Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 0605.63 Date Received 5/16/06 By G Permit # 1092 / 24566

Application Approved by - Zoning Official BLK Date 26.05.06 Plans Examiner OK JJH Date 5-23-06

Flood Zone X-prot Development Permit N/A Zoning RSF-2 Land Use Plan Map Category RES. Low Den

Comments

Applicants Name DON REED CONSTRUCTION, INC Phone 386 752 4072

Address 2230 SE BAYA DR. STE 101 LAKE CITY, FL 32025

Owners Name EARNEST & PATTY LOSSOW Phone 386-752-4072

911 Address 355 NW ZACK DRIVE LAKE CITY, FL 32055

Contractors Name DON REED CONSTRUCTION Phone -SAME AS ABOVE-

Address -SAME AS ABOVE-

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address MARK DISOSWAY P.O. Box 808 LAKE CITY, FL 32056

Mortgage Lenders Name & Address MERCANTILE BANK 425 22ND AVE N ST. PETERSBURG 3370

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

Property ID Number 28-3S-16-02372-413 Estimated Cost of Construction $179,000.00

Subdivision Name EMERALD LAKES Lot 113 Block ___ Unit ___ Phase 4

Driving Directions HIGHWAY 90 WEST, TR ON BROWN RD, TL ON EMERALD LAKES DRIVE, TR ON ZACK PASS HARWELL COURT, 3RD LOT ON RIGHT.

Type of Construction SINGLE FAMILY DWELLING Number of Existing Dwellings on Property Ø

Total Acreage .50 Lot Size ___ Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 40' Side 30' Side 10' Rear 90'

Total Building Height 12' Number of Stories 1 Heated Floor Area 2098 Roof Pitch 6/12

Porch 165 GARAGE 504 TOTAL 2767

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 COMMENCEMENT 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.

Owner Builder or Agent (Including Contractor)

Don Reed

Contractor Signature

Contractors License Number CBC036224

Competency Card Number

NOTARY STAMP/SEAL

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me this 15th day of May 2006.

Personally known ✓ or Produced Identification ___

Ingrid Geiger

Notary Signature

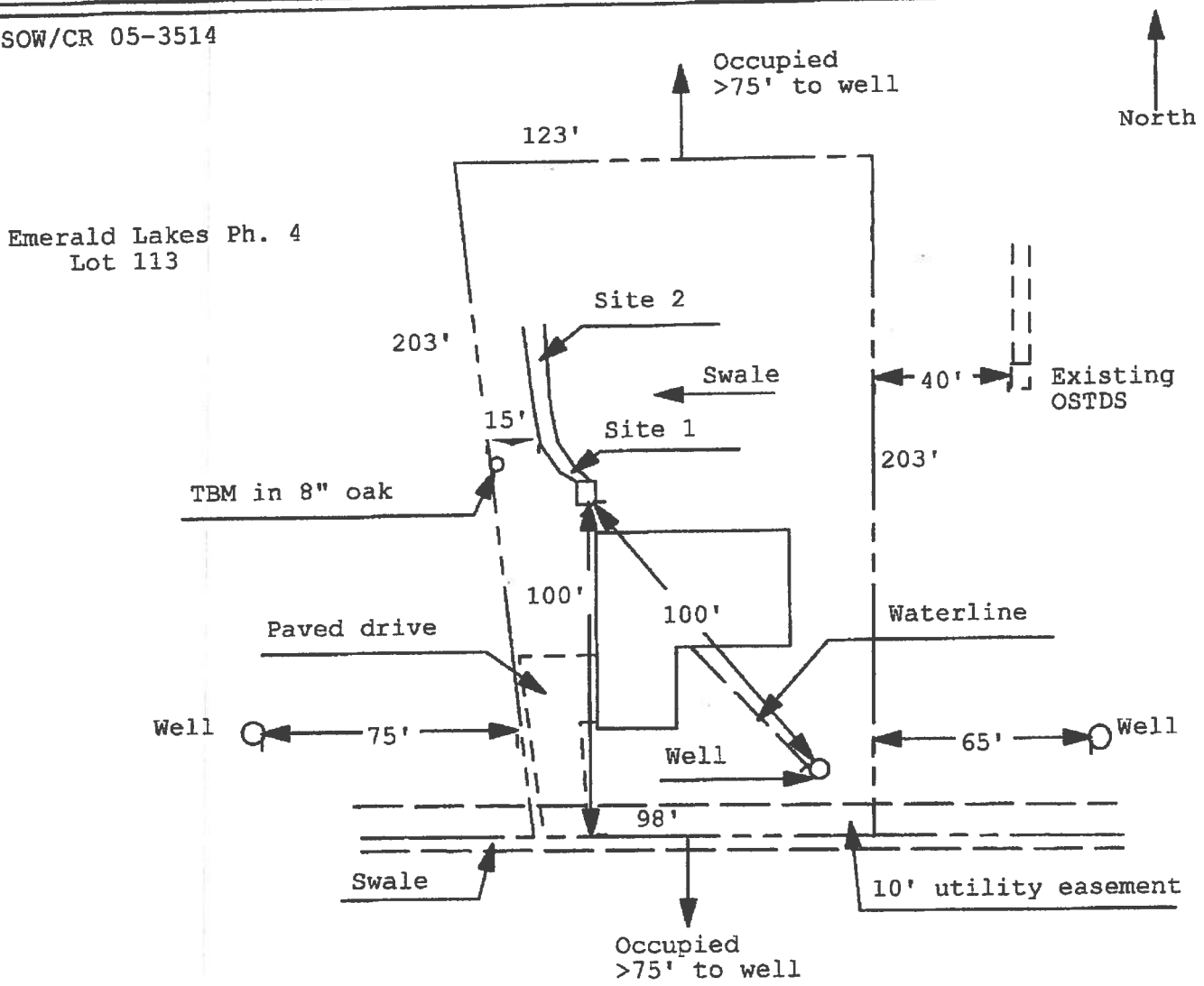
Notary Public State of Florida
Ingrid Geiger
My Commission DD385312
Expires 01/26/2009

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

Permit Application Number: 06-0454N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

LOSSOW/CR 05-3514



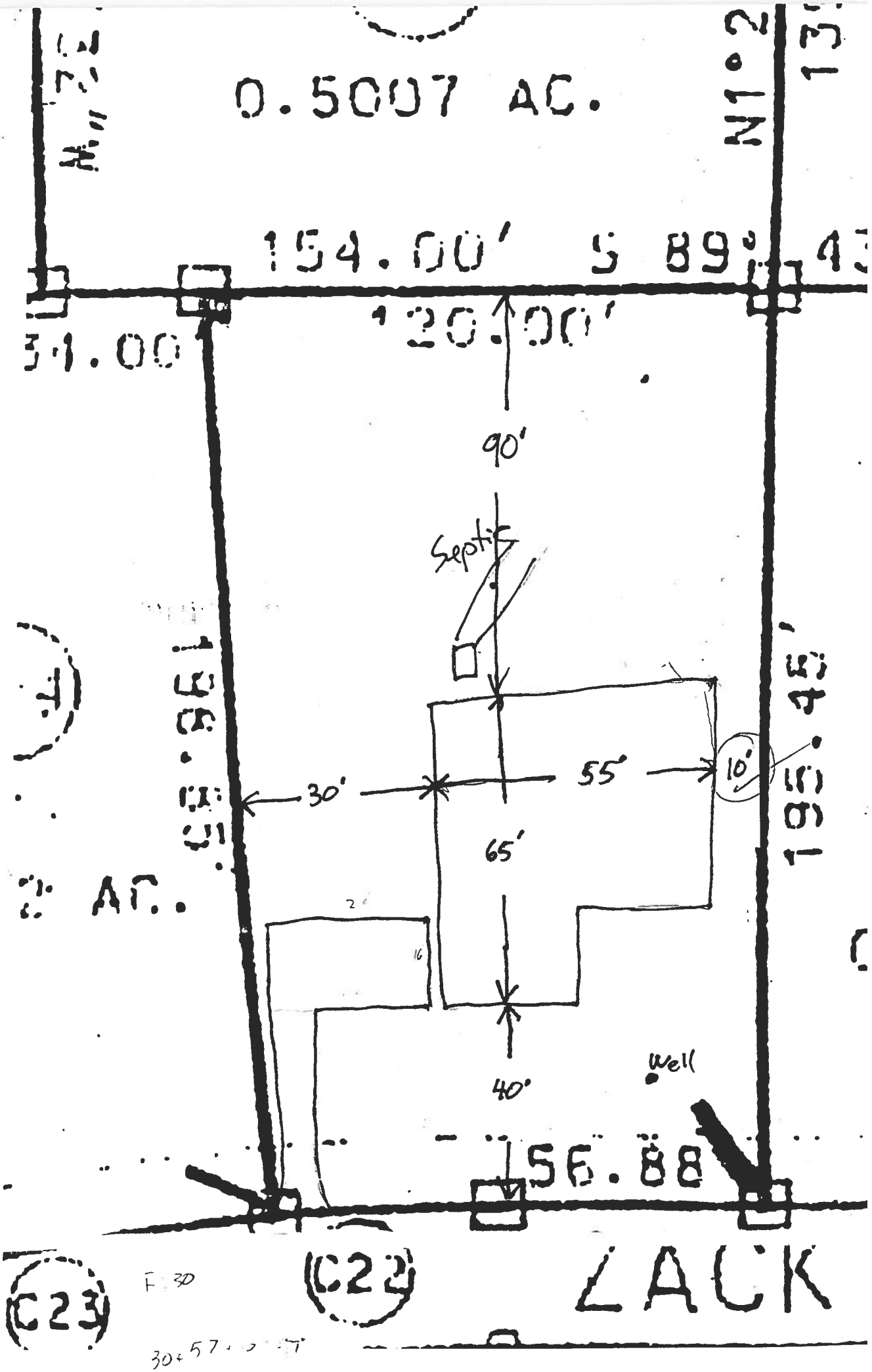
1 inch = 50 feet

Site Plan Submitted By Paul Lloyd **Date** 5/8/06

Plan Approved ✓ **Not Approved** ____ **Date** 5/9/06

By Mrs Dank Columbia **CPHU**

Notes:


0.5007 AC.
154.00'
120.00'
31.00
90'
Septic
30'
55'
10'
65'
40'
Well
56.88
2 AC.
(C2)
(C3)
LACK

Columbia County Property Appraiser

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

PARCEL: 28-3S-16-02372-413 - VACANT (000000)

Name:	LOSSOW PATRICIA & ERNEST	LandVal	$25,500.00
Site:	113 EMERALD LKES PH4	BldgVal	$0.00
	3887 NW ARCHER ST	ApprVal	$25,500.00
Mail:	APT 102	JustVal	$25,500.00
	LAKE CITY, FL 32055	Assd	$25,500.00
Sales Info	8/9/2005 $100.00 V / U	Exmpt	$0.00
		Taxable	$25,500.00

RETURN TO

ROBERT SANDERS
214 NW HANNAH CT.
LAKE CITY, FL 32055

DEED TO REAL PROPERTY

For and in consideration of ten dollars, I grant to Patricia + Ernest Lossow all that real property situated in Lake City in the county of Columbia and state of Florida bounded and described as follows:

Lot 113, Emerald Lakes, Phase 4.

Witnessed by:
Linda K Causey
LINDA K CAUSEY
(Printed Name)
Phyllis M Parlatti
PHYLLIS M PARLATTI

Robert W. Sanders

Inst:2005019045 Date:08/09/2005 Time:11:34
Doc Stamp-Deed : 0.70
MK DC,P.DeWitt Cason,Columbia County B:1054 P:1122

(Printed Name)

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 9th day of August, 2005, by Robert W. Sanders, who produced personally Known as identification or is personally known to me.

Lori N. Register
Notary Public
My Commission Expires: 1/29/07

LORI N. REGISTER
MY COMMISSION # DD 220001
EXPIRES: January 29, 2007
Bonded Thru Notary Public Underwriters

COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787
PHONE: (386) 758-1125 * FAX: (386) 758-1365 * Email: ron_croft@columbiacountyfla.com

Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 4/11/2006 **DATE ISSUED:** 4/12/2006

ENHANCED 9-1-1 ADDRESS:

355 NW ZACK DR

LAKE CITY FL 32055

PROPERTY APPRAISER PARCEL NUMBER:

28-3S-16-02372-413

Remarks:

LOT 113 EMERALD LAKES PHASE 4 S/D

Address Issued By: _____
Columbia County 9-1-1 Addressing / GIS Department

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.

