DATE 11/05/2004

Columbia County Building Permit

This Permit Expires One Year From the Date of Issue

PERMIT
000022462

APPLICANT ROBERT PARNELL PHONE 755-7878

ADDRESS 323 S MARION AVE LAKE CITY FL 32024

OWNER MALCOM BRUCE PHONE

ADDRESS 9231 SW SR 47 LAKE CITY FL 32025

CONTRACTOR ROBERT PARNELL PHONE 755-7878

LOCATION OF PROPERTY 47 SOUTH, 1 MILE ON THE LEFT SOUTH ON CR 240 OFF 47,
HAS RAIL BOARD FENCE & RB&M SIGN

TYPE DEVELOPMENT REMODEL SFD STORM ESTIMATED COST OF CONSTRUCTION .00

HEATED FLOOR AREA TOTAL AREA HEIGHT .00 STORIES 1

FOUNDATION CONCRETE WALLS FRAMED ROOF PITCH 4/12 FLOOR SLAB

LAND USE & ZONING A-3 MAX. HEIGHT 35

Minimum Set Back Requirments: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00

NO. EX.D.U. 1 FLOOD ZONE NA DEVELOPMENT PERMIT NO.

PARCEL ID 15-5S-16-03622-058 SUBDIVISION TIMBERLANE

LOT 8 BLOCK PHASE UNIT TOTAL ACRES 1.00

		RB0067106	Robert W Parnell
Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor
EXISTING	94-180	BK	HD	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: NOC ON FILE

STORM DAMAGE NO CHARGE FOR PERMIT

SEE LIST WITH PERMIT FOR IMPROVEMETS Check # or Cash NO CHARGE STORM

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ date/app. by

Foundation _____ date/app. by

Monolithic _____ date/app. by

Under slab rough-in plumbing _____ date/app. by

Slab _____ date/app. by

Sheathing/Nailing _____ date/app. by

Framing _____ date/app. by

Rough-in plumbing above slab and below wood floor _____ date/app. by

Electrical rough-in _____ date/app. by

Heat & Air Duct _____ date/app. by

Peri. beam (Lintel) _____ date/app. by

Permanent power _____ date/app. by

C.O. Final _____ date/app. by

Culvert _____ date/app. by

M/H tie downs, blocking, electricity and plumbing _____ date/app. by

Pool _____ date/app. by

Reconnection _____ date/app. by

Pump pole _____ date/app. by

Utility Pole _____ date/app. by

M/H Pole _____ date/app. by

Travel Trailer _____ date/app. by

Re-roof _____ date/app. by

BUILDING PERMIT FEE $ .00 CERTIFICATION FEE $ .00 SURCHARGE FEE $ .00

MISC. FEES $ .00 ZONING CERT. FEE $ FIRE FEE $ WASTE FEE $

FLOOD ZONE DEVELOPMENT FEE $ CULVERT FEE $ **TOTAL FEE** .00

INSPECTORS OFFICE L. Hall CLERKS OFFICE CH

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

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

This Permit Must Be Prominently Posted on Premises During Construction

PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION, IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

Columbia County Building Permit Application

Revised 9-23-04

For Office Use Only Application # 0410-36 Date Received 10/15/04 By JW Permit # 22462

Application Approved by - Zoning Official BLK Date 21.10.04 Plans Examiner HO 11-2-04 Date 11-2-04

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

Comments Existing House

Flood Damage (No charge)

Applicants Name RB & M Enterprises (Robert Parnell) Phone 755-7878

Address 323 S Marion Ave Lake City Fl 32025

Owners Name Malcom Bruce Phone

911 Address 9231 SW State Rd 47 Lake City Fl 32024

Contractors Name Robert W Parnell Phone

Address 323 S Marion Ave Lake City Fl 32025

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address N/A

Mortgage Lenders Name & Address N/A

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

Property ID Number 15-5S-16-03622-058 Estimated Cost of Construction 40,000.00

Subdivision Name Timberlane Lot 8 Block ____ Unit ____ Phase ____

Driving Directions 47 South 1 mile south of county Rd 240. House on Left Side of Rd has Rail fence & RB&M Sign by mailbox

Type of Construction Frame/Brick Veneer Number of Existing Dwellings on Property ____

Total Acreage 1 Lot Size ____ Do you need a - Culvert Permit or Culvert Waiver or (Have an Existing Drive)

Actual Distance of Structure from Property Lines - Front 50' Side ~~50'~~ Side ____ Rear 313'

Total Building Height ____ Number of Stories ____ Heated Floor Area ____ Roof Pitch ____

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

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

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

Robert Parnell
Owner Builder or Agent (Including Contractor)

Robert W Parnell
Contractor Signature
Contractors License Number RB 0067106
Competency Card Number 5384
NOTARY STAMP/SEAL

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me

this ____ day of ____ 20____.

