

Application Approved by - Zoning Official BK Date 12-10-06 Plans Examiner OK 5TH Date 10-11-06
 Flood Zone X per lot Development Permit N/A Zoning RSF-2 Land Use Plan Map Category RES. L-06r.
 Comments _____

Applicants Name Glenn L. Keen (KEH Framing) Fax: _____ Phone (386) 758-9175
 Address 1534 SW DEkle Rd LAke City, FL 32024
 Owners Name Glenn Keen / John W. Keen Phone (386) 961-8223
 911 Address 302 SW Timberland Court LAke City, FL 32024
 Contractors Name JASON Elyson Phone (386) 867-0156
 Address 1534 SW DEkle Rd. LAke City, FL 32024 (386) 623-1741
 See Simple Owner Name & Address _____
 Bonding Co. Name & Address _____
 Architect/Engineer Name & Address Tim Debelare / MARK DISOSWAY P.O. Box 868 L.C. FL 32025
 Mortgage Lenders Name & Address First Federal Savings Bank 4705 US Hwy 90 West
 Circle the correct power company FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Ene
 Property ID Number 02438 - 189 (33-35-16) Estimated Cost of Construction 98,600.00
 Subdivision Name Emerald Cove Lot 89 Block _____ Unit _____ Phase II
 Driving Directions Go 90 West towards Live Oak, Go 1/2 mile
Past Turner Rd. LED light, Turn left in sub-division, go to timberland
Court, Turn right, go to End 4th lot from culti-sac Lot 89
 Type of Construction Residential - SFD Number of Existing Dwellings on Property 0
 Total Acreage 1/2 Lot Size _____ Do you need a Culvert Permit or Culvert Waiver or Have an Existing D
 Actual Distance of Structure from Property Lines - Front 35' Side 15' Side 15' Rear 120'
 Total Building Height 17' 8" Number of Stories 1 Heated Floor Area 1934 Roof Pitch 6/12
TOTAL 2877

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

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

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

G. L. K. KEH Framing
 Owner Builder or Agent (Including Contractor)

STATE OF FLORIDA
 COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me
 this 5th day of Oct 2006.
 Personally known ✓ or Produced Identification _____

[Signature]
 Contractor Signature
 Contractors License Number CBC 12500331
 Competency Card Number _____
 NOTARY STAMP/SEAL

[Signature]
 Notary Signature



BARRY COLEMAN
 MY COMMISSION # DD 687807
 EXPIRES: September 24, 2010
 Bonded Thru Budget Notary Services

JW called Glenn 10.13.06 re left message

C

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

#:	ADDRESS:
243	SW Woodleaf Ct
263	SW Woodleaf Ct
285	SW Woodleaf Ct
303	SW Woodleaf Ct
323	SW Woodleaf Ct
345	SW Woodleaf Ct
361	SW Woodleaf Ct
369	SW Woodleaf Ct
368	SW Woodleaf Ct
360	SW Woodleaf Ct
336	SW Woodleaf Ct
306	SW Woodleaf Ct
282	SW Woodleaf Ct
254	SW Woodleaf Ct
222	SW Woodleaf Ct
221	SW Fieldstone Ct
239	SW Fieldstone Ct
265	SW Fieldstone Ct
301	SW Fieldstone Ct
331	SW Fieldstone Ct
359	SW Fieldstone Ct
377	SW Fieldstone Ct
385	SW Fieldstone Ct
376	SW Fieldstone Ct
364	SW Fieldstone Ct
344	SW Fieldstone Ct
328	SW Fieldstone Ct
310	SW Fieldstone Ct
290	SW Fieldstone Ct
264	SW Fieldstone Ct
238	SW Fieldstone Ct
220	SW Fieldstone Ct
251	SW Timberland Ct
267	SW Timberland Ct
285	SW Timberland Ct
305	SW Timberland Ct
325	SW Timberland Ct
347	SW Timberland Ct

<u>LOT#:</u>	<u>ADDRESS:</u>
85	386 SW Timberland Ct
86	366 SW Timberland Ct
87	346 SW Timberland Ct
88	322 SW Timberland Ct

85	386 SW Timberland Ct
86	366 SW Timberland Ct
87	346 SW Timberland Ct
88	322 SW Timberland Ct



COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

Telephone: (386) 758-1125 * FAX (386) 758-1365 * Email: ron_croft@columbiacountyfla.com

To: Mr. John Kerce, Building and Zoning Coordinator

Fr: Ronal Croft, 9-1-1 Addressing

Dt: April 20, 2006

Re: 9-1-1 Addressing of "Emerald Cove, Phase 2" Subdivision.

Please find attached 9-1-1 Addressing data for Emerald Cove, Phase 2, Subdivision in Section 33, Township 4 South, Range 16 East.

NOTE: Contact the 9-1-1 Address Department if two or more lots are to be combined for one residential location, as this will affect the address number.

Please contact us at Telephone Number 758-1125 if there are any questions concerning the addressing of this subdivision.

XC: Environmental Health Department
Lake City Post Office
George Johnson, Bell South
Larry Cook, Property Appraiser's Office
File

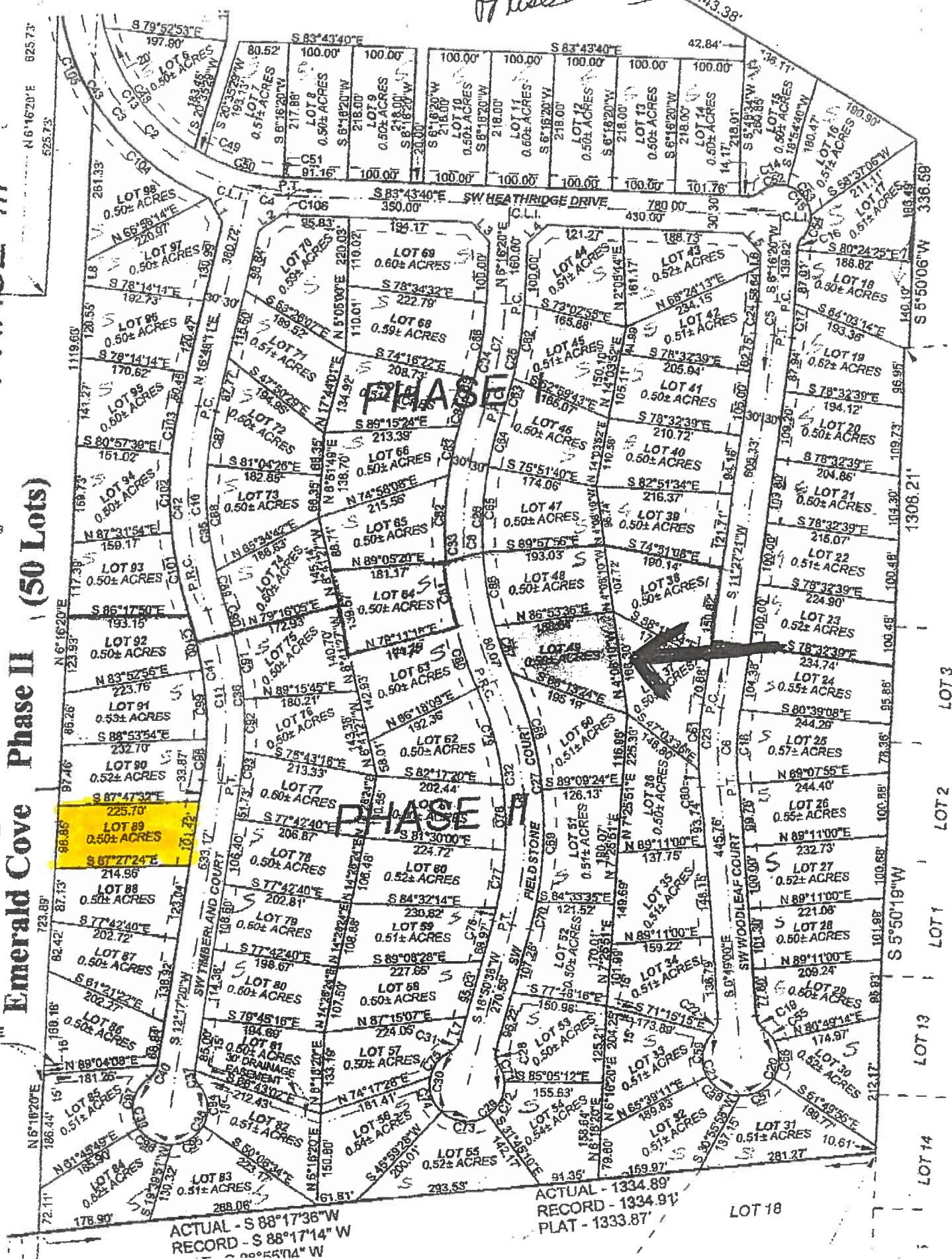
02498-101 Kim Eggleston Lot 49

Emerald Cove Phase II (50 Lots)

PHASE III

Phase I

43.38'



