Lemke Kemodel

CC# 5548

Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 0604-74 Date Received 4/25 By JW Permit # 24591

Application Approved by - Zoning Official BLK Date 04.05.06 Plans Examiner ____ Date 5-25-?

Flood Zone X per site Development Permit N/A Zoning RSF-1 Land Use Plan Map Category Res. Low Dev.

Comments plt + survey ~~[illegible]~~ & NOC ~~[illegible]~~

~~or letter from Eng. Stating elevation of addition~~

Applicants Name Linda Roder Phone 752-2281

Address 387 S.W. Kemp Ct. Lake City FL 32024

Owners Name Imogene + Daniel Lemke Phone

911 Address 370 NW Auburn PL Lake City FL 32055

Contractors Name Isaac Construction Phone 719-7143

Address PMB 338 2109 W. U.S. Hwy 90. Suite 170 Lake City FL 32024

Fee Simple Owner Name & Address NA

Bonding Co. Name & Address NA

Architect/Engineer Name & Address Will Myers / Mark Disosway

Mortgage Lenders Name & Address N/A

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

Property ID Number 23-3S-16-02272-010 Estimated Cost of Construction 50,000

Subdivision Name Lake Jeffery Lot 9 Block ____ Unit ____ Phase 1

Driving Directions Hwy 90 West, Turn R on Lake Jeffrey, Turn L on Old Mill, Turn R on NW Auburn PLace, house is last on left

Type of Construction SFD - Renovation Number of Existing Dwellings on Property 1 remodel

Total Acreage 1.39 Lot Size ____ Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 68'-1" Side 70'-7" Side 10'-11" Rear 173'-7"

Total Building Height 18' Number of Stories 1 Heated Floor Area 1344 Roof Pitch 6-12

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 of 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 YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

X Isaac Brothwick

Owner Builder or Agent (Including Contractor) | Contractor Signature

Contractors License Number CBC 059323

Competency Card Number ____

Barbara C. Webster
Commission # DD329279
Expires July 2, 2008
Bonded Troy Fain · Insurance, Inc. 800-385-7019

NOTARY STAMP/SEAL

STATE OF FLORIDA
COUNTY OF COLUMBIA

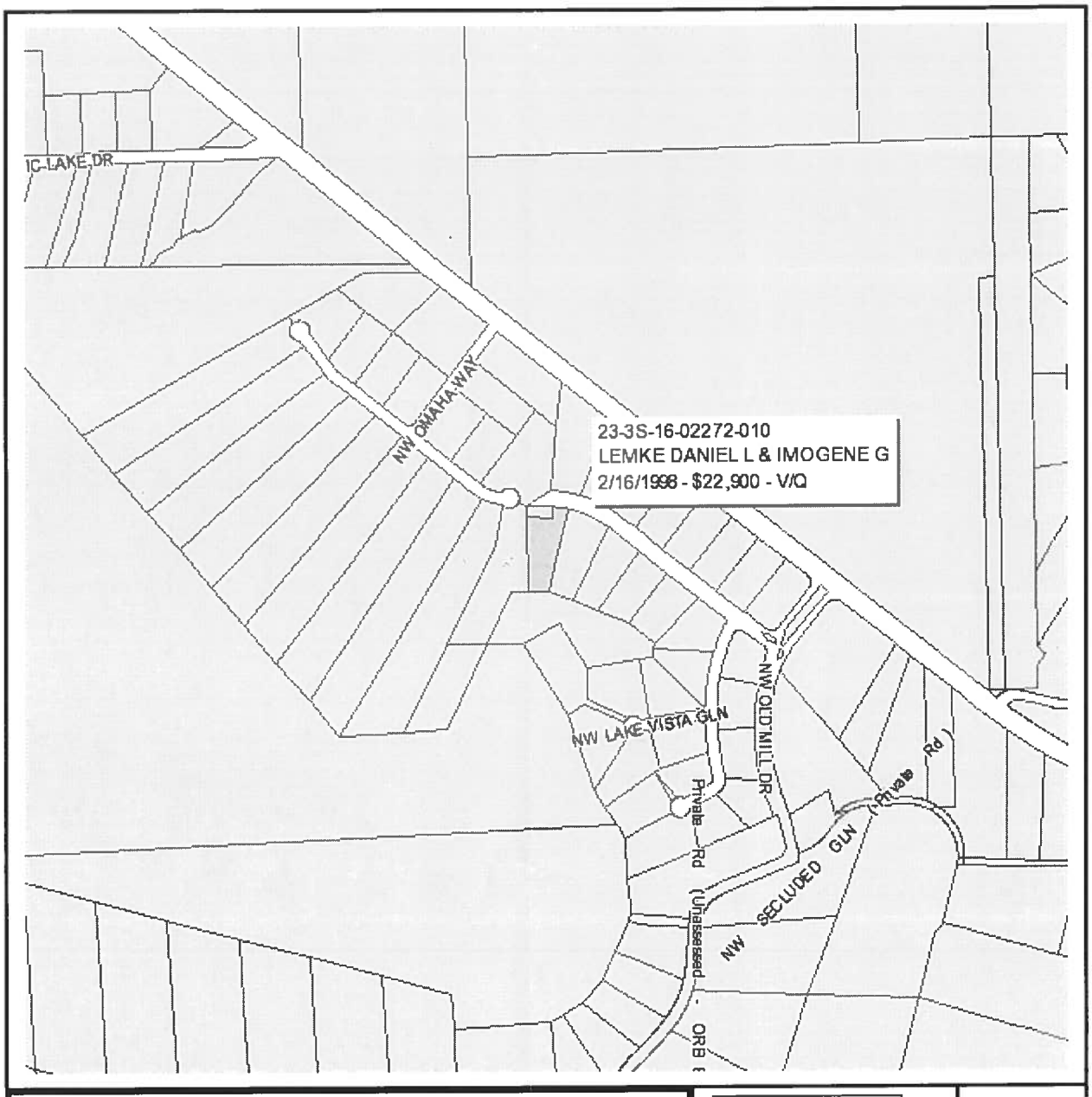
Sworn to (or affirmed) and subscribed before me

this 11th day of April 2006.

Personally known X or Produced Identification ____

Barbara C. Webster

Notary Signature



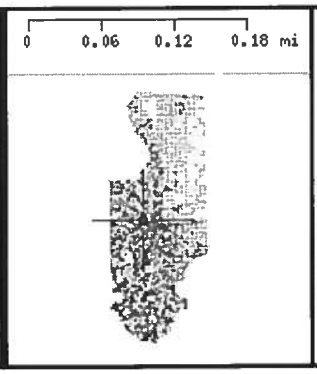
Columbia County Property Appraiser

J. Doyle Crews, CFA - Lake City, Florida - 386-758-1083

PARCEL: 23-3S-16-02272-010 HX 13 - SINGLE FAM (000100)

LOT 9 LAKE JEFFERY PHASE 1, EX BEG NW COR OF LOT 9, RUN E ALONG LAKE JEFFERY DR 74.36 FT

Name:	LEMKE DANIEL L & IMOGENE G	LandVal	$38,250.00
Site:	AUBURN	BldgVal	$151,901.00
Mail:	370 NW AUBURN PL LAKE CITY, FL 32055	ApprVal	$196,139.00
		JustVal	$196,139.00
Sales Info	2/16/1998 $22,900.00 V / Q	Assd	$143,852.00
	5/13/1994 $17,600.00 V / Q	Exmpt	$143,852.00
	5/12/1994 $17,600.00 V / Q	Taxable	$0.00



This information, GIS Map Updated: 4/6/2006, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

ATS 8730
WARRANTY DEED
INDIVID. TO INDIVID.

This Warranty Deed *Made the* 16th *day of* February *A. D. 19* 98 *by*

Bret L. Beets and wife, Cinda K. Beets

BK 0853 PG 1743

OFFICIAL RECORDS

hereinafter called the grantor, to

Daniel L. Lemke and wife, Imogene G. Lemke

whose postoffice address is 2650 SHADY LANE Waycross, GA 31503

hereinafter called the grantee:

(Wherever used herein the terms "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 $* 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:* 02272-010

See Exhibit "A" attached hereto and by this reference made a part hereof.

FILED AND RECORDED IN PUBLIC RECORDS OF COLUMBIA COUNTY, FL

1998 FEB 18 PM 4:07

[illegible]
CLERK OF COURTS
COLUMBIA COUNTY, FLORIDA
BY [illegible] D.C.

98-02542

Documentary Stamp $160.30
Intangible Tax $
P. DeWitt Cason
Clerk of Court
By [illegible] D.C.

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 convenants 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 accuring subsequent to December 31, 19* 97

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:

CRYSTAL L. BRUNNER

DAWNA HERRINGSHAW

BRET L. BEETS [redacted]

CINDA K. BEETS [redacted]

P.O. BOX 663
Ophir, CO 81426

STATE OF Florida

COUNTY OF Columbia

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgements, personally appeared

Bret L. Beets and wife, Cinda K. Beets

to me known to be the person described in and who executed the foregoing instrument and they *acknowledged before me that* they *executed the same.*

WITNESS my hand and official seal in the County and State last aforesaid this 16th *day of* February *, A.D. 19* 98

Michael H. Harrell
Abstract & Title Services, Inc.
420 West Baya Avenue
Lake City, FL 32025
Pursaunt to issuance of Title Insurance

NOTARY PUBLIC

PERSONALLY KNOWN TO ME
PRODUCED IDENTIFICATION
FLORIDA DRIVER'S LICENSE

DAWNA W. HERRINGSHAW
MY COMMISSION # CC [illegible]
EXPIRES: November 11, 2001
Bonded Thru Notary Public Underwriters

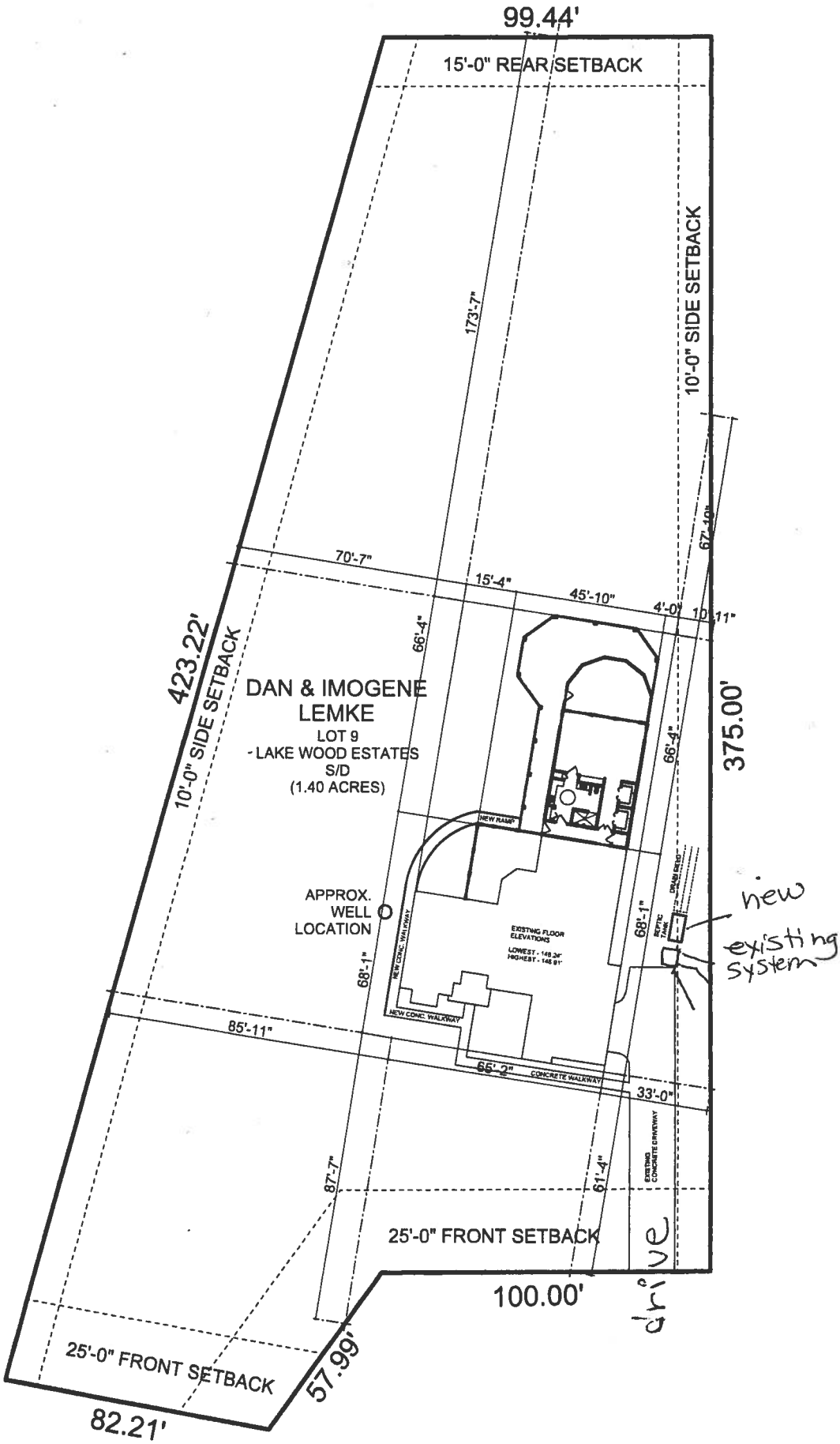
Exhibit "A"

