CERTIFICATE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

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

Parcel Number 30-3S-16-02411-104 **Building permit No.** 000029802

Use Classification SFD/UTILITY **Fire:** 6.42

Permit Holder OWNER BUILDER **Waste:** 16.75

Owner of Building ROBERT JORDAN **Total:** 23.17

Location: 248 SW WINDSOR HILLS GLN, LAKE CITY, FL 32024

Date: 09/21/2012

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

Lake City • (386) 755-3633
Fax • (386) 752-5456

Jacksonville • (904) 381-8901
Fax • (904) 381-8902

CAL-TECH TESTING, INC.

ENGINEERING & TESTING LABORATORY

P.O. Box 1625, Lake City, FL 32056-1625
4784 Rosselle St. • Jacksonville, FL 32254

JOB NO.: 11-435
DATE TESTED: 1-17-12

REPORT OF IN-PLACE DENSITY TEST

ASTM METHOD: _____(D-2922) Nuclear _____(D-2937) Drive Cylinder _____Other

PROJECT: Jordan Residence #29802

CLIENT: Robert Jordan

GENERAL CONTRACTOR: Spradley EARTHWORK CONTRACTOR: Spradley

SOIL USE (SEE NOTE): 1 (Footing) SPECIFICATION REQUIREMENTS: 95%

TECHNICIAN: D.W.

MODIFIED (ASTM D-1557): _____ STANDARD (ASTM D-698): _____

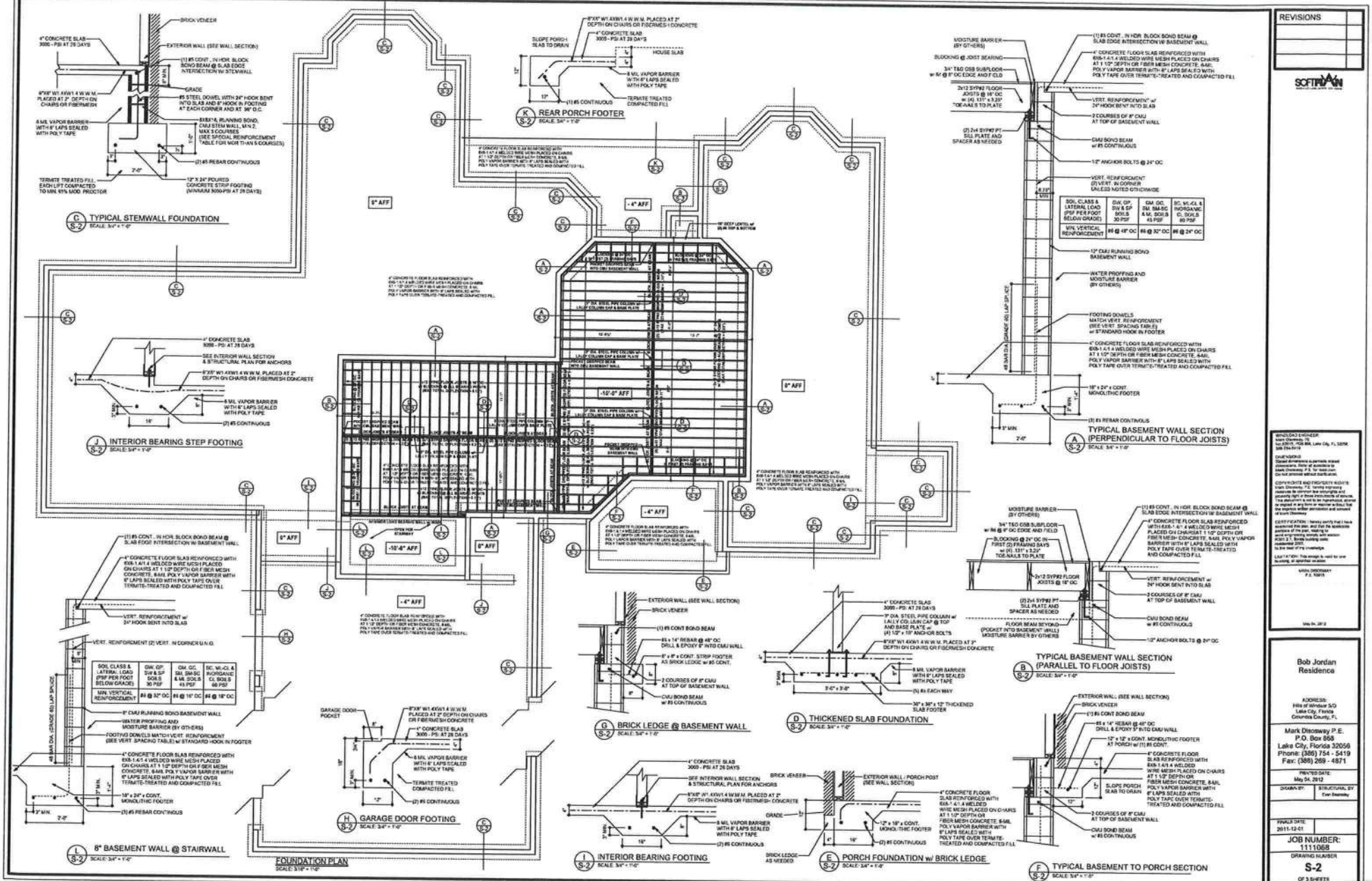
TEST NO.	TEST LOCATION	TEST: ___DEPTH ___ELEV. ___LIFT	PROCTOR NO.	WET DENS. LBS.CU.FT.	DRY DENS. LBS.CU.FT.	MOIST PERCENT	% MAX. DENS.
15A	6'E of N.W. corner of	12"		111.9	100.2	11.7	95
	GARAGE						
16A	5' W of N.E. corner of	12"		116.0	105.2	10.2	99
	GARAGE						
17A	2' N. of SW corner of Room	12"		117.7	102.6	14.7	97
	4						
18A	Center of NW wall of Bathroom	12"		117.8	104.3	12.9	98
	5						
19A	1'N of SE corner of Room 3	12"		116.2	103.3	12.5	98
20A	Center of North wall of Gathering Rm	12"		113.6	102.7	10.6	97

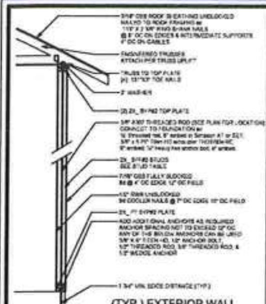
REMARKS: A = Retest

PROCTOR NO.	SOIL DESCRIPTION	PROCTOR VALUE	OPT. MOIST.
		106	

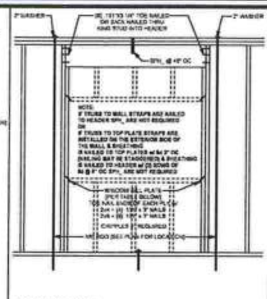
NOTE: 1. Building Fill 2. Trench Backfill 3. Base Course 4. Subbase/Stabilized Subgrade 5. Embankment 6. Subgrade/Natural Soil 7. Other

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test location and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.


C S-2 TYPICAL STEMWALL FOUNDATION
SCALE: 3/4" = 1'-0"
K S-2 REAR PORCH FOOTER
SCALE: 3/4" = 1'-0"
J S-2 INTERIOR BEARING STEP FOOTING
SCALE: 3/4" = 1'-0"
A S-2 TYPICAL BASEMENT WALL SECTION (PERPENDICULAR TO FLOOR JOISTS)
SCALE: 3/4" = 1'-0"
B S-2 TYPICAL BASEMENT WALL SECTION (PARALLEL TO FLOOR JOISTS)
SCALE: 3/4" = 1'-0"
G S-2 BRICK LEDGE @ BASEMENT WALL
SCALE: 3/4" = 1'-0"
D S-2 THICKENED SLAB FOUNDATION
SCALE: 3/4" = 1'-0"
L S-2 8" BASEMENT WALL @ STAIRWALL
SCALE: 3/4" = 1'-0"
H S-2 GARAGE DOOR FOOTING
SCALE: 3/4" = 1'-0"
FOUNDATION PLAN
SCALE: 3/16" = 1'-0"
I S-2 INTERIOR BEARING FOOTING
SCALE: 3/4" = 1'-0"
E S-2 PORCH FOUNDATION w/ BRICK LEDGE
SCALE: 3/4" = 1'-0"
F S-2 TYPICAL BASEMENT TO PORCH SECTION
SCALE: 3/4" = 1'-0"
REVISIONS
Bob Jordan Residence
ADDRESS: Hills of Windsor S/D Lake City, Florida Columbia County, FL
Mark Disosway P.E. P.O. Box 865 Lake City, Florida 32056 Phone: (386) 754 - 5419 Fax: (386) 269 - 4871
PRINTED DATE: May 04, 2012
DRAWN BY: STRUCTURAL BY: Even Disosway
FINALS DATE: 2011-12-01
JOB NUMBER: 1111068
DRAWING NUMBER S-2
OF 3 SHEETS

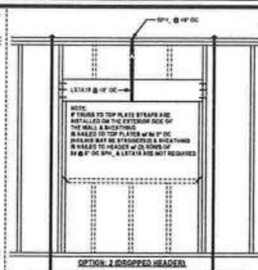


(TYP.) EXTERIOR WALL
ONE STORY WOOD FRAME w/ RODS



(TYP.) HEADER
ONE STORY WOOD FRAME w/ RODS

OPTION: 1 (FLUSH HEADER)



OPTION: 2 (DROPPED HEADER)

SILL PLATE SPANS FOR 18'-0" WALL HEIGHT

ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

TRUSS CONNECTOR	UPLIFT SYP	UPLIFT SPF	F1 SYP	F2 SYP	F1 SPF	F2 SPF	TO RAFTER/TRUSS	TO PLATES	
H5	455	265	115	200	100	170	4-8d x 1 1/2"	4-8d x 1 1/2"	
H3	415	290	125	160	105	140	4-8d x 1 1/2"	4-8d x 1 1/2"	
H2.5	415	365	150	150	110	110	5-8d x 1 1/2"	5-8d x 1 1/2"	
H2.5A	480	480	110	110	110	110	5-8d x 1 1/2"	5-8d x 1 1/2"	
H6	950	820					8-8d	8-8d	
H8	745	565					5-10d x 1 1/2"	5-10d x 1 1/2"	
H14-1	1465	1050	515	265	480	245	12-8d x 1 1/2"	13-8d	
H14-2	1465	1050	515	265	480	245	12-8d x 1 1/2"	15-8d	
H10	990	850	585	525	405	415	8-8d x 1 1/2"	8-8d x 1 1/2"	
H10-2	760	655	455	395	320	300	6-10d	6-10d	
H16	1470	1265					2-10d x 1 1/2"	10-10d x 1 1/2"	
H16-2	1470	1265					2-10d x 1 1/2"	10-10d x 1 1/2"	
LTS12 - LTS20	1000	825					6-10d x 1 1/2"	6-10d x 1 1/2"	
MTS12 - MTS30	1000	860					7-10d x 1 1/2"	7-10d x 1 1/2"	
HTS16 - HTS30	1450	1245					12-10d x 1 1/2"	12-10d x 1 1/2"	
HEAVY GIRDER TIEDOWNS									TO FOUNDATION
LGT2	2050	1785	700	120	700	170	14-16d	14-16d	
LGT3-SDS2.5	3685	2655	795	410	705	410	12-SDS 1/4" x 2 1/2"	26-16d	
LGT4-SDS3	4060	3860	2000	675	2000	675	12-SDS 1/4" x 3"	30-16d	
MGT	3965	2530					22-10d		5/8" ANCHOR
HGT-2	10980	6485					16-16d		2-5/8" ANCHOR
HGT-3	10530	9035					16-16d		2-5/8" ANCHOR
HGT-4	9250	9250					16-16d		2-5/8" ANCHOR
STUD STRAP CONNECTOR									TO STUDS
SSP DOUBLE TOP PLATE	435	435						3-10d	4-10d
SSP SINGLE SILL PLATE	455	420						1-10d	4-10d
DSP DOUBLE TOP PLATE	825	825						6-10d	8-10d
DSP SINGLE SILL PLATE	825	600						2-10d	8-10d
SP1	585	535						4-10d	6-10d
SP2	1065	605						6-10d	6-10d
SP4	885	760							6-10d x 1 1/2"
SPH4	1240	1065							10-10d x 1 1/2"
SP6	885	760							8-10d x 1 1/2"
SPH6	1240	1065							10-10d x 1 1/2"
LSTA18	1235	1110							14-10d
LSTA21	1235	1235							16-10d
CS20	1030	1030							14-10d
CS16	1705	1705							20-10d
STUD ANCHORS							TO STUDS		TO FOUNDATION
LTT19	1350	1305					8-16d		1/2" ANCHOR
LTTI31	2310	2310					18-10d x 1 1/2"		5/8" ANCHOR
HD2A	2775	2570					2-5/8" BOLTS		5/8" ANCHOR
HTT16	4175	3695					18-16d		5/8" ANCHOR
HTT22	5250	5250					32-16d		5/8" ANCHOR
ABU44	2200	2200					12-16d		5/8" ANCHOR
ABU66	2300	2300					12-16d		5/8" ANCHOR
ABU88	2320	2320					18-16d		2-5/8" ANCHOR

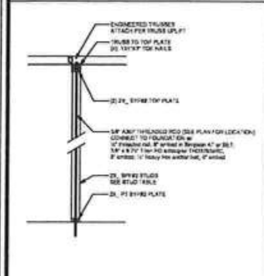
(1) w/ INSTALLATION OF 4-16dS OPTIONAL NAIL HOLES
(2) FOR SYP GIRDER & SPF STUDS

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS

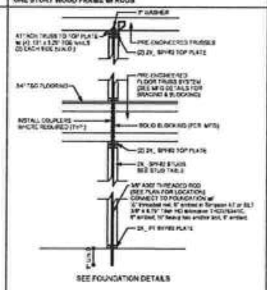
(*) 2x4 @ 16" OC	TO 10'-6" STUD HEIGHT
(*) 2x4 @ 12" OC	TO 11'-7" STUD HEIGHT
(*) 2x6 @ 16" OC	TO 16'-10" STUD HEIGHT
(*) 2x6 @ 12" OC	TO 18'-7" STUD HEIGHT

THIS STUD HEIGHT TABLE IS PER WFCM 2001, TABLE 3.20B, EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS RESISTING INTERIOR ZONE WIND LOADS 110 MPH EXPOSURE C. STUD SPACINGS SHALL BE MULTIPLIED BY 0.68 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. EXAMPLE: 16" O.C. x 0.68 = 10.9" O.C.

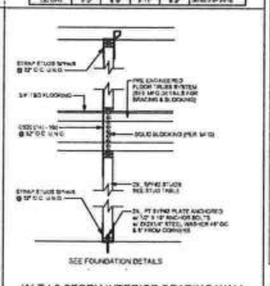
GENERAL NOTES:



(TYP.) INTERIOR BEARING WALL
ONE STORY WOOD FRAME w/ RODS



TWO STORY INTERIOR BEARING WALL
SCALE: 1/2" = 1'-0"

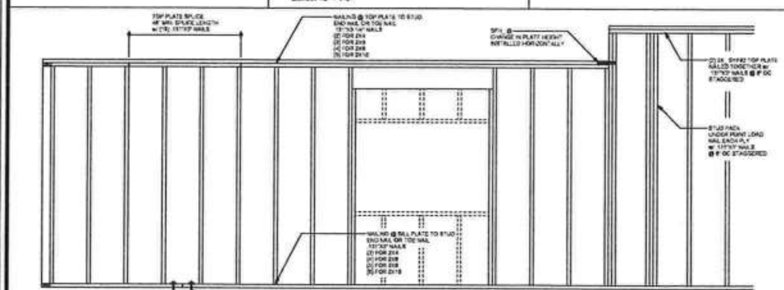


(ALT.) 2 STORY INTERIOR BEARING WALL
SCALE: 1/2" = 1'-0"

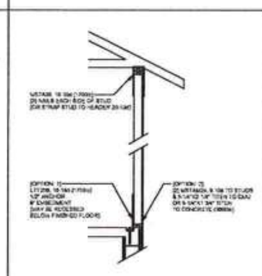
GRADE & SPECIES TABLE

		Fb (psi)	E (10^6 psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	2900	2.0
PSL	PARALAM	2900	2.0

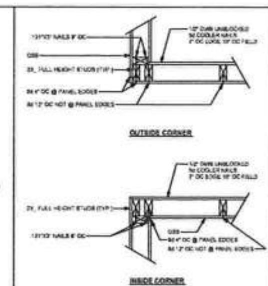
BUILDER'S RESPONSIBILITY



(TYP.) WALL CONNECTIONS
ONE STORY WOOD FRAME



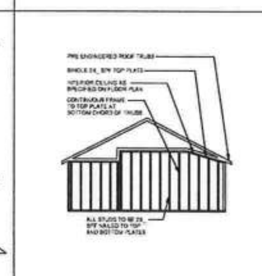
ALTERNATE CONNECTION WHERE ROD CANNOT BE PLACED IN WALL
ONE STORY WOOD FRAME w/ RODS



OUTSIDE CORNER

INSIDE CORNER

(TYP.) CORNER FRAMING
WOOD FRAME



CONTINUOUS FRAME TO CEILING DIAPHRAGM DETAIL
WOOD FRAME

ROOF SYSTEM DESIGN

DESIGN DATA

WIND LOADS PER FLORIDA BUILDING CODE 2007 RESIDENTIAL, SECTION R301.2.1

BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE

BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION

1.) BASIC WIND SPEED = 110 MPH

2.) WIND EXPOSURE = C

3.) WIND IMPORTANCE FACTOR = 1.0

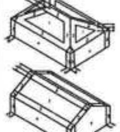
4.) BUILDING CATEGORY = II

5.) ROOF ANGLE = 10-45 DEGREES

6.) MEAN ROOF HEIGHT = <30 FT

7.) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)

8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))



Zone	Effective Wind Area (ft2)			
	10		100	
1	27.8	-30.5	25.3	-25.3
2	27.8	-35.7	26.3	-30.3
2 O'hg		-58.8		-58.8
3	27.8	-35.7	25.5	-30.5
3 O'hg		-60.8		-50.3
4	30.5	-33.0	25.9	-28.5
5	30.5	-40.7	25.9	-31.6

Doors & Windows Worst Case (Zone 5, 10 ft2)	30.5	-40.7
8x7 Garage Door	27.5	-32.5
16x7 Garage Door	26.9	-29.4

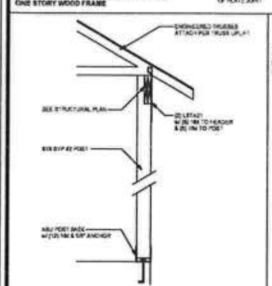
DESIGN LOADS

FLOOR	40 PSF (ALL OTHER DWELLING ROOMS)
	30 PSF (SLEEPING ROOMS)
	30 PSF (ATTICS WITH STORAGE)
	10 PSF (ATTICS WITHOUT STORAGE, <3:12)
ROOF	20 PSF (FLAT OR <4:12)
	16 PSF (4:12 TO <12:12)
	12 PSF (12:12 AND GREATER)

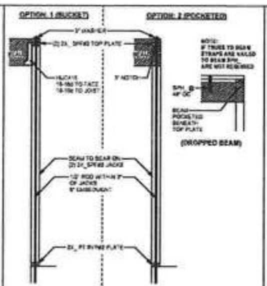
STAIRS 40 PSF (ONE & TWO FAMILY DWELLINGS)

SOIL BEARING CAPACITY 1000PSF

NOT IN FLOOD ZONE (BUILDER TO VERIFY)



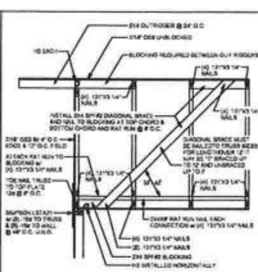
(TYP.) PORCH POST
ONE STORY WOOD



OPTION: 1 (BUCKET)

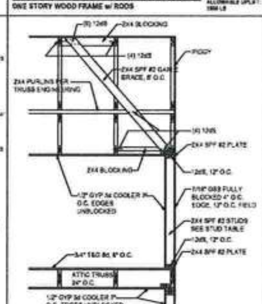
OPTION: 2 (POCKETED)

(TYP.) BEAM TO WALL
WOOD FRAME w/ RODS

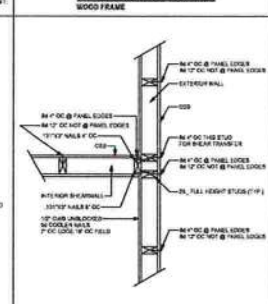


SPACE RAT RUN & DIAGONAL BRACE 6'-0" O.C. FOR GABLE HEIGHT UP TO 20'-0" 110 MPH, EXP. C, ENCLOSED

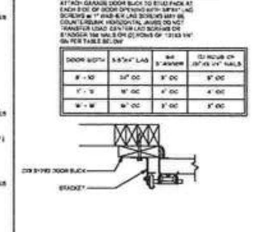
(TYP.) GABLE BRACING DETAIL
WOOD FRAME



BONUS ROOM / GABLE END BRACING



(TYP.) INTERSECTING WALL FRAMING
WOOD FRAME



2X8 SYP#2 GARAGE DOOR BUCK ATTACHMENT

(TYP.) GARAGE DOOR BUCK INSTALLATION
WOOD FRAME

REVISIONS

SOFTPLAN

May 04, 2012

Bob Jordan
Residence

ADDRESS:
Hills of Windsor S/D
Lake City, Florida
Columbia County, FL

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

PRINTED DATE
May 04, 2012

DRAWN BY:

STRUCTURAL BY

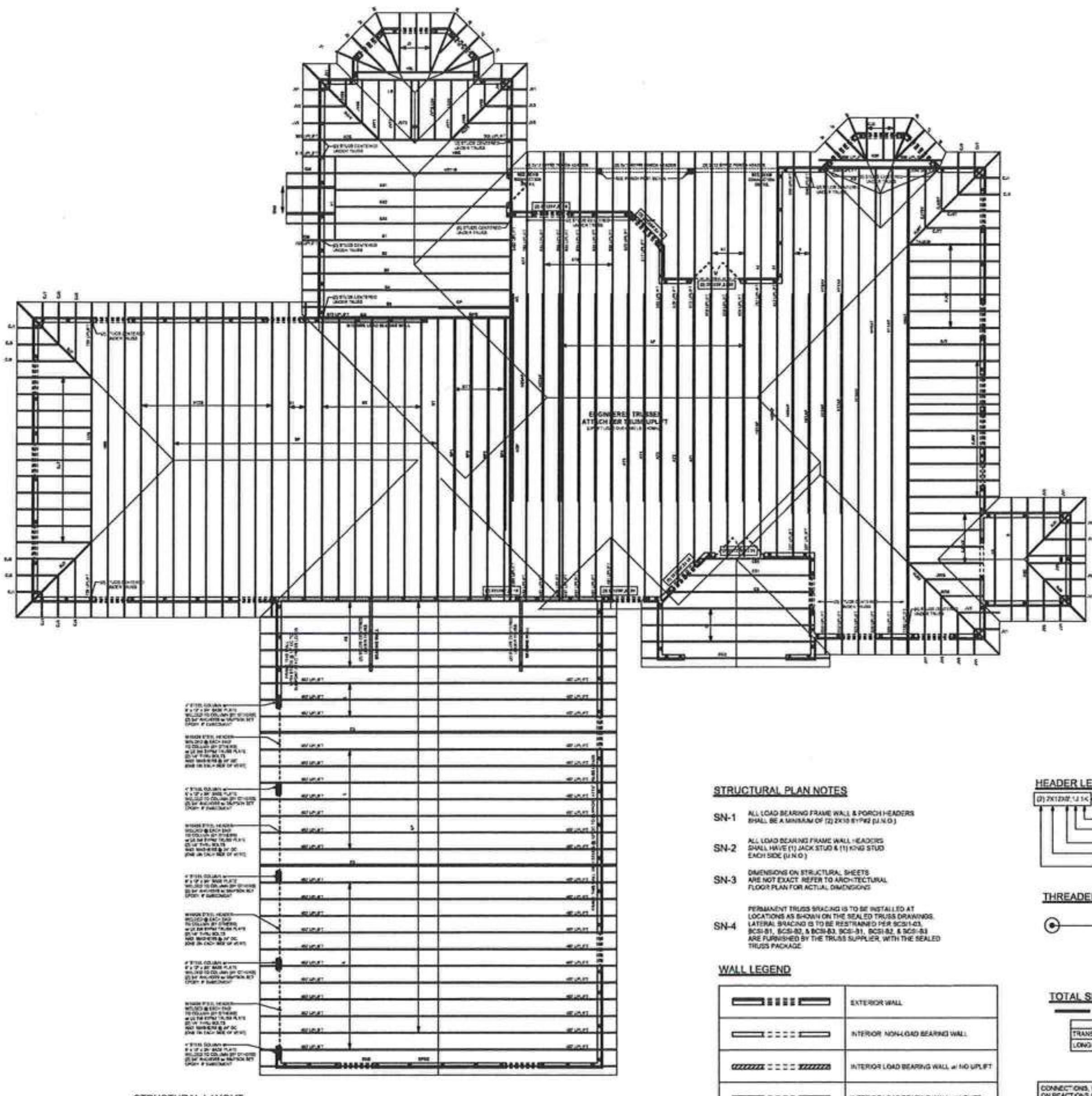
FINALS DATE
2011-12-01

JOB NUMBER:
1111068

DRAWING NUMBER

S-1

OF 3 SHEETS



STRUCTURAL LAYOUT
SCALE: NOT TO SCALE

STRUCTURAL PLAN NOTES

SN-1 ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X10 SYP#2 (U.N.O.)

SN-2 ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (U.N.O.)

SN-3 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

SN-4 PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI1-03, BCSI-B1, BCSI-B2, & BCSI-B3, BCSI-B1, BCSI-B2, & BCSI-B3 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE.

WALL LEGEND

	EXTERIOR WALL
	INTERIOR NON-LOAD BEARING WALL
	INTERIOR LOAD BEARING WALL w/ NO UPLIFT
	INTERIOR LOAD BEARING WALL w/ UPLIFT

HEADER LEGEND

(2) 2X12X8', 1J 1K — HEADER/BEAM CALL-OUT (U.N.O.)
- NUMBER OF KING STUDS (FULL LENGTH)
- NUMBER OF JACK STUDS (UNDER HEADER)
- SPAN OF HEADER
- SIZE OF HEADER MATERIAL
- NUMBER OF PLIES IN HEADER

THREADED ROD LEGEND

INDICATES LOCATION OF: 1ST FLOOR 3/8" A307 ALL THREADED ROD

TOTAL SHEAR WALL SEGMENTS

INDICATES SHEAR WALL SEGMENTS

	REQUIRED	ACTUAL
TRANSVERSE	123.6'	187.5'
LONGITUDINAL	114.5'	157.0'

CONNECTIONS, WALL, & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER. ANDERSON TRUSS CO. JOB# 11-288

REVISIONS

SOFTPLAN

WINDLOAD ENGINEER: Mark Disosway, PE, No.53915, POB 868, Lake City, FL 32056, 386-754-5419

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

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CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2007, to the best of my knowledge.

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

MARK DISOSWAY P.E. 53915

May 04, 2012

Bob Jordan Residence

ADDRESS:
Hills of Windsor S/D
Lake City, Florida
Columbia County, FL

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

PRINTED DATE: May 04, 2012

DRAWN BY:	STRUCTURAL BY: Evan Beamsley

FINALS DATE: 2011-12-01

JOB NUMBER: 1111068

DRAWING NUMBER

S-3

OF 3 SHEETS

Troy Crews

From: Evan Beamsley [ebeamsley@bellsouth.net]
Sent: Monday, May 07, 2012 11:41 AM
To: 'ROBERT JORDAN'; Troy Crews
Subject: RE: Engineering Changes--Garage trusses--hold-down

Bob,
The holding power of the wood screw per NDS is:
#10 wood screw allowable withdrawal per inch of thread penetration into side grain of main member (.42 S.G.) per Table 11.2B:
95 lbs x 0.67 (11.5.4 Toe-nail factor) x 1.6 (load duration factor for wind) = 101.8 lbs per inch allowable withdrawal.

Evan Beamsley

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Monday, May 07, 2012 11:01 AM
To: Troy Crews; ebeamsley@bellsouth.net
Subject: FW: Engineering Changes--Garage trusses--hold-down

Troy,

Evan says a #10 wood screw 2.75", toe-nailed, will give a hold down of about 100#. I'll add one to the non-nonclip side of each truss.

