DATE 01/08/2007

Columbia County Building Permit

This Permit Expires One Year From the Date of Issue

PERMIT
000025379

APPLICANT DAVID F.BLACK PHONE 386.961.0359

ADDRESS 255 SW AURORA WAY LAKE CITY FL 32025

OWNER DAVID A. LUANN BLACK PHONE 386.961.0359

ADDRESS 570 SW BLANTON LANE LAKE CITY FL 32024

CONTRACTOR DAVID & LUANN BLACK PHONE 386.961.0359

LOCATION OF PROPERTY SR 247-S TO C-242,TR TO SABRE,TR TO WEIRS DALE,TR TO BUMSTEAD,TL TO BLANTON LN,TR, 2ND DRIVEWAY

TYPE DEVELOPMENT SFD/UTILITY ESTIMATED COST OF CONSTRUCTION 132450.00

HEATED FLOOR AREA 2649.00 TOTAL AREA 3601.00 HEIGHT 20.00 STORIES 1

FOUNDATION CONC WALLS FRAMED ROOF PITCH 8'12 FLOOR CONC

LAND USE & ZONING A-3 MAX. HEIGHT 35

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

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

PARCEL ID 14-4S-15-00363-215 SUBDIVISION PINEMOUNT MEADOWS

LOT 15 BLOCK PHASE UNIT TOTAL ACRES 5.01

Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor	
EXISTING	06-01106N	BLK	JTH	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: 1 FOOT ABOVE ROAD.

Check # or Cash 502

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

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

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

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

Electrical rough-in ____ date/app. by Heat & Air Duct ____ date/app. by Peri. beam (Lintel) ____ date/app. by

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

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

Reconnection ____ date/app. by Pump pole ____ date/app. by Utility Pole ____ date/app. by

M/H Pole ____ date/app. by Travel Trailer ____ date/app. by Re-roof ____ date/app. by

BUILDING PERMIT FEE $ 665.00 CERTIFICATION FEE $ 18.00 SURCHARGE FEE $ 18.00

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** 776.00

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."

This Permit Must Be Prominently Posted on Premises During Construction

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

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

Columbia County Building Permit Application

For Office Use Only Application # 0612-79 Date Received 12/27 By JW Permit # 25379

Application Approved by - Zoning Official BLK Date 05.01.07 Plans Examiner OK JTH Date 1-8-7

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

Comments CK# 502

NOC EH Deed or PA Site Plan N/A State Road Info □ Parent Parcel # □ Development Permit

Name Authorized Person Signing Permit DAVID F. BLACK Phone 386-961-0359 Fax

Address 255 SW AURORA WAY LAKE CITY FL 32025 CELL 678-427-6870

Owners Name DAVID F. BLACK Phone

911 Address 570 SW BLANTON LN, LAKE CITY FL 32024

Contractors Name DAVID F. BLACK Phone

Address 255 SW AURORA WAY, LAKE CITY FL 32025

Fee Simple Owner Name & Address

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address MARK DISOWAY PO BOX 868, LAKE CITY, FL 32056

Mortgage Lenders Name & Address CAMPUS USA, 183 BASCOM NORRIS, LAKE CITY FL 32055

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

Property ID Number 14 4S 15 00363-215 Estimated Cost of Construction $ 225,000

Subdivision Name PINEMONT MEADOWS Lot 15 Block — Unit — Phase —

Driving Directions 247 SOUTH TO 242 WEST (~~90~~ M/R) TO SABLE RD M/R, 1 MILE M/R ONTO WEIRSDALE, ~~NEED~~ M/L ONTO BUMSTEAD, M/R ONTO BLANTON LANE, 2ND DRIVEWAY.

Type of Construction 1 STORY HOME Number of Existing Dwellings on Property 0

Total Acreage 5.01 Lot Size Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 200 = ON PLAN Side 150 Side 100 Rear 450

Total Building Height 20' Number of Stories 1 Heated Floor Area 2600 (2674 TOTAL 3601) Roof Pitch 9/12

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

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

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

Owner Builder or Authorized Person by Notarized Letter

Contractor Signature

Contractors License Number

Competency Card Number

STATE OF FLORIDA
COUNTY OF COLUMBIA

NOTARY STAMP/SEAL
NICOLE COLETTE STOREY
MY COMMISSION # DD 496892
EXPIRES: December 6, 2009
Bonded Thru Notary Public Underwriters

Sworn to (or affirmed) and subscribed before me this 22 day of December 2006.

Personally known ____ or Produced Identification ✓

Notary Signature

(Revised Sept. 2006)

NOTICE OF COMMENCEMENT FORM
COLUMBIA COUNTY, FLORIDA

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

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

Tax Parcel ID Number 14 4S 15 60363-215 PERMIT NUMBER _____

1. Description of property: (legal description of the property and street address or 911 address)
570 SW BLANTON LN, LAKE CITY, FL 32024

2. General description of improvement: NEW 1 STORY 2,600 HOME

3. Owner Name & Address DAVID & LOUANN BLACK - CURRENT ADDRESS 255 SW AURORA WAY, LAKE CITY 32025 Interest in Property OWNER

4. Name & Address of Fee Simple Owner (if other than owner): _____

5. Contractor Name DAVID F. BLACK Phone Number 386-961-0359
Address 255 SW AURORA WAY, LAKE CITY, FL 32025

6. Surety Holders Name NONE Phone Number _____
Address _____
Amount of Bond _____

7. Lender Name CAMPUS USA Phone Number 386-754-9088 x10205
Address 193 SW BASCOM NORRIS, SUITE 105, LAKE CITY, FL 32055

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:
Name _____ Phone Number _____
Address _____

9. In addition to himself/herself the owner designates _____ of _____ to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) – (a) 7. Phone Number of the designee _____

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) _____

NOTICE AS PER CHAPTER 713, Florida Statutes:
The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Signature of Owner

Sworn to (or affirmed) and subscribed before day of 22 December, 20 06

NOTARY STAMP/SEAL

NICOLE COLETTE STORER
MY COMMISSION # DD 496892
EXPIRES: December 6, 2009
Bonded Thru Notary Public Underwriters

Signature of Notary

Inst:2006030571 Date:12/29/2006 Time:08:44
D.C. DC,P.DeWitt Cason,Columbia County B:1106 P:986

@ CAM112M01 S CamaUSA Appraisal System Columbia County
12/29/2006 9:29 **Legal Description Maintenance** **42500 Land 001**
Year T Property Sel **AG 000**
2007 R 14-4S-15-00363-215 **Bldg 000**
Xfea 000

BLACK DAVID & LUANN **42500 TOTAL B***

1	LOT 15 PINEMOUNT MEADOWS S/D AFD 1030-1132, WD 1104-1921	2
3	WD 1104-1922	4
5		6
7		8
9		10
11		12
13		14
15		16
17		18
19		20
21		22
23		24
25		26
27		28

Mnt **12/27/2006 THRESA**

F1=Task F3=Exit F4=Prompt F10=GoTo PgUp/PgDn F24=More

STATE OF FLORIDA
DEPARTMENT OF HEALTH

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 06-0110604N

PART II - SITE PLAN

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

See attached

Notes: _____

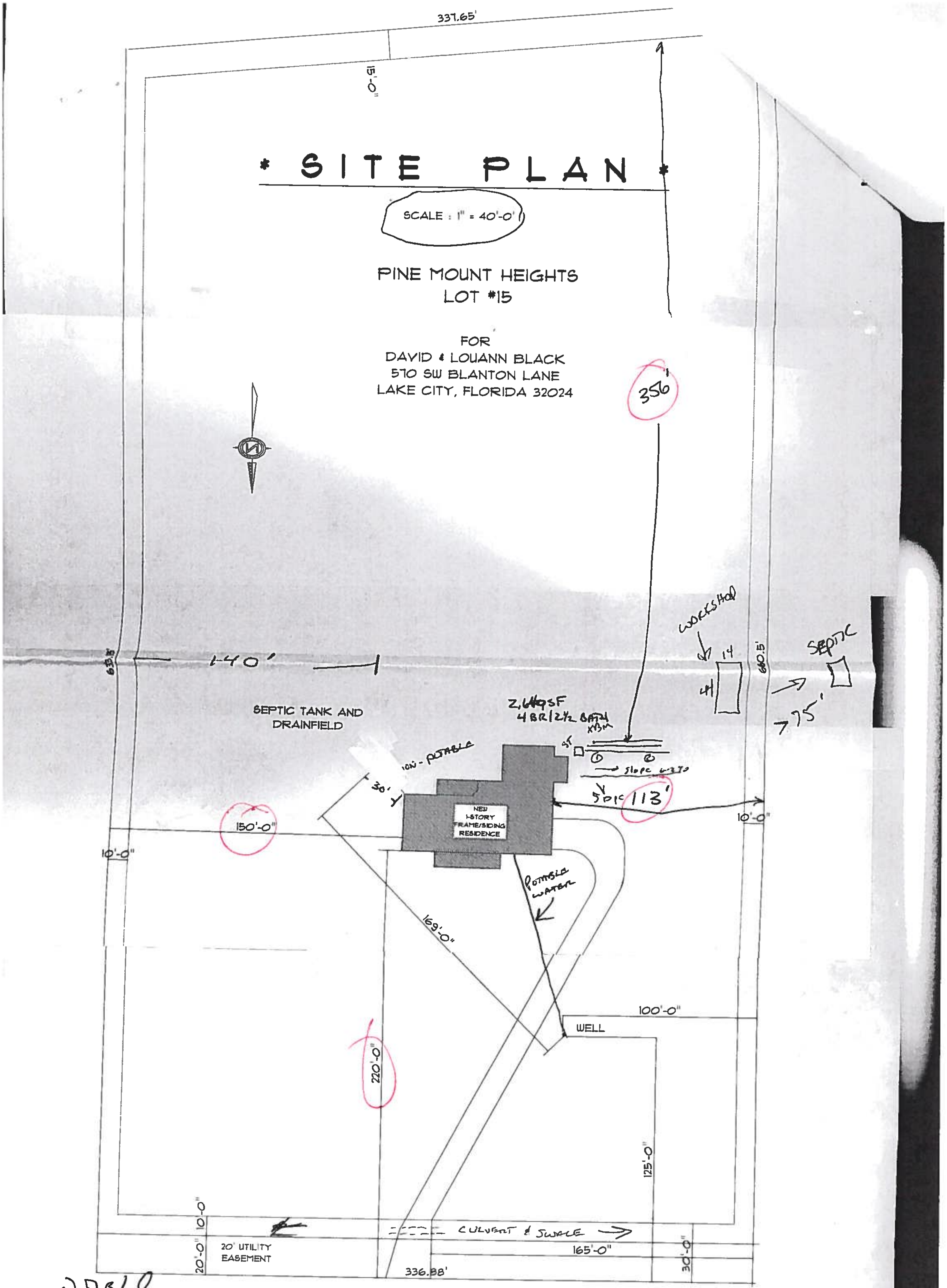
Site Plan submitted by: _____ Signature _____ Title

Plan Approved ✓ Not Approved _____ Date 12/26/06

By _____ Columbia County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

4015, 10/96 (Replaces HRS-H Form 4015 which may be used)



337.65'
15'-0"
* SITE PLAN *
SCALE : 1" = 40'-0"
PINE MOUNT HEIGHTS
LOT #15
FOR
DAVID & LOUANN BLACK
570 SW BLANTON LANE
LAKE CITY, FLORIDA 32024
356'
140'
633.8'
660.5'
WORKSHOP
14
41
SEPTIC
75'
SEPTIC TANK AND
DRAINFIELD
2,649 SF
4 BR / 2½ BATH
NON-POTABLE
30'
113'
10'-0"
150'-0"
NEW
1-STORY
FRAME/SIDING
RESIDENCE
POTABLE WATER
169'-0"
100'-0"
WELL
220'-0"
125'-0"
10'-0"
20'-0"
20' UTILITY
EASEMENT
CULVERT & SWALE
165'-0"
336.88'
30'-0"

12/15/06

NOTORIZED DISCLOSURE STATEMENT

FOR OWNER/BUILDER WHEN ACTING AS THER OWN CONTRACTOR AND CLAIMING EXEMPTION OF CONTRACTOR LICENSING REQUIREMENTS IN ACCORDANCE WITH FLORIDA STATUTES, ss. 489.103(7).