Lot 9, Lake Jeffery, a subdivision according to the plat thereof recorded in Plat Book 5, Pages 39-39A, public records of Columbia County, Florida;

LESS AND EXCEPT THAT PART OF LOT 9 DESCRIBED AS FOLLOWS:

A part of Lot No. 9 of Lake Jeffery, a subdivision as recorded in Plat Book 5, Pages 39 and 39-A of the public records of Columbia County, Florida, said lands being in Section 23, Township 3 South, Range 16 East, Columbia County, Florida, and being more particularly described as follows:

Begin at the Northwest corner of said Lot No. 9 and run N 89 deg 37'29" E along the North line of said Lot No. 9, being also the Southerly right of way line of Lake Jeffery Drive, 74.36 feet to the Point of Curve of a curve concave to the South having a radius of 560.00 feet and a central angle of 06 deg 08'20", said curve also having a chord bearing and distance of S 87 deg 18'21" E, 59.97 feet; thence Easterly along the arc of said curve, being also the North line of said Lot No. 9, being also the Southerly right of way line of Lake Jeffery Drive, 60.00 feet; thence S 35 deg 50'27" W, 57.99 feet; thence S 89 deg 37'29" W 100.00 feet to a point on the West line of said Lot No. 9; thence N 00 deg 21'11" W along said West line 50.00 feet to the point of beginning..


99.44'
15'-0" REAR SETBACK
10'-0" SIDE SETBACK
173'-7"
67'-10"
70'-7"
15'-4"
45'-10"
4'-0"
10'-11"
423.22'
10'-0" SIDE SETBACK
66'-4"
DAN & IMOGENE
LEMKE
LOT 9
- LAKE WOOD ESTATES
S/D
(1.40 ACRES)
375.00'
NEW RAMP
APPROX.
WELL
LOCATION
NEW CONC. WALKWAY
EXISTING FLOOR
ELEVATIONS
LOWEST - 149.24'
HIGHEST - 149.91'
68'-1"
SEPTIC TANK
DRAIN FIELD
new
existing
system
85'-11"
65'-2"
CONCRETE WALKWAY
33'-0"
87'-7"
61'-4"
EXISTING CONCRETE DRIVEWAY
25'-0" FRONT SETBACK
drive
100.00'
25'-0" FRONT SETBACK
57.99'
82.21'

This Instrument Prepared By:
Daniel L Lemke
970 NW Auburn Place
Lake City, Florida. 32055

NOTICE OF COMMENCEMENT

TO WHOM IT MAY CONCERN:

The undersigned hereby give notice that improvements will be made to certain real property and in accordance with Chapter 713.13, Florida Statues, the following is provided in this Notice of Commencement:

1. Description of Property: See Exhibit "A" attached hereto.
2. General Description of Improvement: Improvement to Dwelling
3. Owner Information:
   a. Name and Address: Daniel L. Lemke and his wife, Imogene G. Lemke, 970 NW Auburn Place, Lake City, Florida. 32055.
   b. Interest in property: Fee Simple
   c. Name and address of fee simple title holder (if other than Owner): NONE
4. Contractor (name and address): Isaac Construction, Inc., 1005 SW Walter Avenue, Lake City, Florida. 32024.
5. Surety:
   a. Name and Address: N/A
   b. Amount of Bond: N/A

Inst:200611500 Date:05/11/2006 Time:11:33
DC,P.DeWitt Cason,Columbia County B:1083 P:1074

6. LENDER: NONE
7. Persons within the State of Florida designated by Owner upon whom notices of other documents may be served as provided in Section 713.13(1)(a)7., Florida Statutes: NONE
8. In addition to himself, Owner designates N/A, to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b) Florida Statutes.
8. Expiration date of Notice of Commencement (the expiration date is 1 year from the date of recording unless a different date is specified).

***Owner is used for singular or plural as context requires.**

Signed, sealed and delivered in the presence:

Cheryl Beaty
WITNESS Cheryl Beaty

Jessica Newsome
WITNESS Jessica Newsome

Daniel L Lemke

Imogene G. Lemke

STATE OF FLORIDA
COUNTY OF COLUMBIA

Before me, personally appeared Daniel L Lemke and his wife, Imogene G. Lemke, to me known to be the person(s) described in and who executed the foregoing instrument, and they acknowledged to and before me that they executed said instrument for the purpose therein expressed.

Witness my hand and official seal this 10th day of May, 2006.

(SEAL)

NOTARY PUBLIC

My Commission Expires:

MICHAEL H. HARRELL
MY COMMISSION # DD 406480
EXPIRES: April 8, 2009
Bonded Thru Notary Public Underwriters

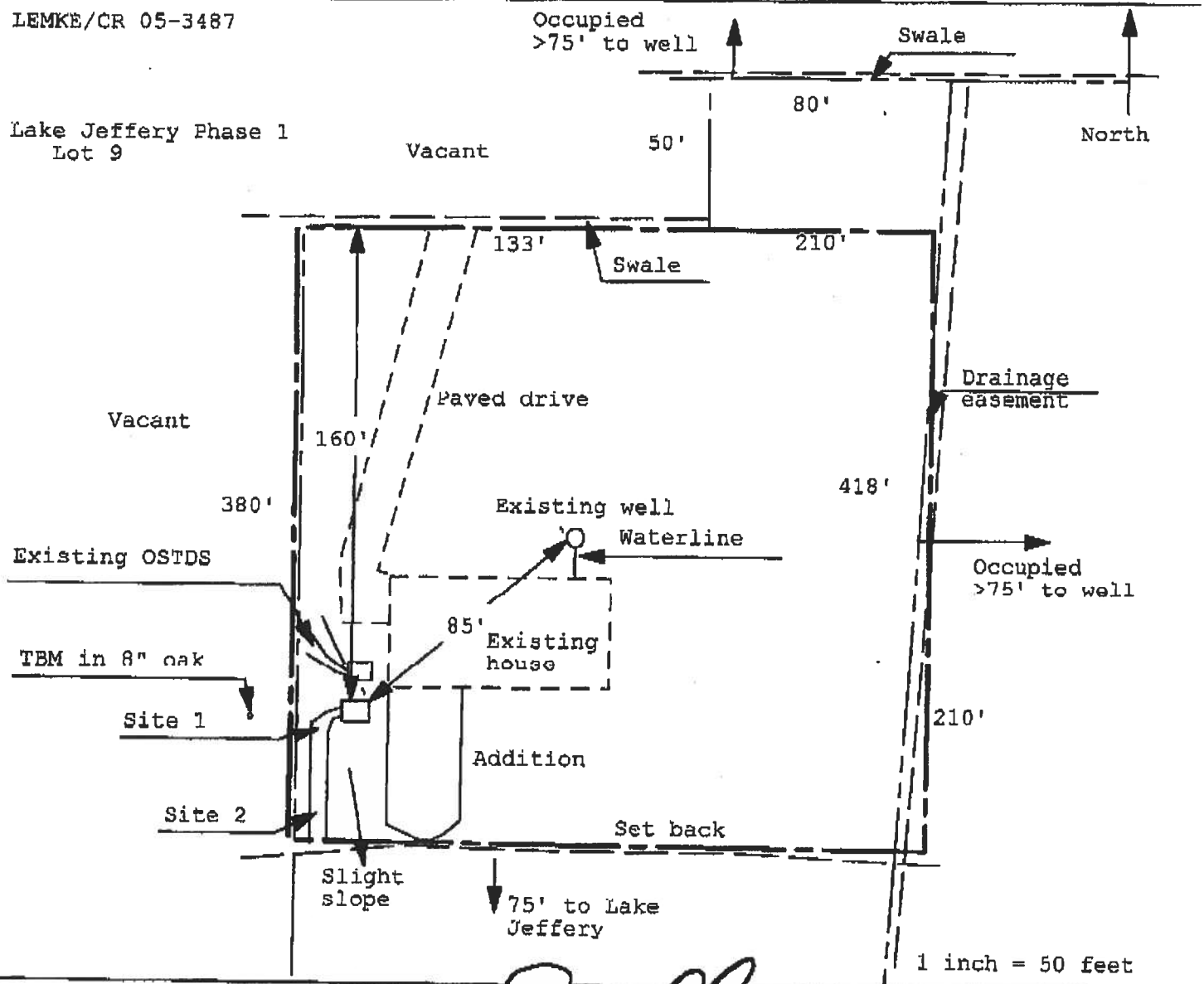
STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing is a true copy of the original filed in this office.
P. DEWITT CASON, CLERK OF COURTS
By: Sharon Feagle
Deputy Clerk
Date: 5-11-06

CLERK CIRCUIT COURT
COLUMBIA COUNTY, FLORIDA

Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan

Permit Application Number: 06-0414N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT



Site Plan Submitted By Paul Lapp **Date** 4/24/06

Plan Approved ✓ **Not Approved** ____ **Date** 6/2/06

By _____ Colwick **CPHU**

Notes: _____

FORM 600A-2004 Tested sealed ducts must be certified in this house. EnergyGauge® 4.1

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Isaac Construction - Lemke Res.**	Builder:	**Isaac Construction, Inc.**
Address:	**370 NW Auburn Place**	Permitting Office:	Columbia
City, State:	**Lake City, FL 32055-**	Permit Number:	24591
Owner:	**Dan & Jean Lemke Res.**	Jurisdiction Number:	221000
Climate Zone:	**North**		

