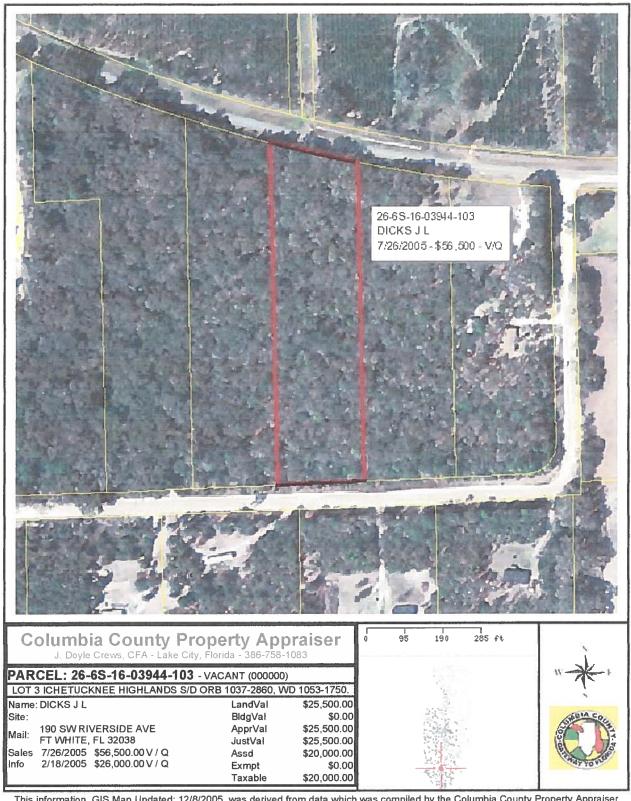
Columbia County Building Permit Application

Revised 9-23-04

| For Office Use Only Application # 060 - 30 Date R | eceived 1-10-06 By LH Permit # 24060 |
|--|--|
| Application Approved by - Zoning Official Date | 17. 01. 6 Plans Examiner OKJIH Date 1-20-08 |
| Flood Zone X Development Permit MA Zoning | 2 A-3 Land Use Plan Map Category A-3 |
| Comments & Comments Copy of Reco | th Dest: |
| | es la restatation |
| Applicants Name Brian & Mary Maures | 2- |
| Address 7257 NO 45 BLVD. PMB # 316 GA | Phone 352-331-3895 |
| | |
| 911 Address 7048 SIN FLAM CHARLES | Phone 352-331-3895 |
| 911 Address 2048 SW ELIM CHURCH RD FOR Contractors Name MATHEW MILLER | |
| | Phone 386-462-9041 FAX |
| Address 27471 NW 173 TERR ALACHU | A, FL 32615 |
| Fee Simple Owner Name & Address N/A | |
| Bonding Co. Name & Address N/A | |
| Architect/Engineer Name & Address MARK DISOSWAY - | 4.0. BOX 868 LAKE CITY FL 32056 |
| Mongage Lenders Name & Address WELLS HARGO HOME A | LORTGAGE - 2600 LAKE LUCIAN DRIVE SUITE 312 MAITLAND |
| Circle the correct power company - FL Power & Light Clay | Elec Suwannee Valley Elec Progressive Energy |
| riopeny in number 26-63-16-03944-103 | Estimated Cost of Construction 121 000 |
| Subdivision Name IC HETUCKNEE HIGHLANDS | Lot 3 Block Unit Phase |
| Driving Directions From LAKE CITY GO SOUTH ON ITS | TO EXIT 412 (441). GO SOUTH TO |
| COUNTY KOAN 18 E TAKE A RIGHT. GO 2 MILES TO TUS | KANGEE ROAD & TAKE A RIGHT AFTER THE |
| RIGHT TAKE AN LIMMEDIATE LEFT ONTO ECIMCHURCH ROAD. | GO ZAMHES E PRODUCTE OF THE LECT |
| Type of Construction RESIDENTIAL CONCORRECTION AND ALLERS LIGHT | and the company of th |
| Total Acreage 4. 10 Lot Size 855 Do you need a - Culve | ert Permit or Culvert Waiver or Have an Existing Drive |
| Actual Distance of Structure from Property Lines - Front 316 F | Side 70 FL Side 80 ft Regr 498ft |
| Total Building Height 19 Number of Stories 1 Ho | eated Floor Area Z103 Roof Pitch 6/1Z |
| VA 0 3 8 | 1014 294 |
| Application is hereby made to obtain a permit to do work and ins nstallation has commenced prior to the issuance of a permit and Ill laws regulating construction in this jurisdiction | stallations as indicated. I certify that no work or |
| o o o o o o o o o o o o o o o o o o o | |
| DWNERS AFFIDAVIT: I hereby certify that all the foregoing information in the substruction is compliance with all applicable laws and regulating construction is compliance. | and zoning. |
| <u>VARNING TO OWNER:</u> YOUR FAILURE TO RECORD A NOTICE OF WICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTERPRED OR ATTORNEY BEFORE RECORDING YOUR NOTICE O | |
| a VA | 101, 1 AM-1/1 |
| wner Builder or Agent (Including Contractor) | _ West News |
| | Contractor Signature Contractors License Number <u>GRC 132 7652</u> |
| TATE OF FLORIDA OUNTY OF COLUMBIA | Competency Card Number AJ-A |
| worn to (or affirmed) and subscribed before me | NOTARY STAMP/SEAL |
| is 10 th day of January 2006. | Brian K. Mallard |
| ersonally known or Produced Identification | Notary Signature Commission #DD272196 Expires: Dec 03, 2007 |
| , | Bonded Thru Atlantic Bonding Co., Inc. |

unidat not in finish with Miller, FAX#, CAlled owner

Print Date: 1/17/2006 (printled at scale and type A)



This information, GIS Map Updated: 12/8/2005, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

Prepared by and return to:

Home Town Title of North Florida 2744 US Highway 90 West Lake City, FL 32055 386-754-7175 File Number: 2005-2141 Inst:2005031369 Date:12/20/2005 Time:09:50
Doc Stamp-Daed : 525.00

DC,P. Dewitt Cason, Columbia County B: 1068 P: 1913

[Space Above This Line For Recording Data]

Warranty Deed

This Warranty Deed made this 16th day of December, 2005 between J. L. Dicks, a married person whose post office address is 190 SW Riverside Avenue, Fort White, FL 32038, grantor, and Brian K. Mallard and Mary E. Mallard, husband and wife whose post office address is 7257 NW 4th Blvd., Gainesville, FL 32607, grantee:

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

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Columbia County, Florida to-wit:

Lot 3, of ICHETUCKNEE HIGHLANDS, according to the plat thereof on file in Plat Book 6, page 96, in the public records of Columbia County, Florida.

Parcel Identification Number: R03944-103

The above described property is not the homestead property of the grantor who resides at 190 SW Riverside Avenue, Fort White, Florida 32038

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

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

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2005.

In Witness Whereof, grantor has hereunto set grantor's hand and sea! the day and year first above written.

| Signed, sealed and delivered in our presence: | |
|---|-------------------|
| Witness Name: Michelle Crane | S.L. Dicks (Seal) |

Witness Name:

State of Florida County of Columbia

The foregoing instrument was acknowledged before me this 16th day of December, 2005 by J. L. Dicks, who [] is personally known or [X] has produced a driver's license as identification.

[Notary Seal]

Notary Public

DAWNA W, LANG

Printed Name:

My Commission Expires:



Inst:2005031368 Date:12/20/2005 Time:09:50 Doc Stamp-Deed :

525.00

_DC,P.DeWitt Eason,Columbia County B:1068 P:1914

NOTICE OF COMMENCEMENT FORM COLUMBIA COUNTY, FLORIDA

Tax Parcel ID Number R03944-103

*** THIS DOCUMENT MUST BE RECORDED AT THE COUNTY CLERKS OFFICE BEFORE YOUR FIRST INSPECTION. ***

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: (legal description of the property and street address or 911 address) |
| | Lot 3, of Ichetucknee Highlands, according to the |
| | plat thereof on file in Plat Book 6, page 96, in the |
| | public records of Columbia County, FL |
| | 2048 S.W. ELIM CHURCH RD. |
| | Fort White, H 32038 |
| 2. | General description of Improvement: Constructing a single family dwelling. |
| 3. | Owner Name & Address Brian K. 7 Mary E. Mallard: 7257 NW 4th Blvd. |
| | PMB# 316 Gainesville, FL 32607 Interest in Property To build a home. |
| 4. | Name & Address of Fee Simple Owner (if other than owner): N/A |
| | |
| 5 . | Contractor Name Motthew Miller Phone Number 386-462-904 |
| | Address 27471 NW 1735 Terr. Alachua, FL 32615 |
| 6. | Surety Holders Name N/A Phone Number N/A |
| | Address N/A |
| | Amount of Bond N/A |
| 7. | Lender Name Wells Fargo Home Mortgage Phone Number 800-208-3916 |
| | Address 2799 Wells Fargo Way Minneapolis, MN 55467 |
| | Persons within the State of Florida designated by the Owner upon whom notices or other documents may be rved as provided by section 718.13 (1)(a) 7; Florida Statutes: |
| | Name N/A Phone Number N/A |
| | Address N/A |
| 9. | In addition to himself/herself the owner designates Well'S Fargo Home Mortgage of |
| | Minneapous, MN to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) - |
| | (a) 7. Phone Number of the designee 800-208-3916 (Casey / Monica) |
| 10 | . Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, |
| | (Unless a different date is specified) 1/18/2006 |
| | Inst: 2006001436 Date: 01/20/2006 Time: 08:58 |
| | DTICE AS PER CHAPTER 713, Florida Statutes: |
| ın | e owner must sign the notice of commencement and no reasonable state and the second state of the second st |
| (| Sworn to (or affirmed) and subscribed before |
| | $\frac{1}{10000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{100000} = \frac{1}{100000} = \frac{1}{1000000} = \frac{1}{10000000000000000000000000000000000$ |
| 1 | NOTARY STAMP/SEAL |
| | Signature of Owner |
| ٠ | M 463-585-77-519-0 ACACHUA COUNTY SAMSGIAGU |
| / | 463-071-77-376-0 FINGTATC: SYED SAID HAAN |
| , | Comme Doorses Signature of Notary |

Bonded thru (800)432-4254 Florida Notery Assn., inc



STATE OF FLORIDA DEPARTMENT OF HEALTH

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number _____

| | | | — PART II - SITE I | PLAN | | |
|-----------------|---------------------|--------------------|--|-----------------|--------------------|-----------------|
| Scale: Each blo | ock represents 5 fe | eet and 1 inch = 5 | 0 feet. | | R | ECEIVED |
| 216' | | | | | D | EC 28 2005 |
| | 855′ | | 202 | 216 | | Addressing |
| - | | - | | 216 | | |
| A LOCATION | 4.10 ACRES | | and the second s | | | |
| SWELLET CHURC | H RD | | SEPTIO | DRAIM FEILES | | |
| | | 210' | 65 IN | 6 | | |
| | 84 | 210 | 70' | SF | O' OWELL. TO HOUSE | |
| | | | | DEIN DEIN | | |
| | | | 2, 22 20, 24 20, 25 20, 20, 20 20, 20 20 20, 20 20, 20 20, 20 20, 20 20, 20 20 20, 20 20 20 20 20 20 20 20 20 20 20 20 20 2 |) VAY | | |
| Notes: | | | 3-02- | X | · | |
| | *** | - 4 | | | | |
| Site Plan subm | nitted by: | 40 E-1/a | Varel | | Owre | Title |
| Plan Approved | | 0 (., | Not Approved _ | | Date_ | |
| Ву | POC: | 352-26 | Mallard | | County He | alth Department |
| | ALL CHANGE | ES MUST BE AF | PPROVED BY TH | E COUNTY HEALTH | DEPARTMENT | • |

STATE OF FLORIDA DEPARTMENT OF HEALTH

CALL IST

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMITS . S. Permit Application Number _______ - PART II - SITE PLAN-Scale: Each block represents 5 feet and 1 inch = 50 feet. 216 855' 216 90 SWELLAN CHURCH RO 65 210' WATER LINE TO HOUS Notes: Site Plan submitted by: Plan Approved Not Approved **County Health Department**

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT



[5400-5499] W **Newberry Rd** Gainesville, FL 32607, US

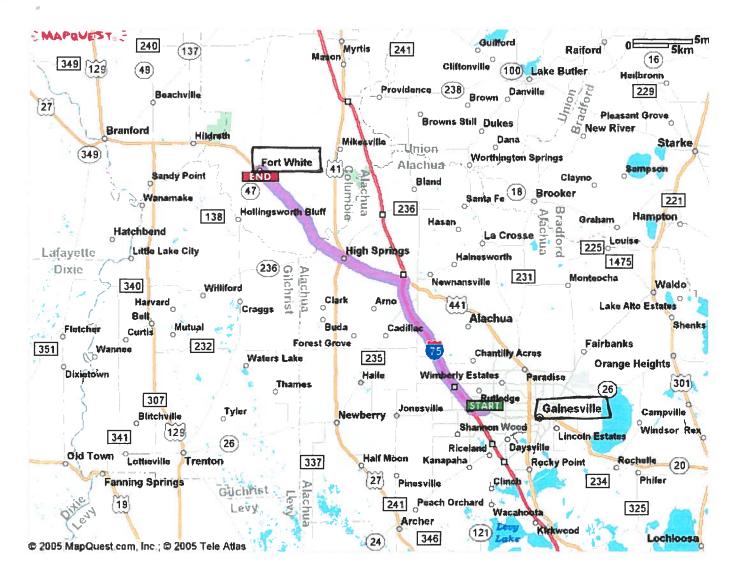
Fort White, FL US

Total Est. Time: 36 minutes

Total Est. Distance: 28.27 miles

| Maneuvers | Distance |
|--|------------|
| 1: Start out going EAST on FL-26 E / W NEWBERRY RD toward NW 54TH TER. | <0.1 miles |
| 2: Make a U-TURN at NW 54TH TER onto FL-26 W / NW 8TH AVE / W NEWBERRY RD. | 0.9 miles |
| 3: Merge onto I-75 N. | 11.7 miles |
| 4: Take the US-441 exit- EXIT 399- toward ALACHUA. | 0.2 miles |
| 5: Merge onto US-441 N / FL-25 N / FL-20 W toward HIGH SPGS | 4.8 miles |
| 6: Turn SLIGHT LEFT onto NE 1ST AVE / FL-20. Continue to follow FL-20. | 10.5 miles |
| 7: Turn LEFT onto FL-47 / SW GENERAL AVE / S 1ST ST. | <0.1 miles |
| 8: End at Fort White, FL US | |

Total Est. Time: 36 minutes Total Est. Distance: 28.27 miles



These directions are informational only. No representation is made or warranty given as to their content, road conditions or route usability or expeditiousness. User assumes all risk of use. MapQuest and its suppliers assume no responsibility for any loss or delay resulting from such use.

Web Offers:

Schools
 Apartments
 Home Mortgages
 Homes for Sale
 Jobs
 Hotels
 Condos
 Bed and Breakfast
 New Cars
 Airline Tickets
 Digital Cameras

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.

| _ |
|---|
| WHITE, FL 32038) AIL. 26-6S-16-03944-103 S/D Sing / 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.



STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD 1940 NORTH MONROE STREET TALLAHASSEE FL 32399-0783

(850) 487-1395

MILLER, MATTHEW CLAYTON SOUTHERN HERITAGE HOMEBUILDERS CORP 27471 N WEST 173RD TERRACE ALACHUA

DETACH HERE

AC#1800921

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION CONSTRUCTION INDUSTRY LICENSING BOARD SEQ#L04122800174

BATCH NUMBER LICENSE NBR DATE OF BE STA /28/2004 040499184 | CRC1327652

The RESIDENTIAL CONTRACTOR Named below IS CERTIFIED. Under the provisions of Chapter 489 Rs. Expiration date: AUG 31, 2006

MILLER, MATTHEW CLAYTON
SOUTHERN HERITAGE HOMEBUILDERS CORP. 27471 N WEST 173RD TERRACE
ALACHUA FL 32615

JEB BUSH GOVERNOR

DIANE CARR SECRETARY

Project Name:

Address:

Mallard

Eilm Church Road

Builder: Miller, MAthew Permitting Office: Columbia

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs
Residential Whole Building Performance Method A

| 2. S 3. N 4. N 5. I | ate Zone: North | | | Permit Number: 24060 Jurisdiction Number: 221000 | | | | | | |
|------------------------------|-------------------------------------|--|-----------|---|--|---------------------------------|--|--|--|--|
| 3. 1. 4. 1. 5. I | New construction or existing | New | | 12. | Cooling systems | | | | | |
| 4. 1 5. I | Single family or multi-family | Single family | | a. | Central Unit | Cap: 36.0 kBtu/hr | | | | |
| 5. I | Number of units, if multi-family | 1 | | | | SEER: 13.00 | | | | |
| | Number of Bedrooms | 3 | | b. | N/A | | | | | |
| | s this a worst case? | No | | | | | | | | |
| | Conditioned floor area (fl²) | 2103 ft ² | | c. | N/A | | | | | |
| 7. (| Glass type 1 and area: (Label reqd. | by 13-104.4.5 if not default) | | | | | | | | |
| | J-factor: | Description Area | | 13. | Heating systems | | | | | |
| | (or Single or Double DEFAULT) SHGC: | 7a. (Dble Default) 323.2 ft ² | | a. | Electric Heat Pump | Cap: 36.0 kBtu/hr HSPF: 7.80 | | | | |
| | (or Clear or Tint DEFAULT) | 7b. (SHGC=0.4) 289.8 ft ² | | b. | N/A | | | | | |
| 8. F | loor types | | | | | | | | | |
| a. S | Slab-On-Grade Edge Insulation | R=0.0, 225.0(p) ft | - Control | c. | N/A | | | | | |
| b. N | N/A | | (manus) | | | | | | | |
| c. N | N/A | | 2.1 | 14. | Hot water systems | | | | | |
| 9. V | Wall types | | | a. | Electric Resistance | Cap: 80.0 gallons | | | | |
| a. F | rame. Wood, Exterior | R=13.0, 1427.1 ft ² | | | | EF: 0.90 | | | | |
| b. F | rame, Wood. Adjacent | $R=13.0, 222.0 \text{ ft}^2$ | - | b. | N/A | | | | | |
| c. N | V/A | | | | | | | | | |
| d. N | N/A | | | c. | Conservation credits | | | | | |
| e. N | N/A | | | | (HR-Heat recovery, Solar | | | | | |
| 10. (| Ceiling types | | | | DHP-Dedicated heat pump) | | | | | |
| a. U | Jnder Attic | R=30.0, 2148.0 ft ² | | 15. | HVAC credits | | | | | |
| b. N | J/A | | | | (CF-Ceiling fan, CV-Cross ventilation, | | | | | |
| c. N | √A | | _ | | HF-Whole house fan, | | | | | |
| 11. E | Duets | | | | PT-Programmable Thermostat, | | | | | |
| a. S | up: Unc. Ret: Unc. AH: Garage | Sup. R=6.0, 189.0 ft | | | MZ-C-Multizone cooling, | | | | | |
| b. N | I/A | | | | MZ-H-Multizone heating) | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Total base points: 29953