Evan, could you e-mail confirmation to Troy about the holding power?

I've got a call in to Joe about the smoke detector issue,

Thanks,
Bob

From: troy_crews@columbiacountyfla.com
To: robertfjordan@msn.com
Subject: RE: Engineering Changes--Garage trusses--hold-down
Date: Mon, 7 May 2012 13:47:03 +0000

Mr. Jordan if Disosway says the toenailing will give the added uplift ok if not we will need to add strap to other side of truss. also let me know if you did not get code section on smoke detectors they will be required thanks Troy.

M. Troy Crews
Building Official II
Columbia County
Fax 386-758-2160
Phone 386-758-1040
troy_crews@columbiacountyfla.com

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Sunday, May 06, 2012 2:53 PM
To: Troy Crews
Subject: FW: Engineering Changes--Garage trusses--hold-down

Troy,

Below is the email from Evan @ Disoway's office. I checked and we used H2.5A with 1.5" 10d.

That gives 480 lbs. according to Evan. Our calculated uplift is 487#/truss end. Is that close enough. If not, we could do a toe-nail on the opposite side of each truss which would give >> 7 more lbs of holding.

I'll have Joe at Security Safe call you on the smoke detectors.

Bob

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
Subject: RE: Engineering Changes
Date: Sat, 5 May 2012 14:24:27 -0400

Bob,
The 487 lbs uplift load is from the sealed truss engineering.
Attached is the latest sealed truss engineering drawings from Anderson.
Truss sheet E (pg 37) has the loads shown below each bearing point.
R = Bearing Reaction / U = Uplift / W = Bearing width
The truss engineering includes a TC DL of 10 psf and BC DL of 10 psf.

What clip did you use? H2.5A with 8d nails get 535#, with 10d 1 1/2" gets 480#.

You could have Anderson run this truss again to see if the uplift can be lowered, but adding another tie may be the easiest fix.

Evan Beamsley

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Friday, May 04, 2012 8:24 PM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Hi Evan,

Thanks.

Troy Crews also questioned the 487# uplift. He said the truss engineer showed about 350# uplift. If it's really 487 (or >450) I'll need to add another tie on the other side of each truss according to Troy. Do you agree?

How do we reconcile the truss engr number with yours?

Did your program include weight for the bonus room, which would be primarily the 3/4" flooring and drywall. This will add 2-3#/sq ft which would be about (17.5 x 2) ft x 2-3#/sq ft or about 70-100 # more per 1/2 truss.

What do you think?

Bob

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
Subject: RE: Engineering Changes
Date: Fri, 4 May 2012 15:02:20 -0400

Here is the revised drawing.

Evan Beamsley

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Friday, May 04, 2012 7:57 AM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Evan,

Thanks,
You did work late. I'll send a check.

Are you saying there is 487# uplift per end of each garage truss? I know that there's a lot of roof area, but that sounds like a lot. Does it take into account the wt of the bonus room, roof, etc? Once the structure wt is taken into account, is there any net uplift?

Bob

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
CC: windloadengineer@bellsouth.net
Subject: RE: Engineering Changes
Date: Fri, 4 May 2012 05:56:12 -0400

Bob,
Attached is the revised engineering.
The invoice for the revision is $400.

Evan Beamsley

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Thursday, May 03, 2012 8:41 AM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Evan,

Can I come by and get the revisions today. I really need them for the Fri inspection and spray foam starts immed thereafter.

Bob Jordan 303-2500 cell

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
Subject: RE: Engineering Changes
Date: Mon, 30 Apr 2012 12:01:29 -0400

Bob,
I still have no gotten the revised trusses with the hand framing and girder removed
I need to get this before I can revise our drawing or the revision will not march what is there.

Evan Beamsley

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]

Sent: Monday, April 30, 2012 10:57 AM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Hi Evan,

Tim said the revision for the garage beam would be ready today. Could I stop by at lunch and p/u?

Bob

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
Subject: RE: Engineering Changes
Date: Fri, 13 Apr 2012 13:17:33 -0400

Bob,
Thanks for the update. If they end up asking for something, just let me know.

Evan Beamsley

Disosway Design Group
Phone: 386-754-5419
Fax: 386-269-4871
POB 868, Lake City, FL 32056
windloadengineer@bellsouth.net

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Friday, April 13, 2012 12:30 PM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Evan,

They checked the nailing. I don't think they've done the final framing. I really don't think we'll need any revisions. What we did is so much stronger than the original specs. I had (obviously) forgotten about this issue.

Bob

From: ebeamsley@bellsouth.net
To: robertfjordan@msn.com
Subject: RE: Engineering Changes
Date: Fri, 13 Apr 2012 12:17:10 -0400

Bob,
If the house is framed, did you already get the inspection?
Do you need us to still revise the engineering?

Evan Beamsley

Disosway Design Group
Phone: 386-754-5419
Fax: 386-269-4871
POB 868, Lake City, FL 32056
windloadengineer@bellsouth.net

From: ROBERT JORDAN [mailto:robertfjordan@msn.com]
Sent: Friday, April 13, 2012 12:04 PM
To: ebeamsley@bellsouth.net
Subject: RE: Engineering Changes

Evan,

The house is framed. The headers are done.

We used a 16", 26#/lb I-beam on 4" steel columns rather than wood.

Bob

From: ebeamsley@bellsouth.net
To: RobertFJordan@Msn.com
Subject: Engineering Changes
Date: Fri, 13 Apr 2012 11:57:13 -0400

Bob,
You must be getting close to needing the revised drawings, but I still need to know how you are framing the garage door headers.

Evan Beamsley

Disosway Design Group
Phone: 386-754-5419
Fax: 386-269-4871
POB 868, Lake City, FL 32056

Application Instructions

TREMCO®

TREMproof® 250GC Cold Fluid-Applied Membrane

Below Grade Waterproofing

1. Purpose

1.1 The purpose of this document is to establish uniform procedures for installing TREMproof 250GC cold fluid-applied membrane in below-grade waterproofing applications.

1.2 The techniques involved may require modifications to adjust to job site conditions. Consult your Tremco Representative for specific design requirements.

2. Scope

2.1 This document will provide the necessary instructions for the application of TREMproof 250GC cold fluid-applied membrane to qualify for the manufacturer's warranty. Tremco recognizes that site specific conditions, weather patterns, contractor preferences and membrane detailing may require deviation or alteration from these prescribed installation procedures. When such circumstances and situations exist on a project, Tremco recommends that the local Tremco Sales Representative or Technical Services be contacted for assistance and approval as required.

3. Conditions

3.1 Surface to be waterproofed may be dry or damp concrete or dry plywood, and shall be clean, sound and free of all contaminants which may interfere with adhesion or proper curing. If release agents are present, they must be removed prior to the application of TREMproof 250GC.

3.2 Concrete slabs should be light steel troweled followed by a fine hair broom or equivalent finish. Concrete surface shall be free of voids, exposed aggregate areas, honey combs, splatters, ridges, fins and other projections or depressions which preclude a smooth and level surface. All reinforcing including cut off rebar shall be covered by a minimum of 3/4" (18 mm) of concrete, epoxy or approved repair mortar.

3.3 Concrete that is to receive waterproofing shall be water cured. Consult Architect or Engineer for minimum cure time on concrete before water cure can be stopped and foot traffic is permitted. Allow a minimum of 24 hours for concrete surface to dry after stopping water cure on decks or removing forms from walls or underside of decks. In the event it is necessary to use a curing agent, said curing agent shall be sodium silicate type (i.e. Euclid Chemical Company Eucosil).

Most dissipating types of curing compounds require removal before membranes can be successfully applied. Numerous manufacturers claim their curing compounds will not affect the adhesion of membranes and sealants and in many cases they may not. Sometimes the breakdown of the curing compound does not happen and/or the residual materials are left on the concrete and can cause adhesion problems with the membrane. Tremco recommends the use of water curing in areas where membranes and sealants are to be used. Tremco will not accept responsibility for adhesion failures due to curing compounds.

3.4 Any concrete masonry unit construction may receive a parge coat of acceptable cementitious coating approved by Tremco. All CMU walls must have all joints solid grouted and struck flush with no voids.

3.5 Plywood that is to receive waterproofing shall be exterior grade plywood, 5/8" (16mm) thick minimum, with A side up, fastened with ring-shank nails. OSB and particle board are not acceptable as a substrate.

3.6 Metal flashing that is to receive waterproofing shall be set in a continuous bedding bead of urethane sealant. Install sealant S-bead between metal laps and mechanically fasten to substrate along leading edges every 4" (10cm) O.C., staggered linearly to lay flat without fishmouths. It is preferred the wood or concrete be routed in the loading edges so the flashing lays flush with the decking.

3.7 Following good drainage practice for split slab conditions, it is recommended the structural slab shall be sloped to drain a minimum of 1/8" (3 mm) per running foot. For split slab conditions and plywood decks that will receive a lightweight topping slab, drains capable of providing drainage at the membrane layer of the building deck shall be installed.

3.8 All penetrations shall be encased in concrete. Penetrations must be solid grouted in place. No flexible pipe or corrugated pipe of any type shall be used for a through slab penetration. Penetrations shall be spaced a minimum of 2" (5 cm) apart to allow for detail work around penetration. All copper piping shall be sleeved with sleeve extending through slab and above any planter fill. The waterproofing of the inside of the sleeve is the responsibility of other.

3.9 Sidewalls of expansion joints shall be parallel, smooth and straight. Block out if required shall be per the recommendations of the manufacturer. Expansion joints running through planters, walls, water features or at building to deck shall have a curb to curb construction approved by Tremco, waterproofing contractor and architect/engineer.

4. Materials

4.1 Recommended materials and their use are as follows. TREMproof 250GC: TREMproof 250GC is an aliphatic, rapid-curing, high solids, VOC compliant modified polyurethane waterproofing membrane. It can be applied to damp and Green concrete. TREMproof 250GC is a one-part moisture curing elastomer available in three viscosities: Self-Leveling, Roller and Trowel.

Tremco Protection Mat: Tremco Protection Mat is an ultra lightweight, extremely tough 14 oz. protection mat for waterproofing membranes in both vertical and horizontal applications.

HDPE Protection Course: Tremco HDPE Protection Courses are a series of high-density polyethylene sheets designed for both membrane protection as well as various barrier applications. Available in 20 mil, 40 mil and 60 mil thicknesses.

Tremco 2450: Tremco 2450 Protection Board is an extruded, hollow-core polypropylene/polyethylene copolymer. The board is commonly used both during and after construction.

TREMDrain Series: The TREMDrain Series is a family of drainage mats with a variety of compression strengths, core sizes and fabric options available.

Dymeric 240 FC: Dymeric 240 FC is a gun-grade, multi-component, chemically curing polyurethane sealant. It is a general purpose sealant that provides flexible, durable waterproofing in a fast curing formulation.

Tremco Reemay: Tremco Reemay is a spun bound polyester fabric style 2014, consisting of a nonwoven fabric of continuous filament polyester fibers that are randomly arranged.

5. Detail Work

5.1 All shrinkage cracks shall be treated with a 30 mil coating of TREMproof 250GC, 6" (15cm) wide, centered over the crack.

5.2 Moving structural cracks greater than 1/16" (1.6 mm) shall be routed and caulked with TREMproof 250GC-T or Dymeric 240 FC, followed by a 60-mil detail coat of TREMproof 250GC extending a minimum of 3" (7.6cm) on either side of the crack.

5.3 A 1" (2.5 cm) cant of TREMproof 250GC-T or Dymeric 240 FC shall be installed at all horizontal-vertical junctures and projections. Integral flashing shall be installed to the height indicated on the drawings.

5.4 Expansion joints may be treated in one of two ways.
5.4.1 Caulk the expansion joint with Dymeric 240FC followed by a 30-mil detail coat of TREMproof 250GC, extending 3" (7.6cm) on either side of the joint.

5.4.2 Install closed cell backer rod into the expansion joint. Embed Tremco Reemay into a 30-mil detail coat of TREMproof 250GC. Tremco Reemay shall extend 6" (15 cm) on either side of the joint. An additional 30-mil detail coat is then placed on top of the Tremco Reemay to fully embed it into the membrane. At overlaps of Tremco Reemay, overlap the two meeting sections at least 3" (7.6 cm). Seal the overlap with TREMproof 250GC.

5.5 Plywood joints shall be caulked with Dymeric 240FC and treated with a 6" (15cm) wide strip of mesh reinforcing fabric, centered over the joint followed by a 30 mil detail coat of TREMproof 250GC.

5.6 A 1" (2.5 cm) cant of TREMproof 250GC-T or Dymeric 240 FC shall be installed around all penetrations. Install a 30-mil detail coat of TREMproof 250GC extending 2" (5cm) onto the penetration and 6"(15cm) onto the surrounding substrate.

5.7 Inside corners shall be treated with a fillet bead of TREMproof 250GC-T, or Dymeric 240 FC. Install a 30-mil detail coat of TREMproof 250GC extending 6" (15 cm) on either side of the corner.

5.8 Outside corners should have a 3/4" to 1" (18-25 mm) champher. Install a 30-mil detail coat of TREMproof 250GC extending 6" (15 cm) on either side of the corner.

5.9 If detailing is exposed more than 24 hours, apply Vulkem 191 Primer prior to application of the membrane. The primer shall be dry with a surface tack before applying TREMproof 250GC.

5.10 Detailing shall be wiped clean with xylene prior to the application of the membrane.

6. Membrane Application

6.1 Standard Application - Vertical or Horizontal
6.1.1 TREMproof 250GC shall be roller, squeegee or trowel applied at the rate 25 square feet per gallon (0.66 square meter per L) to provide a thickness of 60 mils.

6.2 High Build Application - Horizontal
6.2.1 SINGLE LIFT SYSTEM TREMproof 250GC may be applied in a single pass up to 120 mils for horizontal applications. Apply at a rate of 13 square feet per gallon (0.32 square meter per L.)

6.2.2 MULTI-LIFT 120 MIL SYSTEM Apply the first coat of TREMproof 250GC at a rate of 60 mils with a coverage rate of 25 square feet per gallon (0.66 square meter per L). This may be followed by setting Tremco Reemay Fabric into the wet membrane, overlapped a minimum of 1" (2.5cm). Allow TREMproof 250GC to cure to a firm rubber, minimum 4 hours at 75°F (23°C), 50% R.H., then apply a second coat of 60 mils of TREMproof 250GC. When not using Reemay, let the membrane cure to a firm rubber overnight at standard conditions. Make sure membrane is clean before second application. If the membrane has been exposed for more than 24 hours, priming with Vulkem 191 primer is recommended before the second application. The primer shall be dry with a surface tack before applying TREMproof 250GC.

6.2.3 MULTI-LIFT 215 MIL SYSTEM Apply the first coat of TREMproof 250GC at a rate of 90 mils with a coverage rate of 18 square feet per gallon (0.44 square meter per L). This may be followed by setting Tremco Reemay Fabric into the wet membrane, overlapped a minimum of 1" (2.5 cm). Allow TREMproof 250GC to cure to a firm rubber, minimum 4 hours at 75°F (23°C), 50 % R.H., then apply a second coat of 125 mils of TREMproof 250GC with a coverage rate of 13 square feet per gallon (0.32 square meter per L).

6.3 The cure rate of TREMproof 250GC may be accelerated by adding water. Water may be added to TREMproof 250GC-SL only. Water shall be bottled or tap. Add 4 oz. (1/2 cup, 118 ml) water for every 5 gallons (18.9 L) of TREMproof 250GC-SL. Mix the material by producing a vortex close to the surface of the membrane and add the water. Following the addition of water, continue mixing the membrane to evenly disperse the added water for up to 1 minute. Exceeding the recommended 1 minute of mixing may result in introducing an excessive amount of air in the membrane. Exceeding the recommended 4 oz (1/2 cup) of

water per 5-gallon pail of membrane may result in a reduction of working time.

Temperature	Approx. cure time*
> 80°F (27°C)	3 to 4 hours
40°F - 80°F (4° – 27°C)	6 to 12 hours
< 40°F (4°C)	72 hours

*Dependent upon environment conditions i.e. substrate temperature, humidity, etc.

6.4 Terminations shall be installed in accordance with ASTM C898 Standard Guide for Use of High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with Separate Wearing Course and ASTM C1471 Standard Guide for Use of High Solids Content Cold Liquid-Applied Elastomeric Waterproofing Membrane on Vertical Surfaces.

6.4.1 Vertical wall terminations should be made a minimum 6" (15cm) above the finish grade or brick ledge. For applications where the concrete wall is to be exposed above grade, terminate no more than 2" (5 cm) below grade. The waterproofing systems should terminate a minimum of 12" (30 cm) below the lower floor line or on top of the footing a minimum of 6" (15 cm) out from the wall. When terminating below the lower floor line or on top of the footing, do not terminate the waterproofing system above the drainage collection level. The waterproofing system should overlap a minimum of 24" (60 cm) onto intersecting walls columns or counterforts.

6.4.2 The vertical waterproofing system should connect with the below slab waterproofing and air barrier systems when used. When the same system or compatible materials are used, they may overlap. When connecting with a horizontal plaza, make sure the materials are compatible prior to installation.

6.4.3 For horizontal applications where the membrane is turned up on a wall, terminate the waterproofing to eliminate the possibility of ponded surface water penetrating the wall above the membrane. The minimum height is determined by the designer and should take into account the opportunity for such occurrence as well as the building's geometry and environment.

6.5 An approved protection course and/or TREMDrain Series drainage mat may be placed after membrane is cured to a firm rubber set, minimum 4 hours at 75°F (23°C), 50% R.H.

6.6 On horizontal slabs, a Flood test should be run in accordance with ASTM D 5927. The membrane should be cured to a firm rubber set (36 hour minimum) before flooding. Flood with a minimum of 1" (2.5 cm) of water for 24 hours. As an alternative, Electronic Field Vector Mapping may also be used.

Tremco Incorporated
3735 Green Road Beachwood, OH 44122 216.292.5000 www.tremcosealants.com

TREMCO
Commercial Sealants & Waterproofing

CERTIFICATION LETTER

We certify that TREMproof® 250GC tests all batches to ensure quality conformance per our internal criteria. Tremproof 250GC has been tested against ASTM C 836, Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course and does conform to the specification requirements.

Tremco Incorporated and its facilities are also certified to ISO 9001:2000

TREMproof 250GC is approved by the **Miami-Dade County** Product Control Division.

TREMPROOF 250 GC-T 5 GAL PAIL

Version *1.*
REVISION DATE: 03/24/2011

Print Date 04/27/2011

SECTION 1 - PRODUCT IDENTIFICATION

Trade name	:	TREMPROOF 250 GC-T 5 GAL PAIL
Product code	:	304508A 805
COMPANY	:	Tremco Incorporated 3735 Green Road Cleveland, OH 44122
Telephone	:	(216) 292-5000 8:30 - 5:00 EST
Emergency Phone:	:	(216) 765-6727 8:30 - 5:00 EST After Hours: Chemtrec 1-800-424-9300
Product use	:	Sealant

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Black / Brown. Non-sag gunnable paste. May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.

Acute Potential Health Effects/ Routes of Entry

Inhalation	:	May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization.
Eyes	:	Direct contact may cause mild irritation.
Ingestion	:	May cause gastrointestinal irritation, nausea, and vomiting.
Skin	:	May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Aromatic tar contains polycyclic aromatic hydrocarbons, some of which have been shown to cause skin cancer following prolonged and repeated skin contact. Should be considered potentially carcinogenic by inhalation. Carbon black is classified by IARC to be a known animal carcinogen and a possible human carcinogen (Group 2B). Carbon black is encapsulated by resin and not expected to have adverse effects unless made airborne. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Fillers are encapsulated and not expected to be released from product under normal conditions of use. Prolonged or repeated exposure to mineral spirits (petroleum naphtha or stoddard solvent) may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, and adverse liver, kidney, and lung effects.

Target Organs: Skin, Eye, Ingestion, Lung

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Aromatic process oil	64742-90-1	30.0 - 60.0
Polyurethane Polymer	NJ TSRN# 51721300-5358P	15.0 - 40.0
Stoddard solvent (Mineral Spirits)	8052-41-3	7.0 - 13.0
Calcium Carbonate (Limestone)	1317-65-3	7.0 - 13.0
ASEP	70775-94-9	5.0 - 10.0
Carbon Black	1333-86-4	5.0 - 10.0
Polyvinyl chloride	9002-86-2	5.0 - 10.0
Calcium oxide	1305-78-8	1.0 - 5.0
Anthracene	120-12-7	1.0 - 5.0
Xylene	1330-20-7	0.1 - 1.0
Isophorone Diisocyanate	4098-71-9	0.1 - 1.0
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1.0
Ethylbenzene	100-41-4	0.1 - 1.0
Hydrotreated heavy naphthenic distillate	64742-52-5	0.1 - 1.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation	:	Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.
Eye contact	:	Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
Skin contact	:	Clean area of contact thoroughly using soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
Ingestion	:	Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash point	:	130 ℉, 54 ℃
Method	:	Setaflash Closed Cup
Lower explosion limit	:	Not available.
Upper explosion limit	:	Not available.
Autoignition temperature	:	Not available.
Extinguishing media	:	If water fog is ineffective, use carbon dioxide, dry chemical or foam.
Hazardous combustion products	:	Carbon monoxide and carbon dioxide can form.Hydrocyanic acid and nitrogen oxides can form.
Protective equipment for firefighters	:	Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Scrape up and transfer to appropriate container for disposal.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion and contact with skin, eyes and clothing. Preferably use entire contents in one continuous work session. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling Do not store or use near food. Keep container closed when not in use. Since emptied containers retain product residue and vapor, observe precautions even after container is emptied. Store under dry warehouse conditions away from heat and all ignition sources.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

Respiratory protection	:	Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
Hand protection	:	Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
Eye protection	:	Wear appropriate eye protection.Use safety glasses if eye contact is likely.
Skin and body protection	:	Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.
Protective measures	:	Use professional judgment in the selection, care, and use.
Engineering measures	:	Use general ventilation and/ or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Stoddard solvent (Mineral Spirits)	8052-41-3	ACGIH TWA: OSHA PEL:	100 ppm 2,900 mg/m3	
Calcium Carbonate (Limestone)	1317-65-3	OSHA PEL: OSHA PEL: ACGIH TWA: ACGIH TWA: OSHA TWA: OSHA TWA:	5 mg/m3 15 mg/m3 3 mg/m3 10 mg/m3 15 mg/m3 5 mg/m3	Respirable fraction. Total dust. Respirable particles. Inhalable particles. Total dust. Respirable fraction.
Carbon Black	1333-86-4	ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA:	3.5 mg/m3 3.5 mg/m3 15 mg/m3 5 mg/m3	 Total dust. Respirable fraction.

Chemical Name	CAS Number	Regulation	Limit	Form
Polyvinyl chloride	9002-86-2	ACGIH TWA: OSHA PEL: OSHA PEL: OSHA TWA: OSHA TWA:	1 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3 15 mg/m3	Respirable fraction. Respirable fraction. Total dust. Respirable fraction. Total dust.
Calcium oxide	1305-78-8	ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA:	2 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3	 Total dust. Respirable fraction.
Xylene	1330-20-7	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 150 ppm 435 mg/m3	
Isophorone Diisocyanate	4098-71-9	ACGIH TWA:	0.005 ppm	
1,2,4-Trimethylbenzene	95-63-6	ACGIH TWA:	25 ppm	
Ethylbenzene	100-41-4	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 125 ppm 435 mg/m3	
Hydrotreated heavy naphthenic distillate	64742-52-5	OSHA PEL: OSHA PEL: ACGIH TWA:	2,000 mg/m3 5 mg/m3 5 mg/m3	 Mist. Inhalable fraction.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Non-sag gunnable paste
Color	:	Black / Brown
Odor	:	Petroleum Solvent
pH	:	Not available.
Vapour pressure	:	Not available.
Vapor density	:	Heavier than air
Melting point/range	:	Not available.
Freezing point	:	Not available.
Boiling point/range	:	Not available.
Water solubility	:	Insoluble
Specific Gravity	:	1.11
% Volatile Weight	:	14 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	:	Amines.Water or moisture and oxidizing agents.Alcohols.Strong acids.Strong bases.

Stability	:	Material is stable under normal storage, handling, and use.
Hazardous polymerization	:	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7

Acute oral toxicity (LD-50 oral)	4,300 mg/kg (Rat) 1,590 mg/kg (Mouse) 6,670 mg/kg (Rat) 3,523 - 8,600 mg/kg (Rat) 5,627 mg/kg (Mouse)
Acute inhalation toxicity (LC-50)	6,350 mg/l for 4 h (Rat) 3,907 mg/l for 6 h (Mouse) 8,000 mg/l for 4 h (Rat)

Isophorone Diisocyanate, CAS-No.: 4098-71-9

Acute oral toxicity (LD-50 oral)	2,500 mg/kg (Mouse) 1,000 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	0.033 mg/l for 4 h (Rat) 0.123 mg/l for 4 h (Rat)
Acute dermal toxicity (LD-50 dermal)	1,060 mg/kg (Rat)

Ethylbenzene, CAS-No.: 100-41-4

Acute oral toxicity (LD-50 oral)	5,460 mg/kg (Rat) 3,500 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	17,800 mg/kg (Rabbit)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)

This classification applies only to the material as it was originally produced.

Disposal Method : Waste not regulated under RCRA. Dispose of in compliance with state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

SARA 313 Components	:	Anthracene	120-12-7
		Ethylbenzene	100-41-4
SARA 311/312 Hazards	:	Acute Health Hazard	

Chronic Health Hazard
Fire Hazard

OSHA Hazardous Components :

Aromatic process oil	64742-90-1
Stoddard solvent (Mineral Spirits)	8052-41-3
Calcium Carbonate (Limestone)	1317-65-3
Carbon Black	1333-86-4
Polyvinyl chloride	9002-86-2
Calcium oxide	1305-78-8
Anthracene	120-12-7
Xylene	1330-20-7
Isophorone Diisocyanate	4098-71-9
1,2,4-Trimethylbenzene	95-63-6
Ethylbenzene	100-41-4
Hydrotreated heavy naphthenic distillate	64742-52-5

OSHA Status: Considered hazardous based on the following criteria: : Irritant
Carcinogen

OSHA Flammability : II

Regulatory VOC (less water and exempt solvent) : 157 g/l

VOC Method 310 : 14 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:

Carbon Black	1333-86-4
Hydrotreated heavy naphthenic distillate	64742-52-5

U.S. State Regulations:

MASS RTK Components :	Stoddard solvent (Mineral Spirits)	8052-41-3
	Calcium Carbonate (Limestone)	1317-65-3
	Carbon Black	1333-86-4
	Calcium oxide	1305-78-8
	Anthracene	120-12-7
	Isophorone Diisocyanate	4098-71-9
	Crystalline Silica (Quartz)/ Silica Sand	14808-60-7
	Benzene	71-43-2
	Vinyl chloride	75-01-4
	Phenol	108-95-2
Penn RTK Components :	Aromatic process oil	64742-90-1
	Polyurethane Polymer	NJ TSRN# 51721300-5358P
	Stoddard solvent (Mineral Spirits)	8052-41-3
	Calcium Carbonate (Limestone)	1317-65-3
	ASEP	70775-94-9
	Carbon Black	1333-86-4
	Polyvinyl chloride	9002-86-2
	Calcium oxide	1305-78-8
	Anthracene	120-12-7
NJ RTK Components :	Aromatic process oil	64742-90-1
	Polyurethane Polymer	NJ TSRN# 51721300-5358P

Stoddard solvent (Mineral Spirits)	8052-41-3
Calcium Carbonate (Limestone)	1317-65-3
ASEP	70775-94-9
Carbon Black	1333-86-4
Polyvinyl chloride	9002-86-2
Calcium oxide	1305-78-8
Anthracene	120-12-7
Hydrotreated heavy naphthenic distillate	64742-52-5

Components under California Proposition 65:
WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	2
Reactivity	1
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

ACGIH - American Conference of Governmental Hygienists
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
DOT - Department of Transportation
DSL - Domestic Substance List
EPA - Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency for Research on Cancer
MSHA - Mine Safety Health Administration
NDSL - Non-Domestic Substance List
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
RTK - Right To Know
SARA - Superfund Amendments and Reauthorization Act
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
V - Volume
VOC - Volatile Organic Compound
WHMIS - Workplace Hazardous Materials Information System

TREMproof® 250GC

Single Component, Rapid Curing, Fluid-Applied Elastomeric Waterproofing Membrane

Product Description

TREMproof 250GC is a rapid-curing, high solids, VOC compliant modified polyurethane waterproofing membrane. It can be applied to damp and Green concrete. TREMproof 250GC is a one-part moisture curing elastomer available in three viscosities: Self-Leveling, Roller and Trowel.