158

COLUMBIA COUNTY
9-1-1 ADDRESSING
APPROVED

FORM 600A-2001

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Lossow Residence**	Builder:	**Don Reed**
Address:	**Lot: 113, Sub: Emerald Lakes, Plat:**	Permitting Office:	Columbia
City, State:	**Lake City, FL**	Permit Number:	24566
Owner:	**Earnest & Patty Lossow**	Jurisdiction Number:	221000
Climate Zone:	**North**		

1.	New construction or existing	New	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	3	
5.	Is this a worst case?	Yes	
6.	Conditioned floor area (ft²)	2098 ft²	
7.	Glass area & type		
a.	Clear - single pane	0.0 ft²	
b.	Clear - double pane	396.0 ft²	
c.	Tint/other SHGC - single pane	0.0 ft²	
d.	Tint/other SHGC - double pane	0.0 ft²	
8.	Floor types		
a.	Slab-On-Grade Edge Insulation	R=0.0, 204.0(p) ft	
b.	N/A		
c.	N/A		
9.	Wall types		
a.	Frame, Wood, Adjacent	R=13.0, 168.0 ft²	
b.	Frame, Wood, Exterior	R=13.0, 1875.0 ft²	
c.	N/A		
d.	N/A		
e.	N/A		
10.	Ceiling types		
a.	Under Attic	R=30.0, 2098.0 ft²	
b.	N/A		
c.	N/A		
11.	Ducts		
a.	Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 148.0 ft	
b.	N/A		
12.	Cooling systems		
a.	Central Unit	Cap: 36.0 kBtu/hr SEER: 10.00	
b.	N/A		
c.	N/A		
13.	Heating systems		
a.	Electric Heat Pump	Cap: 36.0 kBtu/hr HSPF: 6.80	
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)		

Glass/Floor Area: 0.19

Total as-built points: 31104

Total base points: 31732

PASS

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

PREPARED BY: David L Lobeck

DATE: 8-25-05

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

OWNER/AGENT: Don Reed

DATE: 8-25-05

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.

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

BUILDING OFFICIAL: _____

DATE: _____

FORM 600A-2001

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,** PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points
.18	2098.0	20.04	7567.9	Double, Clear	E	9.0	7.0	36.0	40.22	0.46	664.4
				Double, Clear	E	9.0	10.0	13.3	40.22	0.54	291.1
				Double, Clear	E	9.0	3.0	5.0	40.22	0.36	71.8
				Double, Clear	E	1.5	7.0	36.0	40.22	0.94	1358.7
				Double, Clear	N	1.5	1.0	2.7	19.22	0.65	33.5
				Double, Clear	N	1.5	6.0	20.0	19.22	0.94	360.8
				Double, Clear	NE	1.5	7.0	15.0	28.72	0.94	406.7
				Double, Clear	N	1.5	7.0	24.0	19.22	0.96	440.5
				Double, Clear	NW	1.5	7.0	30.0	25.46	0.95	723.4
				Double, Clear	W	1.5	7.0	108.0	36.99	0.94	3750.6
				Double, Clear	W	1.5	7.0	24.0	36.99	0.94	833.5
				Double, Clear	W	1.5	6.0	20.0	36.99	0.91	675.6
				Double, Clear	SW	1.5	7.0	30.0	38.46	0.92	1061.3
				Double, Clear	S	1.5	1.0	32.0	34.50	0.47	522.4
				As-Built Total:				**396.0**			**11194.2**

WALL TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Adjacent	168.0	0.70	117.6	Frame, Wood, Adjacent	13.0	168.0	0.60	100.8
Exterior	1875.0	1.70	3187.5	Frame, Wood, Exterior	13.0	1875.0	1.50	2812.5
Base Total:	**2043.0**		**3305.1**	**As-Built Total:**		**2043.0**		**2913.3**

DOOR TYPES	Area X	BSPM	= Points	Type	Area X	SPM	= Points
Adjacent	20.0	2.40	48.0	Exterior Insulated	40.0	4.10	164.0
Exterior	40.0	6.10	244.0	Adjacent Insulated	20.0	1.60	32.0
Base Total:	**60.0**		**292.0**	**As-Built Total:**	**60.0**		**196.0**

CEILING TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM X SCM	= Points
Under Attic	2098.0	1.73	3629.5	Under Attic	30.0	2098.0	1.73 X 1.00	3629.5
Base Total:	**2098.0**		**3629.5**	**As-Built Total:**		**2098.0**		**3629.5**

FLOOR TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Slab	204.0(p)	-37.0	-7548.0	Slab-On-Grade Edge Insulation	0.0	204.0(p	-41.20	-8404.8
Raised	0.0	0.00	0.0					
Base Total:			**-7548.0**	**As-Built Total:**		**204.0**		**-8404.8**

FORM 600A-2001

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,**	PERMIT #:

BASE				AS-BUILT						
INFILTRATION	Area X	BSPM	= Points				Area X	SPM	=	Points
	2098.0	10.21	21420.6				2098.0	10.21		21420.6
Summer Base Points:			**28667.1**	**Summer As-Built Points:**						**30948.9**
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	=	Cooling Points
28667.1	**0.4266**		**12229.4**	30948.9 **30948.9**	1.000 **1.00**	(1.090 x 1.147 x 0.91) **1.138**	0.341 **0.341**	1.000 **1.000**		12017.4 **12017.4**

FORM 600A-2001

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	2098.0	12.74	4811.1	Double, Clear	E	9.0	7.0	36.0	9.09	1.35	443.0	
				Double, Clear	E	9.0	10.0	13.3	9.09	1.26	152.5	
				Double, Clear	E	9.0	3.0	5.0	9.09	1.51	68.5	
				Double, Clear	E	1.5	7.0	36.0	9.09	1.03	336.0	
				Double, Clear	N	1.5	1.0	2.7	14.30	1.02	39.0	
				Double, Clear	N	1.5	6.0	20.0	14.30	1.00	286.8	
				Double, Clear	NE	1.5	7.0	15.0	13.40	1.00	201.7	
				Double, Clear	N	1.5	7.0	24.0	14.30	1.00	343.8	
				Double, Clear	NW	1.5	7.0	30.0	14.03	1.00	421.6	
				Double, Clear	W	1.5	7.0	108.0	10.77	1.02	1181.8	
				Double, Clear	W	1.5	7.0	24.0	10.77	1.02	262.6	
				Double, Clear	W	1.5	6.0	20.0	10.77	1.02	220.4	
				Double, Clear	SW	1.5	7.0	30.0	7.17	1.04	224.2	
				Double, Clear	S	1.5	1.0	32.0	4.03	3.28	422.5	
				As-Built Total:				**396.0**			**4604.3**	
WALL TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Adjacent	168.0	3.60	604.8	Frame, Wood, Adjacent			13.0	168.0	3.30		554.4	
Exterior	1875.0	3.70	6937.5	Frame, Wood, Exterior			13.0	1875.0	3.40		6375.0	
Base Total:	**2043.0**		**7542.3**	**As-Built Total:**				**2043.0**			**6929.4**	
DOOR TYPES	Area X	BWPM =	Points	Type				Area X	WPM =		Points	
Adjacent	20.0	11.50	230.0	Exterior Insulated				40.0	8.40		336.0	
Exterior	40.0	12.30	492.0	Adjacent Insulated				20.0	8.00		160.0	
Base Total:	**60.0**		**722.0**	**As-Built Total:**				**60.0**			**496.0**	
CEILING TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM X	WCM =	Points	
Under Attic	2098.0	2.05	4300.9	Under Attic			30.0	2098.0	2.05 X	1.00	4300.9	
Base Total:	**2098.0**		**4300.9**	**As-Built Total:**				**2098.0**			**4300.9**	
FLOOR TYPES	Area X	BWPM =	Points	Type			R-Value	Area X	WPM =		Points	
Slab	204.0(p)	8.9	1815.6	Slab-On-Grade Edge Insulation			0.0	204.0(p	18.80		3835.2	
Raised	0.0	0.00	0.0									
Base Total:			**1815.6**	**As-Built Total:**				**204.0**			**3835.2**	

FORM 600A-2001

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,**	PERMIT #:

BASE				**AS-BUILT**						
INFILTRATION	Area X	BWPM	= Points				Area X	WPM	=	Points
	2098.0	-0.59	-1237.8				2098.0	-0.59		-1237.8
Winter Base Points:			**17954.1**	**Winter As-Built Points:**						**18928.0**
Total Winter Points	X System Multiplier	=	Heating Points	Total Component	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	=	Heating Points
17954.1	**0.6274**		**11264.4**	18928.0 **18928.0**	1.000 **1.00**	(1.069 x 1.169 x 0.93) **1.162**	0.501 **0.501**	1.000 **1.000**		11031.3 **11031.3**

FORM 600A-2001

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,** PERMIT #:

BASE				AS-BUILT						
WATER HEATING										
Number of Bedrooms	X Multiplier	= Total		Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total
3	2746.00	8238.0		50.0	0.90	3	1.00	2684.98	1.00	8054.9
				As-Built Total:						8054.9

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
12229	**11264**	**8238**	**31732**	**12017**	**11031**	**8055**	**31104**

PASS

FORM 600A-2001

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: **Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,** PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 82.4

The higher the score, the more efficient the home.

Earnest & Patty Lossow, Lot: 113, Sub: Emerald Lakes, Plat: , Lake City, FL,

1. New construction or existing	New	
2. Single family or multi-family	Single family	
3. Number of units, if multi-family	1	
4. Number of Bedrooms	3	
5. Is this a worst case?	Yes	
6. Conditioned floor area (ft²)	2098 ft²	
7. Glass area & type		
a. Clear - single pane	0.0 ft²	
b. Clear - double pane	396.0 ft²	
c. Tint/other SHGC - single pane	0.0 ft²	
d. Tint/other SHGC - double pane	0.0 ft²	
8. Floor types		
a. Slab-On-Grade Edge Insulation	R=0.0, 204.0(p) ft	
b. N/A		
c. N/A		
9. Wall types		
a. Frame, Wood, Adjacent	R=13.0, 168.0 ft²	
b. Frame, Wood, Exterior	R=13.0, 1875.0 ft²	
c. N/A		
d. N/A		
e. N/A		
10. Ceiling types		
a. Under Attic	R=30.0, 2098.0 ft²	
b. N/A		
c. N/A		
11. Ducts		
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 148.0 ft	
b. N/A		
12. Cooling systems		
a. Central Unit	Cap: 36.0 kBtu/hr SEER: 10.00	
b. N/A		
c. N/A		
13. Heating systems		
a. Electric Heat Pump	Cap: 36.0 kBtu/hr HSPF: 6.80	
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, RB-Attic radiant barrier, MZ-C-Multizone cooling, MZ-H-Multizone heating)		

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

Builder Signature: _____ Date: 8-25-05

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.*

EnergyGauge® (Version: FLRCPB v3.2)

Residential System Sizing Calculation

Summary

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

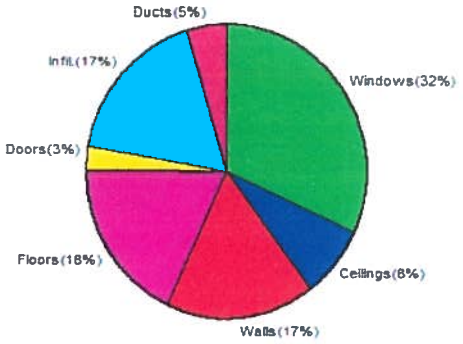
8/25/2005

Location for weather data: Gainesville - Defaults: Latitude(29) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature	31	F	Summer design temperature	93	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	39	F	Summer temperature difference	18	F
Total heating load calculation	**35065**	**Btuh**	**Total cooling load calculation**	**35181**	**Btuh**
Submitted heating capacity	36000	Btuh	Submitted cooling capacity	36000	Btuh
Submitted as % of calculated	102.7	%	Submitted as % of calculated	102.3	%

WINTER CALCULATIONS

Winter Heating Load (for 2098 sqft)

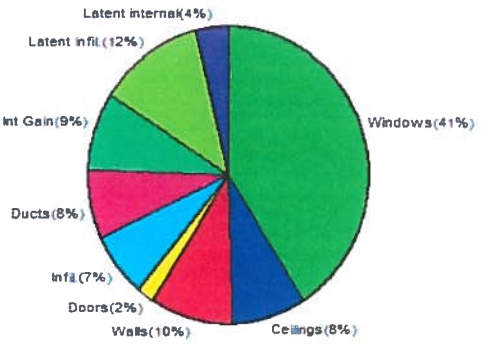
Load component			Load	
Window total	396	sqft	11207	Btuh
Wall total	2043	sqft	6081	Btuh
Door total	60	sqft	921	Btuh
Ceiling total	2098	sqft	2727	Btuh
Floor total	204	ft	6446	Btuh
Infiltration	140	cfm	6012	Btuh
Subtotal			**33395**	**Btuh**
Duct loss			1670	Btuh
TOTAL HEAT LOSS			**35065**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2098 sqft)

Load component			Load	
Window total	396	sqft	14409	Btuh
Wall total	2043	sqft	3437	Btuh
Door total	60	sqft	608	Btuh
Ceiling total	2098	sqft	2979	Btuh
Floor total			0	Btuh
Infiltration	123	cfm	2428	Btuh
Internal gain			3000	Btuh
Subtotal(sensible)			**26862**	**Btuh**
Duct gain			2686	Btuh
Total sensible gain			**29548**	**Btuh**
Latent gain(infiltration)			4253	Btuh
Latent gain(internal)			1380	Btuh
Total latent gain			**5633**	**Btuh**
TOTAL HEAT GAIN			**35181**	**Btuh**



EnergyGauge® System Sizing based on ACCA Manual J.

