

DATE 04/26/2018

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000036637

APPLICANT MAURICE PERKINS PHONE 386-208-2791
ADDRESS PO BOX 6141 LIVE OAK FL 32064
OWNER LEONARD & KYALA JOHNSON PHONE 386-867-0142
ADDRESS 871 SW Tustenuggee Ave LAKE CITY FL 32025
CONTRACTOR MAURICE PERKINS PHONE 386-208-2791
LOCATION OF PROPERTY 441 S. R TUSTENUGGEE AVE. .8 MILESON LEFT
TYPE DEVELOPMENT SFD, UTILITY ESTIMATED COST OF CONSTRUCTION 223900.00
HEATED FLOOR AREA 3663.00 TOTAL AREA 4478.00 HEIGHT 1
FOUNDATION CONCRETE WALLS FRAMED ROOF PITCH FLOOR SLAB
LAND USE & ZONING AG-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 X DEVELOPMENT PERMIT NO.

PARCEL ID 20-4S-17-08579-004 SUBDIVISION
LOT BLOCK PHASE UNIT TOTAL ACRES 3.00
Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor
EXISTING 18-0094 LN TC N
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident Time/STUP No.
COMMENTS: FLOOR ONE FOOT ABOVE THE ROAD, NOC ON FILE
Check # or Cash 1679

FOR BUILDING & ZONING DEPARTMENT ONLY

Temporary Power Foundation Monolithic (footer/Slab)
Under slab rough-in plumbing Slab Sheathing/Nailing
Framing Insulation
Rough-in plumbing above slab and below wood floor Electrical rough-in
Heat & Air Duct Peri. beam (Lintel) Pool
Permanent power C.O. Final Culvert
Pump pole Utility Pole M/H tie downs, blocking, electricity and plumbing
Reconnection RV Re-roof

BUILDING PERMIT FEE \$ 1120.00 CERTIFICATION FEE \$ 22.39 SURCHARGE FEE \$ 22.39
MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$
PLAN REVIEW FEE \$ 280.00 DP & FLOOD ZONE FEE \$ 25.00 CULVERT FEE \$ TOTAL FEE 1519.78
INSPECTORS OFFICE CLERKS OFFICE

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.
NOTICE: ALL OTHER APPLICABLE STATE OR FEDERAL PERMITS SHALL BE OBTAINED BEFORE COMMENCEMENT OF THIS PERMITTED DEVELOPMENT.

"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.

✓? Not Sure About Energy Code Forms \$1519.78

Columbia County New Building Permit Application

SW/c Perkins

For Office Use Only Application # 1803-82 Date Received 3-26-18 By UH Permit # 36637
Zoning Official LN Date 4-16-18 Flood Zone X Land Use A Zoning A.3
FEMA Map # _____ Elevation _____ MFE 1' above road River _____ Plans Examiner T.C. Date 4-13-18

Comments

☒ 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 ☒ WC-FELKMO
☐ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ Ellisville Water ☐ App Fee Paid ☒ Sub VF Form

Septic Permit No. 18-6094 City Water ☐ Fax _____

Applicant (Who will sign/pickup the permit) Maurice Perkins Phone 386-208-2791

Address P.O. Box 6141 Live Oak FL 32064

Owners Name Leonard + Kyala Johnson Phone (386) 867-0142

911 Address 871 SW Tustnuggee Ave, Lake City FL 32025

Contractors Name Maurice Perkins Phone (386) 208-2791

Address P.O. Box 6141 Live Oak, FL 32064

Contractor Email meperkins62@yahoo.com ***Include to get updates on this job.

Fee Simple Owner Name & Address N/A Kyala 82@gmail.com ★

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Marty Humphries 7932 240th St. O'Brien, FL 32071

Mortgage Lenders Name & Address _____

Circle the correct power company ☐ FL Power & Light ☒ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy

Property ID Number 20-48-17-08579-004 Estimated Construction Cost \$125,000

Subdivision Name _____ Lot _____ Block _____ Unit _____ Phase _____

Driving Directions from a Major Road Take US-41S to SW Tustnuggee Ave
Turn right onto Tustnuggee Ave ; 0.8 miles on left

Construction of Home Commercial OR ☒ Residential

Proposed Use/Occupancy _____ Number of Existing Dwellings on Property 0

Is the Building Fire Sprinkled? No If Yes, blueprints included _____ Or Explain _____

Circle Proposed ☐ Culvert Permit or ☐ Culvert Waiver or ☐ D.O.T. Permit or ☒ Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 90' Side 130' Side 130' Rear 100'

Number of Stories 1 Heated Floor Area 3663 Total Floor Area 4478 Acreage 3

Zoning Applications applied for (Site & Development Plan, Special Exception, etc.) _____

UH Spoke to Maurice 4-23-18 Page 1 of 2 (Both Pages must be submitted together.) Revised 7-1-15

Columbia County Building Permit Application

CODE: Florida Building Code 2014 and the 2011 National Electrical Code.

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.

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 pursued in good faith or a permit has been issued.

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 CONTRACTOR AND AGENT: 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 COMMENCEMENT 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.

Leonard Johnson

Kyala Johnson

Print Owners Name

Kyala Johnson

Owners Signature

****Property owners must sign here before any permit will be issued.**

****If this is an Owner Builder Permit Application then, ONLY the owner can sign the building permit when it is issued.**

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.

Malven E. P...

Contractor's Signature

Contractor's License Number CBC 1251469
Columbia County
Competency Card Number 809 ~~46~~ ✓

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 24 day of March 2018.