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

Glass/Floor Area: 0.15

PREPARED BY:

DATE: 12/24/05

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

OWNER/AGENT: ______
DATE:

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

GREAT GREAT

| BUILDING | OFFICIAL: | _ |
|----------|-----------|---|
| DATE: | | |

PASS

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

EnergyGauge® (Version: FLR2SB v4.0)

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654-

PERMIT #:

| | В | ASE | | | | | AS | -BUI | LT | | | | |
|-------------|------------------------------------|--------|---------|----------|-----------------------|-------------|---------------|--------|----------|-------|-------|------|----------|
| | TYPES Conditioned Floor Area | IX BS | SPM = F | Points | Type/SC | Ove Ornt | erhang Len | • | Area X | SPM | 1 X S | SOF | = Points |
| .18 | 2103.0 | | 20.04 | 7585.9 | Double, SHGC=0.4 | S | 9.5 | 3.5 | 12.0 | 19.0 | 2 | 0.43 | 98.8 |
| | | | | | Double, SHGC=0.4 | W | 1.5 | 7.0 | 30.0 | 20.6 | 0 | 0.94 | 582.1 |
| | | | | | Double, SHGC=0.4 | N | 1.5 | 4.5 | 16.0 | 8.9 |) | 0.90 | 128.4 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 10.5 | 26.7 | 8.9 | 0 | 0.79 | 188.2 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.7 | 8.9 |) | 0.67 | 64.0 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 11.0 | 12.0 | 8.9 |) | 0.80 | 85.5 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.0 | 8.9 |) | 0.67 | 59.8 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 10.0 | 26.7 | 8.9 |) | 0.78 | 186.1 |
| | | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.7 | 8.9 |) | 0.67 | 64.0 |
| | | | | | Double, Clear | S | 9.5 | 9.0 | 33.4 | 35.8 | 7 | 0.51 | 614.1 |
| | | | | | Double, SHGC=0.4 | S | 9.5 | 8.3 | 36.0 | 19.0 | 2 | 0.50 | 342.7 |
| | | | | | Double, SHGC=0.4 | S | 1.5 | 5.0 | 9.0 | 19.02 | 2 | 0.81 | 138.1 |
| f | | | | | Double, SHGC=0.4 | W | 5.5 | 5.0 | 9.0 | 20.60 |) | 0.51 | 93.9 |
| | | | | 3 | Double, SHGC=0.4 | S | 1.5 | 7.0 | 30.0 | 19.02 | 2 | 0.90 | 513.0 |
| | | | | | Double, SHGC=0.4 | E | 1.5 | 7.0 | 15.0 | 22.76 | 6 | 0.94 | 321.3 |
| | | | | | Double, SHGC=0.4 | E | 1.5 | 7.0 | 15.0 | 22.76 | 6 | 0.94 | 321.3 |
| | | | | | Double, SHGC=0.4 | E | 1.5 | 5.0 | 6.0 | 22.76 | 6 | 0.87 | 119.4 |
| | | | | | Double, SHGC=0.4 | E | 1.5 | 7.0 | 15.0 | 22.78 | 6 | 0.94 | 321.3 |
| | | | | | As-Built Total: | | | | 323.2 | | | | 4242.1 |
| WALL T | YPES A | \rea X | BSPM | = Points | Туре | | R | -Value | Area | Х | SPM | = | Points |
| Adjacent | 22 | 22.0 | 0.70 | 155.4 | Frame, Wood, Exterior | | | 13.0 | 1427.1 | | 1.50 | | 2140.6 |
| Exterior | 142 | 27.1 | 1.70 | 2426.1 | Frame, Wood, Adjacent | | | 13.0 | 222.0 | | 0.60 | | 133.2 |
| Base Tota | ni: 1 | 649.1 | | 2581.5 | As-Built Total: | | | | 1649.1 | | | | 2273.8 |
| DOOR T | YPES A | rea X | BSPM | = Points | Туре | | | | Area | Х | SPM | = | Points |
| Adjacent | | 0.0 | 0.00 | 0.0 | Exterior Wood | | | | 20.0 | | 6.10 | | 122.0 |
| Exterior | | 51.1 | 6.10 | 311.7 | Exterior Insulated | | | | 31.1 | | 4.10 | | 127.5 |
| Base Tota | ıl: | 51.1 | | 311.7 | As-Built Total: | | | | 51.1 | | | | 249.5 |
| CEILING | TYPES A | rea X | BSPM : | = Points | Туре | F | R-Valu | ıe A | rea X S | SPM 2 | (SCI | VI = | Points |
| Under Attic | 210 | 3.0 | 1.73 | 3638.2 | Under Attic | | | 30.0 | 2148.0 1 | .73 X | 1.00 | | 3716.0 |
| Base Tota | l: 2 | 103.0 | | 3638.2 | As-Built Total: | | | | 2148.0 | | | | 3716.0 |

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654- PERMIT #:

| | BASE | | AS-BUILT | | | | | | | | | | |
|------------------------|------------------------|---------------|-----------------|---|------------|-----------|---|-------|----------------|-------------------------------|------|---|------------------------|
| FLOOR TYPES | Area X | BSPM | = Points | Туре | | *HADCH FI | R-Va | lue | Area | X 5 | SPM | = | Points |
| Slab Raised | 225.0(p) 0.0 | -37.0 0.00 | -8325.0 0.0 | Slab-On-Grade Edg | ge Insulat | ion | 0. | 0 22 | 5.0(p | -41 | .20 | | -9270.0 |
| Base Total: | | | -8325.0 | As-Built Total: | | | · · · · · · · · · · · · · · · · · · · | - 2 | 225.0 | | | | -9270.0 |
| INFILTRATION | Area X | BSPM | = Points | | _ | | | | Area | X S | SPM | = | Points |
| | 2103.0 | 10.21 | 21471.6 | | | | | | 2103.0 | 1 | 0.21 | | 21471.6 |
| Summer Bas | se Points | 2726 | 3.9 | Summer As-Built Points: 22683.1 | | | | | | | | | |
| Total Summer Points | X System Multiplier | | ooling oints | Total X Component (System - Point | Ratio | | Duct X fultiplier x DSM x AHL | Multi | tem X plier | Cre Multi | | | Cooling Points |
| 27263.9 | 0.4266 | 1 | 1630.8 | (sys 1: Central Unit 22683 22683.1 | | | ER/EFF(13.0) D x 1.147 x 1.0 1.250 | 0 (0 | | R),Gar(A 1.0 1.0 | 000 | 7 | ′445.4 445.4 |

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654-

PERMIT #:

| ВА | SE | | | | | AS | -BU | LT | | | | | |
|--|-----|-------|----------|-----------------------|-------------|--------------|--------|----------|-----|-------|-----|------|----------|
| GLASS TYPES .18 X Conditioned Floor Area | ХВ | WPM = | Points | Type/SC | | rhang Len | , | Area X | W | PM | ΧV | WOF | = Points |
| .18 2103.0 | | 12.74 | 4822.6 | Double, SHGC=0.4 | S | 9.5 | 3.5 | 12.0 | 19 | .42 | ; | 3.65 | 851.4 |
| | | | | Double, SHGC=0.4 | W | 1.5 | 7.0 | 30.0 | 24 | .09 | | 1.02 | 734.0 |
| | | | | Double, SHGC=0.4 | N | 1.5 | 4.5 | 16.0 | 26 | .45 | , | 1.00 | 425.1 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 10.5 | 26.7 | 26 | .45 | • | 1.01 | 714.8 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.7 | 26 | .45 | 1 | 1.02 | 289.0 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 11.0 | 12.0 | 26 | .45 | 1 | 1.01 | 321.0 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.0 | 26 | .45 | 1 | 1.02 | 270.1 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 10.0 | 26.7 | 26. | 45 | 1 | 1.01 | 715.2 |
| | | | | Double, SHGC=0.4 | N | 6.5 | 5.0 | 10.7 | 26. | | | 1.02 | 289.0 |
| | | | | Double, Clear | S | 9.5 | 9.0 | 33.4 | 13. | | | 2.82 | 1253.4 |
| | | | | Double, SHGC=0.4 | S | 9.5 | 8.3 | 36.0 | 19. | | | 2.96 | 2069.6 |
| | | | | Double, SHGC=0.4 | S | 1.5 | 5.0 | 9.0 | 19. | | | 1.20 | 209.2 |
| | | | | Double, SHGC=0.4 | W | 5.5 | 5.0 | 9.0 | 24. | | | 1.18 | 255.3 |
| | | | | Double, SHGC=0.4 | S | 1.5 | 7.0 | 30.0 | 19. | | | 1.07 | 622.5 |
| | | | | Double, SHGC=0.4 | E | 1.5 | 7.0 | 15.0 | 22. | | | 1.03 | 351.4 |
| | | | | Double, SHGC=0.4 | E | 1.5 | 7.0 | 15.0 | 22. | | | 1.03 | 351.4 |
| | | | | Double, SHGC=0.4 | E | 1.5 | 5.0 | 6.0 | 22. | | | 1.05 | 143.9 |
| | | | | Double, SHGC≃0.4 | E | 1.5 | 7.0 | 15.0 | 22. | 84 | 1 | 1.03 | 351.4 |
| | | | | As-Built Total: | | | | 323.2 | | | | | 10217.8 |
| WALL TYPES Are | a X | BWPM | = Points | Туре | | R | -Value | Area | Χ | WI | PM⊂ | = | Points |
| Adjacent 222 | 0 | 3.60 | 799.2 | Frame, Wood, Exterior | | | 13.0 | 1427.1 | | 3.4 | 10 | | 4852.1 |
| Exterior 1427. | 1 | 3.70 | 5280.3 | Frame, Wood, Adjacent | | | 13.0 | 222.0 | | 3.3 | 30 | | 732.6 |
| Base Total: 164 | 9.1 | | 6079.5 | As-Built Total: | | | | 1649.1 | | | | | 5584.7 |
| DOOR TYPES Are | aХ | BWPM | = Points | Туре | | | | Area | Х | WF | PM | = | Points |
| Adjacent 0. | 0 | 0.00 | 0.0 | Exterior Wood | | | | 20.0 | | 12.3 | 30 | | 246.0 |
| Exterior 51. | 1 | 12.30 | 628.5 | Exterior Insulated | | | | 31.1 | | 8.4 | | | 261.2 |
| Base Total: 5 | 1.1 | | 628.5 | As-Built Total: | | | | 51.1 | | | | | 507.2 |
| CEILING TYPES Are | а Х | BWPM | = Points | Туре | R- | Value | e Ar | ea X W | PM | ΧV | ۷C۱ | /1 = | Points |
| Under Attic 2103. | 0 | 2.05 | 4311.1 | Under Attic | | | 30.0 | 2148.0 2 | .05 | X 1.0 | 00 | | 4403.4 |
| Base Total: 210 | 3.0 | | 4311.1 | As-Built Total: | | | | 2148.0 | | | | | 4403.4 |

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654- PERMIT #:

| | BASE | | | AS-BUILT | | | | | | | |
|--------------------------|---------------------|-------------|-----------------|--|---|------------------------|---------------------------------------|---|------------------------------------|--|--|
| FLOOR TYPES | Area X | BWPM | = Points | Туре | R-Valu | e Area | X WPM | = | Points | | |
| Slab Raised | 225.0(p) 0.0 | 8.9 0.00 | 2002.5 0.0 | Slab-On-Grade Edge Insulation | 0.0 | 225.0(p | 18.80 | | 4230.0 | | |
| Base Total: | | | 2002.5 | As-Built Total: | | 225.0 | · <u>-</u> - -: | | 4230.0 | | |
| INFILTRATION | Area X | BWPM | = Points | | | Area > | X WPM | = | Points | | |
| | 2103.0 | -0.59 | -1240.8 | | | 2103.0 | -0.59 | | -1240.8 | | |
| Winter Base | Points: | | 16603.5 | Winter As-Built Points: 23702.4 | | | | | | | |
| Total Winter X Points | System Multiplie | | ating Points | · ' | | System X Iultiplier | Credit Multiplier | | leating Points | | |
| 16603.5 | 0.627 | 4 | 10417.0 | (sys 1: Electric Heat Pump 360 23702.4 1.000 (1.00 23702.4 1.00 | 000 btuh ,EFF(7. 69 x 1.169 x 1.00 1.250 | | (S),Unc(R),G 1.000 1.000 | 1 | H),R6.0 2949.3 !949.3 | | |

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654- PERMIT #:

| BASE | | | | | | | Α | S-BUII | LT | | | |
|------------------------------------|---|------------|---|--------|----------------|-------|-----------------------|--------|-----------------|------------|-----------------------|--------|
| WATER HEA Number of Bedrooms | X | Multiplier | = | Total | Tank Volume | EF | Number of Bedrooms | X | Tank X Ratio | Multiplier | X Credit Multiplie | |
| 3 | | 2635.00 | | 7905.0 | 80.0 | 0.90 | 3 | | 1.00 | 2693.56 | 1.00 | 8080.7 |
| | | | | | As-Built To | otal: | | | | | | 8080.7 |

| | CODE COMPLIANCE STATUS | | | | | | | | | | | |
|--------------------------------------|------------------------|-----------------|-------------------|----|-------------------|---|---------------------|---|-----------------|--|--|--|
| BASE | | | | AS | -BUILT | | | | | | | |
| Cooling + Heating + Points Points | Hot Water = Points | Total Points | Cooling Points | + | Heating Points | + | Hot Water Points | = | Total Points | | | |
| 11631 10417 | 7905 | 29953 | 7445 | | 12949 | | 8081 | | 28475 | | | |

PASS



Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Eilm Church Road, Fort White, FL, 32654-

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

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

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 84.4

The higher the score, the more efficient the home.

Mallard, Eilm Church Road, Fort White, FL, 32654-

| 1. | New construction or existing | New | - | 12. | Cooling systems | | |
|------|-------------------------------------|--|---------|-----|--|------------------|----------------|
| 2. | Single family or multi-family | Single family | _ | a. | Central Unit | Cap: 36.0 kBtu/l | ır _ |
| 3. | Number of units, if multi-family | 1 | - | | | SEER: 13.00 |) _ |
| 4. | Number of Bedrooms | 3 | _ | b. | N/A | | |
| 5. | Is this a worst case? | No | | | | | |
| 6. | Conditioned floor area (ft²) | 2103 ft² | | c. | N/A | | |
| 7. | Glass type 1 and area: (Label reqd. | by 13-104.4.5 if not default) | | | | | |
| a. | U-factor: | Description Area | | 13. | Heating systems | | |
| | (or Single or Double DEFAULT) | 7a. (Dble Default) 323.2 ft ² | _ | a. | Electric Heat Pump | Cap: 36.0 kBtu/h | ır |
| b. | SHGC: | | | | | HSPF: 7.80 |) , _ |
| | (or Clear or Tint DEFAULT) | 7b. (SHGC=0.4) 289.8 ft ² | | b. | N/A | | |
| 8. | Floor types | | | | | | - |
| a. | Slab-On-Grade Edge Insulation | R=0.0, 225.0(p) ft | | c. | N/A | | |
| b. | N/A | | | | | | |
| c. | N/A | | | 14. | Hot water systems | | |
| 9. | Wall types | | | a. | Electric Resistance | Cap: 80.0 gallon | S |
| a. | Frame, Wood, Exterior | R=13.0, 1427.1 ft ² | | | | EF: 0.9 | 0 |
| b. | Frame, Wood, Adjacent | $R=13.0, 222.0 \text{ ft}^2$ | 1 | b. | N/A | | |
| c. | N/A | | | | | | 57.00 57.00 |
| d. | N/A | | | c. | Conservation credits | | |
| e. | N/A | | | | (HR-Heat recovery, Solar | | |
| 10. | Ceiling types | | | | DHP-Dedicated heat pump) | | |
| a. | Under Attic | R=30.0, 2148.0 ft ² | | 15. | HVAC credits | | |
| b. | N/A | | | | (CF-Ceiling fan, CV-Cross ventilation, | | |
| c. | N/A | | | | HF-Whole house fan, | | |
| 11. | Ducts | | | | PT-Programmable Thermostat. | | |
| a. | Sup: Unc. Ret: Unc. AH: Garage | Sup. R=6.0, 189.0 ft | | | MZ-C-Multizone cooling, | | |
| b. | N/A | | | | MZ-H-Multizone heating) | | |
| | | | | | | | |
| | | | | | | | |
| | are at a till to the | I salal mi il m | E 00 | | | | |
| | tify that this home has complie | | | | | THE STAN | |
| | struction through the above en- | | | | | A TO THE | MA |
| | is home before final inspection | | Display | Car | d will be completed | 18/m2 1 | 128 |
| base | d on installed Code compliant | features. | | | | | 181 |
| Buil | der Signature: | | Date: | | | | 15 |

*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.

City/FL Zip:

Address of New Home:

COLUMBIA COUNTY BUILDING DEPARTMENT

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

ALL DECLIDENCIES ADECUDICATE CHANGE

ALL REQUIREMENTS ARE SUBJECT TO CHANGE EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1606 SHALL BE USED.