Personally known____ or Produced Identification____

Notary Signature

- 0410-36 -

NOTICE OF COMMENCEMENT

Inst:2004023215 Date:10/15/2004 Time:13:42
DC,P.DeWitt Cason,Columbia County B:1028 P:574

STATE OF FLORIDA
COUNTY OF COLUMBIA

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this notice of commencement.

1. **Description of property: 9231 SW State Road 47, Lake City, Florida 32024**
2. **General description of improvement: Repairs of Damage Done by Flood Waters**
3. **Owner information:**
   a. **Name and Address: Malcolm Bruce, 9231 SW State Road 47, Lake City, FL 32024**
   b. **Interest in Property: Fee Simple**
   c. **Name and address of fee simple title holder (if other than owner):**
4. **Contractor: Robert W. Parnell, RB&M Enterprises, Inc., 323 S. Marion Avenue, Lake City, Florida 32025**
5. **Surety**
   a. **Name and Address: None**
6. **Lender: None**
7. **Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13 (1) (a) 7., Florida Statutes: None**
8. **In addition to himself, Owner designates no one receive a copy of the Lienor's Notice as provided in Section 713.13 (1) (b), Florida Statutes.**
9. **Expiration date of notice of commencement (the expiration date is 1 year from the date of recording unless a different date is specified).**

Permit #

Robert W Parnell

Robert W. Parnell

The foregoing instrument was acknowledged before me this 15th day of October 2004, by ROBERT W. PARNELL, who is personally known to me and did not take an oath.

F Voncile Dow

Notary Public

My commission expires:_____

F. VONCILE DOW
MY COMMISSION # DD 154929
EXPIRES: October 3, 2006
Bonded Thru Notary Public Underwriters

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

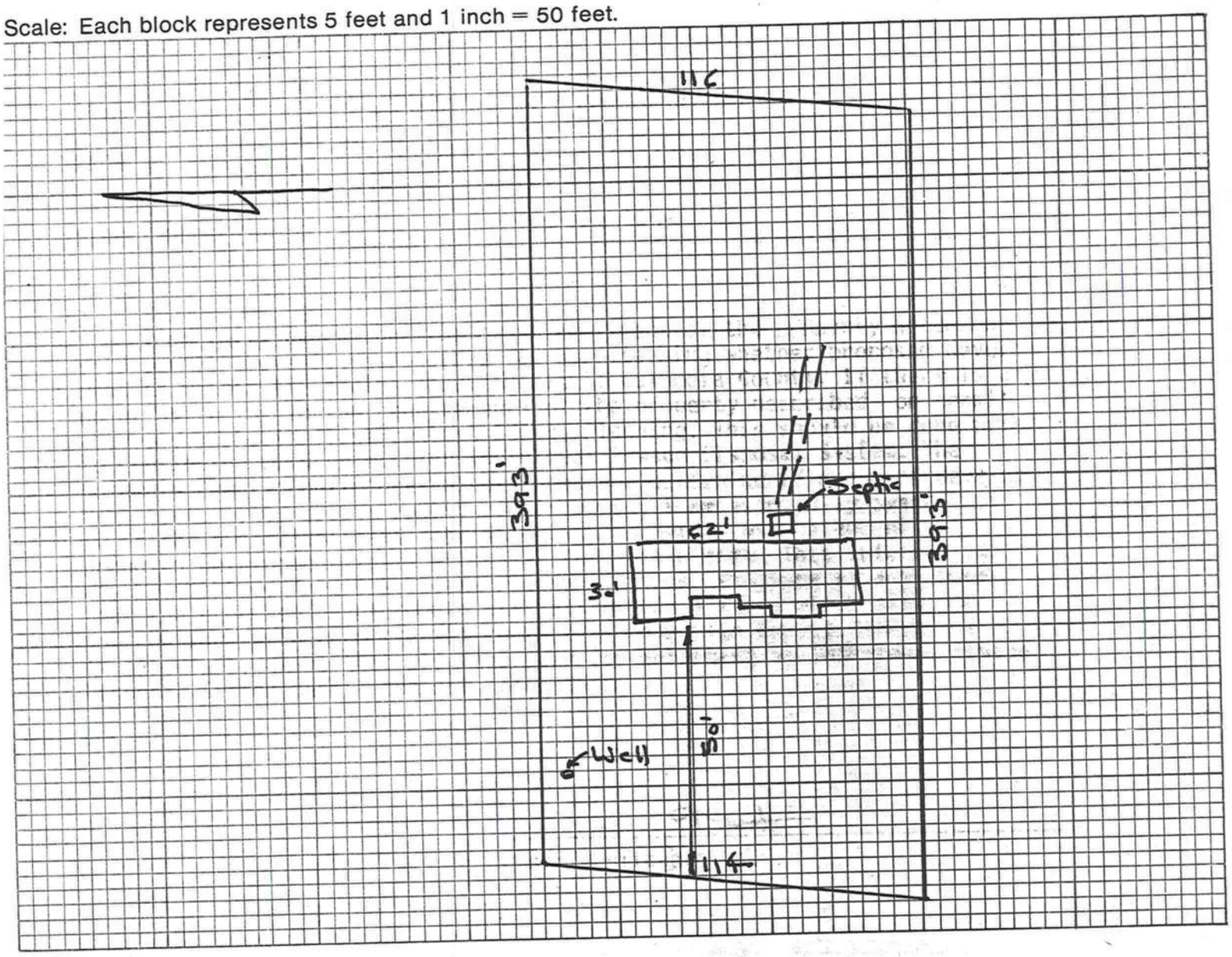
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 94-180