Basic Uses

TREMproof 250GC is designed for use on backfilled walls, split slab applications, planters and submerged conditions.

Features and Benefits

TREMproof 250GC can be applied in as little as 24 hours following the removal of concrete forms to keep construction moving. It can also be applied to plywood or damp concrete, reducing the delays associated with rain or other sources of water. The unique ability to catalyze TREMproof 250GC with water when desired will speed cure times, especially cold temperatures and low relative humidity, to further compress the construction schedule. TREMproof 250GC can be applied at a rate of up to 120 mils in a single lift to speed application without sacrificing performance. It can also be applied in multiple lifts to achieve a 215 mil high-build system when maximum protection is required.

Packaging

5 gal. (19L) pails, 36 pails/pallet
55 gal. (208 L) drums, 4 drums/pallet

Coverage Rates

Wet Mil Thickness	Square Ft/Gal	Sq. M/Litre
215	7.5	.19
120	13	.32
90	18	.44
60	25	.66

Applicable Standards and Approvals

TREMproof 250 GC meets or exceeds the following specifications:

- ASTM C836 Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
- City of Los Angeles (COLA) approval standards.
- Miami-Dade County Acceptance.

Installation

Refer to TREMproof 250GC Application Instructions for specific application details. The techniques involved may require modification to adjust to job-site conditions. Consult Tremco for specific design requirements.

Availability

Available from your local Tremco Representative, Tremco distributor or warehouse.

Limitations

Do not apply to contaminated surfaces. Not to be used as an exposed or wearing surface. Use with adequate ventilation. Concrete forms must be removed a minimum of 24 hours before TREMproof 250GC can be applied. Not approved for direct contact with asphalt-based products. Not for use with potable water. Contact Tremco for compatibility information and job-specific recommendations on tie-in and termination details.

Warranty

Tremco warrants its Membranes to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco Membranes. Tremco's sole obligation shall be, at its option, to replace, or refund the purchase of the quantity of Tremco Membrane proved to be defective and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

TREMCO

TYPICAL PHYSICAL PROPERTIES

ASTM C836 Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course

Physical Property	Test Method/Requirement	Results
Material	Shall Cure and maintain seal against water	Pass
Stability (80 F/26.7 C)	Shelf Life 6 months	1 year
Hardness, Type 00	ASTM D2240 as modified in section 5.5 of ASTM C836; 50 minimum	70 -80
Vertical Hold *	60 mils	90+
Weight Loss	ASTM C1250 20% Maximum Loss 80% Solids Minimum	10% Loss 90% Solids
Low Temperature Flexibility and Crack Bridging	ASTM C1305 No Cracking	Pass
Adhesion-in-Peel after Water Immersion (Unprimed)	ASTM C794 as modified in section 5.9 of ASTM C836 1 lbf/in. (4.4N)	26 lbf/in.(22.2-35.6N)
Extensibility After Heat	ASTM C1522	Pass
Aging	Membrane must bridge 1/4" (6 mm) crack	

*Roller and Trowel Grade only. Self-Leveling Grade is not designed to hold on a vertical.

Tremco Commercial Sealants & Waterproofing
3735 Green Road, Beachwood, OH 44122 // Phone: 216.292.5000 // 800.321.7906
220 Wicksteed Avenue, Toronto, ON M4H 1G7 // Phone: 416.421.3300 // 800.363.3213
1451 Jacobson Avenue, Ashland OH 44805 // Phone: 419.289.2050 // 800.321.6357

An RPM Company

Sent 12/7/11 Attn: Connie

Columbia County Building Department
Culvert Waiver

Culvert Waiver No. 000001923

DATE: 12/07/2011 BUILDING PERMIT NO. 29802

APPLICANT ROBERT JORDAN PHONE 755-3456

ADDRESS 234 SW WINDSOR GLEN LAKE CITY FL 32024

OWNER ROBERT JORDAN PHONE 755-3456

ADDRESS 248 SW WINDSOR HILLS GLEN LAKE CITY FL 32024

CONTRACTOR OWNER BUILDER PHONE

LOCATION OF PROPERTY 90W, TL INTO HILLS OF WINDSOR, TR ON WINDSOR HILLS GLEN, LAST PLACE ON LEFT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT HILLS OF WINDSOR 4

PARCEL ID # 30-3S-16-02411-104

I HEREBY CERTIFY THAT I UNDERSTAND AND WILL FULLY COMPLY WITH THE DECISION OF THE COLUMBIA COUNTY PUBLIC WORKS DEPARTMENT IN CONNECTION WITH THE HEREIN PROPOSED APPLICATION.

SIGNATURE: [signature]

A SEPARATE CHECK IS REQUIRED
MAKE CHECKS PAYABLE TO BCC

Amount Paid 50.00

PUBLIC WORKS DEPARTMENT USE ONLY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS APPLICATION AND DETERMINED THAT THE CULVERT WAIVER IS:

✓ APPROVED ____ NOT APPROVED - NEEDS A CULVERT PERMIT

COMMENTS: ____

SIGNED: James Duncan DATE: 1-5-12

Bill Filed.

ANY QUESTIONS PLEASE CONTACT THE PUBLIC WORKS DEPARTMENT AT 386-752-5955.

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

Sent 12/12/11 Thx, Connie

Columbia County Building Department
Culvert Waiver

Culvert Waiver No. 000001923

DATE: 12/07/2011 BUILDING PERMIT NO. 29802

APPLICANT ROBERT JORDAN PHONE 755-3456

ADDRESS 234 SW WINDSOR GLEN LAKE CITY FL 32024

OWNER ROBERT JORDAN PHONE 755-3456

ADDRESS 248 SW WINDSOR HILLS GLEN LAKE CITY FL 32024

CONTRACTOR OWNER BUILDER PHONE

LOCATION OF PROPERTY 90W, TL INTO HILLS OF WINDSOR, TR ON WINDSOR HILLS GLEN, LAST PLACE ON LEFT

SUBDIVISION/LOT/BLOCK/PHASE/UNIT HILLS OF WINDSOR 4

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MAKE CHECKS PAYABLE TO BCC

Amount Paid 50.00

PUBLIC WORKS DEPARTMENT USE ONLY

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS APPLICATION AND DETERMINED THAT THE CULVERT WAIVER IS:

_____ APPROVED _____ NOT APPROVED - NEEDS A CULVERT PERMIT

COMMENTS: _____

SIGNED: _____ DATE: _____

ANY QUESTIONS PLEASE CONTACT THE PUBLIC WORKS DEPARTMENT AT 386-752-5955.

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

Sent 1.4.12

COLUMBIA COUNTY GATEWAY TO FLORIDA

Cal-Tech Testing, Inc.

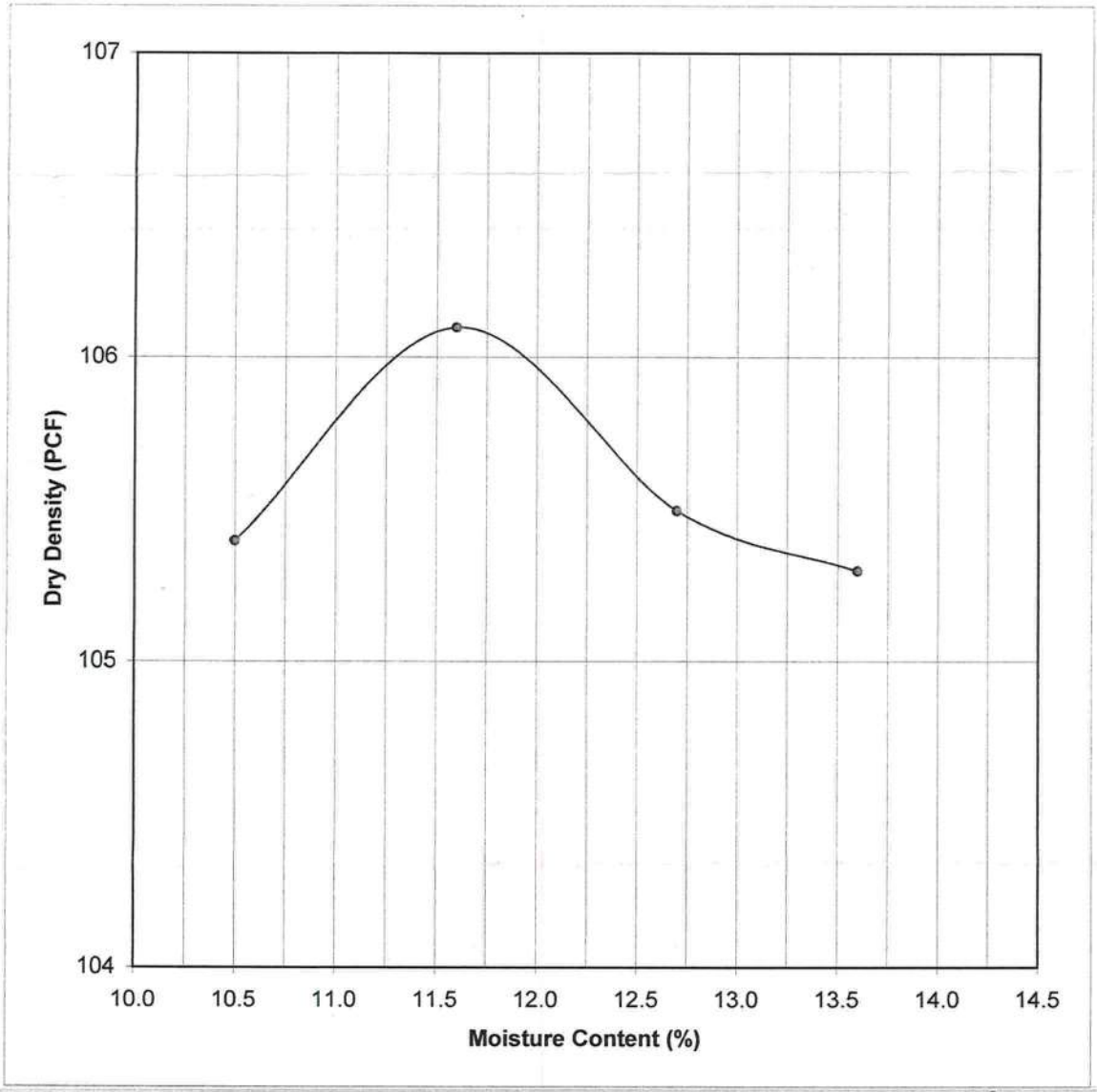
• Engineering
• Geotechnical
• Environmental
Laboratories

P.O. Box 1625 • Lake City, FL 32056-1625 • Tel(386)755-3633 • Fax(386)752-5456
4784 Rosselle St., Jacksonville, FL 32254 • Tel(904)381-8901 • Fax(904)381-8902

REPORT OF LABORATORY COMPACTION TEST

Client: Robert F. Jordan, 934 NE Lake Desoto Circle, Lake City, Florida 32055
Project Name: Jordan Residence
Project Location: Lake City, Florida
Contractor: Spradley Construction

File No: 11-00435-01
Date: 12/20/2011
Lab No: 14953



PROCTOR DATA

Proctor No.: 1

Modified Proctor (ASTM D-1557) ☑

Standard Proctor (ASTM D-698) ☐

Maximum Dry Dens. Pcf: 106

Optimum Moisture Percent: 12

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

Sample Description: Tan Sand with Trace Silt
Sample Location: Basement Foundation
Proposed Use: Fill
Sampled By: C. Day **Date:** 12/19/2011
Tested By: J. Curry **Date:** 12/20/2011
Remarks: 1cc: Client
1cc: File

jsb

Linda M. Creamer
President - CEO

Reviewed By:
Date:
Licensed Florida No. 57842

ABIL O. HMEIDI
LICENSE
No. 57842
STATE OF
PROFESSIONAL ENGINEER

COPY

Cal-Tech Testing, Inc.
• Engineering
• Geotechnical
• Environmental
Laboratories

P.O. Box 1625 • Lake City, FL 32056-1625 • Tel(386)755-3633 • Fax(386)752-5456
4784 Rosselle St., Jacksonville, FL 32254 • Tel(904)381-8901 • Fax(904)381-8902

REPORT OF IN-PLACE DENSITY TEST

JOB NO.: 11-00435-01
DATE TESTED: 12/19/11
DATE REPORTED: 12/20/11

PROJECT:	Jordan Residence
CLIENT:	Robert F. Jordan, 934 NE Lake Desoto Circle, Lake City, Florida 32055
GENERAL CONTRACTOR:	Spradley Construction
EARTHWORK CONTRACTOR:	Spradley Construction
INSPECTOR:	C. Day

ASTM METHOD: (D-2922) Nuclear

SOIL USE: SUBGRADE/NATURAL SOIL

SPECIFIED REQUIREMENTS: 95%

TEST NO.	TEST LOCATION	TEST DEPTH	WET DENSITY (lb/ft^3)	MOISTURE PERCENT	DRY DENSITY (lb/ft^3)	PROCTOR TEST NO.	PROCTOR VALUE	MAXIMUM DENSITY
1	Northwest Corner of Basement Foundation - 15' East, 12' South	0-12"	120.3	9.1	110.3	1	106.0	104%
2	Southwest Corner of Basement Foundation - 20' North, 10' East	0-12"	122.6	10.9	110.6	1	106.0	104%
3	Southeast Corner of Basement Foundation - 15' West, 7' North	0-12"	121.4	10.7	109.7	1	106.0	103%

REMARKS: The Above Tests Meet Specified Requirements.

PROCTORS

PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft^3)	OPT. MOIST.	TYPE
1	Tan Sand with Trace Silt	106.0	12.0	MODIFIED (ASTM D-1557)

Respectfully Submitted,
CAL-TECH TESTING, INC.

Linda Creamer, CEO, DBE
Linda M. Creamer
President - CEO

Reviewed By:
NABIL O. HMEIDI
LICENSE
No. 57842
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Date: 12/20/2011
Licensed FL P.E. No. 57842
COPY

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

Residential System Sizing Calculation

Summary

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

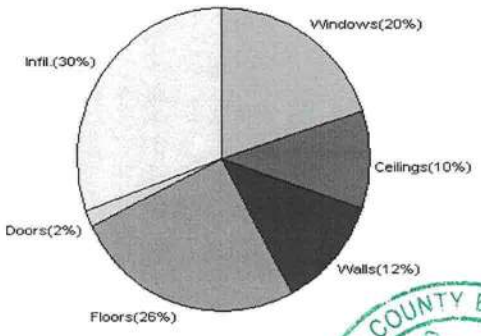
12/1/2011

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	**91944**	**Btuh**	**Total cooling load calculation**	**86890**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	119.6	110000	Sensible (SHR = 0.75)	119.4	82500
Heat Pump + Auxiliary(0.0kW)	119.6	110000	Latent	154.6	27500
			Total (Electric Heat Pump)	126.6	11000

WINTER CALCULATIONS

Winter Heating Load (for 6579 sqft)

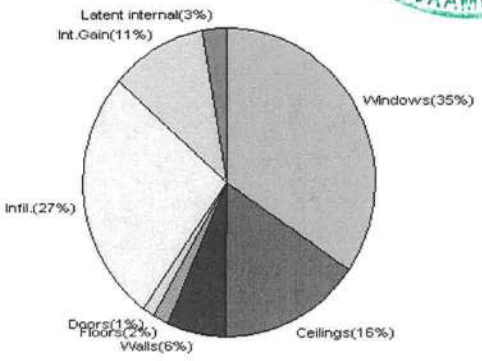
Load component			Load	
Window total	576	sqft	18541	Btuh
Wall total	3708	sqft	10777	Btuh
Door total	120	sqft	1554	Btuh
Ceiling total	8156	sqft	9611	Btuh
Floor total	See detail report		23744	Btuh
Infiltration	684	cfm	27717	Btuh
Duct loss			0	Btuh
Subtotal			**91944**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**91944**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 6579 sqft)

Load component			Load	
Window total	576	sqft	30190	Btuh
Wall total	3708	sqft	5563	Btuh
Door total	120	sqft	1176	Btuh
Ceiling total	8156	sqft	13507	Btuh
Floor total			1569	Btuh
Infiltration	421	cfm	7837	Btuh
Internal gain			9260	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			**69102**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			15388	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			2400	Btuh
Total latent gain			**17788**	**Btuh**
TOTAL HEAT GAIN			**86890**	**Btuh**



For Florida residences only

EnergyGauge® System Sizing
PREPARED BY:
DATE: 12/1/11 EAW Beams 109

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Bob Jordan
,

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

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

12/1/2011

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

WHOLE HOUSE TOTALS

	Subtotal Sensible	91944 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	91944 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)

Powered by ACCA MANUAL J

For Florida residences only

System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

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

12/1/2011

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

Component Loads for Zone #2: zone 1

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	W	48.0	32.2	1545 Btuh
2	2, Clear, Metal, 0.87	NW	72.0	32.2	2318 Btuh
3	2, Clear, Metal, 0.87	NW	28.0	32.2	901 Btuh
4	2, Clear, Metal, 0.87	N	72.0	32.2	2318 Btuh
5	2, Clear, Metal, 0.87	NE	48.0	32.2	1545 Btuh
6	2, Clear, Metal, 0.87	NE	16.0	32.2	515 Btuh
7	2, Clear, Metal, 0.87	SE	48.0	32.2	1545 Btuh
8	2, Clear, Metal, 0.87	SW	16.0	32.2	515 Btuh
9	2, Clear, Metal, 0.87	SE	12.0	32.2	386 Btuh
10	2, Clear, Metal, 0.87	E	24.0	32.2	773 Btuh
11	2, Clear, Metal, 0.87	SE	48.0	32.2	1545 Btuh
	Window Total		432(sqft)		13906 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.08)	19.0	2368	2.9	6770 Btuh
2	Frame - Wood - Adj(0.09)	13.0	63	3.3	207 Btuh
	Wall Total		2431		6977 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exterior		40	12.9	518 Btuh
2	Insulated - Exterior		20	12.9	259 Btuh
3	Insulated - Exterior		20	12.9	259 Btuh
	Door Total		80		1036Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	4647	1.2	5476 Btuh
	Ceiling Total		4647		5476Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Raised Wood - Adj	19	1748.0 sqft	1.9	3243 Btuh
2	Slab On Grade	0	288.0 ft(p)	43.7	12574 Btuh
	Floor Total		2036		15817 Btuh
			Zone Envelope Subtotal:		43213 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.65	39510	684.3	18171 Btuh
Ductload	Unsealed, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #2			**Sensible Zone Subtotal**		**61384 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

Component Loads for Zone #1: Zone 2

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
3	2, Clear, Metal, 0.87	NW	48.0	32.2	1545 Btuh
4	2, Clear, Metal, 0.87	SW	24.0	32.2	773 Btuh
5	2, Clear, Metal, 0.87	SE	72.0	32.2	2318 Btuh
	Window Total		144(sqft)		4635 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.08)	19.0	927	2.9	2650 Btuh
2	Frame - Wood - Adj(0.09)	13.0	350	3.3	1149 Btuh
	Wall Total		1277		3800 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Adjacent		40	12.9	518 Btuh
	Door Total		40		518Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	3509	1.2	4135 Btuh
	Ceiling Total		3509		4135Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Raised Wood - Adj	19	860.0 sqft	1.9	1596 Btuh
2	Slab On Grade	0	145.0 ft(p)	43.7	6331 Btuh
	Floor Total		1005		7926 Btuh
			Zone Envelope Subtotal:		21014 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.65	23652	684.3	9545 Btuh
Ductload	Unsealed, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #1			**Sensible Zone Subtotal**		**30560 Btuh**

SYSTEM GROUPS (BLOCK LOADS)

Heating Loads For System(s):2 Serving Zones: 2	Block load	61384 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Bob Jordan
,

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

Heating Loads For System(s):1 Serving Zones: 1	Block load	30560 Btuh

WHOLE HOUSE TOTALS

	Subtotal Sensible	91944 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	91944 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

Bob Jordan
,

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 12/1/2011

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

Manual J Summer Calculations

Residential Load - Component Details (continued)

Bob Jordan
,

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

WHOLE HOUSE TOTALS

	Sensible Envelope Load All Zones	**69102 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**69102 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
Whole House	**Total sensible gain**	**69102 Btuh**
Totals for Cooling	Latent infiltration gain (for 54 gr. humidity difference)	15388 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (12 people @ 200 Btuh per person)	2400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**17788 Btuh**
	TOTAL GAIN	**86890 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

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

,

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F

12/1/2011

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

Component Loads for Zone #2: zone 1

Window	Type* Pn/SHGC/U/InSh/ExSh/IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2, Clear, 0.87, None,N,N	W	2ft.	7ft.	48.0	5.3	42.7	29	80	3550 Btuh
2	2, Clear, 0.87, None,N,N	NW	2ft.	7ft.	72.0	0.0	72.0	29	60	4323 Btuh
3	2, Clear, 0.87, None,N,N	NW	15.3	9ft.	28.0	0.0	28.0	29	60	1681 Btuh
4	2, Clear, 0.87, None,N,N	N	2ft.	7ft.	72.0	0.0	72.0	29	29	2085 Btuh
5	2, Clear, 0.87, None,N,N	NE	2ft.	7ft.	48.0	0.0	48.0	29	60	2882 Btuh
6	2, Clear, 0.87, None,N,N	NE	2ft.	6ft.	16.0	0.0	16.0	29	60	961 Btuh
7	2, Clear, 0.87, None,N,N	SE	2ft.	7ft.	48.0	18.9	29.1	29	63	2367 Btuh
8	2, Clear, 0.87, None,N,N	SW	99ft.	6ft.	16.0	16.0	0.0	29	63	463 Btuh
9	2, Clear, 0.87, None,N,N	SE	12ft.	3ft.	12.0	12.0	0.0	29	63	348 Btuh
10	2, Clear, 0.87, None,N,N	E	14ft.	7ft.	24.0	24.0	0.0	29	80	695 Btuh
11	2, Clear, 0.87, None,N,N	SE	0ft.	0ft.	48.0	0.0	48.0	29	63	3002 Btuh
	Window Total				432 (sqft)					22355 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	19.0/0.08	2368.0	1.5	3550 Btuh
2	Frame - Wood - Adj	13.0/0.09	63.0	1.5	95 Btuh
	Wall Total		2431 (sqft)		3645 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	40.0	9.8	392 Btuh
2	Insulated - Exterior	20.0	9.8	196 Btuh
3	Insulated - Exterior	20.0	9.8	196 Btuh
	Door Total	80 (sqft)		784 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	4647.0	1.7	7696 Btuh
	Ceiling Total		4647 (sqft)		7696 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Raised Wood - Adj	19.0	1748 (sqft)	0.6	1052 Btuh
2	Slab On Grade	0.0	288 (ft(p))	0.0	0 Btuh
	Floor Total		2036.0 (sqft)		1052 Btuh

			Zone Envelope Subtotal:	35532 Btuh
Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.40	39510	421.1	5138 Btuh
Internal gain		Occupants	Btuh/occupant	Appliance	Load
		6	X 230 +	4000	5380 Btuh
Duct load	Unsealed, R6.0, Supply(Attic), Return(Attic)			DGM = 0.00	0.0 Btuh
			Sensible Zone Load		**46050 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

Component Loads for Zone #1: Zone 2

	Type*		Overhang		Window Area(sqft)			HTM		Load
Window	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2, Clear, 0.87, None,N,N	NW	2ft.	7ft.	48.0	0.0	48.0	29	60	2882 Btuh
2	2, Clear, 0.87, None,N,N	SW	2ft.	6ft.	24.0	2.9	21.1	29	63	1403 Btuh
3	2, Clear, 0.87, None,N,N	SE	2ft.	7ft.	72.0	28.4	43.6	29	63	3550 Btuh
	Window Total				144 (sqft)					7835 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	19.0/0.08	927.0	1.5	1390 Btuh
2	Frame - Wood - Adj	13.0/0.09	350.0	1.5	528 Btuh
	Wall Total		1277 (sqft)		1918 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Adjacent	40.0	9.8	392 Btuh
	Door Total	40 (sqft)		392 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	3509.0	1.7	5811 Btuh
	Ceiling Total		3509 (sqft)		5811 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Raised Wood - Adj	19.0	860 (sqft)	0.6	518 Btuh
2	Slab On Grade	0.0	145 (ft(p))	0.0	0 Btuh
	Floor Total		1005.0 (sqft)		518 Btuh

				Zone Envelope Subtotal:	16473 Btuh

Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.40	23652	421.1	2699 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	6	X 230	+	2500	3880 Btuh

Duct load	Unsealed, R6.0, Supply(Attic), Return(Attic)	DGM = 0.00	0.0 Btuh

		Sensible Zone Load	**23052 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Bob Jordan

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

SYSTEM GROUPS (BLOCK LOADS)

	Sensible Envelope Load	**46050 Btuh**
Cooling Loads	Sensible Duct Load (duct gain multiplier of 0.00)	0 Btuh
	Sensible ventilation	0 Btuh
For System(s):2	**Zone Sensible gain**	**46050 Btuh**
Serving Zones:	Latent infiltration/ventilation gain	10089 Btuh
2	Latent occupant gain	1200 Btuh
	Latent duct gain	0 Btuh
	Latent other gain	0 Btuh
	Total block load	**57339 Btu**

	Sensible Envelope Load	**23052 Btuh**
Cooling Loads	Sensible Duct Load (duct gain multiplier of 0.00)	0 Btuh
	Sensible ventilation	0 Btuh
For System(s):1	**Zone Sensible gain**	**23052 Btuh**
Serving Zones:	Latent infiltration/ventilation gain	5300 Btuh
1	Latent occupant gain	1200 Btuh
	Latent duct gain	0 Btuh
	Latent other gain	0 Btuh
	Total block load	**29552 Btu**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Bob Jordan
,

Project Title:
1111068

Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**69102 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**69102 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**69102 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	15388 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (12 people @ 200 Btuh per person)	2400 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**17788 Btuh**
	TOTAL GAIN	**86890 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

Bob Jordan

Project Title:
1111068

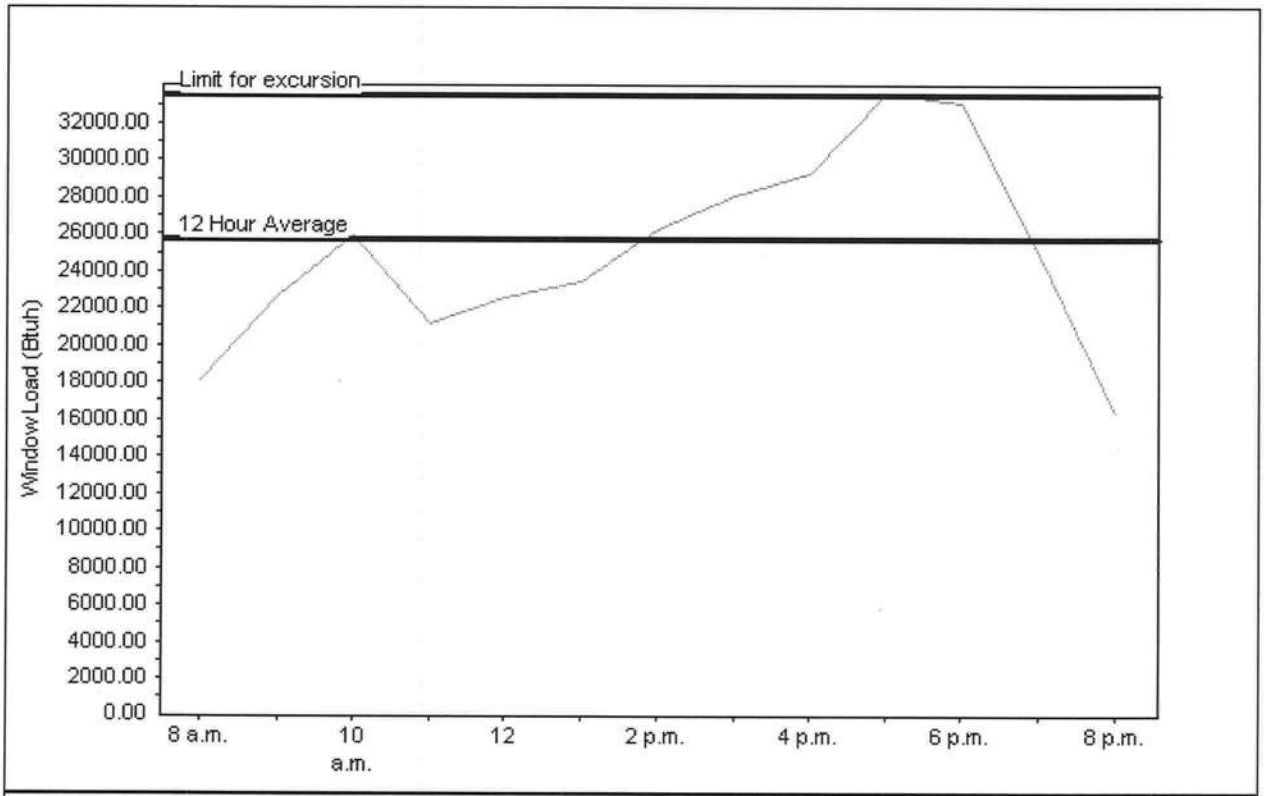
Class 3 Rating
Registration No. 0
Climate: North

12/1/2011

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	25752 Btu
Summer setpoint	75 F	Peak window load for July	33658 Btu
Summer temperature difference	17 F	Excusion limit(130% of Ave.)	33477 Btu
Latitude	29 North	Window excursion (July)	181 Btuh

WINDOW Average and Peak Loads



Total July Window Load(Radiation and conduction)

Warning: This application has glass areas that produce relatively large heat gains for part of the day. Variable air volume devices may be required to overcome spikes in solar gain for one or more rooms. A zoned system may be required or some rooms may require zone control.