PREPARED BY: _____

DATE: 8-25-05

System Sizing Calculations - Winter

Residential Load - Component Details

Earnest & Patty Lossow
Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 39.0 F

8/25/2005

Window	Panes/SHGC/Frame/U	Orientation	Area X	HTM=	Load
1	2, Clear, Metal, DEF	N	36.0	28.3	1019 Btuh
2	2, Clear, Metal, DEF	N	13.3	28.3	377 Btuh
3	2, Clear, Metal, DEF	N	5.0	28.3	142 Btuh
4	2, Clear, Metal, DEF	N	36.0	28.3	1019 Btuh
5	2, Clear, Metal, DEF	W	2.7	28.3	75 Btuh
6	2, Clear, Metal, DEF	W	20.0	28.3	566 Btuh
7	2, Clear, Metal, DEF	NW	15.0	28.3	424 Btuh
8	2, Clear, Metal, DEF	W	24.0	28.3	679 Btuh
9	2, Clear, Metal, DEF	SW	30.0	28.3	849 Btuh
10	2, Clear, Metal, DEF	S	108.0	28.3	3056 Btuh
11	2, Clear, Metal, DEF	S	24.0	28.3	679 Btuh
12	2, Clear, Metal, DEF	S	20.0	28.3	566 Btuh
13	2, Clear, Metal, DEF	SE	30.0	28.3	849 Btuh
14	2, Clear, Metal, DEF	E	32.0	28.3	906 Btuh
	Window Total		396		11207 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Adjacent	13.0	168	1.6	269 Btuh
2	Frame - Exterior	13.0	1875	3.1	5812 Btuh
	Wall Total		2043		6081 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exter		40	18.3	733 Btuh
2	Insulated - Adjac		20	9.4	188 Btuh
	Door Total		60		921Btuh
Ceilings	Type	R-Value	Area X	HTM=	Load
1	Under Attic	30.0	2098	1.3	2727 Btuh
	Ceiling Total		2098		2727Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab-On-Grade Edge Insul	0	204.0 ft(p)	31.6	6446 Btuh
	Floor Total		204		6446 Btuh
Infiltration	Type	ACH X	Building Volume	CFM=	Load
	Natural	0.40	20980(sqft)	140	6012 Btuh
	Mechanical			0	0 Btuh
	Infiltration Total			140	6012 Btuh

Totals for Heating	**Subtotal**	**33395 Btuh**
	Duct Loss(using duct multiplier of 0.05)	**1670 Btuh**
	Total Btuh Loss	**35065 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

8/25/2005

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

System Sizing Calculations - Summer

Residential Load - Component Details

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 18.0 F

8/25/2005

Window	Type		Overhang Len	Overhang Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	HTM Unshaded	Load	
	Panes/SHGC/U/InSh/ExSh Ornt										
1	2, Clear, DEF, N, N	N	9	7	36.0	0.0	36.0	22	22	792	Btuh
2	2, Clear, DEF, N, N	N	9	10	13.3	0.0	13.3	22	22	293	Btuh
3	2, Clear, DEF, N, N	N	9	3	5.0	0.0	5.0	22	22	110	Btuh
4	2, Clear, DEF, N, N	N	1.5	7	36.0	0.0	36.0	22	22	792	Btuh
5	2, Clear, DEF, N, N	W	1.5	1	2.7	2.7	0.0	22	72	59	Btuh
6	2, Clear, DEF, N, N	W	1.5	6	20.0	1.0	19.0	22	72	1391	Btuh
7	2, Clear, DEF, N, N	NW	1.5	7	15.0	0.0	15.0	22	50	750	Btuh
8	2, Clear, DEF, N, N	W	1.5	7	24.0	1.0	23.0	22	72	1679	Btuh
9	2, Clear, DEF, N, N	SW	1.5	7	30.0	3.8	26.2	22	62	1708	Btuh
10	2, Clear, DEF, N, N	S	1.5	7	108.0	36.0	72.0	22	37	3456	Btuh
11	2, Clear, DEF, N, N	S	1.5	7	24.0	24.0	0.0	22	37	528	Btuh
12	2, Clear, DEF, N, N	S	1.5	6	20.0	20.0	0.0	22	37	440	Btuh
13	2, Clear, DEF, N, N	SE	1.5	7	30.0	3.8	26.2	22	62	1708	Btuh
14	2, Clear, DEF, N, N	E	1.5	1	32.0	32.0	0.0	22	72	704	Btuh
	Window Total				396					14409	Btuh

Walls	Type	R-Value	Area	HTM	Load	
1	Frame - Adjacent	13.0	168.0	1.0	175	Btuh
2	Frame - Exterior	13.0	1875.0	1.7	3262	Btuh
	Wall Total		2043.0		3437	Btuh

Doors	Type	Area	HTM	Load	
1	Insulated - Exter	40.0	10.1	406	Btuh
2	Insulated - Adjac	20.0	10.1	203	Btuh
	Door Total	60.0		608	Btuh

Ceilings	Type/Color	R-Value	Area	HTM	Load	
1	Under Attic/Dark	30.0	2098.0	1.4	2979	Btuh
	Ceiling Total		2098.0		2979	Btuh

Floors	Type	R-Value	Size	HTM	Load	
1	Slab-On-Grade Edge Insulation	0.0	204.0 ft(p)	0.0	0	Btuh
	Floor Total		204.0		0	Btuh

Infiltration	Type	ACH	Volume	CFM=	Load	
	Natural	0.35	20980	122.6	2428	Btuh
	Mechanical			0	0	Btuh
	Infiltration Total			123	2428	Btuh

Internal gain		Occupants		Btuh/occupant		Appliance	Load	
		6	X	300	+	1200	3000	Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

8/25/2005

Totals for Cooling	**Subtotal**	**26862**	**Btuh**
	Duct gain(using duct multiplier of 0.10)	**2686**	**Btuh**
	Total sensible gain	**29548**	**Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	**4253**	**Btuh**
	Latent occupant gain (6 people @ 230 Btuh per person)	**1380**	**Btuh**
	Latent other gain	**0**	**Btuh**
	TOTAL GAIN	**35181**	**Btuh**

Key: Window types (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/Daperies(B) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(Ornt - compass orientation)

HALL'S PUMP & WELL SERVICE, INC.

SPECIALIZING IN 4"-6" WELLS

DONALD AND MARY HALL
OWNERS

PHONE (904) 752-1854
FAX (904) 755-7022
LAKE CITY, FLORIDA 32055
904 NW Main Blvd.

June 12, 2002

NOTICE TO ALL CONTRACTORS

Please be advised that due to the new building codes we will use a large capacity diaphram tank on all new wells. This will insure a minimum of one (1) minute draw down or one (1) minute refill. If a smaller diaphram tank is used then we will install a cycle stop valve which will produce the same results.

If you have any questions please feel free to call our office anytime.

Thank you,

Donald D. Hall
DDH/jk

Columbia County Building Department
Culvert Permit

Culvert Permit No.
000001092

DATE 05/26/2006 PARCEL ID # 28-3S-16-02372-413

APPLICANT KATIE REED PHONE 752-4072

ADDRESS 2230 SE BAYA DRIVE LAKE CITY FL 32055

OWNER EARNEST & PATTY LOSSOW PHONE 752-4072

ADDRESS 555 NW ZACK DRIVE LAKE CITY FL 32055

CONTRACTOR DON REED PHONE 752-4072

LOCATION OF PROPERTY 90W, TR ON BROWN RD, TL ON EMERALD LAKES DR, TR ON ZACK,
PASS HARWELL COURT, 3RD LOT ON RIGHT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT EMERALD LAKES 113 4

SIGNATURE Katie Reed

INSTALLATION REQUIREMENTS

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

INSTALLATION NOTE: Turnouts will be required as follows:
a) a majority of the current and existing driveway turnouts are paved, or;
b) the driveway to be served will be paved or formed with concrete.
Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

[ ] Culvert installation shall conform to the approved site plan standards.

[ ] Department of Transportation Permit installation approved standards.

[ ] Other _____

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

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

Amount Paid 25.00

COLUMBIA COUNTY FLORIDA

Notice of Treatment 12045

Applicator: Florida Pest Control & Chemical Co. (www.flapest .com)
Address: 1BAYA Ave
City LC Phone 752-1103

Site Location: Subdivision Emerald Lakes Phase 4
Lot # 113 Block# _____ Permit # 24566
Address 355 ZACK DR

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
Dirt/Hay	2767	248	250

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 _____.

6-16-06 Date | 1300 Time | F254 Print Technician's Name

Remarks: _____

Applicator - White Permit File - Canary Permit Holder - Pink

10/05 ©

ADD to 12045

Notice of Treatment

Applicator: Florida Pest Control & Chemical Co. (www.flapest .com)
Address: 1 SAVAGE
City Lake City Phone 752-1003

Site Location: Subdivision Emerald Lakes
Lot # 113 Block# _____ Permit # 24566
Address 355 Hillrock DR

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
Dwelling	2767	200	4
			1

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 _____.

7-27-06 (Date) 0730 (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 28-3S-16-02372-413 **Building permit No.** 000024566

Use Classification SFD,UTILITY **Fire:** 67.00

Permit Holder DON REED **Waste:** 201.00

Owner of Building EARNEST & PATTY LOSSOW **Total:** 268.00

Location: 355 NW ZACK DRIVE, EMERALD LAKES, LOT 113

Date: 10/24/2006

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

Reference to a building permit application Number: 0605-63

Contractor: Don Reed Construction Owner Earnest & Patty Lossow lot 113 Emerald Lakes Subdivision

On the date of May 22, 2006 application 0605-63 and plans for construction of a 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 0605-63 when making reference to this application.

To help ensure compliance with the Florida Residential Code 2004 the comments below need to be addressed on the plans.

1. In the Garage area the FRC-2004 sections R309.1 Opening protection: Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8

inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

2. In the garage area show compliance with the FRC-2004 sections R309.1.1 Duct penetration: Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.
3. In the garage area show compliance with the FRC-2004 sections R309.2 Separation required: The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.
4. The attic access opening (pull down ladder type attic egress door) in the garage ceiling shall have the same protection requirements of FRC-2004 C: R309.2 Separation required. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.
5. The electrical plan shows the location of the electrical service, Please indicate on the electrical plan that an overcurrent protection device will be installed on the

exterior of structures to serve as a disconnecting means. Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground.

Thank you,

Joe Haltiwanger
Plan Examiner
Columbia County Building Department

CAPITOL™
WINDOWS AND DOORS

- Series 165 Single Hung and Fixed Windows
- Series 650 Single Hung and Fixed Windows
- Series 168 Horizontal Slider and Fixed Windows
- Series 680 Horizontal Slider and Fixed Windows

NOTE: SEE INDIVIDUAL TEST REPORT(S) FOR DP RATINGS AND MAXIMUM ALLOWABLE SIZES.

INSTALLATION INSTRUCTIONS FOR "APPROVED FOR FLORIDA" ALUMINUM FIN WINDOWS

Capitol Windows & Doors appreciates your recent purchase of a maintenance free prime window, which will not rust, rot, mildew, or warp. This is a quality product that left our factory in good condition – proper handling and installation are just as important as good design and workmanship. Please follow these recommendations to allow this product to complete its function.

1 Handle units one at a time in the closed and locked position and take care not to scratch frame or glass or to bend the nailing fin. Place a continuous bead of caulk on the back side of nail fin (mounting flange).