Personally known or Produced Identification DL P625-545-62-449-0

Sharon M. Oliver

State of Florida Notary Signature (For the Contractor)

SEAL:



SHARON OLIVER
MY COMMISSION # FF 160914
EXPIRES: September 18, 2018
Bonded Thru Budget Notary Services

Prepared by and return to:
Ralph Robert Deas

The Law Office of Ralph R. Deas
227 SE Hernando Ave
Lake City, FL 32025
386-754-0771
File Number: 126
Will Call No.:

Inst: 201812000591 Date: 01/10/2018 Time: 2:25PM
Page 1 of 2 B: 1351 P: 921, P.DeWitt Cason, Clerk of Court
Columbia County, By: BD
Deputy ClerkDoc Stamp-Deed: 175.00

[Space Above This Line For Recording Data]

Warranty Deed

This Warranty Deed made this 30th day of December, 2017 between Randolph Jones and Barbara Ann Jones whose post office address is 7002 Golden Oak Lane, Killeen, TX 76542, grantor, and Leonard Johnson and Kyla Johnson, husband and wife whose post office address is 1986 SW Fallen Lane, Lake City, FL 32025, grantee:

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

Witnesseth, that said grantor, for and in consideration of the sum of TWENTY FIVE THOUSAND AND NO/100 DOLLARS (\$25,000.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Columbia County, Florida to-wit:

Commence at the Southwest corner of the SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 20, Township 4 South, Range 17 East, Columbia County, Florida, and run thence N 88 degrees 36 minutes E along the South line of said SW $\frac{1}{4}$ of NE $\frac{1}{4}$, 25.00 feet to the East right-of-way line of County Road No. C-133 (N.B.: Should be 131); thence N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 299.62 feet to the POINT OF BEGINNING; thence continue N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 52.50 feet; thence N 88 degrees 36 minutes E, 414.86 feet; thence S 1 degree 00 minutes 20 seconds E, 52.50 feet; thence S 88 degrees 36 minutes W, 414.86 feet to the POINT OF BEGINNING, containing 0.50 acres, more or less.

AND ALSO:

Commence at the Southwest corner of the SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 20, Township 4 South, Range 17 East, Columbia County, Florida, and run N 88 degrees 36 minutes E along the South line of said SW $\frac{1}{4}$ of NE $\frac{1}{4}$, 25.00 feet to the East right-of-way line of State Road S-131, thence N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 509.62 feet to the POINT OF BEGINNING; thence continue N 1 degree 00 minutes 20 seconds W along said right-of-way line 105.00 feet, thence N 88 degrees 36 minutes East, 414.86 feet; thence S 1 degree 00 minutes 20 seconds E, 105.00 feet; thence S 88 degrees 36 minutes W, 414.86 feet to the POINT OF BEGINNING, containing 1 acre, more or less.

AND ALSO:

Commence at the Southwest corner of the SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 20, Township 4 South, Range 17 East, Columbia County, Florida, and run N 88 degrees 36 minutes E, along the South line of said SW $\frac{1}{4}$ of NE $\frac{1}{4}$, 25.00 feet to the East right-of-way line of State Road No. 131 (sic); thence N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 404.62 feet to the POINT OF BEGINNING; thence continue N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 105.00 feet; thence N 88 degrees 36 minutes E, 414.86 feet; thence S 1 degree 00 minutes 20 seconds E, 105.00 feet; thence S 88 degrees 36 minutes W, 414.86 feet to the POINT OF BEGINNING, containing 1.00 acre, more or less.

AND ALSO:

Commence at the Southwest corner of the SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 20, Township 4 South, Range 17 East, Columbia County, Florida, and run N 88 degrees 36 minutes E along the South line of said SW $\frac{1}{4}$ of NE $\frac{1}{4}$, 25.00 feet to the East right-of-way line of County Road No. 131; thence N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 352.12 feet to the POINT OF BEGINNING;

Double Times

thence continue N 1 degree 00 minutes 20 seconds W along said East right-of-way line, 52.50 feet;
thence N 88 degrees 36 minutes E, 414.86 feet; thence S 1 degree 00 minutes 20 seconds E, 52.50 feet;
thence S 88 degrees 36 minutes W, 414.86 feet to the POINT OF BEGINNING, containing 0.50 acre
more or less.

Parcel Identification Number: 20-4S-17-08579-004

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

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

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2017.

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

Signed, sealed and delivered in our presence:

Kayla White
Witness Name: Kayla White
C. Johnson
Witness Name: Candice Johnson

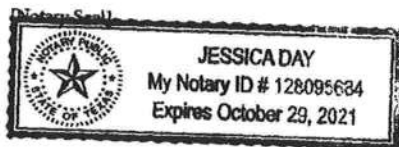
Randolph Jones (Seal)

Kayla White
Witness Name: Kayla White
C. Johnson
Witness Name: Candice Johnson

Barbara Ann Jones (Seal)

State of Texas
County of Bell

The foregoing instrument was acknowledged before me this 30 day of December, 2017 by Randolph Jones and Barbara Ann Jones, who ☐ are personally known or ☒ have produced a driver's license as identification.