State law requires construction to be done by licensed contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own contractor with certain restrictions even though you do not have a license. You must provide direct, onsite supervision of the construction yourself. You may build or improve a one-family or two-family residence or a farm outbuilding. You may also build or improve a commercial building, provided your costs do not exceed $75,000. The building or residence must be for your own use or occupancy. It may not be built or substantially improved for sale or lease. If you sell or lease a building you have built or substantially improved yourself within 1 year after the construction is complete, the law will presume that you built or substantially improved it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person to act as your contractor or to supervise people working on your building. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances. You 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 your building who is not licensed must work under your direct supervision and must be employed by you, which means that you must deduct F .I.C.A. and withholding tax and provide workers' compensation for that employee, all as prescribed by law. Your construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

TYPE OF CONSTRUCTION

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

NEW CONSTRUCTION OR IMPROVEMENT

(X) New Construction
( ) Addition, Alteration, Modification or other Improvement

I DAVID F. BLACK, 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 ss.489.103(7) allowing this exception for the construction permitted by Columbia County Building Permit Number _____

[signature] 12/22/06
Owner Builder Signature Date

The above signer is personally known to me or produced identification FL Drivers

Notary Signature [signature] Date 12-22-06

NICOLE COLETTE STORER
MY COMMISSION # DD 496892
EXPIRES: December 6, 2009
Bonded Thru Notary Public Underwriters
(Stamp / Seal)

FOR BUILDING USE ONLY

I hereby certify that the above listed owner/builder has been notified of the disclosure statement in Florida Statutes ss 489.103(7).

Date_____ Building Official/Representative_____

FORM 600A-2004 ~~AFG~~ 0612-79 EnergyGauge® 4.1

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**612077aBlack,David&Louann**	Builder:	
Address:		Permitting Office:	Columbia
City, State:	**, FL**	Permit Number:	
Owner:	**Black, David & Louann**	Jurisdiction Number:	221000
Climate Zone:	**North**		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 58.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	4	b. N/A	
5. Is this a worst case?	Yes		
6. Conditioned floor area (ft²)	2649 ft²	c. N/A	
7. Glass type [1] and area: (Label reqd. by 13-104.4.5 if not default)			
a. U-factor:	Description Area	13. Heating systems	
(or Single or Double DEFAULT) 7a.	(Dble Default) 439.0 ft²	a. Electric Heat Pump	Cap: 58.0 kBtu/hr
b. SHGC:			HSPF: 7.90
(or Clear or Tint DEFAULT) 7b.	(Clear) 439.0 ft²	b. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=0.0, 278.0(p) ft	c. N/A	
b. N/A			
c. N/A		14. Hot water systems	
9. Wall types		a. Electric Resistance	Cap: 40.0 gallons
a. Frame, Wood, Exterior	R=13.0, 1801.0 ft²		EF: 0.93
b. Frame, Wood, Adjacent	R=13.0, 450.0 ft²	b. N/A	
c. N/A			
d. N/A		c. Conservation credits	
e. N/A		(HR-Heat recovery, Solar	
10. Ceiling types		DHP-Dedicated heat pump)	
a. Under Attic	R=30.0, 2805.0 ft²	15. HVAC credits	
b. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
c. N/A		HF-Whole house fan,	
11. Ducts		PT-Programmable Thermostat,	
a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 240.0 ft	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	

Glass/Floor Area: 0.17 Total as-built points: 35280 Total base points: 38754 **PASS**

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

PREPARED BY: _____

DATE: 1-3-06

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

OWNER/AGENT: _____

DATE: _____

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

BUILDING OFFICIAL: _____

DATE: _____

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

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , **FL,** PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points
.18	2649.0	20.04	9555.5	Double, Clear	W	1.5	8.0	144.0	38.52	0.96	5315.0
				Double, Clear	W	8.0	8.0	54.0	38.52	0.53	1103.3
				Double, Clear	SW	8.0	7.0	10.0	40.16	0.46	185.6
				Double, Clear	S	21.0	8.0	18.0	35.87	0.43	280.8
				Double, Clear	S	1.5	8.0	20.0	35.87	0.92	662.3
				Double, Clear	S	1.5	3.5	9.0	35.87	0.70	227.1
				Double, Clear	W	1.5	6.0	16.0	38.52	0.91	563.0
				Double, Clear	N	1.5	6.0	16.0	19.20	0.94	288.4
				Double, Clear	E	1.5	5.0	6.0	42.06	0.87	220.7
				Double, Clear	E	8.0	8.0	72.0	42.06	0.52	1568.3
				Double, Clear	E	8.0	8.7	20.0	42.06	0.54	451.8
				Double, Clear	E	1.5	8.0	36.0	42.06	0.96	1450.0
				Double, Clear	S	1.5	3.5	18.0	35.87	0.70	454.2
				As-Built Total:				**439.0**			**12770.4**

WALL TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Adjacent	450.0	0.70	315.0	Frame, Wood, Exterior	13.0	1801.0	1.50	2701.5
Exterior	1801.0	1.70	3061.7	Frame, Wood, Adjacent	13.0	450.0	0.60	270.0
Base Total:	**2251.0**		**3376.7**	**As-Built Total:**		**2251.0**		**2971.5**

DOOR TYPES	Area X	BSPM	= Points	Type	Area X	SPM	= Points
Adjacent	20.0	1.60	32.0	Exterior Insulated	30.0	4.10	123.0
Exterior	70.0	4.10	287.0	Exterior Insulated	40.0	4.10	164.0
				Adjacent Insulated	20.0	1.60	32.0
Base Total:	**90.0**		**319.0**	**As-Built Total:**	**90.0**		**319.0**

CEILING TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM X SCM	= Points
Under Attic	2649.0	1.73	4582.8	Under Attic	30.0	2805.0	1.73 X 1.00	4852.6
Base Total:	**2649.0**		**4582.8**	**As-Built Total:**		**2805.0**		**4852.6**

FLOOR TYPES	Area X	BSPM	= Points	Type	R-Value	Area X	SPM	= Points
Slab	278.0(p)	-37.0	-10286.0	Slab-On-Grade Edge Insulation	0.0	278.0(p	-41.20	-11453.6
Raised	0.0	0.00	0.0					
Base Total:			**-10286.0**	**As-Built Total:**		**278.0**		**-11453.6**

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , FL,	PERMIT #:

BASE				AS-BUILT						
INFILTRATION	Area X	BSPM	= Points		Area X	SPM	= Points			
	2649.0	10.21	27046.3		2649.0	10.21	27046.3			
Summer Base Points: 34594.2				**Summer As-Built Points:**						**36506.2**
Total Summer Points	X System Multiplier	= Cooling Points		Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points	
				(sys 1: Central Unit 58000 btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Int(AH),R6.0(INS)						
34594.2	0.4266	14757.9		36506 **36506.2**	1.00 **1.00**	(1.09 x 1.147 x 0.91) **1.138**	0.263 **0.263**	1.000 **1.000**	10904.1 **10904.1**	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , **FL,** PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points
.18	2649.0	12.74	6074.7	Double, Clear	W	1.5	8.0	144.0	20.73	1.01	3018.1
				Double, Clear	W	8.0	8.0	54.0	20.73	1.17	1306.0
				Double, Clear	SW	8.0	7.0	10.0	16.74	1.68	281.3
				Double, Clear	S	21.0	8.0	18.0	13.30	3.64	870.3
				Double, Clear	S	1.5	8.0	20.0	13.30	1.04	276.9
				Double, Clear	S	1.5	3.5	9.0	13.30	1.47	175.5
				Double, Clear	W	1.5	6.0	16.0	20.73	1.02	339.4
				Double, Clear	N	1.5	6.0	16.0	24.58	1.00	394.2
				Double, Clear	E	1.5	5.0	6.0	18.79	1.05	118.4
				Double, Clear	E	8.0	8.0	72.0	18.79	1.29	1739.6
				Double, Clear	E	8.0	8.7	20.0	18.79	1.26	475.3
				Double, Clear	E	1.5	8.0	36.0	18.79	1.02	690.0
				Double, Clear	S	1.5	3.5	18.0	13.30	1.47	351.0
				As-Built Total:				**439.0**			**10036.1**

WALL TYPES	Area X	BWPM =	Points	Type	R-Value	Area X	WPM =	Points
Adjacent	450.0	3.60	1620.0	Frame, Wood, Exterior	13.0	1801.0	3.40	6123.4
Exterior	1801.0	3.70	6663.7	Frame, Wood, Adjacent	13.0	450.0	3.30	1485.0
Base Total:	**2251.0**		**8283.7**	**As-Built Total:**		**2251.0**		**7608.4**

DOOR TYPES	Area X	BWPM =	Points	Type	Area X	WPM =	Points
Adjacent	20.0	8.00	160.0	Exterior Insulated	30.0	8.40	252.0
Exterior	70.0	8.40	588.0	Exterior Insulated	40.0	8.40	336.0
				Adjacent Insulated	20.0	8.00	160.0
Base Total:	**90.0**		**748.0**	**As-Built Total:**	**90.0**		**748.0**

CEILING TYPES	Area X	BWPM =	Points	Type	R-Value	Area X	WPM X WCM =	Points
Under Attic	2649.0	2.05	5430.4	Under Attic	30.0	2805.0	2.05 X 1.00	5750.3
Base Total:	**2649.0**		**5430.4**	**As-Built Total:**		**2805.0**		**5750.3**

FLOOR TYPES	Area X	BWPM =	Points	Type	R-Value	Area X	WPM =	Points
Slab	278.0(p)	8.9	2474.2	Slab-On-Grade Edge Insulation	0.0	278.0(p	18.80	5226.4
Raised	0.0	0.00	0.0					
Base Total:			**2474.2**	**As-Built Total:**		**278.0**		**5226.4**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: , , **FL,**	PERMIT #:

BASE				AS-BUILT						
INFILTRATION	Area X	BWPM	= Points		Area X	WPM	= Points			
	2649.0	-0.59	-1562.9		2649.0	-0.59	-1562.9			
Winter Base Points:			**21448.1**	**Winter As-Built Points:**						**27806.2**
Total Winter Points	X System Multiplier	= Heating Points		Total Component (System - Points)	X Cap Ratio	Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points	
				(sys 1: Electric Heat Pump 58000 btuh ,EFF(7.9) Ducts:Unc(S),Unc(R),Int(AH),R6.0						
21448.1	0.6274	13456.6		27806.2	1.000	(1.069 x 1.169 x 0.93)	0.432	1.000	13949.0	
				27806.2	**1.00**	**1.162**	**0.432**	**1.000**	**13949.0**	

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: , , FL,	PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total	
4		2635.00	10540.0	40.0	0.93	4	1.00	2606.67	1.00	10426.7	
				As-Built Total:						**10426.7**	

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
14758	**13457**	**10540**	**38754**	**10904**	**13949**	**10427**	**35280**

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: , , **FL,** PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

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

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

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

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 84.7

The higher the score, the more efficient the home.