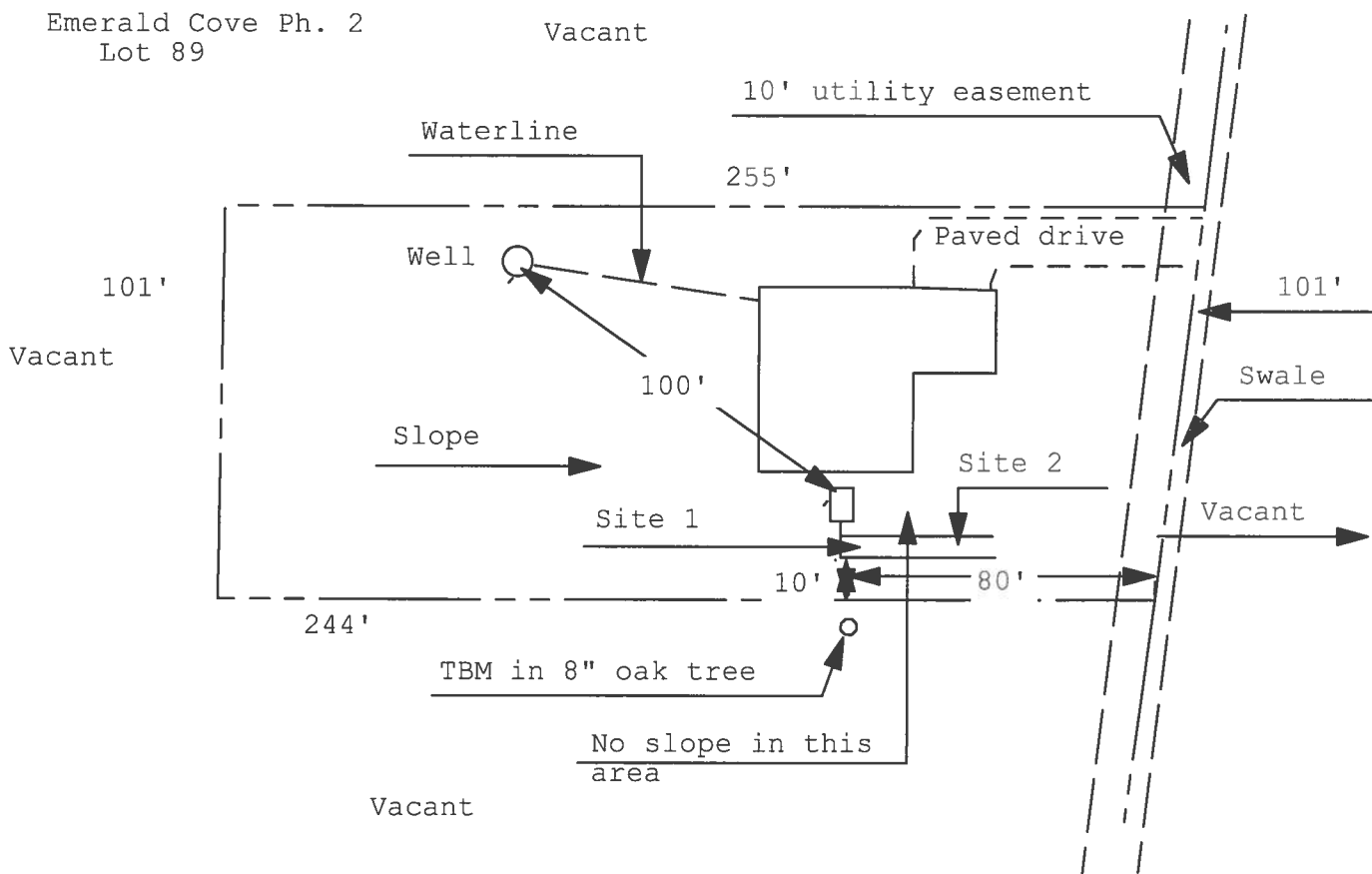
LOT 18

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

Permit Application Number: 06-0895N

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

KEEN/CR 3722



1 inch = 50 feet

Site Plan Submitted By Paul Lloyd Date 10/4/06
Plan Approved X Not Approved Date

By Salthe Graddy EIT 10-11-06 CPHU

Notes: Columbia CHD

PREPARED BY AND RETURN TO:

TERRY McDAVID
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

Property Appraiser's
Identification Number R02438-000

TM File No: 06-471

WARRANTY DEED

This Warranty Deed, made this 15th day of September, 2006, BETWEEN D D P CORPORATION, a Florida corporation, whose post office address is 4158 US Highway 90 West, Lake City, Florida 32055, of the County of Columbia, State of Florida, grantor*, and JOHN W. KEEN, whose post office address is 4062 SW Old Wire Road, Ft. White, Florida 32038, 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)

Witneseth: that said grantor, for and in consideration of the sum of Ten 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 89, Emerald Cove, Phase 2, a subdivision according to the plat thereof recorded in Plat Book 8, Pages 68-69, public records, Columbia County, Florida.

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 subject to taxes for the current year and later years and all valid easements and restrictions of record, if any, which are not hereby reimposed; and also subject to any claim, right, title or interest arising from any recorded instrument reserving, conveying, leasing, or otherwise alienating any interest in the oil, gas and other minerals. And grantor does warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever, subject only to the exceptions set forth herein

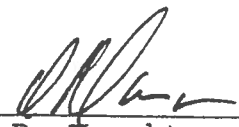
In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered
in our presence:

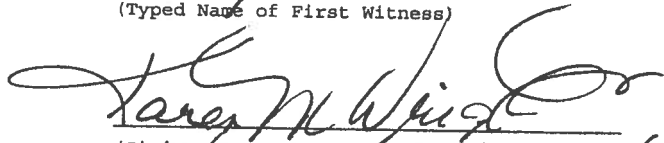
D D P CORPORATION


(Signature of First Witness)

TERRY McDAVID
(Typed Name of First Witness)

BY:  (SEAL)
O. P. Daughtry, III,
President

(Corporate Seal)

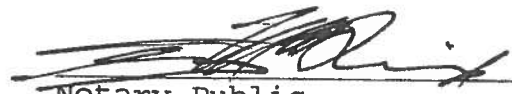

(Signature of Second Witness)

KAREN M. Wright
(Typed Name of Second Witness)

STATE OF FLORIDA
COUNTY OF COLUMBIA

15th The foregoing instrument was acknowledged before me this day of September, 2006, by O. P. Daughtry, III, President of D D P Corporation, a Florida corporation, on behalf of said corporation, who is/are personally known to me or who has/have produced _____ as identification and who did not take an oath.

My Commission Expires:


Notary Public
Printed, typed, or stamped name:



PREPARED BY AND RETURN TO:

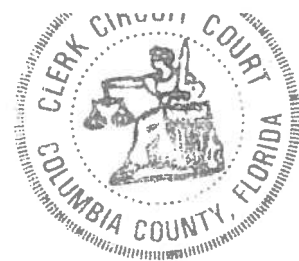
TERRY McDAVID
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

File No. 06-471

STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing
is a true copy of the original filed in this office.
P. DEWITT CASON, CLERK OF COURTS

By Shaun Teagle
Deputy Clerk

Date 09-19-2006



TAX FOLIO NO.: 02438-000

PERMIT NO. _____

NOTICE OF COMMENCEMENT

STATE OF FLORIDA
COUNTY OF COLUMBIA

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

1. Description of property:

Lot 89, Emerald Cove, Phase 2, a subdivision according to the plat thereof as recorded in Plat Book 8, Pages 68-69, public records, Columbia County, Florida.

2. General description of improvement: Construction of single family dwelling

3. Owner information:

a. Name and address: John W. Keen, 4062 SW Old Wire Road
Ft. White, FL 32038

b. Interest in property: Fee Simple

c. Name and address of fee simple title holder (if other than Owner):

4. Contractor: K&H Framing/Vinyl Siding, Inc., 1534 SW Dekle Road,
Lake City, Florida 32024.

5. Surety

Inst: 2006022345 Date: 09/19/2006 Time: 12:42

a. Name and address: None S-7 DC, P. DeWitt Cason, Columbia County B: 1096 P:

b. Amount of bond:

6. Lender: FIRST FEDERAL SAVINGS BANK OF FLORIDA, 4705 West US Highway 90, Lake City, Florida 32055.

7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes: None

8. In addition to himself, Owner designates PAULA HACKER of FIRST FEDERAL SAVINGS BANK OF FLORIDA, 4705 West US Highway 90, Lake City, Florida 32055, to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.

9. Expiration date of notice of commencement (the expiration date is 1 year from the date of recording unless a different date is specified). Ma

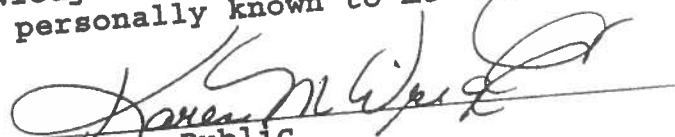
1 100-
25, 2006.


John W. Keen

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 15th day of September, 2006, by John W. Keen. He is personally known to me and did not take an oath.




Notary Public
My commission expires: _____

Gaylord Pump & Irrigation Inc.

P.O. Box 548

Branford, FL 32008

386-935-0932 Fax 386-935-0778

10/03/06

K&H Framing/John Keen

We will be drilling a well for John Keen. The property ID number is 33-3S-16-20438-189.
The following equipment will be used.

4" Steel Casing
1 Hp Submersible pump
1-1/4" Galvanize drop pipe
81 Gallon diaphragm tank with 24.9 gallons of draw down

This equipment meets or exceeds the Florida building code, plumbing section 612 table 612.1

Sincerely,

Donald Gaylord



Licensed Well Driller

Florida License 2630

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Whole Building Performance Method A

Project Name:	608211K&HFramingVinylSiding	Builder:	<i>Jason Elison</i>
Address:	Lot: 89, Sub: Emerald Cove, Plat:	Permitting Office:	<i>Columbia</i>
City, State:	, FL	Permit Number:	<i>25118</i>
Owner:	Spec House	Jurisdiction Number:	<i>22000</i>
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 39.0 kBtu/hr SEER: 10.00
3. Number of units, if multi-family	1	b. N/A	
4. Number of Bedrooms	3	c. N/A	
5. Is this a worst case?	Yes	13. Heating systems	
6. Conditioned floor area (ft²)	1934 ft²	a. Electric Heat Pump	Cap: 39.0 kBtu/hr HSPF: 7.00
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		b. N/A	
a. U-factor:	Description Area	c. N/A	
(or Single or Double DEFAULT) 7a. (Dble Default) 254.3 ft²		14. Hot water systems	
b. SHGC:		a. Electric Resistance	Cap: 40.0 gallons EF: 0.93
(or Clear or Tint DEFAULT) 7b. (Clear) 254.3 ft²		b. N/A	
8. Floor types		c. Conservation credits	
a. Slab-On-Grade Edge Insulation	R=0.0, 214.0(p) ft	(HR-Heat recovery, Solar	
b. N/A		DHP-Dedicated heat pump)	
c. N/A		15. HVAC credits	
9. Wall types		(CF-Ceiling fan, CV-Cross ventilation,	
a. Frame, Wood, Exterior	R=13.0, 1190.7 ft²	HF-Whole house fan,	
b. Frame, Wood, Adjacent	R=13.0, 204.0 ft²	PT-Programmable Thermostat,	
c. N/A		MZ-C-Multizone cooling,	
d. N/A		MZ-H-Multizone heating)	
e. N/A			
10. Ceiling types			
a. Under Attic	R=30.0, 1994.0 ft²		
b. N/A			
c. N/A			
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 180.0 ft		
b. N/A			

Glass/Floor Area: 0.13

Total as-built points: 27176

Total base points: 27718

PASS

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

PREPARED BY: *[Signature]*

DATE: *8-24-06*

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

OWNER/AGENT: _____

DATE: _____

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

BUILDING OFFICIAL: _____

DATE: _____



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

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 89, Sub: Emerald Cove, Plat: , , FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area											
				Type/SC	Overhang Ornt Len Hgt			Area X SPM X SOF = Points			
.18	1934.0	20.04	6976.3	Double, Clear	S	1.5	5.5	45.0	35.87	0.83	1343.1
				Double, Clear	S	12.0	5.5	30.0	35.87	0.45	480.3
				Double, Clear	SE	12.0	5.5	10.0	42.75	0.40	170.1
				Double, Clear	S	7.5	6.0	36.0	35.87	0.49	632.1
				Double, Clear	S	1.5	5.5	30.0	35.87	0.83	895.4
				Double, Clear	W	1.5	3.5	12.0	38.52	0.78	359.9
				Double, Clear	N	4.5	6.0	36.0	19.20	0.76	523.0
				Double, Clear	N	4.5	7.5	13.3	19.20	0.80	203.6
				Double, Clear	N	1.5	0.0	30.0	19.20	0.59	341.6
				Double, Clear	E	1.5	4.5	12.0	42.06	0.85	428.1
				As-Built Total:			254.3			5377.3	
WALL TYPES Area X BSPM = Points				Type		R-Value		Area X SPM = Points			
Adjacent	204.0	0.70	142.8	Frame, Wood, Exterior		13.0		1190.7	1.50		1786.0
Exterior	1190.7	1.70	2024.2	Frame, Wood, Adjacent		13.0		204.0	0.60		122.4
Base Total:		1394.7	2167.0	As-Built Total:				1394.7	1908.4		
DOOR TYPES Area X BSPM = Points				Type				Area X SPM = Points			
Adjacent	20.0	1.60	32.0	Exterior Insulated				40.0	4.10		164.0
Exterior	50.0	4.10	205.0	Adjacent Insulated				20.0	1.60		32.0
				Exterior Insulated				10.0	4.10		41.0
Base Total:		70.0	237.0	As-Built Total:				70.0	237.0		
CEILING TYPES Area X BSPM = Points				Type		R-Value		Area X SPM X SCM = Points			
Under Attic	1934.0	1.73	3345.8	Under Attic		30.0		1994.0	1.73 X 1.00		3449.6
Base Total:		1934.0	3345.8	As-Built Total:				1994.0	3449.6		
FLOOR TYPES Area X BSPM = Points				Type		R-Value		Area X SPM = Points			
Slab	214.0(p)	-37.0	-7918.0	Slab-On-Grade Edge Insulation		0.0		214.0(p)	-41.20		-8816.8
Raised	0.0	0.00	0.0								
Base Total:			-7918.0	As-Built Total:				214.0	-8816.8		
INFILTRATION Area X BSPM = Points								Area X SPM = Points			
	1934.0	10.21	19746.1					1934.0	10.21		19746.1