Malcolm E. Bruce

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: _____

Site Plan submitted by: _____ SIGNATURE _____ Contractor TITLE

Plan Approved _____ Not Approved _____ Date 4/11/94

By _____ County Public Unit

ALL CHANGES MUST BE APPROVED BY THE COUNTY PUBLIC HEALTH UNIT

HRS-H Form 4015, Feb 85 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-002-4015-6)

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

Rendered to:

MI HOME PRODUCTS, INC.

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

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

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

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

ALLEN M. REEVES CERTIFICATE NO. 18354 STATE OF FLORIDA PROFESSIONAL ENGINEER

1 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: 01-41134.01
Test Date: 03/07/02
Report Date: 03/26/02
Expiration Date: 03/07/06

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

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

Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

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

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

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

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

Finish: All aluminum was white.

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

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

Allen N. Reeves
1 APRIL 2002

REEVES ALLEN DALE No. 19354 STATE OF FLORIDA PROFESSIONAL ENGINEER

Test Specimen Description: (Continued)

Weatherstripping:

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

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

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

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

Hardware:

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

ALLEN H. REEVES
CERTIFICATE
NO. 19254
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Allen H. Reeves
1 APRIL 2002

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

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

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft^2	0.3 cfm/ft^2 max
	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 25.9 psf (positive)	0.42"*	0.26" max.
	@ 34.7 psf (negative)	0.43"*	0.26" max.
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 38.9 psf (positive)	0.02"	0.18" max.
	@ 52.1 psf (negative)	0.02"	0.18" max.

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

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

Allen N. Reeves
1 APRIL 2002

ALLEN N. REEVES
CERTIFICATE
NO. 1837
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Test Specimen Description: (Continued)

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

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

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
@ 67.5 psf (positive)	0.05"	0.18" max.
@ 70.8 psf (negative)	0.05"	0.18" max.

Allen N. Reeves
1 APRIL 2002

ALLEN N. REEVES
CERTIFICATE NO. 19354
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

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

MAH:nlb
01-41134.01

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/ft^2
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. 01-41135.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

Allen N. Reeves
1 APRIL 2002

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

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 60 x 80 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' 8" high

Daylight Opening Size: 4' 9-1/4" wide by 6' 5-1/4" high

Finish All aluminum was white.

Glazing Details: The test specimen utilized 7/8" thick, sealed insulating glass constructed from two sheets of 3/16" thick, clear annealed glass and a metal reinforced butyl spacer system. The glass was interior glazed against double-sided adhesive foam tape and secured with aluminum snap-in glazing beads.

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

Allen M. Reeves
1 APR 12 2002

ALLEN M. REEVES
CERTIFICATE NO. 11894
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.04 cfm/ft^2	0.3 cfm/ft^2 max.
	Water Resistance (ASTM E 547-00) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	 0.01" 0.01"	 0.41" max. 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) @ 38.9 psf (positive) @ 52.1 psf (negative)	 0.0" 0.01"	 0.29" max. 0.29" max.