Black, David & Louann, , , FL,

1.	New construction or existing	New	12.	Cooling systems	
2.	Single family or multi-family	Single family		a. Central Unit	Cap: 58.0 kBtu/hr
3.	Number of units, if multi-family	1			SEER: 13.00
4.	Number of Bedrooms	4		b. N/A	
5.	Is this a worst case?	Yes			
6.	Conditioned floor area (ft²)	2649 ft²		c. N/A	
7.	Glass type [1] and area: (Label reqd. by 13-104.4.5 if not default)				
	a. U-factor:	Description Area	13.	Heating systems	
	(or Single or Double DEFAULT) 7a.	(Dble Default) 439.0 ft²		a. Electric Heat Pump	Cap: 58.0 kBtu/hr
	b. SHGC:				HSPF: 7.90
	(or Clear or Tint DEFAULT) 7b.	(Clear) 439.0 ft²		b. N/A	
8.	Floor types				
	a. Slab-On-Grade Edge Insulation	R=0.0, 278.0(p) ft		c. N/A	
	b. N/A				
	c. N/A		14.	Hot water systems	
9.	Wall types			a. Electric Resistance	Cap: 40.0 gallons
	a. Frame, Wood, Exterior	R=13.0, 1801.0 ft²			EF: 0.93
	b. Frame, Wood, Adjacent	R=13.0, 450.0 ft²		b. N/A	
	c. N/A				
	d. N/A			c. Conservation credits	
	e. N/A			(HR-Heat recovery, Solar	
10.	Ceiling types			DHP-Dedicated heat pump)	
	a. Under Attic	R=30.0, 2805.0 ft²	15.	HVAC credits	
	b. N/A			(CF-Ceiling fan, CV-Cross ventilation,	
	c. N/A			HF-Whole house fan,	
11.	Ducts			PT-Programmable Thermostat,	
	a. Sup: Unc. Ret: Unc. AH: Interior	Sup. R=6.0, 240.0 ft		MZ-C-Multizone cooling,	
	b. N/A			MZ-H-Multizone heating)	

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

Builder Signature: _____ Date: _____

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

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

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

PRODUCT APPROVAL SPECIFICATION SHEET

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

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

ON BUILDING

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

APPLICANT SIGNATURE

12. 29. 2006
DATE

R-1305 01-04

Residential System Sizing Calculation

Summary

Black, David & Louann

, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

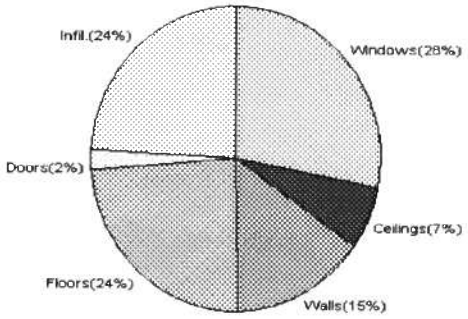
1/3/2007

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	**49935**	**Btuh**	**Total cooling load calculation**	**44111**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	116.2	58000	Sensible (SHR = 0.75)	117.5	43500
Heat Pump + Auxiliary(0.0kW)	116.2	58000	Latent	204.6	14500
			Total (Electric Heat Pump)	131.5	58000

WINTER CALCULATIONS

Winter Heating Load (for 2649 sqft)

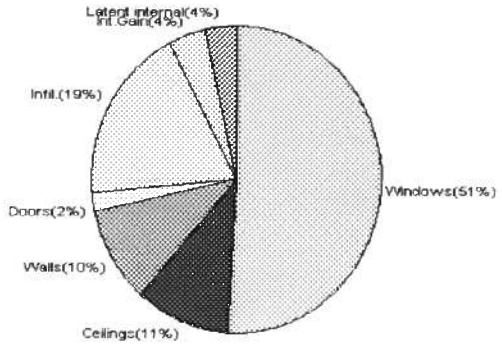
Load component			Load	
Window total	439	sqft	14131	Btuh
Wall total	2251	sqft	7392	Btuh
Door total	90	sqft	1166	Btuh
Ceiling total	2805	sqft	3305	Btuh
Floor total	278	sqft	12137	Btuh
Infiltration	291	cfm	11803	Btuh
Duct loss			0	Btuh
Subtotal			**49935**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**49935**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2649 sqft)

Load component			Load	
Window total	439	sqft	22429	Btuh
Wall total	2251	sqft	4436	Btuh
Door total	90	sqft	882	Btuh
Ceiling total	2805	sqft	4645	Btuh
Floor total			0	Btuh
Infiltration	150	cfm	2794	Btuh
Internal gain			1840	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			**37026**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			5486	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1600	Btuh
Total latent gain			**7086**	**Btuh**
TOTAL HEAT GAIN			**44111**	**Btuh**



For Florida residences only

EnergyGauge® System Sizing
PREPARED BY: Ben
DATE: 1-3-07

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

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

1/3/2007

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

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	144.0	32.2	4635 Btuh
2	2, Clear, Metal, 0.87	NW	54.0	32.2	1738 Btuh
3	2, Clear, Metal, 0.87	W	10.0	32.2	322 Btuh
4	2, Clear, Metal, 0.87	SW	18.0	32.2	579 Btuh
5	2, Clear, Metal, 0.87	SW	20.0	32.2	644 Btuh
6	2, Clear, Metal, 0.87	SW	9.0	32.2	290 Btuh
7	2, Clear, Metal, 0.87	NW	16.0	32.2	515 Btuh
8	2, Clear, Metal, 0.87	NE	16.0	32.2	515 Btuh
9	2, Clear, Metal, 0.87	SE	6.0	32.2	193 Btuh
10	2, Clear, Metal, 0.87	SE	72.0	32.2	2318 Btuh
11	2, Clear, Metal, 0.87	SE	20.0	32.2	644 Btuh
12	2, Clear, Metal, 0.87	SE	36.0	32.2	1159 Btuh
13	2, Clear, Metal, 0.87	SW	18.0	32.2	579 Btuh
	Window Total		439(sqft)		14131 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1801	3.3	5915 Btuh
2	Frame - Wood - Adj(0.09)	13.0	450	3.3	1478 Btuh
	Wall Total		2251		7392 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Adjacent		20	12.9	259 Btuh
2	Insulated - Exterior		40	12.9	518 Btuh
3	Insulated - Exterior		30	12.9	388 Btuh
	Door Total		90		1166Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	2805	1.2	3305 Btuh
	Ceiling Total		2805		3305Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	278.0 ft(p)	43.7	12137 Btuh
	Floor Total		278		12137 Btuh
			Zone Envelope Subtotal:		38132 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.66	26490	291.4	11803 Btuh
Ductload	Average sealed, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #1			**Sensible Zone Subtotal**		**49935 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

1/3/2007

WHOLE HOUSE TOTALS

	Subtotal Sensible	49935 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	49935 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 - Winter

Residential Load - Room by Room Component Details

Black, David & Louann

, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

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

1/3/2007

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

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	NW	144.0	32.2	4635 Btuh
2	2, Clear, Metal, 0.87	NW	54.0	32.2	1738 Btuh
3	2, Clear, Metal, 0.87	W	10.0	32.2	322 Btuh
4	2, Clear, Metal, 0.87	SW	18.0	32.2	579 Btuh
5	2, Clear, Metal, 0.87	SW	20.0	32.2	644 Btuh
6	2, Clear, Metal, 0.87	SW	9.0	32.2	290 Btuh
7	2, Clear, Metal, 0.87	NW	16.0	32.2	515 Btuh
8	2, Clear, Metal, 0.87	NE	16.0	32.2	515 Btuh
9	2, Clear, Metal, 0.87	SE	6.0	32.2	193 Btuh
10	2, Clear, Metal, 0.87	SE	72.0	32.2	2318 Btuh
11	2, Clear, Metal, 0.87	SE	20.0	32.2	644 Btuh
12	2, Clear, Metal, 0.87	SE	36.0	32.2	1159 Btuh
13	2, Clear, Metal, 0.87	SW	18.0	32.2	579 Btuh
	Window Total		439(sqft)		14131 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1801	3.3	5915 Btuh
2	Frame - Wood - Adj(0.09)	13.0	450	3.3	1478 Btuh
	Wall Total		2251		7392 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Adjacent		20	12.9	259 Btuh
2	Insulated - Exterior		40	12.9	518 Btuh
3	Insulated - Exterior		30	12.9	388 Btuh
	Door Total		90		1166Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin)	30.0	2805	1.2	3305 Btuh
	Ceiling Total		2805		3305Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	0	278.0 ft(p)	43.7	12137 Btuh
	Floor Total		278		12137 Btuh
			Zone Envelope Subtotal:		38132 Btuh
Infiltration	Type	ACH X	Zone Volume	CFM=	
	Natural	0.66	26490	291.4	11803 Btuh
Ductload	Average sealed, R6.0, Supply(Attic), Return(Attic)			(DLM of 0.00)	0 Btuh
Zone #1			**Sensible Zone Subtotal**		**49935 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

1/3/2007

WHOLE HOUSE TOTALS

	Subtotal Sensible	49935 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	49935 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