2. Set unit plumb and square into opening and make sure that there is 3/16" ± 1/16" clearance around the frame. Fasten unit into opening in the closed and locked position, making sure that fasteners are screwed in straight in order to avoid twisting or bowing of the frame. Make sure that sill is straight and level. Check operation of unit frequently as fasteners are set.

3. Use # 8 sheet metal or wood screws with a minimum of 1" penetration into the framing (stud). Place first screws (two at each corner) 3" from end of fin. For positive and negative DPs (design pressures) up to **35**, do not exceed **24"** spacing of additional screws. For DPs from **35.1** to **50**, do not exceed **18"** spacing.

4. Caulk entire perimeter of fin to mounting surface joint and caulk over screw heads.
Note: this step can be eliminated if 4" wide adhesive type flashing is used (sill 1st., jambs 2nd., head 3rd.).

5. Fill voids between frame and construction with loose batten type insulation or non-expanding aerosol foam specifically formulated for windows and doors to eliminate drafts. The use of expanding aerosol type insulating foam, which can bow the frame, waives all stated warranties.

6. Remove plaster, mortar, paint, and debris that has collected on the unit and make sure that sash/vent tracks and interlocks are also clean. Do not use abrasives, solvents, ammonia, vinegar, alkaline, or acid solutions for clean-up, especially with insulated glass units as their use could cause chemical breakdown of the glass seal. Take care not to scratch glass; scratches severely weaken glass and it could eventually break from thermal expansion and contraction. Clean units with water and mild detergent.

- CAUTION -

Capitol Windows & Doors or its representatives are unable to control and cannot assume responsibility for the selection and placement of their products in a building or structure in a manner required by laws, statutes, and/or building codes. The purchaser is solely responsible for knowledge of and adherence to the same. BetterBilt window products are not provided with safety glazing unless specifically ordered with such. Many laws and codes require safety glazing (tempered glass) near doors, bathtubs, and shower enclosures. Also be aware of other code requirements such as emergency egress and structural / energy performance.

Corporate Headquarters:
M.I. Home Products
650 West Market St.
Gratz, PA 17030-0370
(717) 365-3300

www.mihp.com

It 221
July 29, 2003

STEVEN M. URICH
CERTIFICATE
No. 57705
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Rev. 7-24-03

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

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 450/650/850 Drop In Glazing
TYPE: Aluminum Single Hung Window

Title	Summary of Results
AAMA Rating	H-LC30 53 x 90
Operating Force	24 lb max.
Air Infiltration	0.11 cfm/ft²
Water Resistance Test Pressure	6.75 psf
Uniform Load Deflection Test Pressure	+32.8 psf -47.2 psf
Uniform Load Structural Test Pressure	+49.2 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-42487.01 for complete test specimen description and data.

Architectural Testing

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

Rendered to:

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

Report No: 01-42487.01
Test Date: 08.14.02
And: 08.15.02
Report Date: 10.02.02
Expiration Date: 08.15.06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on a Series Model 450/650/850 Drop In Glazing, aluminum single hung window at their facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-LC30 53 x 90 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: 450/650/850 Drop In Glazing

Type: Aluminum Single Hung Window

Overall Size: 4' 5-1/8" wide by 5' 5-5/8" high

Interior Sash Size: 4' 2-3/4" wide by 3' 8-7/8" high

Fixed Daylight Opening Size: 4' 0" wide by 3' 5-3/8" high

Screen Size: 4' 0-3/4" wide by 3' 8-3/4" high

Finish: The unit was white.

Glazing Details: The specimen utilized 5/8" thick, sealed insulating glass constructed from two sheets of 3/32" thick, clear annealed glass and a metal reinforced butyl spacer system. The lites were interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

[illegible]

Test Specimen Description (Continued)

Weatherstripping:

Description	Quantity	Location
0.190" high by 0.187" polypile with center fin	1 Row	Fixed meeting rail interlock
0.190" high by 0.187" polypile with center fin	2 Rows	Interior sash stiles
1/4" vinyl foam-filled bulb seal	1 Row	Interior sash bottom rail
5/8" wide by 7/8" long polypile plug	4 Pieces	Interior sash, all corners

Frame Construction: The frame was constructed of extruded aluminum. Each corner was coped, butted, sealed, and fastened with two #8 x 1" screws per corner through the head and sill into jamb screw boss. End caps were utilized on the ends of the meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was then secured to the frame utilizing two 1-1/2" screws.

Sash Construction: The sash was constructed of extruded aluminum. Each corner was coped, butted, and fastened with one #8 x 1-1/4" screw per corner.

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

Hardware:

Description	Quantity	Location
Metal cam lock	2	Interior sash, 6-1/2" from top rail ends
Spring-loaded coil balance	2	One per jamb
Plastic tilt latch	2	Interior sash top rail ends
Metal tilt latch pin	2	Interior sash bottom rail ends
Screen spring-loaded retainer pin	2	6-3/4" from rails on stiles

Test Specimen Description: (Continued)

Drainage: Sloped sill.

Reinforcement: No reinforcement was utilized.

Installation: The specimen was installed into a #2 2 x 8 Spruce-Pine-Fir wood buck. #8 x 1-5/8" drywall screws were placed 3" from corners and 15" on center around nailing fin. Polyurethane was used as a sealant 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	24 lbs	35 lbs max.
2.1.2	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.11 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.

2.1.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 3.75 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 52 seconds) @ 25.0 psf (positive) @ 25.0 psf (negative)	0.64"* 0.54"*	0.29" max. 0.29" max.

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

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 37.5 psf (positive) @ 37.5 psf (negative)	0.04" 0.03"	0.20" max. 0.20" max.

Test Results:

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.2	Deglazing Test (ASTM E 987-88)		
	In operating direction at 70 lbs		
	Interior sash meeting rail	0.12" 25%	0.50" [illegible]
	Interior sash bottom rail	0.12" 25%	0.50" [illegible]
	In remaining direction at 50 lbs		
	Interior sash right stile	0.06" 12%	0.50" [illegible]
	Interior sash left stile	0.06" 12%	0.50" [illegible]
2.1.8	Forced Entry Resistance (ASTM F 588-97)		
	Type: A Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
Optional Performance			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP – 6.75 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 32.8 psf (positive) @ 47.2 psf (negative)	0.85"* 0.87"*	0.29" max. 0.29" max.
4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 49.2 psf (positive) @ 70.8 psf (negative)	0.09" 0.12"	0.20" max. 0.20" max.

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

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator. This report may not be reproduced except in full without the approval of Architectural Testing.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

Allen N. Reeves, P.E.
Director - Engineering Services

MAH:mb
01-42467.01

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

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 650
TYPE: Aluminum Picture Window

Title of Test	Results
Rating	F-R45 60 x 80
Overall Design Pressure	+45.0 psf -47.2 psf
Air Infiltration	0.04 cfm/ft²
Water Resistance	8.25 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Forced Entry Resistance	Grade 10

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

For ARCHITECTURAL TESTING, INC.

[illegible]

[illegible]

Allen N. Reeves
4 APRIL 2002

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: 01-41135.01
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, aluminum picture window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a F-R45 96 x 58 rating.

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

Test Specimen Description

Series/Model: 650

Type: Aluminum Picture Window

Overall Size: 5'0" wide by 6'0" high

Daylight Opening Size: 4'9-1/4" wide by 5'-1/4" high

Finish: All aluminum was white

Glazing Details: The test specimen utilized 7/8" thick, sealed insulating glass constructed with two plies of 1/8" thick clear annealed glass and a metal reinforced spacer system. The glass was set on glazing tape and secured with aluminum snap-in glazing beads.

Allen N. Reum
1 APR 2002

Test Specimen Description: (Continued)

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.

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck. #8 x 2-1/2" installation screws were utilized 18" on center around the interior perimeter. Polyurethane was utilized to seal the exterior.

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
2.1.2	Air Infiltration (ASTM E 283-91)		
	@ 1.57 psf (25 mph)	0.04 cfm/ft²	0.3 cfm/ft² max.

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

Paragraph	Title of Test - Test Method	Results	Allowed
2.1.3	Water Resistance (ASTM E 547-00)		
	WTP = 2.86 psf	No leakage	No leakage
2.1.4	Uniform Load Deflection (ASTM E 330-97)		
	(Measurements reported were taken on the jamb)		
	(Loads were held for 52 seconds)		
	@ 25.7 psf (positive)	0.01"	0.41" max.
	@ 34.7 psf (negative)	0.01"	0.41" max.
2.1.4.2	Uniform Load Structural (ASTM E 330-97)		
	(Measurements reported were taken on the jamb)		
	(Loads were held for 10 seconds)		
	@ 38.[illegible] psf (positive)	0.01"	0.29" max.
	@ 52.1 psf (negative)	0.01"	0.29" max.

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.1.8	Forced Entry Resistance (ASTM F 588-97)		
	Type: D Grade: 10		
	Hand and Tool Manipulation Test	No entry	No entry
Optional Performance			
4.3	Water Resistance (ASTM E 547-00) WTP – 8.25 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.02"	0.41" max.
	@ 47.2 psf (negative)	0.02"	0.41" max.
4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 10 seconds)		
	@ 67.5 psf (positive)	0.01"	0.29" max.
	@ 70.8 psf (negative)	0.02"	0.29" max.

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

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

MAH:mh
01-41135.01

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

Architectural Testing

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

Rendered to:

MI WINDOWS AND DOORS, INC

SERIES/MODEL: 420/430/440
PRODUCT TYPE: Aluminum Sliding Glass Door

	Summary of Results		
Title	**Test Specimen #1**	**Test Specimen #2**	**Test Specimen #3**
Rating	SGD-R25 182 x 96	SGD-R35 182 x 80	SGD-R40 144 x 96
Operating Force	17 lbf max.	17 lbf max.	N/A
Air Infiltration	0.23 cfm/ft^2	0.27 cfm/ft^2	N/A
Water Resistance Test Pressure	3.75/6.0/9.0 psf	6.0 psf	N/A
Uniform Load Deflection Test Pressure	±35.0 psf	±35.0 psf	+40.0 psf/-40.1 psf
Uniform Load Structural Test Pressure	±37.5 psf	±52.5 psf	+60.0 psf/-60.2 psf
Forced Entry Resistance	Grade 10	Grade 10	N/A

Reference should be made to ATI Report No. 52112.01-122-47 for complete test specimen description and data.

130 Derry Court
York, PA 17402-9405
phone: 717-764-7700
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www.archtest.com

Architectural Testing

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

Rendered to:

MI WINDOWS AND DOORS, INC
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No.:	52112.01-122-47
Revision 1:	09/13/04
Test Dates:	06/30/04
Through:	08/12/04
Report Date:	08/30/04
Expiration Date:	07/02/08

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Windows and Doors, Inc. to witness testing on three Series/Model 420/430/440, aluminum sliding glass doors at MI Windows and Doors, Inc. test facility in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for the following ratings: Test Specimen #1: SGD-R25 182 x 96; Test Specimen #2: SGD-R35 182 x 80; Test Specimen #3: SGD-R40 144 x 96. Test specimen description and results are reported herein.

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

Test Specimen Description:

Series/Model: 420/430/440

Product Type: Aluminum Sliding Glass Door

Test Specimen #1: SGD-R25 182 x 96 (XXO)

Overall Size: 15' 1-3/4" wide by 8' 0" high

Active Door Panel Size (2): 5' 0-1/2" wide by 7' 11" high

Fixed Door Panel Size: 5' 1" wide by 7' 11" high

Screen Size: 5' 0-3/8" wide by 7' 11" high

Overall Area: 121.2 ft^2

Reinforcement: The active and fixed interlocking stile utilized a steel U-shaped reinforcement (Drawing #9917525). The fixed intermediate jamb utilized a steel reinforcement (Drawing #9917520).

130 Derry Court
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phone: 717-764-7700
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www.archtest.com

Test Specimen Description: (Continued)

Test Specimen #2: SGD-R35 182 x 80 (OXX)

Overall Size: 15' 1-3/4" wide by 6' 8" high

Active Door Panel Size (2): 5' 0-1/2" wide by 6' 7" high

Fixed Door Panel Size: 4' 8-7/8" wide by 6' 2-5/8" high

Screen Size: 5' 0-3/8" wide by 6' 7" high

Overall Area: 101 ft^2

Reinforcement: No reinforcement was utilized.