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

ALLEN N. REEVES
No. 13[illegible]
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Allen N. Reeves
1 APRIL 2002

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
	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
	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.
	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:nlb
01-41135.01

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

ALLEN N. REEVES
CERTIFICATE
NO. 19256
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

NATIONAL CERTIFIED TESTING LABORATORIES

1464 GEMINI BOULEVARD • ORLANDO, FLORIDA 32837
PHONE (407) 240-1356 • FAX (407) 240-8882
www.nctlinc.com

STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-210-2065-1
Test Date: 06-21-00
Report Date: 09-25-00
Expiration Date: 09-25-04
Revision Date: 01/31/02

Client: *MI Home Products, Inc.*
650 West Market Street
Gratz, PA 17030-0370

Test Specimen: *MI Home Products Product's Series "420" Type OXX Aluminum Sliding Glass Door. (SGD-C35)(Single Glazed)(Steel Reinforced)(with and without sill riser).*

Test Method: *AAMA/NWWDA 101/I.S.2-97, "Voluntary Specifications for Aluminum, Vinyl (PVC), and Wood Windows and Glass Doors."*

Revision Note: *Sill leg extension was revised from 1-1/8" to 1-1/4"*

TEST SPECIMEN DESCRIPTION

General: *The sample tested was a three (3) panel type OXX aluminum sliding glass door measuring 15-1-3/4" wide x 8'0-1/8" high overall. The active panel measured 5'0-1/2" wide by 7'11-1/8" high; the fixed panel measured 5'0-7/8" wide by 7'11-1/8" high. Frame and panel member s were not thermally broken. A plastic spacer/guide was used at each panel head/stile corner. The fixed panel was secured to the jamb with two (2) 3" long aluminum angle retainers each fastened to the jamb stile with two (2) (#8 x 3/4") pan head screws. One (1) claw type door lock assembly was located at 40" from the bottom of each active panel lock stile each with two (2) screws. One (1) adjustable metal roller assembly was used at each end of the active bottom rails. The frame was of double screw coped corner construction. Panel corners were of single screw at bottom rail and double screw at the top rail. The interior vertical sill leg employed an extruded aluminum 1-1/4" high extension; an overall height of 2.031. One (1) aluminum panel retainer was fastened at 2" from each of the active panel bottom rail. One (1) extruded aluminum female panel adapter was fastened to the fixed panel but stile with five (5) (#8 x 1/2") screws. One extruded aluminum screen adapter was fastened to the butt stile using five (5) (#8 x 1/2") screws*

Installation: *The main frame was fastened to the wood test buck using forty-eight (48) (# 8 x 1-1/2") FHS. (See fastener diagram.)*

Reinforcement: *One (1) U-shaped glavanized steel reinforcing channel measuring 1-3/4" x 3/4" x 1/16" thick filled the length of the panel adapter stile. One (1) U-shaped galvanized steel reinforcing channel measuring 3/4" x 7/8" x 1/16" thick filled the length of each interlock stile.*

Glazing: *All panels were channel glazed using 3/16" thick clear tempered glass with a flexible vinyl glazing bead.*

Weatherseal: *Double strips of centerfin weatherstrip (0.270" high) were located at each jamb, stile and lock stile. A double strip of centerfin weatherstrip (0.180" high) was located at each interlock stile. A double strip of centerfin weatherstrip (0.250" high) was located at each panel top rail. A double strip of side fin weathrstrip (0.430" high) was located at each panel bottom rail. An adhesive back polypile dust plug measuring 1-3/16" x 13/16" x 0.420" was located on the head and sill at each end of the vertical stile exterior track.*

Weeps: *One (1) weep notch measuring 1-1/2" x leg height was located at each end of the interior sill roller leg, exterior sill roller leg and screen sill roller leg.*

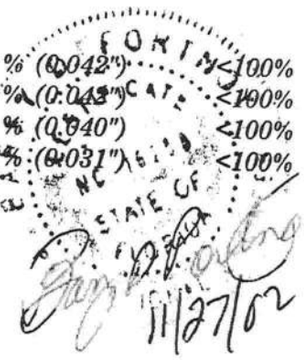
Interior & Exterior Surface Finish: *Non-painted aluminum*

Sealant: *Frame and panel bottom rail corners were sealed with a small-joint sealant.*

Insect Screen: *Two (2) insect screens, one (1) center insect screen measuring 5'0-1/4" wide by 7'11" high; Both were of coped corner construction. The screen employed fiberglass mesh cloth with a hollow vinyl spline. One (1) roller assembly was located at each end of the bottom rails. One (1) claw type lock assembly.*