1. New construction or existing	Addition	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 40.0 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?	No	c. N/A	
6. Conditioned floor area (ft²)	1344 ft²	13. Heating systems	
7. Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		a. Electric Heat Pump	Cap: 40.0 kBtu/hr
a. U-factor: (or Single or Double DEFAULT)	Description Area: 7a (Sngle Default) 337.0 ft²		HSPF: 7.40
b. SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 337.0 ft²	b. N/A	
8. Floor types		c. N/A	
a. Slab-On-Grade Edge Insulation	R=0.0, 145.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 50.0 gallons
c. N/A			EF: 0.90
9. Wall types		b. N/A	
a. Frame, Wood, Exterior	R=13.0, 823.0 ft²	c. Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)	PT,
b. Frame, Wood, Adjacent	R=13.0, 400.0 ft²	15. HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	
c. N/A			
d. N/A			
e. N/A			
10. Ceiling types			
a. Under Attic	R=30.0, 1344.0 ft²		
b. N/A			
c. N/A			
11. Ducts(Leak Free)			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 40.0 ft		
b. N/A			

Glass/Floor Area: 0.25 Total as-built points: 16446 Total base points: 16765 **PASS**

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

PREPARED BY: Jon Morris

DATE: 4-24-06

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

OWNER/AGENT: _____

DATE: 4-24-06

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: _____

GREAT SEAL OF THE STATE OF FLORIDA * IN GOD WE TRUST *

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

FORM 600A-2004 Tested sealed ducts must be certified in this house. EnergyGauge® 4.1

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** 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	1344.0	20.04	4848.1	Single, Clear	W	29.5	8.0	72.0	43.84	0.37	1182.4
				Single, Clear	W	29.5	8.0	40.0	43.84	0.37	656.9
				Single, Clear	N	1.5	8.0	15.0	21.73	0.97	315.3
				Single, Clear	S	8.5	8.0	15.0	40.81	0.51	313.2
				Single, Clear	S	8.5	8.0	20.0	40.81	0.51	417.6
				Single, Clear	W	8.0	8.0	40.0	43.84	0.53	930.0
				Single, Clear	W	1.5	8.0	45.0	43.84	0.96	1890.1
				Single, Clear	S	1.5	8.0	90.0	40.81	0.92	3391.1
				As-Built Total:				**337.0**			**9096.4**

WALL TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Adjacent	400.0	0.70	280.0	Frame, Wood, Exterior	13.0	823.0	1.50	1234.5
Exterior	823.0	1.70	1399.1	Frame, Wood, Adjacent	13.0	400.0	0.60	240.0
Base Total:	**1223.0**		**1679.1**	**As-Built Total:**		**1223.0**		**1474.5**

DOOR TYPES	Area X	BSPM	= Points	Type	Area X	SPM	= Points
Adjacent	0.0	0.00	0.0				
Exterior	0.0	0.00	0.0				
Base Total:	**0.0**		**0.0**	**As-Built Total:**	**0.0**		**0.0**

CEILING TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM X SCM =	Points
Under Attic	1344.0	1.73	2325.1	Under Attic	30.0	1344.0	1.73 X 1.00	2325.1
Base Total:	**1344.0**		**2325.1**	**As-Built Total:**		**1344.0**		**2325.1**

FLOOR TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Slab	145.0(p)	-37.0	-5365.0	Slab-On-Grade Edge Insulation	0.0	145.0(p	-41.20	-5974.0
Raised	0.0	0.00	0.0					
Base Total:			**-5365.0**	**As-Built Total:**		**145.0**		**-5974.0**

INFILTRATION	Area X	BSPM	= Points		Area X	SPM	= Points
	1344.0	10.21	13722.2		1344.0	10.21	13722.2

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 17209.5			**Summer As-Built Points:**					**20644.3**
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 40000 btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Int(AH),R6.0(INS)					
			20644	1.00	(1.09 x 1.000 x 0.91)	0.263	0.950	5107.2
17209.5	**0.4266**	**7341.6**	**20644.3**	**1.00**	**0.992**	**0.263**	**0.950**	**5107.2**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** 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	1344.0	12.74	3082.1	Single, Clear	W	29.5	8.0	72.0	28.84	1.24	2570.1
				Single, Clear	W	29.5	8.0	40.0	28.84	1.24	1427.9
				Single, Clear	N	1.5	8.0	15.0	33.22	1.00	498.7
				Single, Clear	S	8.5	8.0	15.0	20.24	2.83	860.2
				Single, Clear	S	8.5	8.0	20.0	20.24	2.83	1147.0
				Single, Clear	W	8.0	8.0	40.0	28.84	1.17	1346.0
				Single, Clear	W	1.5	8.0	45.0	28.84	1.01	1312.2
				Single, Clear	S	1.5	8.0	90.0	20.24	1.04	1896.4
				As-Built Total:				**337.0**			**11058.5**
WALL TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points
Adjacent	400.0	3.60	1440.0	Frame, Wood, Exterior			13.0	823.0	3.40		2798.2
Exterior	823.0	3.70	3045.1	Frame, Wood, Adjacent			13.0	400.0	3.30		1320.0
Base Total:	**1223.0**		**4485.1**	**As-Built Total:**				**1223.0**			**4118.2**
DOOR TYPES	Area X	BWPM =	Points	Type				Area X	WPM =		Points
Adjacent	0.0	0.00	0.0								
Exterior	0.0	0.00	0.0								
Base Total:	**0.0**		**0.0**	**As-Built Total:**				**0.0**			**0.0**
CEILING TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM X	WCM =	Points
Under Attic	1344.0	2.05	2755.2	Under Attic			30.0	1344.0	2.05 X	1.00	2755.2
Base Total:	**1344.0**		**2755.2**	**As-Built Total:**				**1344.0**			**2755.2**
FLOOR TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points
Slab	145.0(p)	8.9	1290.5	Slab-On-Grade Edge Insulation			0.0	145.0(p	18.80		2726.0
Raised	0.0	0.00	0.0								
Base Total:			**1290.5**	**As-Built Total:**				**145.0**			**2726.0**
INFILTRATION	Area X	BWPM =	Points					Area X	WPM =		Points
	1344.0	-0.59	-793.0					1344.0	-0.59		-793.0

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**10819.9**	**Winter As-Built Points:**					**19865.0**
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 40000 btuh ,EFF(7.4) Ducts:Unc(S),Unc(R),Int(AH),R6.0					
			19865.0	1.000	(1.069 x 1.000 x 0.93)	0.461	0.950	8645.6
10819.9	**0.6274**	**6788.4**	**19865.0**	**1.00**	**0.994**	**0.461**	**0.950**	**8645.6**

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** 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	50.0	0.90	1	1.00	2693.56	1.00	2693.6	
				As-Built Total:						**2693.6**	

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points +	Heating Points +	Hot Water Points =	Total Points	Cooling Points +	Heating Points +	Hot Water Points =	Total Points
7342	**6788**	**2635**	**16765**	**5107**	**8646**	**2694**	**16446**

PASS

FORM 600A-2004 EnergyGauge® 4.1

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: **370 NW Auburn Place, Lake City, FL, 32055-** 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.	

Tested sealed ducts must be certified in this house.

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 84.0

The higher the score, the more efficient the home.

Dan & Jean Lemke Res., 370 NW Auburn Place, Lake City, FL, 32055-

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?	No	__
6.	Conditioned floor area (ft²)	1344 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)	Description Area 7a (Sngle Default) 337.0 ft²	__
	b. SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 337.0 ft²	__
8.	Floor types		
	a. Slab-On-Grade Edge Insulation	R=0.0, 145.0(p) ft	__
	b. N/A		__
	c. N/A		__
9.	Wall types		
	a. Frame, Wood, Exterior	R=13.0, 823.0 ft²	__
	b. Frame, Wood, Adjacent	R=13.0, 400.0 ft²	__
	c. N/A		__
	d. N/A		__
	e. N/A		__
10.	Ceiling types		
	a. Under Attic	R=30.0, 1344.0 ft²	__
	b. N/A		__
	c. N/A		__
11.	Ducts(Leak Free)		
	a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 40.0 ft	__
	b. N/A		__

12.	Cooling systems		
	a. Central Unit	Cap: 40.0 kBtu/hr SEER: 13.00	__ __
	b. N/A		__ __
	c. N/A		__ __
13.	Heating systems		
	a. Electric Heat Pump	Cap: 40.0 kBtu/hr HSPF: 7.40	__ __
	b. N/A		__ __
	c. N/A		__ __
14.	Hot water systems		
	a. Electric Resistance	Cap: 50.0 gallons EF: 0.90	__ __
	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, __

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.

Energy Code Compliance

Duct System Performance Report

Project Name:	Isaac Construction - Lemke Res.	Builder:	Isaac Construction, Inc.
Address:	370 NW Auburn Place	Permitting Office:	
City, State:	Lake City, FL 32055-	Permit Number:	
Owner:	Dan & Jean Lemke Res.	Jurisdiction Number:	
Climate Zone:	North		

Total Duct System Leakage Test Results

CFM25 Total Duct Leakage Test Values			
Line	System	Duct Leakage Total	Duct Leakage to Outdoors
1	System1	_____ cfm25(tot)	_____ cfm25(out)
2	System2	_____ cfm25(tot)	_____ cfm25(out)
3	System3	_____ cfm25(tot)	_____ cfm25(out)
4	System4	_____ cfm25(tot)	_____ cfm25(out)
5	**Total House Duct System Leakage**	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q_n,tot) ☐ Receive credit if Q_n,tot≤ 0.03	Sum lines 1-4 _____ Divide by _____ (Total Conditioned Floor Area) = _____ (Q_n,out) ☐ Receive credit if Q_n,out≤ 0.03 AND Q_n,tot≤ 0.09

I hereby certify that the above duct testing performance results demonstrate compliance with the Florida Energy Code requirements in accordance with Section 610.1.A.1, Florida Building Code, Building Volume, Chapter 13 for leak free duct system credit.

Signature: _____

Printed Name: _____

Florida Rater Certification #: _____

DATE: _____

Florida Building Code requires that testing to confirm leak free duct systems be performed by a Class 1 Florida Energy Gauge Certified Energy Rater. Certified Florida Class 1 raters can be found at: http://energygauge.com/search.htp

BUILDING OFFICIAL: _____

DATE: _____

Notice of Treatment

ADD to 1025

Applicator: Florida Pest Control & Chemical Co. (www.flapest .com)

Address: BAYA AVE

City Lake City Phone 752-1703

Site Location: Subdivision Country Club Lakes

Lot # 7 Block# Permit # 26541

Address 380 [illegible]

Product used	**Active Ingredient**	**% Concentration**
☐ Premise	Imidacloprid	0.1%
☐ Termidor	Fipronil	0.12%
☑ Bora-Care	Disodium Octaborate Tetrahydrate	23.0%

Type treatment: ☐ Soil ☑ Wood

Area Treated	**Square feet**	**Linear feet**	**Gallons Applied**
ADDITION	2658	200	4

As per Florida Building Code 104.2.6 – If soil chemical barrier method for termite prevention is used, final exterior treatment shall be completed prior to final building approval.

If this notice is for the final exterior treatment, initial this line ________.

8/29/06 — Date

1430 — Time

F254 — Print Technician's Name

Remarks: ____________________

Applicator - White Permit File - Canary Permit Holder - Pink

10/05 ©

CERTIFICATE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.

Parcel Number 23-3S-16-02272-010 **Building permit No.** 000024591

Use Classification REMODEL SFD **Fire:** 0.00

Permit Holder ISAAC CONSTRUCTION **Waste:** 0.00

Owner of Building IMOGENE & DANIEL LEMKE **Total:** 0.00

Location: 370 NW AUBURN PLACE(LAKE JEFFREY, LOT 9)

Date: 04/13/2007

Harry Dicks

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

#24591

#[redacted]

DEPARTMENT OF VETERANS AFFAIRS
Regional Office
P.O. Box 1437
St. Petersburg, FL 33731

[redacted]

Specially Adapted Housing Program

Telefax Cover Sheet

DELIVER TO: Isaac and/or Barbara Isaac Construction, Inc.