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 89, Sub: Emerald Cove, Plat: , , FL,

PERMIT #:

BASE				AS-BUILT						
Summer Base Points: 24554.3				Summer As-Built Points: 21901.7						
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier	X System Multiplier	X Credit Multiplier	=	Cooling Points
24554.3	0.4266		10474.9	(sys 1: Central Unit 39000 btuh ,SEER/EFF(10.0) Ducts:Unc(S),Unc(R),Int(AH),R6.0(INS) 21902	1.00 (1.09 x 1.147 x 0.91)	0.341	1.000			8504.4
				21901.7	1.00	1.138	0.341	1.000		8504.4

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 89, Sub: Emerald Cove, Plat: , , FL,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt		Area X WPM X WOF = Points				
.18	1934.0	12.74	4435.0	Double, Clear	S	1.5	5.5	45.0	13.30	1.15	686.4
				Double, Clear	S	12.0	5.5	30.0	13.30	3.54	1413.5
				Double, Clear	SE	12.0	5.5	10.0	14.71	2.52	370.4
				Double, Clear	S	7.5	6.0	36.0	13.30	3.09	1477.5
				Double, Clear	S	1.5	5.5	30.0	13.30	1.15	457.6
				Double, Clear	W	1.5	3.5	12.0	20.73	1.07	265.2
				Double, Clear	N	4.5	6.0	36.0	24.58	1.01	897.8
				Double, Clear	N	4.5	7.5	13.3	24.58	1.01	330.7
				Double, Clear	N	1.5	0.0	30.0	24.58	1.03	757.5
				Double, Clear	E	1.5	4.5	12.0	18.79	1.06	239.2
				As-Built Total:				254.3	6895.9		
WALL TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Adjacent	204.0	3.60	734.4	Frame, Wood, Exterior	13.0		1190.7	3.40	4048.4		
Exterior	1190.7	3.70	4405.6	Frame, Wood, Adjacent	13.0		204.0	3.30	673.2		
Base Total: 1394.7 5140.0				As-Built Total:		1394.7		4721.6			
DOOR TYPES Area X BWPM = Points				Type			Area X WPM = Points				
Adjacent	20.0	8.00	160.0	Exterior Insulated			40.0	8.40	336.0		
Exterior	50.0	8.40	420.0	Adjacent Insulated			20.0	8.00	160.0		
				Exterior Insulated			10.0	8.40	84.0		
Base Total: 70.0 580.0				As-Built Total:		70.0		580.0			
CEILING TYPES Area X BWPM = Points				Type	R-Value		Area X WPM X WCM = Points				
Under Attic	1934.0	2.05	3964.7	Under Attic	30.0		1994.0	2.05 X 1.00	4087.7		
Base Total: 1934.0 3964.7				As-Built Total:		1994.0		4087.7			
FLOOR TYPES Area X BWPM = Points				Type	R-Value		Area X WPM = Points				
Slab	214.0(p)	8.9	1904.6	Slab-On-Grade Edge Insulation	0.0		214.0(p)	18.80	4023.2		
Raised	0.0	0.00	0.0								
Base Total: 1904.6				As-Built Total:		214.0		4023.2			
INFILTRATION Area X BWPM = Points						Area X WPM = Points					
1934.0 -0.59 -1141.1						1934.0 -0.59		-1141.1			

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 89, Sub: Emerald Cove, Plat: , , FL,

PERMIT #:

BASE				AS-BUILT									
Winter Base Points: 14883.3				Winter As-Built Points: 19167.3									
Total Winter Points	X	System Multiplier	= Heating Points	Total Component (System - Points)	X	Cap Ratio (DM x DSM x AHU)	X	Duct Multiplier	X	System Multiplier	X	Credit Multiplier	= Heating Points
14883.3		0.6274	9337.8	(sys 1: Electric Heat Pump 39000 btuh ,EFF(7.0) Ducts:Unc(S),Unc(R),Int(AH),R6.0 19167.3 1.000 (1.069 x 1.169 x 0.93) 0.487 1.000 10851.6 19167.3 1.00 1.162 0.487 1.000 10851.6									

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: **89**, Sub: **Emerald Cove**, Plat: , , FL,

PERMIT #:

BASE				AS-BUILT					
WATER HEATING									
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X	Tank X Ratio	Multiplier X Credit = Total Multiplier
3		2635.00	7905.0	40.0	0.93	3		1.00	2606.67 1.00 7820.0
				As-Built Total:					7820.0

CODE COMPLIANCE STATUS

BASE					AS-BUILT				
Cooling Points	+	Heating Points	+	Hot Water Points = Total Points	Cooling Points	+	Heating Points	+	Hot Water Points = Total Points
10475		9338		7905 27718	8504		10852		7820 27176

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 89, Sub: Emerald Cove, Plat: , , FL,

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

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

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 83.4

The higher the score, the more efficient the home.

Spec House, Lot: 89, Sub: Emerald Cove, Plat: , , FL,

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 39.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 10.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes	c. N/A	
6. Conditioned floor area (ft ²)	1934 ft ²		
7. Glass type ¹ and area: (Label reqd. by 13-104.4.5 if not default)		13. Heating systems	
a. U-factor:	Description Area	a. Electric Heat Pump	Cap: 39.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 254.3 ft ²		HSPF: 7.00
b. SHGC:		b. N/A	
(or Clear or Tint DEFAULT)	7b. (Clear) 254.3 ft ²	c. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=0.0, 214.0(p) ft	14. Hot water systems	
b. N/A		a. Electric Resistance	Cap: 40.0 gallons
c. N/A			EF: 0.93
9. Wall types		b. N/A	
a. Frame, Wood, Exterior	R=13.0, 1190.7 ft ²	c. Conservation credits	
b. Frame, Wood, Adjacent	R=13.0, 204.0 ft ²	(HR-Heat recovery, Solar	
c. N/A		DHP-Dedicated heat pump)	
d. N/A		15. HVAC credits	
e. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		HF-Whole house fan,	
a. Under Attic	R=30.0, 1994.0 ft ²	PT-Programmable Thermostat,	
b. N/A		MZ-C-Multizone cooling,	
c. N/A		MZ-H-Multizone heating)	
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 180.0 ft		
b. N/A			

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

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____



**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStarTM designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

¹ Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.
EnergyGauge® (Version: FLR2PB v4.1)

**Columbia County Building Department
Culvert Permit**

**Culvert Permit No.
000001239**

DATE 10/16/2006 PARCEL ID # 33-3S-16-02438-189
APPLICANT GLENN KEEN PHONE 758-9175
ADDRESS 1534 SW DEKLE ROAD LAKE CITY FL 32024
OWNER GLENN KEEN/JOHN KEEN PHONE 961-8223
ADDRESS 302 SW TIMBERLAND COURT LAKE CITY FL 32024
CONTRACTOR JASON ELXISON PHONE 867-0156
LOCATION OF PROPERTY 90W, TL ON HEATHRIDGE DR, TR ON TIMBERLAND, 9TH LOT ON RIGHT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT EMERALD COVE 89 II

SIGNATURE 

INSTALLATION REQUIREMENTS



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

INSTALLATION NOTE: Turnouts will be required as follows:

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



Culvert installation shall conform to the approved site plan standards.



Department of Transportation Permit installation approved standards.



Other _____

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

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

Amount Paid 25.00



25118

Notice of Treatment

Applicator: Florida Pest Control & Chemical Co. (www.flapest.com)Address: BAYVIEW AVECity: Lake City Phone: 702 1703Site Location: Subdivision Emerald CoveLot # 29 Block# 25118 Permit # 25118Address 302 SW Timberland CTProduct usedActive Ingredient% Concentration☒ Premise Imidacloprid 0.1%☐ Termidor Fipronil 0.12%☐ Bora Care Disodium Octaborate Tetrahydrate 23.0%

Type treatment:

☒ Soil☐ Wood

Area Treated

Square feet

Linear feet

Gallons Applied

Dwelling3102249250

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 _____.

11/13/06
Date1615
TimeF254 GUNNY
Print Technician's NameRemarks: DOES NOT Include Front Entry,
NOT TREATED