TEST RESULTS

Par. No.	*Title of Test & Method*		*Measured*	*Allowed*
2.2.1.6.1	*Operating Force*			
	Center Active Panel			
		To open	*20 lbf*	*30 lbf*
		In Motion	*5 lbf*	*30 lbf*
	Right Active Panel			
		To open	*18 lbf*	*30 lbf*
		In Motion	*3 lbf*	*30 lbf*
2.2.1.6.2	*Deglazing - ASTM E987*			
	Center Active Panel			
	Top Rail (50 lbf)		*10.2 % (0.051")*	*<100%*
	Bottom Rail (50 lbf)		*7.8 % (0.039")*	*<100%*
	Left Stile (70 lbf)		*6.0 % (0.030")*	*<100%*
	Right Stile (70 lbf)		*5.4 % (0.027")*	*<100%*
	Right Active Panel			
	Meeting Rail (50 lbf)		*8.4 % (0.042")*	*<100%*
	Bottom Rail (50 lbf)		*8.4 % (0.042")*	*<100%*
	Left Stile (70 lbf)		*8.0 % (0.040")*	*<100%*
	Right Stile (70 lbf)		*6.2 % (0.031")*	*<100%*



TEST RESULTS (Continued)

Par. No.	Title of Test & Method	Measured	Allowed
2.1.2	Air Infiltration 1.57 psf(25mph)	Passed	0.30cfm/ft2
	Water Resistance – ASTM E547 5.0 gph/ft² WTP=4.50 psf	No entry	No entry
2.1.4.2	Uniform Load Structural - ASTM E330		
	45.0 psf Exterior	0.245"	0.381"
	45.0 psf Interior	0.258"	0.381"

OPTIONAL PERFORMANCE

Par. No.		Title of Test & Method	Measured	Allowed
4.3	*	Water Resistance - ASTM E547 & E331 5.0 gph/ft² WTP =5.25 psf	No Entry	No Entry

Note: *At this point in testing, an additional sill riser was attached to the existing main sill's interior vertical leg with the following results being obtained:*

Par. No.		Title of Test & Method	Measured	Allowed
4.3	*	Water Resistance - ASTM E547 & E331 5.0 gph/ft² WTP =6.00 psf	No Entry	No Entry
		Uniform Load Structural - ASTM E330		
		52.5 psf Exterior	0.379"	0.381"
		52.5 psf Interior	0.380"	0.381"

* *Test performed with and without screen*

TEST COMPLETED: 06/21/00

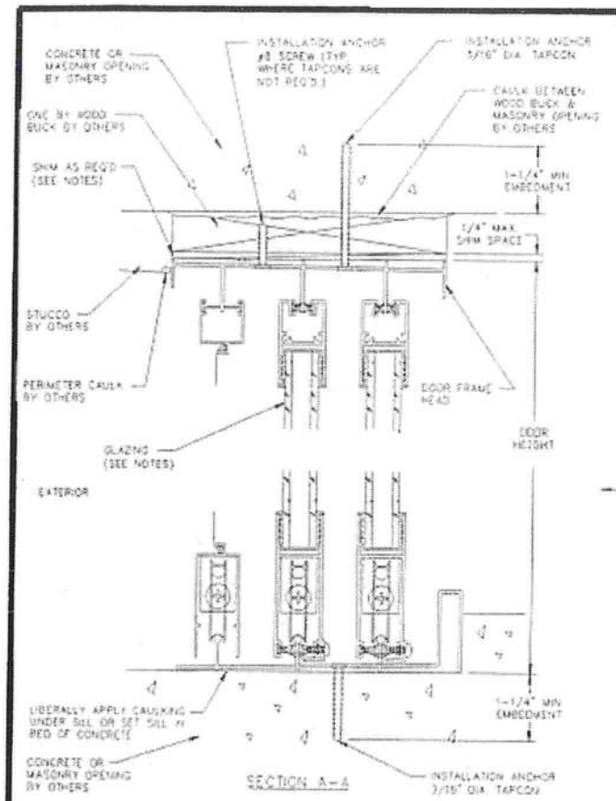
Note: *In addition, MI Home Products' Series "430" and "440" also received an SGD-C35 rating being identical in panel construction and interior sill leg heights.*

The tested specimen meets (or exceeds) the performance levels specified in Table 2.1 of AAMA/ NWWDA 101/I.S.2-97 for air infiltration. The listed results were secured by using the designated test methods and indicate compliance with the performance requirements of the referenced specification paragraphs for the SGD-C35 product designation.