PHONE: 386-719-7143 **FAX: 386-719-4757**

Re- Daniel Lemke, 370 Auburn Place, Lake City, FL

FROM: LARRY W. SMITH – VA Specially Adapted Housing Agent

TELEPHONE: 727-319-7602 **FAX: 727-319-7762**

TOTAL TRANSMITTAL PAGES (including cover sheet): 3

COMMENTS: Latest Compliance Inspection Report is enclosed. Please address the concerns so this project can be completed to everyone's satisfaction as soon as possible (and you can get paid the final draw). Please contact Jim Temple if you would like a more detailed description of his findings. Please feel free to call me or Monica if you any questions.

Thanks,

Larry W. Smith

Larry Smith
SAH Agent
727-319-7602

#24591

AH Harry

#24591 Mark - 386-623-4666

ATTACHMENT: Lemke – VA PH39766

CONDITION OF CONSTRUCTION AT THIS INSPECTION (March 28, 2007):

Railing for ramp off addition is adequate and stable. The support tubing was imbedded in concrete.

In my opinion, the railing for open porch addition is not structurally stable enough to resist impact of Mr. Lemke's motorized chair if for some reason it were run into this railing. Therefore, I recommend installing 18 rectangular pieces of metal tubing embedded in concrete one between each column and each intermediate support currently mounted in boot screwed to concrete floor. These should be imbedded in concrete deck and mounted to back side of railing and attached securely without cutting existing railing.

Also, railing is needed in opening between steps and columns.

gilpin IRONWORKS® INC.

- Main
- Railings
- Columns
- Accessories
- Gates
- Fencing
- Building Codes
- Examples of Installations
- FAQ
- Where to find Gilpin Ironworks products
- Installation information
- Contact information

BUILDING CODES

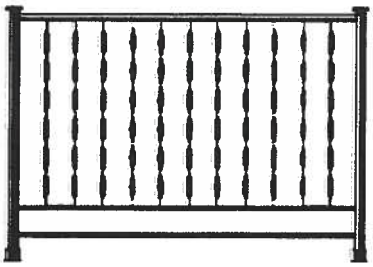
Some localities use building codes that not all Gilpin Ironworks products satisfy. One of these codes is CABO One and Two Family Dwelling Code.

Section 315 states that on porches, balconies, or raised floor surfaces more than 30" above the floor or grade, railings must be 36" in height and have 4" spindle spacing.

Gilpin Ironworks has two solutions that satisfy this code.

1. Metalist and Embassy have options that meet this code.

2. Windsor Plus with the addition of a piece of channel 4" from the ground will also meet this code. 42" Posts will be needed for this installation.



Compliance with building codes is the installers responsibility.

TEMPORARY

CERTIFICATE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.

Parcel Number 23-3S-16-02272-010 **Building permit No.** 000024591

Use Classification REMODEL SFD **Fire:** 0.00

Permit Holder ISAAC CONSTRUCTION **Waste:** 0.00

Owner of Building IMOGENE & DANIEL LEMKE **Total:** 0.00

Location: 370 NW AUBURN PLACE(LAKE JEFFREY, LOT 9)

Date: 03/06/2007

Harry Dicks

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

From: The Columbia County Building & Zoning Department
Plan Review
135 NE Hernando Av.
P.O. Box 1529
Lake City Florida 32056-1529

Phone Number 386-758-1163
Fax Number 386-754-7088

FAX TRANSMITTAL FORM

To: Name: Linda Roder CC: Building permit application 0604-74 Phone: 752-2281 Fax: 752-2282	From: Date Sent: 05/01/06 Number of Pages: eleven

Message: Reference to a building permit application Number: 0604-74
ISAAC Construction owners Daniel Lemke Lot 9 of Lake Jeffery Phase 1 Subdivision

From: The Columbia County Building & Zoning Department
Plan Review
135 NE Hernando Av.
P.O. Box 1529
Lake City Florida 32056-1529

Reference to a building permit application Number: 0604-74

ISAAC Construction owners Daniel Lemke Lot 9 of Lake Jeffery Phase 1 Subdivision

On the date of April 27, 2006 application 0604-74 and plans for construction of an addition on an existing single family dwelling were reviewed and the following information or alteration to the plans will be required to continue processing this application. If you should have any question please contact the above address, or contact phone number (386) 758-1163 or fax any information to (386) 754-7088.

Please include application number 0604-74 when making reference to this application.

1. Lot Nine (parcel # 23-3s-16-02272-010) which is located within Lake Jeffery phase One subdivision. As per the Flood Insurance Rate Map Columbia County Florida Panel Number 175 this parcel is within a flood zone "A" area. (An area of special flood hazard without water surface elevations determined) The Columbia County Board of Commissioners adopted Ordinance number 2003-23 which

relates to all parcels within Columbia County. A summary of this ordinance is standards for residential, commercial and industrial construction. New construction or substantial improvement of any residential, commercial or industrial structure that is not located within a designated flood zone as shown in the County's Flood Insurance Rate Map shall have the lowest finished floor, or for wood floor construction, the bottom of the floor joist elevated no lower than one (1) foot above adjacent paved or unpaved road, or paved or unpaved access easement. Exempt structures are:

1. Residential, commercial or industrial structures with Certification by a Florida registered professional engineer as to the proper height or requirements for the protection of the structure against water damage; or
2. Any accessory structure not used for human habitation (i.e. detached garage, barn, storage shed, airplane hanger, etc. See Section 2.1 Definitions)

PLEASE NOTE

Owner or developer may be required to furnish elevation certification as to compliance with this section by a licensed surveyor if in the opinion of the Land Development Regulation Administrator or his designee that such certification is necessary.

2. Also show compliance with the Columbia County Land Development Regulations (Ordinance number 98-1) which sections 8.7 will relate to the building permit application 0604-74. For the purposes of this section, *"substantial improvement"* means for a building constructed prior to the effective date of these

land development regulations, any repair, reconstruction, or improvement of a building the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the improvement or repair is started or (ii) if the structure has been damaged and is being restored, before the damage occurred. "Substantial improvement" occurs which the first alteration on any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include either (i) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications that are solely necessary to insure safe living conditions, or (ii) any alteration of a building listed on the National Register of Historic Places or the County's designation of historic sites and structures.

SECTION 8.7 STANDARDS FOR UNNUMBERED "A" ZONES. Located within the A-zone areas of special flood hazard, area denoted with the letter "A" with no suffix, referred to as "unnumbered A zones". These are areas where special flood hazards exist but where no base flood data has been provided. The following provisions apply:

1. A minimum, no encroachments, including fill material or structures shall be located within a distance of the stream bank equal to two times the width of the stream at the top of the bank or fifty (50) feet, whichever is greater.

2. New construction or substantial improvements of buildings or mobile homes shall be elevated or flood-proofed in accordance with the design standards of this article to be:

a. At least two (2) feet above highest elevation of any adjacent unpaved road, or unpaved access easement; or at least one (1) foot above the highest elevation on any adjacent paved road or paved access easement; or

b. Elevated or flood-proofed in accordance with the design standards of this article to elevate structure to one (1) foot above an elevation established in accordance with the best available data of such agencies as the Army Corps of Engineers or Water Management District.

3. Accessory or temporary structures shall be permitted as provided within this article.

3. If any additional fill will be used to elevate the existing grade or used to elevate the structures foundation or used to establish a required first floor habitable living area then please show compliance with resolution number 2005R-26 (which is attached).

4. The Florida building Code 2004 (existing building code) section 901.1 Scope. An addition to a building or structure shall comply with the building, plumbing, electrical, and mechanical codes, without requiring the existing building or structure to comply with any requirements of those codes or of these provisions. Exception: In flood hazard areas, the existing building is subject to the requirements of Section 903.5 Flood hazard areas. See Chapter 31 of the Florida Building Code, Building.

SECTION 903: STRUCTURAL 903.1 Compliance with the Florida Building Code. Additions to existing buildings or structures are new construction and shall comply with the Florida Building Code, Building.

903.2: Additional gravity loads. Existing structural elements supporting any additional gravity loads as a result of additions shall comply with the Florida Building Code, Building.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.

2. Buildings of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the existing building and the addition comply with the conventional light-frame construction methods as defined in Chapter 2.

903.3: Lateral-force-resisting system. The lateral-force-resisting system of existing buildings to which additions are made shall comply with Sections 903.3.1, 903.3.2, and 903.3.3.

Exceptions:

1 .In Type V construction, Group R occupancies where the lateral-force story shear in any story is not increased by more than 10 percent.

2. Buildings of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the existing building and the addition comply with the conventional light-frame construction methods as defined in Chapter 2.

3. Additions where the lateral-force story shear in any story is not increased by more than 5 percent.

903.3.1: Vertical addition. Any element of the lateral-force-resisting system of an existing building subjected to an increase in vertical or lateral loads from the vertical addition shall comply with the lateral load provisions of the Florida Building Code, Building.

903.3.2: Horizontal addition. Where horizontal additions are structurally connected to an existing structure, all lateral-force-resisting elements of the existing structure affected by such addition shall comply with the lateral load provisions of the Florida Building Code, Building. Lateral loads imposed on the elements of the existing structure and the addition shall be determined by a relative stiffness analysis of the combined structure including torsional effects.

903.3.3: Voluntary addition of structural elements to improve the lateral-force-resisting system.

Voluntary addition of structural elements to improve the lateral-force-resisting system of a building shall comply with Section 707.7.

904.1 Smoke alarms in an addition.

Whenever an addition is made to a building or structure of a Group R-3 or R-4 occupancy, hardwired, interconnected smoke alarms meeting the requirements of the Florida Building Code, Building or the Florida Building Code, Residential shall be installed and maintained in the addition.

904.2: Smoke alarms in existing portions of a building.

Whenever an addition is made to a building or structure of a Group R-3 or R-4 occupancy, the existing building shall be provided with smoke alarms as required by the Florida Building Code, Building or the Florida Building Code, Residential as applicable. The smoke alarms in the existing building are not required to be interconnected with smoke alarms in other portions of the base building.

905.1: Minimum requirements. Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of, primary function shall comply with the requirements in Chapter 11 of the Florida Building Code, Building.

906.1: Minimum requirements. Additions to existing buildings or structures shall comply with the requirements of Chapter 13 of the Florida Building Code, Building.

COLUMBIA COUNTY, FLORIDA
RESOLUTION NO. 2005R-26

A RESOLUTION OF COLUMBIA COUNTY, FLORIDA, PROVIDING FOR ADDITIONAL REQUIREMENTS FOR A DEVELOPMENT PERMIT ON PROPERTY WHICH HAS BEEN IDENTIFIED AS "FLOOD PRONE;" AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, since the hurricane season of 2004, Columbia County has experienced significant flooding and related issues impacting the public health, safety and welfare of the residents and citizens of Columbia County as well as their property; and

WHEREAS, the Board of County Commissioners of Columbia County, Florida, finds it is necessary and in the best interest of Columbia County and its residents and citizens for the protection of the health, safety and welfare, together with the protection of property interests in Columbia County, to provide requirements in addition to those currently set forth in local, state and federal statutes, ordinances, rules and regulations, including but not limited to the Columbia County Comprehensive Plan and Columbia County Land Development Regulations (LDRs), for the application and issuance of a development permit.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF COLUMBIA COUNTY, FLORIDA AS FOLLOWS:

1. Properties, including lots and acreage, which have been identified in Columbia County as "flood prone" shall, in addition to all other local, state and federal requirements, prior to issuance of a development permit through the Columbia County Building Department provide the following:

   a. In addition to all other required submittals, the development permit applicant shall file a grading plan for the property proposed to be developed. The grading plan shall be signed and sealed by a Florida registered professional engineer.

   b. The grading plan shall delineate proposed changes from natural ground elevation, if any, including the amount of fill material to be added to the

site. The grading plan shall clearly demonstrate that the natural flow of water shall not be altered nor will adjacent properties be negatively impacted by the proposed development.

c. The grading plan shall further establish the lowest habitable floor elevation and building location on the lot or acreage in undetermined flood elevation flood prone areas.

d. Upon its completion, the applicant shall obtain from a Florida licensed land surveyor and provide to Columbia County certification as to the actual height of the finished floor established by the grading plan.