Jessica Day
Notary Public
Printed Name: Jessica Day
My Commission Expires: 10/29/21

District No. 1 - Ronald Williams
District No. 2 - Rusty DePratter
District No. 3 - Bucky Nash
District No. 4 - Everett Phillips
District No. 5 - Tim Murphy



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

Address Assignment and Maintenance Document

To maintain the county wide 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 addressing 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 Services 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/Time Issued: **2/7/2018 11:03:17 AM**
Address: **871 SW TUSTENUGGEE Ave**
City: **LAKE CITY**
State: **FL**
Zip Code **32025**

Parcel ID **08579-004**

REMARKS: Address for proposed structure on parcel.

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

Address Issued By: **Signed:/ Matt Crews**

Columbia County GIS/911 Addressing Coordinator

**COLUMBIA COUNTY
911 ADDRESSING / GIS DEPARTMENT**

263 NW Lake City Ave., Lake City, FL 32055 Telephone: (386) 758-1125
Email: gis@columbiacountyfla.com

**PAT LYNCH
LYNCH DRILLING CORP
P O Box 934
Branford, FL 32008
(386)935-1076**

DATE 3-12-18

CUSTOMER Leonard Johnson

LOCATION 871 SW Tustenuggee Ave
Lake City, FL 32025

WE WILL CONSTRUCT A 4" WATER WELL COMPLETE WITH 4" WATER WELL STEEL CASING, 1HP SUBMERSIBLE PUMP WITH 1 1/4" DROP PIPE, AND AN 85 GALLON CAPTIVE AIR TANK (21.9 GALLON DRAWDOWN).

WELL WILL BE COMPLETE AT THE WELL SITE, WE DO NOT INCLUDE ELECTRICAL NOR PLUMBING CONNECTIONS FROM THE WELL TO THE HOME AND/OR POWER POLE.

ANY VARIATIONS OF THE ABOVE ARE SUBJECT TO APPROVAL FROM THE CUSTOMER AND/OR CONTRACTOR PRIOR TO COMMENSMENT OF THE INDIVIDUAL JOB.

THANK YOU

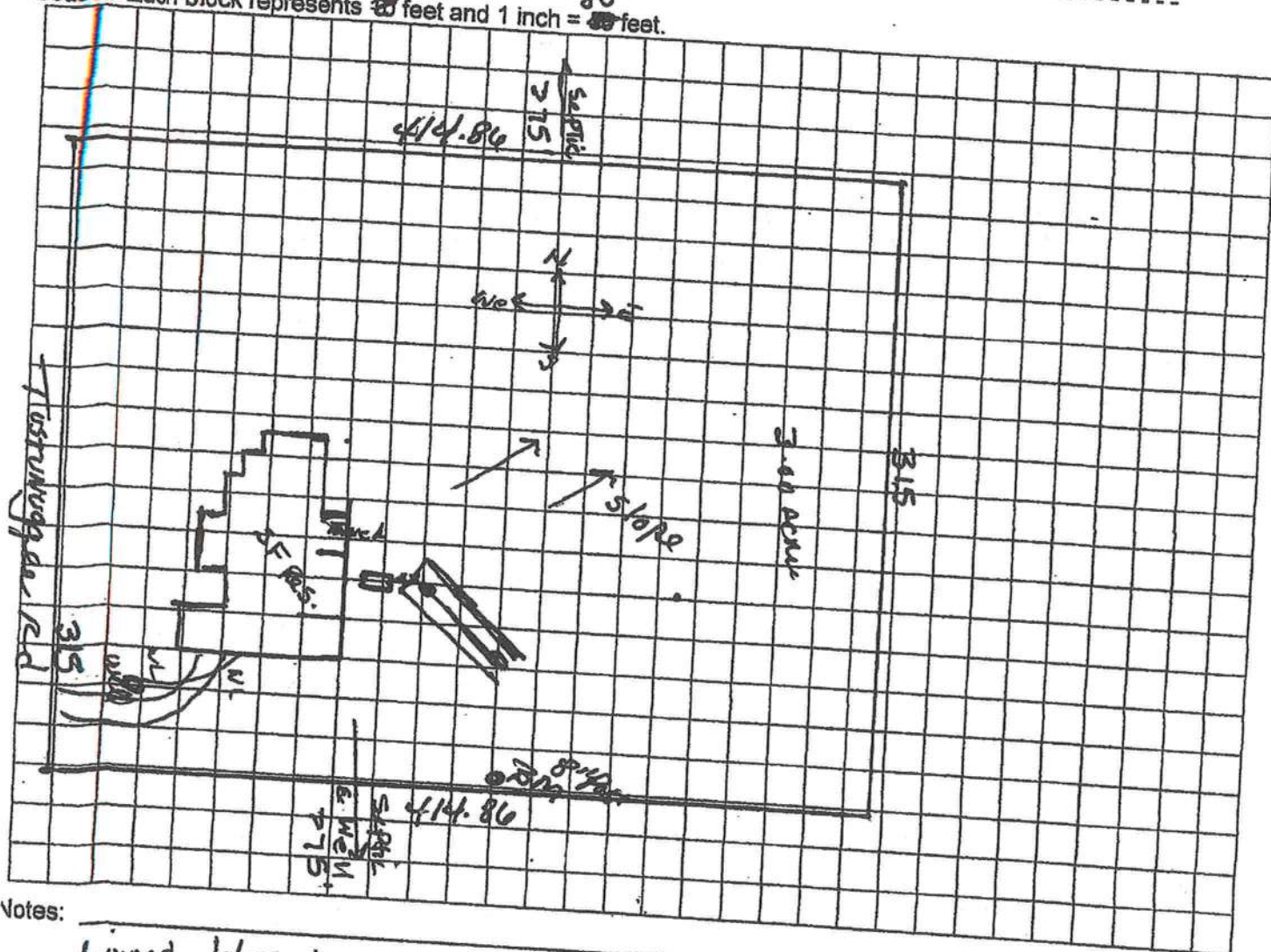
NOT RESPONSIBLE FOR THE QUALITY OF WATER

Permit Application Number

28-8894

PART II - SITEPLAN

Scale: Each block represents $20'$ feet and 1 inch = $80'$ feet.