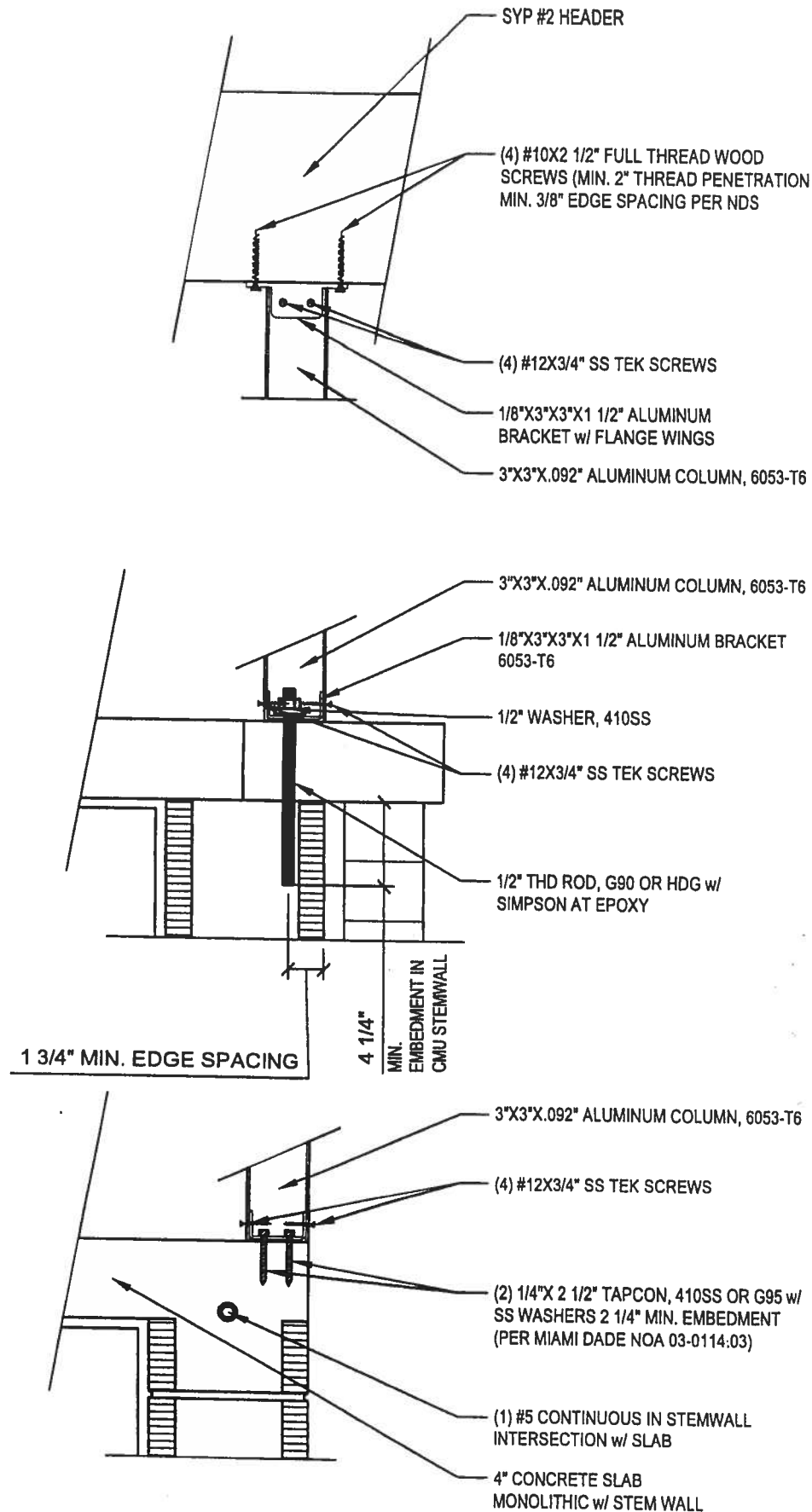
Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05





WINDLOAD ENGINEER: Mark Disosway, P.E. No. 52915, P.O. Box 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
Stated dimensions supersede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

COPYRIGHTS AND PROPERTY RIGHTS:
Mark Disosway, P.E. hereby expressly reserves all common law copyrights and property right in these instruments of service. This document is not to be reproduced, altered or copied in any form or manner without first the express written permission and consent of Mark Disosway.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to civil engineering, comply with section F301.2.1, Florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 52915
17 JAN 07
SEALED

K & H Framing / Vinyl Siding, Inc.

Spec House
Lot 89 Emerald Cove S/D

ADDRESS:
Lot 89 Emerald Cove S/D
Columbia County, Florida

Mark Disosway P.E.
P.O. Box 868
Lake City, Florida 32056
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

PRINTED DATE
January 17, 2007

DRAWN BY: David Disosway

CHECKED BY:

FRILLS DATE
21 / Aug / 06

JOB NUMBER:
608211

DRAWING NUMBER

OF 3 SHEETS

W44 - ALUMINUM PORCH POST & HEADER ANCHORS

SCALE: N.T.S. REV-09-MAY-04

Permit no: 25118

EMERALD CANYON ON

OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

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

Parcel Number 33-3S-16-02438-189 Building permit No. 000025118

Use Classification SFD, UTILITY Fire: 44.64

Permit Holder JASON ELIXSON Waste: 134.00

Owner of Building GLENN KEEN/JOHN KEEN Total: 178.64

Location: 302 SW TIMBERLAND CRT (EMERALD COVE L-89 U-2)

Date: 02/19/2007

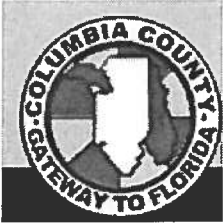


Stacy Dick

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

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

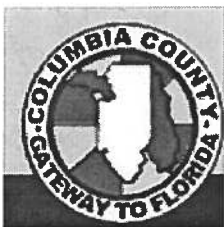


Phone Number 386-758-1163
Fax Number 386-754-7088

FAX TRANSMITTAL

To: K&H Framing
Name: Glenn L Keen
CC: Building permit application **0610-34**
Number of Pages: *Five pages* including the cover page
Fax: (386) 758-9175
Message: Reference to building permit application Number: **0610-34**

To the review of the party to whom it is addressed. It may contain proprietary and/or privileged information protected by law. If you are not the intended recipient, you may not use, copy or distribute this facsimile message or its attachments. If you have received this transmission in error, please immediately telephone the sender above to arrange for its return.



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

Reference to a building permit application Number: **0610-34**
Glenn L. Keen (K&H Framing Contractors) Owners Glenn L. Keen & John W.
Keen Property ID 33-3s-16-20438-189

On the date of October 11, 2006 application 0610-34 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 0610-34 and when making reference to this application.

This is a plan review for compliance with the Florida Residential Code 2004 only and doesn't make any consideration toward the land use and zoning requirements.

1. This is to clarify the 2004 Florida Residential Building Code requirements as the code relates to residential garages. Section R309 garages and carports.
R309.1 Opening protection:

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

R309.1.1 Duct penetration:

Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.

R309.2 Separation required:

The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side.

Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.

R309.3 Floor surface:

Garage floor surfaces shall be of approved noncombustible material.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

R309.4 Carports:

Carports shall be open on at least two sides. Carport floor surfaces shall be of approved noncombustible material. Carports not open on at least two sides shall be considered a garage and shall comply with the provisions of this section for garages.

Exception: Asphalt surfaces shall be permitted at ground level in carports. The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

R309.6 Automatic garage door openers:

Automatic garage door openers, if provided, shall be listed in accordance with UL 325.

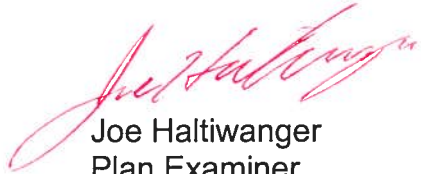
In the garage area a mechanical closet has be established to house two appliances (WH &HVAC). In accordance with the above section R309.1.1 duct penetration of the HVAC unit shall either meet the requirements of R309.1.1 or the door which provides access to the mechanical closet can be installed to meet the requirements of R309.1, which will provide the required protection of the HVAC unit.

2. The electrical plans show that the electrical panel will be located in the garage area. At the electrical service entrance point an overcurrent protection device shall be installed on the exterior of structure which will provide overcurrent protection for the total service amperage rating and a means of disconnecting electrical service from the serving utility company.

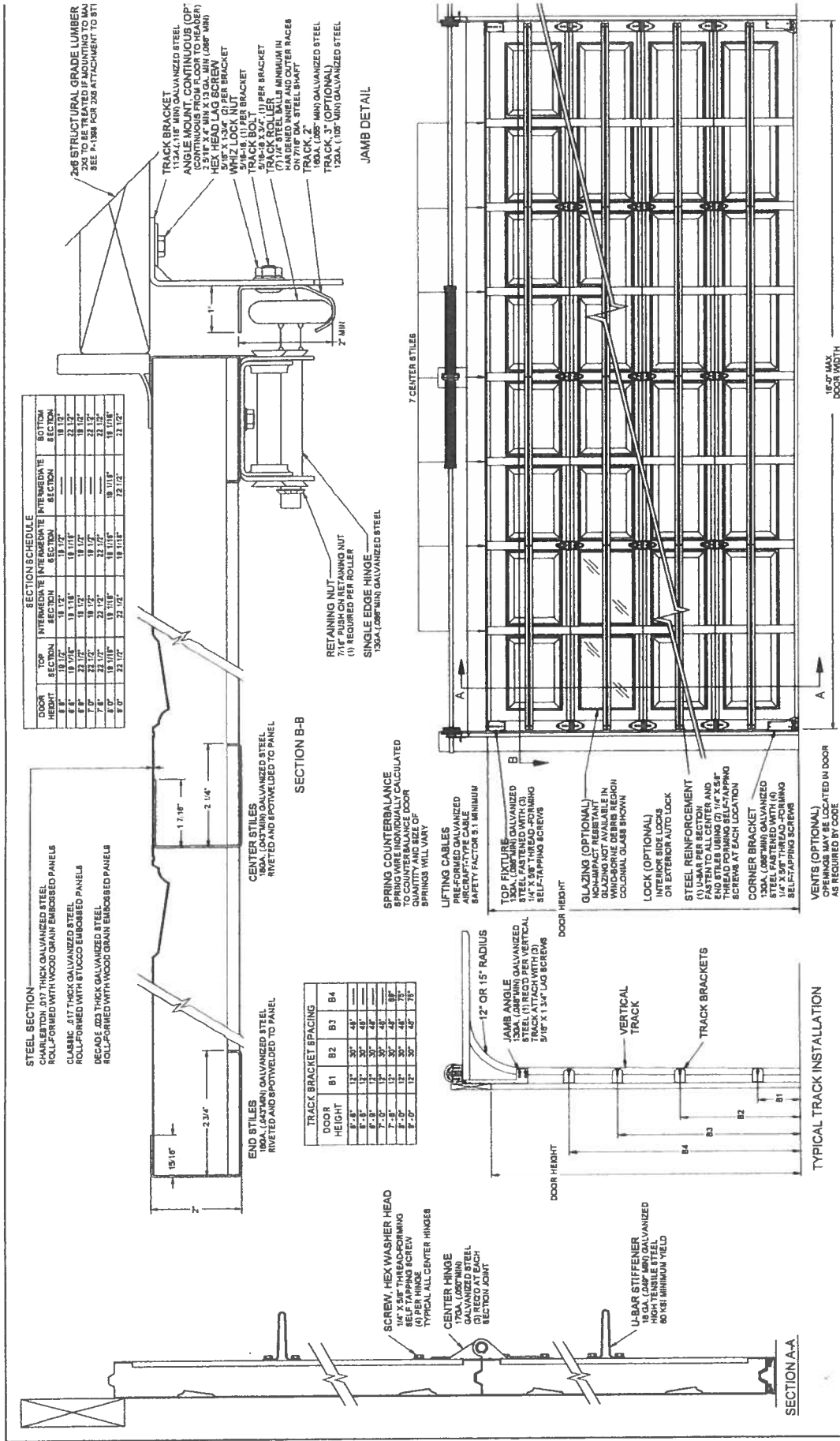
Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground.

Please be advised of the above code requirements when constructing this structure. The plan as submitted are approved for construction by the Columbia County Building Department and will be forward to the Columbia County Zoning Department for review.