EnergyGauge® System Sizing for Florida residences only
PREPARED BY: _____
DATE: 12/1/11

FORM 600A-08

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Alternate Residential Points System Method

NORTH 1 2 3

PROJECT NAME: AND ADDRESS:	1111068	BUILDER:	
		PERMITTING OFFICE:	CLIMATE ZONE: 1 [ ] 2 [ ] 3 [ ]
OWNER:	BOB JORDAN	PERMIT NO.:	JURISDICTION NO.:

	Please Type	CK
1. New construction or addition	1. NEW	
2. Single-family detached or Multiple-family attached	2. SINGLE	
3. If Multiple-family–No. of units covered by this submission	3.	
4. Is this a worst case? (yes/no)	4. YES	
5. Conditioned floor area (sq. ft.)	5. 6579 sq. ft.	
6. Predominant eave overhang (ft.)	6. 2 ft.	
7. Glass type[1] and area: (Label required by 13-104.4.5 if not default)	Description / Area	
a. *U*-factor: (or Single- or Double-Pane DEFAULT)	7a. DOUBLE 576 sq. ft.	
b. SHGC: (or Clear or Tint DEFAULT)	7b. CLEAR sq. ft.	
8. Floor type and insulation:		
a. Slab-on-grade (*R*-value + perimeter)	8a. R = . l. ft.	
b. Wood, raised (*R*-value + sq. ft.)	8b. R = 19 . 2608 sq. ft.	
c. Concrete, raised (*R*-value)	8c. R = . sq. ft.	
9. Net wall type, area and insulation:		
a. Exterior: 1. Concrete block (Insulation *R*-value)	9a-1 R = . sq. ft.	
2. Wood frame (Insulation *R*-value)	9a-2 R = 19 . 3295 sq. ft.	
3. Steel frame (Insulation *R*-value)	9a-3 R = . sq. ft.	
4. Log (Insulation *R*-value)	9a-4 R = . sq. ft.	
5. Other:		
b. Adjacent: 1. Concrete block (Insulation *R*-value)	9b-1 R = . sq. ft.	
2. Wood frame (Insulation *R*-value)	9b-2 R = 13 . 413 sq. ft.	
3. Steel frame (Insulation *R*-value)	9b-3 R = . sq. ft.	
4. Log (Insulation *R*-value)	9b-4 R = . sq. ft.	
10. Ceiling type, area and insulation:		
a. Under attic (Insulation *R*-value)	10a. R-30 8156 sq. ft.	
b. Single assembly (Insulation *R*-value)	10b. sq. ft.	
c. Radiant barrier, IRCC or white roof installed?	10c.	
11. Air distribution system:		
a. Ducts (Insulation + Location)	11a. R = 6 . ATTIC (cond./uncond.)	
b. Air Handler (Location)	11b. R = . INS (cond./uncond.)	
12. Cooling system: (Types: central-split, central-single pkg., room unit, PTAC, gas, none)	12a. Type: CENTRAL	
	12b. SEER/EER/COP: 13	
	12c. Capacity: 110 KBTU/HR	
13. Heating system: (Types: heat pump, elec. strip, nat. gas, LP gas, gas h.p., room or PTAC, none)	13a. Type: HEAT PUMP	
	13b. HSPF/COP/AFUE: 7.8	
	13c. Capacity: 110 KBTU/HR	
14. Hot water system: (Types: elec., natural gas, solar, LP gas, none)	14a. Type: ELEC	
	14b. EF: .94	
15. Hot water credits		
a. Heat Recovery (HR)	15a.	
b. Dedicated Heat Pump (DHP)	15b.	
c. Solar	15c.	
16. HVAC Credits (Use: CF-ceiling fan, CV-cross vent, PT-programmable thermostat, HF-whole house fan, MZ-Multizone)	16. PT	
17. COMPLIANCE STATUS: (PASS if As-Built Pts. are less than Base Pts.)	17. PASS	
a. Total As-Built points / b. Total Base points	17a. 62469 17b. 51490	

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for
FILE COPY
Code Compliance
PLANS EXAMINER

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

PREPARED BY: EVAN BOMBERGER DATE: 12/1/11

I hereby certify that this building is in compliance with the Florida Energy Code:

OWNER AGENT: _____ DATE: _____

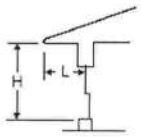
Review of plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed, this building will be inspected for compliance in accordance with Section 553.908, F.S.

BUILDING OFFICIAL: _____

DATE: _____

[1] Predominant glass type. For actual glass type and areas, see summer and winter glass output on Pages 2 and 4.

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT)	SINGLE-PANE SUMMER POINT MULTIPLIER		DUBLE-PANE SUMMER POINT MULTIPLER		SUMMER OH FACTOR (from 6A-1)	AS-BUILT GLASS SUMMER PTS
				CLEAR	TINT (2)	CLEAR	TINT (2)		
	w	2	48				30.93	0.899	1335
	s	2	24				28.73	0.835	576
	e	2	72				33.89	0.898	2191
	sw	2	48				32.3	0.866	1343
	w	2	72				30.93	0.899	2002
	w	15.3	28				30.93	0.422	365
	nw	2	72				20.48	0.913	1346
	n	2	48				14.84	0.93	662
	n	2	16				14.84	0.93	221
	e	2	48				33.89	0.898	1461
	s	99	16				28.73	0.835	384
	e	12	12				33.89	0.898	365
	ne	14	24				23.48	0.907	511
	e	0	48				33.89	1	1627
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0



OVERHANG RATIO = $\frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$

GLASS	COND FLOOR AREA	WEIGHTED GLASS MULTIPLIER	BASE GLASS SUBTOTAL
0.18	6579	18.59	22015

AS-BUILT GLASS SUBTOTAL
14389

	COMPONENT DESCRIPTION	AREA	BASE SUMMER POINT MULT.	BASE SUM POINTS	COMPONENT DESCRIPTION	AREA	SUMMER POINT MULT. (6A-2 - 6A-6)	AS BUILT SUMMER POINTS
WALL	EXTERIOR	3295	1.5	4943	EXT FRAME R19	3295	0.9	2966
	ADJACENT	413	0.6	248	ADJ FRAME R13	413	0.6	248
						0		0
						0		0
DOORS	EXTERIOR	80	6.1	488	EXT INSULATED	80	4.1	328
	ADJACENT	40	2.4	96	ADJ INSULATED	40	1.6	64
						0		0
CEILING	UNDER ATTIC OR SINGLE ASSEMBLY	6579	1.73	11382	ATTIC R30	8156	1.73	14110
					RBS/IECC/white roof (3)	0	1.03	0
	BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING. AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE							
FLOOR	SLAB (PERIMETER)	433	-41.2	-17840	SLAB	433	-41.2	-17839.6
	RAISED (AREA)	2608	-0.98	-2556	RAISED WD ADJ	2608	0.4	1043.2
	FOR SLAB-ON-GRADE USE PERIMITER LENGTH AROUND CONDITIONED FLOOR, FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE							
INFILTRATION & INTERNAL GAINS		6579	10.21	67172		6579	10.21	67172
	USE TOTAL FLOOR AREA OF CONDITIONED SPACE							

TOTAL COMPONENT BASE SUMMER POINTS	85947	TOTAL COMPONENT AS-BUILT SUMMER POINTS	82479

COOLING SYSTEM	BASE COOLING SYSTEM MULTIPLIER	TOTAL BASE SUMMER POINTS	BASE COOLING POINTS	TOTAL AS-BUILT SUM. PTS.	AS-BUILT DM (6A-8)	AS-BUILT DSM (6A-20)	AS-BUILT AHU (6A-7)	AS-BUILT CMS (6A-9)	AS-BUILT CCM (6A-19)	AS-BUILT COOLING POINTS
	• 0.325	85947	**27933**	82479	1.09	0.95	0.91	0.26	0.95	**19197**

HOT WATER SYSTEM	NUMBER OF BEDROOMS	BASE HOT WATER MULTIPLIER	BASE HOT WATER POINTS	AS-BUILT HOT WATER SYSTEM DESCRIPTION	NUMBER OF BED-ROOMS	AS-BUILT HWM (6A-23)	AS-BUILT HWCM (6A-23)	AS-BUILT HOT WATER POINTS
	5	2635	**13175**	elec .94	5	2571	1	**12855**

(1) H = HORIZONTAL GLASS (SKYLIGHTS)

(2) FOR GLASS WITH KNOW SHGC, SEE SEC. 2.1.1 OF APPENDIX G-C of the *FBC, Residential.* TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT

(3) MUST MEET CRITERIA OF APPENDIX G-C4.2.1.5 of the *FBC, Residential.*

6A-1 SUMMER OVERHANG FACTORS (SOF) FOR SINGLE-AND DOUBLE-PANE GLASS

SELECT BY OR

OH Ratio	.00-.11	.12-.17	.18-.26	.27-.35	.36-.46	.47-.57	.58-.70	.71-.83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
North	1.00	0.993	0.971	0.930	0.888	0.842	0.803	0.766	0.736	0.681	0.634	0.593
Northeast	1.00	0.996	0.967	0.907	0.845	0.775	0.717	0.662	0.619	0.545	0.487	0.441
East	1.00	0.994	0.963	0.898	0.827	0.745	0.675	0.609	0.558	0.470	0.405	0.357
Southeast	1.00	0.998	0.952	0.864	0.777	0.689	0.623	0.566	0.525	0.459	0.413	0.379
South	1.00	0.989	0.931	0.835	0.751	0.675	0.620	0.575	0.543	0.493	0.458	0.432
Southwest	1.00	0.998	0.953	0.866	0.779	0.691	0.623	0.565	0.522	0.453	0.404	0.368
West	1.00	0.994	0.963	0.899	0.828	0.748	0.681	0.617	0.569	0.485	0.422	0.375
Northwest	1.00	0.996	0.968	0.913	0.858	0.797	0.748	0.702	0.667	0.605	0.556	0.516
OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-2 WALL SUMMER POINT MULTIPLIERS (SPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
	WOOD		STEEL			INTERIOR INSULATION		EXT. INSUL.	*R*-VALUE	WOOD FR	*R*-VALUE	BLOCK		6 INCH	8 INCH
R-VALUE	EXT	ADJ	EXT	ADJ	*R*-VALUE	EXT	ADJ	EXT	0-6.9	2.4	0-2.9	1.0	*R*-VALUE	EXT	EXT
0-6.9	5.5	2.2	7.6	2.8	0-2.9	2.2	1.1	2.2	7-10.9	.6	3-6.9	.6	0-2.9	1.5	1.0
7-10.9	2.1	.8	3.5	1.3	3-4.9	1.3	.8	.8	11-18.9	.4	7-9.9	.4	3-6.9	1.0	.7
11-12.9	1.7	.7	2.7	1.0	5-6.9	1.0	.7	.5	19-25.9	.2	10 & UP	.2	7 & UP	.8	.6
13-18.9	1.5	.6	2.5	0.9	7-10.9	.7	.5	.3	26 & UP	.1					
19-25.9	.9	.4	2.2	0.8	11-18.9	.4	.4	0							
26 & UP	.6	.2	1.2	0.4	19-25.9	.2	.2								
					26 & UP	.1	.1								

6A-3 DOOR SUMMER POINT MULTIPLIERS (SPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	6.1	2.4
INSULATED	4.1	1.6

6A-4 CEILING SUMMER POINT MULTIPLIERS (SPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	SPM	*R*-VALUE	SPM		CEILING TYPE	
19-21.9	2.34	10-10.9	8.49	*R*-VALUE	EXPOSED	DROPPED
22-25.9	2.11	11-12.9	7.97	10-13.9	9.13	8.47
26-29.9	1.89	13-18.9	7.14	14-20.9	6.80	6.45
30-37.9	1.73	19-25.9	5.64	21 & UP	4.92	4.63
38 & UP	1.52	26-29.9	4.75			
RBS Credit	0.700	30 & UP	4.40			
IRCC Credit	0.849					
White Roof Credit	0.550					

6A-5 FLOOR SUMMER POINT MULTIPLIERS (SPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
					POST OR PIER CONSTRUCTION	STEM WALL w/UNDER FLOOR INSULATION	ADJACENT
R-VALUE	SPM	*R*-VALUE	SPM	*R*-VALUE	SPM	SPM	SPM
0-2.9	-41.2	0-2.9	-.8	0-6.9	2.80	-4.7	2.2
3-4.9	-37.2	3-4.9	-1.3	7-10.9	1.34	-2.3	.8
5-6.9	-36.2	5-6.9	-1.3	11-18.9	1.06	-1.9	.7
7 & UP	-35.7	7 & UP	-1.3	19 & UP	.77	-1.5	.4

6A-6 INFILTRATION & INTERNAL GAINS (SPM)

Air Infiltration	3.44
Internal Gains	+6.77
Infiltration/Internal Gains (Combined)	10.21

6A-7 AIR HANDLER MULTIPLIERS (SPM)

Located in garage	1.00
Located in conditioned area	0.91
Located on exterior of building	1.02
Located in attic	1.11

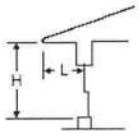
6A-8 DUCT MULTIPLIERS (DM)

SUPPLY DUCTS IN:	DUCT *R*-VALUE	RETURN DUCTS IN:				
		Unconditioned space	Attic/ RBS	Attic/ IRCC	Attic/ Cool roof	Conditioned space
Unconditioned Space	4.2	1.118	1.111	1.112	1.089	1.107
	6.0	1.090	1.084	1.085	1.066	1.081
	8.0	1.071	1.066	1.067	1.051	1.064
Attic/Radiant Barrier (RBS)	4.2	1.072	1.066	—	—	1.061
	6.0	1.056	1.051	—	—	1.047
	8.0	1.045	1.041	—	—	1.037
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.099	—	1.092	—	1.084
	6.0	1.076	—	1.071	—	1.065
	8.0	1.061	—	1.057	—	1.052
Attic/Cool Roof	4.2	1.068	—	—	1.096	1.057
	6.0	1.051	—	—	1.071	1.043
	8.0	1.040	—	—	1.055	1.034
Conditioned Space	4.2	1.006	1.005	1.007	1.008	1.000
	6.0	1.005	1.004	1.005	1.006	1.000
	8.0	1.004	1.003	1.004	1.005	1.000

6A-9 COOLING SYSTEM MULTIPLIERS (CSM)

SYSTEM TYPE		COOLING SYSTEM MULTIPLIERS (CSM)										
Central Units (SEER)	Rating		7.5-7.9	8.0-8.4	8.5-8.8	8.9-9.4	9.5-9.9	10.0-10.4	10.5-10.9	11.0-11.4	11.5-11.9	12.0-12.4
	CSM		.45	.43	.40	.38	.36	.34	.32	.31	.30	.28
PTAC & Room Units (EER)	Rating	12.5-12.9	13.0-13.4	13.5-13.9	14.0-14.4	14.5-14.9	15.0-15.4	15.5-15.9	16.0-16.4	16.5-16.9	17.0-17.4	17.5 & UP
	CSM	.27	.26	.25	.24	.24	.23	.22	.21	.21	.20	.19

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT)	SINGLE-PANE WINTER POINT MULTIPLIER		DUBLE-PANE WINTER POINT MULTIPLER		WINTER OH FACTOR (from 6A-10)	AS-BUILT GLASS WINTER PTS
				CLEAR	TINT (2)	CLEAR	TINT (2)		
	w	2	48				22.15	1.027	1092
	s	2	24				15.87	1.142	435
	e	2	72				20.51	1.04	1536
	sw	2	48				18.79	1.07	965
	w	2	72				22.15	1.027	1638
	w	15.3	28				22.15	1.217	755
	nw	2	72				25.14	1.004	1817
	n	2	48				25.37	1.003	1221
	n	2	16				25.37	1.003	407
	e	2	48				20.51	1.04	1024
	s	99	16				15.87	3.661	930
	e	12	12				20.51	1.429	352
	ne	14	24				24.53	1.429	841
	e	0	48				20.51	1	984
		0	0						0
		0	0						0
		0	0						0
		0	0						0
		0	0						0
		0	0						0
		0	0						0



OVERHANG RATIO = $\frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$

GLASS	COND FLOOR AREA	WEIGHTED GLASS MULTIPLIER	BASE GLASS SUBTOTAL
0.18	6579	20.17	23886

AS-BUILT GLASS SUBTOTAL
13997

	COMPONENT DESCRIPTION	AREA	BASE SUMMER POINT MULT.	BASE WINTER POINTS	COMPONENT DESCRIPTION	AREA	WINTER POINT MULT. (6A-11 - 6A-15)	AS BUILT WINTER POINTS
WALL	EXTERIOR	3295	3.4	11203	EXT FRAME R19	3295	2.2	7249
	ADJACENT	413	3.3	1363	ADJ FRAME R13	413	3.3	1363
						0		0
						0		0
DOORS	EXTERIOR	80	12.3	984	EXT INSULATED	80	8.4	672
	ADJACENT	40	11.5	460	ADJ INSULATED	40	8	320
						0		0
CEILING	UNDER ATTIC OR SINGLE ASSEMBLY	6579	2.05	13487	ATTIC R30	8156	2.05	16720
					RBS/IECC/white roof (3)	0	1.2	0
	BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING. AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE							
FLOOR	SLAB (PERIMETER)	433	18.8	8140	SLAB	433	18.8	8140.4
	RAISED (AREA)	2608	1.38	3599	RAISED WD ADJ	2608	2.2	5737.6
	FOR SLAB-ON-GRADE USE PERIMITER LENGTH AROUND CONDITIONED FLOOR, FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE							
	INFILTRATION & INTERNAL GAINS	6579	-0.58	-3816		6579	-0.58	-3816
		USE TOTAL FLOOR AREA OF CONDITIONED SPACE						

TOTAL COMPONENT BASE WINTER POINTS	59306	TOTAL COMPONENT AS-BUILT WINTER POINTS	50383

HEATING SYSTEM	BASE HEATING SYSTEM MULTIPLIER	TOTAL BASE WINTER POINTS	BASE HEATING POINTS	TOTAL AS-BUILT WIN. PTS.	AS-BUILT DM (6A-17)	AS-BUILT DSM (6A-20)	AS-BUILT AHU (6A-16)	AS-BUILT CMS (6A-18)	AS-BUILT CCM (6A-21)	AS-BUILT HEATING POINTS
	0.554	59306	**32856**	50383	1.069	0.95	0.93	0.43	0.95	**19438**

TOTAL	BASE COOLING POINTS (From P2)	BASE HEATING POINTS	BASE H/W PTS. (From P2)	0.85	TOTAL BASE PTS. (Enter on P1)	AS-BUILT COOLING POINTS (From P2)	AS-BUILT HEATING POINTS	AS-BUILT H/W PTS. (From P2)	TOTAL AS-BUILT PTS. (Enter on P1)
	27933	32856	13175	73963	**62869**	19197	19438	12855	**51490**

(1) H = HORIZONTAL GLASS (SKYLIGHTS)

(2) FOR GLASS WITH KNOW SHGC, SEE SEC. 2.1.1 OF APPENDIX G-C of the *FBC, Residential.* TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT

(3) MUST MEET CRITERIA OF APPENDIX G-C4.2.1.5 of the *FBC, Residential.*

6A-10 WINTER OVERHANG FACTORS (WOF)

SELECT BY OR

OH Ratio	.00-.11	.12-.17	.18-.26	.27-.35	.36-.46	.47-.57	.58-.70	.71-.83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
North	1.00	1.000	1.001	1.003	1.005	1.009	1.011	1.014	1.016	1.021	1.024	1.027
Northeast	1.00	0.998	1.001	1.008	1.015	1.023	1.029	1.035	1.040	1.049	1.056	1.061
East	1.00	1.007	1.018	1.040	1.069	1.109	1.150	1.198	1.242	1.338	1.429	1.507
Southeast	1.00	1.014	1.043	1.111	1.202	1.332	1.472	1.635	1.787	2.113	2.412	2.650
South	1.00	0.994	1.032	1.142	1.308	1.563	1.845	2.175	2.471	3.042	3.450	3.661
Southwest	1.00	1.006	1.025	1.070	1.131	1.217	1.308	1.413	1.508	1.708	1.888	2.031
West	1.00	1.002	1.010	1.027	1.049	1.077	1.102	1.128	1.149	1.187	1.217	1.238
Northwest	1.00	0.999	1.000	1.004	1.008	1.012	1.016	1.019	1.022	1.028	1.032	1.036
OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-11 WALL WINTER POINT MULTIPLIERS (WPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
	WOOD		STEEL			INTERIOR INSULATION		EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK		6 INCH	8 INCH
									0-6.9	12.6	0-2.9	7.9			
R-VALUE	EXT	ADJ	EXT	ADJ	R-VALUE	EXT	ADJ	EXT	7-10.9	4.2	3-6.9	5.7	R-VALUE	EXT	EXT
0-6.9	11.1	10.4	15.1	13.1	0-2.9	11.2	6.8	11.2	11-18.9	3.5	7-9.9	3.8	0-2.9	4.5	3.0
7-10.9	4.4	4.4	7.3	6.6	3-4.9	7.3	5.1	5.6	19-25.9	2.2	10 & UP	3.0	3-6.9	2.8	2.2
11-12.9	3.7	3.6	5.7	5.2	5-6.9	5.7	4.2	4.3	26 & UP	1.4			7 & UP	2.1	1.7
13-18.9	3.4	3.3	5.2	4.9	7-10.9	4.6	3.5	3.3							
19-25.9	2.2	2.2	4.6	4.4	11-18.9	3.0	2.6	2.2							
26 & Up	1.5	1.5	2.7	2.6	19-25.9	1.9	1.7								
					26 & UP	1.3	1.2								

6A-12 DOOR WINTER POINT MULTIPLIERS (WPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	12.3	11.5
INSULATED	8.4	8.0

6A-13 CEILING WINTER POINT MULTIPLIERS (WPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	WPM	R-VALUE	WPM		CEILING TYPE	
19-21.9	2.70	10-10.9	2.87	R-VALUE	EXPOSED	DROPPED
22-25.9	2.45	11-12.9	2.70	10-13.9	3.16	2.91
26-29.9	2.22	13-18.9	2.40	14-20.9	2.31	2.14
30-37.9	2.05	19-25.9	1.86	21 & UP	1.47	1.47
38 & UP	1.81	26-29.9	1.54			
RBS Credit	0.850	30 & UP	1.43			
IRCC Credit	0.912					
White Roof Credit	1.044					

6A-14 FLOOR WINTER POINT MULTIPLIERS (WPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
					POST OR PIER CONSTRUCTION	STEM WALL w/UNDER FLOOR INSULATION	ADJACENT
R-VALUE	WPM	R-VALUE	WPM	R-VALUE	WPM	WPM	WPM
0-2.9	18.8	0-2.9	9.9	0-6.9	5.77	3.5	10.4
3-4.9	9.3	3-4.9	5.1	7-10.9	2.20	1.6	4.4
5-6.9	7.6	5-6.9	3.6	11-18.9	1.55	1.2	3.6
7 & UP	7.0	7 & UP	2.9	19 & UP	0.88	.8	2.2

6A-15 INFILTRATION & INTERNAL GAINS (WPM)

Air Infiltration	2.13
Internal Gains	-2.72
Infiltration/Internal Gains (Combined)	-0.58

6A-16 AIR HANDLER MULTIPLIERS (WPM)

Located in garage	1.00
Located in conditioned area	0.93
Located on exterior of building	1.07
Located in attic	1.10

6A-17 DUCT MULTIPLIERS (DM)

SUPPLY DUCTS IN:	DUCT R-VALUE	RETURN DUCTS IN:				
		Unconditioned space	Attic/ RBS	Attic/ IRCC	Attic/ Cool roof	Conditioned space
Unconditioned Space	4.2	1.093	1.086	1.088	1.089	1.081
	6.0	1.069	1.064	1.065	1.066	1.060
	8.0	1.053	1.049	1.051	1.051	1.046
Attic/Radiant Barrier (RBS)	4.2	1.067	1.059	—	—	1.052
	6.0	1.051	1.045	—	—	1.040
	8.0	1.040	1.036	—	—	1.032
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.096	—	1.088	—	1.077
	6.0	1.072	—	1.066	—	1.057
	8.0	1.056	—	1.052	—	1.045
Attic/Cool Roof	4.2	1.104	—	—	1.096	1.083
	6.0	1.076	—	—	1.071	1.061
	8.0	1.059	—	—	1.055	1.048
Conditioned Space	4.2	1.008	1.007	1.010	1.008	1.000
	6.0	1.006	1.005	1.007	1.006	1.000
	8.0	1.005	1.004	1.006	1.005	1.000

6A-18 HEATING SYSTEM MULTIPLIERS (HSM) All Climate Zones

SYSTEM TYPE		HEATING SYSTEM MULTIPLIERS (HSM)							
Central Heat Pump Units	HSPF	7.4-7.6	7.7-7.8	7.9-8.3	8.4-8.8	8.9-9.3	9.4-9.8	9.9-10.3	10.4-10.8
	HSM	.46	.44	.43	.41	.38	.36	.34	.33
PTHP	COP	2.50-1.69	2.70-2.89	2.90-3.09	3.10-3.29	3.30-3.49	3.50-3.69	3.70-3.89	3.90-4.19
	HSM	.40	.37	.34	.32	.30	.29	.27	.26
Gas Heating	AFUE	76-.77	.78	.79-.82	.83-.85	.86-.89	.90-.92	.93-.95	.96-.98
	HSM	.46	.44	.43	.41	.38	.36	.34	.33
Electric Strip	1.0								

6A-19 COOLING CREDIT MULTIPLIERS

SYSTEM TYPE	Cooling credit multipliers (CCM)
Ceiling Fans	.95*
Cross Ventilation	.95*
Whole House Fan	.95*
Multizone	.95
Programmable Thermostat	.95

*Credit may be taken for only one system type concurrently.

6A-20 AIR DISTRIBUTION SYSTEM CREDIT MULTIPLIERS

TYPE CREDIT	Prescriptive requirements	Multiplier
Air-tight Duct Credit[1]	Appx G-C5.2.2.1.1	1.00
Factory-sealed AHU Credit[2]	Appx G-C5.2.2.1.2	0.95

[1]Duct Sealing Multiplier (DSM) shall be 1.15 (summer) or 1.17 (winter) unless Air-tight Duct Credit is demonstrated by test report.
[2]Multiply Factory-sealed AHU credit by summer (Table 6A-7) or winter (Table 6A-16) AHU multiplier. Insert total in the "As-Built AHU" box on page 2 or 4.

6A-21 HEATING CREDIT MULTIPLIERS (HCM)

SYSTEM TYPE		HEATING CREDIT MULTIPLIERS (HCM)
Programmable Thermostat	HCM	.95
Multizone	HCM	.95

6A-22 HOT WATER MULTIPLIERS (HWM)

SYSTEM TYPE									
Electric Resistance	EF	.80-.81	.82-.83	.84-.85	.86-.87	.88-.90	.91-.93	.94-.96	.97 &Up
	HWM	3020	2946	2876	2809	2746	2655	2571	2491
Gas Water Heating	EF	.54	.55	.56	.57	.58	.59	.60	.61
	HWM	3020	2946	2876	2809	2746	2655	2571	2491
	EF	.62-.63	.64-.65	.66-.70	.71-.75	.76-.80	.81-.83	.84-.86	.87 & Up
	HWM	2346	2217	2101	1738	1456	1196	1055	933

6A-23 HOT WATER CREDIT MULTIPLIERS (HWCM)

SYSTEM TYPE		HOT WATER CREDIT MULTIPLIERS (HWCM)				
Heat Recovery Unit	With	Air Conditioner		Heat Pump		
	HWCM	.84		.78		
Add-on Dedicated Heat Pump (without tank)	EF	2.0-2.49	2.5-2.99	3.0-3.49	3.5 & Up	
	HWCM	.44	.35	.29	.25	
Add-on Solar Water Heater (without tank)	EF	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5.0 & Up
	HWCM	.84	.42	.28	.21	.17

NOTE: An HWM must be used in conjunction with all HWCM. See Table 6A-22. EF Means Energy Factor.