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 1/3/2007

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

Component Loads for Whole House

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	NW	1.5ft.	8ft.	144.0	0.0	144.0	29	60	8645 Btuh
2	2, Clear, 0.87, None,N,N	NW	8ft.	8ft.	54.0	0.0	54.0	29	60	3242 Btuh
3	2, Clear, 0.87, None,N,N	W	8ft.	7ft.	10.0	9.3	0.7	29	80	326 Btuh
4	2, Clear, 0.87, None,N,N	SW	21ft.	8ft.	18.0	18.0	0.0	29	63	521 Btuh
5	2, Clear, 0.87, None,N,N	SW	1.5ft.	8ft.	20.0	0.0	20.0	29	63	1251 Btuh
6	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	9.0	3.1	5.9	29	63	457 Btuh
7	2, Clear, 0.87, None,N,N	NW	1.5ft.	6ft.	16.0	0.0	16.0	29	60	961 Btuh
8	2, Clear, 0.87, None,N,N	NE	1.5ft.	6ft.	16.0	0.0	16.0	29	60	961 Btuh
9	2, Clear, 0.87, None,N,N	SE	1.5ft.	5ft.	6.0	1.0	5.0	29	63	340 Btuh
10	2, Clear, 0.87, None,N,N	SE	8ft.	8ft.	72.0	72.0	0.0	29	63	2085 Btuh
11	2, Clear, 0.87, None,N,N	SE	8ft.	8.66	20.0	20.0	0.0	29	63	579 Btuh
12	2, Clear, 0.87, None,N,N	SE	1.5ft.	8ft.	36.0	3.1	32.9	29	63	2146 Btuh
13	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	18.0	6.3	11.7	29	63	915 Btuh
	Window Total				439 (sqft)					22429 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	1801.0	2.1	3757 Btuh
2	Frame - Wood - Adj	13.0/0.09	450.0	1.5	679 Btuh
	Wall Total		2251 (sqft)		4436 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Adjacent	20.0	9.8	196 Btuh
2	Insulated - Exterior	40.0	9.8	392 Btuh
3	Insulated - Exterior	30.0	9.8	294 Btuh
	Door Total	90 (sqft)		882 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	2805.0	1.7	4645 Btuh
	Ceiling Total		2805 (sqft)		4645 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	278 (ft(p))	0.0	0 Btuh
	Floor Total		278.0 (sqft)		0 Btuh

			Zone Envelope Subtotal:		32392 Btuh

Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.34	26490	150.1	2794 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	8	X 230	+	0	1840 Btuh

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

Sensible Zone Load	**37026 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

1/3/2007

WHOLE HOUSE TOTALS

	Sensible Envelope Load All Zones	**37026 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**37026 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
Whole House	**Total sensible gain**	**37026 Btuh**
Totals for Cooling	Latent infiltration gain (for 54 gr. humidity difference)	5486 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (8 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**7086 Btuh**
	TOTAL GAIN	**44111 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

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 1/3/2007

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

Component Loads for Zone #1: Main

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	NW	1.5ft.	8ft.	144.0	0.0	144.0	29	60	8645 Btuh
2	2, Clear, 0.87, None,N,N	NW	8ft.	8ft.	54.0	0.0	54.0	29	60	3242 Btuh
3	2, Clear, 0.87, None,N,N	W	8ft.	7ft.	10.0	9.3	0.7	29	80	326 Btuh
4	2, Clear, 0.87, None,N,N	SW	21ft.	8ft.	18.0	18.0	0.0	29	63	521 Btuh
5	2, Clear, 0.87, None,N,N	SW	1.5ft.	8ft.	20.0	0.0	20.0	29	63	1251 Btuh
6	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	9.0	3.1	5.9	29	63	457 Btuh
7	2, Clear, 0.87, None,N,N	NW	1.5ft.	6ft.	16.0	0.0	16.0	29	60	961 Btuh
8	2, Clear, 0.87, None,N,N	NE	1.5ft.	6ft.	16.0	0.0	16.0	29	60	961 Btuh
9	2, Clear, 0.87, None,N,N	SE	1.5ft.	5ft.	6.0	1.0	5.0	29	63	340 Btuh
10	2, Clear, 0.87, None,N,N	SE	8ft.	8ft.	72.0	72.0	0.0	29	63	2085 Btuh
11	2, Clear, 0.87, None,N,N	SE	8ft.	8.66	20.0	20.0	0.0	29	63	579 Btuh
12	2, Clear, 0.87, None,N,N	SE	1.5ft.	8ft.	36.0	3.1	32.9	29	63	2146 Btuh
13	2, Clear, 0.87, None,N,N	SW	1.5ft.	3.5ft.	18.0	6.3	11.7	29	63	915 Btuh
	Window Total				439 (sqft)					22429 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	1801.0	2.1	3757 Btuh
2	Frame - Wood - Adj	13.0/0.09	450.0	1.5	679 Btuh
	Wall Total		2251 (sqft)		4436 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Adjacent	20.0	9.8	196 Btuh
2	Insulated - Exterior	40.0	9.8	392 Btuh
3	Insulated - Exterior	30.0	9.8	294 Btuh
	Door Total	90 (sqft)		882 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	2805.0	1.7	4645 Btuh
	Ceiling Total		2805 (sqft)		4645 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	278 (ft(p))	0.0	0 Btuh
	Floor Total		278.0 (sqft)		0 Btuh

			Zone Envelope Subtotal:		32392 Btuh

Infiltration	Type	ACH	Volume(cuft)	CFM=	Load
	SensibleNatural	0.34	26490	150.1	2794 Btuh

Internal gain	Occupants	Btuh/occupant	Appliance	Load
	8	X 230 +	0	1840 Btuh

Duct load	Average sealed, R6.0, Supply(Attic), Return(Attic)	DGM = 0.00	0.0 Btuh
		Sensible Zone Load	**37026 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Black, David & Louann
, FL

Project Title:
612077aBlack,David&Louann

Class 3 Rating
Registration No. 0
Climate: North

1/3/2007

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**37026 Btuh**
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	**37026 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**37026 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	5486 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (8 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**7086 Btuh**
	TOTAL GAIN	**44111 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

Black, David & Louann

, FL

Project Title:
612077aBlack,David&Louann

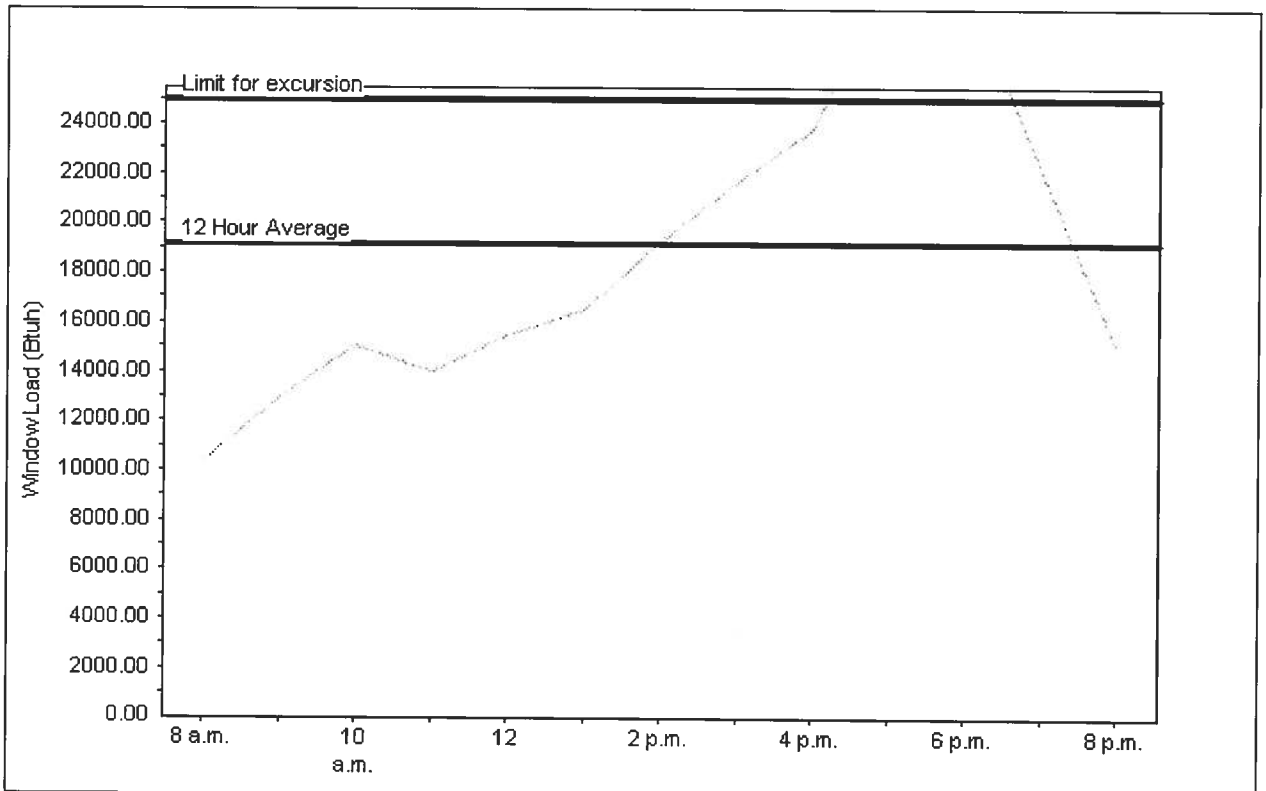
Class 3 Rating
Registration No. 0
Climate: North

1/3/2007

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	19181 Btu
Summer setpoint	75 F	Peak window load for July	30056 Btu
Summer temperature difference	17 F	Excusion limit(130% of Ave.)	24936 Btu
Latitude	29 North	Window excursion (July)	5120 Btuh

WINDOW Average and Peak Loads



Total July Window Load(Radiation and conduction)

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

EnergyGauge® System Sizing for Florida residences only
PREPARED BY:
DATE: 1-3-07

Heating and Air Conditioning Economic Analysis

For Future / Existing Home Of

David Black

Lake City, Fl

Conducted By

Country Comfort Heating & A. C.

Lake City, Fl 32025
386-752-5841

Wrightsoft Corporation

Note: Actual costs and savings may differ due to weather, operating conditions, maintenance, and construction.

Calculation Procedures A, B, C, D
Entire House
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

Procedure A - Winter Infiltration HTM Calculation*

1.	Winter infiltration AVF							
	0.70	ach	x	37372	ft³	x 0.0167 =	436	cfm
						Isolated zones =	0	cfm
						Total =	436	cfm
2.	Winter infiltration load							
	1.1	x436	cfm	x 45	°F	Winter TD =	21583	Btuh
3.	Winter infiltration HTM							
	21583	Btuh	/	333	ft²	Total window and door area =	64.7	Btuh/ft²

Procedure B - Summer Infiltration HTM Calculation

1.	Summer infiltration AVF							
	0.40	ach	x	37372	ft³	x 0.0167 =	249	cfm
						Isolated zones =	0	cfm
						Total =	249	cfm
2.	Summer infiltration load							
	1.1	x249	cfm	x 19	°F	Summer TD =	5207	Btuh
3.	Summer infiltration HTM							
	5207	Btuh	/	333	ft²	Total window and door area =	15.6	Btuh/ft²

Procedure C - Latent Infiltration Gain

0.68	x 30	gr/lb	moist.diff.	x	249 cfm =	5065	Btuh

Procedure D - Equipment Sizing Loads

1.	Sensible sizing load							
	Sensible ventilation load							
	1.1 x	0 cfm	vent.	x 19	°F	Summer TD =	0	Btuh
	Sensible load for structure (Line 19)					+	38580	Btuh
	Vent + structure + other equip loads					=	38580	Btuh
	Rating and temperature swing multiplier					x	1.02	
	Equipment sizing load - sensible					=	39352	Btuh
2.	Latent sizing load							
	Latent ventilation load							
	0.68 x	0 cfm	vent.	x 30	gr/lb	moist.diff. =	0	Btuh
	Internal loads =	230 Btuh		x 24	people	+	5520	Btuh
	Infiltration load from Procedure C					+	5065	Btuh
	Equipment sizing load - latent					=	10585	Btuh

*Construction Quality is: a No. of Fireplaces is: 0

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Calculation Procedures A, B, C, D
Master Suite end
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