Votes:

Linard Johnson

3.00 Acres

Site Plan submitted by: Robert W Fardn 2-5-18

Plan Approved

Not Approved

Date 2/20/18

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 180382 JOB NAME JOHANSON

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. 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 general contractors permit.

NOTE: It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.

Use website to confirm licenses: <http://www.columbiacountyfla.com/PermitSearch/ContractorSearch.aspx>

NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

ELECTRICAL ☒	Print Name <u>Felkner Electric</u> Signature <u>[Signature]</u> Company Name: <u>Felkner Electric Inc</u> CC# <u>1057</u> License #: <u>EC 13003153</u> Phone #: <u>352-318-8797</u>	Need ☐ Lic ☐ Liab ☒ W/C ☐ EX ☐ DE
MECHANICAL/A/C <u>B</u> ☒	Print Name <u>Fleming Air & Electric</u> Signature <u>Emin Fleming</u> Company Name: <u>Erving Fleming</u> CC# <u>557</u> License #: <u>CAC 1814541</u> Phone #: <u>386-961-9770</u>	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
PLUMBING/GAS ☒	Print Name <u>Maurice Perkins</u> Signature <u>[Signature]</u> Company Name: <u>ME Perkins Construction & Plumbing Inc.</u> CC# <u>516</u> License #: <u>CFC 142628</u> Phone #: <u>(386) 208-2791</u>	Need ☐ Lic ☐ Liab ☒ W/C ☐ EX ☐ DE
ROOFING ☒	Print Name <u>Maurice Perkins</u> Signature <u>[Signature]</u> Company Name: <u>ME Perkins Construction & Plumbing Inc.</u> CC# <u>809</u> License #: <u>CBC 125169</u> Phone #: <u>(386) 208-2791</u>	Need ☐ Lic ☐ Liab ☒ W/C ☐ EX ☐ DE
SHEET METAL ☐	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
FIRE SYSTEM/SPRINKLER ☐	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SOLAR ☐	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
STATE SPECIALTY ☐	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE

NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

20-43-17-08579-004

Clerk's Office Stamp

Inst: 201812006067 Date: 03/26/2018 Time: 4:43PM
Page 1 of 1 B: 1356 P: 1736, P. DeWitt Cason, Clerk of Court
Columbia, County, By: BD
Deputy Clerk

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.

1. Description of property (legal description): Section 20, Township 4 South, Range 17 East
a) Street (job) Address: 871 SW Tusculum Ave, Lake City, FL 32025
2. General description of improvements: New Construction
3. Owner Information or Lessee information if the Lessee contracted for the improvements:
a) Name and address: Leonard + Kyala Johnson 1986 SW Fallon Ln Lake City, FL 32025
b) Name and address of fee simple titleholder (if other than owner):
c) Interest in property: 100%
4. Contractor Information
a) Name and address: Maurice Perkins P.O. Box 6141 Live Oak, FL 32064
b) Telephone No.: (386) 208-2791
5. Surety Information (if applicable, a copy of the payment bond is attached):
a) Name and address: N/A
b) Amount of Bond:
c) Telephone No.:
6. Lender
a) Name and address: N/A
b) Phone No.:
7. Person within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes:
a) Name and address: N/A
b) Telephone No.:
8. In addition to himself or herself, Owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:
a) Name: N/A OF
b) Telephone No.:
9. Expiration date of Notice of Commencement (the expiration date will be 1 year from the date of recording unless a different date is specified): April 28, 2019

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.

STATE OF FLORIDA
COUNTY OF COLUMBIA

Kyala Johnson
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager
Kyala Johnson Leonard Johnson
Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this 22nd day of March, 2018, by:
Kyala Johnson as wife for Leonard Johnson
(Name of Person) (Type of Authority) (name of party on behalf of whom instrument was executed)

Personally Known ☒ OR Produced Identification Type

Notary Signature

Notary Stamp or Seal



NELLIE THOMAS
MY COMMISSION # FF 162233
EXPIRES: September 22, 2018
Bonded Thru Budget Notary Services

36637

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

Florida Department of Business and Professional Regulation Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2017 Florida Building Code, Energy Conservation via the residential Simulated Performance Method shall include:

- ☐ This checklist
- ☐ A Form R405 report that documents that the Proposed Design complies with Section R405.3 of the Florida Energy Code. This form shall include a summary page indicating home address, e-ratio and the pass or fail status along with summary areas and types of components, whether the home was simulated as a worst-case orientation, name and version of the compliance software tool, name of individual completing the compliance report (one page) and an input summary checklist that can be used for field verification (usually four pages/may be greater).
- ☐ Energy Performance Level (EPL) Display Card (one page)
- ☐ HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7
- ☐ Mandatory Requirements (five pages)



Required prior to CO for the Performance Method:

- ☐ Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)
- ☐ A completed Envelope Leakage Test Report (usually one page)
- ☐ If Form R405 duct leakage type indicates anything other than "default leakage", then a completed Form R405 Duct Leakage Test Report (usually one page)

