 Btuh
5	2, Clear, 0.87, B-M, N,H	W	0ft.	0ft.	30.0	0.0	30.0	21	62	1871 Btuh
	Window Total				87 (sqft)					4663 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	11.0/0.09	912.0	2.5	2258 Btuh
	Wall Total		912 (sqft)		2258 Btuh
Doors	Type		Area (sqft)	HTM	Load
1	Insulated - Exterior		239.8	9.8	2350 Btuh
	Door Total		240 (sqft)		2350 Btuh
Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	860.0	1.7	1424 Btuh
	Ceiling Total		860 (sqft)		1424 Btuh
Floors	Type	R-Value	Size	HTM	Load
1	Stem Wall with Stem Wall Insul	6.0	860 (sqft)	0.9	776 Btuh
	Floor Total		860.0 (sqft)		776 Btuh
			Envelope Subtotal:		11471 Btuh

Infiltration	Type	ACH	Volume(cuft)	wall area(sqft)	CFM=	Load
	SensibleNatural	0.32	6880	912	69.9	683 Btuh
Internal gain	Occupants		Btuh/occupant		Appliance	Load
	0	X	230	+	2400	2400 Btuh
				Sensible Envelope Load:		14554 Btuh
Duct load				(DGM of 0.000)		0 Btuh
				Sensible Load All Zones		**14554 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

WHOLE HOUSE TOTALS

	Sensible Envelope Load All Zones	**14554 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**14554 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
Whole House	**Total sensible gain**	**14554 Btuh**
Totals for Cooling	Latent infiltration gain (for 54 gr. humidity difference)	1341 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (0 people @ 200 Btuh per person)	0 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**1341 Btuh**
	TOTAL GAIN	**15895 Btuh**

EQUIPMENT

1. Central Unit	#	30000 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 - Winter

Residential Load - Room by Room Component Details

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F
This calculation is for Worst Case. The house has been rotated 90 degrees.

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	E	6.0	32.2	193 Btuh
2	2, Clear, Metal, 0.87	E	30.0	32.2	966 Btuh
3	2, Clear, Metal, 0.87	S	6.0	32.2	193 Btuh
4	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh
5	2, Clear, Metal, 0.87	W	30.0	32.2	966 Btuh
	Window Total		87(sqft)		2801 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	11.0	912	3.5	3201 Btuh
	Wall Total		912		3201 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exterior		240	12.9	3105 Btuh
	Door Total		240		3105Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin	30.0	860	1.2	1013 Btuh
	Ceiling Total		860		1013Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Stem Wall with Stem Wall I	6	860.0 sqft	1.9	1651 Btuh
	Floor Total		860		1651 Btuh
			Zone Envelope Subtotal:		11771 Btuh
Infiltration	Type	ACH X	Volume(cuft)	walls(sqft) CFM=	
	Natural	0.61	6880	912 69.9	2833 Btuh
Ductload	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond)(DLM of 0.000)				0 Btuh
Zone #1			**Sensible Zone Subtotal**		**14604 Btuh**

WHOLE HOUSE TOTALS

	Subtotal Sensible	14604 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	14604 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

EQUIPMENT		
1. Electric Heat Pump	#	30000 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 - Whole House Component Details

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

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

10/9/2007

This calculation is for Worst Case. The house has been rotated 90 degrees.

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	E	6.0	32.2	193 Btuh
2	2, Clear, Metal, 0.87	E	30.0	32.2	966 Btuh
3	2, Clear, Metal, 0.87	S	6.0	32.2	193 Btuh
4	2, Clear, Metal, 0.87	S	15.0	32.2	483 Btuh
5	2, Clear, Metal, 0.87	W	30.0	32.2	966 Btuh
	Window Total		87(sqft)		2801 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	11.0	912	3.5	3201 Btuh
	Wall Total		912		3201 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exterior		240	12.9	3105 Btuh
	Door Total		240		3105Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin	30.0	860	1.2	1013 Btuh
	Ceiling Total		860		1013Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Stem Wall with Stem Wall I	6	860.0 sqft	1.9	1651 Btuh
	Floor Total		860		1651 Btuh
				Envelope Subtotal:	11771 Btuh
Infiltration	Type	ACH X	Volume(cuft)	walls(sqft) CFM=	
	Natural	0.61	6880	912 69.9	2833 Btuh
Ductload				(DLM of 0.000)	0 Btuh
All Zones				**Sensible Subtotal All Zones**	**14604 Btuh**

WHOLE HOUSE TOTALS

	Subtotal Sensible	14604 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	14604 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

GLEN KEEN

LAKE CITY, FL

Project Title:
KEEN ADDITION

Code Only
Professional Version
Climate: North

10/9/2007

EQUIPMENT		
1. Electric Heat Pump	#	30000 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