Thank You:



Joe Haltiwanger
Plan Examiner
Columbia County Building
Department



DOORS TESTED PER ASTM E-330

CHARLESTON, CLASSIC, DECADE		RANCH GLASS	
QTY OF CENTER STILES	PSF RATING	PSF RATING	PSF RATING
7	+18.3	+27.5	+27.5
	-20.4	-20.4	-20.4

INTERIOR ELEVATION

RAYNOR		SPEC. WINDLOAD	
1131 SAT. WOOD P-340		CHARLESTON/CLASSIC/DECADE 16" WIDE	
NO. P-2342		SHEET	
1 OF 1		1 OF 1	
SCALE FULL		DRAWN BY M. McCracken	
A		CHECKED BY G. Wieding	
A		DATE 07/13/04	
A		ECO 4719	
A		ECO 4719	

**ELK**

ROOFING PRODUCTS SPECIFICATIONS — TUSCALOOSA, AL

**PRESTIQUE®
HIGH DEFINITION®****RAISED PROFILE®****Prestique Plus High Definition
and Prestique Gallery Collection****

Product size 13 1/4" x 39 1/2"
 Exposure 5 1/4"
 Pieces/Bundle 16
 Bundles/Square 4/98.5 sq. ft.
 Squares/Pallet 11

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

Raised Profile

Product size 13 1/4" x 38 1/2"
 Exposure 5 1/4"
 Pieces/Bundle 22
 Bundles/Square 3/100 sq. ft.
 Squares/Pallet 16

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

Prestique I High Definition

Product size 13 1/4" x 39 1/2"
 Exposure 5 1/4"
 Pieces/Bundle 16
 Bundles/Square 4/98.5 sq. ft.
 Squares/Pallet 14

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

HIP AND RIDGE SHINGLES**Seal-A-Ridge® w/FLX™**

Size: 12" x 12"
 Exposure: 6 1/2"
 Pieces/Bundle: 45
 Coverage: 4 Bundles =
 100 linear feet

Vented RidgeCrest™ w/FLX®

Size: 13" x 13"
 Exposure: 9 1/4"
 Pieces/Box: 26
 Coverage: 5 boxes =
 100 linear feet

Prestique High Definition

Product size 13 1/4" x 38 1/2"
 Exposure 5 1/4"
 Pieces/Bundle 22
 Bundles/Square 3/100 sq. ft.
 Squares/Pallet 16

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

Elk Starter Strip

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

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

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

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

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

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

*See actual limited warranty for conditions and limitations.

** Effective January 1, 2004, the seven year non-prorated Umbrella Coverage Period applies only when a full Elk Roof System is installed with the original installation of the Elk shingles, all in accordance with Elk's application instructions for such products. A full Elk roof system includes Elk Hip and Ridge shingles on all hips and ridges, Elk Starter Strip along all rakes and eave edges, an Elk vented roof system, and Elk All-Climate Self-Adhering Underlayment in all valleys. Additionally, Elk All-Climate Self-Adhering Underlayment is required along the rakes and eave edges of the roof in east and north of the states of VA, KY, MO, KS, CO, UT, NV, & OR.

***For a limited Wind Warranty up to 110 mph for Prestique Gallery Collection, Prestique Plus, or 90 mph for Prestique I or Grande, at least six (6) properly placed NAILS and Elk Starter Strip shingles are required. See application instructions printed on the shingle wrapper for additional requirements.

SPECIFICATIONS

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

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

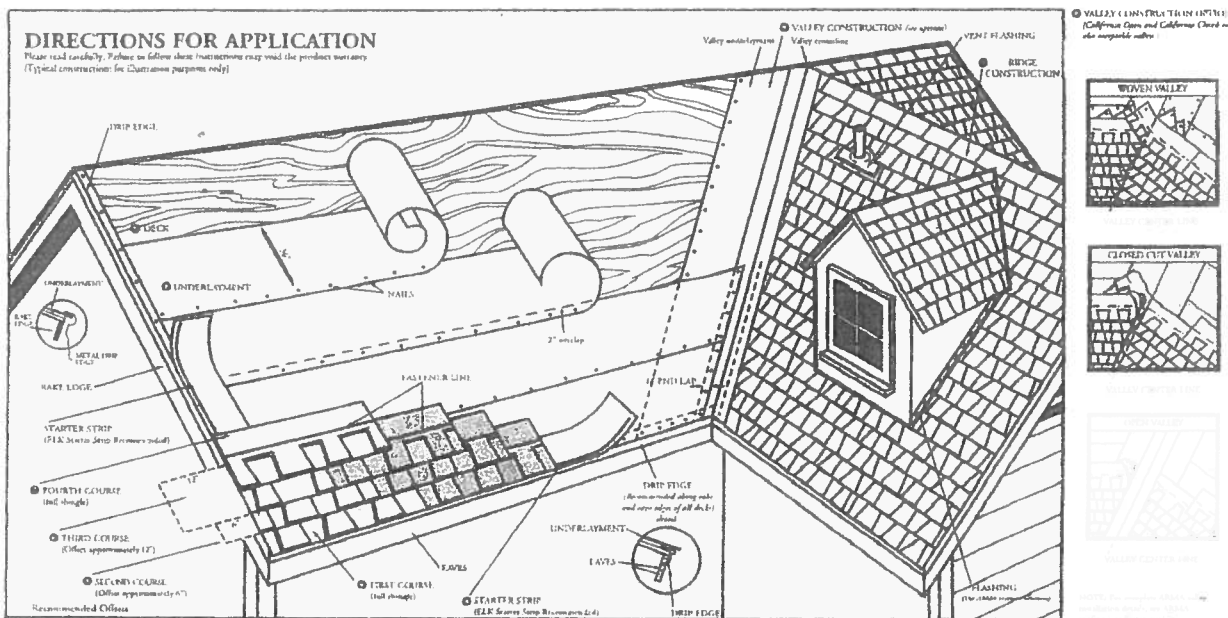
PREPARATION OF ROOF DECK: Roof deck to be dry, well-seasoned 1" x 6" (25.4mm x 152.4mm) boards; exterior-grade plywood (exposure 1 rated sheathing) at least 3/8" (9.525mm) thick conforming to the specifications of the American Plywood Association; 7/16" (11.074mm) oriented strandboard, or chipboard. Most fire retardant plywood decks are NOT approved substrates for Elk shingles. Consult Elk Field Service for application specifications over other decks and other slopes.

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

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

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

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



DIRECTIONS FOR APPLICATION

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

1 DECK PREPARATION

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

2 UNDERLAYMENT

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

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

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

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

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

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

3 STARTER SHINGLE COURSE

USE AN ELK STARTER STRIP OR THE HEADLAP OF A STRIP SHINGLE WITH THE ADHESIVE STRIP POSITIONED AT THE EAVE EDGE. With at least 3" trimmed from the end of the first shingle, start at the rake edge overhanging the eave and rake edges 1/2" to 3/4". Fasten 7" from the lower edge and 1" from each side.

4 FIRST COURSE

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

5 SECOND COURSE

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

6 THIRD COURSE

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

7 FOURTH COURSE

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

FIFTH AND SUCCEEDING COURSES.

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

8 VALLEY CONSTRUCTION

Open, woven and closed cut valleys are acceptable when applied by Asphalt Roofing Manufacturing Association (ARMA) recommended procedures. For metal valleys, use 36" wide vertical underlayment prior to applying metal flashing (secure edge with nails). No nails are to be within 6" of valley center.

9 RIDGE CONSTRUCTION

For ridge construction Elk recommends Class A® 2" Ridge or Seal-A-Ridge® with formula FLX™ or RidgeCrest® with FLX (See ridge package for installation instructions). Vented RidgeCrest or 3-tab shingles are also approved.

FASTENERS

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

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

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

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

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

MANSARD APPLICATIONS

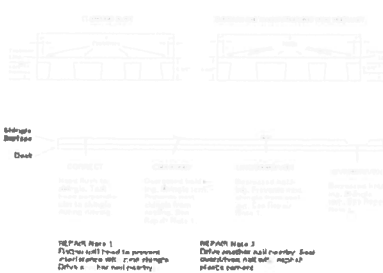
Correct fastening is critical to the performance of the roof. For slopes exceeding 60° (or 21/12) use six fasteners per shingle. Locate fasteners in the fastener area 1" from each side edge with the remaining four fasteners equally spaced along the length of the double thickness (laminated) area. Only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

LIMITED WIND WARRANTY

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

HELP STOP BLOW AN ICE RAKE

A minimum of four shingles must be applied over a double THICKNESS (laminated) area of the shingle. Nails or staples must be placed along the fastener line or in the double thickness common bond area. Do not use fastener line for shingle alignment.



Refer to local codes which in some areas may require specific application techniques beyond those Elk has specified. All Prestique and Raised Profile shingles have a U.L.C. Wind Resistance Rating when applied in accordance with these instructions using nails or staples on re-roofs as well as a new construction.

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

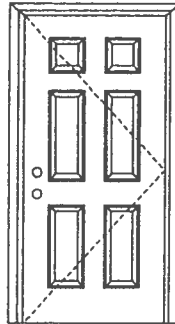
X

Opaque Inswing Unit

COP-WL-JH4101-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Note:

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



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

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

Design Pressure
+66.0/-66.0

limited water unless special threshold design is used

Large Missile Impact Resistance

Hurricane protective system (shutters) is NOT REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

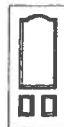
MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:



Flush



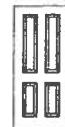
Arch Top 3-panel



3-panel



6-panel



New England 4-panel



Eyebrow 4-panel



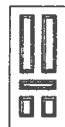
8-panel



9-panel



15-panel



5-panel



5-panel with scroll



Eyebrow 5-panel



Eyebrow 5-panel with scroll

Johnson™
EntrySystems

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



Exclusively from

Masonite International Corporation

X

Opaque Inswing Unit

COP-WL-JH4101-02

WOOD-EDGE STEEL DOORS

CERTIFIED TEST REPORTS:

NCTL 210-2185-1, 2, 3

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

Unit Tested in Accordance with Miami-Dade BCCO PA201, PA202 and PA203.

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN ACCORDANCE WITH
MIAMI-DADE BCCO
PA201, PA202 & PA203

COMPANY NAME
CITY, STATE

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



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

Warnock Hersey



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

2

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June 17, 2002

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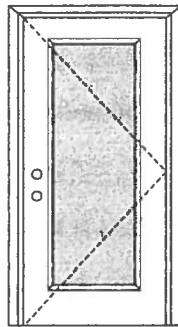
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Masonite®

Masonite International Corporation

X

Glazed Outswing Unit

COP-WL-JH4161-02**WOOD-EDGE STEEL DOORS****APPROVED ARRANGEMENT:****Note:**

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



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

Single Door

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

Design Pressure

+40.5/-40.5

Limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:**1/4 GLASS:**

100 Series



133, 135 Series



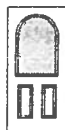
136 Series



680 Series



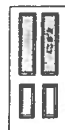
822 Series

1/2 GLASS:

105 Series*



106, 160 Series*



129 Series*



200 Series*



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



107 Series*



108 Series



304 Series

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

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EntrySystems

June 17, 2002
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Exclusively from

Masonite®
Masonite International Corporation

X

Glazed Outswing Unit

COP-WL-JH4161-02

WOOD-EDGE STEEL DOORS**APPROVED DOOR STYLES:****3/4 GLASS:**

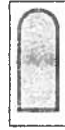
404 Series



410 Series



450 Series

FULL GLASS:

109 Series

114, 120, 122
Series

152 Series



149 Series



300 Series

CERTIFIED TEST REPORTS:

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

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

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

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

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

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

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



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

2

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EntrySystems™

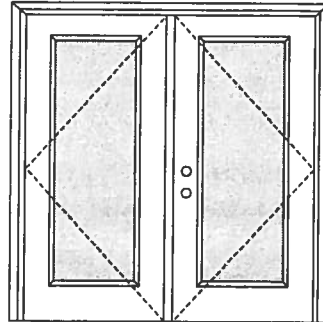


Exclusively from
Masonite

XX

Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS**APPROVED ARRANGEMENT:**

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

Note:

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

Double Door

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

Design Pressure

+40.5/-40.5

Limited water unless special threshold design is used.