Test Specimen #3: SGD-R40 144 x 96 (XOX)

Overall Size: 12' 0" wide by 8' 0" high

Active Door Panel Size: 3' 8-1/4" wide by 7' 10-1/2" high

Fixed Door Panel Size (2): 3' 8-3/4" wide by 7' 6-1/2" high

Screen Size: 3' 11-1/2" wide by 7' 11-3/8" high

Overall Area: 96 ft^2

Reinforcement: The active and fixed interlocking stile utilized a steel U-shaped reinforcement (Drawing #9917525). The fixed intermediate jamb utilized a steel reinforcement (Drawing #9917520). The interlock utilized an aluminum reinforcement (Drawing #SECT4237).

The following descriptions apply to all specimens.

Finish: All aluminum was white.

Glazing Details: All glazing consisted of a single sheet of 3/16" thick clear tempered glass that was channel glazed with a wrap around rubber gasket.

Test Specimen Description: (Continued)

Weatherstripping:

Description	Quantity	Location
0.187" backed by 0.270" high polypile with center fin	2 Rows	Stiles

Frame Construction: The frame was constructed of extruded aluminum. Corners were coped, butted, sealed, and fastened with two #8 by 5/8" screws.

Door Panel Construction: The door panels were constructed of extruded aluminum members. Corners were coped, butted, and fastened with one 1/4" by 3/4" screw at the bottom and two #8 by 3/4" screws at the top.

Screen Construction: The screen was constructed of extruded aluminum members. Corners were coped, butted, and fastened with one 1/4" by 3/4" and one #8 by 1" screw at the bottom and one #8 by 1" screw at the top.

Hardware:

Description	Quantity	Location
Locking handle	1	44" from active panel bottom
Roller assembly	2	3" from bottom rail ends
Screen locking handle	1	46" from screen bottom rail

Drainage:

Description	Quantity	Location
Sloped sill	1	Sill

Installation: The units were installed into a #2 Spruce-Pine-Fir wood test buck. The units were fastened to the test buck with two rows of #8 by 1-1/4" screws, 8" from each end and 23" on center. The exterior perimeter was sealed with silicone.

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
Test Specimen #1: SGD-R25 182 x 96 (XXO)			
2.2.1.6.1	Operating Force	17 lbf	20 lbf max.
	Breakaway force	24 lbf	30 lbf max.
2.1.2	Air Infiltration per ASTM E 283		
	1.57 psf (25 mph)	0.23 cfm/ft^2	0.3 cfm/ft^2 max.
2.1.3	Water Resistance per ASTM E 547 (with and without screen)		
	2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection per ASTM E 330		
	(Deflections reported were taken on the meeting rail)		
	(Loads were held for 52 seconds)		
	15.0 psf (positive)	0.56"	See Note #2
	15.0 psf (negative)	0.57"	See Note #2
2.1.4.2	Uniform Load Structural per ASTM E 330		
	(Permanent sets reported were taken on the meeting stile)		
	(Loads were held for 10 seconds)		
	22.5 psf (positive)	0.02"	0.30" max.
	22.5 psf (negative)	0.03"	0.30" max.
2.2.1.6.2	Deglazing Test per ASTM E 987		
	In operating direction - 70 lbs		
	Locking stile	0.12"/24%	0.50"/100%
	Interlock stile	0.12"/24%	0.50"/100%

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

Note #2: *The Uniform Load Deflection test is not a requirement of ANSI/AAMA/NWWDA 101/I.S.2-97 for this product designation. The deflection data is recorded in this report for special code compliance and information only.*

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
Test Specimen #1: SGD-R25 182 x 96 (XXO) (Continued)			
2.2.1.6.2	Deglazing Test per ASTM E 987 In remaining direction - 50 lbs		
	Top rail	0.06"/12%	0.50"/100%
	Bottom rail	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance per ASTM F 842		
	Type: A	Grade: 10	
	Lock Manipulation Test	No entry	No entry
	Test A1 through A6	No entry	No entry
	Lock Manipulation Test	No entry	No entry
Optional Performance			
4.3	Water Resistance per ASTM E 547 (with and without screen) 3.75 psf	No leakage	No leakage
4.3	Water Resistance per ASTM E 547 (with and without screen) (with sill riser) 6.0 psf	No leakage	No leakage
4.3	Water Resistance per ASTM E 547 (with and without screen) (with 2-5/8" Dade County sill extension) 9.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	35.0 psf (positive)	2.98"	See Note #2
	35.0 psf (negative)	2.52"	See Note #2

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
Test Specimen #1: SGD-R25 182 x 96 (XXO) (Continued)			
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	37.5 psf (positive)	0.20"	0.36" max.
	37.5 psf (negative)	0.19"	0.36" max.
Test Specimen #2: SGD-R35 182 x 80 (OXX)			
2.2.1.6.1	Operating Force	17 lbf	20 lbf max.
	Breakaway force	21 lbf	30 lbf max.
2.1.2	Air Infiltration per ASTM E 283		
	1.57 psf (25 mph)	0.27 cfm/ft^2	0.3 cfm/ft^2 max.
	Note #1: *The tested specimen meets the performance levels specified in ANSI/AAMA/NWWDA 101/I.S.2-97 for air infiltration.*		
2.1.3	Water Resistance per ASTM E 547 (with and without screen)		
	2.86 psf	No leakage	No leakage
2.2.1.6.2	Deglazing Test per ASTM E 987 In operating direction - 70 lbs		
	Locking stile	0.12"/24%	0.50"/100%
	Interlock stile	0.12"/24%	0.50"/100%
	In remaining direction - 50 lbs		
	Top rail	0.06"/12%	0.50"/100%
	Bottom rail	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance per ASTM F 842		
	Type: A	Grade: 10	
	Lock Manipulation Test	No entry	No entry
	Test A1 through A6	No entry	No entry
	Lock Manipulation Test	No entry	No entry

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
	Test Specimen #2: SGD-R35 182 x 80 (OXX) (Continued)		
	Optional Performance		
4.3	Water Resistance per ASTM E 547 (with and without screen) (with sill riser) 6.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds)		
	35.0 psf (positive)	1.28"	See Note #2
	35.0 psf (negative)	1.33"	See Note #2
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	52.5 psf (positive)	0.13"	0.30" max.
	52.5 psf (negative)	0.15"	0.30" max.
	Test Specimen #3: SGD-R40 144 x 96 (XOX)		
	Optional Performance		
4.4.1	Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds)		
	40.0 psf (positive)	1.42"	See Note #2
	40.1 psf (negative)	1.28"	See Note #2
4.4.2	Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds)		
	60.0 psf (positive)	0.27"	0.37" max.
	60.2 psf (negative)	0.30"	0.37" max.

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 from the original test date. 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. This report may not be reproduced, except in full, without approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess vlm%

Digitally Signed for: Mark A. Hess by Vicki L. McElwain

Mark Hess
Technician

Digitally Signed by: Steven M. Urich

Steven M. Urich, P.E.
Senior Project Engineer

MH:vlm

MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMINUM SLIDING GLASS DOOR

COMAPARATIVE ANALYSIS CHART IN DESIGN PRESSURE

STEEL AND ALUMINUM REINFORCING

09/08/2004

SGD ALUM & STL REINF

PANEL WIDTH >>	24	30	36	48
PANEL HEIGHT 80	85	71	62	51
96	69	57	49	40

TEST REPORT NO: ATI-52112.01-122-47
DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 40.0 PSF
WATER TEST PRESSURE:
- 1-3/8 IN. SILL RISER: 3.75 PSF
- 1-7/8 IN. SILL RISER: 6.0 PSF
- 2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL TEST SIZE: 12'-0" X 8'-0" NOMINAL

OVERALL PANEL SIZE: 48 IN. X 96 IN. NOMINAL
GLAZING: SINGLE PC. OF 3/16 IN. THK. TEMPERED GLASS
REINFORCING: STEEL IN INTERLOCKING STILES AND INTERMEDIATE JAMB. ADDITIONAL ALUM. REINFORCING ON EXTERIOR OF OPERATING INTERLOCK STILE.
CONFIGURATION: XOX

LIMITATIONS:
THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS & HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.
WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE, ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:
- WHERE 1-3/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 25.0 PSF.
- WHERE 1-7/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 40.0 PSF.
- WHERE 2-5/8 IN. SILL RISER IS EMPLOYED POSITIVE DESIGN PRESSURE IS CAPPED AT 60.0 PSF.

PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

PREPARED BY:
PRODUCT TECHNOLOGY CORPORATION
1150 LOUISIANA AVENUE, SUITE 6
WINTER PARK, FLORIDA 32789
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MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMNUM SLIDING GLASS DOOR

09/08/2004

COMAPARATIVE ANALYSIS CHART IN DESIGN PRESSURE

SGD non-Reinf

PANEL WIDTH >>	24	30	36	48	60
PANEL HEIGHT 80	64	54	47	39	35

TEST REPORT NO: ATI-52112.01-122-47
DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 35.0 PSF
WATER TEST PRESSURE:
- 1-3/8 IN. SILL RISER: 3.75 PSF
- 1-7/8 IN. SILL RISER: 6.0 PSF
- 2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL SIZE TESTED: 15'-0" X 6'-8" NOMINAL
OVERALL PANEL SIZE TESTED: 5'-0" X 6'-8" NOMINAL
GLAZING: SINGLE PC. OF 3/16 IN THICK TEMP. GLASS
REINFORCING: NONE
CONFIGURATION TESTED: XXO

LIMITATIONS:
THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS & HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.
WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE, ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:
- WHERE 1-3/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 25.0 PSF
- WHERE 1-7/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 40.0PSF
- WHERE 2-5/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURE = 60.0 PSF

PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

PREPARED BY:
PRODUCT TECHNOLOGY CORPORATION
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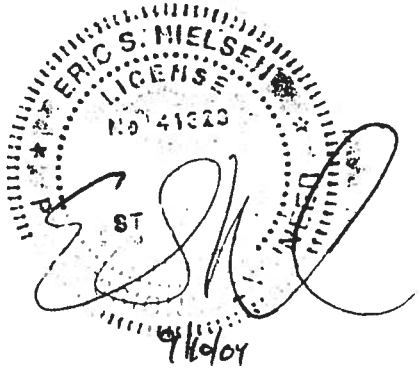


MI WINDOWS AND DOORS, INC.

420 / 430 / 440 SERIES ALUMINUM SLIDING GLASS DOOR STEEL REINFORCED 09/08/2004

COMAPARATIVE ANALYSIS CHART IN DESIGN PRESSURE SGD STL REINF

PANEL WIDTH >>	24	30	36	48	60
PANEL HEIGHT 80	61	51	44	37	33
96	49	41	35	29	25

TEST REPORT NO: ATI-52112.01-122-47
DESIGN PRESSURE ACHIEVED IN TEST: POS. & NEG. 25.0 PSF
WATER TEST PRESSURE:
1-3/8 IN. SILL RISER: 3.75 PSF
1-7/8 IN. SILL RISER: 6.0 PSF
2-5/8 IN. SILL RISER: 9.0 PSF

OVERALL SIZE TESTED: 15'-0" X 8'-0" NOMINAL
OVERALL PANEL SIZE TESTED: 60 IN. X 96 IN. NOMINAL
GLAZING: SINGLE PC. OF 3/16 IN. THK. TEMPERED GLASS
REINFORCING: STEEL IN INTERLOCKING STILES, AND FIXED INTERMEDIATE JAMB
CONFIGURATION TESTED: OXX

LIMITATIONS:
THE ABOVE ARE POSITIVE AND NEGATIVE STRUCTURAL DESIGN LOADS FROM COMPARATIVE ANALYSIS & HAVE NOT BEEN CAPPED BY RESULTS OF WATER PERFORMANCE TESTING.
WHERE LOCAL CODE REQUIRES WATER RESISTANCE TESTING TO PASS A MIN. 15% OF DESIGN PRESSURE, ALLOWABLE POSITIVE DESIGN PRESSURE WOULD BE CAPPED AS FOLLOWS:
WHERE 1-3/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 25.0 PSF.
WHERE 1-7/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 40.0 PSF.
WHERE 2-5/8 IN. SILL RISER IS EMPLOYED, POSITIVE DESIGN PRESSURES ARE CAPPED AT 60.0 PSF.
PANEL WIDTHS AND HEIGHTS ARE NOMINAL, IN INCHES.