Procedure A - Winter Infiltration HTM Calculation*

1. Winter infiltration AVF
   0.88 ach x 11331 ft³ x 0.0167 = 167 cfm
2. Winter infiltration load
   1.1 x 167 cfm x 45 °F Winter TD = 8249 Btuh
3. Winter infiltration HTM
   8249 Btuh / 127 ft² Total window and door area = 64.7 Btuh/ft²

Procedure B - Summer Infiltration HTM Calculation

1. Summer infiltration AVF
   0.50 ach x 11331 ft³ x 0.0167 = 95 cfm
2. Summer infiltration load
   1.1 x 95 cfm x 19 °F Summer TD = 1990 Btuh
3. Summer infiltration HTM
   1990 Btuh / 127 ft² Total window and door area = 15.6 Btuh/ft²

Procedure C - Latent Infiltration Gain

0.68 x 30 gr/lb moist.diff. x 95 cfm = 1936 Btuh

Procedure D - Equipment Sizing Loads

1. Sensible sizing load

Sensible ventilation load			
1.1 x 0 cfm vent. x 19 °F Summer TD	=	0	Btuh
Sensible load for structure (Line 19)	+	9635	Btuh
Vent + structure + other equip loads	=	9635	Btuh
Rating and temperature swing multiplier	x	1.02	
Equipment sizing load - sensible	=	9827	Btuh

2. Latent sizing load

Latent ventilation load			
0.68 x 0 cfm vent. x 30 gr/lb moist.diff.	=	0	Btuh
Internal loads = 230 Btuh x 4 people	+	920	Btuh
Infiltration load from Procedure C	+	1936	Btuh
Equipment sizing load - latent	=	2856	Btuh

*Construction Quality is: a No. of Fireplaces is: 0

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Procedure A - Winter Infiltration HTM Calculation*

1.	Winter infiltration AVF								
	0.62	ach	x	26041	ft³	x 0.0167	=	269	cfm
2.	Winter infiltration load								
	1.1	x269	cfm	x 45	°F	Winter TD =		13334	Btuh
3.	Winter infiltration HTM								
	13334	Btuh	/	206	ft²	Total window and door area =		64.7	Btuh/ft²

Procedure B - Summer Infiltration HTM Calculation

1.	Summer infiltration AVF								
	0.35	ach	x	26041	ft³	x 0.0167	=	154	cfm
2.	Summer infiltration load								
	1.1	x154	cfm	x 19	°F	Summer TD =		3217	Btuh
3.	Summer infiltration HTM								
	3217	Btuh	/	206	ft²	Total window and door area =		15.6	Btuh/ft²

Procedure C - Latent Infiltration Gain

0.68	x 30	gr/lb	moist.diff.	x	154	cfm	=	3129 Btuh

Procedure D - Equipment Sizing Loads

1.	Sensible sizing load			
	Sensible ventilation load			
	1.1 x 0 cfm vent. x 19 °F Summer TD	=	0	Btuh
	Sensible load for structure (Line 19)	+	28946	Btuh
	Vent + structure + other equip loads	=	28946	Btuh
	Rating and temperature swing multiplier	x	1.02	
	Equipment sizing load - sensible	=	29525	Btuh
2.	Latent sizing load			
	Latent ventilation load			
	0.68 x 0 cfm vent. x 30 gr/lb moist.diff.	=	0	Btuh
	Internal loads = 230 Btuh x 20 people	+	4600	Btuh
	Infiltration load from Procedure C	+	3129	Btuh
	Equipment sizing load - latent	=	7729	Btuh

*Construction Quality is: a No. of Fireplaces is: 0

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Project Summary
Entire House
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

Project Information

For: David Black
Lake City, Fl

Notes: New Home

Design Information

Weather: Jacksonville, Cecil Field NAS, FL, US

Winter Design Conditions

Outside db	25	°F
Inside db	70	°F
Design TD	45	°F

Summer Design Conditions

Outside db	97	°F
Inside db	78	°F
Design TD	19	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	30	gr/lb

Heating Summary

Structure	47701	Btuh
Ducts	2385	cfm
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	50086	Btuh

Sensible Cooling Equipment Load Sizing

Structure	35073	Btuh
Ducts	3507	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.02	
Equipment sensible load	39352	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	Cooling
Area (ft^2)	3150	3150
Volume (ft^3)	37372	37372
Air changes/hour	0.70	0.40
Equiv. AVF (cfm)	436	249

Latent Cooling Equipment Load Sizing

Structure	10585	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	10585	Btuh
Equipment total load	49937	Btuh
Req. total capacity at 0.70 SHR	4.7	ton

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Space thermostat	n/a

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Load sensible heat ratio	0.00

Bold/italic values have been manually overridden

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Project Summary
Master Suite end
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

Project Information

For: David Black
Lake City, Fl

Notes: New Home

Design Information

Weather: Jacksonville, Cecil Field NAS, FL, US

Winter Design Conditions

Outside db	25	°F
Inside db	70	°F
Design TD	45	°F

Summer Design Conditions

Outside db	97	°F
Inside db	78	°F
Design TD	19	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	30	gr/lb

Heating Summary

Structure	18156	Btuh
Ducts	908	cfm
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	19064	Btuh

Sensible Cooling Equipment Load Sizing

Structure	8759	Btuh
Ducts	876	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.02	
Equipment sensible load	9827	Btuh

Infiltration

Method		Simplified
Construction quality		Average
Fireplaces		0
	Heating	Cooling
Area (ft^2)	944	944
Volume (ft^3)	11331	11331
Air changes/hour	0.88	0.50
Equiv. AVF (cfm)	167	95

Latent Cooling Equipment Load Sizing

Structure	2856	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	2856	Btuh
Equipment total load	12683	Btuh
Req. total capacity at 0.70 SHR	1.2	ton

Heating Equipment Summary

Make AmStd
Trade Heritage 12
Model 2A6H2018A1

Efficiency	7.3 HSPF	
Heating input		
Heating output	16100	Btuh @ 47°F
Temperature rise	35	°F
Actual air flow	417	cfm
Air flow factor	0.022	cfm/Btuh
Static pressure	0.00	in H2O
Space thermostat		

Cooling Equipment Summary

Make AmStd
Trade Heritage 12
Cond 2A6H2018A1
Coil TWE031E13

Efficiency	13 SEER	
Sensible cooling	12740	Btuh
Latent cooling	5460	Btuh
Total cooling	18200	Btuh
Actual air flow	417	cfm
Air flow factor	0.043	cfm/Btuh
Static pressure	0.00	in H2O
Load sensible heat ratio	0.77	

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Project Summary
BR3, BR2, Game R
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

Project Information

For: David Black
Lake City, Fl

Notes: New Home

Design Information

Weather: Jacksonville, Cecil Field NAS, FL, US

Winter Design Conditions

Outside db	25	°F
Inside db	70	°F
Design TD	45	°F

Summer Design Conditions

Outside db	97	°F
Inside db	78	°F
Design TD	19	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	30	gr/lb

Heating Summary

Structure	29545	Btuh
Ducts	1477	cfm
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	31022	Btuh

Sensible Cooling Equipment Load Sizing

Structure	26314	Btuh
Ducts	2631	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.02	
Equipment sensible load	29525	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	2206	2206
Volume (ft³)	26041	26041
Air changes/hour	0.62	0.35
Equiv. AVF (cfm)	269	154

Latent Cooling Equipment Load Sizing

Structure	7729	Btuh
Ducts	0	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	7729	Btuh
Equipment total load	37254	Btuh
Req. total capacity at 0.70 SHR	3.5	ton

Heating Equipment Summary

Make	AmStd
Trade	Heritage 12
Model	2A6H2042A1

Efficiency	8.4 HSPF	
Heating input		
Heating output	38500	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1253	cfm
Air flow factor	0.040	cfm/Btuh
Static pressure	0.00	in H2O
Space thermostat		

Cooling Equipment Summary

Make	AmStd
Trade	Heritage 12
Cond	2A6H2042A1
Coil	TWE040E13

Efficiency	13 SEER	
Sensible cooling	29750	Btuh
Latent cooling	12750	Btuh
Total cooling	42500	Btuh
Actual air flow	1253	cfm
Air flow factor	0.043	cfm/Btuh
Static pressure	0.00	in H2O
Load sensible heat ratio	0.79	

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Window Data

Job: Black
Date: 12-22-07
By: AW

Country Comfort Heating & A. C.

Lake City, Fl 32025 Phone: 386-752-5841

WND W	SKY	ORI	GLAZ	LOWE	STRM	SHAD	NGLZ	INCL	SHCO	OVRX	OVRY	WHGT	CHTM	WNAR	SHAR
Study															
3F0	n	s	c	y	n	d	2	90.0	1.0	1.6	1.0	6.0	19.8	36.0	36.0
Master Bath															
3F0	n	s	c	y	n	n	2	90.0	1.0	1.6	1.0	2.0	31.8	8.0	8.0
Master Suite															
3F0	n	n	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	11.8	28.0	0.0
3F0	n	nw	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	26.8	18.1	0.0
3F0	n	w	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	37.8	37.3	1.7
WIC 1															
3F0	n	w	c	y	n	n	2	90.0	1.0	1.6	1.0	2.0	63.8	12.0	2.0
Dining Rm															
3F0	n	s	c	y	n	d	2	90.0	1.0	1.6	1.0	6.0	19.8	54.0	54.0
Laundry															
3F0	n	e	c	y	n	n	2	90.0	1.0	1.6	1.0	5.4	63.8	10.8	0.7
Bed Rm 3															
3F0	n	e	c	y	n	d	2	90.0	1.0	1.6	1.0	6.0	37.8	34.0	1.9
Bed Rm 2															
3F0	n	e	c	y	n	d	2	90.0	1.0	1.6	1.0	6.0	37.8	24.0	1.3
Game Rm															
3F0	n	e	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	37.8	17.5	0.8
3F0	n	ne	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	26.8	36.2	0.0
3F0	n	n	c	y	n	d	2	90.0	1.0	1.6	1.0	7.0	11.8	17.5	0.0

Right-J Worksheet
Entire House
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