Large Missile Impact Resistance

Hurricane protective system (shutters) is REQUIRED.

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

MINIMUM ASSEMBLY DETAIL:

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

MINIMUM INSTALLATION DETAIL:

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

APPROVED DOOR STYLES:**1/4 GLASS:**

100 Series



133, 135 Series



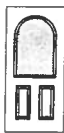
136 Series



680 Series



822 Series

1/2 GLASS:

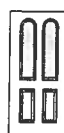
105 Series*



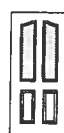
106, 160 Series*



129 Series*



200 Series*



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



107 Series*



108 Series



304 Series

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

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EntrySystems

June 17, 2002

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PREMDOR® Collection
Premium Quality Doors



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Masonite®
Masonite International Corporation

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Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS**APPROVED DOOR STYLES:****3/4 GLASS:**

404 Series



410 Series



450 Series

FULL GLASS:

109 Series

114, 120, 122
Series

152 Series



149 Series



300 Series

CERTIFIED TEST REPORTS:

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

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

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

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

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

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

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



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

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June 17, 2002
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**AAMA/NWWDA 101/I.S.2-97
TEST REPORT**

Rendered to:

MI HOME PRODUCTS, INC.

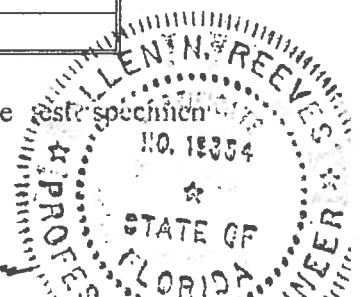
SERIES/MODEL: 650

TYPE: Aluminum Triple Single Hung Window

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

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

Allen N. Reeves
7-11-97





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

Rendered to

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

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

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

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

Test Specimen Description:

Series/Model: 650

Type: Aluminum Triple Single Hung Window

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

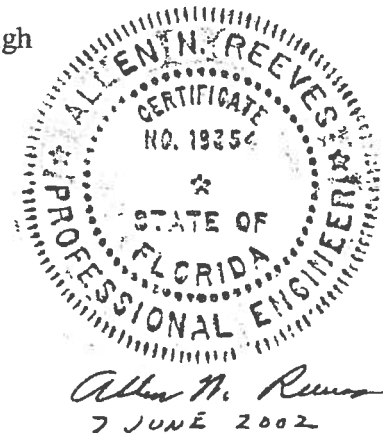
Active Sash Size (3): 3' 0-1/4" wide by 2' 10-3/4" high

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

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

Finish: All aluminum was painted white.

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



Test Specimen Description: (Continued)

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

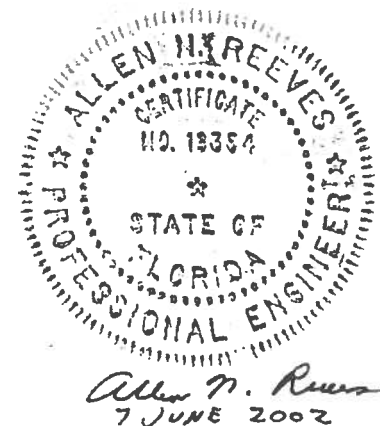
Weatherstripping:

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

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

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

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



Test Specimen Description: (Continued)

Hardware:

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

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized

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

Test Results:

The results are tabulated as follows:

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

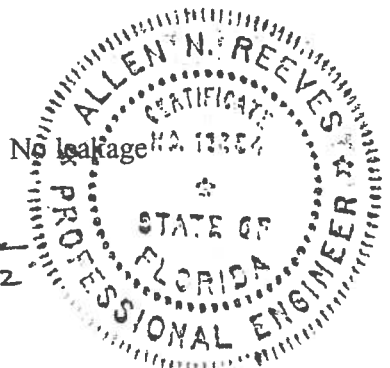
Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.

Water Resistance (ASTM E 547-00)
(with and without screen)
WTP = 2.86 psf

No leakage

No leakage

Allen N. Reeves
7 JUNE 2002



Test Results: (Continued)

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

Allen N. Reeves
7 JUNE 2002



Test Results: (Continued)

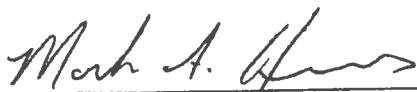
<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Optional Performance</u>			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 5.25 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion)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

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


Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds)		
@ 53.0 psf (positive)	0.03"	0.29" max
@ 52.5 psf (negative)	0.02"	0.29" max

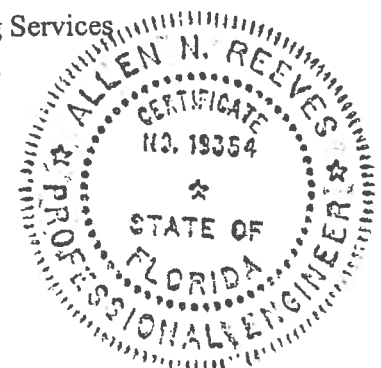
Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification.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

For ARCHITECTURAL TESTING, INC


Mark A. Hess
Technician

MAH:nlb
01-41641.01


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





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

Rendered to:

MI HOME PRODUCTS, INC.

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

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

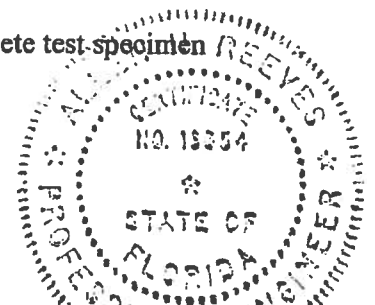
Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.



Mark A. Hess, Technician

MAH:nlb





Architectural Testing

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

Rendered to

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

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

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

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

Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

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

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

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

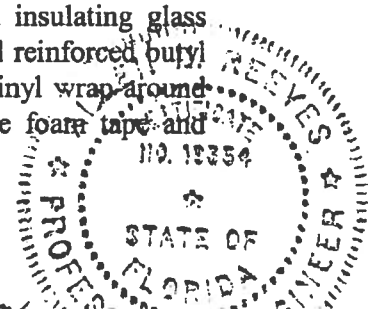
Screen Size: 4' 0-1/4" wide by 2' 11-1/8" high

Finish: All aluminum was white.

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

130 Derry Court
York, PA 17402-9405
phone: 717.764.7700
fax: 717.764.4129

Allen N. R...





Test Specimen Description: (Continued)

Weatherstripping:

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

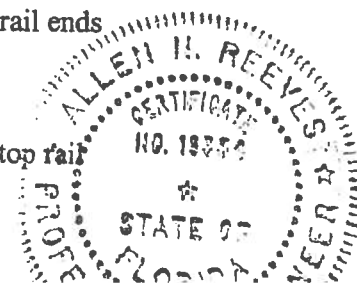
Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting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

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

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

Hardware:

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





Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

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

Test Results:

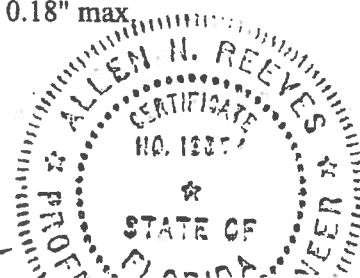
The results are tabulated as follows:

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

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

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

Allen N. Reeves
1 APR 2000



Test Specimen Description: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

Optional Performance

4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

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


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




Allen N. Reeves

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

For ARCHITECTURAL TESTING, INC:


Mark A. Hess
Technician

MAH:nlb
01-41134.01


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



K & H Framing/Vinyl Siding, Inc.

1534 S.W.Dekle Road
Lake City, Florida 32024

October 9, 2006

To: Columbia County Building Department
RE: Direction to Emerald Cove lot #89

Take Hwy 90 West to SW Heathridge Road. Turn left into the Emerald Cove subdivision.

Turn right onto Timberland Crt. Go around curves and lot #89 in on right with culvert installed.

K&H sign is present.

Thank you,

Glenn L. Keen
President of K&H Framing/Vinyl Siding, Inc.

Residential System Sizing Calculation

Summary

Spec House

, FL

Project Title:
608211K&H Framing Vinyl Siding

Class 3 Rating
Registration No. 0
Climate: North

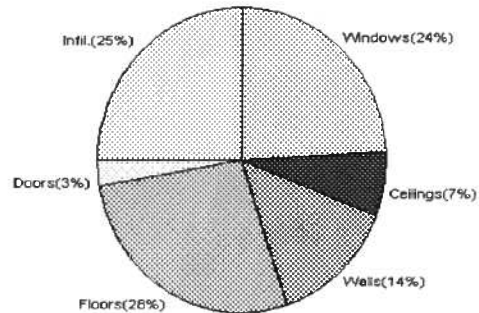
8/21/2006

Location for weather data: Gainesville - Defaults: Latitude(29) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)			
Winter design temperature	33 F	Summer design temperature	92 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	37 F	Summer temperature difference	17 F
Total heating load calculation	33722 Btuh	Total cooling load calculation	27652 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	115.7 39000	Sensible (SHR = 0.50)	86.7 19500
Heat Pump + Auxiliary(0.0kW)	115.7 39000	Latent	378.1 19500
		Total (Electric Heat Pump)	141.0 39000

WINTER CALCULATIONS

Winter Heating Load (for 1934 sqft)

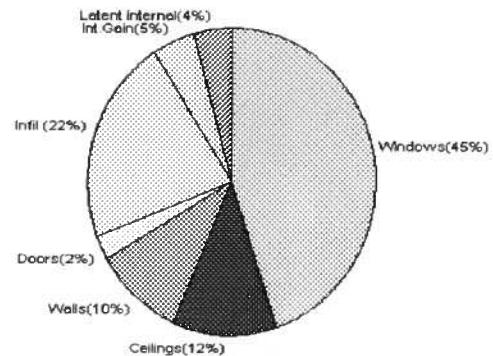
Load component			Load	
Window total	254 sqft		8186	Btuh
Wall total	1395 sqft		4580	Btuh
Door total	70 sqft		907	Btuh
Ceiling total	1994 sqft		2350	Btuh
Floor total	214 sqft		9343	Btuh
Infiltration	206 cfm		8356	Btuh
Duct loss			0	Btuh
Subtotal			33722	Btuh
Ventilation	0 cfm		0	Btuh
TOTAL HEAT LOSS			33722	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1934 sqft)

Load component			Load	
Window total	254 sqft		12319	Btuh
Wall total	1395 sqft		2791	Btuh
Door total	70 sqft		686	Btuh
Ceiling total	1994 sqft		3302	Btuh
Floor total			0	Btuh
Infiltration	108 cfm		2016	Btuh
Internal gain			1380	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0 cfm		0	Btuh
Total sensible gain			22494	Btuh
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			3958	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			5158	Btuh
TOTAL HEAT GAIN			27652	Btuh



For Florida residences only

EnergyGauge® System Sizing

PREPARED BY: *[Signature]*

DATE: 8-21-06

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Spec House

Project Title:
608211K&H Framing Vinyl Siding

Class 3 Rating
Registration No. 0
Climate: North

, FL

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

8/21/2006

This calculation is for Worst Case. The house has been rotated 315 degrees.