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

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

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL GENERAL REQUIREMENTS; Two (2) complete sets of plans containing the following:

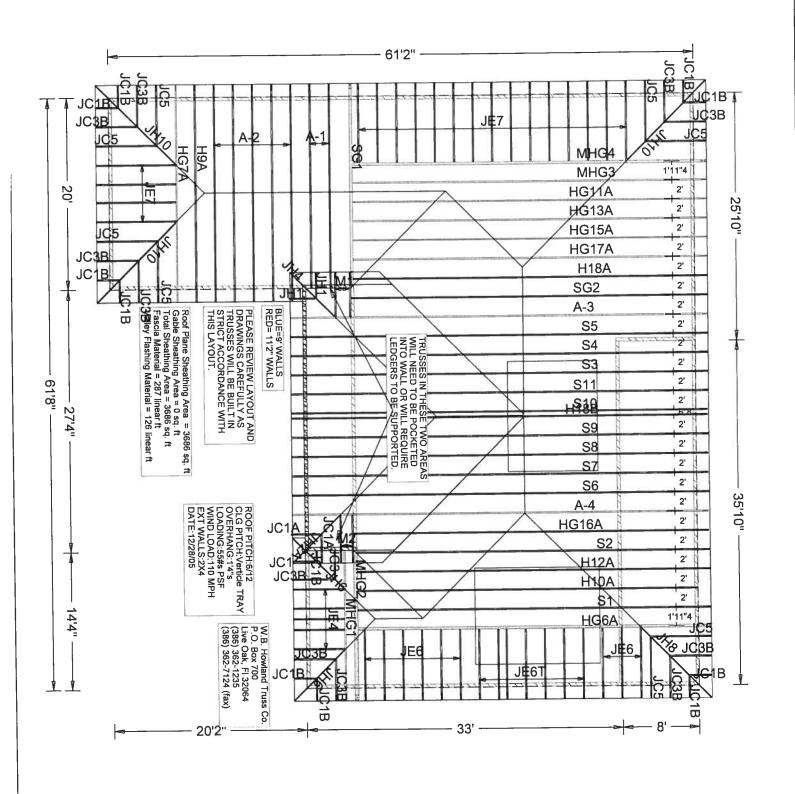
Applicant Plans Examiner All drawings must be clear, concise and drawn to scale ("Optional" P details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans. Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed. 1 Site Plan including: Dimensions of lot b) Dimensions of building set backs Location of all other buildings on lot, well and septic tank if applicable, and all utility Provide a full legal description of property. Wind-load Engineering Summary, calculations and any details required Plans or specifications must state compliance with FBC Section 1606 The following information must be shown as per section 1606.1.7 FBC Basic wind speed (MPH) Wind importance factor (I) and building category h. Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated The applicable internal pressure coefficient Components and Cladding. The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional **Elevations including:** a) All sides b) Roof pitch c) Overhang dimensions and detail with attic ventilation DAF d) Location, size and height above roof of chimneys e) Location and size of skylights f) Building height e) Number of stories

| | Floor Plan including: |
|----------|--|
| 0 | a) Rooms labeled and dimensioned |
| | b) Shear walls |
| | c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown) |
| | d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with |
| | hearth |
| | e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails |
| | f) Must show and identify accessibility requirements (accessible bathroom) Foundation Plan including: |
| 1 | a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing |
| D | b) All posts and/or column footing including size and reinforcing |
| | c) Any special support required by soil analysis such as piling |
| | d) Location of any vertical steel |
| 4 | Roof System: |
| | a) Truss package including: |
| | Truss layout and truss details signed and sealed by Fl. Pro. Eng. |
| | Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) |
| PNIA | b) Conventional Framing Layout including: |
| , | 1. Rafter size, species and spacing |
| | 2. Attachment to wall and uplift |
| | 3. Ridge beam sized and valley framing and support details |
| | Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) |
| | Wall Sections including: |
| DNA | a) Masonry wall |
| D 1914 | 1. All materials making up wall |
| | 2. Block size and mortar type with size and spacing of reinforcement |
| | 3. Lintel, tie-beam sizes and reinforcement |
| | 4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details |
| | All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation |
| | 6. Roof assembly shown here or on roof system detail (FBC 104.2.1 Roofing system, materials, |
| | manufacturer, fastening requirements and product evaluation with resistance rating) |
| | 7. Fire resistant construction (if required) |
| | 8. Fireproofing requirements |
| | 9. Shoe type of termite treatment (termicide or alternative method) |
| | 10. Slab on grade |
| | a. Vapor retardant (6mil. Polyethylene with joints lapped 6 inches and sealed) |
| | b. Must show control joints, synthetic fiber reinforcement or |
| | Welded fire fabric reinforcement and supports |
| | 11. Indicate where pressure treated wood will be placed |

12. Provide insulation R value for the following:

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

| | П | b) wood frame wall |
|----------|---------|---|
| | | 1. All materials making up wall |
| | | 2. Size and species of studs |
| | | Sheathing size, type and nailing schedule |
| | | 4. Headers sized |
| | | 5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail |
| | | All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers) |
| | | 7. Roof assembly shown here or on roof system detail (FBC104.2.1 Roofing system, materials, |
| | | manufacturer, fastening requirements and product evaluation with wind resistance rating) |
| | | 8. Fire resistant construction (if applicable) |
| | | 9. Fireproofing requirements |
| | | 10. Show type of termite treatment (termicide or alternative method) |
| | | 11. Slab on grade |
| | | a. Vapor retardant (6Mil. Polyethylene with joints lapped 6 inches and sealed |
| | | b. Must show control joints, synthetic fiber reinforcement or |
| | | welded wire fabric reinforcement and supports |
| | | 12. Indicate where pressure treated wood will be placed |
| | | 13. Provide insulation R value for the following: |
| | | a. Attic space |
| | | b. Exterior wall cavity |
| | | c. Crawl space (if applicable) |
| D VV | | c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. |
| | | Engineer or Architect) |
| , | | Floor Framing System: |
| D NA | | a) Floor truss package including layout and details, signed and sealed by Florida |
| 1 | | Registered Professional Engineer |
| MA | | b) Floor joist size and spacing |
| | | c) Girder size and spacing |
| | | d) Attachment of joist to girder |
| | | e) Wind load requirements where applicable |
| | | Plumbing Fixture layout |
| , | | Electrical layout including: |
| a | | a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified |
| u | | b) Ceiling fans |
| | | c) Smoke detectors |
| 0 | | d) Service panel and sub-panel size and location(s) |
| 2 5 | | e) Meter location with type of service entrance (overhead or underground) |
| V | | f) Appliances and HVAC equipment |
| Q/ | | g) Arc Fault Circuits (AFCI) in bedrooms |
| , | | HVAC information |
| ø' | | a) Manual J sizing equipment or equivalent computation |
| | | b) Exhaust fans in bathroom |
| D/ | | Energy Calculations (dimensions shall match plans) |
| DNA | | Gas System Type (LP or Natural) Location and BTU demand of equipment |
| D/MA | | Disclosure Statement for Owner Builders |
| Ø | | ***Notice Of Commencement Required Before Any Inspections Will Be Done |
| DAIR | | Private Potable Water |
| - 14 K | | a) Size of pump motor |
| | | b) Size of pressure tank |
| | | c) Cycle ston valve if used |



Job Name: BRIAN MALLARD RES.
Customer: KEYSTONE BLDG. CENTER
Designer: Lynn Bell

Columbia County Building Department,

This letter is in reference to Permit Number: 0601-30. In response to the request to verify that there will be tempered glass windows in the bathrooms above the tubs; the following is a list of the windows that will be tempered.

- 1. Master Bath above the Tub: 4040 window
- 2. Spare Bath above the Tub: 2030 window
- 3. One 3060 window on each side of French Door in Great Room

If you have any question on the above information please call anytime at: (352) 262-9820

Brian K. & Mary E. Mallard

Etall Horez & Mallorel

Mark Disosway, P.E.

POB 868, Lake City, FL 32056, Ph (386) 754-5419, Fax (386) 269-4871

January 19, 2006

Building Department

Re: Mallard Residence, 2048 SW Elm Church Rd. Fort White, Florida 32038

Dear Building Official:

The plans reviewer noticed certain structural discrepancies between the plans drawn by Mike Holmes and the sealed structural sheets sealed by Mark Disosway, PE. Please accept this letter as addendum to the plans for the above referenced house to ignore structural references from the plan sheets by Mike Holmes. Structural information on sheets S-1, S-2, and S-3 take precedence unless the truss engineering or *Florida Building Code 2004 Residential* has more stringent requirements.

Mark Disosway, PE

Florida Registered Professional Engineer

Mark Disosway, P.E.

POB 868, Lake City, FL 32056, Ph (386) 754-5419, Fax (386) 269-4871

January 19, 2006

Building Department

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Mark Disosway, PE

Florida Registered Professional Engineer

From:

The Columbia County Building Department

Plans Review

135 NE Hernando Av.

P. O Box 1529

Lake City Florida, 32056-1529

Reference to: Build permit application Number: 0601-30

Mathew Miller Owner Brian Mallard Lot 3 of Ichetucknee Highlands

On the date of January 17, 2006 application 0601-30 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 0601-30 when making reference to this application.

- 1. Please verify that the two windows near the bathrooms tubs areas, comply with the FRC-2004 section R308.4 Hazardous locations: Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers.

 Glazing in any part of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface.
- On page A-1 of the submitted plans general notes: 1 Footing design is based on min. soil bearing capacity of 2000 PSF. Please supply the following information The soils in the area in which this building permit application make reference to

are considered questionable soil by the MTH Residential Design as described in section 1802.2.1 of the FBC-2004 therefore please follow the prescribed testing methods of chapter 18 to reveal the soil load bearing capacities. Please have a registered professional conduct subsurface explorations at the project site upon which foundations are to be constructed, a sufficient number (not less than four, one boring on each corner of the building foundation) borings shall be made to a depth of not less than 10 feet (3048 mm) below the level of the foundations to provide assurance of the soundness of the foundation bed and its load-bearing capacity.

- 3. Please provided a recorded deed showing proof of ownership for Lot 3 of Ichetucknee Highlands
- 4. Please submit a recorded (with the Columbia County Clerk Office) a notice of commencement before any inspections can be preformed by the Columbia County Building Department.

Thank you,

Joe Haltiwanger Plan Examiner

Columbia County Building Department

Mallard Residence HVAC Load Calculations

for

Mary And Brian Mallard 7257 NW 4th Blvd. Gainesville, FL, 32607

Prepared By:

Ken Fonorow Florida H.E.R.O. Inc. 15220 NW 5 AVE Newberry, FL 32669 (352) 472-5661 Saturday, December 24, 2005

Project Report

General Project Information

Project Filename:

C:\Elite\Rhvacw\Projects\Mallard.rhv

Project Title: Designed By: Mallard Residence Ken Fonorow

Project Date:

12/22/05

Client Name:

Mary And Brian Mallard

Client Address: Client City:

7257 NW 4th Blvd.

Client Phone:

Gainesville, FL, 32607

Client Fax: Company Name: 352-262-9820 352-331-3895

Company Representative:

Florida H.E.R.O. Inc.

Company Address: Company City:

Ken Fonorow 15220 NW 5 AVE

Company Phone:

Newberry, FL 32669

Company Fax:

(352) 472-5661 (352) 472-2291

Company E-Mail Address: Company Website:

ken@floridahero.com www.floridahero.com

Company Comment:

Design Data Reference City:

Gainesville, Florida

Daily Temperature Range: Latitude:

Medium 29 Degrees

Elevation:

152 ft.

Altitude Factor:

0.995

Elevation Sensible Adj. Factor: Elevation Total Adj. Factor:

1.000 1.000

Elevation Heating Adj. Factor. Elevation Heating Adj. Factor: 1.000 1.000

Winter:

Summer:

Outdoor Indoor Indoor Grains Wet Bulb Dry Bulb Rel. Hum Difference 0 50 72 38 77 50 75

Check Figures

Total Building Supply CFM: Square ft. of Room Area:

1,200 2.103

20,367

CFM Per Square ft.: Square ft. Per Ton:

Air Turnover Rate (per hour):

0.571 744

3.5

Volume (ft3) of Cond. Space: **Building Loads**

Total Heating Required With Outside Air: Total Sensible Gain:

40,701 Btuh 26,109 Btuh 40.701 MBH

Total Latent Gain:

6,203 Btuh

81 % 19 %

Total Cooling Required With Outside Air:

32,312 Btuh

2.69 Tons (Based On Sensible + Latent) 2.83 Tons (Based On 77% Sensible Capacity)

50

Notes

Calculations are based on 8th edition of ACCA Manual J.

Outdoor

Dry Bulb

31

93

All computed results are estimates as building use and weather may vary.

Be sure to select a unit that meets both sensible and latent loads.

| Rhvac - Residential & Lig Florida H.E.R.O Newberry, FL 32669 | ht Commercial H | VAC Loads | | | Elite Software Do | evelopment, Inc. lallard Residence Page 3 |
|---|---|--|--------------------------------|--|--------------------------------|---|
| Miscellaneous I | Report | | | | | |
| System 1 First Floor Input Data Winter: Summer: | | Outdoor Dry Bulb 31 93 | Outdoor Wet Bulb 0 77 | Indoor Rel.Hum 50 50 | Indoor Dry Bulb 72 75 | Grains Difference 38.42 50.06 |
| Duct Sizing Inputs Calculate: Use Schedule: Roughness Factor: Pressure Drop: Minimum Velocity: Maximum Velocity: Minimum Height: Maximum Height: | Main Trunk Yes Yes 0.15000 0.1000 650 900 0 | in.wg./100 ft. ft./min ft./min in. in. | | in.wg./100 ft. ft./min ft./min in. in. | | |
| Outside Air Data Infiltration: | | Winter 0.160 AC/hr | (| nmer 0.080 AC/hr | | |

20,367 Cu.ft.

X 0.0167

3,259 Cu.ft./hr

54 CFM

50 CFM

---System 1---

Above Grade Volume:

Total Building Infiltration:

Total Building Ventilation:

Infiltration & Ventilation Sensible Gain Multiplier:

19.69 = (1.10 X 0.995 X 18.00 Summer Temp. Difference)

Infiltration & Ventilation Latent Gain Multiplier:

33.85 = (0.68 X 0.995 X 50.06 Grains Difference)

1,629 Cu.ft./hr

27 CFM

50 CFM

X 20,367 Cu.ft.

X 0.0167

Infiltration & Ventilation Sensible Loss Multiplier:

44.85 = (1.10 X 0.995 X 41.00 Winter Temp. Difference)

| Rhvac - Residential & Light Commercial HVAC Loads Florida H.E.R.O. Newberry, FL 32669 | | | Elite S | oftware Devel Malla | opment, Inc. rd Residence Page 4 |
|---|--------------------|--------------------|---------------------|--------------------------|--|
| Total Building Summary Loads | | | | | |
| Component Description 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = | Area Quan 12 | Sen Loss 403 | Lat Gain 0 | Sen Gain 330 | Total Gain 330 |
| 0.32, u-value 0.82 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color drapes with medium weave with 50% coverage, u-value 0.82 | 120 | 4,033 | 0 | 4,907 | 4,907 |
| 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.23, u-value 0.82 | 16 | 538 | 0 | 440 | 440 |
| 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.32, outdoor insect screen with 50% coverage, light color drapes with medium weave with 50% coverage, u-value 0.82 | 89.4 | 3,006 | 0 | 1,694 | 1,694 |
| 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.32, u-value 0.82 | 31.3 | 1,052 | 0 | 861 | 861 |
| 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.32, light color drapes with medium weave with 50% coverage, u-value 0.82 | 12 | 404 | 0 | 252 | 252 |
| 10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.32, outdoor insect screen with 50% coverage, light color drapes with medium weave with 50% coverage, uvalue 1.45 | 33.3 | 1,982 | 0 | 962 | 962 |
| 3A-m-o: Glazing-Double pane low-e (e = 0.40), operable window, metal frame no break, ground reflectance = 0.32, outdoor insect screen with 100% coverage, light color drapes with medium weave with 50% coverage, u-value 0.82 | 9 | 303 | 0 | 200 | 200 |
| 11D: Door-Solid Core | 20 | 320 | 0 | 226 | 226 |
| 11P: Door-Polyurethane Core | 31.1 | 371 | 0 | 262 | 262 |
| 12C-0sw: Wall-Frame, R-13 insulation in 2 x 4 stud cavity, no board insulation, siding finish, wood studs | 1649.1 | 6,154 | 0 | 3,674 | 3,674 |
| 16B-30: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, Dark Asphalt Shingles or Dark Metal, Tar and Gravel or Membrane, R-30 insulation | 1817.3 | 2,385 | 0 | 3,081 | 3,081 |
| 16CR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, Dark Asphalt Shingles or Dark Metal, Tar and Gravel or Membrane, R-30 insulation | 330.8 | 434 | 0 | 455 | 455 |
| 22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil | 225 | 9,124 | 0 | 0 | 0 |
| Subtotals for structure: People: Equipment: | 6 | 30,509 | 0 1,200 1,550 | 17,344 1,380 2,050 | 17,344 2,580 3,600 |
| Lighting: | 0 | E E 10 | 0.40 | 0 | 0 |
| Ductwork: Infiltration: Winter CFM: 54, Summer CFM: 27 | | 5,512 2,437 | 842 919 | 3,815 535 | 4,657 1,454 |
| Ventilation: Winter CFM: 50, Summer CFM: 50 | | 2,243 | 1,693 | 985 | 2,677 |
| Total Building Load Totals: | | 40,701 | 6,203 | 26,109 | 32,312 |

Rhvac - Residential & Light Commercial HVAC Loads Florida H.E.R.O. Newberry, FL 32669 Elite Software Development, Inc. Mallard Residence Page 5

Total Building Summary Loads (cont'd)

| Component | | | | Area | Sen | Lat | Sen | Total |
|-----------------------------------|----------|--------|------|----------|-------------|---------------|---------------|--------|
| Description | | | | Quan | Loss | Gain | Gain | Gain |
| Check Figures | | | | | | | | |
| Total Building Supply CFM: | 1,200 | | | CFM P | er Square f | t.: | 0.5 | 71 |
| Square ft. of Room Area: | 2,103 | | | Square | ft. Per Ton | : | 74 | 14 |
| Volume (ft³) of Cond. Space: | 20,367 | | | Air Turi | nover Rate | (per hour): | 3 | .5 |
| Building Loads | | | | | | | | |
| Total Heating Required With Outs | ide Air: | 40,701 | Btuh | 40.701 | MBH | | | |
| Total Sensible Gain: | | 26,109 | Btuh | 81 | % | | | |
| Total Latent Gain: | | 6,203 | Btuh | 19 | % | | | |
| Total Cooling Required With Outsi | ide Air: | 32,312 | Btuh | 2.69 | Tons (Ba | sed On Sensil | ble + Latent) | |
| | | • | | 2.83 | • | sed On 77% S | , | acity) |

Notes

Calculations are based on 8th edition of ACCA Manual J.

All computed results are estimates as building use and weather may vary.