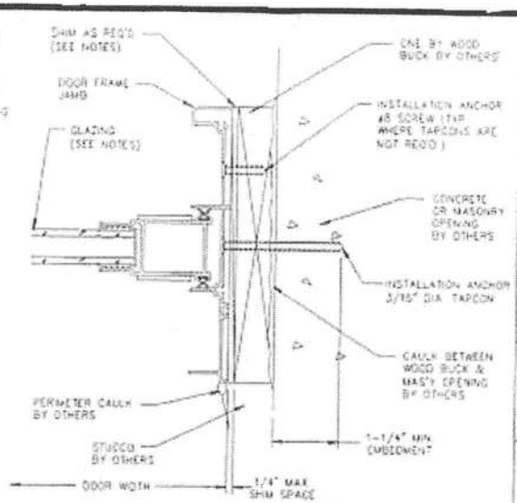
Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report. A copy of this report along with representative sections of the test specimen will be retained by NCTL for a period of four (4) years. The results obtained apply only to the specimen tested. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen may be drawn from this test. This report does not constitute certification of the product which may only be granted by a certification program validator.

Michael E. Lane

MICHAEL E. LANE
Division Manager



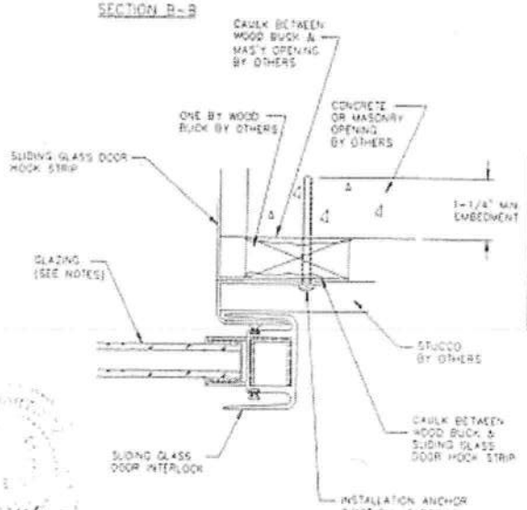
SECTION A-A



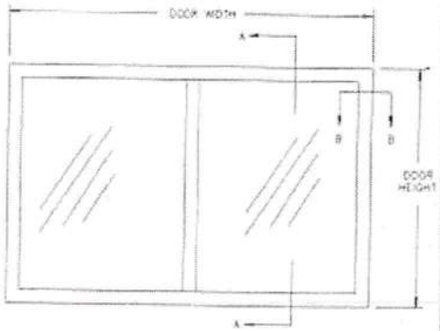
SECTION B-B

TAPCON INSTALLATION CHART

CALL SIZE	DOOR SIZE	LOCATION IN HEAD & SILL EA. JAMB QTY. IN HOOK STRIP: UP TO 45 PSF DP	46 PSF TO 60 PSF DP	61 PSF TO 70 PSF DP	UP TO 70 PSF DP	UP TO 45 PSF DP	46 PSF TO 60 PSF DP	61 PSF TO 70 PSF DP
5068 XO OX XX	60 X 80	3	3	3	4	3	4	4
6068 XO OX XX	72 X 80	4	4	4	4	3	4	4
8068 XO OX XX	96 X 80	5	5	5	4	3	4	5
10065 XO OX XX	120 X 80	6	6	7	4	3	4	5
5080 XO OX XX	60 X 96	3	3	3	5	4	5	5
6080 XO OX XX	72 X 96	3	3	3	5	4	5	5
8080 XO OX XX	96 X 96	4	4	5	5	4	5	5
10080 XO OX XX	120 X 96	6	6	7	5	4	5	6
7668 OXO	91-3/4 X 80	5	5	6	4	3	4	5
9068 OXO	109-3/4 X 80	5	5	6	4	3	4	5
12068 OXO	145-3/4 X 80	7	7	9	4	3	4	5
15068 OXO	181-3/4 X 80	8	10	11	4	3	4	5
7680 OXO	91-3/4 X 96	5	5	5	5	4	5	6
9080 OXO	109-3/4 X 96	5	5	6	5	4	5	6
12080 OXO	145-3/4 X 96	7	8	9	5	4	5	6
15080 OXO	181-3/4 X 96	8	11	13	5	4	5	6
7668 XIX	88-9/16 X 80	5	5	5	4	3	4	5
9068 XIX	108-9/16 X 80	5	5	6	4	3	4	5
12068 XIX	142-3/16 X 80	7	7	8	4	3	4	5
15068 XIX	178-9/16 X 80	8	10	11	4	3	4	5
7680 XIX	88-9/16 X 96	5	5	5	5	4	5	6
9080 XIX	108-3/16 X 96	5	5	6	5	4	5	6
12080 XIX	142-3/16 X 96	7	8	9	5	4	5	6
15080 XIX	178-9/16 X 96	8	11	13	5	4	5	6
10065 OXXO, XXXO	120-5/8 X 80	6	6	7	4	3	4	5
12068 OXXO, XXXO	144-5/8 X 80	7	7	8	4	3	4	5
16068 OXXO, XXXO	192-5/8 X 80	9	10	12	4	3	4	5
10080 OXXO, XXXO	120-5/8 X 96	6	6	7	5	4	5	6
12080 OXXO, XXXO	144-5/8 X 96	7	8	9	5	4	5	6
16080 OXXO, XXXO	192-5/8 X 96	9	12	14	5	4	5	6