	MANUAL J: 7th Ed.				Entire House 199.3 ft			Master Suite end 78.2 ft			BR3, BR2, Game R 121.2 ft					
1	Name of room															
2	Length of exposed wall				11.9 ft	heat/cool	d	12.0 ft		d n	11.8 ft		d n			
3	Room dimensions															
4	Ceilings	Condit. Option														
	TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area	Htg	Clg
5	Gross Exposed walls and partitions	a	12D2	3.6	1.8	2291	****	****	942	****	****	1349	****	****		****	****
		b		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		c		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		d		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		e		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		f		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
6	Windows and glass doors Heating	a	3F0	21.4	**	333	7126	****	127	2724	****	206	4403	****			****
		b		0.0	**	0	0	****	0	0	****	0	0	****			****
		c		0.0	**	0	0	****	0	0	****	0	0	****			****
		d		0.0	**	0	0	****	0	0	****	0	0	****			****
		e		0.0	**	0	0	****	0	0	****	0	0	****			****
		f		0.0	**	0	0	****	0	0	****	0	0	****			****
7	Windows and glass doors Cooling	North			3.5	152	****	1866	74	****	926	78	****	940		****	
		NE/NW			26.8	54	****	1454	18	****	485	36	****	969		****	
		E/W			40.0	127	****	5335	36	****	1345	92	****	3990		****	
		SE/SW			0.0	0	****	0	0	****	0	0	****	0		****	
		South			0.0	0	****	0	0	****	0	0	****	0		****	
		Horz			0.0	0	****	0	0	****	0	0	****	0		****	
8	Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
9	Net exposed walls and partitions	a	12D2	3.6	1.8	1958	7048	3540	815	2932	1473	1143	4116	2067			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
10	Ceilings	a	16G0	1.5	1.4	3150	4678	4470	944	1402	1340	2206	3276	3130			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
11	Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	199	7266	0	78	2849	0	121	4417	0			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
12	Infiltration Ventilation	a		64.7	15.6	333	21583	5207	127	8249	1990	206	13334	3217			
							0	0		0	0		0	0			
13	Subtotal loss=6+8..+11+12					****	47701	****	****	18156	****	****	29545	****	****		****
	Less external heating					****	0	****	****	0	****	****	0	****	****		****
	Less transfer					****	0	****	****	0	****	****	0	****	****		****
	Heating redistribution					****	0	****	****	0	****	****	0	****	****		****
14	Duct loss					5%	2385	****	5%	908	****	5%	1477	****	%		****
15	Total loss = 13+14					****	50086	****	****	19064	****	****	31022	****	****		****
16	Int. gains: People @				300	24	****	7200	4	****	1200	20	****	6000		****	
	Appl. @				1200	5	****	6000	0	****	0	5	****	6000		****	
17	Subtot RSH gain=7+8..+12+16					****	****	35073	****	****	8759	****	****	26314	****	****	
	Less external cooling					****	****	0	****	****	0	****	****	0	****	****	
	Less transfer					****	****	0	****	****	0	****	****	0	****	****	
	Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	
18	Duct gain					10%	****	3507	10%	****	876	10%	****	2631	%	****	
19	Total RSH gain=(17+18)*PLF					1.00	****	38580	1.00	****	9635	1.00	****	28946		****	
20	Air required (cfm)						1670	1670		417	417		1253	1253			

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
Master Suite end
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

	MANUAL J: 7th Ed.				Master Suite end 78.2 ft			Study 10.0 ft 1.0 x 153.0 ft			Living Rm 0.0 ft 1.0 x 151.0 ft			Master Bath 35.5 ft 1.0 x 235.3 ft		
1	Name of room															
2	Length of exposed wall				12.0 ft	d	n	12.0 ft	heat/cool		12.0 ft	heat/cool		12.0 ft	heat/cool	
3	Room dimensions															
4	Ceilings	Condit. Option														
	TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg
5	Gross Exposed walls and partitions	a	12D2	3.6	1.8	942	****	****	120	****	****	0	****	****	428	****	****
		b		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		c		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		d		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		e		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		f		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
6	Windows and glass doors Heating	a	3F0	21.4	**	127	2724	****	36	770	****	0	0	****	8	171	****
		b		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		c		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		d		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		e		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		f		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
7	Windows and glass doors Cooling	North			12.6	74	****	926	36	****	425	0	****	0	8	****	150
		NE/NW			26.8	18	****	485	0	****	0	0	****	0	0	****	0
		E/W			37.8	36	****	1345	0	****	0	0	****	0	0	****	0
		SE/SW			0.0	0	****	0	0	****	0	0	****	0	0	****	0
		South			0.0	0	****	0	0	****	0	0	****	0	0	****	0
		Horz			0.0	0	****	0	0	****	0	0	****	0	0	****	0
8	Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9	Net exposed walls and partitions	a	12D2	3.6	1.8	815	2932	1473	84	302	152	0	0	0	420	1512	759
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10	Ceilings	a	16G0	1.5	1.4	944	1402	1340	153	227	217	151	224	214	235	349	334
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
11	Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	78	2849	0	10	365	0	0	0	0	36	1294	0
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
12	Infiltration Ventilation	a		64.7	15.6	127	8249 0	1990 0	36	2331 0	562 0	0	0 0	0 0	8	518 0	125 0
13	Subtotal loss=6+8..+11+12					****	18156	****	****	3994	****	****	224	****	****	3844	****
	Less external heating					****	0	****	****	0	****	****	0	****	****	0	****
	Less transfer					****	0	****	****	0	****	****	0	****	****	0	****
	Heating redistribution					****	0	****	****	0	****	****	0	****	****	0	****
14	Duct loss					5%	908	****	5%	200	****	5%	11	****	5%	192	****
15	Total loss = 13+14					****	19064	****	****	4194	****	****	235	****	****	4036	****
16	Int. gains: People @ 300					4	****	1200	2	****	600	0	****	0	0	****	0
	Appl. @ 1200					0	****	0	0	****	0	0	****	0	0	****	0
17	Subtot RSH gain=7+8..+12+16					****	****	8759	****	****	1956	****	****	214	****	****	1369
	Less external cooling					****	****	0	****	****	0	****	****	0	****	****	0
	Less transfer					****	****	0	****	****	0	****	****	0	****	****	0
	Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	0
18	Duct gain					10 %	****	876	10 %	****	196	10 %	****	21	10 %	****	137
19	Total RSH gain=(17+18)*PLF					1.00	****	9635	1.00	****	2152	1.00	****	236	1.00	****	1505
20	Air required (cfm)						417	417		92	93		5	10		88	65

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
Master Suite end
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

MANUAL J: 7th Ed.					Bath 2 0.0 ft 6.0 x 6.0 ft 12.0 ft heat/cool			Master Suite 32.7 ft 1.0 x 369.0 ft 12.0 ft heat/cool								
1 Name of room																
2 Length of exposed wall																
3 Room dimensions																
4 Ceilings	Condit. Option															
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area	Htg	Clg	Area	Htg	Clg
5 Gross Exposed walls and partitions	a	12D2	3.6	1.8	0	****	****	394	****	****		****	****		****	****
	b		0.0	0.0	0	****	****	0	****	****		****	****		****	****
	c		0.0	0.0	0	****	****	0	****	****		****	****		****	****
	d		0.0	0.0	0	****	****	0	****	****		****	****		****	****
	e		0.0	0.0	0	****	****	0	****	****		****	****		****	****
	f		0.0	0.0	0	****	****	0	****	****		****	****		****	****
6 Windows and glass doors Heating	a	3F0	21.4	**	0	0	****	83	1783	****			****			****
	b		0.0	**	0	0	****	0	0	****			****			****
	c		0.0	**	0	0	****	0	0	****			****			****
	d		0.0	**	0	0	****	0	0	****			****			****
	e		0.0	**	0	0	****	0	0	****			****			****
	f		0.0	**	0	0	****	0	0	****			****			****
7 Windows and glass doors Cooling	North			12.6	0	****	0	30	****	351		****			****	
	NE/NW			26.8	0	****	0	18	****	485		****			****	
	E/W			37.8	0	****	0	36	****	1345		****			****	
	SE/SW			0.0	0	****	0	0	****	0		****			****	
	South			0.0	0	****	0	0	****	0		****			****	
	Horz			0.0	0	****	0	0	****	0		****			****	
8 Other doors	a		0.0	0.0	0	0	0	0	0	0						
	b		0.0	0.0	0	0	0	0	0	0						
	c		0.0	0.0	0	0	0	0	0	0						
9 Net exposed walls and partitions	a	12D2	3.6	1.8	0	0	0	311	1118	561						
	b		0.0	0.0	0	0	0	0	0	0						
	c		0.0	0.0	0	0	0	0	0	0						
	d		0.0	0.0	0	0	0	0	0	0						
	e		0.0	0.0	0	0	0	0	0	0						
	f		0.0	0.0	0	0	0	0	0	0						
10 Ceilings	a	16G0	1.5	1.4	36	53	51	369	548	524						
	b		0.0	0.0	0	0	0	0	0	0						
	c		0.0	0.0	0	0	0	0	0	0						
	d		0.0	0.0	0	0	0	0	0	0						
	e		0.0	0.0	0	0	0	0	0	0						
	f		0.0	0.0	0	0	0	0	0	0						
11 Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	0	0	0	33	1191	0						
	b		0.0	0.0	0	0	0	0	0	0						
	c		0.0	0.0	0	0	0	0	0	0						
	d		0.0	0.0	0	0	0	0	0	0						
	e		0.0	0.0	0	0	0	0	0	0						
	f		0.0	0.0	0	0	0	0	0	0						
12 Infiltration Ventilation	a		64.7	15.6	0	0 0	0 0	83	5400 0	1303 0						
13 Subtotal loss=6+8..+11+12					****	53	****	****	10040	****	****		****	****		****
Less external heating					****	0	****	****	0	****	****		****	****		****
Less transfer					****	0	****	****	0	****	****		****	****		****
Heating redistribution					****	0	****	****	0	****	****		****	****		****
14 Duct loss					5%	3	****	5%	502	****	%		****	%		****
15 Total loss = 13+14					****	56	****	****	10542	****	****		****	****		****
16 Int. gains: People @ 300					0	****	0	2	****	600		****			****	
Appl. @ 1200					0	****	0	0	****	0		****			****	
17 Subtot RSH gain=7+8..+12+16					****	****	51	****	****	5169	****	****		****	****	
Less external cooling					****	****	0	****	****	0	****	****		****	****	
Less transfer					****	****	0	****	****	0	****	****		****	****	
Cooling redistribution					****	****	0	****	****	0	****	****		****	****	
18 Duct gain					10%	****	5	10%	****	517	%	****		%	****	
19 Total RSH gain=(17+18)*PLF					1.00	****	56	1.00	****	5686		****			****	
20 Air required (cfm)						1	2		231	246						

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
BR3, BR2, Game R
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