Be sure to select a unit that meets both sensible and latent loads.

| Rhvac - Residential & Light Commercial HVAC Loads | |
|---|--|
| Florida H.E.R.O. | |
| Newherny El 32669 | |

Elite Software Development, Inc. Mallard Residence Page 6

| System | 1 | Room | Load | Summary |
|--------|---|------|------|---------|
|--------|---|------|------|---------|

Cooling

Net Required:

Recommended

Tons

2.69 2.83 Sensible/Latent

Split 81% / 19% 77% / 23%

| _ | | | | | | | | | | |
|-------|-----------------------|-------|-----------|-----|------|------|--------|-------|-------|-------|
| | 5 | | Htg | Htg | Run | Run | Clg | Clg | Clg | Air |
| | Room | Area | Sens | Nom | Duct | Duct | Sens | Lat | Nom | Sys |
| | Name | SF | Btuh | CFM | Size | Vel | Btuh | Btuh | CFM | CFM |
| Zo | ne 1 | | | | | | | | | |
| 1 | Master Bedroom | 254 | 4,335 | 57 | 2-6 | 491 | 3,425 | 531 | 185 | 193 |
| 2 | WIC 1 | 30 | 528 | 7 | 1-4 | 112 | 174 | 22 | 9 | 10 |
| 3 | WIC 2 | 30 | 40 | 1 | 1-4 | 33 | 51 | 0 | 3 | 3 |
| 4 | Master Bath | 163 | 2,455 | 32 | 1-5 | 471 | 1,141 | 434 | 61 | 64 |
| 5 | W/C | 19 | 790 | 10 | 1-4 | 150 | 233 | 87 | 13 | 13 |
| 6 | Study | 126 | 2,194 | 29 | 1-5 | 584 | 1,415 | 43 | 76 | 80 |
| 7 | Foyer | 80 | 1,654 | 22 | 1-4 | 631 | 978 | 33 | 53 | 55 |
| 8 | Dining Room | 126 | 2,298 | 30 | 1-5 | 503 | 1,218 | 52 | 66 | 69 |
| 9 | Bath 1 | 78 | 721 | 9 | 1-4 | 225 | 349 | 275 | 19 | 20 |
| 10 | Great Room | 352 | 4,786 | 62 | 2-6 | 455 | 3,176 | 665 | 171 | 179 |
| 11 | Kitchen | 255 | 2,891 | 38 | 2-5 | 623 | 3,019 | 696 | 163 | 170 |
| 12 | Breakfast | 77 | 2,989 | 39 | 1-6 | 511 | 1,783 | 75 | 96 | 100 |
| 13 | Pantry Closet | 39 | 369 | 5 | 1-4 | 92 | 143 | 14 | 8 | 8 |
| 14 | Bedroom 3 | 169 | 1,751 | 23 | 1-5 | 517 | 1,251 | 51 | 67 | 70 |
| 15 | Bath 2 | 51 | 756 | 10 | 1-4 | 333 | 516 | 275 | 28 | 29 |
| 16 | Bedroom 2 | 162 | 3,103 | 41 | 1-6 | 459 | 1,601 | 117 | 86 | 90 |
| 17 | Utility | 92 | 1,286 | 17 | 1-4 | 539 | 836 | 299 | 45 | 47 |
| | Ventilation | | 2,243 | | | | 985 | 1,693 | | |
| | Duct Loads | | 5,512 | | | | 3,815 | 842 | | |
| | System 1 total | 2,103 | 40,701 | 430 | | | 26,109 | 6,203 | 1,148 | 1,200 |
| Syste | em 1 Main Trunk Size: | | 16x16 in. | | | | | | | |
| Velo | city: | | 719 ft./ | | | | | | | |
| Loss | per 100 ft.: | | 0.234 in. | | | | | | | |
| Cooli | ng System Summary | | | | | | | | | |
| | | | | | | | | | | |

Sensible

26,109 26,109

Btuh

Latent

6,203 7,799

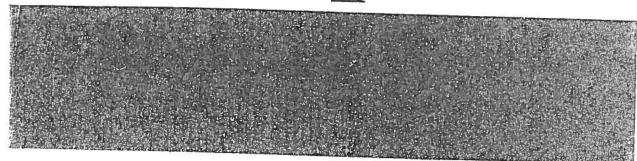
Btuh

Total

Btuh

32,312 33,907





AAMA/NWWDA 101/LS.2-97 TEST REPORT SUMMARY

Rendered to:

MI HOME PRODUCTS, INC.

SERICS/MODEL: 740/744/3740
TYPE: Aluminum Single Hung Window with Nail Fin

| Title of Test | Results | | | | |
|-----------------------------------|--------------------------|--|--|--|--|
| Rating | H-R45 52 x 71 | | | | |
| Overall Design Pressure | +45.0 psf | | | | |
| Operating Force | -47.2 psf 26 lb max. | | | | |
| Air Infiltration Water Resistance | 0.09 cfm/ft ² | | | | |
| | 6.75 psf | | | | |
| Structural Test Pressure | +67.5 psf -70.8 psf | | | | |
| Deglazing Formed Control | Passed | | | | |
| Forced Entry Resistance | Grade 10 | | | | |

serence should be made to Report No. 01-40656.04 for complete test specimen description and

: ARCHITECTURAL TESTING, INC.

11/1/11



AAMA/NWWDA 101/LS.2-97 TEST REPORT SUMMARY

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 740/744/3740
TYPE: Aluminum Single Hung Window with Nail Fin

| Title of Test | Results |
|--------------------------|-------------------------|
| Rating | H-R45 52 x 71 |
| Overall Design Pressure | +45.0 psf -47.2 psf |
| Operating Force | 26 lb max. |
| Air Infiltration | 0.09cfm/ft^2 |
| Water Resistance | 6.75 psf |
| Structural Test Pressure | +67.5 psf -70.8 psf |
| Deglazing | Passed |
| Forced Entry Resistance | Grade 10 |

Reference should be made to Report No. 01-40656,04 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hoss, Technician

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AAMA/NWY/DA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC. P.O. Box 370 Gratz, Pennsylvania 17030-0370

Report No: 01-40656.04
Test Date: 12/19/01
Report Date: 03/22/02
Expiration Date: 12/19/05

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to witness performance testing on a Series/Model 740/744/3740, aluminum single hung window at MI Home Products, Inc.'s test facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for an H-R45 52 x 71 rating.

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

Test Specimen Description

Series/Model: 740/744/3740

Type: Aluminum Single Hung Window With Nail Fin

Overall Size: 4'4-3/16" wide by 5' 1 4" high

Active Sash Size: 4' 2-3/4" wide by 2' .-3/4" high

Fixed Daylight Opening Size: 4' 1" wide by 2' 1" high

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

Finish All aluminum was painted

Glazing Details: The active sash and fixed lite utilized 1/2" thick sealed insulating glass units fabricated from two sheets of 1/8" thick clear annealed glass and a metal reinforced butyl spacer system. The lites were channel glazed utilizing a flexible vinyl wrap around gasket.

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

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01-40656.04 Page 2 of 5

Test Specimen Description: (Continued)

Weatherstripping

| Description | Quantity | Location |
|---|----------|---------------------------------|
| 0.290" high by 0.187" backed polypile with center fin | 1 Row | Fixed meeting rail interlock |
| 0.130" high by 0.157 backed polypile with center fin | 1 Row | Fixed lite, stiles and top rail |
| 3/8" diameter hollow bulb gasket | 1 Row | Bottom rail |
| 0.210" high by 0.187" backed polypile with center fin | I Row | Active sash stiles |
| 0.130" high by 0.187" wide polypile | 1 Row | Active sash stiles |

Frame Construction: All frame members were constructed of extruded aluminum with coped, butted and sealed corners fastened with two #8 x 5/8" screws each. Fixed sash was secured utilizing one #8 x 5/8" screw in each end directly through exterior face into jamb. Silicone was utilized around exterior meeting rail/jamb joint.

Sash Construction: All sash members were constructed of extruded aluminum with coped and butted corners fastened with one #8 x 5/8" screw.

Screen Construction: The screen frame was constructed from roll-formed aluminum members with plastic keyed corners. The screening consisted of a fiberglass mesh and was secured with a flexible vinyl spline.

Hardware

| Description | Quantity | Location |
|-----------------------|----------|--|
| Plastic tilt latch | 2 | On each end of the interior meeting rail |
| Metal sweep lock | 2 | 13" from meeting rail ends |
| Balance assembly | 2 | One per jamb |
| Screen tension spring | 2 | One per end of screen stile |
| Tilt pin | 2 | One each end of bottom rail |

allo no Kenn 22 MARCH ZOGZ



01-40656.04 Page 3 of 5

Test Specimen Description: (Continued)

Drainage

| Description | Quantity | Location |
|-------------------------|----------|---|
| 1/4" wide by 1/4" long | 2 | Ends of bottom rail, draining glazing cavity |
| 3/16" wide by 3/8" long | 2 | Fixed sash bottom rail, draining glazing cavity |

Reinforcement: No reinforcement was utilized.

Installation: The test buck was fabricated from 2 x 8 #2 Spruce-Pine-Fir. The unit was secured utilizing 1" galvanized roofing nails through the nail fin 12" on center. Polyurethane was used as a scalant under the nail fin and around exterior perimeter.

Test Results:

The results are tabulated as follows:

| Paragraph | Title of Test - Test Method | Results | Allowed |
|-----------|--|--------------|-------------------------------|
| 2.2 .6.1 | Operating Force | 26 lbs | 30 lbs max. |
| 2 .2 | Air Infiltration (ASTM E 283) @ 1.57 psf (25 mph) | 0.09 cfm/ft² | 0.30 cfm/ft ² max. |

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

| (with and without screen) | | |
|---------------------------|--|--|
| WTP = 6.75 psf | No leakage | No leakage |
| • | | |
| @ 38.8 psf (positive) | 0.06" | 0.21" max. |
| @ 52.0 psf (negative) | 0.07" | 0.21" щах. |
| | WTP = 6.75 psf Uniform Load Structural per ASTM (Measurements reported were taken (Loads held for 10 seconds) | (with and without screen) WTP = 6.75 psf No leakage Uniform Load Structural per ASTM E 330-97 (Measurements reported were taken on the meeting rail) (Loads held for 10 seconds) @ 38.8 psf (positive) 0.06" |

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01-40656.04 Page 4 of 5

Test Results: (Continued)

| Paragraph | Title of Test - Test Method | Results | Allowed |
|----------------|---|-------------------------------------|--------------------------|
| 2.2 6.2 | Deglazing Test per ASTM E 987 In operating direction at 70 lbs | | |
| | Top rail Bottom rail | 0.06"/12% 0.06"/12% | 0.50"/100% 0.50"/100% |
| | In remaining direction at 50 lbs | | |
| | Left stile Right stile | 0.03"/6% 0.03"/6% | 0.50"/100% 0.50"/100% |
| 2 .8 | Forced Entry Resistance per ASTIV | 1 F 588-97 | |
| | Type: A Grade: 10 | | |
| | Lock Manipulation Test | No entry | No entry |
| | Test A1 thru A5 | No entry | No entry |
| | Tost A7 | No entry | No entry |
| | Lock Manipulation Test | No entry | No entry |
| Optional Perfo | ппапсе | | , |
| • | Uniform Load Deflection per AST (Measurements reported were take (Loads held for 52 seconds) | ME 330-97 n on the meeting rail) | |
| | @ 45.0 psf (positive) @ 47.2 psf (negative) | 0.83" [*] 0.62"* | 0.30" max. 0.30" max. |
| * Exceeds L/1 | 75 for deflections, but meets all othe | r test requirements. | |
| 4.4.2 | Uniform Load Structural per ASTI (Measurements reported were take (Loads held for 10 seconds) | | |
| | @ 67.5 psf (positive) | 0.17" | 0.21" max. |
| | @ 70.8 psf (negative) | 0.13" | 0.21" max |



01-40656.04 Page 5 of 5

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. Hes Technician

MAHibaw 01-40656.04 Allen N. Reeves, P.E.

Director - Engineering Services

22 MARKES ZOOZ

TLI

MI HOME PRODUCTS - PRIME ALUMINUM WINDOWS -INSTALLATION INSTRUCTIONS FOR "NAIL FIN" PRODUCTS

MI Home Products 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.
- 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 before any and all 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 60, do not exceed 16". Install load bearing shim adjacent to each anchor. Use shim where space exceeds 1/16".
- 4. Flash over head and caulk outside perimeter in accordance with code requirements and good installation practices.
- 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 serosol type insulating foam, which can bow the frame, walves all stated warranties.
- 6. Remove plaster, mortar, paint and any other debris that may have collected on the unit and make sure that sash/vent tracks and interlocks are also clear. 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 as you would you automobile.

- CAUTION -

MI Home Products 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. Mi Home Products window products are not provided with safety glazing unless specifically ordered with such. Many laws and codes require safety glazing near doors, bathtubs, and shower enclosures. Also be aware of emergericy egress code requirements.

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

BETTER-EHT SERIES 540/740/744 SASH REPLACEMENT INSTRUCTIONS

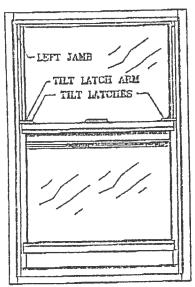


FIGURE 1 (INSIDE VIEW)

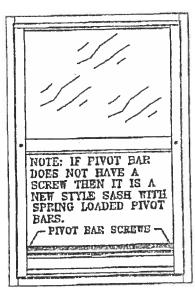


FIGURE 3

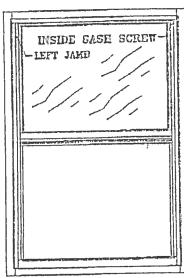


FIGURE 5 (INSIDE VIEW)

STEP 1 3740

RAISE OPERATING SASH
APPROXIMATELY 2". TILT
THE SASH OUT BY PULLING
THE TILT LATCH ARMS TOWARD
THE CENTER WHILE PULLING
OUT ON THE TOP OF THE SASH
(SEE FIG. 1). REMOVE THE
SCREEN.

NOTE: TILTING THE SASH TO 90° LOCKS THE BALANCE SHOE SO IT DOESN'T "FLY UP" AND DAMAGE THE BALANCE.

STEP 2

TILT SASH OUT UNTIL IT
IS PERPENDICULAR TO THE
WINDOW (SEE FIG. 2),
WITH THE SASH STILL TILTED,
THE PIVOT BARS ARE SPRING LOADED.
SLIDE BAR TOWARD THE CENTER UNTIL
IT DISENGAGES FROM THE WHITE
PLASTIC PIVOT SHOE IN THE JAMB.
LIFT UP ON THE SAME SIDE AND
REMOVE THE PANEL (SEE FIG. 3).

STEP 3

TO REMOVE THE FIXED SASH,
UNSCREW THE TWO OUTSIDE
MEETING RAIL SCREWS (SEE FIG.
4). NOTE: IF YOU HAVE THE OLD
STYLE WINDOW THEN THE MEETING
RAIL CAN NOW BE REMOVED (AND
DISCARDED) BY PULLING DOWN ON
IT IN THE CENTER.
WHILE HOLDING UP ON THE FIXED
SASH REMOVE THE SCREW IN THE
INSIDE, TOP, RIGHT HAND CORNER.
(SEE FIG. 5)
THE SASH SHOULD NOW BE FREE
TO DROP DOWN APPROXIMATELY 2".
NOTE: THE OLD STYLE HAS A VINYL
SPACER IN THE LEFT JAMB THAT
SHOULD BE REMOVED AT THIS TIME.
SHIFT THE SASH TO THE LEFT FAR
ENOUGH TO CLEAR THE RIGHT JAMB.
PULL THE RIGHT SIDE OF THE SASH

TOWARD YOU TO REMOVE.



TO REPLACE THE NEW FIXED SASH, PLACE THE NOTCHED SIDE INTO THE LEFT JAMB AND SWING IT INTO POSITION. SLIDE IT TO THE RIGHT AND UP TO LINE UP THE HOLES ON THE MEETING RAIL SCREW THE MEETING RAIL INTO PLACE. REINSERT THE SCREW ON THE INSIDE, TOP, RIGHT HAND HOLE (SEE FIG. 6).

STEP 5

PEINSTALL THE OPERATING SASH BY REVERSING STEPS 1 AND 2.

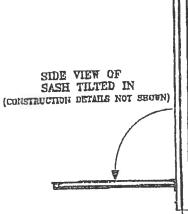


FIGURE 2

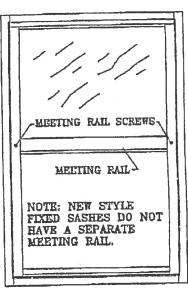


FIGURE 4 (OUTSIDE VIEW)

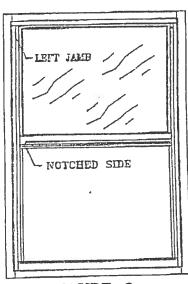


FIGURE 6 (INSIDE VIEW)

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Architectural Testing

ANSI/AAMA/NWWDA 101/LS.2-97 TEST REPORT

Rendered to:

MITHOME PRODUCTS, INC.

SERIESNIODEL: 480/680 Deop-in ... \$50 PRODUCT TITE: Aluminum Florizontal Silding Window (XO-Flange)

| | Results | |
|---------------------------------------|---------------------------|--------------------------|
| / Thic | Test Specimen #1. | Test Succinien #2 |
| Raine. | E S-C30.71 x 71 | . HS+C3571 x 59 |
| Operating Force | 12; Jbf max. | 9 tbf.max. |
| Air Infiltration | 0.10 cfir/Il ² | 0.12 c/m/fl ² |
| Water Resistance Test Pressure | 5.3 psf | 5.3 psf |
| Uniform Load Deflection Test Pressure | = 32.6 psl -41.9 psl | - 45.0 psl* |
| Uniform Sunctumi Load Test Pressure | - 48.9 psf -62.8 psf | ~ 67.5 psf -70.8 psf |
| Forced Entry Resistance | Grade 10 | Grade 10 |

Reference should be made to ATI Repair Identification No. 01-47520.02 for complete test specimen description and data.

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01-47320,01 Fage 2 of 7

Test Specimen Descriptions (Continued)

Test Specimen #1: HS-C35 71 x 59

Overall Size: 5' 11-3/8" wide by 4' 11-1/8" high

Active Sash Size: 2'11-5/8" wide by 4'8-1/4" high

Fixed Daylight Opening Size; 2' 8-1/4" wide by 4' 5-7/8" high

Screen Size: 2' 10-14" wide by 4' 7-1/8" high

The following descriptions apply to all specimens.

Finish: All aluminum was white.

Glazing Details: The window utilized Sign thick sealed insulating glass constructed from two sheets of 1/8" thick clear annealed glass and a Swiggle spacer system. The lites were interior glazed onto double-sided adhesive from tape and scouted with PMC snap-in glazing leads.

Weathersungping:

| Description | <u> </u> | Lecation |
|---|----------|---|
| 0.256" high by 0.187" bucked polypile with comer in | 1 Row | Active such rails, handle stilles and fixed meeting rail interlooks |

Frame Construction: The frame was constructed of thermally broken extruded aluminum. The corners were secured utilizing three #8 x 1" screws per coner through the jambs into the bend and sill screw bosses. End caps were utilized on the ends of the fixed meeting rails and secured with two #8 x 3/4" screws per cap. The meeting rails were then secured to the frame with two #8 x 3/4" screws per cap. The meeting rails were then secured to the frame with two #8 x 3/4" screws.

Sash Construction. The seek was constructed of thermally broken extruded aluminum. The contrib were secured utilizing one #8 \times 1" serew per corner through the head and sill into the jamb screw bosses.

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

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01-47520.02 Page 2 of 7

Test Specimen Description: (Continued)

Test Specimen #2: HS-C35 71 x 59

Overall Size: 5' 11-3/8" wide by # 11-1/8" high

Active Sash Size: 2' 11-5/8" Wide by 4'.5-1/4" high

Fixed Daylight Opening Size: 2' 8-1/4" wide by 4' 5-7/8" high

Screen, Size: 2' 10-1/4" wide by 4' 7-4/8" high

The following, descriptions apply to all specimens.

Finish: All aluminum was white

Glazing Details: The window utilized 5/8" thick sealed insulding glass constructed from two sheets of 1/8" thick clear annealed glass and a Swiggle spacer system. The lites were interior glazza onto double-sided adhesive from tape and secured with PMC snap-in glazing leads.

Weatherstripping:

| Description | Quantity. | Location |
|--|-----------|--|
| 0.250" high by 0.187"backed polypile with center lin | l Row | Active sost rails, handle stiles and fixed meeting and interforalis. |

Frame Construction. The frame was constructed of thermally broken extraded aluminum. The corners were secured utilizing three #8 x 1" serews per corner through the jambs into the head and sill surely bossess. End caps were utilized on the ends of the fixed meaning rails and secured with two #8 x 8/4" screws per cap. The meeting rails were then secured to the frame with two #8 x 3/4" screws.