2. Additionally, all "flood prone" properties shall require written certification by a competent Florida licensed professional or agency stating that the property is not defined as a wetland as defined in the Columbia County Land Development Regulations.

3. The term "flood prone" is defined as those lots, acreage or properties that can be demonstrated on existing FEMA or other maps as flood prone properties which competent personal testimony through affidavit or otherwise establishes the property has a history of flooding which would adversely impact development upon the property.

4. There shall be exempt from the requirements of this Resolution lots, acreage or properties otherwise defined as "flood prone" where the ratio of "non-flood prone" property (numerator) to the square footage of impervious surface development on the property (denominator) is no less than 3-to-1. However, all other permitting requirements of the County must be satisfied.

5. Any interested party who is subject to these additional permitting requirements and believes they have been inappropriately applied to them may appeal the

decision to the Board of County Commissioners of Columbia County. All such appeals must be in writing and mailed to the Board of County Commissioners of Columbia County, Post Office Box 1529, Lake City, Florida 32056-1529. At this time no appeal fee is assessed.

6. This Resolution shall remain in effect until the Board of County Commissioners has approved an appropriate ordinance addressing the flood prone issues of Columbia County or until further action of the Board.

UNANIMOUSLY PASSED AND ADOPTED by the Board of County Commissioners at its regular meeting on the _____ day of _____, 2005.

COMMISSIONERS

BOARD OF COUNTY

COLUMBIA COUNTY, FLORIDA

By:

_____

Jennifer Flinn, Chairman

ATTEST:

_____

P. DeWitt Cason, Clerk of Courts

(SEAL)

Thank you,

Joe Haltiwanger
Plan Examiner
Columbia County Building Department

Lemke

COLUMBIA COUNTY BUILDING DEPARTMENT

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001 ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 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 1606 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 104.2.1). 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** a) Plans or specifications must state compliance with FBC Section 1606 b) The following information must be shown as per section 1606.1.7 FBC a. Basic wind speed (MPH) b. Wind importance factor (I) and building category c. Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated d. The applicable internal pressure coefficient e. Components and Cladding. The design wind pressure 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
- ☐ ☐ c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown)
- ☐ ☐ d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth
- ☐ ☐ e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails
- ☐ ☐ f) Must show and identify accessibility requirements (accesssable 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 104.2.1 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 104.2.1 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
  6. Roof assembly shown here or on roof system detail (FBC 104.2.1 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)
7. Roof assembly shown here or on roof system detail (FBC104.2.1 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

HVAC information

☐ ☐ a) Manual J sizing equipment or equivalent computation

☐ ☐ b) Exhaust fans in bathroom

☐ ☐ **Energy Calculations** (dimensions shall match plans)

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

Disclosure Statement for Owner Builders

Notice Of Commencement

Private Potable Water

a) Size of pump motor

b) Size of pressure tank

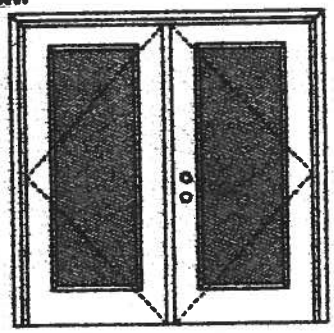
c) Cycle stop valve if used

XX
Glazed Outswing Unit

COP-WL-JH1162-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



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

Double Door
Maximum unit size - 6'6" x 6'6"

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-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, 136 Series


136 Series


680 Series


822 Series

1/2 GLASS:


165 Series*


166, 169 Series*


120 Series*


200 Series*


12 RA, 23 RA, 24 RA 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.

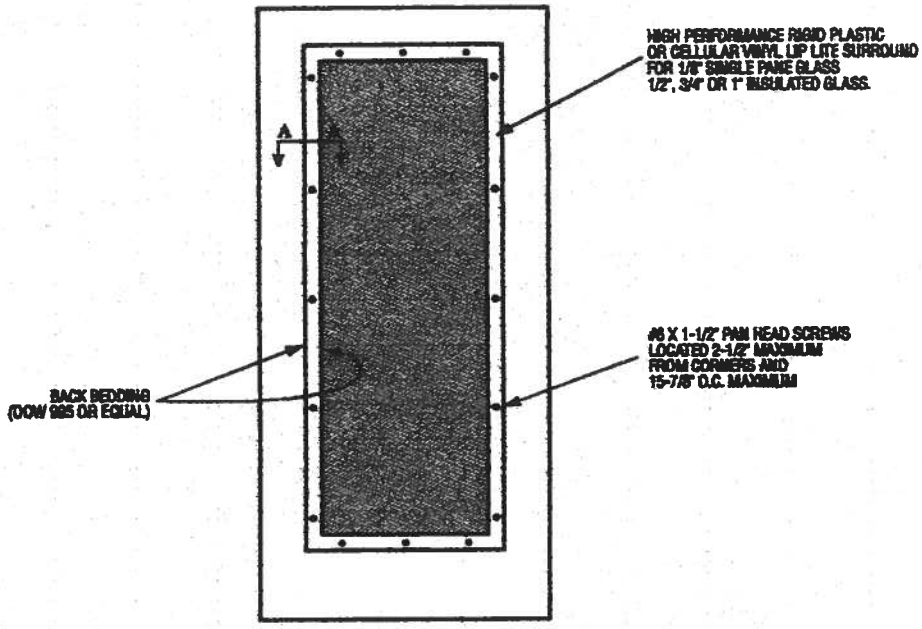
Johnson EntrySystems

March 29, 2002
Our continuing program of product improvement makes specifications, design and product data subject to change without notice.

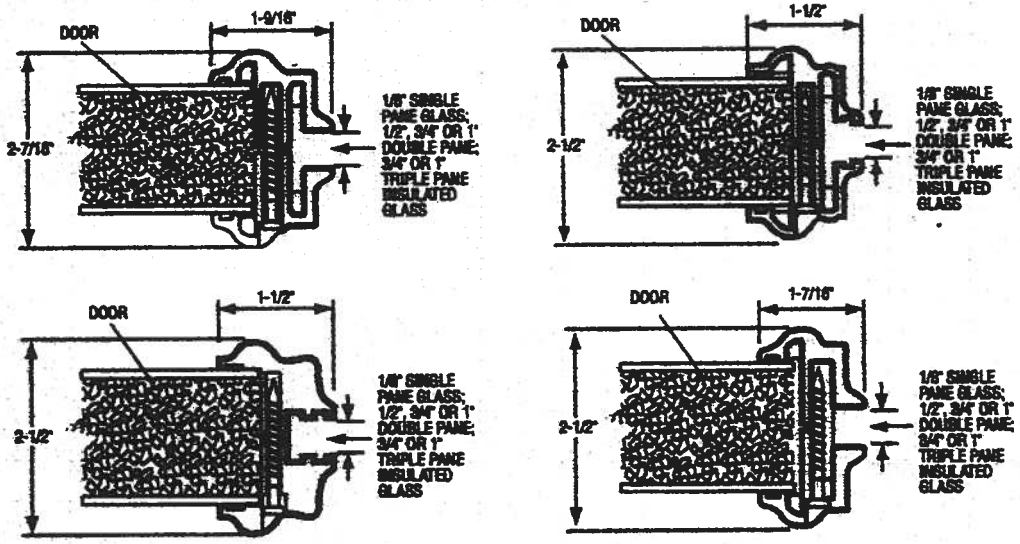
PREMDOR Collection Premium Quality Doors

Exclusively from Masonite®
Masonite International Corporation

GLASS INSERT IN DOOR OR SIDELITE PANEL



SECTION A-A
TYPICAL RIGID PLASTIC LIP LITE SURROUND



XX
Glazed Outswing Unit

[redacted]

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:
3/4 GLASS:


404 Series


416 Series


450 Series

FULL GLASS:


109 Series


114, 120, 122 Series


182 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

Johnson Entry Systems

March 28, 2002
Our continuing program of product improvement makes specifications, design and product details subject to change without notice.

PREMDOR Premium Quality Doors

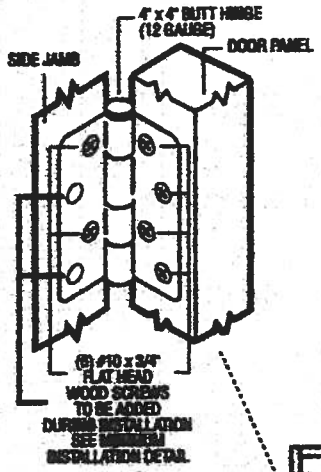
Exclusively from Masonite
Masonite International Corporation

XX
Unit

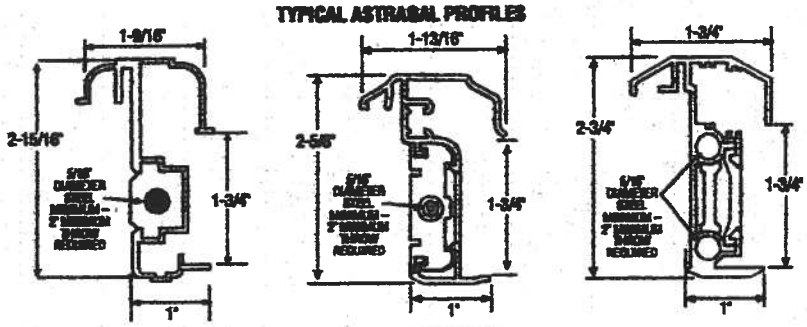
MAD-WL-MA0012-02

OUTSWING UNITS WITH DOUBLE DOOR

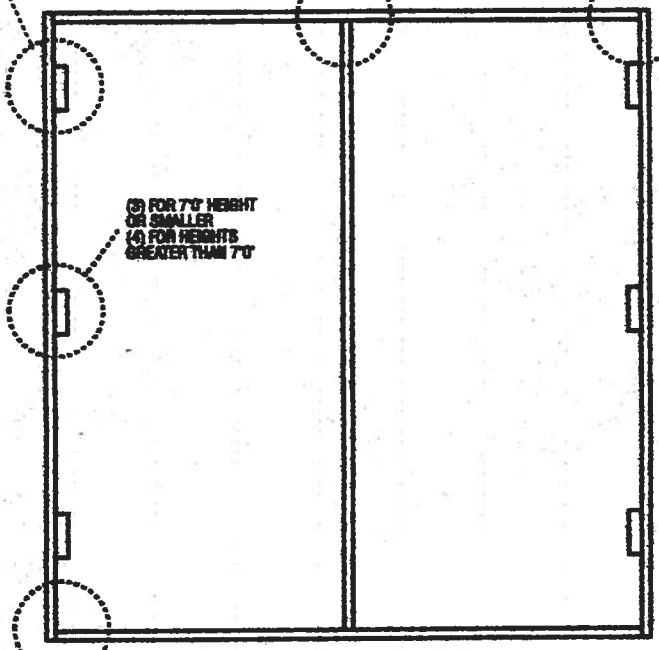
TYPICAL HINGE ATTACHMENT



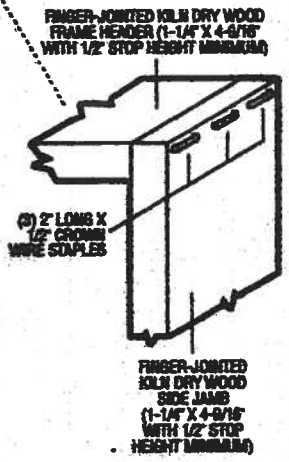
TYPICAL ASTRAGAL PROFILES



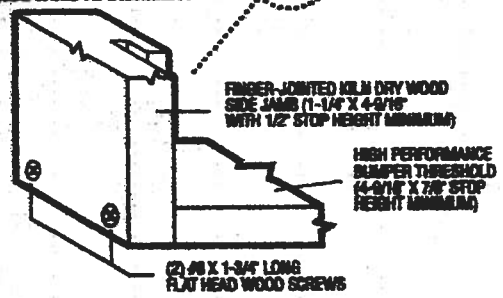
ALUMINUM EXTRUDED ASTRAGAL (0.05" MINIMUM WALL THICKNESS) WITH ADDED REINFORCEMENT INSERTS AT TOP EXTENSION BOLT, BOTTOM EXTENSION BOLT AND CYLINDERICAL/DEADBOLT LATCHING LOCATIONS. ATTACH WITH #8 X 1" PAN HEAD SCREWS – LOCATE 1" FROM EACH END MINIMUM AND 22" O.C. MAXIMUM.