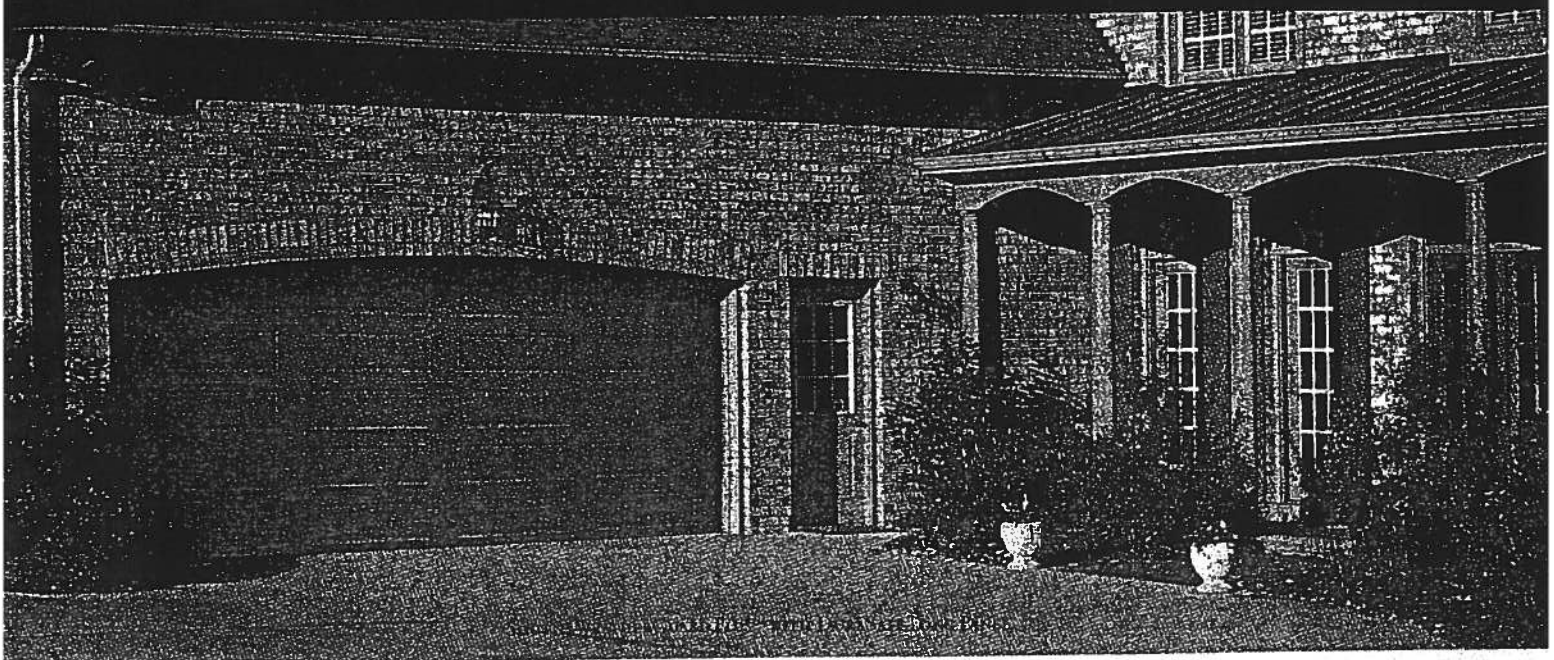
PREPARED BY:
PRODUCT TECHNOLOGY CORPORATION
1150 LOUISIANA AVENUE, SUITE 6
WINTER PARK, FLORIDA 32789
PHONE 407 622-6334 FAX 407 622.6335
www.ptc-corp.com

Amarr GARAGE DOORS

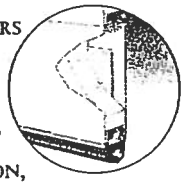
BEST

WeatherGuard™ Series

FEATURING OUR **DuraSafe System**



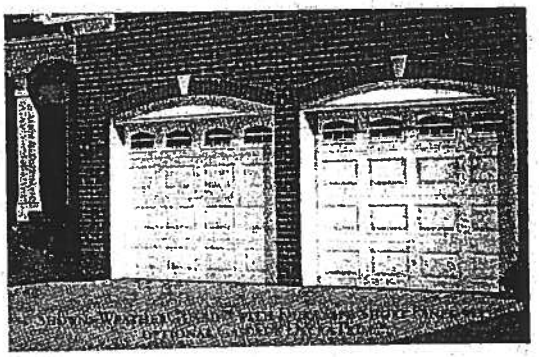
WeatherGuard Plus™ with **DuraSafe**



The WeatherGuard Plus offers discerning homeowners a masterful combination of premium features. Superior triple-layer construction, 2" (5.1 cm) polystyrene insulation, an R-value of 8.34, and unmatched beauty put the WeatherGuard Plus at the top of its class.

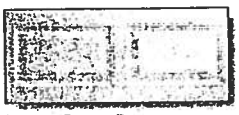
WeatherGuard™ with **DuraSafe**

Top-quality triple-layer construction and 1 3/8" (3.5 cm) polystyrene insulation make our WeatherGuard steel door strong, quiet, and energy efficient. Featuring an R-value of 5.73, the WeatherGuard is the perfect addition to your home for years of trouble free service and great looks.



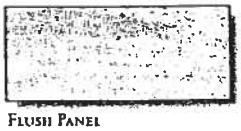
Design Elements

The WeatherGuard Series doors are available with a raised short, raised long, or flush panel design in your choice of four colors.*

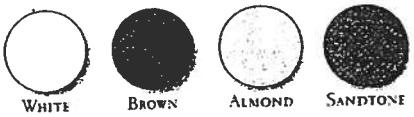


Raised Short Panel

Raised Long Panel



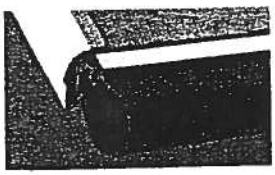
Flush Panel



White Brown Almond Sandtone

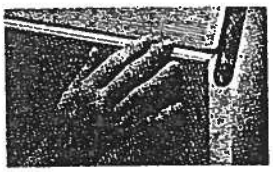
* Actual paint colors may vary from samples shown.

Bottom Seal
New aluminum bottom seal means easy and fast installation and maintenance... as well as a better seal against the elements.



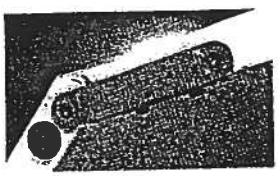
Bottom Bracket
New tamper resistant bottom bracket helps prevent accidents, yet allows for roller maintenance/change without disassembly. Full length roller tube prevents slip-outs.

Door Sections
The section joint of the future: today. New section profile assures pinch resistance both inside and out, exceeding industry standards - neither fingers nor weather gets in.



Center Hinge
Flush mount inboard design center hinges provide pinch resistant protection and a low profile clean look on the inside of the door.

End Hinge
With most of its action hidden inside the door, our re-engineered end hinges leave no room for even the smallest fingers.

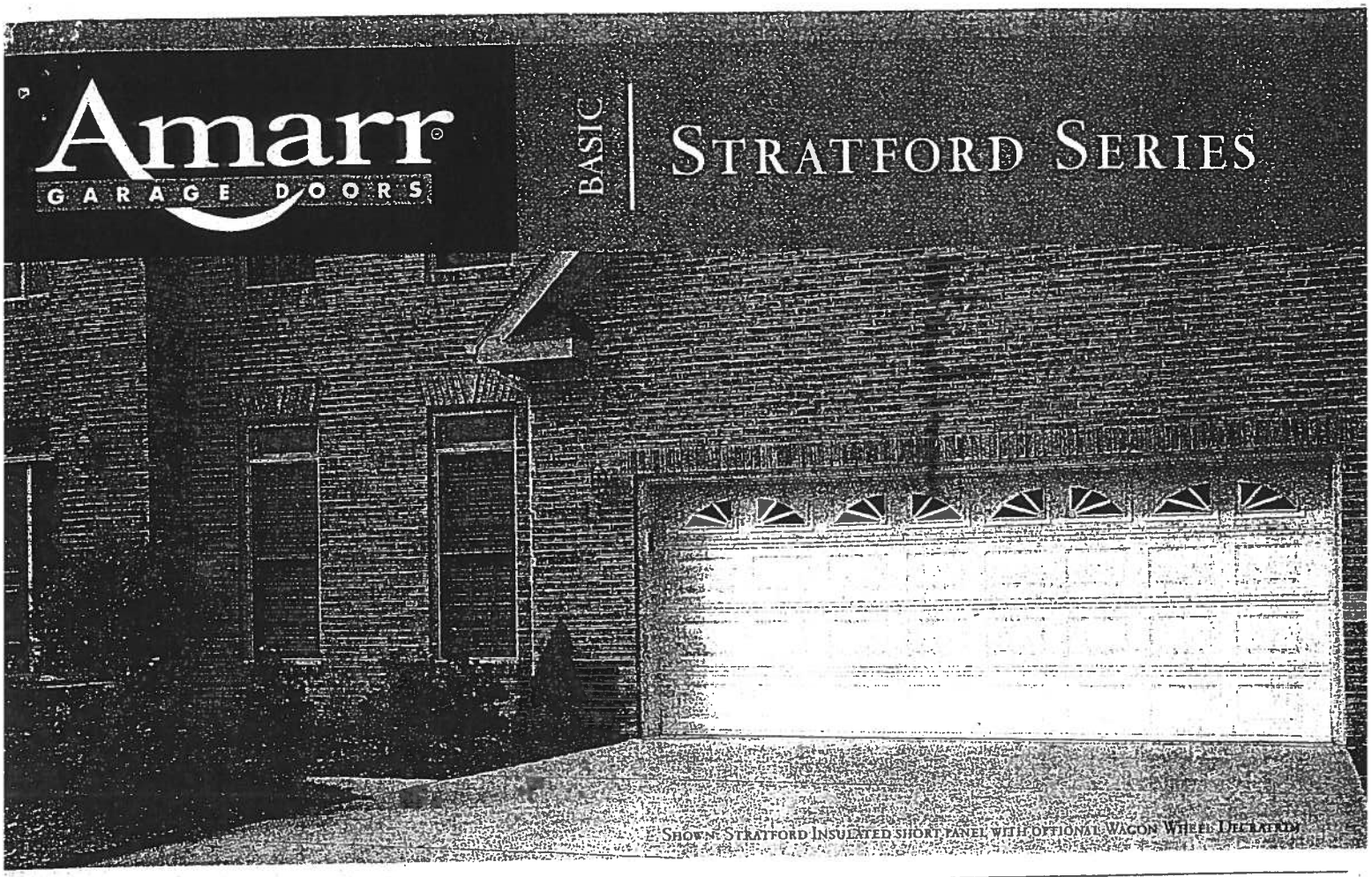


Amarr DuraSafe doors under 8'9" will be supplied with DuraSafe hardware. DASMA standards for pinch-resistance do not apply to doors over 8' high since the potential pinch points are above typical grasping heights; Amarr doors over 8'9" are supplied with conventional hardware. The Bottom Bracket, Door Sections, Center Hinge and End Hinge shown above are patented. Doors shown are electrically operated. Non-electrically operated doors should have exterior and interior lift handles attached to the door.

Amarr
GARAGE DOORS

BASIC

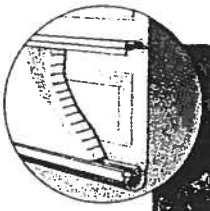
Stratford Series



Shown: Stratford Insulated short panel with optional Wagon Wheel Decorative

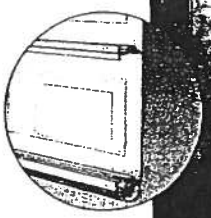
Stratford Insulated

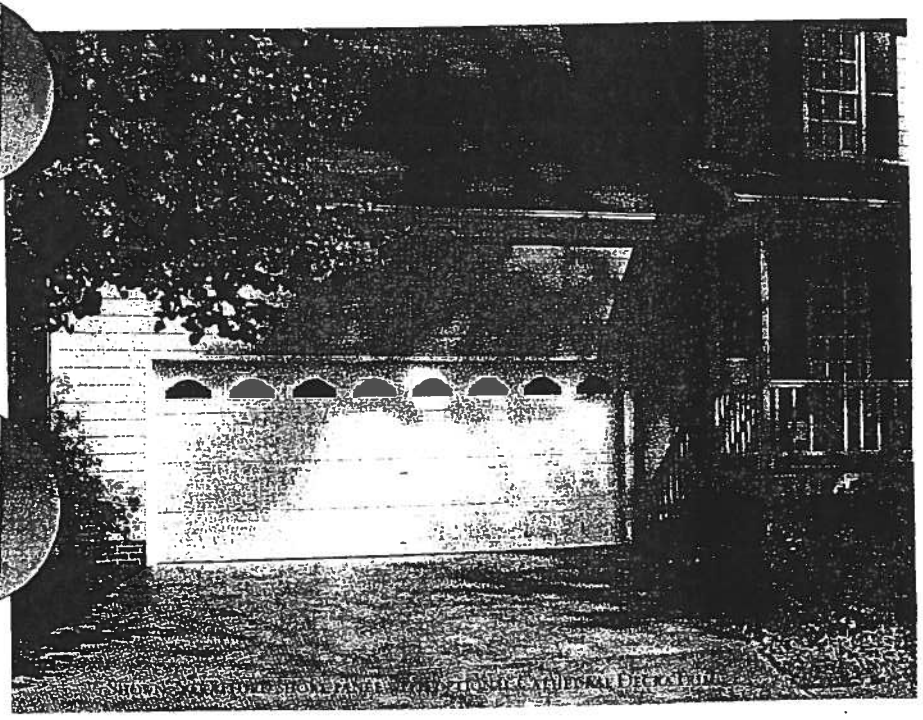
The 2" (5.1 cm) thick Stratford Insulated provides homeowners excellent thermal protection and handsome good looks. Features include double-layer construction of sturdy 25-gauge steel, and 1 7/16" (3.7 cm) polystyrene insulation with laminated backing and an R-value of 5.65.