Such Construction: The such was constructed of thermally broken extruded aluminum. The corners were secured utilizing one #8 x 1" screw per corner through the head and sill into the jarney screw-bosses.

Screen. Construction: The series was constructed from roll-formed aluminum with keyed corners. The fiberglass most was seemed with a flexible vinyl spline.

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Test Results: (Commued)

MI HOMES

| t Results: (Co | agginued) | | |
|----------------|--|---|--|
| Paragraph | Title of Test - Test Method | Results | Allowed |
| Test Specien | en#1: HS-C30 71 x 71 (Commued) | | |
| 2.1.3 | Water Resistance per ASTM E 5 (with and without screen) 4.50 psf | 47-00 No leakage | No leakage |
| 2.1.4.1 | Uniform Load Delication per AS (Deflections reported were taken (Loads were hold for 52 seconds 30,0 per (positive) 50.0 per (positive) | 1,37" 1,23" | Sec Male #2 Sec Mate #2 |
| 10170 9 3503 | the Uniform Load Deflection test for this product designation. The compliance and information only. | is not réquirement of défléction d'ila is réét | ANSUAAMAINW WIDA orded in flus report fir |
| 2.1.4.2 | Uniform Load Structural per AS (Permanent sets reported were to (Loads were held for 10 seconds 45.0 psf (positive) 45.0 psf (pesative) | WELL OIL HIS LIVE CONTRACT |) 0,26" max. 0,26" max. |
| 2:2:2:5:2 | Deslozing liest per ASTME 98 In operating direction - 70 lbs Handle stile Lock stile | 7 0.137/25% 0.137/25% | 0.50*/100% (),50*·100% |
| | In armaining direction - 50 lbs Top rail Bouom vail | 0,06"/13% 0,06"/13% | 0.50"/100% 0.50"/100% |
| 2.1.8 | Enrockl. Enjoy Resistance por A | STM, F'588-97: | |
| | Typis: A | Grade: 10 | |
| | Lock Munipulation Test | No entry | Notentry |
| | Test A1 digu A5 | אָס מוונאי | No entry |
| | Test A7 | No entry | No cutry |
| | Look Manipulation Test | No entry | No entry |

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Test Results: (Continued)

| st Results: (Con | (ATTITICE) | | |
|------------------|--|---|---|
| Paragraph | Tide of Test - Test Method | Results | VIIonery |
| Test Specimer | 1#1: HS-C31171 x 71 (Consinue) | | |
| 2.1.3 | Waler Resistance per ASTIVI E- (with and without speed) 4:50 psi | 547-00 Pg:Teaknye | Nú leakago |
| 2.1.4.1 | Uniform Load Deflection per A (Deflections reported were like (Loads were held for 52 second | le) | Sec Note #2 |
| | 30.0 psf (positive) 30.0 psf (negative) | 1.37" | See Note 112 |
| - 101718 7-97 (| e Uniform Load Deffection test or this product designation. The ompliance and information only | e achienten men | ANSIMAMANIYIDA probed in this report for |
| 2.1.4.2 | Uniform Load Structural per Al (Permanent sets epported were | STM E330. ndoji oji dis mesting stde |) |
| | (Loads were held for 10 second 45,0 psf (positive) 45,0 psf (negative) | 4s): 0.12° 0.04° | 0,26",nax. 0.26" nax. |
| 2.2.2.5.2. | Deglazing Test per ASTM E 9 In operating direction - 70 lbs | 87 | |
| | Handle suite Lacte suite | 0.13°/25°% 0/137/25% | 0.50"/100% 0.50"/100% |
| | In remaining direction - 50 lbs | | |
| | Top rail Boltom rail | 0,06713% 0,06713% | 0.50°/100% 0.50°/100% |
| 2.1.8 | Forced Entry Resistance per A | ASTM F 588-97 | |
| | Type: A | Grade: 10 | |
| | Look Manipulation Test | No entry | No entry |
| | Test A1 thru AS | No corry | No entry |
| | Test A7 | Νο επιτ | No.cury |
| | Lock Manipulation Test | िंग्ठ ध्यापु | No entry |

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مد مدروسد و استمال المستعدد المستعدد و

01-47520,02 Páge 5 of 7

| Test | Mesulis: | (Continued) |
|------|----------|-------------|

| Test Specimen #1: HS-C30 71 x 71 (Confinued) | of Diffanties I con | red ferrary 1 | | • | |
|--|------------------------|---|------------------------------|-----------------------------|-----|
| 4.3 Water Resistance (per ASTM E 547-00 (with and without street). 5,3 psf No leakage No leakage 4.4.1 Uniforn Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for \$2 seconds) 32.6 psf (positive) 1.52" See Note #2 32.6 psf (positive) 1.52" See Note #2 41.9 psf (negative) 1.52" See Note #2 41.9 psf (negative) 1.52" See Note #2 42.2 Uniform Load Structural per ASTM E 330 (Permanent sets imported were taken on the meeting stile) (Loads were held for 10 seponds) 48.9 psf (negative) 0.20" 0.26" max. Test Spechmen #2: HS-C35 71 x 59 2.2.2.5) Operating Force 9 lbf 25 lbf max. 2.1.2 Air Infilitation per ASTM E 283 1.57 psf (25 mph) 0.12 clinvit 0.3 clin/ft max. Note #1: The resid spicition meets the herformaince levels specified ANSIGAMAINWEDA 1011.8, 2-97 for still infilitation her ASTM E 34-00 (with and without screen) 4.50 psf No leakage No leakage 2.1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for \$2 seconds) 30.0 psf (positive) 0.37" See Note #2 50.0 psf (negative) 0.03" See Note #2 71.4.2 Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for \$2 seconds) 30.0 psf (negative) 0.03" See Note #2 71.4.2 Uniform Load-Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for \$10 seconds) 4.50 psf (positive) 0.03" 0.21" meeting stile) (Loads were held for \$10 seconds) 4.50 psf (positive) 0.03" 0.02" negative) | <u> विधायकार्य</u> | Title of Test - Test Method | Results | Allowed | |
| Water Resistance per ASEM E 547-00 (with and without screen) 5,3 per No leakage No leakage 4.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meding stile) (Loads were held for \$2\$ seconds) 32.6 psf (positive) 41.9 psf (negative) 4.4.2 Uniform Load Structural per ASTM E 330 (Permanent sets topforted were taken on the meeting stile) (Loads were held for 10 seponds) 48.9 psf (positive) 48.9 psf (positive) 62.8 psf (positive) 62.8 psf (positive) 7.1.2 Air Intilitation per ASTM E 283 1.57 psf (25 mph) 8.1.2 Air Intilitation per ASTM E 283 1.57 psf (25 mph) 8.1.3 Water Resistance per ASTM E 380 (permanent sets topforted were taken on the meeting stile) (Cloads were held for 52 seconds) 4.50 psf 4.50 psf (positive) 6.237" 8ee Note #2 8ee Not | Test Specimer | 1 #1: HS-C30 71 x 71 (Confinued) | | | |
| (with and without screen). 5.3 psf Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for \$2 seconds) 32.6 psf (positive) 41.9 psf (negative) 1.52" See Note #2 4.4.2 Uniform Load Structural per ASTM E 330 (Permanent sets apported were taken on the meeting stile) (Loads were held for 10 seconds) 48.9 psf (positive) 62.8 psf (negative) 1.52" Capture 62.8 psf (negative) Operating Force 9 lbf 25 lbf max. Test Specimen #2: HS-C35 71 x 59 2.2.2.5) Operating Force 9 lbf 25 lbf max. Air Institution per ASTM R 283 1.57 psf (25 mph) O.12 cfm/li ² O.3 cfm/li ² max. Note #1: The tested spacetimen meets the herforthence levels specified ANSI/AMA/NWW/DA 101178, 2-97 for six infiltration. 2.1.3 Water Resistance per ASTM E 547-00 (with and without sixten) 4.50 psf (negative) Operating Force and meeting stile) (Loads were held for \$2 seconds) 30,0 psf (negative) 0.62" See Note #2 1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for \$2 seconds) 30,0 psf (negative) Uniform Load Struptural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for \$2 seconds) 30,0 psf (negative) Uniform Load Struptural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for \$10 seconds) 450 psf (negative) 0.03" 0.21" max. | Cipcional Perfor | | | | |
| (Deflections reported were taken on the meeting stite) (Loads were held for \$2 seconds) 32.6 psf (positive) 41.9 psf (negative) 1.52" See Note #2 4.4.2 Uniform Load Structural per ASTM £ 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 48.9 psf (positive) 62.8 psf (negative) 62.8 psf (negative) 62.8 psf (negative) 62.8 psf (negative) 7.20" 1.52" 1.52" 1.52" 0.22" 0.26" max. 0.10 fm/ft max. 0.10 cfm/ft max. 0.11 fm/ft max. 0.12 cfm/ft max. 0.13 fm/ft max. 0.14 fm/ft/Structural meeting the helforinging levels specified distribution. 0.14 fm/ft/Structural per ASTM £ 547-00 (with and without street) 0.50 psf No leskage No leakage 0.1.4.1 Uniform Load Deflection per ASTM £ 330 (Deflections reported were taken on the meeting stile) (Loads were held for \$2 seconds) 30.0 psf (positive) 30.0 psf (positive) 0.37" See Note #2 See Note #2 See Note #2 1.4.2 Uniform Load Structural per ASTM £ 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for \$10 seconds) 0.62" 0.73" 0.21" max. | 4.3 | (With and without screen). | | No lepkuje | |
| (Fernation sets apported were taken on the intertung state) (Loads were field for 10 seconds) 48.9 psf (preditive) 62.8 psf (negative) 62.8 psf (negative) 62.8 psf (negative) 62.20" 62.8 psf (negative) 62.2 psf (negative) 62.8 psf (negative) 62.2 psf (negative) 62.8 psf (negative) 62.2 | 4.4.1 | (Deflections reported were taken of (Loads were held for \$2 seconds) .32,6 psf (positive) | n the meaning still | Sec. Note #2 Sec Note #2 | |
| 2.1.2 Air Indition per ASTM P. 283 1.57 psf (25 mph) 0.12 clin/lit max. Note: #1: The rested spacinian meets the heriformance levels specified ANSI/AMA/NUMDA 101/LS, 2-97 for pir infiltration. 2.1.3 Water Resistance per ASTM E. 547-00 (with and without screen) 4.50 psf No leskage No leakage 2.1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 30,0 psf (positive) 0.02" See Note #2 50.0 psf (negative) 0.05" 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) (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 45.0 psf (positive) 0.03" 0.21" mps. | 4.4.2 | (Fernacent sets reported were tak (Loads were held for 10 seconds) 48,9 psf (postive) | 0.22"; 0.22"; | | |
| 2.1.2 Air Infiltration per ASTM P. 283 1.57 psf (25 mph) 0.12 cfin/ft ² max 1.57 psf (25 mph) 0.12 cfin/ft ² 0.3 cfin/ft ² max Nute #1: The tested specifical inertial the heriformainer levels specified ANSI/GAMA/NWW/DA 101/15, 2-97 for air infiltration. 2.1.3 Water Resistance per ASTM E. 547-00 (with and without screen) 4.50 psf Uniform Load Deflection per ASTM E. 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 30.0 psf (pesitive) 30.0 psf (pesitive) 50.0 psf (pesitive) C. 330 Uniform Load Structural per ASTM E. 330 (Permantent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 45.0 psf (positive) 0.03" 0.21" max. 45.0 psf (positive) 0.03" 0.21" max. | Test Speelme | n #2: HS-C35 71 x 59 | | | |
| Nute #1: The tested specimen meets the herformance levels specified AVSI/AMA/NWW/DA 101/LS, 2-97 for air infillmenton. 2.1.3 Water Resistance per ASTM E 547:00 (with and without sizeen) 4.50 psf No leakage No leakage 2.1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Lipads were held for 52 seconds) 30,0 psf (positive) 30,0 psf (negative). 0.62" See: Note #2 30.0 psf (negative). 0.37" See Note #2 2.1.4.2 Uniform Load Structural per ASTM E 330 (Permatent sets reported were taken on the meeting stile) (Lipads were held for 10 seconds) 45.0 psf (positive) 0.03" 0.21" trus. | 2.2.2.5 1 | Ореглинд Рогов | 9 lbf | 25 lbf max. | |
| 2.1.3 Water Resistance per ASTM E 547-00 (with and without sercen) 4.50 psf No leakage 2.1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 30,0 psf (positive) 30,0 psf (positive) 50.0 psf (negative) 7.1.4.2 Uniform Load Structural per ASTM E 330 (Permanent sets reported were taken on the meeting stile) (Loads were held for 10 seconds) 45.0 psf (positive) 0.03" 0.21" meeting stile) | 2.1.2 | 1,57 psf (25 mpb) | | | |
| (With and without streep) 4.50 psf No leskage No leskage 2.1.4.1 Uniform Load Deflection per ASTM E 330 (Deflections reported were taken on the meeting stile) (Loads were held for 52 seconds) 30.0 psf (pesitive) 30.0 psf (pesitive) 30.0 psf (negative) 30.0 psf (negative) Uniform Load Structural per ASTM E 330 (Permantant set's reported twee taken on the meeting stile) (Loads were held for 10 seconds) 45.0 psf (positive) 0.03" 0.21" mea | Nute #12 ANSI/AAMAI | The tested specimen meets NWWA 101/18, 2-97 for air 11911 | i the performence tration | ievals specified | ·Ľŋ |
| (Deflections reported were taken on the meeting site) (Lipads were held for 52 seconds) 30,0 psf (positive) 30,0 psf (positive | 2.1.3 | (with and without spreen) | | No leakage | |
| (Permanentials reported issue taken on the meeting sole) (Leads were held for 10 seconds) (2.1" meeting sole) (3.21" meeting sole) | 2.1,4.1 | (Deflections reported were taken (Lipads were held for 52 second: 30,0 psf.(positive) | on the meeting site) | | |
| | 2:1:4:2 | (Perinatonrsets reported were to (Loads were held for 10 second 45.0 psf (positive) | s) 0.03" | 0.21" med. | |

Test Results: (Commund)

| 'Y Techanon' (con | | | |
|--------------------|--|-------------------------------------|----------------------------|
| Pacagrapia | Title of Test - Test Motlad | Results | Allowed |
| Test Spelimen | <u>uff2</u> : HS-C35 71 x 59.(Continued) | | |
| 22,252 | Deglazing Test per ASTM EVET In operating direction - 70 lbs. | | |
| | Handle stile Lock stile | 0.06"/13% 0.06" ¹ 13% | 0.50"/100% 0.50"/100% |
| | In remaining direction - 50 lbs | | |
| | Top rail Bollera rail | 0.03"/6% 0.03"/6% | 0.50"/100% 0.50"/100% |
| 2.1.\$ | Forced Entry Resistance per ASTM | .F.588-97 | |
| | Туре: А | Grade: 10 | |
| | Lock Manipulation Test | No entry | No-entry |
| | Test A1 thm A5 | No entry | No ontry |
| • | Tost A7 | No entry | No entry |
| | Look Munipulation Test | No contry | Noentry |
| Optional Ferfo | भूतिकारण्ड | | |
| 4,3 | Water Resistance had ASTM E 54' (with and without some) | 7-00 | |
| | 5.3 psf | No leakage | Me jegkněk |
| 4.4.1 | Uniform Load Deflection per ASTI (Deflections reported were taken or | n dip nexting side) N E 330 | |
| | (Loads were held for 52 seconds) 45.0 psf (positive) 47.2 psf (negative) | 0,93" 077" | See Note #2 See Note #2 |
| 4.4.2 | Uniform Load Structural per ASTN (Permanent sets reported were mk | ME 330 en on the meeting stile) | |
| | (Loads were held for 10 seconds) 67.5 psf (positive) 70.5 psf (negative) | 0.13 ⁿ | 0.21" max 0.21" max |

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MIAMI-DADE COUNTY, FLORID METRO-DADE FLAGLER BUILDIN

BUILDING CODE COMPLIANCE OFFIC METRO-DADE FLAGLER BUILDING 140 WEST FLAGLER STREET, SUFFI 160 MIAMI, FLORIDA 33130-136 (305) 375-2901 FAX (305) 375-290

CONTRACTOR LICENSING SECTIO (305) 375-2527 FAX (303) 375-253

CONTRACTOR ENFORCEMENT DIVISIO: (305) 375-2966 FAX (305) 375-290

PRODUCTI CONTROL, INVISION (305) 372-6330

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Jeld-Wen, Inc 3250 Lakeport Drive Klamath Falls ,OR 97601

Your application for Notice of Acceptance (NOA) of:

Jeld-Wen series "Nord/Morgan" Inswing Double Opaque Wood Doors w/Surfacebolts
under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of
Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade
County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

ACCEPTANCE NO.: 01-0206.28 EXPIRES: 12/06/2004

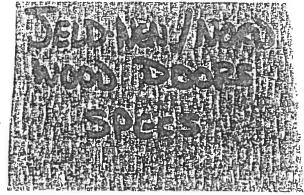
Raul Rodriguez Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS

BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

APPROVED: 12/06/2001



Francisco J. Quintana, R.A.

Pravious / Quintera

Director

Miami-Dade County

Building Code Compliance Office

Jeld-Wen. Inc.

ACCEPTANCE No.: 01-0206.28

APPROVED

December 06.

EXPIRES "

December 06,

NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS

SCOPE I.

1.1 This approves a wood door, as described in Section 2 of this Notice of Acceptance, designa comply with the South Florida Building Code (SFBC), 1994 Edition for Miami-Dade County the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exthe Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

The Jeld-Wen Series "Nord/Morgan" - Inswing Double Opaque Wood Door-W/ Surface | 2.1 -and its components shall be constructed in strict compliance with the following docum-Drawing No S-2039, titled "Wood stile & rail door, Opaque 6-8/8-0 Inswing Double Doors" SI 1 through 7 of 7 dated 07/24/00, 05-03-01, 08-23-01 and last revised on 09-05-01, prepared b W. Building Consultant Inc., bearing the Miami-Dade County Product Control approval stamp the Notice of Acceptance number and approval date by the Miami-Dade County Product Co Division. These documents shall hereinafter be referred to as the approved drawings.

LIMITATIONS 3.

- This approval applies to single unit applications of Inswing double door, as shown in approved drawings. Inactive panel must contain surface bolts or retainer bolts at top & bottom.
- Unit shall be installed only at locations protected by a canopy or overhang such that the angle 3.2 between the edge of canopy or overhang to sill is less than 45 degrees. Unless unit is installed in non-habitable areas where the unit and the area are designed to accept water infiltration.

4. INSTALLATION

- The Inswing wood door and its components shall be installed in strict compliance with the appro 1.I drawings.
- Hurricane protection system (shutters): the installation of these units will require a hurric 1.2 protection system

LABELING

Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved".

BUILDING PERMIT REQUIREMENTS

- Application for building permit shall be accompanied by copies of the following:
 - This Notice of Acceptance
 - 6.1.2 Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation
 - Any other documents required by the Building Official or the South Florida Building Cod 6.1.3(SFBC) in order to properly evaluate the installation of this system.