HOOK STRIP DETAIL



EXTERIOR ELEVATION

NOTES:
1) DOOR MATERIAL: ALUMINUM ALLOY 6063.
2) TAPCON TYPE INSTALLATION ANCHORS MUST BE OF SUFFICIENT LENGTH TO ACHIEVE MIN. EMBEDMENT OF 1-1/4" INTO MASONRY OR CONCRETE.
3) ALTERNATE TAPCON INSTALLATION ANCHORS FRONT TO BACK IN ALL FRAME MEMBERS.
4) USE LATEX CAULK FOR PERIMETER SEAL AROUND EXTERIOR OF DOOR.
5) IF EXACT DOOR SIZE IS NOT LISTED IN ANCHOR CHART, USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE, FOR THE APPROPRIATE DESIGN PRESSURE REQ'D.
6) FOR POCKET DOOR SIZES USE CLOSEST BYPASS DOOR SIZE & CONFIGURATION TO FINISHED OPENING.
7) INSULATED GLASS SHOWN. SINGLE GLAZING ALSO APPROVED. TEMPERED GLASS THICKNESS MAY VARY PER REQUIREMENTS OF ASTM E1300 GLASS CHARTS.
8) ALL FACTORY APPLIED HOLES NOT DESIGNED FOR TAPCON ANCHOR SHOULD BE FILLED WITH #8 SCREWS OF SUFFICIENT LENGTH TO PROVIDE MIN. 5/8" EMBEDMENT INTO WOOD BUCK.
9) JAMB / SILL CORNERS ARE TO BE SEALED WITH A SMALL JOINT SEAM SEALER.
10) SHIM AS REQ'D AT PA SET OF INSTALLATION ANCHORS. MAX. ALLOWABLE SHIM STACK TO BE 1/4".
11) ALL INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIALS.
12) WHERE "A" REPRESENTS MOVING PANEL AND "O" REPRESENTS FIXED PANEL APPROVED CONFIGURATIONS ARE AS LISTED ON INSTALLATION CHART.
13) NOT ALL CONFIGURATIONS LISTED ABOVE ARE SHOWN ON THIS DRAWING, HOWEVER INSTALLATION SECTIONS "A-A", "B-B" & HOOK STRIP DETAIL APPLY TO INSTALLATION OF ALL APPROVED CONFIGURATIONS.
14) MAX ALLOWABLE SPACING BETWEEN TAPCON ANCHORS TO BE 24" O.C.
15) SERIES 420 SLIDING GLASS DOOR IS SHOWN. THIS PRINT ALSO APPLIES TO 430 & 440 SERIES.
16) WHERE DOOR IS INSTALLED IN WOOD FRAME STRUCTURE, USE #10 SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1-3/8" MIN. EMBEDMENT INTO SUBSTRATE. PLACE #10 SCREWS 6" FROM CORNERS & 24" O.C. MAX.

MI HOME PRODUCTS
GRATZ, PA.

TITLE: SERIES 420/430/440 SLIDING GLASS DOOR INSTALLATION WITH TAPCONS

ENGINEER: MANUAL MARTINEZ	DRN: BB	DATE: 12/13/07	
DISCIPLINE: CIVIL	SCALE: N.T.S	DWG NO: MIHP0013	
FL REG. NO: 47182	REV LETTER:	SHEET: 1 OF 1	

PREPARED BY: PRODUCT & APPLICATION ENGINEERING, INC. 250 INTERNATIONAL BLVD., SUITE 250, HEATHROW, FLORIDA 32746 PHONE 407 805-0365 FAX 407 805-0366

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

Rendered to:

MI HOME PRODUCTS, INC.