Stratford

A superlative addition to any home, the Stratford's durable single-layer construction, 25-gauge steel, and attractive design provide homeowners with exceptional value.

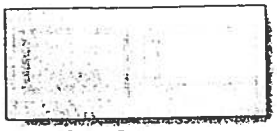




Shown: Stratford Homestead with Stockton Cathedral Decorative

Design Elements

The Stratford Series doors are available with a raised short panel design in your choice of three colors.*



Raised Short Panel

White

Almond

Sandtone

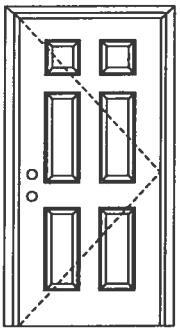
* Actual paint colors may vary from samples shown.

X
Opaque Inswing Unit

COP-WL-MA0101-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



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

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

Design Pressure

+76.0/-76.0
limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT 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.

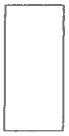
MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0001-02.

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:


Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

Oakcraft Wood-Grain Textured FIBERGLASS ENTRY DOORS

ARTEK™ Non-Textured Fiberglass Entry Doors

March 10, 2003
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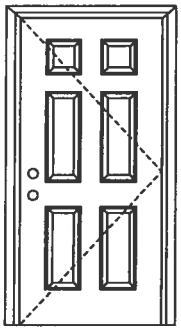
Masonite®

X
Opaque Outswing Unit

COP-WL-MA0121-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



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

Warnock Hersey

Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

Design Pressure

+76.0/-76.0
limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:


Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

Oakcraft Wood-Grain Textured FIBERGLASS ENTRY DOORS

ARTEK™ Non-Textured Fiberglass Entry Doors

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Masonite®

X
Opaque Outswing Unit

COP-WL-MA0121-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

NCTL 210-1973-1, 2, 3

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

CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

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 Balthy

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

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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X
Opaque Inswing Unit

COP-WL-MA0101-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

NCTL 210-1973-1, 2, 3

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

CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

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COMPANY NAME
CITY, STATE

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Kurt L Balthazor

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

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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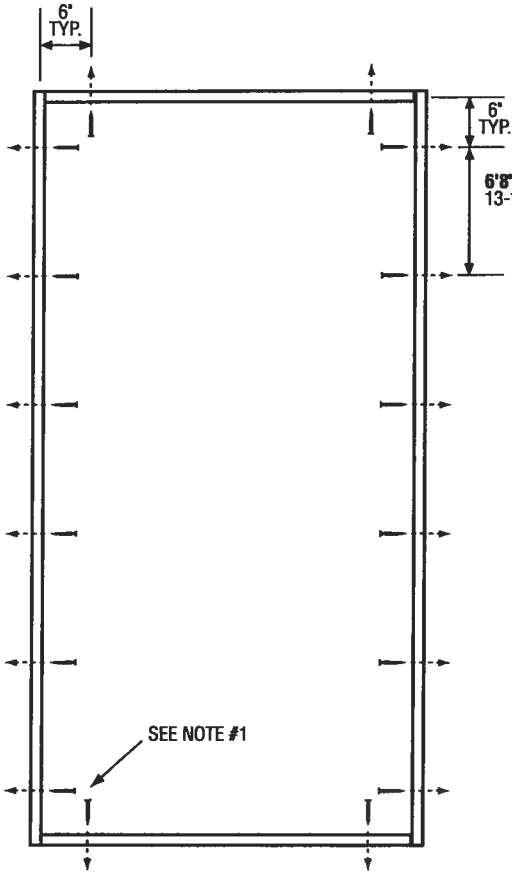
Masonite®

X
Unit

MID-WL-MA0001-02

SINGLE DOOR



Minimum Fastener Count

- 6 per vertical framing member
- 2 per horizontal framing member

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

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0245*, 0266*, 3241*, 3246, 3261* or 3266**
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

Masonite®

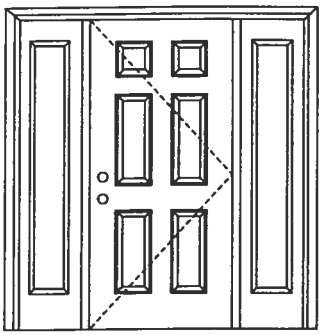
OXO

Opaque Outswing Unit

COP-WL-MA0124-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Single Door with 2 Sidelites
Maximum unit size = 5'4" x 6'8"

Design Pressure

+55.0/-55.0
limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED on opaque panel, but is required on glazed panels.

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

Warnock Hersey

Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003, #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0014-02 or MAD-WL-MA0017-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0004-02.

APPROVED DOOR STYLES:

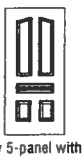

Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

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ARTEK™ Non-Textured Fiberglass Entry Doors

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OXO
Opaque Outswing Unit

COP-WL-MA0124-02

FIBERGLASS DOORS

APPROVED SIDELITE STYLES:


129 Series


200 Series


12R, 12L, 23R, 23L, 24R, 24L Series

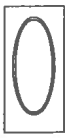

450 Series


152 Series


149 Series


109 Series


120, 122 Series


300 Series

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core. Slab and sidelite panel glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

Kurt L Balthazor

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

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Oakcraft Wood-Grain Textured FIBERGLASS ENTRY DOORS

ARTEK Non-Textured Fiberglass Entry Doors

March 10, 2003

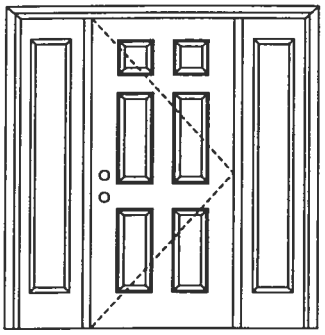
Masonite®

OXO
Opaque Inswing Unit

COP-WL-MA0104-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Single Door with 2 Sidelites
Maximum unit size = 5'4" x 6'8"

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

Warnock Hersey

Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Design Pressure

+55.0/-55.0
limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED on opaque panel, but is required on glazed panels.

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-MA0004-02 or MAD-WL-MA0007-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0004-02.

APPROVED DOOR STYLES:


Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

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OXO
Opaque Inswing Unit

COP-WL-MA0104-02

FIBERGLASS DOORS

APPROVED SIDELITE STYLES:

129 Series | 200 Series | 12R, 12L, 23R, 23L, 24R, 24L Series | 450 Series | 152 Series | 149 Series | 109 Series | 120, 122 Series | 300 Series

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core. Slab and sidelite panel glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

Kurt L Balthazor

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

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Oakcraft Wood Grain Textured FIBERGLASS ENTRY DOORS

ARTEK™ Non-Textured Fiberglass Entry Doors

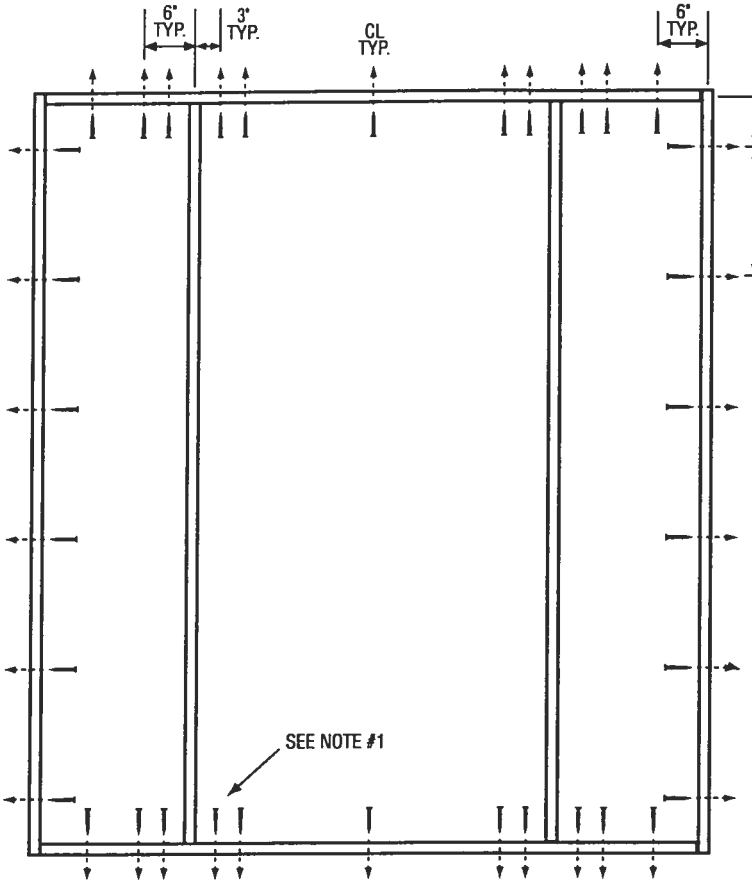
March 10, 2003
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

Masonite®

OXO
Unit

MID-WL-MA0004-02

SINGLE DOOR WITH 2 SIDELITES



Minimum Fastener Count

- 6 per vertical framing member
- 11 per horizontal framing member

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

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0249*, 0269*, 3244*, 3249, 3264* or 3269**
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

Mrach 10, 2003

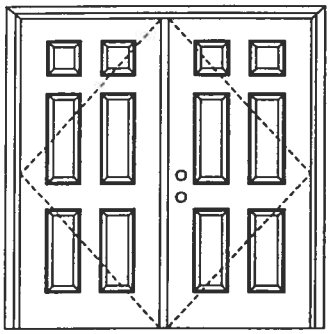
Masonite®

XX
Opaque Outswing Unit

COP-WL-MA0122-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

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

Design Pressure
+55.0/-55.0
limited water unless special threshold design is used.

Large Missile Impact Resistance
Hurricane protective system (shutters) is NOT 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.

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:


Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

Oakcraft Wood-Grain Textured FIBERGLASS ENTRY DOORS

ARTEK™ Non-Textured Fiberglass Entry Doors

March 10, 2003

Masonite®

XX
Opaque Outswing Unit

COP-WL-MA0122-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

Kurt L Balthazor

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

Warnock Hersey

Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, #3026447B-001, 002, 003, #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Oakcraft
Wood-Grain Textured
FIBERGLASS ENTRY DOORS

ARTEK™
Non-Textured Fiberglass Entry Doors

March 10, 2003
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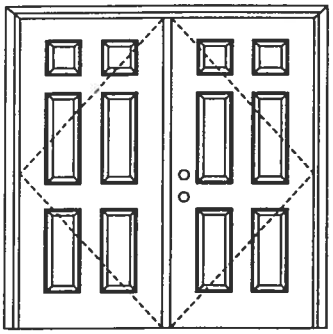
Masonite®

XX
Opaque Inswing Unit

COP-WL-MA0102-02

FIBERGLASS DOORS

APPROVED ARRANGEMENT:



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

Design Pressure
+55.0/-55.0
limited water unless special threshold design is used.

Large Missile Impact Resistance
Hurricane protective system (shutters) is NOT REQUIRED.

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

Warnock Hersey

Test Data Review Certificate #3026447A, #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003; #3026447B-001, 002, 003; #3026447C-001, 002, 003 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

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

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0002-02.