Ishaq I. Chanda Ishaq I. Chanda, P.E. Product Control Examin

Jeld-Wen. Inc.

ACCEPTANCE No.: _

01-0206.23

APPROVED

December 06.

EXPIRES

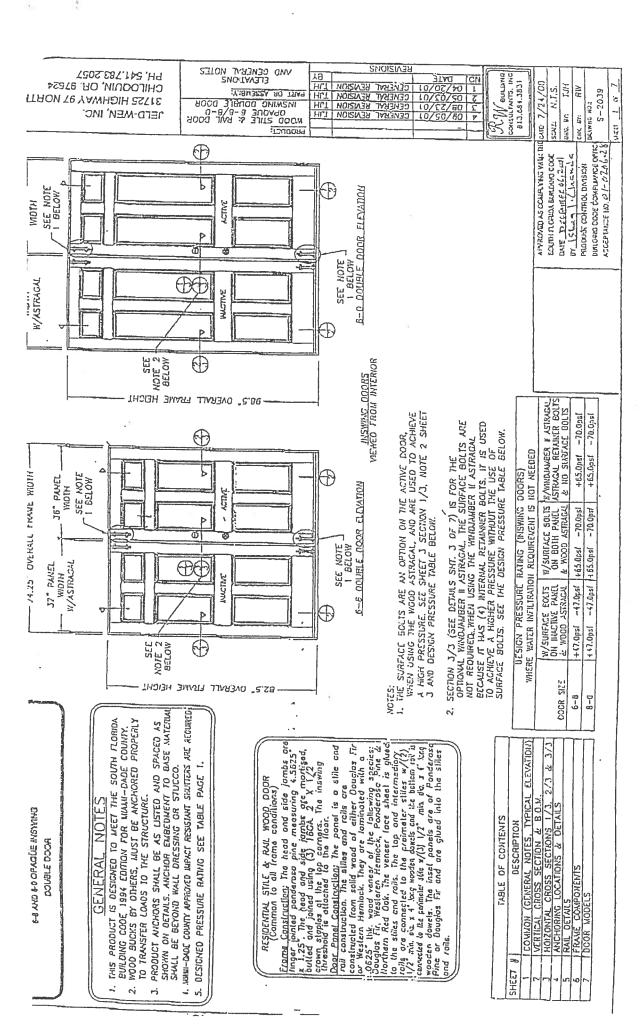
December 06.

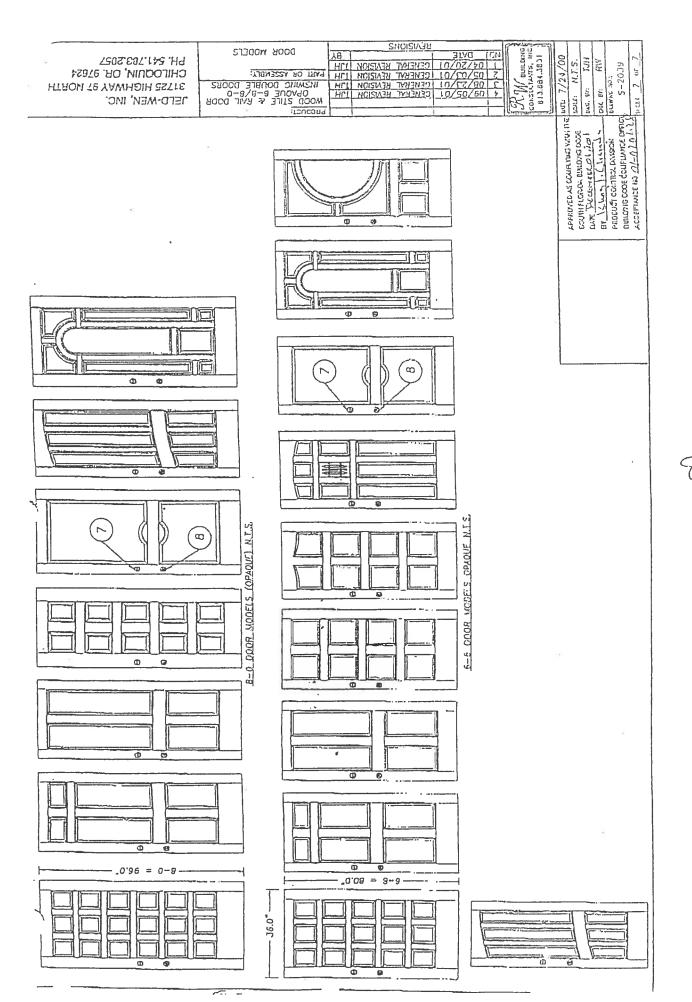
NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

- 1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been fill and the original submitted documentation, including test supporting data, engineering documents, no older than eight (8) years.
- 2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, st and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
- 3. Renewals of Acceptance will not be considered if:
 - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
 - b) The product is no longer the same product (identical) as the one originally approved;
 - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
 - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted is no longer practicing the engineering profession.
- 4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office
- 5. Any of the following shall also be grounds for removal of this Acceptance:
 - a) Unsatisfactory performance of this product or process.
 - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purpose.
- 6. The Notice of Acceptance number preceded by the words Miami-Dade County, Florida, and followe by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
- 7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer need not reseal the copies.
- 8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
- 9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

Ishaq I. Chanda, P.E. Product Control Examiner
Product Control Division

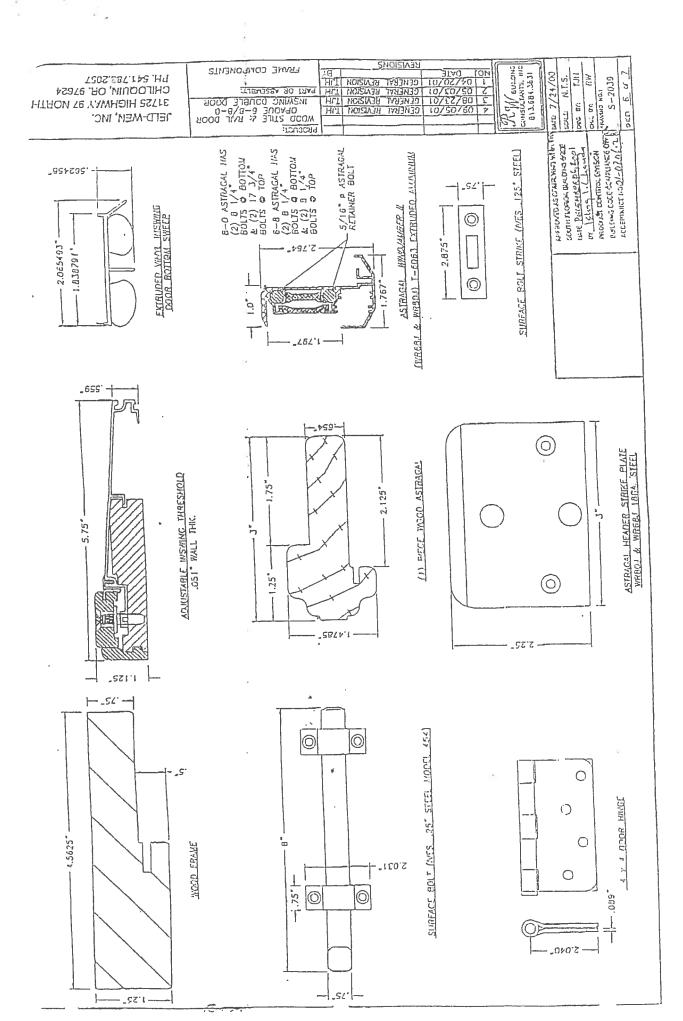
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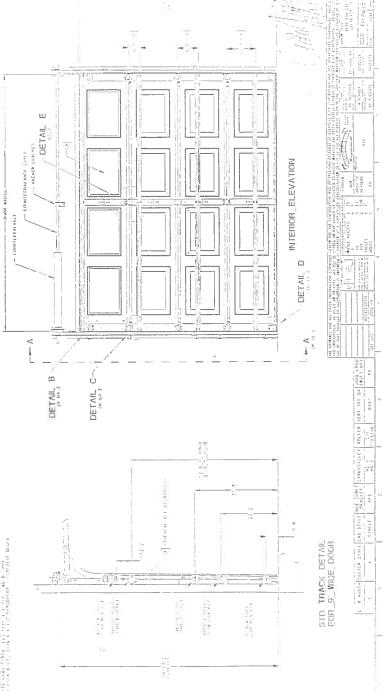
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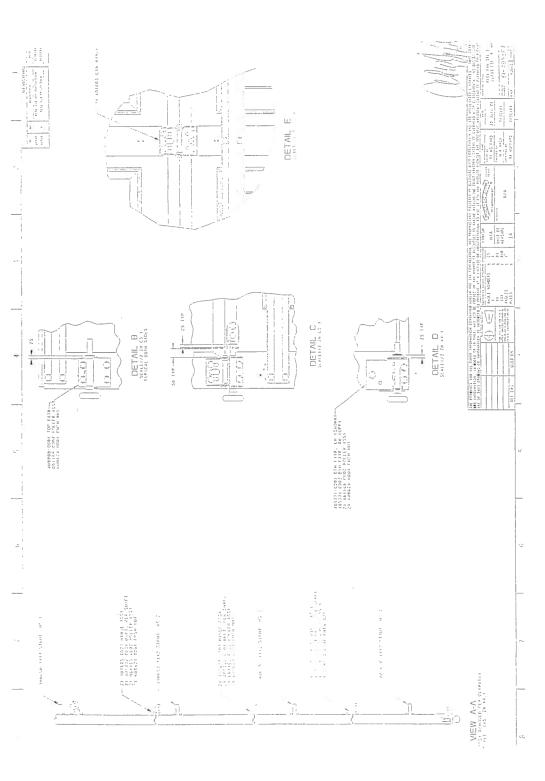


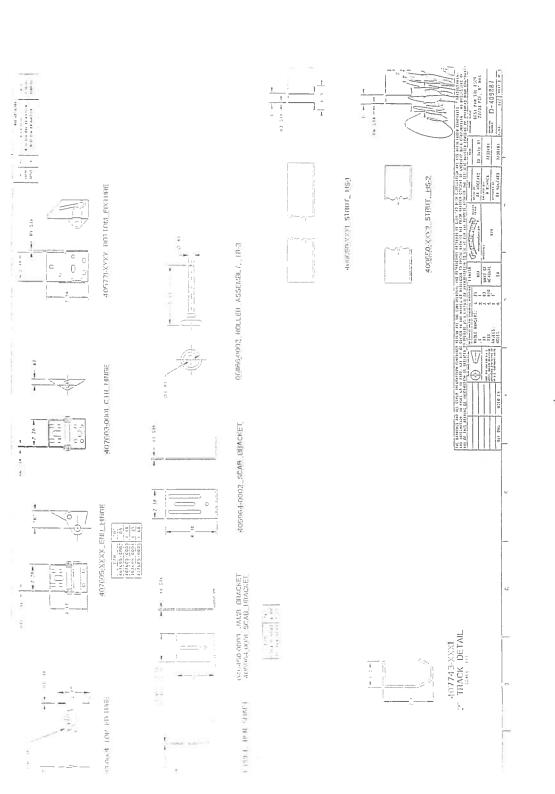
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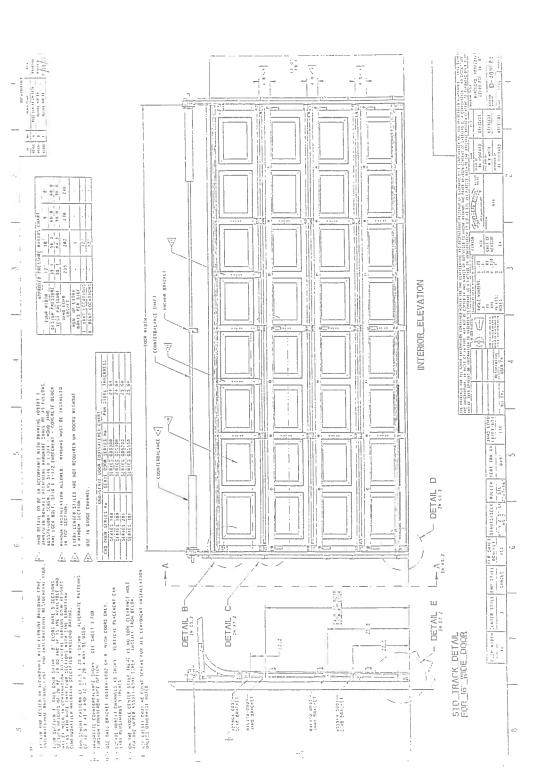
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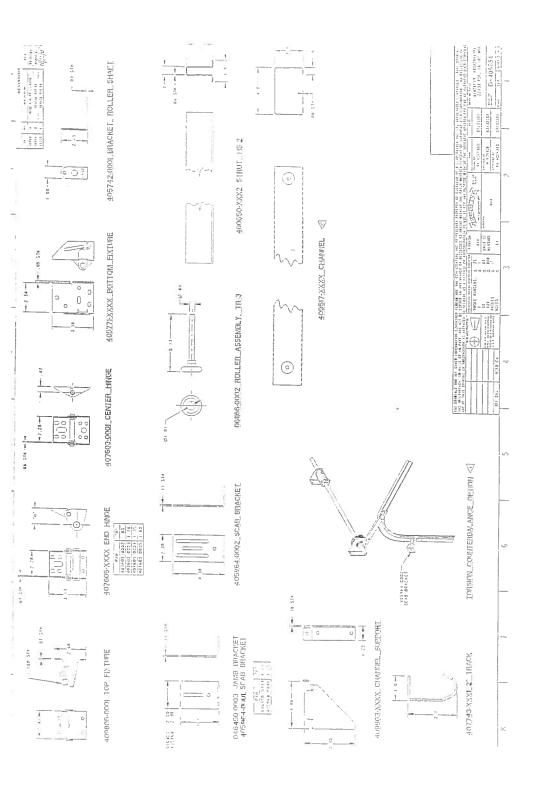
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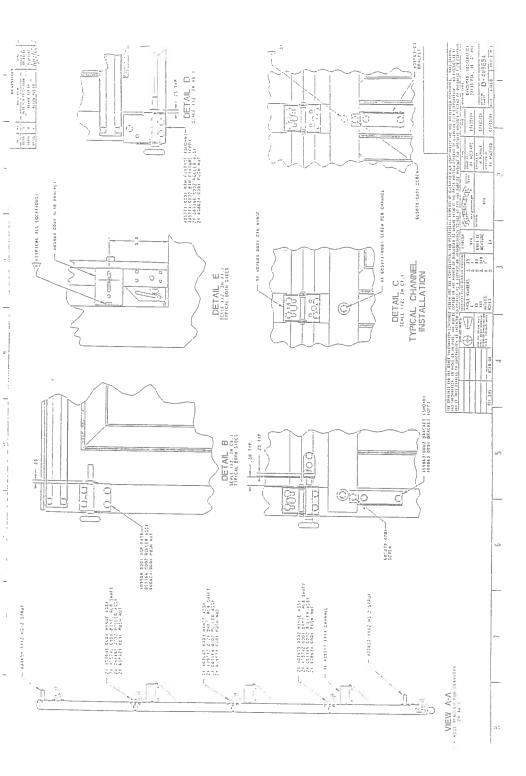












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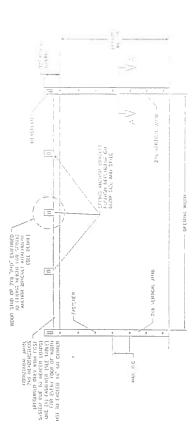
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(CONTINUED from Pg. 3)

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Laminatio republic shindles

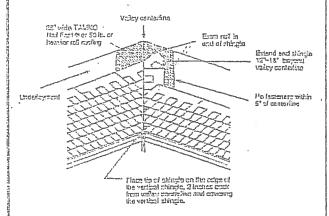
Note: No fastener should be within 6 in, of the valley centerline, and two fasteners should be placed at the end of each shingle crossing the valley.

 To the adjoining roof plane, apply cherrow of shingles vertically fading the valley and 2 in, back from the valley centariine.

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

 To complete the valley, apply shingles on the adjuning roof plane by positioning the tip of the first shingle of each row at the 2 in point from the contribution where the edge of the vertical shingle has been applied, covering the vertical shingle.

FOR ALTERNATE VALLEYAPPLICATION METHODS, PLEASE CONTACT TANKO'S TECHNICAL SERVICES DEPARTMENT



10. SIP AND MAGE PESTAMBLE DETAIL

Apply the shingles with a 5 in. exposure beginning at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener on each side, 5-1/2 in. back from the exposed and and 1 in. up from the edge.

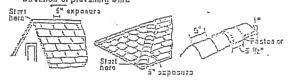
TAMKO recommends the use of TAMKO Hip & Flidge shingle products. Where metching colors are available, it is acceptable to use TAMKO's Glass-Seal or Site Glass-Seal shingles cut down to 12 in. pieces.

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

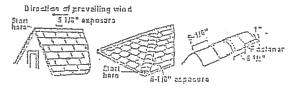
Fasteriers should be 1/4 in, longer than the one used for shindles.

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

Direction of pravailing wind



NOTE: Exposure should be 1/8 in, more when using shingles produced in Frederick, Md. See illustration below.



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

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

IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE

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

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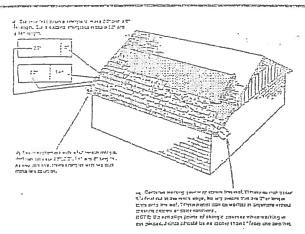
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(CONTINUED from Pg. 2)

· NERITAGE 39° · HERITAGE 30 AR

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pieces. Joints chould be no dozer than 4 in. from one another.

S. LAW SLEPE APPLICATION

Chi pitches 2 in, per foot to 4 in, per foot cover the deck with two layers of asohalt saturated felt. Begin by applying the felt in a 19 in, wide strip along the eaves and overhanging the crip edge by 1/4 to 3/4 in. Place a full 35 in, wide sheet over the 19 in, wide starter piece, completely overlapping it. All succeeding courses will be positioned to everlap the preceding course by 19 in. If winter temperatures average 25°F or less, thoroughly coment the felts to each other with plastic coment from eaves and rakes to a point of a least 24 in, inside the interior wall line of the building. As an alternative, TAMKO's Moisture Guard Piuso self-adhering waterproofing underlayment may be used in lieu of the camented felts.

7. Harsard 2007 or Starp Slore 2009

If the slope exceeds 21 in, per foot (60), each shingle must be sealed with quick setting asphalt adhesive coment immediately upon installation. Spots of cament must be equivalent in size to a \$.25 piece and applied to shingles with a 5 in, exposure, use 6 fasteners per shingle. See Section 3 for the Mansard Fastening Pattern.

a deligating

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

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

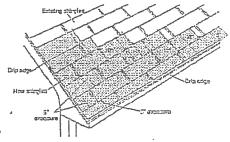
If re-rooting over an existing root where new flashing is required to protect against ice dams (freeze/thav cycle of water and/or the backup of water in frezen or diogged gutters), remove the old rooting to a point at least 24 in. beyond the interior wall line and apply TAMKO's Moisture Guard Plus³ water proding underlayment. Contact TAMKO's Technical Services Department for more information.