TYPICAL HEADER & SIDE JAMB ATTACHMENT



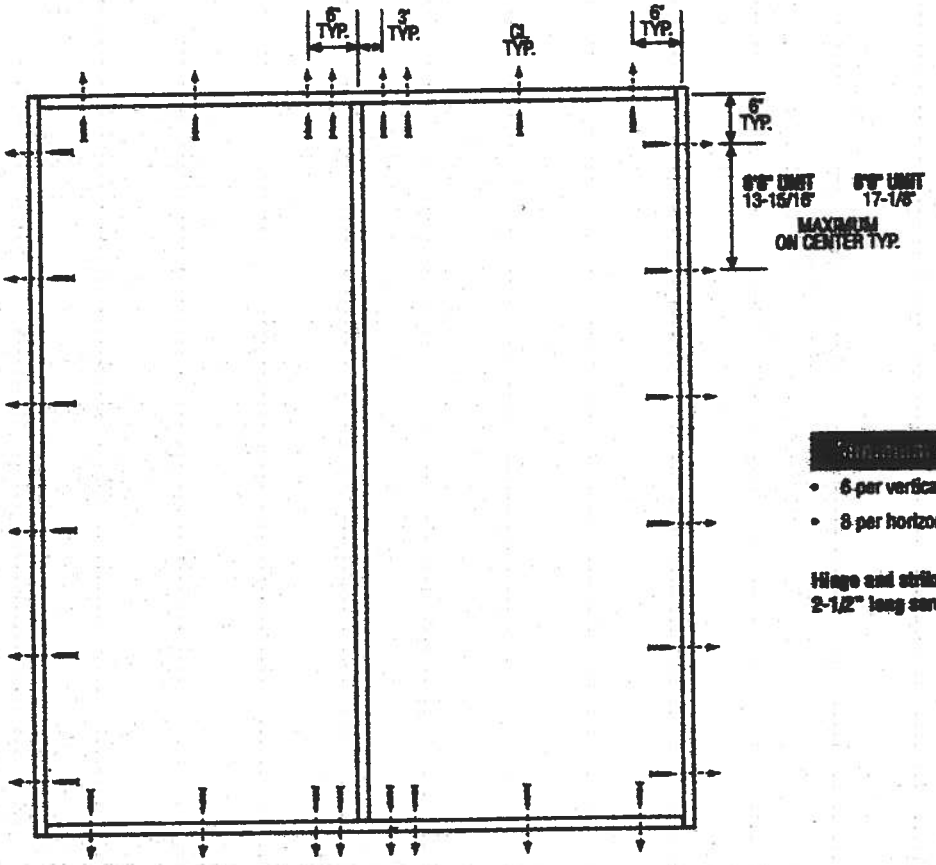
TYPICAL THRESHOLD & SIDE JAMB ATTACHMENT



XX
Unit

[redacted]

DOUBLE DOOR



[redacted]

- 6 per vertical framing member
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Latching Hardware:

- Compliance requires that GRADE 2 or better (ANSI/BHMA A156.2) cylinderical and deadlock hardware be installed.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons.
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade Country approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

PREMDOOR Collection (Premium Quality Doors)

Exclusively from Masonite®

Masonite International Corporation

March 29, 2002

I

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/ft²
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.

Mark A. Hess, Technician

MAH:mb

ALLEN M. REEVES
CERTIFICATE
NO. 11254
STATE OF FLORIDA
PROFESSIONAL ENGINEER

1 APRIL 2002

II

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 gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

130 Derry Court
York, PA 17402-9405
phone: 717.764.7700
fax: 717.764.4129
www.archtest.com

Allan N. Reeves
1 APRIL 2002

REEVES
No. 15354
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

III

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

ALLEN N. REEVES
CERTIFICATE
NO. 19884
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Allen N. Reeves
1 APRIL 2002

IV

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.
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.

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

Allen H. Reeves
1 APRIL 2002

ALLEN H. REEVES ☆ CERTIFICATE NO. [illegible] ☆ STATE OF FLORIDA ☆ PROFESSIONAL ENGINEER ☆

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.

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

	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"	0.18" max.
	@ 70.8 psf (negative)	0.05"	0.18" max.

Allen N. Reeves
1 APRIL 2002

LEN N. REEVES ★ CERTIFICATE NO. 18334 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER ★

VI

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

MAH:nlb
01-41134.01

ALLEN N. REEVES
CERTIFICATE NO. [illegible]
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TAMKO®
ROOFING PRODUCTS

FEB - 4 REC'D

January 31, 2002

TO: OUR FLORIDA CUSTOMERS:

Effective February 1, 2002, the following TAMKO shingles, as manufactured at TAMKO's Tuscaloosa, Alabama, facility, comply with ASTM D-3161, Type I modified to 110 mph. Testing was conducted using four nails per shingle. These shingles also comply with Florida Building Code TAS 100 for wind driven rain.

- Glass-Seal AR
- Elite Glass-Seal AR
- ASTM Heritage 30 AR (formerly ASTM Heritage 25 AR)
- Heritage 40 AR (formerly Heritage 30 AR)
- Heritage 50 AR (formerly Heritage 40 AR)

All testing was performed by Florida State certified independent labs.

Please direct all questions to TAMKO's Technical Services Department at 1-800-641-4691.

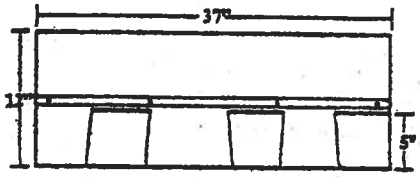
TAMKO Roofing Products, Inc.

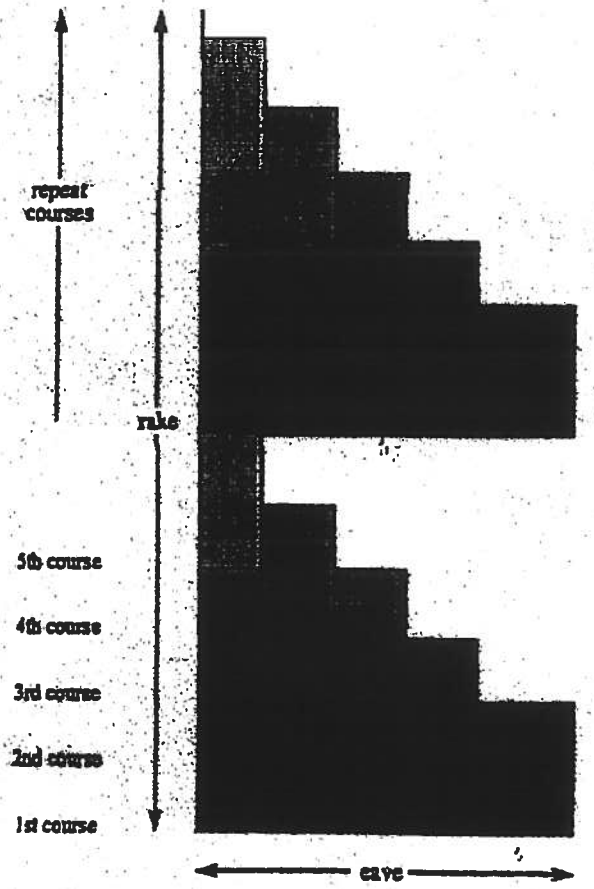
CORPORATE HEADQUARTERS
220 W. FOURTH STREET P.O. BOX 1404 JOPLIN, MO 64802-1404 800-641-4691 FAX 800-641-1925

TAMKO
ROOFING PRODUCTS

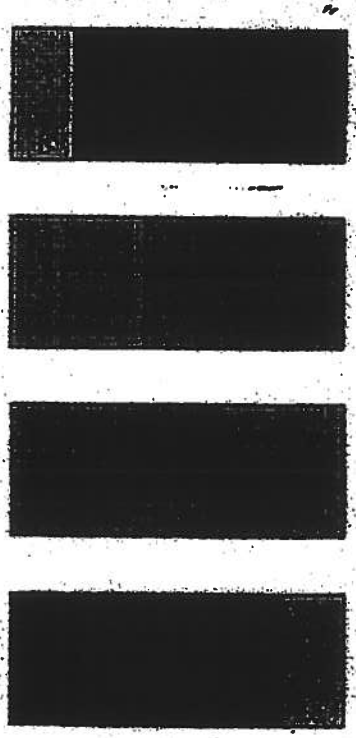
Application Instructions For Heritage® 25 Series Shingles

SPECIFICATIONS (APPROX.)	
Length	37"
Width	12"
Bundles per Sq.	3
Shingles per Sq.	78
Shingles per Bundle	26
Coverage per Sq. (Sq. Ft.)	100
Exposure	5"





The 4 cuts in the first 10 courses:



In the first 10 courses, there are 4 cuts and no waste.

When you reach the other side of the roof, whatever has to be trimmed off can be used in the field of roofing.

For additional application information consult the application instructions printed on the product package.

NOTE: These application instructions apply only to Heritage 25 and Heritage 25 AR shingles.

TAMKO ROOFING PRODUCTS

Application Instructions for

- Glass-Seal
- Glass-Seal AR
- Elite Glass-Seal®
- Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.
THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.
IN COLD WEATHER (BELOW 40°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMPORTANT: It is not necessary to remove the plastic strip from the back of the shingles.

1. ROOF DECK

These shingles are for application to roof decks capable of receiving and retaining fasteners, and to inclines of not less than 2 in. per foot. For roofs having pitches 2 in. per foot to less than 4 in. per foot, refer to special instructions titled "Low Slope Application". Shingles must be applied properly. TAMKO assumes no responsibility for leaks or defects resulting from improper application, or failure to properly prepare the surface to be roofed over.

NEW ROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and free from warped surfaces. It is recommended that metal drip edges be installed at eaves and rakes.

PLYWOOD: All plywood shall be exterior grade as defined by the American Plywood Association. Plywood shall be a minimum of 3/8 in. thick, nailed and applied in accordance with the recommendations of the American Plywood Association.

SHEATHING BOARDS: Boards shall be well-seasoned tongue-and-groove boards and not over 6 in. nominal width. Boards shall be a 1 in. nominal minimum thickness. Boards shall be properly spaced and nailed.