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Johnson Residence Street: Tustenuggee Ave City, State, Zip: Lake City, FL, 32024 Owner: Pete Johnson Design Location: FL, Gainesville	Builder Name: Permit Office: Permit Number: Jurisdiction: County:: columbia (Florida Climate Zone 2)
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1. New construction or existing New (From Plans) 2. Single family or multiple family Single-family 3. Number of units, if multiple family 1 4. Number of Bedrooms 4 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 3663 Conditioned floor area below grade (ft²) 0 7. Windows(381.0 sqft.) Description Area a. U-Factor: Sgl, U=0.55 381.00 ft² SHGC: SHGC=0.50 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 0.000 ft. Area Weighted Average SHGC: 0.500 8. Floor Types (3663.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 3663.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (3100.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 2840.00 ft² b. Frame - Wood, Adjacent R=19.0 260.00 ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (3663.0 sqft.) Insulation Area a. Under Attic (Vented) R=30.0 3663.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Main 6 732.6 12. Cooling systems kBtu/hr Efficiency a. Central Unit 52.9 SEER:16.00 13. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 66.6 HSPF:9.50 14. Hot water systems a. Electric Cap: 50 gallons b. Conservation features EF: 0.950 Heat Recovery Unit 15. Credits CF, CV, Pstat
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Glass/Floor Area: 0.104	Total Proposed Modified Loads: 79.80	PASS
	Total Baseline Loads: 87.12	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: _____ DATE: _____ 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: _____
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- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 6.95 ACH50 (R402.4.1.2).

PROJECT

Title:	Johnson Residence	Bedrooms:	4	Address Type:	Street Address
Building Type:	User	Conditioned Area:	3663	Lot #	
Owner Name:	Pete Johnson	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	Tustenuggee Ave
Permit Office:		Cross Ventilation:	Yes	County:	columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32024
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp		Int Design Temp		Heating	Design	Daily Temp
			97.5 %	2.5 %	Winter	Summer	Degree Days	Moisture	Range
✓	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	3663	36630

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	3663	36630	Yes	4	4	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
✓	1	Slab-On-Grade Edge Insulatio	Main	316 ft	0	3663 ft²	----	0.2	0.8	0

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
✓	1	Hip	Composition shingles	4403 ft²	0 ft²	Medium	0.96	No	0.9	No	0	33.7

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	3663 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	Main	30	Blown	3663 ft²	0.1	Wood

WALLS

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	N	Exterior	Frame - Wood	Main	19	89		10		890.0 ft²		0.23	0.75	0
2	W	Exterior	Frame - Wood	Main	19	66		10		660.0 ft²		0.23	0.75	0
3	S	Exterior	Frame - Wood	Main	19	89		10		890.0 ft²		0.23	0.75	0
4	E	Exterior	Frame - Wood	Main	19	40		10		400.0 ft²		0.23	0.75	0
5	E	Garage	Frame - Wood	Main	19	26		10		260.0 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	N	Insulated	Main	None	.46	6		6	8	40 ft²
2	N	Insulated	Main	None	.46	3		6	8	20 ft²
3	E	Insulated	Main	None	.46	18		7		126 ft²
4	E	Insulated	Main	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	N	1	Vinyl	Low-E Single	Yes	0.55	0.5	N	180.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
2	W	2	Vinyl	Low-E Single	Yes	0.55	0.5	N	30.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
3	S	3	Vinyl	Low-E Single	Yes	0.55	0.5	N	126.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
4	E	4	Vinyl	Low-E Single	Yes	0.55	0.5	N	45.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None

GARAGE

✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
1	676 ft²	676 ft²	68 ft	10 ft	5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH	.000442	4242.5	232.91	438.02	.34	6.9493

HEATING SYSTEM

✓ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump/	None	HSPF:9.5	66.57 kBtu/hr	1	sys#1

COOLING SYSTEM

✓ #	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit/	Small Duct High Velocity	SEER: 16	52.94 kBtu/hr	1590 cfm	0.75	1	sys#1

HOT WATER SYSTEM										
☒	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
☐	1	Electric	None	Main	0.95	50 gal	70 gal	120 deg	Heat Recovery Unit	

SOLAR HOT WATER SYSTEM							
☒	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
☐	None	None			ft ²		

DUCTS													
☒	#	--- Supply ---			--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat Cool
		Location	R-Value	Area	Location	Area							
☐	1	Attic	6	732.6 ft	Attic	183.15	Default Leakage	Main	(Default)	(Default)			1 1

TEMPERATURES																								
Programable Thermostat: Y						Ceiling Fans:																		
Cooling	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec
Heating	☐	Jan	☐	Feb	☐	Mar	☐	Apr	☐	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☒	Nov	☐	Dec
Venting	☐	Jan	☐	Feb	☐	Mar	☐	Apr	☐	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☐	Nov	☐	Dec
Thermostat Schedule: HERS 2006 Reference														Hours										
Schedule Type			1	2	3	4	5	6	7	8	9	10	11	12										
Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	80	80	80	80										
	PM	80	80	78	78	78	78	78	78	78	78	78	78	78										
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78	78										
	PM	78	78	78	78	78	78	78	78	78	78	78	78	78										
Heating (WD)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68										
	PM	68	68	68	68	68	68	68	68	68	68	68	66	66										
Heating (WEH)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68										
	PM	68	68	68	68	68	68	68	68	68	68	68	66	66										

MECHANICAL VENTILATION							
Type	Supply CFM	Exhaust CFM	Fan Watts	HRV	Heating System	Run Time	Cooling System
Runtime Vent	100	0	0	0	1 - Electric Heat Pump	%	1 - Central Unit

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 92

The lower the EnergyPerformance Index, the more efficient the home.