The nasing procedure described below is the preferred method for rereofing over square tabisting shingles with a 5 in, exposure.

Starter Course: Begin by cutting shingles into 5 x 35 inch strips. This is done by removing the 5 in. tabs from the bottom and approximately 2 in. from the top of the shingles so that the remaining portion is the same width as the exposure of the cld shingles. Apply the starter piece so that the self-sealing achesive lies along the exves and is even with the existing roof. The starter strip should be wide enough to overhang the exves and carry water into the gutter. Remove 3 in. from the length of the first starter shingle to ensure that the joints from the cld roof do not align with the new.

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

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



e valley application

Over the shingle underlayment, canter a 35 in, wide sheet of TAMKO Nati-Fast^o or a minimum 50 lb, roll roofing in the valley. Nati the felt, only where necessary to hold it in place and then only nati the outside edges.

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

After valley flashing is in place:

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

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

- Extend the and shingle at least 12 in, onto the adjoining roof. Apply succeeding courses in the same manner, extending them across the valley and onto the adjoining roof.
 Press the shingles tightly into the valley.
- · Use normal shingle fastening methods.

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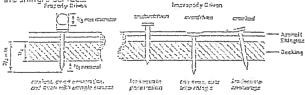
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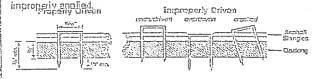
HERITAGE 30° . MERITAGE 30 AE°

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MAILS: TAMKO recommends the use of nails as the preferred method of application. Standard type rouging nails chould be used. Nail shanks should be made of minimum 12 gauge wire, and a minimum head diameter of 3/8 in. Nails should be long enough to penetrate 3/4 in. Into the roof deck. Where the deck is less than 3/4 in. thick, the nails should be long enough to penetrate completely through plywood decking and extend at least 1/8 in. through the roof deck. Drive nail head flush with the shingle surface.



STAPLES: If steples are used in the attaching process, follow the above instructions for placement. All steples must be driven with pneumatic staplers. The steple must meet the following minimum dimensional requirements. Steples must be made from a minimum 16 garge galvanized wire. Grown width must be at least 15/16 in. (staple grown width is measured outside the legs). Leg length should be a minimum of 1-1/4 in. for new construction and 1-1/2 in, for rerooting thus allowing a minimum deck penetration of 3/4 in. The crown of the staple must be parallel to the length of the shingle. The staple grown should be driven flush with the shingle surface. Staples that are grooted, underdriven or overdriven are considered



CAUTION: DO NOT FASTEN INTO OR ABOVE THE FACTORY APPLIED ADHESIVE.

4. Personatura

UNDERLAYMENT: An underlayment consisting of asphalt saturated felt must be applied over the entire deck before the installation of TAMKO shingles. Failure to add underlayment can cause premature failure of the shingles which is not covered by TAMKO's limited warranty. Apply the felt when the deck is dry. On roof decks 4 in. per foot and greater apply the felt parallel to the caves lapping each course of the felt over the lower course at least 2 in. Where ends join, lap the felt 4 in. If left exposed, the underlayment felt may be adversely affected by moisture and weathering. Laying of the underlayment and the shingle application must be done together.

Products which are acceptable for use as underlayment are:

- TAMKO No. 15 Asphalt Saturaled Organic Felt
- A non-neriorated aspiral saturated organic feit which meets ASTM: D226, Type I
- Any TAMKO non-periorated asphalt saturated

organic felt

In areas where ice builds up along the saves or a back-up of water from frozen or degged gutters is a potential problem, TAMKO's Moisture Guard Plus® water proofing underlayment (or any special ty saves flashing product) may be applied to saves, rakes, ridges, valleys, around chimneys, skylights or domers to help prevent water damage. Contact TAMKO's Technical Services Department for more information.

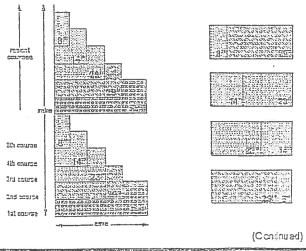
TAMKO does not recommend the use of any substitute products as shingle underlayment.

e afflication instructions

STARTER COURSE: A starter course may consist of TANKO Shingle Starter, self-sealing type shingles or a 9 inch wide stip of mineral surface roll roofing. If self-sealing shingles are used, remove the exposed tab portion and install with the factory applied adhesive adjacent to the eave. Attach the starter course with approved fasteners along a line parallel to and 3 in. to 4 in. above the eave edge. The starter course should overheng both the eave and rake edges 1/4 in. to 3/8 in. If a roll roofing is used, seal down the shingles in the first course by applying adhesive cement in four spots equally spaced to the surface of the starter stip and press the shingle down on the spots of cement. Plastic earnert should be used sparingly, as excessive amounts may cause blistering.

SHINGLE APPLICATION: Start the first occurse with a full size shingle and overhang the rake edge 1/4 in. Out 8 in. from a full shingle to form a shingle 29 in. long. Use this to start the second occurse (see diagram below). Out a 23 in. long shingle to start the third course. Use the remaining 14 in. piece of shingle to start the fourth course and use the remaining 8 in. piece to begin the lifth occurse. Continue up the rake in as many rows as necessary using the same formula as outlined above. The built of the shingle should be aligned with the top edge of the sawtooth of the underlying shingle for a 5 in. exposure (see shingle application drawing illustrated on this panel). When you make your final out at the roof's adge, filip any pieces that are 8 in. or longer back onto the roof. These pieces can be worked in anywhere without oreating zippers or oddrivariations.

NOTE: Do not align joints of shingle courses when working in out



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Application Instructions for • HERTRAGE 30 • HERTRAGE 30 AEC

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

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

In ocld weather (below 40°F), care must be taken to avoid damage to the edges and corners of the shingles.

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

L REST DEEM

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

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

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

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

2 TERRILATION

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

- 1. Vance Condensation
- 2. Budding of stangles due to dadk movement.
- 3. Retting of wood members.
- 4. Premature failure of roof.

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

IT IS PARTICULABLY IMPORTANT TO PROVIDE ADEQUATE VEN-TILATION.

I PRITARES

VIND CAUTION: Extrame wind velocities can damage these shingles after application when proper sealing of the shingles does not occur.

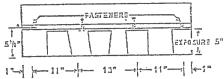
This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These conditions may impede the sealing of the acheelve strips on the shingles. The inability to seal down may be compounded by prolonged coid weather conditions and/or blowing dust in these altuations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

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

FASTENING PATTERNS: Fasteners must be placed 5-1/2 in, from the bottom edge of the chingle and located horizontally as follows:

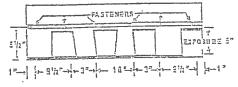
1) Standard Fastening Pattern. (Ficruse on decks with slopes 2 in, per foot to 21 in, per foot.) One fastener 1 in, back from each end and one 12 in, back from each end of the shingle for a total of 4 fasteners. (See'standard fastening pattern illustrated below).

STANDARD FASTERING PATTERN



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

MANSARD FASTENING FATTERN



(Continued)

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(CONTINUED from Pa. 3)

Three Tab Aspualt Shingles

FOR AUTERMATE VALLEY APPLICATION METHODS, PLEASE CON-TACT TAMKO'S TECHNICAL SERVICES DEPARTMENT.

10. AIP AMD HINGS PASTANHAU DATAIL

Apply the chingles with a 5 in. exposure beginning at the bottom of the hip a from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener 5-1/2 in. back from the exposed and t in, up from the adga. Do not nell directly into the

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

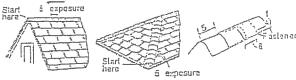
NOTE: AR type shingle products should be used as Hip & Ridge on Glass-Seal AR and Elite Glass-Seal AR shingles.

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

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

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Direction of prevailing wind



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IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE In this paragraph "You" and Your" raise to the installer of the shingles and the owner of the building on which these shingles will be installed. This is a legally binding agraement between You and TAMKO Roofing Products, Inc. ("TAMKO"). By opening this bundle You agree: (a) to install the

shingles strictly in accordance with the instructions printed on this wrapper, and (b) leaks and other roofing defects resulting from failure to follow the manufacturers installation instructions printed on this wrapper are not covered by the limited warranty that is also printed on this wrapper, or any other warranty, including, but not limited to (except where prohibited by law) implied warranties of MERCHANTABILITY and FITNESS FOR USE.

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THREE-TAB ASPUALT SHINGLES

with guidd ceiting sephalt adhesive coment immediately upon installation. Spots of coment must be equivalent in size to a \$.25 piece and applied to shingles with a 5 in. exposure, use 5 faster are per shingle. See Section 3 for the Mensard Fastering Pattern.

s. Re-Rogeting

Bisforeire-recoling, be certain to inspect the reof decks. All plywood shall meet the recuirements listed in Section 1.

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

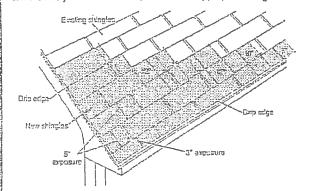
if re-roofing over an existing roof where new flashing is required to protect against ice dams (freeze/thaw cycle of water and/or the backup of water in frozen or drogged gutters), remove the cld roofing to a point at least 24 in, beyond the interior wall line and apply TAMKO's Moisture Guard Pluss waterproofing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

The needing procedure described below is the preferred method for reroofing over square tebistic shingles with a 5 in. exposure.

Starter Course: Begin by using TAMKO Shingle Starter or by cutting shingles into 6 x 36 inch strips. This is done by removing the 5 in. tabs from the bottom and approximately 2 in. from the top of the shingles so that the remaining portion is the same width as the exposure of the cid shingles. Apply the starter piece so that the self-sealing adhesive lies along the eaves and is even with the existing roof. The starter strip should be wide enough to overhang the eaves and carry water into the gutter. Remove 3 in. from the length of the first starter shingle to ensure that the joints from the cid roof do not align with the new.

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

Second and Succeeding Courses: According to the cif-set applica-



rake and of the first shingle in each succeeding course. Place the top edge of the new shingle against the buttledge of the old shingles in the courses above. The full width shingle used on the second course will reduce the exposure of the first course to 3 in. The remaining courses will automatically have a 5 in. exposure.

9. WALLEY REPLICATION

Over the shingle underlayment, center a 36 in, wide sheet of TAMKO Nail-Fast⁹ or a minimum 50 lb, roll rooting in the valloy. Nail the felt only where necessary to hold it in place and then only nail the outside edges.

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

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

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

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

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

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

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

• Clip the upper comer of each shingle at a 45-degree angle and embed the end of the shingle in a 3 in, wide strip of aspiralt plastic coment. This will prevent water from penetrating between the courses by directing it into

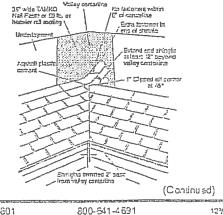
CAUTION:

Adhesive must be applied in smooth, thin, even layers.

the valley.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.



Visit Our Web Site at www.famko.com

ي هار ميا هم او و همي كامي و الطبيع عند و چه و همي هميد ميد و دو و دو و هم و مد بهد يه مد برديد و م المورد در الارد در المدالية المورد المورد و المدال ميد المدال المورد المورد المورد المورد المدال المدال المدال المورد المدال المدا Central District or Northeast District Southeast District Southeast District 220 West 4th St., Joplin, MO 64601 4500 Tanko Dr., Frederick, MD 21701

2300 35th St., Tuscalocs, AL 35401 7910 S. Caniral Exp., Dallas, TX 75216 800-358-2055 800-228-2656 800-443-1834

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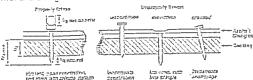


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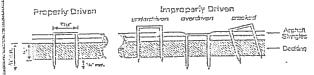
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THREE-THE ASPUALT SHINGLES

into the roof deck. Where the deck is less than 3/4 in, thick, the nails should be long enough to penerate completely through plywood decking and extend at least 1/8 in, through the roof deck. Drive nail head thush with the shingle surface.



STAPLES: If steples are used in the attaching process, follow the above instructions for placement. All staples must be driven with pneumatic staplers. The staple must meet the following minimum dimensional requirements. Staples must be made from a minimum 16 gauge galvanized wire. Crown width must be at least 15/16 in. (staple crown width is measured outside the legs). Leg length should be a minimum of 1-1/4 in. for new construction and 1-1/2 in. for reroofing thus allowing a minimum deck peneiration of 3/4 in. The crown of the staple must be parallel to the length of the shingle. The staple crown should be driven flush with the shingle surface. Staples that are crocked, underdriven or overdriven are considered improperly applied.



CAUTION: DO NOT FASTEN INTO THE FACTORY APPLIED ADHE-SIVE.

A. THRESHATHEST

INDERLAYMENT: An underlayment consisting of asphalt saturated felt must be applied over the entire declabefore the installation of TAMKO chingles. Failure to add underlayment can cause premature failure of the shingles which is not covered by TAMKO's limited warranty. Apply the falt when the deck is dry. On roof decks 4 in, per foot and greater apply the felt parallel to the saves lapping each course of the felt over the lower course at least 2 in. Where ends join, lap the felt 4 in. If left exposed, the underlayment felt may be adversely affected by moisture and weathering. Laying of the underlayment and the shingle application must be done together.

Products which are acceptable for use as underlayment are:

- TAMKO No. 15 Asphalt Saturated Organic Felt
- A non-geriorated aspiral saturated organic felt which meets ASTM: D226, Type I
- Any TAMICO non-nectorated aspiralt saturated organic felt

In meas where ice builds up along the saves or a back-up of water from frozen or dogged gutters is a potential problem, TAMKO's Moisture Guard Pius water procing underlayment (or any specialty eaves flashing product) may be applied to eaves, rakes, ridges, valleys, around chimneys, skylights or do mers to help prevent water damage. Contact TAMKO's Technical Services Department for more information.

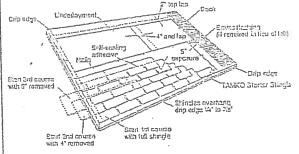
TAMIKO does not recommend the use of any substitute products as shingle underlayment.

B. APPLICATION INSTRUCTIONS

STARTER COURSE: A starter course may consist of TAMKO Shingle Starter, self-sealing type shingles or a 9 inch wide strip of mineral surface roll roofing. If self-sealing shingles are used, remove the exposed tab portion and install with the factory applied achiesive adjacent to the saves. Attach the starter course with approved fasteners along a line parallel to and 3 in. to 4 in. above the eaves edge. The starter course should overhang both the eaves and rake edges 1/4 in. to 3/8 in. If a roll roofing is used, seal down the shingles in the first course by applying adhesive coment in four spots equally spaced to the surface of the starter strip and press the shingle down on the spots of cement. Plastic cament should be used sparingly, as excessive amounts may cause blistering.

SHINGLE APPLICATION: There are three different offset methods for applying strip shingles: the 4-inch method, the 5-inch method and the 6-inch method. By removing different lengths from the first shingle, cutouts in one course of shingles do not line up directly with those of the course below. It is recommended that the chingles be laid according to one of these methods consistent with procedures cuttined in ARMA's Residential Asphalt Roofing Manual. This panel will feature the 4-inch method. For information regarding the other methods, please refer to the ARMA Residential Asphalt Roofing Manual.

CAUTION: Never use an alignment system where shingle joints are deser than 4 in, to one another.



S. LOW SLOPE APPLICATION

On pitches 2 in, per foot to 4 in, per foot cover the dect with two layers of aspiralt saturated felt. Begin by applying the felt in a 19 in, wide stip along the eaves and overhanging the drip edge by 1/4 to 3/4 in. Place a full 35 in, wide sheet over the 19 in, wide starter piece, completely overlapping it. All succeeding courses will be positioned to overlap the preceding course by 19 in. If winter temperatures average 25°F or less, thoroughly cament the felts to each other with piastic cement from eaves and rakes to a point of a least 24 in, inside the interior wall line of the building. As an alternative, TAMKC's Moisture Guard Pluss's self-advering waterproofing underlayment may be used in lieu of the cementad felts.

F. XAMSARD ROOF OR STELLE SLUFE ROOF

If he slope exceeds 21 in, per foot (60"), each shingle must be sealed

(Continued)

| The second secon | Canral District | 220 West 4th St., Joplin, MO 64201 | 300-641 4691 | 127 |
|--|--|---|--|-----|
| Visit Cur Web Site at WWW. tamko.com | or Northeast District Scutheast District Scuthwest District | 4500 Tanko Dr., Frederick, MD 21701 2300 35th St., Tusceloosa, AL 35401 7910 S. Cantal Exp., Dallas, TX 75216 | 800-368-2055 800-228-2556 800-443-1834 | 2 |



Application Instructions for

· Mass-See

Caldring flampa aspeal shingles

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

THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER. IN COLD WEATHER (BELOW 45°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMP CRIANT: It is not necessary to remove the plastic stip from the back of the shingles.

I. REOF DECK

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

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

PLYNOCO: All plynocod shall be exterior grade as defined by the American Plywood Association. Plywood shall be a minimum of 3/8 in. Mickness and applied in accordance with the recommendations of the American Plywood Association.

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

E PERTENDE

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

- 1. Vaper Condensation
- 2 Buckling of shingles due to dadk movement
- 3. Rolling of wood members.
- 4 Premature failure of roof.

To Insure adequate ventilation and disculation of air, place louvers of sufficient size high in the gable ends and/or install continuous ridge and soffit vents.

FHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented, or one square foot per 300 square feet if a vapor pairier is installed on the warm side of the calling or if at least one half of the ventilation is provided near the ridge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VEN-TILATION.

s. Pastembs

MAILS: TAMKO recommends the use of nails as the preferred method

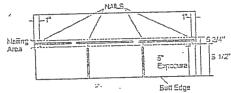
of application. WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in coeler menths of in ಹತ್ತಾತ on the roof that do not receive direct sunlight. These

conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged edd weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is recommended. Shingles must also be lastened according to the fastening instructions described below.