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

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

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

Allen N. Reeves
7 JUNE 2002

ALLEN N. REEVES
NO. 19354
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Architectural Testing

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

Rendered to

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

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

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

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

Test Specimen Description:

Series/Model: 650

Type: Aluminum Triple Single Hung Window

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

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

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

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

Finish: All aluminum was painted white.

7 JUNE 2002

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

Test Specimen Description: (Continued)

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

Weatherstripping:

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

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

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

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

ALLEN N. REEVES
CERTIFICATE
NO. 19364
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Allen N. Reeves
7 JUNE 2002

Test Specimen Description: (Continued)

Hardware:

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

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

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

Test Results:

The results are tabulated as follows.

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

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

Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage

Allen N. Reeves
7 JUNE 2002

ALLEN N. REEVES
CERTIFICATE NO. 19364
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Test Results: (Continued)

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

Allen N. Reeves
7 JUNE 2002

ALLEN N. REEVES
CERTIFICATE NO. 19354
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Test Results: (Continued)

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

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

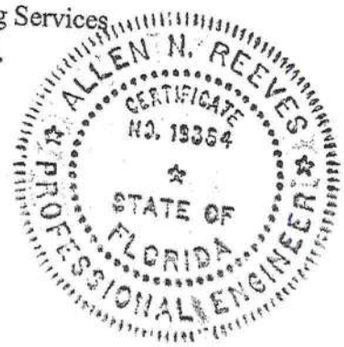
Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification.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

For ARCHITECTURAL TESTING, INC

Mark A. Hess
Technician

MAH:nlb
01-41641.01

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



STANDARD FORM OF AGREEMENT
BETWEEN CONTRACTOR AND OWNER

THIS AGREEMENT made the 8th day of September in the year Two Thousand Four by and between Robert W. Parnell, hereafter called the Contractor, and Malcolm & Shari Bruce, hereafter called the Owner, Witnesseth, that Contractor and the Owner for the considerations named agree as follows on work to be completed 9231 SW State Road 47 in Lake City, Florida

ARTICLE 1. SCOPE OF THE WORK
The Contractor shall perform all of the work described in the Specifications.
Specifications: See Attached Exhibit A.

ARTICLE 2. TIME OF COMPLETION
The work to be performed under this Contract shall be commenced 9/10/04. All work to be performed shall be specified in writing and approved by both the Contractor and Owner prior to commencement of said work. Any changes to specified work mentioned in Exhibit A shall be submitted in writing to the Contractor prior to work being performed and will be priced above original contract price and will be executed only by signed agreement of both parties.

ARTICLE 3. THE CONTRACT SUM
The Contract Price will be $22,929.00.
The Terms of this Contract are as follows:
1.) Initial Draw of $7500.
2.) Second Draw of $7500.00 midway through job
3.) Balance of $7,929.00 shall be due immediately upon completion of job.

ARTICLE 4. THE CONTRACT DOCUMENTS
The General Conditions of the Contract, the Specifications together with this Agreement, form the Contract, and they are as fully a part of the Contract as if hereto attached or herein repeated.

Robert W Parnell — Contractor
Malcolm E Bruce — Owner

License# RB0067106

Exhibit A

1.) Removal of all Molding throughout house.

2.) Removal of Gypsum Wallboard to height of 4' in entire house.

3.) Remove insulation in exterior walls to height of 4' and replace with new insulation with same R value.

4.) Prior to replacement of gypsum wallboard, a mold deterrent agent to be added to bottom of partitions throughout house.

5.) Replace Gypsum Wallboard with veneer plaster to match existing as close as possible.

6.) Re-Paint Entire House Interior including Ceiling to Match existing as close as possible.

7.) Removal and Replacement of all Kitchen Cabinets and Countertops as they exist right now. All existing sinks, vanities, comodes, etc. will be Re-Installed.

8.) Ceramic Floor Tile to be installed in kitchen, dining room, foyer, and two bathrooms.

9.) Carpet to be installed in the rest of living area. Owners choice of color and style not to exceed $22.00 per square yard installed.

10.) Replace 40 gallon Electric water heater with same type as existing.

11.) Replace damaged doors and bi-fold door hardware.