6A-24 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Max: 3 cfm/sq. ft. window area; .5cfm/sq. ft. door area.	
Exterior & Adjacent Walls	N1106.AB.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; CFM utility penetrations; between wall panels & top/bottom plates; between walls & floor. EXCEPTION: Frame walls where a continous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.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	N1106.AB.1.2.3	Seal: 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	N1106.AB.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.	
Multiple Story Houses	N1106.AB.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-25 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.AB.3. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Noncommercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower Heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 psig.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section N1110. Ducts in unconditioned attics: R-6 minimum insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings–Min. R-19. Common walls–Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ESTIMATED ENERGY PERFORMANCE INDEX*

The lower the Energy Performance Index, the more efficient the home.

.	New Home or addition	NEW	
.	Single family or multiple family	SINGLE	
.	Number of units, (if multi-family)		
.	Number of bedrooms	5	
.	Is this a worst case? (yes or no)	YES	
.	Conditioned floor area	6579	sq. ft.
.	Glass type & area		
	a. U-Factor:	576	sq. ft.
	(Or single or double Default)		sq. ft.
	b. SHGC:		sq. ft.
	(Or clear or tint Default)		sq. ft.
.	Floor types, Insulation level		
	a. Slab-on-grade, edge insulation	R- 0	
	b. Wood, raised	R- 19	
	c. Concrete, raised	R-	
.	Wall types, Insulation level		
	Exterior		
	a. Wood frame	R- 19	
	b. Metal frame	R-	
	c. Concrete block	R-	
	d. Log	R-	
	e. Other	R-	
	Adjacent		
	a. Wood frame	R- 13	
	b. Metal frame	R-	
	c. Concrete block	R-	
	d. Log	R-	
	e. Other	R-	
0.	Ceiling types, Insulation level		
	a. Under attic	R- 30	
	b. Single assembly	R-	
	c. Knee walls/skylight walls	R-	
	d. Radiant barrier installed	R-	

11.	Ducts, Location & Insulation Level		
	a. Supply ducts:	ATTIC	R- 6
	b. Return ducts:	ATTIC	R- 6
12.	Cooling systems		Capacity: 110
	a. Split system		SEER: 13
	b. Single package		SEER:
	c. Ground/water source		COP:
	d. Room unit		EER:
	e. PTAC		EER:
	f. Gas-driven		COP:
13.	Heating Systems		Capacity: 110
	a. Split system heat pump		HSPF: 7.8
	b. Single package heat pump		HSPF:
	c. Electric resistance		COP:
	d. Gas furnace, natural gas		AFUE:
	e. Gas furnace, LPG		AFUE:
	f. Gas-driven heat pump		Recov. Eff.:
14.	Water heating systems		
	a. Electric resistance		EF: .94
	b. Gas fired, natural gas		EF:
	c. Gas fired, LPG		EF:
	d. Solar System with tank		EF:
	e. Dedicated heat pump with tank		EF:
	f. Heat recovery unit		HeatRec%
	g. Other:		
15.	HVAC credits claimed (Alternate Point System Method only)		
	a. Ceiling fans		
	b. Cross ventilation		
	c. Whole house fan		
	d. Multizone cooling credit		
	e. Multizone heating credit		
	f. Programmable thermostat		✓

certify that this home has complied with the Florida Energy Efficiency Code For Building 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 atures.

uilder Signature: Date:

ddress of New Home: City/FL Zip

COLUMBIA COUNTY BUILDING DEPARTMENT
135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Office: 386-758-1008 Fax: 386-758-2160

OWNER BUILDER DISCLOSURE STATEMENT

I understand that state law requires construction to be done by a licensed contractor and have applied for an owner-builder permit under an exemption from the law. The exemption specifies that I, as the owner of the property listed, may act as my own contractor with certain restrictions even though I do not have a license.

I understand that building permits are not required to be signed by a property owner unless he or she is responsible for the construction and is not hiring a licensed contractor to assume responsibility.

I understand that, as an owner-builder, I am the responsible party of record on a permit. I understand that I may protect myself from potential financial risk by hiring a licensed contractor and having the permit filed in his or her name instead of my own name. I also understand that a contractor is required by law to be licensed and bonded in Florida and to list his or her license numbers on permits and contracts.

I understand that I may build or improve a one-family or two-family residence or farm outbuilding. I may also build or improve a commercial building if the costs do not exceed $75,000. The building or residence must be for my own use or occupancy. It may not be built or substantially improved for sale or lease. If a building or residence that I have built or substantially improved myself is sold or leased with in 1 year after the construction is complete, the law will presume that I built or substantially improved it for sale or lease, which violates the exemption.

I understand that, as the owner-builder, I must provide direct, onsite supervision of the construction.

I understand that I may not hire an unlicensed person to act as my contractor or to supervise persons working on my building or residence. It is my responsibility to ensure that the persons whom I employ have the licenses required by law and by county or municipal ordinance.

I understand that it is frequent practice of unlicensed persons to have the property owner obtain an owner-builder permit that erroneously implies that the property owner is providing his or her own labor and materials. I, as an owner-builder, may be held liable and subjected to serious financial risk for any injuries sustained by an unlicensed person or his or her employees while working on my property. My homeowner's insurance may not provide coverage for those injuries. I am willfully acting as an owner-builder and am aware of the limits of my insurance coverage for injuries to workers on my property.

I understand that I may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on my building who is not licensed must work under my direct supervision and must be employed by me, which means that I must comply with laws requiring the withholding of federal income tax and social security contributions under the Federal Insurance Contributions Act (FICA) and must provide workers' compensation for the employee. I understand that my failure to follow these laws may subject me to serious financial risk.

I agree that, as the party legally and financially responsible for this proposed construction activity, I will abide by all applicable laws and requirements that govern owner-builders as well as employers. I also understand that the construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

I understand that I may obtain more information regarding my obligations as an employer from the Internal Revenue Service, the United States Small Business Administration, the Florida Department of Financial Services, and the Florida Department of Revenue. I also understand that I may contact the Florida Construction Industry Licensing Board at 850-487-1395 or Internet website address http://www.myflorida.com/dbpr/pro/cilb/index.html for more information about licensed contractors.

I am aware of, and consent to, an owner-builder building permit applied for in my name and understand that I am the party legally and financially responsible for the proposed construction activity at the following address:

_____.

I agree to notify Columbia County Building Department immediately of any additions, deletions, or changes to any of the information that I have provided on this disclosure. Licensed contractors are regulated by laws designed to protect the public. If you contract with a person who does not have a license, the Construction Industry Licensing Board and Department of Business and Professional Regulation may be unable to assist you with any financial loss that you sustain as a result of a complaint. Your only remedy against an unlicensed contractor may be in civil court. It is also important for you to understand that, if an unlicensed contractor or employee of an individual of firm is injured while working on your property, you may be held liable for damages. If you obtain an owner-builder permit and wish to hire a licensed contractor, you will be responsible for verifying whether the contractor is properly licensed and the status of the contractor's workers' compensation coverage.

I understand that if I hire subcontractors they must be licensed for that type of work in Columbia County, ex: framing, stucco, masonry, and state registered builders. Registered Contractors must have a minimum of $300,000.00 in General Liability insurance coverage and the proper workers' compensation. Specialty Contractors must have a minimum of $100,000.00 in General Liability insurance coverage and the proper workers' compensation coverage.

Before a building permit can be issued, this disclosure statement must be completed and signed by the property owner and returned to Columbia County Building Department.

TYPE OF CONSTRUCTION

(X) Single Family Dwelling ( ) Two-Family Residence ( ) Farm Outbuilding

( ) Addition, Alteration, Modification or other Improvement

( ) Commercial, Cost of Construction_____ Construction of_____

( ) Other_____

I Robert Jordan, have been advised of the above disclosure statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes allowing this exception for the construction permitted by Columbia County Building Permit.

Owner Builder Signature Date 12/7/11

NOTARY OF OWNER BUILDER SIGNATURE

The above signer is personally known to me or produced identification _____

Notary Signature _____ Date 7 DEC. 2011 (Seal)

BRIAN L. KEPNER
MY COMMISSION # EE 080698
EXPIRES: April 4, 2015
Bonded Thru Notary Public Underwriters

FOR BUILDING DEPARTMENT USE ONLY

I hereby certify that the above listed owner builder has been given notice of the restriction stated above.

Building Official/Representative _____

Revised: 7-23-09
DISCLOSURE STATEMENT 09
Documents: B&Z Forms

NOTICE OF COMMENCEMENT

Clerk's Office Stamp

Inst 201112018432 Date 12/1/2011 Time 3:50 PM
DC,P DeWitt Cason,Columbia County Page 1 of 1 B:1225 P:1702

Tax Parcel Identification Number:

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this **NOTICE OF COMMENCEMENT.** Glenn Rd

1. Description of property *(legal description)*: Part of 30-3S-16-02411-105
   a) Street *(job)* Address: 1248 SW Windsor Lake City, FL 32024
2. General description of improvements: single family dwelling
3. Owner Information
   a) Name and address: Robert F. Jordan & Linnie F. Jordan
   b) Name and address of fee simple titleholder (if other than owner) N/A
   c) Interest in property homesite
4. Contractor Information
   a) Name and address: Owner-builder Robert F. Jordan
   b) Telephone No.: 386-755-3456 Fax No. (Opt.) 758-2021
5. Surety Information
   a) Name and address: N/A
   b) Amount of Bond:
   c) Telephone No.: Fax No. (Opt.)
6. Lender
   a) Name and address: N/A
   b) Phone No.
7. Identity of person within the State of Florida designated by owner upon whom notices or other documents may be served:
   a) Name and address: N/A
   b) Telephone No.: Fax No. (Opt.)
8. In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(l)(b), Florida Statutes:
   a) Name and address: N/A
   b) Telephone No.: Fax No. (Opt.)
9. Expiration date of Notice of Commencement (**the expiration date is one year from the date of recording unless a different date is specified**):

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY; A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

NOTARY PUBLIC-STATE OF FLORIDA
Linda R. Roder
Commission #DD755608
Expires: MAR. 24, 2012
BONDED THRU ATLANTIC BONDING CO., INC.

STATE OF FLORIDA
COUNTY OF COLUMBIA

10. X
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager
Robert Jordan
Printed Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 1 day of December, 20 11, by: Robert Jordan as owner (type of authority, e.g. officer, trustee, attorney fact) for (name of party on behalf of whom instrument was executed).

Personally Known ___ OR Produced Identification ___ Type

Notary Signature Linda Roder Notary Stamp or Seal:

~~AND~~

11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

X
Signature of Natural Person Signing (in line #10 above.)

FAX 758-2160

RON E. BIAS

WELL DRILLING

1114 SW Troy Street • Lake City, FL 32024
(386) 752-3456 • *Mobile:* (386) 364-9233
PUMP REPAIR: E.E. Bias, Jr. (352) 318-6289

Rodgers Tolar Project

No. _____

Date: 12-7-11

Name: For: Bob & Gail

Address: Hills of Wintson

Phone: _____

DESCRIPTION: Dia
4" deep well
down past 100'
Back Flow Preventor.
5 Hp Franklin Elec pump
Verne Brush.
2 - 144 Expansion tanks
35 gallon plus drawdown
2" Galv. drop.

(SRWMD) permit # 101239

Total: _____

Deposit: _____

Balance: _____

Exceeds Local & State requirements.

Date Wanted: _____

Authorized By: Ron E. Bias

Received By: _____

This instrument prepared by
Robert F. Jordan
Jordan Law Firm, PLLC
934 N.E. Lake DeSoto Circle
Lake City, Florida 32055

Property Appraiser's Parcel Identification Number:

30-35-16-02411-105

QUIT CLAIM DEED

This Quit Claim Deed to be effective the 7th day of October, 2011, by **ROBERT F. JORDAN and LINNIE F. JORDAN, his wife,** whose post office address is 234 S.W. Windsor Drive, Lake City, Florida 32024, hereinafter called the Grantors, to **ROBERT F. JORDAN and LINNIE F. JORDAN, his wife,** whose post office address is 234 S.W. Windsor Drive, Lake City, Florida 32024, hereinafter called the Grantees:

(wherever used herein the terms "grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantors, for and in consideration of the sum of Ten and No/100 ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby convey unto the Grantees all that certain land situate in Columbia County, Florida, viz:

Lot 4 of Hills of Windsor, a subdivision according to the plat thereof recorded in PRRD Book 1, Page 1 of the public records of Columbia County.

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.

IN WITNESS WHEREOF, the said Grantors have signed and sealed these presents the day and year first above written.

Signed, sealed and delivered
in the presence of:

Witness

Print/Type Name of Witness

Witness as to

Print/Type Name of Witness

ROBERT F. JORDAN

LINNIE F. JORDAN

Inst:201112015319 Date:10/7/2011 Time:4:10 PM
Doc Stamp-Deed:0.70
DC,P DeWitt Cason,Columbia County Page 1 of 1 B:1222 P:1732

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged this 7th day of October, 2011, by **ROBERT F. JORDAN and LINNIE F. JORDAN**, who are personally known to me or who produced _____ as identification.

(NOTARIAL SEAL)

DONNA COX
MY COMMISSION # DD 949914
EXPIRES: January 16, 2014
Bonded Thru Notary Public Underwriters

Notary Public, State of Florida
Print Name: Donna Cox

Return To:
Associated Land Title Group Inc.

LIKE KIND EXCHANGE OF PROPOSED SUBDIVISION PROPERTY AND QUIT CLAIM DEED THEREOF

BK 0868 PG 1086

OFFICIAL RECORDS

THIS AGREEMENT entered into this 26 day of October, 1998 between M. A. Faisal, Kazi Faisal, and Faisal Family Limited Partnership, and Robert F. Jordan. The parties hereby agree as follows:

WHEREAS the parties own approximately 126 acres of land located on U.S. 90 West in Township 3 South, Range 16 East, Sections 31 and 31; and

WHEREAS the parties have received preliminary approval for a planned rural residential development of such property; and

WHEREAS M.A. Faisal, Kazi Faisal, and Faisal Family Limited Partnership, and Robert F. Jordan each intend to build homes on the property included in the development.

NOW THEREFORE it is agreed as follows:

1. M. A. Faisal, Kazi Faisal, and Faisal Family Limited Partnership, hereby transfer, convey, assign, and quit claim unto Robert F. Jordan the real property described as Lots 4 and 5, Hills of Windsor,.a planned rural residential development, as more particularly shown on the attached site layout.

2. Robert F. Jordan hereby transfers, conveys, assigns, and quit claims unto Kazi Faisal, and M. A. Faisal, the real property described as Lots 3 and 6, Hills of Windsor, a planned rural residential development, as more particularly shown on the attached site layout.

Signed, sealed and delivered in the presence of:

Debbie Brannon
Jennifer Dee Tjaarberg
As to Robert F. Jordan

Debbie Brannon
Jennifer Dee Tjaarberg
As to M. A. Faisal

Robert F. Jordan

M. A. Faisal

FILED AND RECORDED IN PUBLIC RECORDS OF COLUMBIA COUNTY, FL

1998 OCT 30 PM 3:38

RECORD VERIFIED
P. DeWitt Cason
CLERK OF COURTS
COLUMBIA COUNTY, FLORIDA
BY _____ D.C.

Documentary Stamp [redacted]
Intangible Tax
P. DeWitt Cason
Clerk of Court
By _____ D.C.

William B Brannon
Deborah Brannon
As to Kazi Faisal

BK 0868 PG 1087

Kazi Faisal
Kazi Faisal

OFFICIAL RECORDS

Deborah Brannon
Jennifer Dan Tjerdrag
As to Partnership

FAISAL FAMILY LIMITED PARTNERSHIP

By: M. A. Faisal
M. A. Faisal, Partner

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me, this 26 day of Oct, 1998 by Robert F. Jordan, who is personally known to me.

(NOTARIAL SEAL)

Deborah Brannon
MY COMMISSION EXPIRES July 23, 2002
#CC726833
Bonded thru Troy Fain-Insurance
NOTARY PUBLIC, STATE OF FLORIDA

Deborah Brannon
Deborah Brannon
Print/type name of Notary Public
State of Florida

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me, this 26 day of Oct, 1998 by M. A. Faisal, who is personally known to me.

(NOTARIAL SEAL)

Deborah Brannon
MY COMMISSION EXPIRES July 23, 2002
#CC726833
Bonded thru Troy Fain-Insurance
NOTARY PUBLIC, STATE OF FLORIDA

Deborah Brannon
Deborah Brannon
Print/type name of Notary Public
State of Florida

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me, this 26 day of Oct, 1998 by Kazi Faisal, who is personally known to me.

(NOTARIAL SEAL)

Deborah Brannon
MY COMMISSION EXPIRES July 23, 2002
#CC726833
Bonded thru Troy Fain-Insurance
NOTARY PUBLIC, STATE OF FLORIDA

Deborah Brannon
Deborah Brannon
Print/type name of Notary Public
State of Florida

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me, this 26 day of Oct, 1998 by M. A. Faisal, as President for Faisal Family Limited Partnership, who is personally known to me.

(NOTARIAL SEAL)

Deborah Brannon
MY COMMISSION EXPIRES July 23, 2002
#CC726833
Bonded thru Troy Fain-Insurance
NOTARY PUBLIC, STATE OF FLORIDA

Deborah Brannon
Deborah Brannon
Print/type name of Notary Public
State of Florida

LOTS 4 AND 5 - MOHAMMAD FAISAL TO ROBERT JORDAN

LOT 4

BK 0868 PG 1088

COMMENCE AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE S 05°21'00" W ALONG THE EAST LINE OF SAID SECTION 31, 475.80 FEET, THENCE N 88°51'54" W, 2532.38 FEET, THENCE S 05°24'17" W, 210.58 FEET, THENCE N 88°51'56" W, 497.47 FEET, THENCE N 02°31'55" E, 702.51 FEET TO THE SOUTH LINE OF SECTION 30, TOWNSHIP 3 SOUTH, RANGE 16 EAST, THENCE N 88°31'40" W ALONG THE SOUTH LINE OF SAID SECTION 30, 101.98 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE N 88°31'40" W ALONG SAID SOUTH LINE OF SECTION 30, 375.92 FEET, THENCE N 21°23'07" E, 220.56 FEET, THENCE N 06°12'15" E, 203.63 FEET, THENCE N 69°22'53" E, 293.77 FEET, THENCE S 02°31'55" W, 511.89 FEET TO THE POINT OF BEGINNING. CONTAINING 3.3125 ACRES, MORE OR LESS.

RECORDS

LOT 5

COMMENCE AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE S 05°21'00" W ALONG THE EAST LINE OF SAID SECTION 31, 475.80 FEET, THENCE N 88°51'54" W, 2532.38 FEET, THENCE S 05°24'17" W, 210.58 FEET, THENCE N 88°51'56" W, 422.45 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE N 88°51'56" W, 75.02 FEET, THENCE N 02°31'55" E, 702.51 FEET, THENCE N 88°31'40" W, 101.98 FEET, THENCE N 02°31'55" E, 511.89 FEET, THENCE N 53°08'36" E, 270.09 FEET, THENCE S 71°51'02" E, 575.29 FEET, THENCE S 09°19'21" E, 346.58 FEET, THENCE S 76°06'38" W, 684.97 FEET, THENCE S 02°31'55" W, 694.37 FEET TO THE POINT OF BEGINNING. CONTAINING 10.9649 ACRES, MORE OR LESS.

LOTS 3 AND 6 FROM ROBERT JORDAN TO MOHAMMAD FAISAL

LOT 3

COMMENCE AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE S 05°21'00" W ALONG THE EAST LINE OF SAID SECTION 31, 475.80 FEET, THENCE N 88°51'54" W, 2532.38 FEET, THENCE S 05°24'17" W, 210.58 FEET, THENCE N 88°51'56" W, 497.47 FEET, THENCE N 02°31'55" E, 702.51 FEET TO THE SOUTH LINE OF SECTION 30, TOWNSHIP 3 SOUTH, RANGE 16 EAST, THENCE N 88°31'40" W ALONG SAID SOUTH LINE OF SECTION 30, 477.90 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE N 88°31'40" W ALONG SAID SOUTH LINE OF SECTION 30, 372.06 FEET, THENCE N 10°11'50" E, 397.58 FEET, THENCE S 89°39'07" E, 425.02 FEET, THENCE S 06°12'15" W, 203.63 FEET, THENCE S 21°23'07" W, 220.56 FEET TO THE POINT OF BEGINNING. CONTAINING 3.8112 ACRES, MORE OR LESS.

LOT 6

COMMENCE AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE S 05°21'00" W ALONG THE EAST LINE OF SAID SECTION 31, 475.80 FEET, THENCE N 88°51'54" W, 2332.38 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE N 88°51'54" W, 200.00 FEET, THENCE S 05°24'17" W, 210.58 FEET, THENCE N 88°51'56" W, 422.45 FEET THENCE N 02°31'55" E, 694.37 FEET, THENCE N 76°06'09" E 684.97 FEET TO A NON-TANGENTIAL POINT OF CURVE, THENCE SOUTHEASTERLY ALONG SAID CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 230.00 FEET AND A CENTRAL ANGLE OF 73°35'57", AN ARC DISTANCE OF 295.45 FEET (CHORD BEARING OF S 45°49'02" E AND CHORD DISTANCE OF 275.55 FEET), THENCE S 82° 37'01" E, 29.44 FEET, THENCE S 46°10'06" W, 383.00 FEET, THENCE S 01°08'04" W, 199.77 FEET TO THE POINT OF BEGINNING. CONTAINING 11.4883 ACRES, MORE OR LESS.

LAW OFFICES OF
JORDAN LAW FIRM, PLLC
934 N.E. Lake DeSoto Circle
Lake City, Florida 32055
(386) 755-3456
FAX (386) 758-2021

October 31, 2011

Mr. Brian Kepner
Land Development Regulation Administrator
Columbia Courthouse Annex
Lake City, Florida 32055

Re: Lot 4, Hills of Windsor PRRD

Dear Brian:

As you know, I have sold my house on Lot 5 in Hills of Windsor and am planning a new, smaller home on Lot 4. Because of the design of the house and the desired placement it needs to be closer to the property line than 200'. I am requesting that the buffer be reduced to 50'.

As you know, my neighbor, Johnny Ward, built his home on Lot 3 based upon the developers having no objection and the County's plan to submit a proposed amendment to reduce the buffer. Please see my letter of February 15, 2006.

Since we had no objection to Johnny building in a reduced buffer, I do not see how I can object now that I am asking for the same treatment. Accordingly, I have no objection to the request.

Dr. Faisal is out of the country but I may be able to contact him by email if that is necessary.

Please give me a call if you have any questions.

Very truly yours,

Robert F. Jordan

RFJ/rs
Attachment

FEAGLE & FEAGLE, ATTORNEYS, P.A.
ATTORNEYS AT LAW
153 NE MADISON STREET
POST OFFICE BOX 1653
LAKE CITY, FLORIDA 32056-1653
(386) 752-7191
Fax: (386) 758-0950

Marlin M. Feagle
e-mail: leagle@bellsouth.net

Mark E. Feagle
e-mail: mefeagle@bellsouth.net

November 23, 2011

Mr. Brian Kepner
Building and Zoning Department
County Administrative Offices
135 NE Hernando Avenue
Lake City, Florida 32055

Re: Lot 4, Hills of Windsor PRRD

Dear Brian:

As you know, under the objectives and policies for rural areas, the current comprehensive plan provides for a planned rural residential development (PRRD). Among other things, the development must provide a minimum of a 200-foot undisturbed buffer from adjacent properties. This buffer area may be a portion of the required undeveloped area.

The owner of Lot 4, Hills of Windsor PRRD, has plans to construct a residence on this lot, all or a portion of which will extend into the 200-foot PRRD buffer. My understanding is the developers of the PRRD, Jordan & Faisal Partnership, have no objection to the County permitting the construction of the home as planned. Also, the County has submitted a proposed comprehensive plan amendment to reduce the buffer for all PRRDs from 200 feet to 50 feet. It is my further understanding there is currently no development adjacent to the PRRD which would be adversely impacted by permitting the residence to be constructed. The same issue was addressed as to Lot 3 with a permit being allowed.

Although the comprehensive plan does not provide for vested rights or a variance which would authorize encroachment into the undisturbed buffer zone of the PRRD, there does not appear to be any adverse impact to the development itself or adjacent properties. Therefore, the decision whether to allow this development to proceed may be considered an administrative decision to be determined by the County.

If the development is allowed to proceed, the owner should be advised and aware there could be an issue either with his financing or a subsequent owner in the event of institutional financing, such as a local bank. Banks often require the settlement agent to certify through a Form 9 or other endorsement that the development does not encroach into or otherwise violate any setback, zoning or comprehensive plan requirements. This certification would be difficult in this case if it is so required by the financing institution or a subsequent purchaser of the property. Also, the County's issuance of a building permit does not preclude a challenge by any interested party with standing.

Please let me know if you need anything further regarding this matter.

Very truly yours,

Marlin M. Feagle

MMF:dse

Brian Kepner

From: Marlin Feagle [leagle@bellsouth.net]
Sent: Monday, December 05, 2011 3:48 PM
To: Brian Kepner
Subject: RE: Robert Jordan Building Permit

Brian,I believe Bob is well aware of the issues we have discussed and those which are described in the letter.Make sure you give him a copy of the letter for his file.Bob should be aware that other interested (affected)parties could possibly disagree with the county's issuance of a permit on this lot and take whatever action they may deem appropriate.

From: Brian Kepner [mailto:brian_kepner@columbiacountyfla.com]
Sent: Monday, December 05, 2011 3:10 PM
To: 'Marlin Feagle'
Subject: Robert Jordan Building Permit

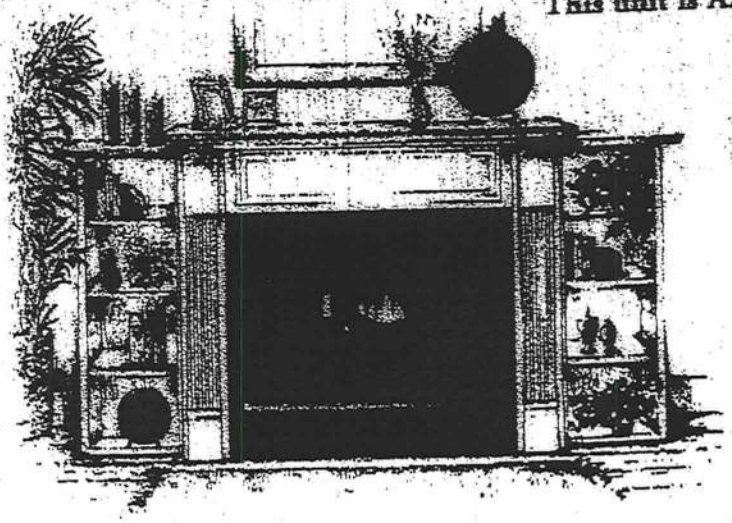
Marlin,

I have the application for a building permit on my desk. Is there any type of paper you believe that bob needs to sign concerning his building permit in Hills of Windsor? Please advise at your earliest convenience, thank you.