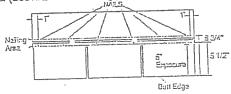
Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagram and described below, TAMKO will not be responsible for any shingles blown oil or displaced. TAMKO will not be responsible for damage to shingles caused by winds or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

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

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



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



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

(Continued)

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|---|--------------------|--|--|--|
| 10 mm - 10 mm | Central District | 220 West 4th St., Joplin, MO 64801 | 800-641-4691 | 127 |
| ,, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Scutheast District | 4500 Tanko Dr., Frederick, MD 21701 2300 35th St., Tuscalocsa, AL 35401 7910 S. Central Exp., Dallas, TX 75216 | 800-363-2055 600-228-2656 800-443-1834 | |
| | | The state of the s | | |

| Notice of Treatment 40428 | | | | | |
|--|---------------------------|----------------------|--|--|--|
| Applicator: Florida Pest Control & Chemical Co. (www.flapest.com) Address: 110 NW 16 AVE City AINESVILLE Phone 376 - 2661 | | | | | |
| Site Location: Subdivide Lot # Block Address 204-8 | | 24060 TRO FTW | | | |
| Product used | Active Ingredient | % Concentration | | | |
| Premise | Imidacloprid | 0.1% | | | |
| ☐ <u>Termidor</u> | Fipronil | 0.12% | | | |
| ☐ Bora-Care I | Disodium Octaborate Tetra | hydrate 23.0% | | | |
| Type treatment: | ☐ Soil ☐ Woo | od | | | |
| Area Treated MB-STEM | Square feet Linear f | | | | |
| 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 | | | | | |
| 2/15/06 | 955 | BILL E. | | | |
| Date | Time Prin | t Technician's Name | | | |
| Remarks: | | | | | |
| Applicator - White | Permit File - Canary | Permit Holder - Pink | | | |

| | Notice of T | reatment | \$404-23 |
|--|-----------------------------|---------------------|---------------------|
| Applicator: Florida | Pest Control & Cl | nemical Co. (| www.flapest .com) |
| Address: | Par Mrs AVE | | |
| City | P | hone | Material . |
| Site Location: Subdi | vision | | |
| Lot #Blo | ock# Pe | ermit# | 060 |
| Address | entroce 1972 | II A KILL | <u> </u> |
| Product used | Active Ingi | edient | % Concentration |
| Premise | Imidacl | oprid | 0.1% |
| ☐ <u>Termidor</u> | Fipro | Fipronil 0.12% | |
| ☐ Bora-Care | Disodium Octabo | rate Tetrahyd | rate 23.0% |
| Area Treated | ☐ Soil Square feet | ☐ Wood Linear feet | Gallons Applied |
| | | | |
| | | | |
| As per Florida Buildin termite prevention is u to final building appro | used, final exterior foval. | reatment shall | be completed prior |
| | | | |
| Date | Time | Print Te | chnician's Name |
| Remarks: | | | |
| Applicator - White | Permit File - C | anary Pe | ermit Holder - Pink |

24060

Matthew Miller outhorize Malard to sign and pick up the Brian & Mary Mallard building Permit.

Matt Malles

ALACHIA Coury

Brian K. Mallard

Commission #DD272196

Expires: Dec 03, 2007

STATE OF FLORIDA

Exp. DEC. 03,2007

Expires: Dec 03, 2007

Bonded Thru
Atlantic Bonding Co., Inc.

Mark Disosway, P.E.

POB 868, Lake City, FL 32056, Ph 386-754-5419, Fax 386-269-4871

February 15, 2005

Building and Zoning, Columbia County, Florida

Re: Site Evaluation, Brian and Mary Mallard Residence, Lots 3 Ichetucknee Highlands S/D, 26-6S-16-03944-103, Columbia County, FL

Dear Building Inspector:

The elevation of the finished floor of the proposed home as currently prepped for slab by builder is below the elevation of the county road, Elim Church Rd, at a point immediately in front of the house.

Based on topo maps, FEMA Flood Insurance Rate Map, and visual inspection the proposed finished floor elevation, as currently prepped for slab by builder, is at an adequate elevation to avoid flooding.

Flood Zone of Home Site: Zone X; Based on the FEMA rate map, attached.

Home Site Natural Grade, Elevation: about 65 ft; Based on topo map, attached.

Zone A flood zone 0.5 mile WNW of home site, Elevation: about 65 – 70 ft; Based on topo map, attached.

Zone A flood zone 0.4 mile ESE of home site, Elevation: about 65 - 70 ft; Based on topo map, attached.

Observations: The finished floor is about 5' higher than the county road which fronts on the south side of the lot. It is also higher than several other houses in the area which would flood before this house does. There are two sinkholes within 1000 ft which have bottom elevations 15-20' below the house site and natural grade slopes toward the two sinkholes. FEMA rate map shows the area in both sinkholes to be Zone "X", not expected to flood in a 100 year storm. If the sinkholes got stopped up and flooded until the water went over the pop off and flowed to the river the finished floor would be about 5-10' under water.

Anecdotal Evidence: The former owner of the lot stated she never saw any flooding issues on the lot or in the area even during the 2004 hurricanes. Her husband delivers mail and never noticed flooding on Cook St or in the area. The neighbor at the corner of Cook St has lived near by for years and has never seen flood waters at the proposed home site. He stated the ditches on both sides of Cook St washed out to about 4' deep during the 2004 hurricanes but the road was never under water. His driveway also washed out. This shows that during a period roughly equivalent to a 100 year event there was extremely high water flow to the sink holes and they accepted all the water without flooding Cook St at elevation about 58-60'.

The finished floor elevation must be minimum 6" above finished grade per FBC2004. The finished grade should slope down from that elevation for another 6" within 12 feet away from the house in all directions so that all runoff drains away from the house. The owner must maintain the swales, slopes, and ditch to provide free drainage to the ditch and prevent any possibility of storm water backing up into the house.

Based on personal conversation the owner is aware that if free drainage is not maintained thru fields and across roads and thru culverts to the sinkholes, or if future development in the area causes increased storm water run off, or if rainfall occurs with greater flooding effect than the design storm, the level of the sinkholes or nearby Zone A could rise higher than anticipated and his house would be more susceptible to flooding. If the sinkholes ever started to fill up it may be possible to pump water over the hill and avoid flooding.

Sincerely,

Mark Disosway, PE

R403 1 General

All electric webs shall be supported on continuous solid or Ally grouted masonry or concrete feetings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to it are small the resulting loads to the soil within the limitations as determined for character of the soil. Footings shall be supported on undisturbed natural soils or empressed fit.

R403.1 1 Minimum size,

Minimum states for concrete and misconry flootings shall be as set forthin in Table R403 1 and Figure R403 1(1). The footing width, W. shall be based on the load-bearing value of the soil in accordance with Table R401 4.1 Spread footings shall be at less 5 minimum and shall not exceed the thickness of the footing. The size of footings supporting piers and columns shall be based on the hibstary load and allowable soil pressure in accordance with Table R401 4.1 Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1(2) and R403.1(3).

R403.1 4 Minimum depth

All exterior footings shall be placed at least 12 inches (305 mm) below the undisturbed ground surface.

R403.1.5 Slope

The log surface of lookings shall be level. The bottom surface of bottings shall not have a slope exceeding one unit vertical in 10 units horizontal (ID-percent slope). Footings shall be skepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footings and in the contract of the footings shall be skepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footings and in the footings of the footings and in the footing shall be level.

R403 1 6 Foundation anchorage

When braced wall panels are supported directly on continuous foundations, the wall wood still plate or cold-formed steel bottom track shall be anchored by the foundation in accordance with this section

The wood sole pidle all exterior walls on monolitic states and wood all pidle shall be annothered to the foundation with anchor bods spaced a maximum of 5 feet (1829 mm) on certer. There shall be a maximum of two bods per pidle section with one bod located not more than 1.2 nothers (205 mm) or less than seven bod diameters from each end of the pidle section. Block shall be all less X-inch (12.7 mm) in diameter and shall endered a maximum of 7 farches (176 mm) in mis measury or concrete. Interior bearing wall sole pidles on monolitic state for underson a single popularly and provided statemers. A null and washer shall be lightened on each bod to the pidle. Shall and such pidles shall be provided against door, and statements where required Scancian (1503 of PRECI 11 1

R403.1.6.1 Reserved.

R403.1 7 Footings on or adja

The placement of buildings and structures on or adjacent to slopes steeper than 1 unit vertical in 3 units horzontal (33.3-percent slope) shall conform to Sections R403.1.7.1 through R403.1.7.4.

In general, buildings below slopes shall be set a sufficient dictance from the slope to provide the protection from slope drainage, crosson and shallow failures. Except as provided in Section R403.174, and Figure R403.171, the following criteria will be assumed to provide the protection. Where the existing slope is steeper than one unit vertical in one unit hostociral (Obspected slope), the beginning of 45 degrees (0.79 rad) to the hostociral Where a retaining wall is constructed at the love of the slope, the height of the slope at large drawn tangent to the slope at an angle of 45 degrees (0.79 rad) to the hostociral Where a retaining wall is constructed at the love of the slope, the height of the slope at large drawn tangent to the slope of the wall to the love of the slope at large drawn tangent to the slope at large drawn tangent tang

R403.1 7.2 Footing setback from descending slope surfaces.

On graded sites, the top of any exterior foundation shall extend above the elevation of the street guillar at point of discharge or the inlet of an approved drainage device a minimum of 12 inches (305 mm) plus 2 percent. Alternate elevations are permitted subject to the approval of the building official, provided it can be demo

Alternate setancies and cleanances are permitted, subject to the approval of the building official. The building official is permitted to require an investigation and recommendation of a qualified engineer to demonstrate that the intent of this section has been satisfied. Such an investigation shall include consideration of material, height of stope, petog genderic, that intensity and enzirous characteristics of slape materials of subject materials of slape materials.

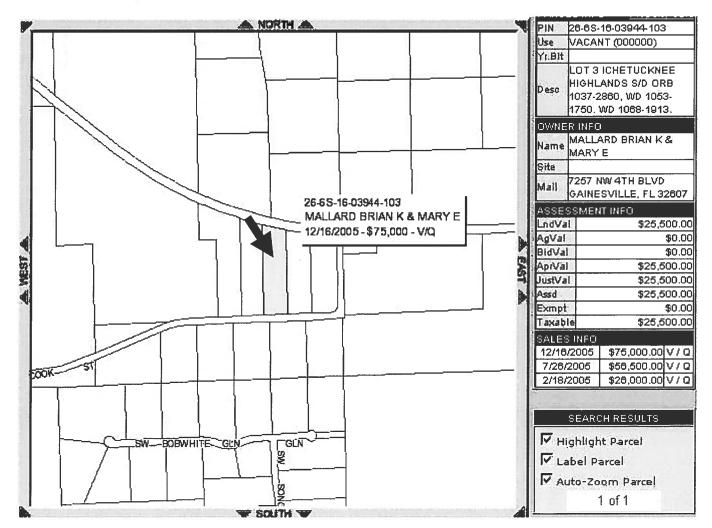
Foundation and floor stabs for buildings located on expansive soils shall be designed in accordance with Section 1805 8 of the Florida Building Code, Building

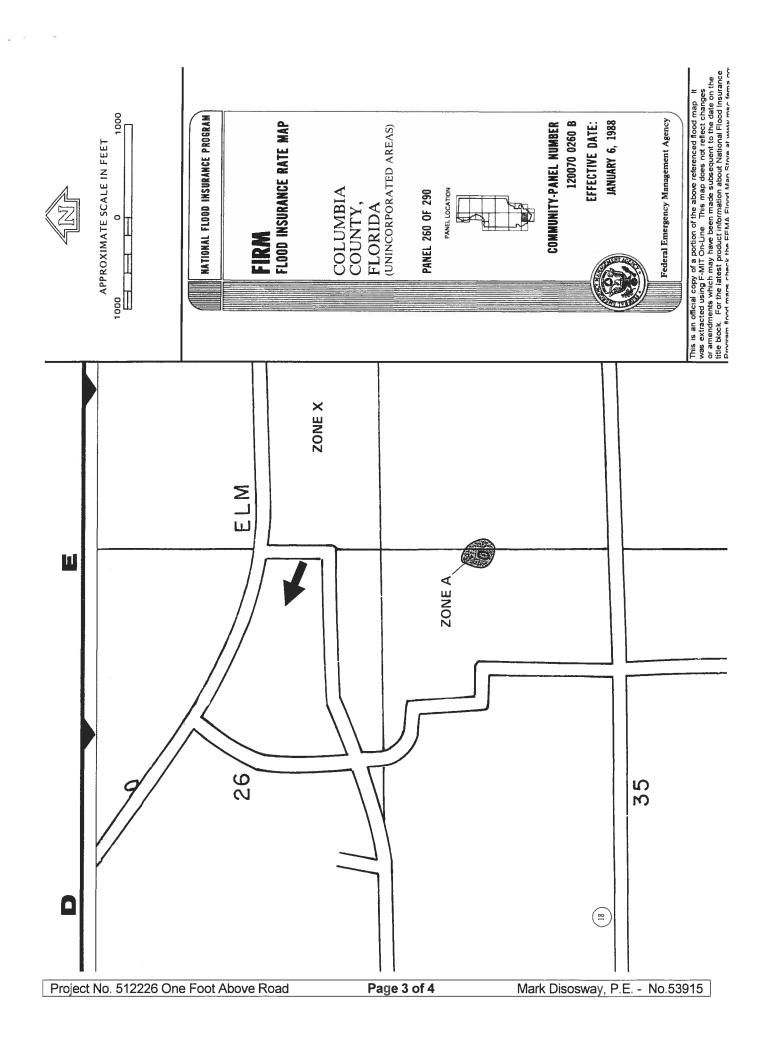
Exception: Stab-on-ground and other foundation systems which have performed adequately in soil conditions similar to those encountered at the building site are permitted subject to the approval of the building official

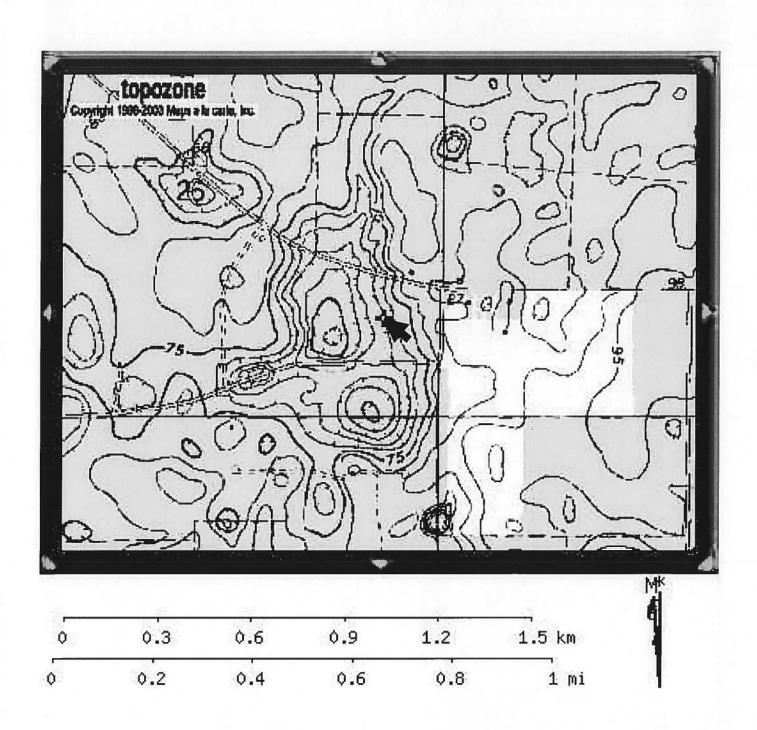
R403.1.8.1 Expansive soils clas

- Plasticity Index (PI) of 15 or greater, determined in accordance with ASTM D 4318.
- More than 10 percent of the soil particles pass a No. 200 sieve (75 mm), determined in accordance with ASTM D 422.

 More than 10 percent of the soil particles are loos than 5 micrometers in size, determined in accordance with ASTM D 422.
- Expansion Index greater than 20, determined in accordance with ASTM D 4829.







| 2/18/2005 11:17 Property Year T Property 2005 R 26-6S-16-03944-101 Owner LES-QUE TWO INC Addr PO BOX 22 | Maintenance Sel Conf | 52876 Land 001 * AG 000 Bldg 000 Xfea 000 52876 TOTAL B 18.360 Total Acres Cap? Renewal Notice |
|---|--|--|
| City, St WORTHINGTON SPRINGS Country | , FL Zip 32697 0022 N , (PUD1) (PUD2) | (PUD3) MKTA02 |
| Appr By DF Date 2/16/200 TxDist Nbhd Mk 003 26616.02 02 | 4 AppCode UseCd 000000 tA ExCode Exemption/% | VACANT TxCode Units Tp |
| House# Stree | t ICHETUCKNEE HIGHLANDS | MD Dir # |
| Subd | Condo | Lot . ORB 934-2509, |
| Map# 78 F1=Task F2=ExTx F3=Exit | Mnt 11 F4=Prompt F11=Docs F10=G | /08/2004 JEFF oTo PgUp/PgDn F24=More |

PROPOSED # FOR LOT 3 (SPLITOUT)

-> 76-65-16-03944-103 >=

| Details | Inspections | Documents | Location | |
|-------------------------------|-------------|-----------|--------------|------|
| Inspecti | on | | Performed By | Date |
| Driveway Completed Inspection | | HD | 3/6/2005 | |

Contacts

Building & Zoning Department

Hours:

Monday-Friday 8: a.m. - 5: p.m.

Location:

135 NE Hernando Ave. Lake City, FL 3 55

Mailing Address:

ost Office Box 15 9 Lake City, FL 3 56-15 9

Office hone:

(386) 758-1 8 (386) 758-11 4

Building & Zoning Coordinator Randy ones

(386) 758-1 7

Chief Building Official Troy Crews, CBO

(386) 758-1 4

Fax:

(386) 758- 16

Email:

Building Department (mailto:laurie_hodson@columbiacountyfla.com)

Columbia County Building Department **Culvert Permit**

Culvert Permit No. 00000542

| DATE $02/$ | 18/2005 | PARCEL II |)# <u>26-6S-16-03944-103</u> | | |
|------------|--|--|--|--|---------------|
| APPLICANT | HEATHER L. TRI | CE | PHON | IE 386.935.4679 | |
| ADDRESS _ | POB 735 | | FT. WHITE | FL | 32038 |
| OWNER JO | OSEPH & HEATHER | TRICE | PHON | JE <u>386.935.4679</u> | |
| ADDRESS _ | POB 735 | | FT. WHITE | FL | 32038 |
| CONTRACTO | OR | | PHON | IE | |
| LOCATION O | F PROPERTY | 47-S TO C-238,TL GO | APPROX.2 1/2 MILES PROP | ERTY ON THE RIGH | T SIDE |
| | | The same | | | |
| SIGNATURE | INSTALLAT: Culvert size w driving surface thick reinforce INSTALLATI a) a majority b) the drivew Turnouts s concrete or current and Culvert installa Department of | ION REQUIREMINATION REQUIREMINATION REQUIREMINATION IN THE PROPERTY OF THE PRO | ameter with a total lenghmitered 4 foot with a 4: s will be required as followisting driveway turnout be paved or formed with aved a minimum of 12 for hichever is greater. The very minimum of 12 for hichever is greater. | l slope and poured ows: s are paved, or; n concrete. eet wide or the wide width shall conform standards. | with a 4 inch |
| | | | | | |

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





SECTORACO

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.

Building permit No. 000024060

67.00

Fire:

Parcel Number 26-6S-16-03944-103

Use Classification SFD, UTILITY

Permit Holder MATHEW MILLER

Owner of Building BRIAN & MARY MALLARD

2048 SW ELIM CHURCH RD, FT. WHITE, FL Location:

Date: 10/11/2006



268.00

Total:

Waste: 201.00

Building Inspector

POST IN A CONSPICUOUS PLACE (Business Places Only)