2. VENTILATION

Inadequate ventilation of attic spaces can cause accumulation of moisture in winter months and a build up of heat in the summer. These conditions can lead to:

1. Vapor Condensation
2. Buckling of shingles due to deck movement.
3. Rotting of wood members.
4. Premature failure of roof.

To insure adequate ventilation and circulation of air, place louvers of sufficient size high in the gable ends and/or install continuous ridge and soffit vents.
FHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented, or one square foot per 300 square feet if a vapor barrier is installed on the warm side of the ceiling or if at least one half of the ventilation is provided near the ridge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VENTILATION.

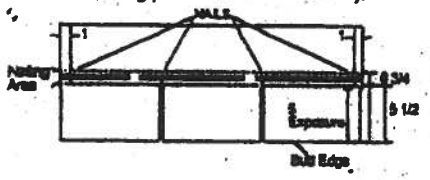
3. FASTENING

NAILS: TAMKO recommends the use of nails as the preferred method of application.
WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged cold weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

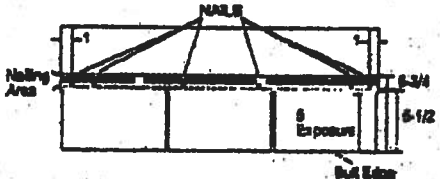
Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagram and described below, TAMKO will not be responsible for any shingles blown off or displaced. TAMKO will not be responsible for damage to shingles caused by winds or gusts exceeding gale force. Gale force shall be the standard as defined by the U.S. Weather Bureau.

FASTENING PATTERNS: Fasteners must be placed above or below the factory applied sealant in an area between 5-1/2" and 6-3/4" from the butt edge of the shingle. Fasteners should be located horizontally according to the diagram below. Do not nail into the sealant. TAMKO recommends nailing below the sealant whenever possible for greater wind resistance.

1) Standard Fastening Pattern. (For use on decks with slopes 2 in. per foot to 21 in. per foot.) One fastener 1 in. back from each end and one 12 in. back from each end of the shingle for a total of 4 fasteners. (See standard fastening pattern illustrated below).



2) Mansard or High Wind Fastening Pattern. (For use on decks with slopes greater than 21 in. per foot.) One fastener 1 in. back from each end and one fastener 10-1/2 in. back from each end and one fastener 13-1/2 in. back from each end for a total of 6 fastener per shingle. (See Mansard fastening pattern illustrated below.)



NAILS: TAMKO recommends the use of nails as the preferred method of application. Standard type roofing nails should be used. Nail shanks should be made of minimum 12-gauge wire, and a minimum head diameter of 3/8 in. Nails should be long enough to penetrate 3/4 in.

(Continued)

(CONTINUED from Pg. 2)

TAMKO ROOFING PRODUCTS

• Glass-Seal • Elite Glass-Seal®
• Glass-Seal AR • Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

with quick setting asphalt adhesive cement immediately upon installation. Spots of cement must be equivalent in size to a 3.25 piece and applied to shingles with a 5 in. exposure, use 5 fasteners per shingle. See Section 3 for the Mansard Fastening Pattern.

5. RE-ROOFING

Before re-roofing, be certain to inspect the roof decks. All plywood shall meet the requirements listed in Section 1.

Nail down or remove curled or broken shingles from the existing roof. Replace all missing shingles with new ones to provide a smooth base. Shingles that are buckled usually indicate warped decking or protruding nails. Hammer down all protruding nails or remove them and refasten in a new location. Remove all drip edge metal and replace with new.

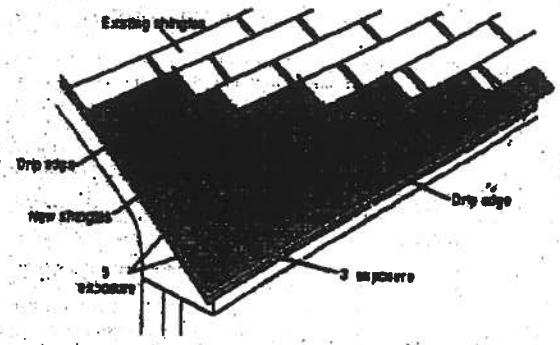
If re-roofing over an existing roof where new flashing is required to protect against ice dams (freeze/thaw cycle of water and/or the backup of water in frozen or clogged gutters), remove the old roofing to a point at least 24 in. beyond the interior wall line and apply TAMKO's Moisture Guard Plus® waterproofing underlayment. Contact TAMKO's Technical Services Department for more information.

The nesting procedure described below is the preferred method for re-roofing over square tab strip shingles with a 5 in. exposure.

Starter Course: Begin by using TAMKO Shingle Starter or by cutting shingles into 9 x 36 inch strips. This is done by removing the 5 in. tabs from the bottom and approximately 2 in. from the top of the shingles so that the remaining portion is the same width as the exposure of the old shingles. Apply the starter piece so that the self-sealing adhesive lies along the eaves and is even with the existing roof. The starter strip should be wide enough to overhang the eaves and carry water into the gutter. Remove 3 in. from the length of the first starter shingle to ensure that the joints from the old roof do not align with the new.

First Course: Cut off approximately 2 in. from the bottom edge of the shingles so that the shingles fit beneath the existing third course and align with the edge of the starter strip. Start the first course with a full 36 in. long shingle and fasten according to the instructions printed in Section 3.

Second and Succeeding Courses: According to the off-set application method you choose to use, remove the appropriate length from the rake end of the first shingle in each succeeding course. Place the top edge of the new shingle against the butt edge of the old shingles in the courses above. The full width shingle used on the second course will reduce the exposure of the first course to 3 in. The remaining courses will automatically have a 5 in. exposure.



6. VALLEY APPLICATION

Over the shingle underlayment, center a 36 in. wide sheet of TAMKO Nail-Fast® or a minimum 50 lb. roll roofing in the valley. Nail the felt only where necessary to hold it in place and then only nail the outside edges.

IMPORTANT: PRIOR TO INSTALLATION WARM SHINGLES TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES TO FORM VALLEY.

- Apply the first course of shingles along the eaves of one of the intersecting roof planes and across the valley.

Note: For proper flow of water over the trimmed shingle, always start applying the shingles on the roof plane that has the lower slope or less height.

- Extend the end shingle at least 12 in. onto the adjoining roof. Apply succeeding courses in the same manner, extending them across the valley and onto the adjoining roof.
- Do not trim if the shingle length exceeds 12 in. Lengths should vary.
- Press the shingles tightly into the valley.
- Use normal shingle fastening methods.

Note: No fastener should be within 6 in. of the valley centerline, and two fasteners should be placed at the end of each shingle crossing the valley.

- To the adjoining roof plane, apply one row of shingles extending it over previously applied shingles and trim a minimum of 2 in. back from the centerline of the valley.

Note: For a neater installation, snap a chalkline over the shingles for guidance.

- Clip the upper corner of each shingle at a 45-degree angle and embed the end of the shingle in a 3 in. wide strip of asphalt plastic cement. This will prevent water from penetrating between the courses by directing it into the valley.

- *CAUTION: Adhesive must be applied in smooth, thin, even layers.*

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.

(Continued)

(CONTINUED from Pg. 3)

TAMKO ROOFING PRODUCTS

• Glass-Seal • Elite Glass-Seal®
• Glass-Seal AR • Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

FOR ALTERNATE VALLEY APPLICATION METHODS, PLEASE CONTACT TAMKO'S TECHNICAL SERVICES DEPARTMENT.

10. HIP AND RIDGE FASTENING DETAIL

Apply the shingles with a 5 in. exposure beginning at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener 5-1/2 in. back from the exposed end and 1 in. up from the edge. Do not nail directly into the sealant.

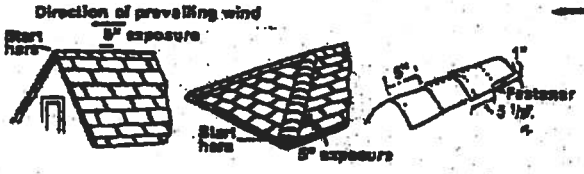
TAMKO recommends the use of TAMKO Hip & Ridge shingle products. Where matching colors are available, it is acceptable to use TAMKO's Glass-Seal or Elite Glass-Seal shingles cut down to 12 in. pieces.

NOTE: AR type shingle products should be used as Hip & Ridge on Glass-Seal AR and Elite Glass-Seal AR shingles.

Fasteners should be 1/4 in. longer than the one used for shingles.

IMPORTANT: PRIOR TO INSTALLATION, CARE NEEDS TO BE TAKEN TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES IN COOL WEATHER.

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.



THIS PRODUCT IS COVERED BY A LIMITED WARRANTY. THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.

IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE

In this paragraph "You" and "Your" refer to the installer of the shingles and the owner of the building on which these shingles will be installed. This is a legally binding agreement between You and TAMKO Roofing Products, Inc. ("TAMKO"). By opening this bundle You agree: (a) to install the shingles strictly in accordance with the instructions printed on this wrapper; or (b) that shingles which are not installed strictly in accordance with the instructions printed on this wrapper are sold "AS IS" and are not covered by the limited warranty that is also printed on this wrapper, or any other warranty, including, but not limited to (except where prohibited by law) implied warranties of MERCHANTABILITY and FITNESS FOR USE.

Residential System Sizing Calculation

Summary

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

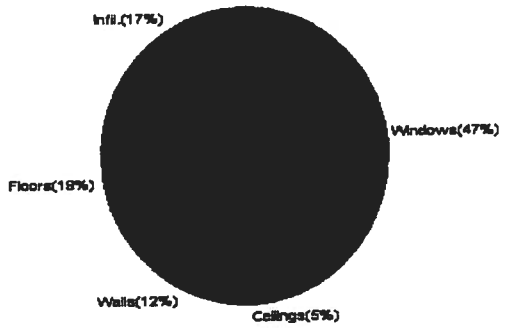
4/24/2006

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	**33573**	**Btuh**	**Total cooling load calculation**	**28316**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	119.1	40000	Sensible (SHR = 0.75)	128.6	30000
Heat Pump + Auxiliary(0.0kW)	119.1	40000	Latent	200.6	10000
			Total (Electric Heat Pump)	141.3	40000

WINTER CALCULATIONS

Winter Heating Load (for 1344 sqft)

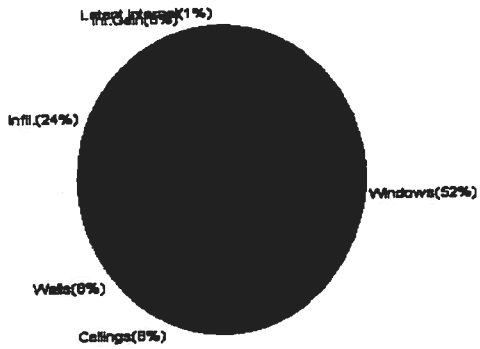
Load component			Load	
Window total	337	sqft	15836	Btuh
Wall total	1223	sqft	4016	Btuh
Door total	0	sqft	0	Btuh
Ceiling total	1344	sqft	1584	Btuh
Floor total	145	sqft	6331	Btuh
Infiltration	143	cfm	5807	Btuh
Duct loss			0	Btuh
Subtotal			**33573**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**33573**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1344 sqft)

Load component			Load	
Window total	337	sqft	14791	Btuh
Wall total	1223	sqft	2320	Btuh
Door total	0	sqft	0	Btuh
Ceiling total	1344	sqft	2226	Btuh
Floor total			0	Btuh
Infiltration	125	cfm	2335	Btuh
Internal gain			1660	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			**23332**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			4584	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			400	Btuh
Total latent gain			**4984**	**Btuh**
TOTAL HEAT GAIN			**28316**	**Btuh**