Brian Kepner
Columbia County
Land Development
Regulation Administrator
386.754.7119
386.758.2160 FAX

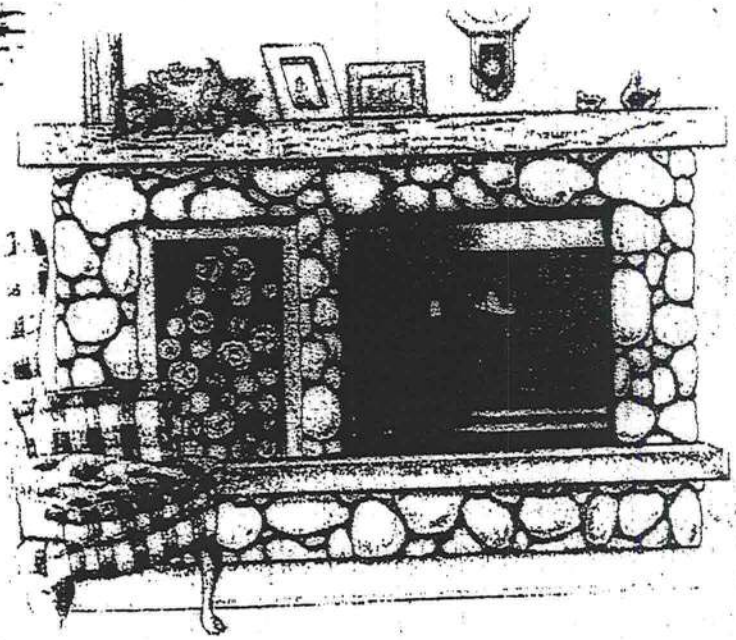
VENT-FREE

This unit is A.G.A. certified as a heater with 99% heat efficiency
No chimney or flue system required
Wide selection of factory installed options offered



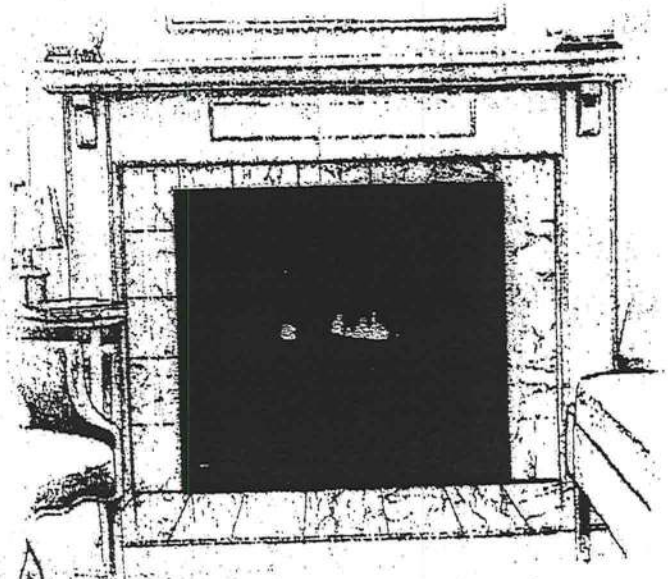
VF-4000

- 14,000 – 25,000 Btu/hr with manual control valve
- 19,500 – 25,000 Btu/hr with millivolt control valve
- Fully assembled and ready to install
- Attractive wood surrounds available
- 15" x 30" fixed or operable screen opening



VF-5000

- 25,000 Btu/hr millivolt variable heat output
- 15" X 30" glass or screen viewing area
- Clean burning, safe and easy to install
- Realistic charred oak logs with glowing embers



VF-6000

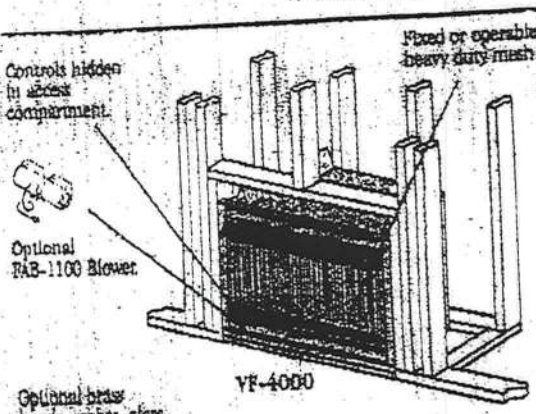
- 32,000 Btu/hr millivolt variable heat output
- Beautiful 20" X 34" glass or screen viewing area
- Will operate during a power failure
- Designed for large rooms

GAS

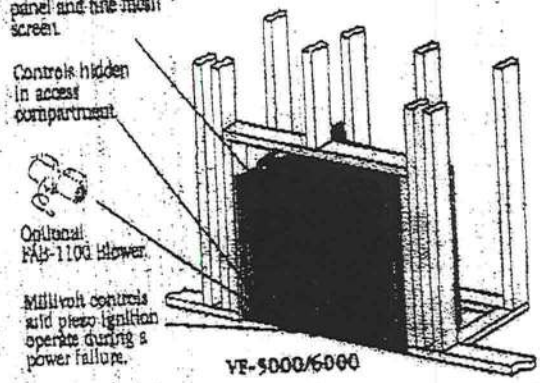
SUPERIOR

VF-4000/5000/6000

VF-6000 steam



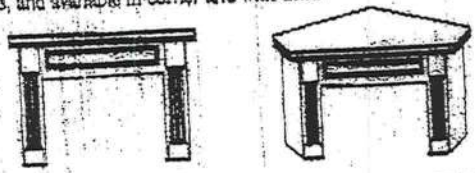
VF-4000



VF-5000/6000

SURROUNDS

The Charleston Poplar Surround is hand crafted using a combination of solid Poplar and Poplar veneer. Using the unique wood type of Poplar allows you the option to paint or stain this elegantly detailed surround. The surround is constructed using easy to assemble cam locks, and available in corner and wall units.

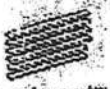


Distributed by:

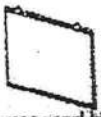
Refractory tan brick panels

Gas flex liner kit.

Square brass trim kit.



Brass Louver Kit (For VF-4 only)

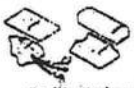


Screen panel kit. (For VF-5 & VF6 only)

Arch kit. (For VF-5 & VF6 only)

Glass door kit. (For VF-5 & VF6 only)

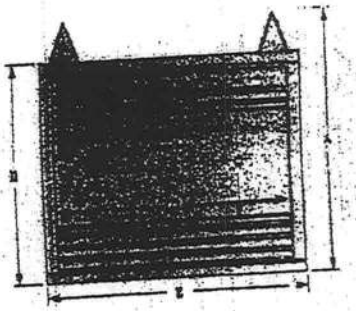
Brass hood. (For VF-5 & VF6 only)



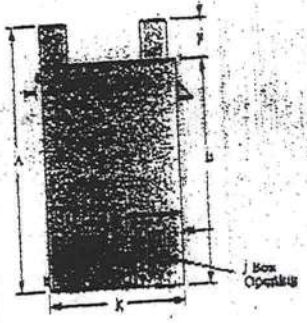
Wall switch or optional wireless remote available. (For VF-4MV, VF-5 & VF-6)

Wall thermostat. (For VF-4MV, VF-5 & VF-6)

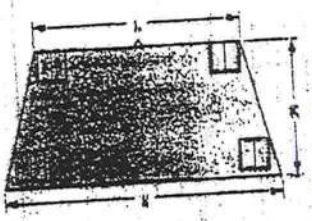
Front View



Left Side View



Top View



Vent-Free Product Dimensions

	VF-4000/5000C	VF-6000C
A		42-1/8"
B	31-1/2"	36-5/8"
C		20"
D	30"	34"
E		40"
F	5-1/2"	5-1/2"
G		1/2"
H	3-3/4"	3-3/4"
I		8-1/2"
J	3"	3"
K		19-1/2"
L	27"	28-1/2"

Btu Chart

Model	Natural	Propane
VF-4000 manual	14,000 – 25,000	14,000 – 25,000
VF-4000/5000 millivolt	19,500 – 25,000	19,500 – 25,000
VF-6000	25,000 – 32,000	25,000 – 32,000

Framing Dimension

Model	Width	Height	Depth
VF-4000/5000	37"	37-1/4"	15-1/2"
VF-6000	41"	42-5/8"	19-1/2"

NOTE: Diagrams and illustrations are not to scale. Product design, materials, dimensions, specifications, colors and prices subject to change or discontinuation without notice. Built to ANSI Z21.11.2 standard and approved by A.G.A. (report # 1297017).

Consult your distributor for local fireplace code information.

SUPERIOR

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Lennox Hearth Products Direct-Vent heater rated gas appliances include a 20-year limited warranty

P/N 803464 REV. E 2/00

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

FORM 600A-08 — Alternate Residential Points System Method — NORTH 1 2 3

PROJECT NAME AND ADDRESS:	111068	BUILDER:	Owner builder		
		PERMITTING OFFICE:	Columbia	CLIMATE ZONE:	1 [ ] 2 [ ] 3 [ ]
OWNER:	BOB JORDAN	PERMIT NO.:	29802	JURISDICTION NO.:	221000

	Please Type	CK
1. New construction or addition	1. NEW	
2. Single-family detached or Multiple-family attached	2. SINGLE	
3. If Multiple-family–No. of units covered by this submission	3.	
4. Is this a worst case? (yes/no)	4. YES	
5. Conditioned floor area (sq. ft.)	5. 6579 sq. ft.	
6. Predominant eave overhang (ft.)	6. 2' ft.	
7. Glass type[1] and area: (Label required by 13-104.4.5 if not default)	Description / Area	
a. U-factor: (or Single- or Double-Pane DEFAULT)	7a. DOUBLE 576 sq. ft.	
b. SHGC: (or Clear or Tint DEFAULT)	7b. CLEAR sq. ft.	
8. Floor type and insulation:		
a. Slab-on-grade (R-value + perimeter)	8a. R = , l. ft.	
b. Wood, raised (R-value + sq. ft.)	8b. R = 19 , 2608 sq. ft.	
c. Concrete, raised (R-value)	8c. R = , sq. ft.	
9. Net wall type, area and insulation:		
a. Exterior: 1. Concrete block (Insulation R-value)	9a-1 R = , sq. ft.	
2. Wood frame (Insulation R-value)	9a-2 R = 19 , 3295 sq. ft.	
3. Steel frame (Insulation R-value)	9a-3 R = , sq. ft.	
4. Log (Insulation R-value)	9a-4 R = , sq. ft.	
5. Other:		
b. Adjacent: 1. Concrete block (Insulation R-value)	9b-1 R = , sq. ft.	
2. Wood frame (Insulation R-value)	9b-2 R = 13 , 413 sq. ft.	
3. Steel frame (Insulation R-value)	9b-3 R = , sq. ft.	
4. Log (Insulation R-value)	9b-4 R = , sq. ft.	
10. Ceiling type, area and insulation:		
a. Under attic (Insulation R-value)	10a. R-30 8156 sq. ft.	
b. Single assembly (Insulation R-value)	10b. sq. ft.	
c. Radiant barrier, IRCC or white roof installed?	10c.	
11. Air distribution system:		
a. Ducts (Insulation + Location)	11a. R = 6 , ATTIC (sealed/unsealed)	
b. Air Handler (Location)	11b. R = , INT (sealed/unsealed)	
12. Cooling system: (Types: central-split, central-single pkg., room unit, PTAC, gas, none)	12a. Type: CENTRAL	
	12b. SEER/EER/COP: 13	
	12c. Capacity: 110 KBTU/HR	
13. Heating system: (Types: heat pump, elec. strip, nat. gas, LP gas, gas h.p., room or PTAC, none)	13a. Type: HEAT PUMP	
	13b. HSPF/COP/AFUE: 7.8	
	13c. Capacity: 110 KBTU/HR	
14. Hot water system: (Types: elec., natural gas, solar, LP gas, none)	14a. Type: ELEC	
	14b. EF: .94	
15. Hot water credits		
a. Heat Recovery (HR)	15a.	
b. Dedicated Heat Pump (DHP)	15b.	
c. Solar	15c.	
16. HVAC Credits (Use: CF-ceiling fan, CV-cross vent, PT-programmable thermostat, HF-whole house fan, MZ-Multizone)	16. PT	
17. COMPLIANCE STATUS: (PASS if As-Built Pts. are less than Base Pts.)	17. PASS	
a. Total As-Built points / b. Total Base points	17a. 62469 17b. 51490	

COLUMBIA COUNTY BUILDING DEPARTMENT — REVIEWED FOR FIELD COPY CODE COMPLIANCE — PLANS EXAMINER

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

PREPARED BY: EVAN BOMBLEY DATE: 12/1/11

I hereby certify that this building is in compliance with the Florida Energy Code:

OWNER AGENT: _____ DATE: _____

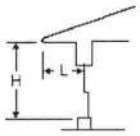
Review of plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed, this building will be inspected for compliance in accordance with Section 553.908, F.S.

BUILDING OFFICIAL: _____

DATE: _____

[1] Predominant glass type. For actual glass type and areas, see summer and winter glass output on Pages 2 and 4.

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT)	SINGLE-PANE SUMMER POINT MULTIPLIER		DUBLE-PANE SUMMER POINT MULTIPLER		SUMMER OH FACTOR (from 6A-1)	AS-BUILT GLASS SUMMER PTS
				CLEAR	TINT (2)	CLEAR	TINT (2)		
	w	2	48				30.93	0.899	1335
	s	2	24				28.73	0.835	576
	e	2	72				33.89	0.898	2191
	sw	2	48				32.3	0.866	1343
	w	2	72				30.93	0.899	2002
	w	15.3	28				30.93	0.422	365
	nw	2	72				20.48	0.913	1346
	n	2	48				14.84	0.93	662
	n	2	16				14.84	0.93	221
	e	2	48				33.89	0.898	1461
	s	99	16				28.73	0.835	384
	e	12	12				33.89	0.898	365
	ne	14	24				23.48	0.907	511
	e	0	48				33.89	1	1627
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0
		0	0				0		0



OVERHANG RATIO = $\frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$

GLASS		COND FLOOR AREA	WEIGHTED GLASS MULTIPLIER	BASE GLASS SUBTOTAL
	0.18			
	0.18	6579	18.59	22015

AS-BUILT GLASS SUBTOTAL
14389

	COMPONENT DESCRIPTION	AREA	BASE SUMMER POINT MULT.	BASE SUM POINTS	COMPONENT DESCRIPTION	AREA	SUMMER POINT MULT. (6A-2 - 6A-6)	AS BUILT SUMMER POINTS
WALL	EXTERIOR	3295	1.5	4943	EXT FRAME R19	3295	0.9	2966
	ADJACENT	413	0.6	248	ADJ FRAME R13	413	0.6	248
						0		0
						0		0
DOORS	EXTERIOR	80	6.1	488	EXT INSULATED	80	4.1	328
	ADJACENT	40	2.4	96	ADJ INSULATED	40	1.6	64
						0		0
CEILING	UNDER ATTIC OR SINGLE ASSEMBLY	6579	1.73	11382	ATTIC R30	8156	1.73	14110
					RBS/IECC/white roof (3)	0	1.03	0
	BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING. AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE							
FLOOR	SLAB (PERIMETER)	433	-41.2	-17840	SLAB	433	-41.2	-17839.6
	RAISED (AREA)	2608	-0.98	-2556	RAISED WD ADJ	2608	0.4	1043.2
	FOR SLAB-ON-GRADE USE PERIMITER LENGTH AROUND CONDITIONED FLOOR, FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE							
INFILTRATION & INTERNAL GAINS		6579	10.21	67172		6579	10.21	67172
	USE TOTAL FLOOR AREA OF CONDITIONED SPACE							

TOTAL COMPONENT BASE SUMMER POINTS	85947	TOTAL COMPONENT AS-BUILT SUMMER POINTS	82479

COOLING SYSTEM	BASE COOLING SYSTEM MULTIPLIER	TOTAL BASE SUMMER POINTS	BASE COOLING POINTS	TOTAL AS-BUILT SUM. PTS.	AS-BUILT DM (6A-8)	AS-BUILT DSM (6A-20)	AS-BUILT AHU (6A-7)	AS-BUILT CMS (6A-9)	AS-BUILT CCM (6A-19)	AS-BUILT COOLING POINTS
	0.325	85947	**27933**	82479	1.09	0.95	0.91	0.26	0.95	**19197**

HOT WATER SYSTEM	NUMBER OF BEDROOMS	BASE HOT WATER MULTIPLIER	BASE HOT WATER POINTS	AS-BUILT HOT WATER SYSTEM DESCRIPTION	NUMBER OF BED-ROOMS	AS-BUILT HWM (6A-23)	AS-BUILT HWCM (6A-23)	AS-BUILT HOT WATER POINTS
	5	2635	**13175**	elec .94	5	2571	1	**12855**

(1) H = HORIZONTAL GLASS (SKYLIGHTS)

(2) FOR GLASS WITH KNOW SHGC, SEE SEC. 2.1.1 OF APPENDIX G-C of the *FBC, Residential*. TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT

(3) MUST MEET CRITERIA OF APPENDIX G-C4.2.1.5 of the *FBC, Residential*.

6A-1 SUMMER OVERHANG FACTORS (SOF) FOR SINGLE-AND DOUBLE-PANE GLASS

SELECT BY OR

OH Ratio	.00-.11	.12-.17	.18-.26	.27-.35	.36-.46	.47-.57	.58-.70	.71-.83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
North	1.00	0.993	0.971	0.930	0.888	0.842	0.803	0.766	0.736	0.681	0.634	0.593
Northeast	1.00	0.996	0.967	0.907	0.845	0.775	0.717	0.662	0.619	0.545	0.487	0.441
East	1.00	0.994	0.963	0.898	0.827	0.745	0.675	0.609	0.558	0.470	0.405	0.357
Southeast	1.00	0.998	0.952	0.864	0.777	0.689	0.623	0.566	0.525	0.459	0.413	0.379
South	1.00	0.989	0.931	0.835	0.751	0.675	0.620	0.575	0.543	0.493	0.458	0.432
Southwest	1.00	0.998	0.953	0.866	0.779	0.691	0.623	0.565	0.522	0.453	0.404	0.368
West	1.00	0.994	0.963	0.899	0.828	0.748	0.681	0.617	0.569	0.485	0.422	0.375
Northwest	1.00	0.996	0.968	0.913	0.858	0.797	0.748	0.702	0.667	0.605	0.556	0.516
OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-2 WALL SUMMER POINT MULTIPLIERS (SPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
	WOOD		STEEL			INTERIOR INSULATION		EXT. INSUL.	*R*-VALUE	WOOD FR	*R*-VALUE	BLOCK		6 INCH	8 INCH
R-VALUE	EXT	ADJ	EXT	ADJ	*R*-VALUE	EXT	ADJ	EXT	0-6.9	2.4	0-2.9	1.0	*R*-VALUE	EXT	EXT
0-6.9	5.5	2.2	7.6	2.8	0-2.9	2.2	1.1	2.2	7-10.9	.6	3-6.9	.6	0-2.9	1.5	1.0
7-10.9	2.1	.8	3.5	1.3	3-4.9	1.3	.8	.8	11-18.9	.4	7-9.9	.4	3-6.9	1.0	.7
11-12.9	1.7	.7	2.7	1.0	5-6.9	1.0	.7	.5	19-25.9	.2	10 & UP	.2	7 & UP	.8	.6
13-18.9	1.5	.6	2.5	0.9	7-10.9	.7	.5	.3	26 & UP	.1					
19-25.9	.9	.4	2.2	0.8	11-18.9	.4	.4	0							
26 & UP	.6	.2	1.2	0.4	19-25.9	.2	.2								
					26 & UP	.1	.1								

6A-3 DOOR SUMMER POINT MULTIPLIERS (SPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	6.1	2.4
INSULATED	4.1	1.6

6A-4 CEILING SUMMER POINT MULTIPLIERS (SPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
					CEILING TYPE	
R-VALUE	SPM	*R*-VALUE	SPM	*R*-VALUE	EXPOSED	DROPPED
19-21.9	2.34	10-10.9	8.49	10-13.9	9.13	8.47
22-25.9	2.11	11-12.9	7.97	14-20.9	6.80	6.45
26-29.9	1.89	13-18.9	7.14	21 & UP	4.92	4.63
30-37.9	1.73	19-25.9	5.64			
38 & UP	1.52	26-29.9	4.75			
RBS Credit	0.700	30 & UP	4.40			
IRCC Credit	0.849					
White Roof Credit	0.550					

6A-5 FLOOR SUMMER POINT MULTIPLIERS (SPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
					POST OR PIER CONSTRUCTION	STEM WALL w/UNDER FLOOR INSULATION	ADJACENT
R-VALUE	SPM	*R*-VALUE	SPM	*R*-VALUE	SPM	SPM	SPM
0-2.9	-41.2	0-2.9	-.8	0-6.9	2.80	-4.7	2.2
3-4.9	-37.2	3-4.9	-1.3	7-10.9	1.34	-2.3	.8
5-6.9	-36.2	5-6.9	-1.3	11-18.9	1.06	-1.9	.7
7 & UP	-35.7	7 & UP	-1.3	19 & UP	.77	-1.5	.4

6A-6 INFILTRATION & INTERNAL GAINS (SPM)

Air Infiltration	3.44
Internal Gains	+6.77
Infiltration/Internal Gains (Combined)	10.21

6A-7 AIR HANDLER MULTIPLIERS (SPM)

Located in garage	1.00
Located in conditioned area	0.91
Located on exterior of building	1.02
Located in attic	1.11

6A-8 DUCT MULTIPLIERS (DM)

SUPPLY DUCTS IN:	DUCT *R*-VALUE	RETURN DUCTS IN:				
		Unconditioned space	Attic/ RBS	Attic/ IRCC	Attic/ Cool roof	Conditioned space
Unconditioned Space	4.2	1.118	1.111	1.112	1.089	1.107
	6.0	1.090	1.084	1.085	1.066	1.081
	8.0	1.071	1.066	1.067	1.051	1.064
Attic/Radiant Barrier (RBS)	4.2	1.072	1.066	—	—	1.061
	6.0	1.056	1.051	—	—	1.047
	8.0	1.045	1.041	—	—	1.037
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.099	—	1.092	—	1.084
	6.0	1.076	—	1.071	—	1.065
	8.0	1.061	—	1.057	—	1.052
Attic/Cool Roof	4.2	1.068	—	—	1.096	1.057
	6.0	1.051	—	—	1.071	1.043
	8.0	1.040	—	—	1.055	1.034
Conditioned Space	4.2	1.006	1.005	1.007	1.008	1.000
	6.0	1.005	1.004	1.005	1.006	1.000
	8.0	1.004	1.003	1.004	1.005	1.000

6A-9 COOLING SYSTEM MULTIPLIERS (CSM)

SYSTEM TYPE		COOLING SYSTEM MULTIPLIERS (CSM)										
Central Units (SEER)	Rating		7.5-7.9	8.0-8.4	8.5-8.8	8.9-9.4	9.5-9.9	10.0-10.4	10.5-10.9	11.0-11.4	11.5-11.9	12.0-12.4
	CSM		.45	.43	.40	.38	.36	.34	.32	.31	.30	.28
PTAC & Room Units (EER)	Rating	12.5-12.9	13.0-13.4	13.5-13.9	14.0-14.4	14.5-14.9	15.0-15.4	15.5-15.9	16.0-16.4	16.5-16.9	17.0-17.4	17.5 & UP
	CSM	.27	.26	.25	.24	.24	.23	.22	.21	.21	.20	.19

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT)	SINGLE-PANE WINTER POINT MULTIPLIER		DUBLE-PANE WINTER POINT MULTIPLER		WINTER OH FACTOR (from 6A-10)	AS-BUILT GLASS WINTER PTS
				CLEAR	TINT (2)	CLEAR	TINT (2)		
	w	2	48				22.15	1.027	1092
	s	2	24				15.87	1.142	435
	e	2	72				20.51	1.04	1536
	sw	2	48				18.79	1.07	965
	w	2	72				22.15	1.027	1638
	w	15.3	28				22.15	1.217	755
	nw	2	72				25.14	1.004	1817
	n	2	48				25.37	1.003	1221
	n	2	16				25.37	1.003	407
	e	2	48				20.51	1.04	1024
	s	99	16				15.87	3.661	930
	e	12	12				20.51	1.429	352
	ne	14	24				24.53	1.429	841
	e	0	48				20.51	1	984
		0	0						0
		0	0						0
		0	0						0
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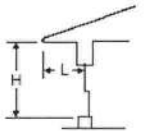
		0	0						0



OVERHANG RATIO = $\frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$

GLASS	COND FLOOR AREA	WEIGHTED GLASS MULTIPLIER	BASE GLASS SUBTOTAL	AS-BUILT GLASS SUBTOTAL
0.18	0.18	6579	20.17	23886	13997

	COMPONENT DESCRIPTION	AREA	BASE SUMMER POINT MULT.	BASE WINTER POINTS	COMPONENT DESCRIPTION	AREA	WINTER POINT MULT. (6A-11 - 6A-15)	AS BUILT WINTER POINTS
WALL	EXTERIOR	3295	3.4	11203	EXT FRAME R19	3295	2.2	7249
	ADJACENT	413	3.3	1363	ADJ FRAME R13	413	3.3	1363
						0		0
						0		0
DOORS	EXTERIOR	80	12.3	984	EXT INSULATED	80	8.4	672
	ADJACENT	40	11.5	460	ADJ INSULATED	40	8	320
						0		0
CEILING	UNDER ATTIC OR SINGLE ASSEMBLY	6579	2.05	13487	ATTIC R30	8156	2.05	16720
					RBS/IECC/white roof (3)	0	1.2	0
	BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING. AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE							
FLOOR	SLAB (PERIMETER)	433	18.8	8140	SLAB	433	18.8	8140.4
	RAISED (AREA)	2608	1.38	3599	RAISED WD ADJ	2608	2.2	5737.6
	FOR SLAB-ON-GRADE USE PERIMITER LENGTH AROUND CONDITIONED FLOOR, FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE							
	INFILTRATION & INTERNAL GAINS	6579	-0.58	-3816		6579	-0.58	-3816
		USE TOTAL FLOOR AREA OF CONDITIONED SPACE						
	TOTAL COMPONENT BASE WINTER POINTS			59306	TOTAL COMPONENT AS-BUILT WINTER POINTS			50383

HEATING SYSTEM	BASE HEATING SYSTEM MULTIPLIER	TOTAL BASE WINTER POINTS	BASE HEATING POINTS	TOTAL AS-BUILT WIN. PTS.	AS-BUILT DM (6A-17)	AS-BUILT DSM (6A-20)	AS-BUILT AHU (6A-16)	AS-BUILT CMS (6A-18)	AS-BUILT CCM (6A-21)	AS-BUILT HEATING POINTS
	0.554	59306	**32856**	50383	1.069	0.95	0.93	0.43	0.95	**19438**

TOTAL	BASE COOLING POINTS (From P2)	BASE HEATING POINTS	BASE H/W PTS. (From P2)	0.85	TOTAL BASE PTS. (Enter on P1)	AS-BUILT COOLING POINTS (From P2)	AS-BUILT HEATING POINTS	AS-BUILT H/W PTS. (From P2)	TOTAL AS-BUILT PTS. (Enter on P1)
	27933	32856	13175	73963	**62869**	19197	19438	12855	**51490**

(1) H = HORIZONTAL GLASS (SKYLIGHTS)

(2) FOR GLASS WITH KNOW SHGC, SEE SEC. 2.1.1 OF APPENDIX G-C of the *FBC, Residential*. TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT

(3) MUST MEET CRITERIA OF APPENDIX G-C4.2.1.5 of the *FBC, Residential*.