Tustenuggee Ave, Lake City, FL, 32024

1. New construction or existing	New (From Plans)	9. Wall Types	Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior	R=19.0	2840.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=19.0	260.00 ft ²
4. Number of Bedrooms	4	c. N/A	R=	ft ²
5. Is this a worst case?	No	d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	3663	10. Ceiling Types	Insulation	Area
7. Windows**	Description	a. Under Attic (Vented)	R=30.0	3663.00 ft ²
a. U-Factor:	Sgl, U=0.55	b. N/A	R=	ft ²
SHGC:	SHGC=0.50	c. N/A	R=	ft ²
b. U-Factor:	N/A	11. Ducts		R ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Main		6 732.6
c. U-Factor:	N/A	12. Cooling systems	kBtu/hr	Efficiency
SHGC:		a. Central Unit	52.9	SEER:16.00
d. U-Factor:	N/A	13. Heating systems	kBtu/hr	Efficiency
SHGC:		a. Electric Heat Pump	66.6	HSPF:9.50
Area Weighted Average Overhang Depth:	0.000 ft.	14. Hot water systems		Cap: 50 gallons
Area Weighted Average SHGC:	0.500	a. Electric		EF: 0.95
8. Floor Types	Insulation	b. Conservation features		
a. Slab-On-Grade Edge Insulation	R=0.0	Heat Recovery Unit		
b. N/A	R=	15. Credits		CF, CV, Pstat
c. N/A	R=			

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: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Email EnergyGauge tech support at techsupport@energygauge.com or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Florida Building Code, Energy Conservation, 6th Edition (2017)

Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS: Tustenugee Ave
Lake City, FL, 32024

Permit Number:

MANDATORY REQUIREMENTS See individual code sections for full details.

SECTION R401 GENERAL

R401.3 Energy Performance Level (EPL) display card (Mandatory). The building official shall require that an energy performance level (EPL) display card be completed and certified by the builder to be accurate and correct before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. The EPL display card contains information indicating the energy performance level and efficiencies of components installed in a dwelling unit. The building official shall verify that the EPL display card completed and signed by the builder accurately reflects the plans and specifications submitted to demonstrate code compliance for the building. A copy of the EPL display card can be found in Appendix RD.

R402.4 Air leakage (Mandatory). The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5.

Exception: Dwelling units of R-2 Occupancies and multiple attached single family dwellings shall be permitted to comply with Section C402.5.

R402.4.1 Building thermal envelope. The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

R402.4.1.1 Installation. The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Exception: Testing is not required for additions, alterations, renovations, or repairs, of the building thermal envelope of existing buildings in which the new construction is less than 85 percent of the building thermal envelope.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

R402.4.2 Fireplaces. New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. Where using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

R402.4.3 Fenestration air leakage. Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

Exception: Site-built windows, skylights and doors.

MANDATORY REQUIREMENTS - (Continued)

R402.4.4 Rooms containing fuel-burning appliances. In Climate Zones 3 through 8, where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.2, where the walls, floors and ceilings shall meet not less than the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential.

R402.4.5 Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

SECTION R403 SYSTEMS

R403.1 Controls.

R403.1.1 Thermostat provision (Mandatory). At least one thermostat shall be provided for each separate heating and cooling system.

R403.1.3 Heat pump supplementary heat (Mandatory). Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

R403.3.2 Sealing (Mandatory) All ducts, air handlers, filter boxes and building cavities that form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section C403.2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria below.

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.

R403.3.2.1 Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design airflow rate when tested in accordance with ASHRAE 193.

R403.3.3 Duct testing (Mandatory). Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.
2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.
2. Duct testing is not mandatory for buildings complying by Section 405 of this code.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

R403.3.5 Building cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums.

R403.4 Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

R403.4.1 Protection of piping insulation. Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory) Heated water circulation systems shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

R403.5.1.1 Circulation systems. Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

R403.5.1.2 Heat trace systems. Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

MANDATORY REQUIREMENTS - (Continued)

R403.5.5 Heat traps (Mandatory). Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat traps installed on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a downward and upward bend of at least 3 ½ inches (89 mm) in the hot water distribution line and cold water line located as close as possible to the storage tank.

R403.5.6 Water heater efficiencies (Mandatory).

R403.5.6.1.1 Automatic controls. Service water-heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100°F to 140°F (38°C to 60°C).

R403.5.6.1.2 Shut down. A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to electric service systems to be turned off. A separate valve shall be provided to permit the energy supplied to the main burner(s) of combustion types of service water-heating systems to be turned off.

R403.5.6.2 Water-heating equipment. Water-heating equipment installed in residential units shall meet the minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment installed. Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the appropriate water-heating category. Solar water heaters shall meet the criteria of Section R403.5.6.2.1.

R403.5.6.2.1 Solar water-heating systems. Solar systems for domestic hot water production are rated by the annual solar energy factor of the system. The solar energy factor of a system shall be determined from the Florida Solar Energy Center Directory of Certified Solar Systems. Solar collectors shall be tested in accordance with ISO Standard 9806, Test Methods for Solar Collectors, and SRCC Standard TM-1, Solar Domestic Hot Water System and Component Test Protocol. Collectors in installed solar water-heating systems should meet the following criteria:

1. Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and
2. Be installed at an orientation within 45 degrees of true south.