For Florida residences only

EnergyGauge® System Sizing
PREPARED BY: Jon Morris
DATE: 4-24-06

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

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

4/24/2006

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	1, Clear, Metal, 1.27	W	72.0	47.0	3383 Btuh
2	1, Clear, Metal, 1.27	W	40.0	47.0	1880 Btuh
3	1, Clear, Metal, 1.27	N	15.0	47.0	705 Btuh
4	1, Clear, Metal, 1.27	S	15.0	47.0	705 Btuh
5	1, Clear, Metal, 1.27	S	20.0	47.0	940 Btuh
6	1, Clear, Metal, 1.27	W	40.0	47.0	1880 Btuh
7	1, Clear, Metal, 1.27	W	45.0	47.0	2115 Btuh
8	1, Clear, Metal, 1.27	S	90.0	47.0	4229 Btuh
	Window Total		337(sqft)		15836 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	823	3.3	2703 Btuh
2	Frame - Wood - Adj(0.09)	13.0	400	3.3	1314 Btuh
	Wall Total		1223		4016 Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1344	1.2	1584 Btuh
	Ceiling Total		1344		1584Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	145.0 ft(p)	43.7	6331 Btuh
	Floor Total		145		6331 Btuh
			Zone Envelope Subtotal:		27766 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.80	10752	143.4	5807 Btuh
Ductload	Proposed leak free, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #1			**Sensible Zone Subtotal**		**33573 Btuh**

WHOLE HOUSE TOTALS

	Subtotal Sensible	33573 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	33573 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

For Florida residences only

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear
(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)

System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

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

4/24/2006

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	1, Clear, Metal, 1.27	W	72.0	47.0	3383 Btuh
2	1, Clear, Metal, 1.27	W	40.0	47.0	1880 Btuh
3	1, Clear, Metal, 1.27	N	15.0	47.0	705 Btuh
4	1, Clear, Metal, 1.27	S	15.0	47.0	705 Btuh
5	1, Clear, Metal, 1.27	S	20.0	47.0	940 Btuh
6	1, Clear, Metal, 1.27	W	40.0	47.0	1880 Btuh
7	1, Clear, Metal, 1.27	W	45.0	47.0	2115 Btuh
8	1, Clear, Metal, 1.27	S	90.0	47.0	4229 Btuh
	Window Total		337(sqft)		15836 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	823	3.3	2703 Btuh
2	Frame - Wood - Adj(0.09)	13.0	400	3.3	1314 Btuh
	Wall Total		1223		4016 Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1344	1.2	1584 Btuh
	Ceiling Total		1344		1584Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	145.0 ft(p)	43.7	6331 Btuh
	Floor Total		145		6331 Btuh
			Zone Envelope Subtotal:		27766 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.80	10752	143.4	5807 Btuh
Ductload	Proposed leak free, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #1			**Sensible Zone Subtotal**		**33573 Btuh**

WHOLE HOUSE TOTALS

	Subtotal Sensible	33573 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	33573 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

For Florida residences only

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear
(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)

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 4/24/2006

Component Loads for Whole House

Window	Type* Pn/SHGC/U/InSh/ExSh/IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	1, Clear, 1.27, None,N,F	W	29.5f	8ft.	72.0	72.0	0.0	30	75	2157 Btuh
2	1, Clear, 1.27, None,N,F	W	29.5f	8ft.	40.0	40.0	0.0	30	75	1199 Btuh
3	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	15.0	0.0	15.0	37	37	562 Btuh
4	1, Clear, 1.27, None,N,N	S	8.5ft	8ft.	15.0	15.0	0.0	37	43	562 Btuh
5	1, Clear, 1.27, None,N,N	S	8.5ft	8ft.	20.0	20.0	0.0	37	43	749 Btuh
6	1, Clear, 1.27, None,N,N	W	8ft.	8ft.	40.0	31.8	8.2	37	94	1960 Btuh
7	1, Clear, 1.27, None,N,N	W	1.5ft	8ft.	45.0	0.0	45.0	37	94	4232 Btuh
8	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	90.0	90.0	0.0	37	43	3371 Btuh
	Window Total				337 (sqft)					14791 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	823.0	2.1	1717 Btuh
2	Frame - Wood - Adj	13.0/0.09	400.0	1.5	604 Btuh
	Wall Total		1223 (sqft)		2320 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	1344.0	1.7	2226 Btuh
	Ceiling Total		1344 (sqft)		2226 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	145 (ft(p))	0.0	0 Btuh
	Floor Total		145.0 (sqft)		0 Btuh

			Zone Envelope Subtotal:		19337 Btuh
Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.70	10752	125.4	2335 Btuh
Internal gain		Occupants	Btuh/occupant	Appliance	Load
		2	X 230 +	1200	1660 Btuh
Duct load	Proposed leak free, R6.0, Supply(Attic), Return(Attic)			DGM = 0.00	0.0 Btuh
			Sensible Zone Load		**23332 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

4/24/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**23332 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**23332 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**23332 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	4584 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (2 people @ 200 Btuh per person)	400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**4984 Btuh**
	TOTAL GAIN	**28316 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)

For Florida residences only

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 4/24/2006

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	1, Clear, 1.27, None,N,F	W	29.5f	8ft.	72.0	72.0	0.0	30	75	2157 Btuh
2	1, Clear, 1.27, None,N,F	W	29.5f	8ft.	40.0	40.0	0.0	30	75	1199 Btuh
3	1, Clear, 1.27, None,N,N	N	1.5ft	8ft.	15.0	0.0	15.0	37	37	562 Btuh
4	1, Clear, 1.27, None,N,N	S	8.5ft	8ft.	15.0	15.0	0.0	37	43	562 Btuh
5	1, Clear, 1.27, None,N,N	S	8.5ft	8ft.	20.0	20.0	0.0	37	43	749 Btuh
6	1, Clear, 1.27, None,N,N	W	8ft.	8ft.	40.0	31.8	8.2	37	94	1960 Btuh
7	1, Clear, 1.27, None,N,N	W	1.5ft	8ft.	45.0	0.0	45.0	37	94	4232 Btuh
8	1, Clear, 1.27, None,N,N	S	1.5ft	8ft.	90.0	90.0	0.0	37	43	3371 Btuh
	Window Total				337 (sqft)					14791 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	823.0	2.1	1717 Btuh
2	Frame - Wood - Adj	13.0/0.09	400.0	1.5	604 Btuh
	Wall Total		1223 (sqft)		2320 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	1344.0	1.7	2226 Btuh
	Ceiling Total		1344 (sqft)		2226 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	145 (ft(p))	0.0	0 Btuh
	Floor Total		145.0 (sqft)		0 Btuh

			Zone Envelope Subtotal:		19337 Btuh
Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.70	10752	125.4	2335 Btuh
Internal gain		Occupants	Btuh/occupant	Appliance	Load
		2	X 230 +	1200	1660 Btuh
Duct load	Proposed leak free, R6.0, Supply(Attic), Return(Attic)			DGM = 0.00	0.0 Btuh
			Sensible Zone Load		**23332 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

Code Only
Professional Version
Climate: North

4/24/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**23332 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**23332 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**23332 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	4584 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (2 people @ 200 Btuh per person)	400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**4984 Btuh**
	TOTAL GAIN	**28316 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)

For Florida residences only

Residential Window Diversity

MidSummer

Dan & Jean Lemke Res.
370 NW Auburn Place
Lake City, FL 32055-

Project Title:
Isaac Construction - Lemke Res.

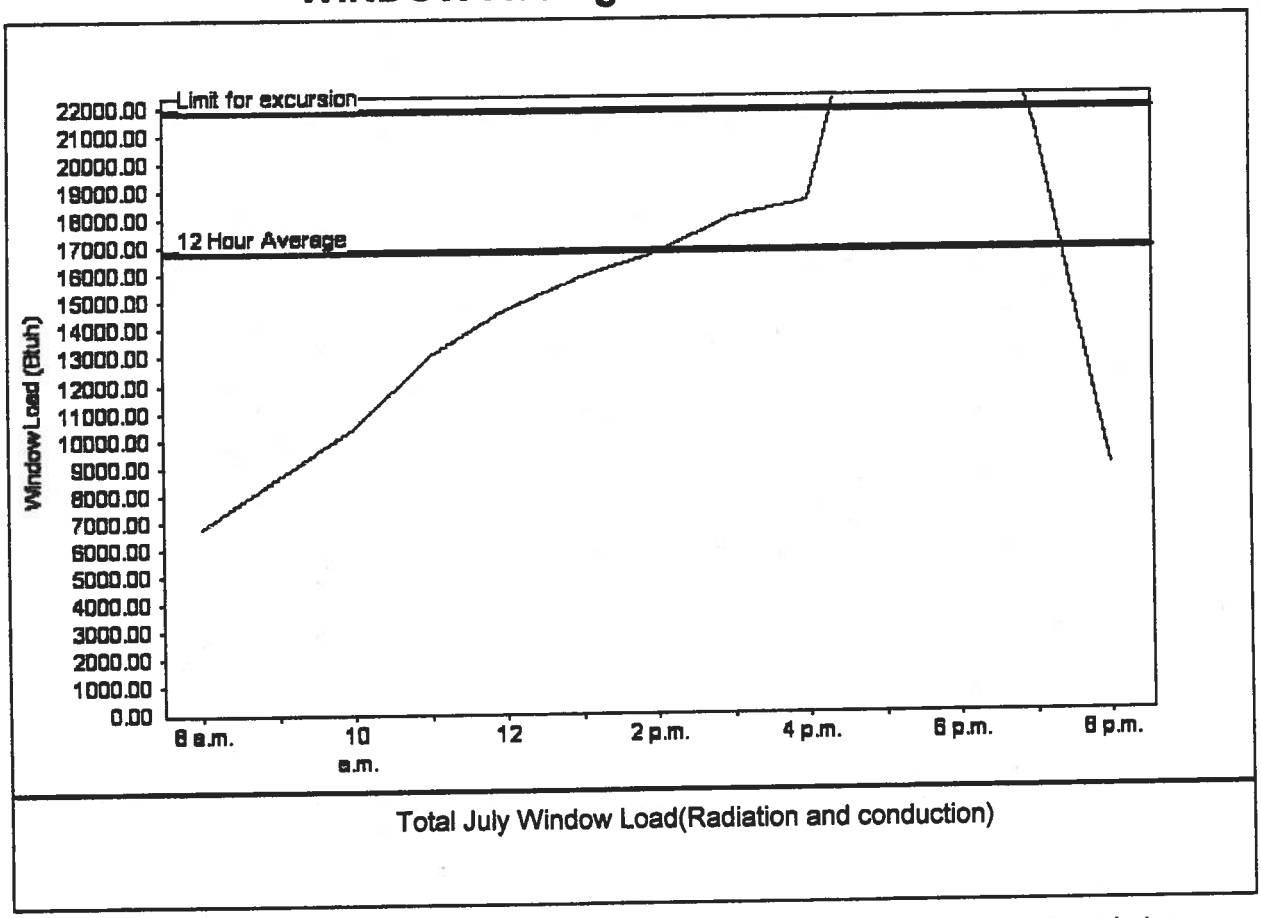
Code Only
Professional Version
Climate: North

4/24/2006

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	16788 Btu
Summer setpoint	75 F	Peak window load for July	29368 Btu
Summer temperature difference	17 F	Excusion limit(130% of Ave.)	21825 Btu
Latitude	29 North	Window excursion (July)	7543 Btuh

WINDOW Average and Peak Loads



Total July Window Load(Radiation and conduction)

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

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: _____

DATE: _____