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	45.0		32.2	1449 Btuh
2	2, Clear, Metal, 0.87	NW	30.0		32.2	966 Btuh
3	2, Clear, Metal, 0.87	W	10.0		32.2	322 Btuh
4	2, Clear, Metal, 0.87	NW	36.0		32.2	1159 Btuh
5	2, Clear, Metal, 0.87	NW	30.0		32.2	966 Btuh
6	2, Clear, Metal, 0.87	NE	12.0		32.2	386 Btuh
7	2, Clear, Metal, 0.87	SE	36.0		32.2	1159 Btuh
8	2, Clear, Metal, 0.87	SE	13.3		32.2	428 Btuh
9	2, Clear, Metal, 0.87	SE	30.0		32.2	966 Btuh
10	2, Clear, Metal, 0.87	SW	12.0		32.2	386 Btuh
Window Total			254(sqft)			8186 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1191		3.3	3910 Btuh
2	Frame - Wood - Adj(0.09)	13.0	204		3.3	670 Btuh
Wall Total			1395			4580 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Exterior		10		12.9	130 Btuh
2	Insulated - Adjacent		20		12.9	259 Btuh
3	Insulated - Exterior		40		12.9	518 Btuh
Door Total			70			907 Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1994		1.2	2350 Btuh
Ceiling Total			1994			2350 Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	214.0 ft(p)		43.7	9343 Btuh
Floor Total			214			9343 Btuh
Zone Envelope Subtotal:						25366 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=		Load
	Natural	0.80	15472	206.3		8356 Btuh
Ductload	Average sealed, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)					0 Btuh
Zone #1	Sensible Zone Subtotal					33722 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Spec House

Project Title:

Class 3 Rating

608211K&H Framing Vinyl Siding

Registration No. 0

Climate: North

, FL

8/21/2006

WHOLE HOUSE TOTALS

	Subtotal Sensible	33722 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	33722 Btuh

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

(Frame types - metal, wood or insulated metal)

(U - Window U-Factor or 'DEF' for default)

(HTM - Manual J Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)



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System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

Spec House

Project Title:
608211K&H Framing Vinyl Siding

Class 3 Rating
Registration No. 0
Climate: North

, FL

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

8/21/2006

This calculation is for Worst Case. The house has been rotated 315 degrees.

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft)	X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	45.0		32.2	1449 Btuh
2	2, Clear, Metal, 0.87	NW	30.0		32.2	966 Btuh
3	2, Clear, Metal, 0.87	W	10.0		32.2	322 Btuh
4	2, Clear, Metal, 0.87	NW	36.0		32.2	1159 Btuh
5	2, Clear, Metal, 0.87	NW	30.0		32.2	966 Btuh
6	2, Clear, Metal, 0.87	NE	12.0		32.2	386 Btuh
7	2, Clear, Metal, 0.87	SE	36.0		32.2	1159 Btuh
8	2, Clear, Metal, 0.87	SE	13.3		32.2	428 Btuh
9	2, Clear, Metal, 0.87	SE	30.0		32.2	966 Btuh
10	2, Clear, Metal, 0.87	SW	12.0		32.2	386 Btuh
Window Total			254(sqft)			8186 Btuh
Walls	Type	R-Value	Area	X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1191		3.3	3910 Btuh
2	Frame - Wood - Adj(0.09)	13.0	204		3.3	670 Btuh
Wall Total			1395			4580 Btuh
Doors	Type		Area	X	HTM=	Load
1	Insulated - Exterior		10		12.9	130 Btuh
2	Insulated - Adjacent		20		12.9	259 Btuh
3	Insulated - Exterior		40		12.9	518 Btuh
Door Total			70			907 Btuh
Ceilings	Type/Color/Surface	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	1994		1.2	2350 Btuh
Ceiling Total			1994			2350 Btuh
Floors	Type	R-Value	Size	X	HTM=	Load
1	Slab On Grade	0	214.0 ft(p)		43.7	9343 Btuh
Floor Total			214			9343 Btuh
Zone Envelope Subtotal:						25366 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=		Load
	Natural	0.80	15472	206.3		8356 Btuh
Ductload	Average sealed, R6.0, Supply(Attic), Return(Attic) (DLM of 0.00)					0 Btuh
Zone #1	Sensible Zone Subtotal					33722 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Spec House

Project Title:

Class 3 Rating

608211K&H Framing Vinyl Siding

Registration No. 0

Climate: North

, FL

8/21/2006

WHOLE HOUSE TOTALS

	Subtotal Sensible	33722 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	33722 Btuh

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

(Frame types - metal, wood or insulated metal)

(U - Window U-Factor or 'DEF' for default)

(HTM - ManualJ Heat Transfer Multiplier)

Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)



For Florida residences only

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Spec House

Project Title:

Class 3 Rating

608211K&H Framing Vinyl Siding

Registration No. 0

, FL

Climate: North

Reference City: Gainesville (Defaults)

Summer Temperature Difference: 17.0 F

8/21/2006

This calculation is for Worst Case. The house has been rotated 315 degrees.

Component Loads for Whole House

Window	Type*		Overhang		Window Area(sqft)			HTM		Load	
	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	45.0	0.0	45.0	29	60	2702	Btuh
2	2, Clear, 0.87, None,N,N	NW	12ft.	5.5ft.	30.0	0.0	30.0	29	60	1801	Btuh
3	2, Clear, 0.87, None,N,N	W	12ft.	5.5ft.	10.0	10.0	0.0	29	80	290	Btuh
4	2, Clear, 0.87, None,N,N	NW	7.5ft.	6ft.	36.0	0.0	36.0	29	60	2161	Btuh
5	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	30.0	0.0	30.0	29	60	1801	Btuh
6	2, Clear, 0.87, None,N,N	NE	1.5ft.	3.5ft.	12.0	0.0	12.0	29	60	720	Btuh
7	2, Clear, 0.87, None,N,N	SE	4.5ft.	6ft.	36.0	36.0	0.0	29	63	1043	Btuh
8	2, Clear, 0.87, None,N,N	SE	4.5ft.	7.5ft.	13.3	13.3	0.0	29	63	385	Btuh
9	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	30.0	30.0	0.0	29	63	869	Btuh
10	2, Clear, 0.87, None,N,N	SW	1.5ft.	4.5ft.	12.0	6.1	5.9	29	63	547	Btuh
Window Total					254 (sqft)					12319 Btuh	
Walls	Type		R-Value/U-Value		Area(sqft)			HTM		Load	
1	Frame - Wood - Ext		13.0/0.09		1190.7			2.1		2484 Btuh	
2	Frame - Wood - Adj		13.0/0.09		204.0			1.5		308 Btuh	
Wall Total					1395 (sqft)					2791 Btuh	
Doors	Type				Area (sqft)			HTM		Load	
1	Insulated - Exterior				10.0			9.8		98 Btuh	
2	Insulated - Adjacent				20.0			9.8		196 Btuh	
3	Insulated - Exterior				40.0			9.8		392 Btuh	
Door Total					70 (sqft)					686 Btuh	
Ceilings	Type/Color/Surface		R-Value		Area(sqft)			HTM		Load	
1	Vented Attic/DarkShingle		30.0		1994.0			1.7		3302 Btuh	
Ceiling Total					1994 (sqft)					3302 Btuh	
Floors	Type		R-Value		Size			HTM		Load	
1	Slab On Grade		0.0		214 (ft(p))			0.0		0 Btuh	
Floor Total					214.0 (sqft)					0 Btuh	
	Zone Envelope Subtotal:									19098 Btuh	
Infiltration	Type		ACH		Volume(cuft)			CFM=		Load	
	SensibleNatural		0.42		15472			108.3		2016 Btuh	
Internal gain			Occupants		Btuh/occupant			Appliance		Load	
			6		X 230 +			0		1380 Btuh	
Duct load	Average sealed, R6.0, Supply(Attic), Return(Attic)									DGM = 0.00	
	Sensible Zone Load									22494 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Spec House
FL

Project Title:
608211K&H Framing Vinyl Siding

Class 3 Rating
Registration No. 0
Climate: North

8/21/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22494 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	22494 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	22494 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	3958 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	5158 Btuh
	TOTAL GAIN	27652 Btuh

*Key: Window types (Pn - Number of panes of glass)
 (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
 (U - Window U-Factor or 'DEF' for default)
 (InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))
 (ExSh - Exterior shading device: none(N) or numerical value)
 (BS - Insect screen: none(N), Full(F) or Half(H))
 (Ornt - compass orientation)



For Florida residences only

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

Spec House
, FL

Project Title:
608211K&H Framing Vinyl Siding

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F
This calculation is for Worst Case. The house has been rotated 315 degrees.

8/21/2006

Component Loads for Zone #1: Main

Window	Type*		Overhang		Window Area(sqft)			HTM		Load	
	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	45.0	0.0	45.0	29	60	2702	Btuh
2	2, Clear, 0.87, None,N,N	NW	12ft.	5.5ft.	30.0	0.0	30.0	29	60	1801	Btuh
3	2, Clear, 0.87, None,N,N	W	12ft.	5.5ft.	10.0	10.0	0.0	29	80	290	Btuh
4	2, Clear, 0.87, None,N,N	NW	7.5ft.	6ft.	36.0	0.0	36.0	29	60	2161	Btuh
5	2, Clear, 0.87, None,N,N	NW	1.5ft.	5.5ft.	30.0	0.0	30.0	29	60	1801	Btuh
6	2, Clear, 0.87, None,N,N	NE	1.5ft.	3.5ft.	12.0	0.0	12.0	29	60	720	Btuh
7	2, Clear, 0.87, None,N,N	SE	4.5ft.	6ft.	36.0	36.0	0.0	29	63	1043	Btuh
8	2, Clear, 0.87, None,N,N	SE	4.5ft.	7.5ft.	13.3	13.3	0.0	29	63	385	Btuh
9	2, Clear, 0.87, None,N,N	SE	1.5ft.	0ft.	30.0	30.0	0.0	29	63	869	Btuh
10	2, Clear, 0.87, None,N,N	SW	1.5ft.	4.5ft.	12.0	6.1	5.9	29	63	547	Btuh
Window Total					254 (sqft)					12319 Btuh	
Walls	Type	R-Value/U-Value		Area(sqft)		HTM		Load			
1	Frame - Wood - Ext	13.0/0.09		1190.7		2.1		2484 Btuh			
2	Frame - Wood - Adj	13.0/0.09		204.0		1.5		308 Btuh			
Wall Total					1395 (sqft)			2791 Btuh			
Doors	Type			Area (sqft)		HTM		Load			
1	Insulated - Exterior			10.0		9.8		98 Btuh			
2	Insulated - Adjacent			20.0		9.8		196 Btuh			
3	Insulated - Exterior			40.0		9.8		392 Btuh			
Door Total					70 (sqft)			686 Btuh			
Ceilings	Type/Color/Surface	R-Value		Area(sqft)		HTM		Load			
1	Vented Attic/DarkShingle	30.0		1994.0		1.7		3302 Btuh			
Ceiling Total					1994 (sqft)			3302 Btuh			
Floors	Type	R-Value		Size		HTM		Load			
1	Slab On Grade	0.0		214 (ft(p))		0.0		0 Btuh			
Floor Total					214.0 (sqft)			0 Btuh			
	Zone Envelope Subtotal:									19098 Btuh	
Infiltration	Type	ACH		Volume(cuft)		CFM=		Load			
	SensibleNatural	0.42		15472		108.3		2016 Btuh			
Internal gain	Occupants		Btuh/occupant		Appliance		Load				
	6		X 230 +		0		1380 Btuh				
Duct load	Average sealed, R6.0, Supply(Attic), Return(Attic)							DGM = 0.00		0.0 Btuh	
	Sensible Zone Load									22494 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Spec House