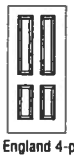
MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:


Flush


6-panel


New England 4-panel


Eyebrow 4-panel


9-panel


Eyebrow 5-panel with scroll

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Masonite®

XX
Opaque Inswing Unit

COP-WL-MA0102-02

FIBERGLASS DOORS

CERTIFIED TEST REPORTS:

CTLA-772W-2; CTLA-1051W

Certifying Engineer and License Number: Ramesh Patel, P.E./20224

Unit Tested in Accordance with Miami-Dade BCCO PA202, ASTM E1886 and ASTM E1996

Door panels constructed from 0.075" minimum thick fiberglass skins. Both stiles constructed of 1-5/8" laminated lumber. Top end rails constructed of 31/32" wood. Bottom end rails constructed of 31/32" wood composite. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

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MIAMI-DADE BCCO PA201, PA202 & PA203
OR ASTM E1996, MIAMI-DADE PA202,
AND ASTM E1886

COMPANY NAME
CITY, STATE

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

Warnock Hersey

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Oakcraft Wood Grain Textured FIBERGLASS ENTRY DOORS

ARTEK™ Non-Textured Fiberglass Entry Doors

March 10, 2003
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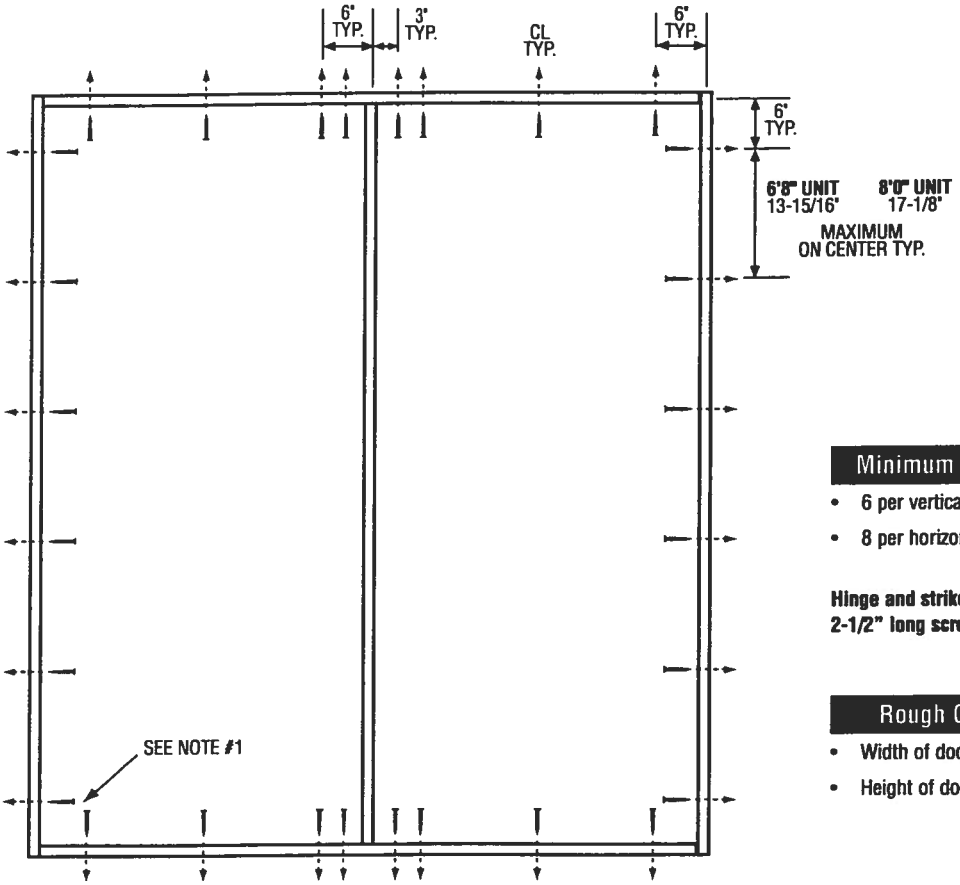
Masonite®

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

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

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

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 0247*, 0267*, 3242*, 3247, 3262* or 3267**
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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.

March 10, 2003

Masonite®

Residential System Sizing Calculation

Summary

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

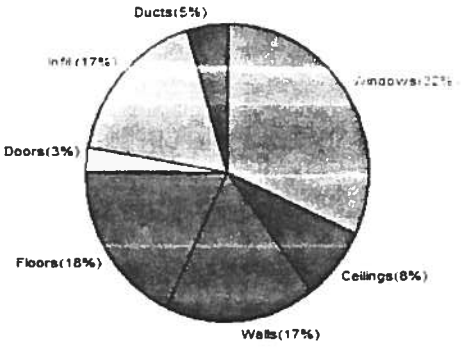
8/25/2005

Location for weather data: Gainesville - Defaults: Latitude(29) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature	31	F	Summer design temperature	93	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	39	F	Summer temperature difference	18	F
Total heating load calculation	**35065**	**Btuh**	**Total cooling load calculation**	**35181**	**Btuh**
Submitted heating capacity	36000	Btuh	Submitted cooling capacity	36000	Btuh
Submitted as % of calculated	102.7	%	Submitted as % of calculated	102.3	%

WINTER CALCULATIONS

Winter Heating Load (for 2098 sqft)

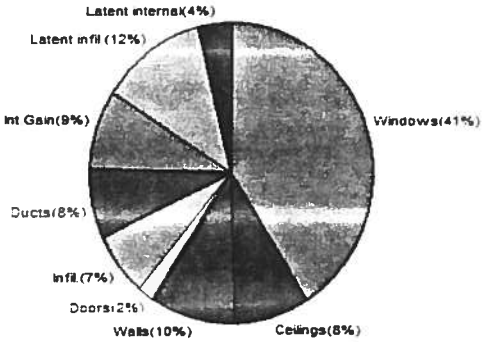
Load component			Load	
Window total	396	sqft	11207	Btuh
Wall total	2043	sqft	6081	Btuh
Door total	60	sqft	921	Btuh
Ceiling total	2098	sqft	2727	Btuh
Floor total	204	ft	6446	Btuh
Infiltration	140	cfm	6012	Btuh
Subtotal			**33395**	**Btuh**
Duct loss			1670	Btuh
TOTAL HEAT LOSS			**35065**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2098 sqft)

Load component			Load	
Window total	396	sqft	14409	Btuh
Wall total	2043	sqft	3437	Btuh
Door total	60	sqft	608	Btuh
Ceiling total	2098	sqft	2979	Btuh
Floor total			0	Btuh
Infiltration	123	cfm	2428	Btuh
Internal gain			3000	Btuh
Subtotal(sensible)			**26862**	**Btuh**
Duct gain			2686	Btuh
Total sensible gain			**29548**	**Btuh**
Latent gain(infiltration)			4253	Btuh
Latent gain(internal)			1380	Btuh
Total latent gain			**5633**	**Btuh**
TOTAL HEAT GAIN			35181	Btuh



EnergyGauge® System Sizing based on ACCA Manual J

PREPARED BY: _____

DATE: 8-25-05

System Sizing Calculations - Winter

Residential Load - Component Details

Earnest & Patty Lossow
Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 39.0 F

8/25/2005

Window	Panes/SHGC/Frame/U	Orientation	Area X	HTM=	Load
1	2, Clear, Metal, DEF	N	36.0	28.3	1019 Btuh
2	2, Clear, Metal, DEF	N	13.3	28.3	377 Btuh
3	2, Clear, Metal, DEF	N	5.0	28.3	142 Btuh
4	2, Clear, Metal, DEF	N	36.0	28.3	1019 Btuh
5	2, Clear, Metal, DEF	W	2.7	28.3	75 Btuh
6	2, Clear, Metal, DEF	W	20.0	28.3	566 Btuh
7	2, Clear, Metal, DEF	NW	15.0	28.3	424 Btuh
8	2, Clear, Metal, DEF	W	24.0	28.3	679 Btuh
9	2, Clear, Metal, DEF	SW	30.0	28.3	849 Btuh
10	2, Clear, Metal, DEF	S	108.0	28.3	3056 Btuh
11	2, Clear, Metal, DEF	S	24.0	28.3	679 Btuh
12	2, Clear, Metal, DEF	S	20.0	28.3	566 Btuh
13	2, Clear, Metal, DEF	SE	30.0	28.3	849 Btuh
14	2, Clear, Metal, DEF	E	32.0	28.3	906 Btuh
	Window Total		396		11207 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Adjacent	13.0	168	1.6	269 Btuh
2	Frame - Exterior	13.0	1875	3.1	5812 Btuh
	Wall Total		2043		6081 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exter		40	18.3	733 Btuh
2	Insulated - Adjac		20	9.4	188 Btuh
	Door Total		60		921Btuh
Ceilings	Type	R-Value	Area X	HTM=	Load
1	Under Attic	30.0	2098	1.3	2727 Btuh
	Ceiling Total		2098		2727Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab-On-Grade Edge Insul	0	204.0 ft(p)	31.6	6446 Btuh
	Floor Total		204		6446 Btuh
Infiltration	Type	ACH X	Building Volume	CFM=	Load
	Natural	0.40	20980(sqft)	140	6012 Btuh
	Mechanical			0	0 Btuh
	Infiltration Total			140	6012 Btuh

Totals for Heating	**Subtotal**	**33395 Btuh**
	Duct Loss(using duct multiplier of 0.05)	1670 Btuh
	Total Btuh Loss	**35065 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

8/25/2005

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

System Sizing Calculations - Summer

Residential Load - Component Details

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 18.0 F

8/25/2005

Window	Type Panes/SHGC/U/InSh/ExSh	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2, Clear, DEF, N, N	N	9	7	36.0	0.0	36.0	22	22	792 Btuh
2	2, Clear, DEF, N, N	N	9	10	13.3	0.0	13.3	22	22	293 Btuh
3	2, Clear, DEF, N, N	N	9	3	5.0	0.0	5.0	22	22	110 Btuh
4	2, Clear, DEF, N, N	N	1.5	7	36.0	0.0	36.0	22	22	792 Btuh
5	2, Clear, DEF, N, N	W	1.5	1	2.7	2.7	0.0	22	72	59 Btuh
6	2, Clear, DEF, N, N	W	1.5	6	20.0	1.0	19.0	22	72	1391 Btuh
7	2, Clear, DEF, N, N	NW	1.5	7	15.0	0.0	15.0	22	50	750 Btuh
8	2, Clear, DEF, N, N	W	1.5	7	24.0	1.0	23.0	22	72	1679 Btuh
9	2, Clear, DEF, N, N	SW	1.5	7	30.0	3.8	26.2	22	62	1708 Btuh
10	2, Clear, DEF, N, N	S	1.5	7	108.0	36.0	72.0	22	37	3456 Btuh
11	2, Clear, DEF, N, N	S	1.5	7	24.0	24.0	0.0	22	37	528 Btuh
12	2, Clear, DEF, N, N	S	1.5	6	20.0	20.0	0.0	22	37	440 Btuh
13	2, Clear, DEF, N, N	SE	1.5	7	30.0	3.8	26.2	22	62	1708 Btuh
14	2, Clear, DEF, N, N	E	1.5	1	32.0	32.0	0.0	22	72	704 Btuh
	Window Total				396					14409 Btuh

Walls	Type	R-Value	Area	HTM	Load
1	Frame - Adjacent	13.0	168.0	1.0	175 Btuh
2	Frame - Exterior	13.0	1875.0	1.7	3262 Btuh
	Wall Total		2043.0		3437 Btuh

Doors	Type	Area	HTM	Load
1	Insulated - Exter	40.0	10.1	406 Btuh
2	Insulated - Adjac	20.0	10.1	203 Btuh
	Door Total	60.0		608 Btuh

Ceilings	Type/Color	R-Value	Area	HTM	Load
1	Under Attic/Dark	30.0	2098.0	1.4	2979 Btuh
	Ceiling Total		2098.0		2979 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab-On-Grade Edge Insulation	0.0	204.0 ft(p)	0.0	0 Btuh
	Floor Total		204.0		0 Btuh

Infiltration	Type	ACH	Volume	CFM=	Load
	Natural	0.35	20980	122.6	2428 Btuh
	Mechanical			0	0 Btuh
	Infiltration Total			123	2428 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	6	X 300	+	1200	3000 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Earnest & Patty Lossow

Lake City, FL

Project Title:
Lossow Residence

Code Only
Professional Version
Climate: North

8/25/2005

Totals for Cooling	**Subtotal**	**26862**	**Btuh**
	Duct gain(using duct multiplier of 0.10)	**2686**	**Btuh**
	Total sensible gain	**29548**	**Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	**4253**	**Btuh**
	Latent occupant gain (6 people @ 230 Btuh per person)	**1380**	**Btuh**
	Latent other gain	**0**	**Btuh**
	TOTAL GAIN	**35181**	**Btuh**

Key: Window types (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/Daperies(B) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(Ornt - compass orientation)