R403.6 Mechanical ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements of the Florida Building Code, Residential, or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation including: Natural, Infiltration or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

R403.6.1 Whole-house mechanical ventilation system fan efficacy. When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.

Exception: Where whole-house mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

R403.6.2 Ventilation air. When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.

1. The design air change per hour minimums for residential buildings in ASHRAE 62.2, Ventilation for Acceptable Indoor Air Quality, shall be the maximum rates allowed for residential applications.
2. No ventilation or air-conditioning system make-up air shall be provided to conditioned space from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas.
3. If ventilation air is drawn from enclosed space(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum of R-11 and the ceiling shall be insulated to a minimum of R-19, space permitting, or R-10 otherwise.

R403.7 Heating and cooling equipment (Mandatory).

R403.7.1 Equipment sizing. Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the equipment loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies, based on building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and indoor units (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions described in Section R302.1. This Code does not allow designer safety factors, provisions for future expansion or other factors that affect equipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such as standard kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

**TABLE R403.6.1
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

FAN LOCATION	AIRFLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY ^a (CFM/WATT)	AIRFLOW RATE MAXIMUM (CFM)
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min.

a. When tested in accordance with HVI Standard 916

MANDATORY REQUIREMENTS - (Continued)

R403.7.1.1 Cooling equipment capacity.

Cooling only equipment shall be selected so that its total capacity is not less than the calculated total load but not more than 1.15 times greater than the total load calculated according to the procedure selected in Section 403.7, or the closest available size provided by the manufacturer's product lines. The corresponding latent capacity of the equipment shall not be less than the calculated latent load.

The published value for AHRI total capacity is a nominal, rating-test value and shall not be used for equipment sizing. Manufacturer's expanded performance data shall be used to select cooling-only equipment. This selection shall be based on the outdoor design dry-bulb temperature for the load calculation (or entering water temperature for water-source equipment), the blower CFM provided by the expanded performance data, the design value for entering wet-bulb temperature and the design value for entering dry-bulb temperature.

Design values for entering wet-bulb and dry-bulb temperatures shall be for the indoor dry bulb and relative humidity used for the load calculation and shall be adjusted for return side gains if the return duct(s) is installed in an unconditioned space.

Exceptions:

1. Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than the calculated total sensible load but not less than 80 percent of that load.
2. When signed and sealed by a Florida-registered engineer, in attached single- and multiple-family units, the capacity of equipment may be sized in accordance with good design practice.

R403.7.1.2 Heating equipment capacity.

R403.7.1.2.1 Heat pumps.

Heat pump sizing shall be based on the cooling requirements as calculated according to Section R403.7.1.1, and the heat pump total cooling capacity shall not be more than 1.15 times greater than the design cooling load even if the design heating load is 1.15 times greater than the design cooling load.

R403.7.1.2.2 Electric resistance furnaces.

Electric resistance furnaces shall be sized within 4 kW of the design requirements calculated according to the procedure selected in Section R403.7.1.

R403.7.1.2.3 Fossil fuel heating equipment.

The capacity of fossil fuel heating equipment with natural draft atmospheric burners shall not be less than the design load calculated in accordance with Section R403.7.1.

R403.7.1.3 Extra capacity required for special occasions.

Residences requiring excess cooling or heating equipment capacity on an intermittent basis, such as anticipated additional loads caused by major entertainment events, shall have equipment sized or controlled to prevent continuous space cooling or heating within that space by one or more of the following options:

1. A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
2. A variable capacity system sized for optimum performance during base load periods is utilized.

R403.8 Systems serving multiple dwelling units (Mandatory). Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

R403.9 Snow melt and ice system controls (Mandatory) Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

R403.10 Pools and permanent spa energy consumption (Mandatory). shall be in accordance with Sections R403.10.1 through R403.10.5.

The energy consumption of pools and permanent spas

R403.10.1 Heaters.

The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

R403.10.2 Time switches. Time switches or other control methods that can automatically turn off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat-recovery pool heating systems.
3. Where pumps are powered exclusively from on-site renewable generation.

R403.10.3 Covers. Outdoor heated swimming pools and outdoor permanent spas shall be equipped with a vapor-retardant cover on or at the water surface or a liquid cover or other means proven to reduce heat loss.

Exception: Where more than 70 percent of the energy for heating, computed over an operation season, is from site-recovered energy, such as from a heat pump or solar energy source, covers or other vapor-retardant means shall not be required.

R403.10.4 Gas- and oil-fired pool and spa heaters. All gas- and oil-fired pool and spa heaters shall have a minimum thermal efficiency of 82 percent for heaters manufactured on or after April 16, 2013, when tested in accordance with ANSI Z 21.56. Pool heaters fired by natural or LP gas shall not have continuously burning pilot lights.

R403.10.5 Heat pump pool heaters. Heat pump pool heaters shall have a minimum COP of 4.0 when tested in accordance with AHRI 1160, Table 2, Standard Rating Conditions-Low Air Temperature. A test report from an independent laboratory is required to verify procedure compliance. Geothermal swimming pool heat pumps are not required to meet this standard.

R403.11 Portable spas (Mandatory) The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP-14.

SECTION R404

ELECTRICAL POWER AND LIGHTING SYSTEMS

R404.1 Lighting equipment (Mandatory). Not less than 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or not less than 75 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

Exception: Low-voltage lighting.

R404.1.1 Lighting equipment (Mandatory) Fuel gas lighting systems shall not have continuously burning pilot lights.