Project Title:

Class 3 Rating

Registration No. 0

Climate: North

FL

608211K&H Framing Vinyl Siding

8/21/2006

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22494 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	22494 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	22494 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	3958 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	5158 Btuh
	TOTAL GAIN	27652 Btuh

*Key: Window types (Pn - Number of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)

(U - Window U-Factor or 'DEF' for default)

(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))

(ExSh - Exterior shading device: none(N) or numerical value)

(BS - Insect screen: none(N), Full(F) or Half(H))

(Ornt - compass orientation)



For Florida residences only

Residential Window Diversity

MidSummer

Spec House
, FL

Project Title:
608211K&HFramingVinylSiding

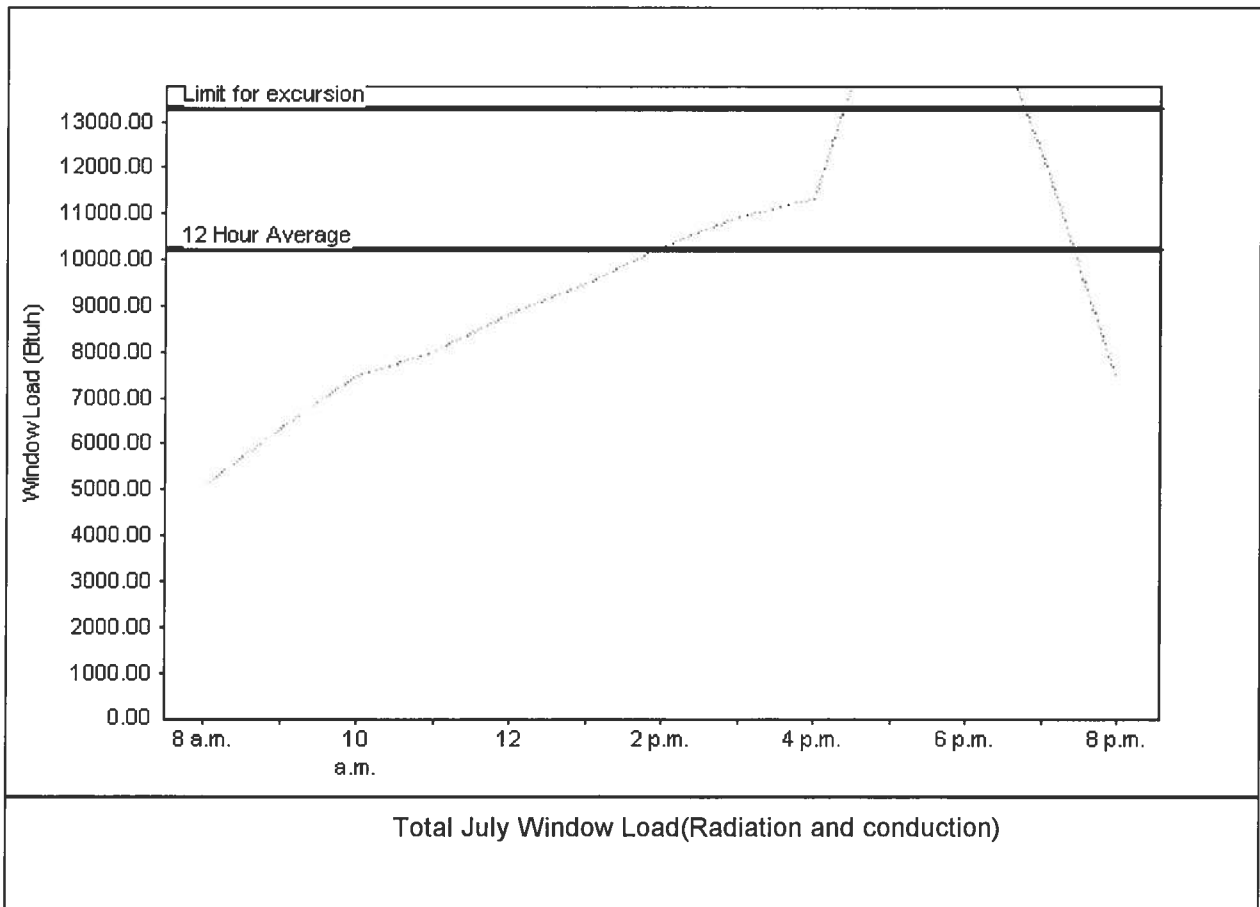
Class 3 Rating
Registration No. 0
Climate: North

8/21/2006

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	10231 Btu
Summer setpoint	75 F	Peak window load for July	16544 Btu
Summer temperature difference	17 F	Excursion limit(130% of Ave.)	13301 Btu
Latitude	29 North	Window excursion (July)	3243 Btu

WINDOW Average and Peak Loads



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

EnergyGauge® System Sizing for Florida residences only

PREPARED BY: *[Signature]*

DATE: *8-21-06*



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

ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE OCTOBER 1, 2005

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

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

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

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

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

Applicant	Plans Examiner	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Designers name and signature on document (FBC 106.1). If licensed architect or engineer, official seal shall be affixed.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Site Plan including:</u> a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Wind-load Engineering Summary, calculations and any details required</u> Plans or specifications must state compliance with FBC Section 1609. The following information must be shown as per section 1603.1.4 FBC a. Basic wind speed (3-second gust), miles per hour (km/hr). b. Wind importance factor, I_w , and building classification from Table 1604.5 or Table 6-1, ASCE 7 and building classification in Table 1-1, ASCE 7. c. Wind exposure, if more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated. d. The applicable enclosure classifications and, if designed with ASCE 7, internal pressure coefficient. e. Components and Cladding. The design wind pressures in terms of psf (kN/m^2) to be used for the design of exterior component and cladding materials not specifi ally designed by the registered design professional.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Elevations including:</u> a) All sides b) Roof pitch c) Overhang dimensions and detail with attic ventilation

- | | | |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d) Location, size and height above roof of chimneys. |
| <input type="checkbox"/> | <input type="checkbox"/> | e) Location and size of skylights |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | f) Building height |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | e) Number of stories |
| | | <u>Floor Plan including:</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a) Rooms labeled and dimensioned. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b) Shear walls identified. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c) Show product approval specification as required by Fla. Statute 553.842 and Fla. Administrative Code 9B-72 (see attach forms). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d) Show safety glazing of glass, where required by code. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | e) Identify egress windows in bedrooms, and size. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | f) Fireplace (gas vented), (gas non-vented) or wood burning with hearth, (Please circle applicable type). |
| <input type="checkbox"/> | <input type="checkbox"/> | g) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | h) Must show and identify accessibility requirements (accessible bathroom) |
| | | <u>Foundation Plan including:</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a) Location of all load-bearing wall with required footings indicated as standard or monolithic and dimensions and reinforcing. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b) All posts and/or column footing including size and reinforcing |
| <input type="checkbox"/> | <input type="checkbox"/> | c) Any special support required by soil analysis such as piling |
| <input type="checkbox"/> | <input type="checkbox"/> | d) Location of any vertical steel. |
| | | <u>Roof System:</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a) Truss package including: |
| | | 1. Truss layout and truss details signed and sealed by Fl. Pro. Eng. |
| | | 2. Roof assembly (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b) Conventional Framing Layout including: |
| | | 1. Rafter size, species and spacing |
| | | 2. Attachment to wall and uplift |
| | | 3. Ridge beam sized and valley framing and support details |
| | | 4. Roof assembly (FBC 106.1.1.2) Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) |
| | | <u>Wall Sections including:</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a) Masonry wall |
| | | 1. All materials making up wall |
| | | 2. Block size and mortar type with size and spacing of reinforcement |
| | | 3. Lintel, tie-beam sizes and reinforcement |
| | | 4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details |
| | | 5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation shall be designed by a Windload engineer using the engineered roof truss plans. |
| | | 6. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating) |
| | | 7. Fire resistant construction (if required) |
| | | 8. Fireproofing requirements |
| | | 9. Shoe type of termite treatment (termicide or alternative method) |
| | | 10. Slab on grade |
| | | a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed) |
| | | b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports |
| | | 11. Indicate where pressure treated wood will be placed |
| | | 12. Provide insulation R value for the following: |

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

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b) Wood frame wall

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

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

Floor Framing System:

- a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer
- b) Floor joist size and spacing
- c) Girder size and spacing
- d) Attachment of joist to girder
- e) Wind load requirements where applicable

Plumbing Fixture layout

Electrical layout including:

- a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
- b) Ceiling fans
- c) Smoke detectors
- d) Service panel and sub-panel size and location(s)
- e) Meter location with type of service entrance (overhead or underground)
- f) Appliances and HVAC equipment
- g) Arc Fault Circuits (AFCI) in bedrooms
- h) Exhaust fans in bathroom

HVAC information

- a) Energy Calculations (dimensions shall match plans)
- b) Manual J sizing equipment or equivalent computation
- c) Gas System Type (LP or Natural) Location and BTU demand of equipment

Disclosure Statement for Owner Builders

*****Notice Of Commencement Required Before Any Inspections Will Be Done Private Potable Water**

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

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

1. **Building Permit Application:** A current Building Permit Application form is to be completed and submitted for all residential projects.
2. **Parcel Number:** The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested.
3. **Environmental Health Permit or Sewer Tap Approval:** A copy of the Environmental Health permit, existing septic approval or sewer tap approval is required before a building permit can be issued. (386) 758-1058 (Toilet facilities shall be provided for construction workers)
4. **City Approval:** If the project is to be located within the city limits of the Town of Fort White, prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit. (386) 497-2321
5. **Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.8 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.7 of the Columbia County Land Development Regulations. **CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.**
A development permit will also be required. Development permit cost is \$50.00
6. **Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit (\$25.00) must be made. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial. **If the project is to be located on a F.D.O.T. maintained road, than an F.D.O.T. access permit is required.**
7. **911 Address:** If the project is located in an area where the 911 address has been issued, then the proper paperwork from the 911 Addressing Department must be submitted. (386) 752-8787

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

PRODUCT APPROVAL SPECIFICATION SHEET

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

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

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



 APPLICANT SIGNATURE

 10/8/06
 DATE