6A-10 WINTER OVERHANG FACTORS (WOF)

SELECT BY OR	OH Ratio	.00-.11	.12-.17	.18-.26	.27-.35	.36-.46	.47-.57	.58-.70	.71-.83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
	North	1.00	1.000	1.001	1.003	1.005	1.009	1.011	1.014	1.016	1.021	1.024	1.027
	Northeast	1.00	0.998	1.001	1.008	1.015	1.023	1.029	1.035	1.040	1.049	1.056	1.061
	East	1.00	1.007	1.018	1.040	1.069	1.109	1.150	1.198	1.242	1.338	1.429	1.507
	Southeast	1.00	1.014	1.043	1.111	1.202	1.332	1.472	1.635	1.787	2.113	2.412	2.650
	South	1.00	0.994	1.032	1.142	1.308	1.563	1.845	2.175	2.471	3.042	3.450	3.661
	Southwest	1.00	1.006	1.025	1.070	1.131	1.217	1.308	1.413	1.508	1.708	1.888	2.031
	West	1.00	1.002	1.010	1.027	1.049	1.077	1.102	1.128	1.149	1.187	1.217	1.238
	Northwest	1.00	0.999	1.000	1.004	1.008	1.012	1.016	1.019	1.022	1.028	1.032	1.036
	OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'

6A-11 WALL WINTER POINT MULTIPLIERS (WPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
	WOOD		STEEL			INTERIOR INSULATION		EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK		6 INCH	8 INCH
R-VALUE	EXT	ADJ	EXT	ADJ	R-VALUE	EXT	ADJ	EXT	0-6.9	12.6	0-2.9	7.9			
0-6.9	11.1	10.4	15.1	13.1	0-2.9	11.2	6.8	11.2	7-10.9	4.2	3-6.9	5.7	R-VALUE	EXT	EXT
7-10.9	4.4	4.4	7.3	6.6	3-4.9	7.3	5.1	5.6	11-18.9	3.5	7-9.9	3.8	0-2.9	4.5	3.0
11-12.9	3.7	3.6	5.7	5.2	5-6.9	5.7	4.2	4.3	19-25.9	2.2	10 & UP	3.0	3-6.9	2.8	2.2
13-18.9	3.4	3.3	5.2	4.9	7-10.9	4.6	3.5	3.3	26 & UP	1.4			7 & UP	2.1	1.7
19-25.9	2.2	2.2	4.6	4.4	11-18.9	3.0	2.6	2.2							
26 & Up	1.5	1.5	2.7	2.6	19-25.9	1.9	1.7								
					26 & UP	1.3	1.2								

6A-12 DOOR WINTER POINT MULTIPLIERS (WPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	12.3	11.5
INSULATED	8.4	8.0

6A-13 CEILING WINTER POINT MULTIPLIERS (WPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	WPM	R-VALUE	WPM		CEILING TYPE	
19-21.9	2.70	10-10.9	2.87	R-VALUE	EXPOSED	DROPPED
22-25.9	2.45	11-12.9	2.70	10-13.9	3.16	2.91
26-29.9	2.22	13-18.9	2.40	14-20.9	2.31	2.14
30-37.9	2.05	19-25.9	1.86	21 & UP	1.47	1.47
38 & UP	1.81	26-29.9	1.54			
RBS Credit	0.850	30 & UP	1.43			
IRCC Credit	0.912					
White Roof Credit	1.044					

6A-14 FLOOR WINTER POINT MULTIPLIERS (WPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
					POST OR PIER CONSTRUCTION	STEM WALL w/UNDER FLOOR INSULATION	ADJACENT
R-VALUE	WPM	R-VALUE	WPM	R-VALUE	WPM	WPM	WPM
0-2.9	18.8	0-2.9	9.9	0-6.9	5.77	3.5	10.4
3-4.9	9.3	3-4.9	5.1	7-10.9	2.20	1.6	4.4
5-6.9	7.6	5-6.9	3.6	11-18.9	1.55	1.2	3.6
7 & UP	7.0	7 & UP	2.9	19 & UP	0.88	.8	2.2

6A-15 INFILTRATION & INTERNAL GAINS (WPM)

Air Infiltration	2.13
Internal Gains	-2.72
Infiltration/Internal Gains (Combined)	-0.58

6A-16 AIR HANDLER MULTIPLIERS (WPM)

Located in garage	1.00
Located in conditioned area	0.93
Located on exterior of building	1.07
Located in attic	1.10

6A-17 DUCT MULTIPLIERS (DM)

SUPPLY DUCTS IN:	DUCT R-VALUE	RETURN DUCTS IN:				
		Unconditioned space	Attic/ RBS	Attic/ IRCC	Attic/ Cool roof	Conditioned space
Unconditioned Space	4.2	1.093	1.086	1.088	1.089	1.081
	6.0	1.069	1.064	1.065	1.066	1.060
	8.0	1.053	1.049	1.051	1.051	1.046
Attic/Radiant Barrier (RBS)	4.2	1.067	1.059	—	—	1.052
	6.0	1.051	1.045	—	—	1.040
	8.0	1.040	1.036	—	—	1.032
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.096	—	1.088	—	1.077
	6.0	1.072	—	1.066	—	1.057
	8.0	1.056	—	1.052	—	1.045
Attic/Cool Roof	4.2	1.104	—	—	1.096	1.083
	6.0	1.076	—	—	1.071	1.061
	8.0	1.059	—	—	1.055	1.048
Conditioned Space	4.2	1.008	1.007	1.010	1.008	1.000
	6.0	1.006	1.005	1.007	1.006	1.000
	8.0	1.005	1.004	1.006	1.005	1.000

6A-18 HEATING SYSTEM MULTIPLIERS (HSM) All Climate Zones

SYSTEM TYPE		HEATING SYSTEM MULTIPLIERS (HSM)							
Central Heat Pump Units	HSPF	7.4-7.6	7.7-7.8	7.9-8.3	8.4-8.8	8.9-9.3	9.4-9.8	9.9-10.3	10.4-10.8
	HSM	.46	.44	.43	.41	.38	.36	.34	.33
PTHP	COP	2.50-1.69	2.70-2.89	2.90-3.09	3.10-3.29	3.30-3.49	3.50-3.69	3.70-3.89	3.90-4.19
	HSM	.40	.37	.34	.32	.30	.29	.27	.26
Gas Heating	AFUE	76-.77	.78	79-.82	83-.85	86-.89	90-.92	93-.95	96-.98
	HSM	.46	.44	.43	.41	.38	.36	.34	.33
Electric Strip	1.0								

6A-19 COOLING CREDIT MULTIPLIERS

SYSTEM TYPE	Cooling credit multipliers (CCM)
Ceiling Fans	.95*
Cross Ventilation	.95*
Whole House Fan	.95*
Multizone	.95
Programmable Thermostat	.95

*Credit may be taken for only one system type concurrently.

6A-20 AIR DISTRIBUTION SYSTEM CREDIT MULTIPLIERS

TYPE CREDIT	Prescriptive requirements	Multiplier
Air-tight Duct Credit[1]	Appx G-C5.2.2.1.1	1.00
Factory-sealed AHU Credit[2]	Appx G-C5.2.2.1.2	0.95

[1]Duct Sealing Multiplier (DSM) shall be 1.15 (summer) or 1.17 (winter) unless Air-tight Duct Credit is demonstrated by test report.
[2]Multiply Factory-sealed AHU credit by summer (Table 6A-7) or winter (Table 6A-16) AHU multiplier. Insert total in the "As-Built AHU" box on page 2 or 4.

6A-21 HEATING CREDIT MULTIPLIERS (HCM)

SYSTEM TYPE		HEATING CREDIT MULTIPLIERS (HCM)
Programmable Thermostat	HCM	.95
Multizone	HCM	.95

6A-22 HOT WATER MULTIPLIERS (HWM)

SYSTEM TYPE									
Electric Resistance	EF	.80-.81	.82-.83	.84-.85	.86-.87	.88-.90	.91-.93	.94-.96	.97 &Up
	HWM	3020	2946	2876	2809	2746	2655	2571	2491
Gas Water Heating	EF	.54	.55	.56	.57	.58	.59	.60	.61
	HWM	3020	2946	2876	2809	2746	2655	2571	2491
	EF	.62-.63	.64-.65	.66-.70	.71-.75	.76-.80	.81-.83	.84-.86	.87 & Up
	HWM	2346	2217	2101	1738	1456	1196	1055	933

6A-23 HOT WATER CREDIT MULTIPLIERS (HWCM)

SYSTEM TYPE		HOT WATER CREDIT MULTIPLIERS (HWCM)				
Heat Recovery Unit	With	Air Conditioner		Heat Pump		
	HWCM	.84		.78		
Add-on Dedicated Heat Pump (without tank)	EF	2.0-2.49	2.5-2.99	3.0-3.49	3.5 & Up	
	HWCM	.44	.35	.29	.25	
Add-on Solar Water Heater (without tank)	EF	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5.0 & Up
	HWCM	.84	.42	.28	.21	.17

NOTE: An HWM must be used in conjunction with all HWCM. See Table 6A-22. EF Means Energy Factor.

6A-24 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Max: 3 cfm/sq. ft. window area; .5cfm/sq. ft. door area.	
Exterior & Adjacent Walls	N1106.AB.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; CFM utility penetrations; between wall panels & top/bottom plates; between walls & floor. EXCEPTION: Frame walls where a continous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.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	N1106.AB.1.2.3	Seal: 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	N1106.AB.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.	
Multiple Story Houses	N1106.AB.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-25 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.AB.3. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Noncommercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower Heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 psig.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section N1110. Ducts in unconditioned attics: R-6 minimum insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings–Min. R-19. Common walls–Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ESTIMATED ENERGY PERFORMANCE INDEX* =
The lower the Energy Performance Index, the more efficient the home.

1. New Home or addition _____
2. Single family or multiple family _____
3. Number of units, (if multi-family) _____
4. Number of bedrooms _____
5. Is this a worst case? (yes or no) _____
6. Conditioned floor area _____ sq. ft.
7. Glass type & area
   a. U-Factor: _____ _____ sq. ft.
   (Or single or double Default) _____ sq. ft.
   b. SHGC: _____ _____ sq. ft.
   (Or clear or tint Default) _____ sq. ft.
8. Floor types, Insulation level
   a. Slab-on-grade, edge insulation R=_____
   b. Wood, raised R=_____
   c. Concrete, raised R=_____
9. Wall types, Insulation level
   Exterior
   a. Wood frame R=_____
   b. Metal frame R=_____
   c. Concrete block R=_____
   d. Log R=_____
   e. Other _____ R=_____
   Adjacent
   a. Wood frame R=_____
   b. Metal frame R=_____
   c. Concrete block R=_____
   d. Log R=_____
   e. Other _____ R=_____
10. Ceiling types, Insulation level
    a. Under attic R=_____
    b. Single assembly R=_____
    c. Knee walls/skylight walls R=_____
    d. Radiant barrier installed R=_____
11. Ducts, Location & Insulation Level
    a. Supply ducts: _____ R=_____
    b. Return ducts: _____ R=_____
12. Cooling systems Capacity: _____
    a. Split system SEER:_____
    b. Single package SEER:_____
    c. Ground/water source COP:_____
    d. Room unit EER:_____
    e. PTAC EER:_____
    f. Gas-driven COP:_____
13. Heating Systems Capacity:_____
    a. Split system heat pump HSPF:_____
    b. Single package heat pump HSPF:_____
    c. Electric resistance COP:_____
    d. Gas furnace, natural gas AFUE:_____
    e. Gas furnace, LPG AFUE:_____
    f. Gas-driven heat pump Recov. EFF.:_____
14. Water heating systems
    a. Electric resistance EF:_____
    b. Gas fired, natural gas EF:_____
    c. Gas fired, LPG EF:_____
    d. Solar System with tank EF:_____
    e. Dedicated heat pump with tank EF:_____
    f. Heat recovery unit HeatRec%
    g. Other: _____ _____
15. HVAC credits claimed (Alternate Point System Method only)
    a. Ceiling fans _____
    b. Cross ventilation _____
    c. Whole house fan _____
    d. Multizone cooling credit _____
    e. Multizone heating credit _____
    f. Programmable thermostat _____

I certify that this home has complied with the Florida Energy Efficiency Code For Building 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 _____

FORM 600A-08	FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION Alternate Residential Points System Method	NORTH 1 2 3

PROJECT NAME: AND ADDRESS:		BUILDER:	
		PERMITTING OFFICE:	CLIMATE ZONE: 1 ☐ 2 ☐ 3 ☐
OWNER:		PERMIT NO.:	JURISDICTION NO.:

	Please Type	CK
1. New construction or addition	1.	
2. Single-family detached or Multiple-family attached	2.	
3. If Multiple-family–No. of units covered by this submission	3.	
4. Is this a worst case? (yes/no)	4.	
5. Conditioned floor area (sq. ft.)	5. sq. ft.	
6. Predominant eave overhang (ft.)	6. ft.	
7. Glass type[1] and area: (Label required by 13-104.4.5 if not default)	Description Area	
a. *U*-factor: (or Single- or Double-Pane DEFAULT)	7a. _____ _____ sq. ft.	
b. SHGC: (or Clear or Tint DEFAULT)	7b. _____ _____ sq. ft.	
8. Floor type and insulation:		
a. Slab-on-grade (*R*-value + perimeter)	8a. R =_____ , _____ l. ft.	
b. Wood, raised (*R*-value + sq. ft.)	8b. R =_____ , _____ sq. ft.	
c. Concrete, raised (*R*-value)	8c. R =_____ , _____ sq. ft.	
9. Net wall type, area and insulation:		
a. Exterior: 1. Concrete block (Insulation *R*-value)	9a-1 R = _____ , _____ sq. ft.	
2. Wood frame (Insulation *R*-value)	9a-2 R = _____ , _____ sq. ft.	
3. Steel frame (Insulation *R*-value)	9a-3 R = _____ , _____ sq. ft.	
4. Log (Insulation *R*-value)	9a-4 R = _____ , _____ sq. ft.	
5. Other:_____		
b. Adjacent: 1. Concrete block (Insulation *R*-value)	9b-1 R = _____ , _____ sq. ft.	
2. Wood frame (Insulation *R*-value)	9b-2 R = _____ , _____ sq. ft.	
3. Steel frame (Insulation *R*-value)	9b-3 R = _____ , _____ sq. ft.	
4. Log (Insulation *R*-value)	9b-4 R = _____ , _____ sq. ft.	
10. Ceiling type, area and insulation:		
a. Under attic (Insulation *R*-value)	10a. _____ _____ sq. ft.	
b. Single assembly (Insulation *R*-value)	10b. _____ _____ sq. ft.	
c. Radiant barrier, IRCC or white roof installed?	10c. _____	
11. Air distribution system:		
a. Ducts (Insulation + Location)	11a. R = _____ , _____ (cond./uncond.)	
b. Air Handler (Location)	11b. R = _____ , _____ (cond./uncond.)	
12. Cooling system:	12a. Type: _____	
(Types: central-split, central-single pkg., room unit, PTAC, gas, none)	12b. SEER/EER/COP: _____	
	12c. Capacity: _____	
13. Heating system:	13a. Type: _____	
(Types: heat pump, elec. strip, nat. gas, LP gas, gas h.p., room or PTAC, none)	13b. HSPF/COP/AFUE: _____	
	13c. Capacity: _____	
14. Hot water system:	14a. Type: _____	
(Types: elec., natural gas, solar, LP gas, none)	14b. EF: _____	
15. Hot water credits		
a. Heat Recovery (HR)	15a. _____	
b. Dedicated Heat Pump (DHP)	15b. _____	
c. Solar	15c. _____	
16. HVAC Credits	16. _____	
(Use: CF-ceiling fan, CV-cross vent, PT-programmable thermostat, HF-whole house fan, MZ-Multizone)		
17. COMPLIANCE STATUS: (PASS if As-Built Pts. are less than Base Pts.)	17. _____	
a. Total As-Built points b. Total Base points	17a._____17b. _____	

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

PREPARED BY:_____ DATE:_____

I hereby certify that this building is in compliance with the Florida Energy Code:

OWNER AGENT: _____ DATE:_____

Review of 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 in accordance with Section 553.908, F.S.

BUILDING OFFICIAL: _____

DATE: _____

[1] Predominant glass type. For actual glass type and areas, see summer and winter glass output on Pages 2 and 4.

ESTIMATED ENERGY PERFORMANCE INDEX* =
The lower the Energy Performance Index, the more efficient the home.

1.	New Home or addition	NEW	
2.	Single family or multiple family	SINGLE	
3.	Number of units, (if multi-family)		
4.	Number of bedrooms	5	
5.	Is this a worst case? (yes or no)	YES	
6.	Conditioned floor area	6579	sq. ft.
7.	Glass type & area		
	a. U-Factor:	576	sq. ft.
	(Or single or double Default)		sq. ft.
	b. SHGC:		sq. ft.
	(Or clear or tint Default)		sq. ft.
8.	Floor types, Insulation level		
	a. Slab-on-grade, edge insulation	R- 0	
	b. Wood, raised	R- 19	
	c. Concrete, raised	R-	
9.	Wall types, Insulation level		
	Exterior		
	a. Wood frame	R- 19	
	b. Metal frame	R-	
	c. Concrete block	R-	
	d. Log	R-	
	e. Other	R-	
	Adjacent		
	a. Wood frame	R- 13	
	b. Metal frame	R-	
	c. Concrete block	R-	
	d. Log	R-	
	e. Other	R-	
10.	Ceiling types, Insulation level		
	a. Under attic	R- 30	
	b. Single assembly	R-	
	c. Knee walls/skylight walls	R-	
	d. Radiant barrier installed	R-	

11.	Ducts, Location & Insulation Level		
	a. Supply ducts:	ATTIC	R- 6
	b. Return ducts:	ATTIC	R- 6
12.	Cooling systems		Capacity: 110
	a. Split system		SEER: 13
	b. Single package		SEER:
	c. Ground/water source		COP:
	d. Room unit		EER:
	e. PTAC		EER:
	f. Gas-driven		COP:
13.	Heating Systems		Capacity: 110
	a. Split system heat pump		HSPF: 7.8
	b. Single package heat pump		HSPF:
	c. Electric resistance		COP:
	d. Gas furnace, natural gas		AFUE:
	e. Gas furnace, LPG		AFUE:
	f. Gas-driven heat pump		Recov. Eff.:
14.	Water heating systems		
	a. Electric resistance		EF: .94
	b. Gas fired, natural gas		EF:
	c. Gas fired, LPG		EF:
	d. Solar System with tank		EF:
	e. Dedicated heat pump with tank		EF:
	f. Heat recovery unit		HeatRec%
	g. Other:		
15.	HVAC credits claimed (Alternate Point System Method only)		
	a. Ceiling fans		
	b. Cross ventilation		
	c. Whole house fan		
	d. Multizone cooling credit		
	e. Multizone heating credit		
	f. Programmable thermostat		✓

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

Builder Signature: Date:

Address of New Home: City/FL Zip

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER _____ CONTRACTOR Robert Jordan PHONE 755 3456

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County one permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

ELECTRICAL	Print Name Robert Jordan License #:	Signature Phone #: 755 3456
MECHANICAL/ A/C ____	Print Name Robert Jordan License #:	Signature Phone #:
PLUMBING/ GAS	Print Name Robert Jordan License #:	Signature Phone #:
ROOFING	Print Name Robert Jordan License #:	Signature Phone #:
SHEET METAL	Print Name License #:	Signature Phone #:
FIRE SYSTEM/ SPRINKLER	Print Name License#:	Signature Phone #:
SOLAR	Print Name License #:	Signature Phone #:

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON		Robert Jordan	
CONCRETE FINISHER			
FRAMING			
INSULATION			
STUCCO			
DRYWALL			
PLASTER			
CABINET INSTALLER			
PAINTING			
ACOUSTICAL CEILING			
GLASS			
CERAMIC TILE			
FLOOR COVERING			
ALUM/VINYL SIDING			
GARAGE DOOR			
METAL BLDG ERECTOR		✓	

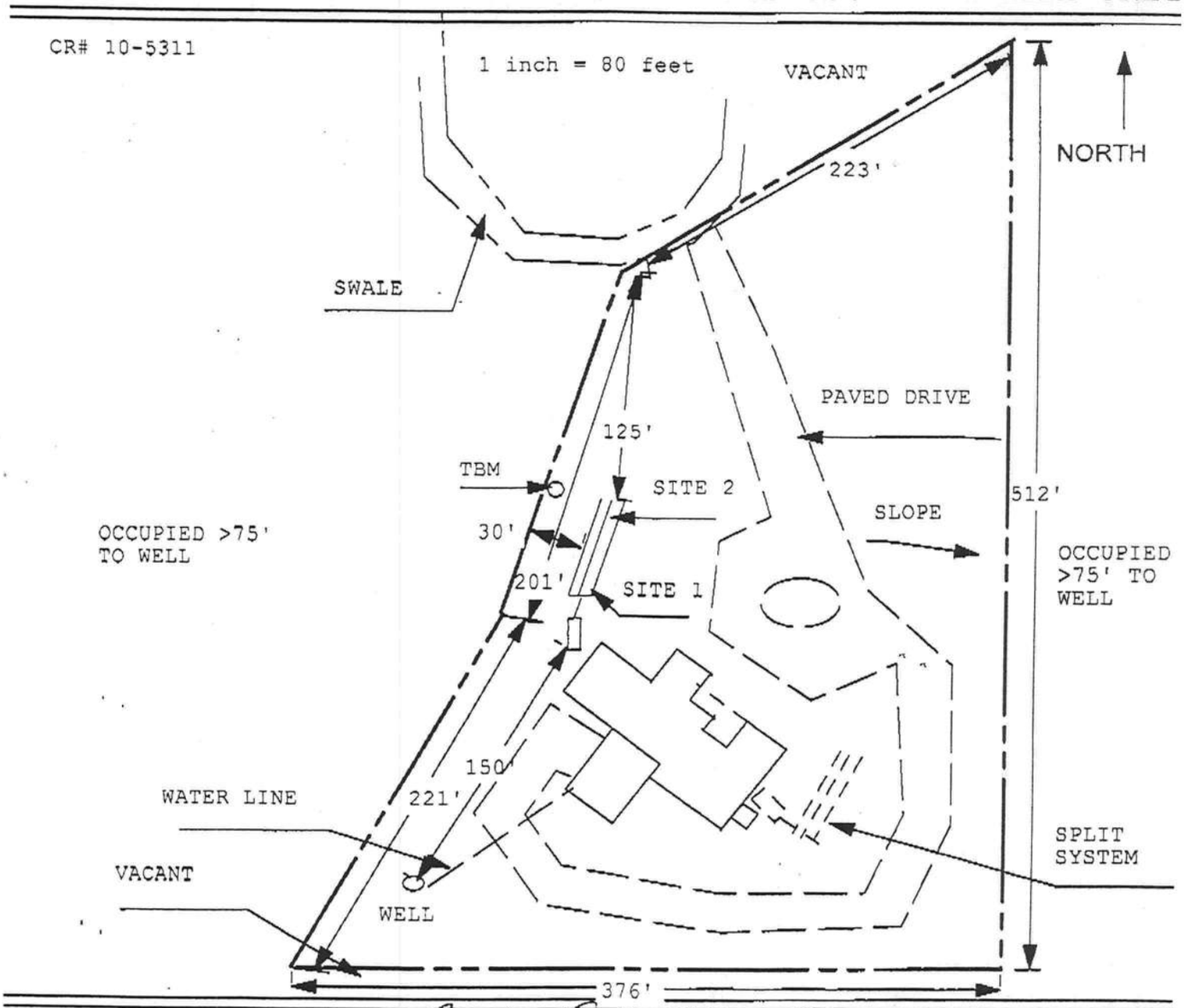
F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

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

Permit Application Number: 11-0447

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

CR# 10-5311



Site Plan Submitted By Paul R Boyd Date 10/31/11

Plan Approved X Not Approved ____ Date 11-15-11

By Sallie Ford. Env Health Director CPHU

Notes: _____

PERMIT #: 12-SC-1376744
APPLICATION #: AP1051566
DATE PAID: 11.2.11
FEE PAID: 310.00
RECEIPT #: 1850231
DOCUMENT #: PR858937

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
CONSTRUCTION PERMIT

CONSTRUCTION PERMIT FOR: OSTDS New

APPLICANT: ROBERT **11-0448 JORDAN

PROPERTY ADDRESS: WINDSOR Dr Lake City, FL 32024

LOT: 4 BLOCK: SUBDIVISION: Hills of Windsor

PROPERTY ID #: 02411-105 [SECTION, TOWNSHIP, RANGE, PARCEL NUMBER] [OR TAX ID NUMBER]

SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARDS OF SECTION 381.0065, F.S., AND CHAPTER 64E-6, F.A.C. DEPARTMENT APPROVAL OF SYSTEM DOES NOT GUARANTEE SATISFACTORY PERFORMANCE FOR ANY SPECIFIC PERIOD OF TIME. ANY CHANGE IN MATERIAL FACTS, WHICH SERVED AS A BASIS FOR ISSUANCE OF THIS PERMIT, REQUIRE THE APPLICANT TO MODIFY THE PERMIT APPLICATION. SUCH MODIFICATIONS MAY RESULT IN THIS PERMIT BEING MADE NULL AND VOID. ISSUANCE OF THIS PERMIT DOES NOT EXEMPT THE APPLICANT FROM COMPLIANCE WITH OTHER FEDERAL, STATE, OR LOCAL PERMITTING REQUIRED FOR DEVELOPMENT OF THIS PROPERTY.

SYSTEM DESIGN AND SPECIFICATIONS

T [1,050] GALLONS / GPD Septic CAPACITY
A [ ] GALLONS / GPD N/A CAPACITY
N [ ] GALLONS GREASE INTERCEPTOR CAPACITY [MAXIMUM CAPACITY SINGLE TANK:1250 GALLONS]
K [ ] GALLONS DOSING TANK CAPACITY [ ]GALLONS @[ ]DOSES PER 24 HRS #Pumps [ ]

D [500] SQUARE FEET drainfield SYSTEM
R [ ] SQUARE FEET N/A SYSTEM
A TYPE SYSTEM: [x] STANDARD [ ] FILLED [ ] MOUND [ ]
I CONFIGURATION: [x] TRENCH [ ] BED [ ]
N
F LOCATION OF BENCHMARK: nail in oak tree West of system site
I ELEVATION OF PROPOSED SYSTEM SITE [24.00] [INCHES / FT] [ABOVE / BELOW] BENCHMARK/REFERENCE POINT
E BOTTOM OF DRAINFIELD TO BE [54.00] [INCHES / FT] [ABOVE / BELOW] BENCHMARK/REFERENCE POINT
L
D FILL REQUIRED: [0.00] INCHES EXCAVATION REQUIRED: [0.00] INCHES

O
T
H
E
R

1. system to serve the kitchen, laundry, guest bath, master bedroom and master bath (400 gallons of flow per engineer split).

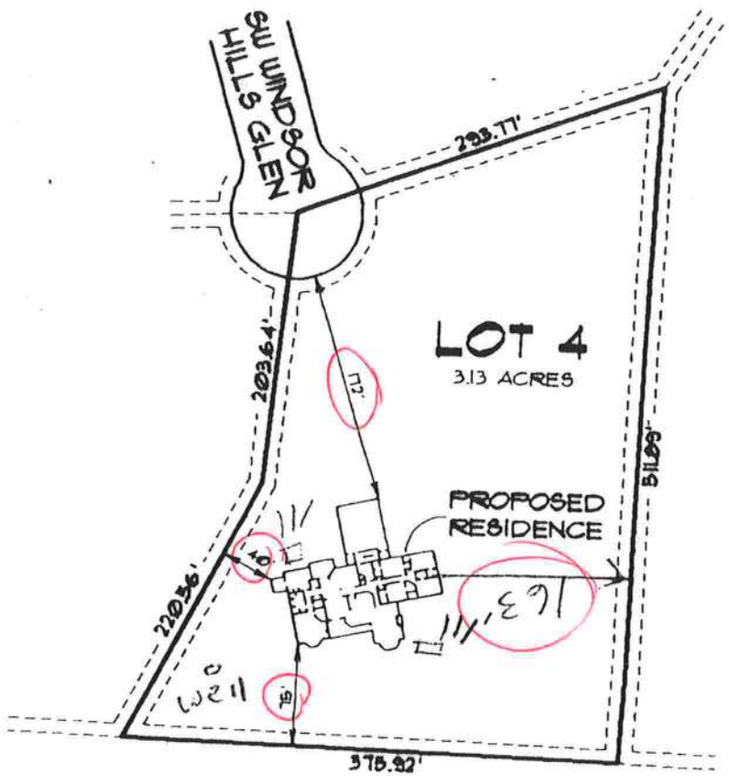
SPECIFICATIONS BY: PAUL LLOYD TITLE: PSE

APPROVED BY: Sallie Ford TITLE: Environmental Health Director Columbia CHD
Sallie A Ford

DATE ISSUED: 11/15/2011 EXPIRATION DATE: 05/15/2013

DH 4016, 08/09 (Obsoletes all previous editions which may not be used)
Incorporated: 64E-6.003, FAC

v 1.1.4 AP1051566 SE056040



LOCATION PER
OR CONTRACTOR

ENSIONS TAKEN
URVEY FURNISHED
ER

SHALL VERIFY ALL
ABLE SETBACKS,
TIONS AND DEED
TIONS.

DESCRIPTION:

LOT No. 4, "HILLS OF WINDSOR", A PLANNED RESIDENTIAL DEVELOPMENT, AS RECORDED IN THE PUBLIC RECORDS OF COLUMBIA CO., FLORIDA.

Robert Jordan

SITE PLAN

SCALE: 1 IN. = FT.