MANUAL J: 7th Ed.					BR3, BR2, Game R 121.2 ft			WIC 1 14.2 ft 1.0 x 51.1 ft			WIC 2 0.0 ft 1.0 x 34.5 ft			Dining Rm 13.0 ft 15.0 x 14.0 ft		
1 Name of room																
2 Length of exposed wall					11.8 ft		d n	12.0 ft	heat/cool		12.0 ft	heat/cool		12.0 ft	heat/cool	
3 Room dimensions																
4 Ceilings	Condit. Option															
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg
5 Gross Exposed walls and partitions	a	12D2	3.6	1.8	1349	****	****	170	****	****	0	****	****	156	****	****
	b		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	c		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	d		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	e		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	f		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
6 Windows and glass doors Heating	a	3F0	21.4	**	206	4403	****	12	257	****	0	0	****	54	1154	****
	b		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	c		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	d		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	e		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	f		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
7 Windows and glass doors Cooling	North			12.0	78	****	940	2	****	37	0	****	0	54	****	637
	NE/NW			26.8	36	****	969	0	****	0	0	****	0	0	****	0
	E/W			43.5	92	****	3990	10	****	640	0	****	0	0	****	0
	SE/SW			0.0	0	****	0	0	****	0	0	****	0	0	****	0
	South			0.0	0	****	0	0	****	0	0	****	0	0	****	0
	Horz			0.0	0	****	0	0	****	0	0	****	0	0	****	0
8 Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9 Net exposed walls and partitions	a	12D2	3.6	1.8	1143	4116	2067	158	570	286	0	0	0	102	367	184
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10 Ceilings	a	16G0	1.5	1.4	2206	3276	3130	51	76	72	35	51	49	210	312	298
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
11 Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	121	4417	0	14	516	0	0	0	0	13	474	0
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
12 Infiltration Ventilation	a		64.7	15.6	206	13334	3217	12	777	187	0	0	0	54	3496	843
						0	0		0	0		0	0		0	0
13 Subtotal loss=6+8..+11+12					****	29545	****	****	2196	****	****	51	****	****	5803	****
Less external heating					****	0	****	****	0	****	****	0	****	****	0	****
Less transfer					****	0	****	****	0	****	****	0	****	****	0	****
Heating redistribution					****	0	****	****	0	****	****	0	****	****	0	****
14 Duct loss					5%	1477	****	5%	110	****	5%	3	****	5%	290	****
15 Total loss = 13+14					****	31022	****	****	2306	****	****	54	****	****	6093	****
16 Int. gains: People @ 300					20	****	6000	0	****	0	0	****	0	4	****	1200
Appl. @ 1200					5	****	6000	0	****	0	0	****	0	0	****	0
17 Subtot RSH gain=7+8..+12+16					****	****	26314	****	****	1223	****	****	49	****	****	3163
Less external cooling					****	****	0	****	****	0	****	****	0	****	****	0
Less transfer					****	****	0	****	****	0	****	****	0	****	****	0
Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	0
18 Duct gain					10 %	****	2631	10 %	****	122	10 %	****	5	10 %	****	316
19 Total RSH gain=(17+18)*PLF					1.00	****	28946	1.00	****	1346	1.00	****	54	1.00	****	3479
20 Air required (cfm)						1253	1253		93	58		2	2		246	151

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
BR3, BR2, Game R
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

MANUAL J: 7th Ed.

						Nook 0.0 ft 1.0 x 61.8 ft 12.0 ft heat/cool			Kitchen 0.0 ft 1.0 x 247.0 ft 12.0 ft heat/cool			Laundry 9.0 ft 1.0 x 129.0 ft 10.0 ft heat/cool			Bed Rm 3 19.0 ft 1.0 x 204.0 ft 10.0 ft heat/cool		
1	Name of room																
2	Length of exposed wall																
3	Room dimensions																
4	Ceilings	Condit. Option															
	TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg
5	Gross Exposed walls and partitions	a	12D2	3.6	1.8	0	****	****	0	****	****	90	****	****	190	****	****
		b		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		c		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		d		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		e		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
		f		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
6	Windows and glass doors Heating	a	3F0	21.4	**	0	0	****	0	0	****	11	231	****	34	727	****
		b		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		c		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		d		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		e		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
		f		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
7	Windows and glass doors Cooling	North			12.0	0	****	0	0	****	0	1	****	12	2	****	22
		NE/NW			26.8	0	****	0	0	****	0	0	****	0	0	****	0
		E/W			43.5	0	****	0	0	****	0	10	****	647	32	****	1215
		SE/SW			0.0	0	****	0	0	****	0	0	****	0	0	****	0
		South			0.0	0	****	0	0	****	0	0	****	0	0	****	0
		Horz			0.0	0	****	0	0	****	0	0	****	0	0	****	0
8	Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9	Net exposed walls and partitions	a	12D2	3.6	1.8	0	0	0	0	0	0	79	285	143	156	562	282
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10	Ceilings	a	16G0	1.5	1.4	62	92	88	247	367	350	129	192	183	204	303	289
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
11	Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	0	0	0	0	0	0	9	328	0	19	693	0
		b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
12	Infiltration Ventilation	a		64.7	15.6	0	0 0	0 0	0	0 0	0 0	11	699 0	169 0	34	2201 0	531 0
13	Subtotal loss=6+8..+11+12					****	92	****	****	367	****	****	1735	****	****	4485	****
	Less external heating					****	0	****	****	0	****	****	0	****	****	0	****
	Less transfer					****	0	****	****	0	****	****	0	****	****	0	****
	Heating redistribution					****	0	****	****	0	****	****	0	****	****	0	****
14	Duct loss					5%	5	****	5%	18	****	5%	87	****	5%	224	****
15	Total loss = 13+14					****	96	****	****	385	****	****	1821	****	****	4709	****
16	Int. gains: People @ 300					0	****	0	1	****	300	0	****	0	2	****	600
	Appl. @ 1200					0	****	0	3	****	3600	2	****	2400	0	****	0
17	Subtot RSH gain=7+8..+12+16					****	****	88	****	****	4250	****	****	3554	****	****	2939
	Less external cooling					****	****	0	****	****	0	****	****	0	****	****	0
	Less transfer					****	****	0	****	****	0	****	****	0	****	****	0
	Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	0
18	Duct gain					10%	****	9	10%	****	425	10%	****	355	10%	****	294
19	Total RSH gain=(17+18)*PLF					1.00	****	97	1.00	****	4676	1.00	****	3910	1.00	****	3233
20	Air required (cfm)						4	4		16	202		74	169		190	140

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
BR3, BR2, Game R
Country Comfort Heating & A. C.

Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

MANUAL J: 7th Ed.					Bath 3 7.0 ft 1.0 x 103.0 ft 10.0 ft heat/cool			Bed Rm 2 12.0 ft 1.0 x 196.0 ft 10.0 ft heat/cool			Game Rm 33.0 ft 1.0 x 307.5 ft 12.0 ft heat/cool			Family Center 0.0 ft 1.0 x 482.2 ft 14.0 ft heat/cool		
1 Name of room																
2 Length of exposed wall																
3 Room dimensions																
4 Ceilings	Condit. Option															
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg
5 Gross Exposed walls and partitions	a	12D2	3.6	1.8	70	****	****	120	****	****	397	****	****	0	****	****
	b		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	c		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	d		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	e		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
	f		0.0	0.0	0	****	****	0	****	****	0	****	****	0	****	****
6 Windows and glass doors Heating	a	3F0	21.4	**	0	0	****	24	513	****	71	1521	****	0	0	****
	b		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	c		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	d		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	e		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
	f		0.0	**	0	0	****	0	0	****	0	0	****	0	0	****
7 Windows and glass doors Cooling	North			12.0	0	****	0	1	****	15	18	****	216	0	****	0
	NE/NW			26.8	0	****	0	0	****	0	36	****	969	0	****	0
	E/W			43.5	0	****	0	23	****	858	17	****	631	0	****	0
	SE/SW			0.0	0	****	0	0	****	0	0	****	0	0	****	0
	South			0.0	0	****	0	0	****	0	0	****	0	0	****	0
	Horz			0.0	0	****	0	0	****	0	0	****	0	0	****	0
8 Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
9 Net exposed walls and partitions	a	12D2	3.6	1.8	70	252	127	96	346	174	326	1172	589	0	0	0
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
10 Ceilings	a	16G0	1.5	1.4	103	153	146	196	291	278	308	457	436	482	716	684
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
11 Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	7	255	0	12	437	0	33	1203	0	0	0	0
	b		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	c		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	d		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	e		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
	f		0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
12 Infiltration Ventilation	a		64.7	15.6	0	0 0	0 0	24	1554 0	375 0	71	4607 0	1112 0	0	0 0	0 0
13 Subtotal loss=6+8..+11+12					****	660	****	****	3141	****	****	8960	****	****	716	****
Less external heating					****	0	****	****	0	****	****	0	****	****	0	****
Less transfer					****	0	****	****	0	****	****	0	****	****	0	****
Heating redistribution					****	0	****	****	0	****	****	0	****	****	0	****
14 Duct loss					5%	33	****	5%	157	****	5%	448	****	5%	36	****
15 Total loss = 13+14					****	693	****	****	3298	****	****	9408	****	****	752	****
16 Int. gains: People @ 300					0	****	0	2	****	600	4	****	1200	6	****	1800
Appl. @ 1200					0	****	0	0	****	0	0	****	0	0	****	0
17 Subtot RSH gain=7+8..+12+16					****	****	273	****	****	2300	****	****	5153	****	****	2484
Less external cooling					****	****	0	****	****	0	****	****	0	****	****	0
Less transfer					****	****	0	****	****	0	****	****	0	****	****	0
Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	0
18 Duct gain					10%	****	27	10%	****	230	10%	****	515	10%	****	248
19 Total RSH gain=(17+18)*PLF					1.00	****	300	1.00	****	2530	1.00	****	5668	1.00	****	2733
20 Air required (cfm)						28	13		133	110		380	245		30	118

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Right-J Worksheet
BR3, BR2, Game R
Country Comfort Heating & A. C.