Robert Jordan

Location: **Project Name:**

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s
A. EXTERIOR DOORS			
1. Swinging	Mayfair	entry door	FL 1311
2. Sliding			
3. Sectional			
4. Roll up	General American	garage door	FL 2868
5. Automatic			
6. Other			
B. WINDOWS			
1. Single hung	Davis	Single hung windows	FL 1369
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass -through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11 Dual Action			
12. Other			
C. PANEL WALL			
1. Siding			
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
D. ROOFING PRODUCTS			
1. Asphalt Shingles	Tamko	30-year asphault shingles	FL 6B
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal Rf			
5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

13. Liquid Applied Roof Sys			
14. Cements-Adhesives – Coatings			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other			
E. SHUTTERS			
1. Accordion			
2. Bahama			
3. Storm Panels			
4. Colonial			
5. Roll-up			
6. Equipment			
7. Others			
F. SKYLIGHTS			
1. Skylight			
2. Other			
G. STRUCTURAL COMPONENTS			
1. Wood connector/anchor			
2. Truss plates			
3. Engineered lumber			
4. Railing			
5. Coolers-freezers			
6. Concrete Admixtures			
7. Material			
8. Insulation Forms			
9. Plastics			
10. Deck-Roof			
11. Wall			
12. Sheds			
13. Other			
H. NEW EXTERIOR ENVELOPE PRODUCTS			
1.			
2.			

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) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection

Contractor or Contractor's Authorized Agent Signature

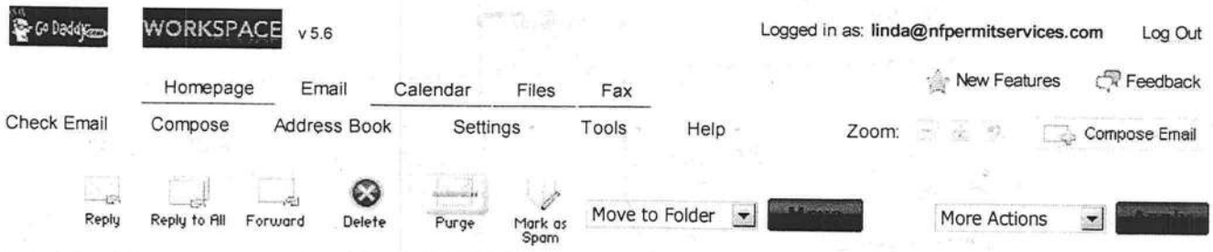
Linda Roder 12-6-4

Print Name Date

Location

Linda Roder

Permit # **(FOR STAFF USE ONLY)**



Inbox > Message Detail Print Previous Next

Subject: Jordan permits--wood burning fireplace
From: ROBERT JORDAN <robertfjordan@msn.com> (Add as Preferred Sender)
Date: Tue, Oct 25, 2011 12:32 pm
To: <linda@nfpermitservices.com>, <tdelbene@atlantic.net>, Tim Delbene <tim@dfla.com>

Linda,

Here is the specs for the L/R woodburning fireplace. It's a BIS. I have already bought. We have a smaller BIS in Canada and they're great.

The B/R fireplace will be a Napoleon NZ6000, which is a ventless gas log fireplace with a cold air kit.

Bob

105 : 00

12/2/11 Agenda

MEMORANDUM

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS
CHAIRMAN
BCC APPROVED
12-1-11
DATE

Date: 15 November 2011

To: Dale Williams, County Manager

From: Brian L. Kepner, County Planner BLK

Re: Response for Outstanding Text and Land Use Amendments to the County's Comprehensive Plan 02-1B and 04-2

The Department of Economic Opportunity, formerly the Department of Community Affairs has requested a response to 2 outstanding applications to the Comprehensive Plan submitted to them. Their reference numbers are 02-1B and 04-2. Number 02-1B has a text and land use amendment involved. The text amendment was concerning regionally significant natural resources as identified in the North Central Florida Strategic Regional Policy Plan and was revised and submitted as part of the Evaluation and Appraisal Report (EAR) based amendments to the Comprehensive Plan adopted in 2003. The land use amendment was revised and submitted at a later date and was found in compliance in 2005. Number 04-2 was the text amendment to the PRRD portion of the Future Land Use Element revising buffers and defining the incompatible adjacent land uses that would require a buffer. It also would allow for the development of greater than 1 acre but less than 3 acre subdivisions within a radius of the existing Designated Urban Development area. I would recommend that both of these applications be withdrawn. The issues that arose from the amendments in 02-1B were resolved and adopted. Upon review of 04-2, the changes in the Comprehensive Planning laws earlier this year and the current state of the economy. I believe there it a better way to approach the issues that were attempted to be addressed in 04-2. Some of these issues were addressed in the revised EAR completed back in June and other can be addressed before the County adopts EAR based amendments in the summer of 2012. In addition, I do not believe that the proposed language would pass the state definition of urban sprawl without some revisions to help mitigate the 13 listed criteria of urban sprawl now part of State Statutes. I would be willing to write and send the letter to the Department of Economic Opportunity upon your approval of whatever decision is made.

#29802

Hatch
For
Basement
Escape
Ladder

9-21-12

Basement
Escape
Ladder

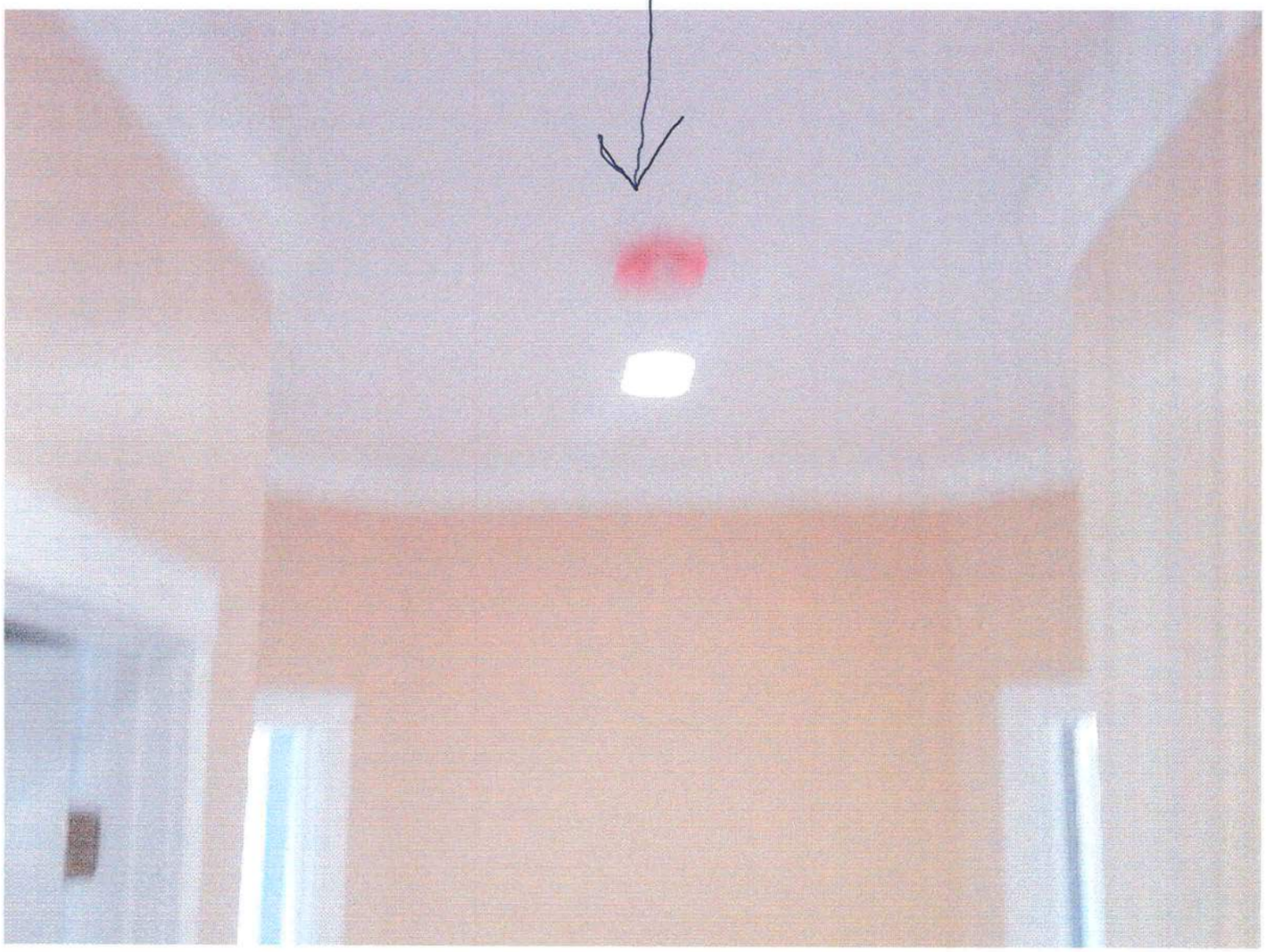
9-21-12

#29802

Smoke Detector

9-21-12

#2980



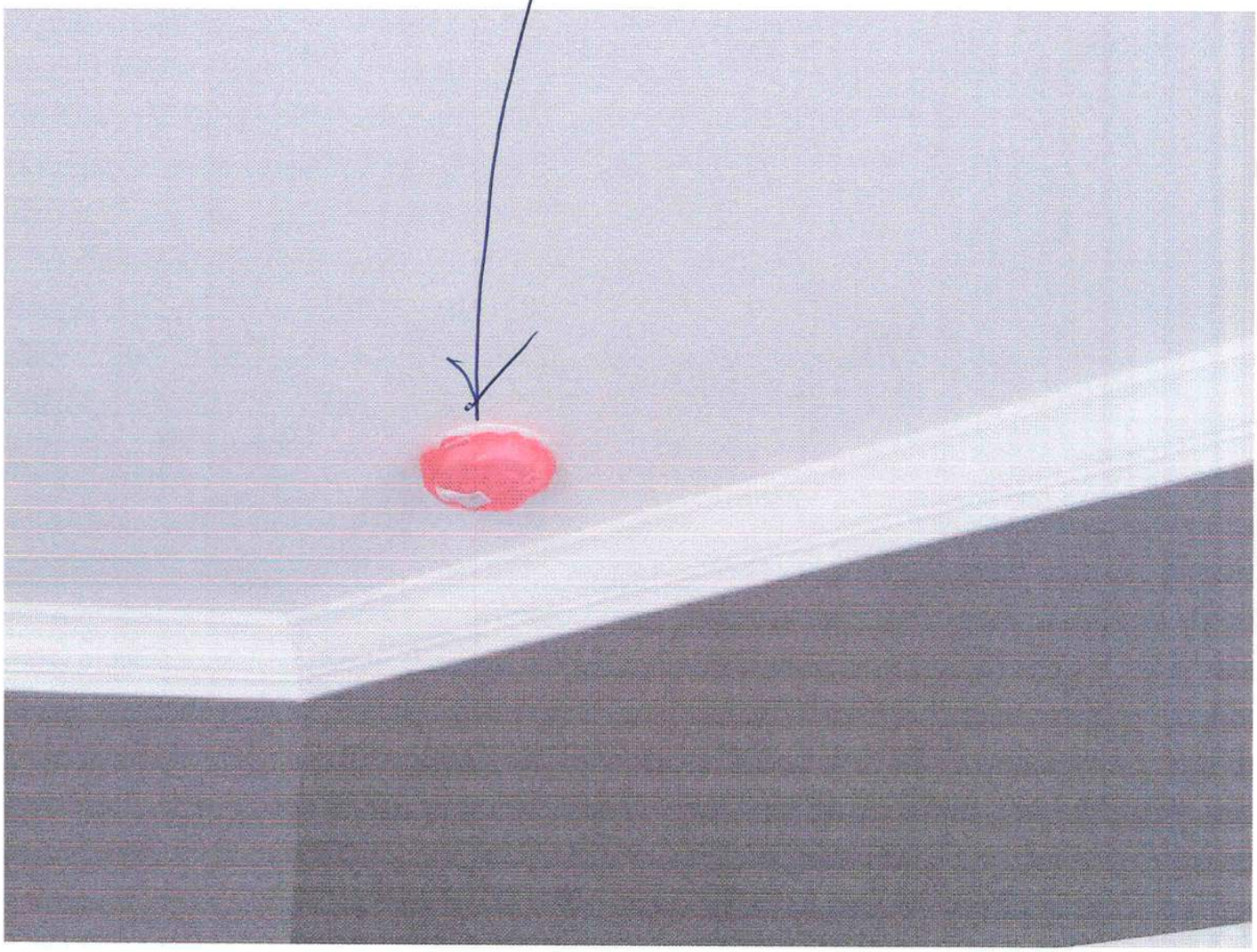
9-21-12

#2980~

Smoke Detector

Smoke Detector 9-21-12

#2980~



Exception: A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I Soils, as detailed in Table R405.1.

TABLE R405.1 PROPERTIES OF SOILS CLASSIFIED ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL GROUP	UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL	SOIL DESCRIPTION	DRAINAGE CHARACTERISTICS[a]	FROST HEAVE POTENTIAL	VOLUME CHANGE POTENTIAL EXPANSION[b]
Group I	GW	Well-graded gravels, gravel sand mixtures, little or no fines	Good	Low	Low
	GP	Poorly graded gravels or gravel sand mixtures, little or no fines	Good	Low	Low
	SW	Well-graded sands, gravelly sands, little or no fines	Good	Low	Low
	SP	Poorly graded sands or gravelly sands, little or no fines	Good	Low	Low
	GM	Silty gravels, gravel-sand-silt mixtures	Good	Medium	Low
	SM	Silty sand, sand-silt mixtures	Good	Medium	Low
Group II	GC	Clayey gravels, gravel-sand-clay mixtures	Medium	Medium	Low
	SC	Clayey sands, sand-clay mixture	Medium	Medium	Low
	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Medium	High	Low
		Inorganic clays of low to medium			

	CL	plasticity, gravelly clays, sandy clays, silty clays, lean clays	Medium	Medium	Medium to Low
Group III	CH	Inorganic clays of high plasticity, fat clays	Poor	Medium	High
	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	Poor	High	High
Group IV	OL	Organic silts and organic silty clays of low plasticity	Poor	Medium	Medium
	OH	Organic clays of medium to high plasticity, organic silts	Unsatisfactory	Medium	High
	Pt	Peat and other highly organic soils	Unsatisfactory	Medium	High

Elevation Confirmation Letter at slab

Columbia County Building Permit Application

For Office Use Only Application # 1112-04 Date Received 12/9/11 By CF Permit # 1923/29802

Zoning Official BLK Date 6 DEC 2011 Flood Zone X Land Use A-3 Zoning PRRO

FEMA Map # N/A Elevation N/A MFE 91.7ft plus River N/A Plans Examiner T.C. Date 12-5-11

Comments Meets the PRRD Requirements of 80% of undeveloped area + 40% building Coverage for Lot 4

☐ NOC ☑ EH ☐ Deed or PA ☑ Site Plan ☐ State Road Info ☐ Well letter ☐ 911 Sheet ☐ Parent Parcel # _____

☐ Dev Permit # _____ ☐ In Floodway ☐ Letter of Auth. from Contractor ☐ F W Comp. letter

IMPACT FEES: EMS _____ Fire _____ Corr _____ ☑ Sub VF Form

NA Disclosure Statement Road/Code _____ School N/A = TOTAL (Suspended) ☐ App Fee Paid

Septic Permit No. 11-447 dropped off by Linda Roder 752-2781 Fax 758-2021

Name Authorized Person Signing Permit Robert Jordan owner builder Phone 755-3456

Address 234 SW Windsor Dr. Lake City FL 32024

Owners Name Robert Jordan Phone 755-3456

911 Address 248 SW Windsor Hills Glen Lake City FL 32024

Contractors Name owner builder Robert Jordan Phone 755-3456

Address 234 SW Windsor Dr. Lake City FL 32024

Fee Simple Owner Name & Address na

Bonding Co. Name & Address na

Architect/Engineer Name & Address Mark Disosway engin / Tim Delbene

Mortgage Lenders Name & Address NA

— Circle the correct power company – FL Power & Light – Clay Elec. – Suwannee Valley Elec. – Progress Energy

Property ID Number part of 30-3S-16-02411-~~105~~ 104 Estimated Cost of Construction 350,000

Subdivision Name Hills of Windsor Lot 4 Block ____ Unit ____ Phase ____

Driving Directions 90 W. turn L into Hills of Windsor, thru gate turn right, follow to end

Number of Existing Dwellings on Property 0

Construction of Single family dwelling Total Acreage 4 Lot Size 4 acres

— Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 36'-4"

Actual Distance of Structure from Property Lines - Front ~~172'~~ Side ~~163'~~ Side ~~40~~ Rear ~~75'~~

Number of Stories ____ Heated Floor Area 5719 Total Floor Area 10191 Roof Pitch 12-8

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction. **CODE:** Florida Building Code 2007 with 2009 Supplements and the 2008 National Electrical Code.

Columbia County Building Permit Application

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

TIME LIMITATIONS OF PERMITS: Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment: According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full.
This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE: ***YOU ARE HEREBY NOTIFIED*** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. You must verify if your property is encumbered by any restrictions or face possible litigation and or fines.

(Owners Must Sign All Applications Before Permit Issuance.)

X _____
Owners Signature ****OWNER BUILDERS MUST PERSONALLY APPEAR AND SIGN THE BUILDING PERMIT.**

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

X _____
Contractor's Signature (Permitee)
owner-builder

Contractor's License Number _____
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 1 **day of** Dec **20** 11.

Personally known ____ **or Produced Identification** _____

_____ **SEAL:**
State of Florida Notary Signature (For the Contractor)

NOTARY PUBLIC-STATE OF FLORIDA
Linda R. Roder
Commission # DD755608
Expires: MAR. 24, 2012
BONDED THRU ATLANTIC BONDING CO., INC.

COLUMBIA COUNTY 9-1-1 ADDRESSING

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

Addressing Maintenance

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

DATE REQUESTED: 10/10/2011 **DATE ISSUED:** 10/21/2011

ENHANCED 9-1-1 ADDRESS:

248 SW WINDSOR HILL GLN

LAKE CITY FL 32024

PROPERTY APPRAISER PARCEL NUMBER:

30-3S-16-02411-105

Remarks:

ADDRESS FOR PROPOSED STRUCTURE ON LOT 4, HILLS OF WINDSOR S/D

Address Issued By: SIGNED: / RONAL N. CROFT

Columbia County 9-1-1 Addressing / GIS Department

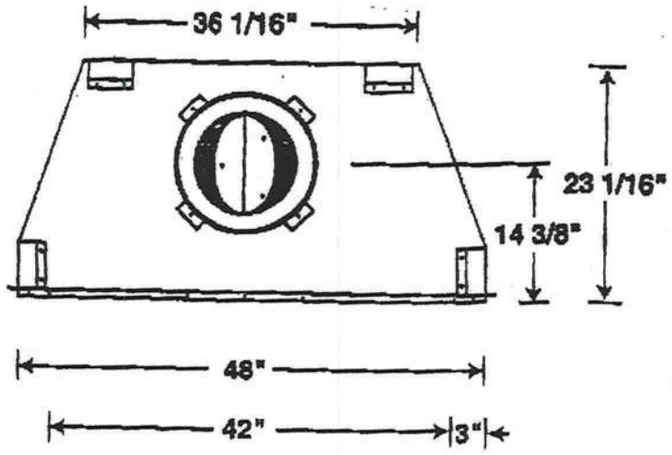
NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.

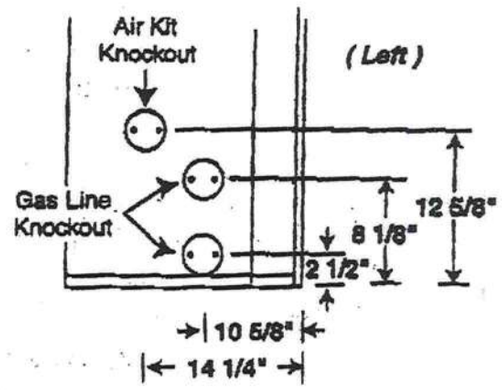
2100

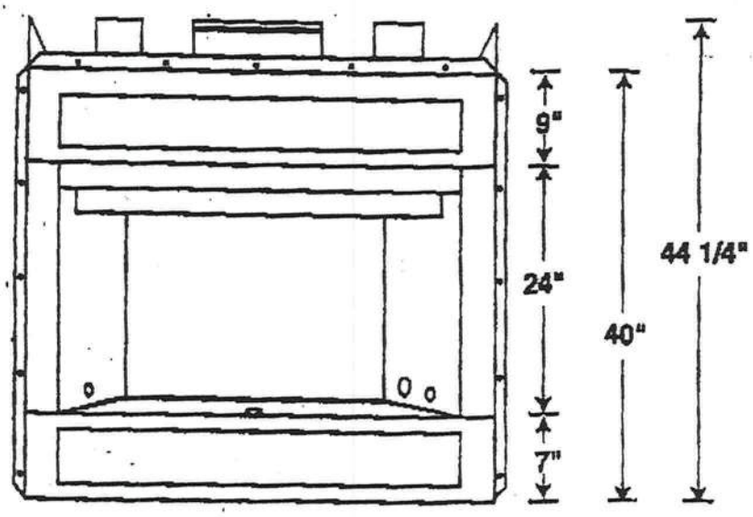
Craftsman

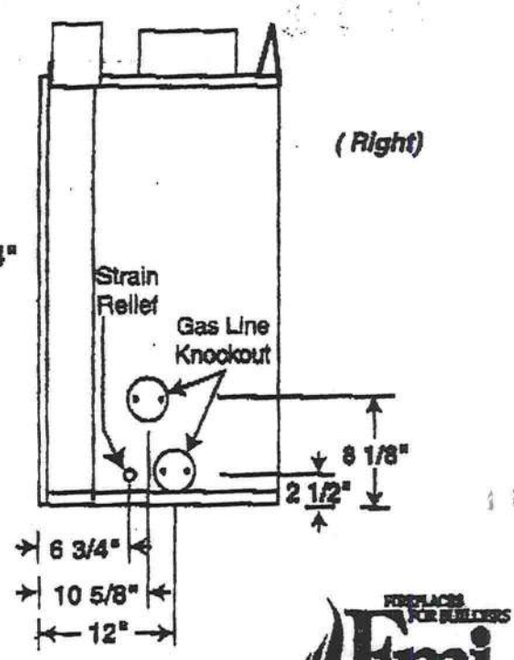
42" Woodburning Fireplace

Vent Pipe Size	10"
Min. Pipe Clearance	1"
Min. System Height	14' 6"
- w/ Single Offset	14' 6"
- w/ Two Offsets	22' 0"
Max. Dist. Between Elbows	6' 0"
Max. System Height	50' 0"









FIREPLACES FOR BUILDERS Fmi

CERTIFICATE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

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

Parcel Number 30-3S-16-02411-104

Building permit No. 000029802

Use Classification SFD/UTILITY

Fire: 6.42

Permit Holder OWNER BUILDER

Waste: 16.75

Owner of Building ROBERT JORDAN

Total: 23.17

Location: 248 SW WINDSOR HILLS GLN, LAKE CITY, FL 32024

Date: 09/21/2012

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

29062

Donald F. Lee & Associates, Inc.

DFL

140 NW Ridgewood Avenue
Lake City, Florida 32055

PH 386-755-6166 FAX 386-755-6167
email: donald@dfla.com
website: www.dfla.com

- Highway & Route Surveys
- Topographic Surveys
- Land & Subdivision Surveys
- Control Surveying

Since 1984

OK
BLK
10 JAN 2012

DATE: Saturday, January 07, 2012

TO: Columbia County Building Department

CC: Robert Jordan

FROM: Tim Delbene - Donald F. Lee & Associates

RE: Floor Elevation Check – Lot 4, Hills of Windsor

This is to Certify that elevations were obtained for a foundation under construction on the above referenced parcel of land. The results are as follows:

Proposed House slab elevation (first floor):	**127.78 feet**
Basement Slab Elevation:	**117.11 feet**

The record subdivision plat for "Hills of Windsor" indicates that the Minimum Floor Elevation (MFE) for this lot, as set by the project engineer for the development, is 91.7 feet. Elevations are based on NAVD1988 datum.

SIGNED: Timothy A. Delbene

Timothy A. Delbene, PSM
Florida Reg. Cert. No. LS 5594

DATE: 1 / 7 2012

DATE 12/07/2011

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000029802

APPLICANT ROBERT JORDAN PHONE 755-3456

ADDRESS 234 SW WINDSOR DRIVE LAKE CITY FL 32024

OWNER ROBERT JORDAN PHONE 755-3456

ADDRESS 248 SW WINDSOR HILLS GLEN LAKE CITY FL 32024

CONTRACTOR OWNER BUILDER PHONE

LOCATION OF PROPERTY 90W, TL HILLS OF WINDSOR, TR ON WINDSOR HILLS GLEN, LAST LOT ON LEFT

TYPE DEVELOPMENT SFD/UTILITY ESTIMATED COST OF CONSTRUCTION 509550.00

HEATED FLOOR AREA 5719.00 TOTAL AREA 10191.00 HEIGHT 30.00 STORIES 1

FOUNDATION CONC WALLS FRAMED ROOF PITCH 8/12 FLOOR SLAB

LAND USE & ZONING PRRD MAX. HEIGHT 30

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

NO. EX.D.U. 0 FLOOD ZONE X DEVELOPMENT PERMIT NO.

PARCEL ID 30-3S-16-02411-104 SUBDIVISION HILLS OF WINDSOR

LOT 4 BLOCK PHASE UNIT TOTAL ACRES 4.00

000001923 | | | Applicant/Owner/Contractor

Culvert Permit No. | Culvert Waiver | Contractor's License Number

WAIVER | 11-447 | BK | TC | Y

Driveway Connection | Septic Tank Number | LU & Zoning checked by | Approved for Issuance | New Resident

COMMENTS: NOC ON FILE, MFE: 91.7, CONFIRMATION LETTER REQUIRED AT SLAB

Check # or Cash 7279

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power date/app. by | Foundation date/app. by | Monolithic date/app. by

Under slab rough-in plumbing date/app. by | Slab date/app. by | Sheathing/Nailing date/app. by

Framing date/app. by | Insulation date/app. by

Rough-in plumbing above slab and below wood floor date/app. by | Electrical rough-in date/app. by

Heat & Air Duct date/app. by | Peri. beam (Lintel) date/app. by | Pool date/app. by

Permanent power date/app. by | C.O. Final date/app. by | Culvert date/app. by

Pump pole date/app. by | Utility Pole date/app. by | M/H tie downs, blocking, electricity and plumbing date/app. by

Reconnection date/app. by | RV date/app. by | Re-roof date/app. by

BUILDING PERMIT FEE $ 2550.00 CERTIFICATION FEE $ 50.95 SURCHARGE FEE $ 50.95

MISC. FEES $ 0.00 ZONING CERT. FEE $ 50.00 FIRE FEE $ 0.00 WASTE FEE $

FLOOD DEVELOPMENT FEE $ FLOOD ZONE FEE $ 25.00 CULVERT FEE $ **TOTAL FEE** 2726.90

INSPECTORS OFFICE CLERKS OFFICE CH

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

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

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED NOT SUSPENDED, ABANDONED OR INVALID WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS OT THE PREVIOUS INSPECTION.

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

Notice of Prevention for Subterranean Termites
(As required by Florida Building Code (FBC) 104.2.6) #29802

Live Oak PEST CONTROL, INC. A locally owned company serving you since 1972

17856 U.S. 129 • McALPIN, FLORIDA 32062
(386) 362-3887 • 1-800-771-3887 • Fax: (386) 364-3529

PERMIT # 0000 29862

ROBERT JORDAN 234 S.W. WINDSOR DR. LAKE CITY FL.

Address of Treatment or Lot/Block of Treatment

1-30-12	11:30	AARON & CHRIS
Date	Time	Applicator
TERMIDOR	FIPRONIL	557
Product Used	Chemical used *(active ingredient)*	Number of gallons applied
.12%	52800	975
Percent Concentration	Area treated *(square feet)*	Linear feet treated

HORIZONTAL/VERTICAL

Stage of treatment *(Horizontal, Vertical, Adjoining Slab, retreat of disturbed area)*

As per 104.2.6 - If soil chemical barrier method for Subterranean 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 and date this line. _____

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PERMIT # 0000 29862

ROBERT JORDAN 234 S.W. WINDSOR DR. LAKE CITY FL.

Address of Treatment or Lot/Block of Treatment

12-20-11	12:00	AARON J CUMMINGS
Date	Time	Applicator
TERMIDOR	FIPRONIL	150
Product Used	Chemical used *(active ingredient)*	Number of gallons applied
.12%	1700	235
Percent Concentration	Area treated *(square feet)*	Linear feet treated

HORIZONTAL/VERTICAL/BASEMENT

Stage of treatment *(Horizontal, Vertical, Adjoining Slab, retreat of disturbed area)*

As per 104.2.6 - If soil chemical barrier method for Subterranean 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 and date this line. _____