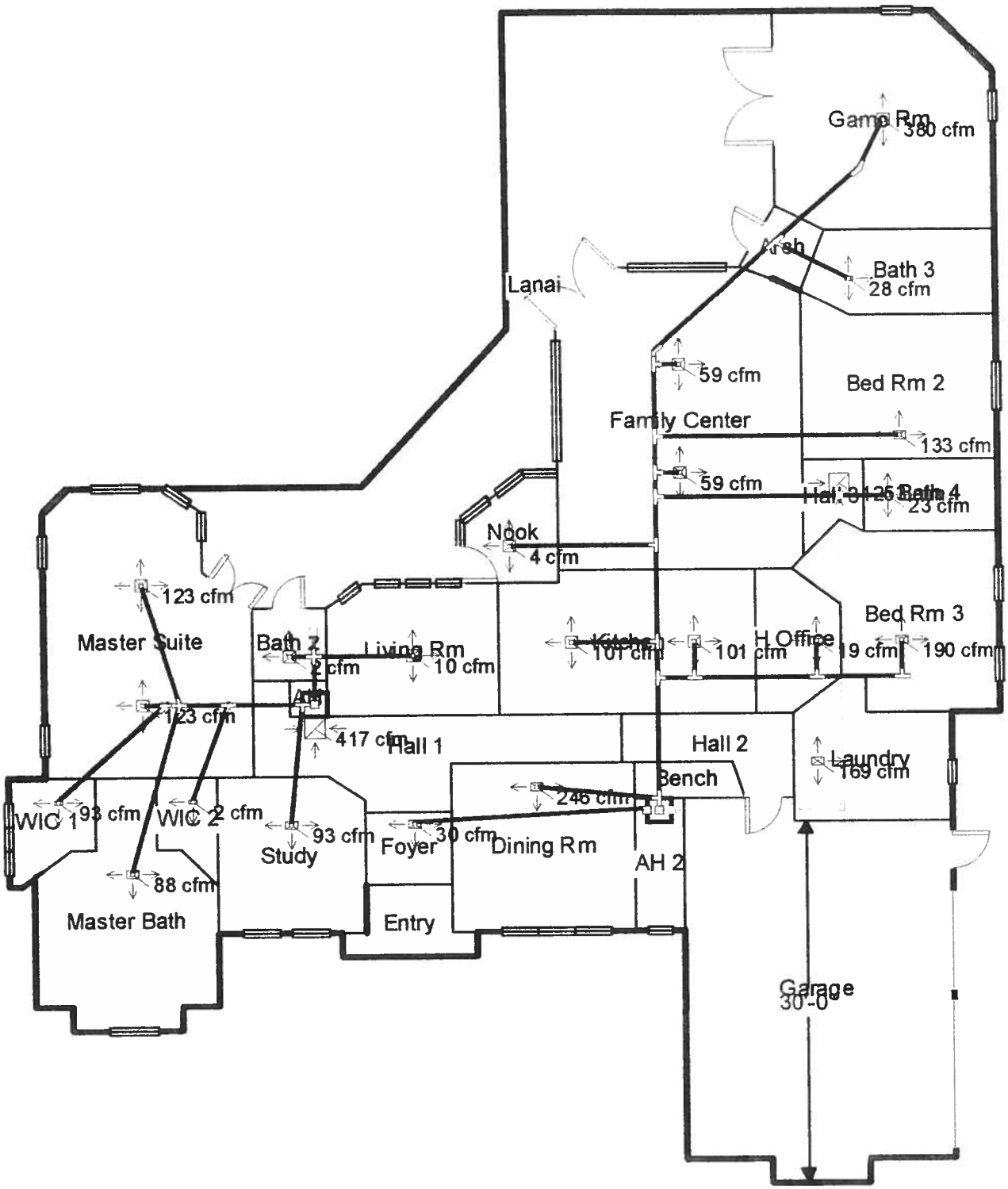
Job: Black
Date: 12-22-07
By: AW

Lake City, Fl 32025 Phone: 386-752-5841

	MANUAL J: 7th Ed.					Bath 4 6.0 ft 11.0 x 6.0 ft 10.0 ft heat/cool			H Office 0.0 ft 1.0 x 72.0 ft 12.0 ft heat/cool			Foyer 8.0 ft 1.0 x 42.0 ft 12.0 ft heat/cool					
1	Name of room																
2	Length of exposed wall																
3	Room dimensions																
4	Ceilings	Condit. Option															
	TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area (ft²)	Load (Btuh) Htg	Load (Btuh) Clg	Area	Htg	Clg
5	Gross Exposed walls and partitions	a	12D2	3.6	1.8	60	****	****	0	****	****	96	****	****		****	****
		b		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		c		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		d		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		e		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
		f		0.0	0.0	0	****	****	0	****	****	0	****	****		****	****
6	Windows and glass doors Heating	a	3F0	21.4	**	0	0	****	0	0	****	0	0	****			****
		b		0.0	**	0	0	****	0	0	****	0	0	****			****
		c		0.0	**	0	0	****	0	0	****	0	0	****			****
		d		0.0	**	0	0	****	0	0	****	0	0	****			****
		e		0.0	**	0	0	****	0	0	****	0	0	****			****
		f		0.0	**	0	0	****	0	0	****	0	0	****			****
7	Windows and glass doors Cooling	North			12.0	0	****	0	0	****	0	0	****	0		****	
		NE/NW			26.8	0	****	0	0	****	0	0	****	0		****	
		E/W			43.5	0	****	0	0	****	0	0	****	0		****	
		SE/SW			0.0	0	****	0	0	****	0	0	****	0		****	
		South			0.0	0	****	0	0	****	0	0	****	0		****	
		Horz			0.0	0	****	0	0	****	0	0	****	0		****	
8	Other doors	a		0.0	0.0	0	0	0	0	0	0	0	0	0			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
9	Net exposed walls and partitions	a	12D2	3.6	1.8	60	216	108	0	0	0	96	346	174			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
10	Ceilings	a	16G0	1.5	1.4	66	98	94	72	107	102	42	62	60			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
11	Floors (Note: room perimeter is displ. for slab floors)	a	22A0	36.5	0.0	6	219	0	0	0	0	8	292	0			
		b		0.0	0.0	0	0	0	0	0	0	0	0	0			
		c		0.0	0.0	0	0	0	0	0	0	0	0	0			
		d		0.0	0.0	0	0	0	0	0	0	0	0	0			
		e		0.0	0.0	0	0	0	0	0	0	0	0	0			
		f		0.0	0.0	0	0	0	0	0	0	0	0	0			
12	Infiltration Ventilation	a		64.7	15.6	0	0 0	0 0	0	0 0	0 0	0	0 0	0 0			
13	Subtotal loss=6+8..+11+12					****	533	****	****	107	****	****	700	****	****		****
	Less external heating					****	0	****	****	0	****	****	0	****	****		****
	Less transfer					****	0	****	****	0	****	****	0	****	****		****
	Heating redistribution					****	0	****	****	0	****	****	0	****	****		****
14	Duct loss					5%	27	****	5%	5	****	5%	35	****	%		****
15	Total loss = 13+14					****	559	****	****	112	****	****	735	****	****		****
16	Int. gains: People @ 300					0	****	0	1	****	300	0	****	0		****	
	Appl. @ 1200					0	****	0	0	****	0	0	****	0		****	
17	Subtot RSH gain=7+8..+12+16					****	****	202	****	****	402	****	****	233	****	****	
	Less external cooling					****	****	0	****	****	0	****	****	0	****	****	
	Less transfer					****	****	0	****	****	0	****	****	0	****	****	
	Cooling redistribution					****	****	0	****	****	0	****	****	0	****	****	
18	Duct gain					10%	****	20	10%	****	40	10%	****	23	%	****	
19	Total RSH gain=(17+18)*PLF					1.00	****	222	1.00	****	442	1.00	****	256		****	
20	Air required (cfm)						23	10		5	19		30	11			

Printout certified by ACCA to meet all requirements of Manual J 7th Ed.

Total Home



Job #: Black **Performed by AW** **for:** David Black Lake City, Fl	**Country Comfort Heating & A. C.** Lake City, Fl 32025 Phone: 386-752-5841	Scale: 1 : 151 Page 1 Right-Suite Residential 5.9.51 RSR26315 2006-Dec-22 16:06:22 C:\My Documents\Wrightsoft HVA...

March 19, 2007

Columbia County Building & Zoning Department
135 Hernando Ave.
Lake City, Fl 32055

Re: David & Louann Black Home Construction
570 SW Blanton Ln, Lake City, FL
Permit # 25379

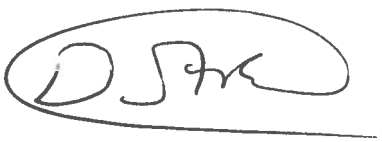
To Whom It May Concern:

During the initial inspection for the footings, clay was encountered. We hired Cal-Tech Testing, Inc to complete an subsurface investigation and engineering evaluation. They completed their report and we submitted it to the CCBD.

To summarize, the clay had to removed to a depth of 6' below the final grade and extend 5 feet beyond the building perimeter. The area that was excavated would than be backfilled and compacted in 12" lifts.

First we removed and stockpiled the existing fill until we encountered clay. Using a 5cyd loader and small dozer we removed the clay and stockpiled this material. We than placed the clean fill into the excavation in approximately 12" lifts and compacted the material using the loader with the bucket full of material. We made 4 passes over the area with the loader. I have done this performance method before while backfilling UST excavations across the south while working for Anderson Columbia Environmental, Inc. and achieved over 95% density each time.

Yours truly,



David F. Black

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

P.O. Box 1625 • Lake City, FL 32056-1625
6919 Distribution Avenue S., Unit #5 • Jacksonville, FL 32257

Tel. (386) 755-3633 • Fax (386) 752-5456
Tel. (904) 262-4046 • Fax (904) 262-4047

February 21, 2007

David Black
255 SW Aurora Way
Lake City, Florida 32025

Reference: Black Residence
Blanton Road
Lake City, Florida
Cal-Tech Project No. 07-072

Dear Mr. Black :

Cal-Tech Testing, Inc. has completed a subsurface investigation and engineering evaluation of the site for the proposed residence in Lake City, Florida. Our work was authorized by you.

Introduction

We understand that a single-story, wood frame residential structure, with a total plan area of about 3,600 square feet will be constructed. We further understand that the structure will be supported by shallow spread footings. At the time of our exploration, the site had been cleared; the limits of the structure delineated and some excavations had taken place. Clayey soils were exposed in the excavations, and we were asked to evaluate the underlying soils to determine if they were expansive.

Site Investigation

Subsurface conditions were investigated by performing six (6) auger borings advanced to a depth of 3½ to 6 feet. The borings were performed at the approximate location indicated on the attached Report of Soil Borings. The borings were located in the field by us.

The auger borings were performed manually by the use of a post-hole auger and in general accordance with ASTM D 1452-80 "Soil Investigation and Sampling by Auger Borings." Representative samples of the soils brought to the ground surface by the augering process were sealed, and transported to our laboratory where they were examined to verify the driller's field classification.

Laboratory Testing

In order to classify the clay material encountered, a total of three samples were selected from the borings for laboratory testing. The testing included fines content and Atterberg Limits.

Findings

In general, the soil borings initially encountered a thin layer of fine sands (SC). This was underlain by clayey fine sands and sandy clays (SC,CL and CH) to the termination depths.

Groundwater was encountered at a depth of 3 feet in Borings A-4 and A-5. However, the other borings encountered no groundwater to the maximum depth drilled.

For a more detailed description of the subsurface conditions encountered, please refer to the attached Boring Logs. Note specifically the transition between soil layers may be gradual and not abrupt as indicated by the logs; therefore, the thickness of soil layers should be considered approximate.

Samples of the clayey sands/sandy clays were obtained from Borings A-1, A-3, and A-5 at a depth of one to two feet. A fines content and Atterberg Limits test was performed on each. The samples contained 43 to 74 percent passing the number 200 mesh sieve, with Liquid Limits of 37 to 61 percent and a Plasticity Index of 21 to 30.

Discussion and Recommendations

Based upon our evaluation of soil samples from the borings, we believe the clayey soils encountered at depths of about one to two feet are active, implying they shrink or swell with changes in their moisture content. The structure supported on conventional, shallow spread footings could experience detrimental foundation movements following construction. These foundations may be lifted or subside with normal seasonal changes in soil moisture.

The local standard-of-care for using conventional foundations over active clay soils is to excavate and replace the active soils to depths of about five to six feet below the bottom of the foundations. Therefore, we recommend that the building area be overexcavated to a depth of six feet below final site grades and backfilled with compacted structural fill. The excavation should also extend at least five feet beyond the building perimeter. We further recommend that once the structure is completed, storm water is directed away from the foundation areas. Simple modifications typically include storm gutters and down spouts to collect and divert storm water away from foundation areas and/or contouring the ground surface to promote surface runoff.

Backfill should consist of relatively clean, fine sand containing less than 10% passing the No. 200 sieve. Fill should be placed in maximum 12-inch, loose lifts, and each lift should be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density. Field density testing should be performed in the compacted subgrade, in each lift of fill, and in foundation excavations to verify the recommended compaction has been achieved.

Our recommendations are based upon our findings as described in this report; however, subsurface conditions may exist that were not encountered in the soil test borings. Cal-Tech Testing, Inc. should be notified immediately if different soil conditions are encountered during construction. It may be necessary to reevaluate this site and revise our recommendations.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be or further assistance.

Respectfully submitted,
Cal-Tech Testing, Inc.

Linda Creamer, CEO

Linda Creamer
President-CEO

Robert W Clark

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