2017 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

Project Name: Johnson Residence Street: Tustenugee Ave City, State, Zip: Lake City, FL, 32024 Owner: Pete Johnson Design Location: FL, Gainesville Builder Name: Permit Office: Permit Number: Jurisdiction:		
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.	
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box or exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the sub-floor or drywall.	
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Envelope Leakage Test Report Performance Method

Project Name: Johnson Residence
Street: Tustenuggee Ave
City, State, Zip: Lake City, FL, 32024
Design Location: FL, Gainesville
Cond. Floor Area: 3663 sq.ft.

Builder Name:
Permit Office:
Permit Number:
Jurisdiction:
Cond. Volume: 36630 cu ft.

Envelope Leakage Test Results

Regression Data:

C: _____ n: _____ R: _____

Single or Multi Point Test Data

	HOUSE PRESSURE	FLOW:
1	Pa	cfm
2	Pa	cfm
3	Pa	cfm
4	Pa	cfm
5	Pa	cfm
6	Pa	cfm

Leakage Characteristics

Required ACH(50) from
FORM R405-2017 : _____

Tested ACH(50) * : _____

*Tested leakage must be less than or equal to the required ACH(50) shown on Form R405-2017 for this building. If the tested ACH(50) is less than 3 the building must have a mechanical ventilation system.

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour in Climate Zones 1 and 2 ... Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures;
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

I hereby certify that the above envelope leakage performance results demonstrate compliance with Florida Energy Code requirements in accordance with Section R402.4.1.2.

SIGNATURE: _____

PRINTED NAME: _____

DATE: _____

Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the third party conducting the test and provided to the code official.



BUILDING OFFICIAL: _____

DATE: _____



Load Short Form Entire House Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	11	52		

HEATING EQUIPMENT

Make n/a
Trade n/a
Model n/a
AHRI ref n/a

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



COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref 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 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0

ROOM NAME		Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
AHU 1	d	2165	26803	22370	1153	1153
AHU 2	d	1663	18097	14053	780	780
Entire House	d	3828	44901	36423	1933	1933
Other equip loads			0	0		
Equip. @ 0.97 RSM				35330		
Latent cooling				7583		
TOTALS		3828	44901	42913	1933	1933

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Load Short Form AHU 1 Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	11	52		

HEATING EQUIPMENT

Make Daikin
Trade DAIKIN
Model DZ16TC0361A*
AHRI ref 6545476
Efficiency 9.5 HSPF
Heating input
Heating output 34400 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 1153 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make Daikin
Trade DAIKIN
Cond DZ16TC0361A*
Coil AVPTC42D14A*
AHRI ref 6545476
Efficiency 12.5 EER, 16 SEER
Sensible cooling 24220 Btuh
Latent cooling 10380 Btuh
Total cooling 34600 Btuh
Actual air flow 1153 cfm
Air flow factor 0.052 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.82

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
great rm	619	4317	5574	186	287
pwdr rm	59	1374	672	59	35
wic 2	80	2399	666	103	34
bed 2	229	2498	1312	107	68
mech 1	53	0	0	0	0
bath 2	148	2687	834	116	43
bed 3	230	4642	3437	200	177
foyer	89	1587	802	68	41
dining	182	3194	3045	137	157
keeping	228	3739	3951	161	204
kitchen	248	366	2078	16	107

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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AHU 1	d	2165	26803	22370	1153	1153
Other equip loads			0	0		
Equip. @ 0.97 RSM				21699		
Latent cooling				4949		
TOTALS		2165	26803	26648	1153	1153

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Load Short Form
AHU 2
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	11	52		

HEATING EQUIPMENT

Make Daikin
Trade DAIKIN
Model DZ16TC0241A*
AHRI ref 6545434

Efficiency 8.5 HSPF
Heating input
Heating output 22400 Btuh @ 47°F
Temperature rise 26 °F
Actual air flow 780 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat

COOLING EQUIPMENT

Make Daikin
Trade DAIKIN
Cond DZ16TC0241A*
Coil DV30PTCC14A*
AHRI ref 6545434

Efficiency 11.8 EER, 15 SEER
Sensible cooling 16380 Btuh
Latent cooling 7020 Btuh
Total cooling 23400 Btuh
Actual air flow 780 cfm
Air flow factor 0.056 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.84

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
bed 4	202	3172	2147	137	119
bath 3	72	150	238	6	13
rear vest	47	0	0	0	0
pantry	69	162	258	7	14
laundry	107	1789	1514	77	84
mstr bed	380	4685	4907	202	272
mstr bath	214	4610	3141	199	174
mstr wic	173	1430	668	62	37
hall1	53	0	0	0	0
mech 2	27	0	0	0	0
office	252	2099	1179	90	65
hall 2	67	0	0	0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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AHU 2	d	1663	18097	14053	780	780
Other equip loads			0	0		
Equip. @ 0.97 RSM				13631		
Latent cooling				2634		
TOTALS		1663	18097	16265	780	780

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Load Multizone Summary Report

Job:
Date: Mar 14, 2018
By:

Glenn I. Jones, Inc.

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gjjinc.com Web: www.GlennJonesHomeServices.com License...

Infiltration Summary

ZONE NAME	Volume ft ³	Heating			Volume ft ³	Cooling		
		ACH	AVF cfm	HTM Btuh/ft ²		ACH	AVF cfm	HTM Btuh/ft ²
AHU 1	21040	0.32	114	3.2	21040	0.16	55	0.7
AHU 2	15118	0.30	75	3.2	15118	0.14	36	0.7
Entire House	36159	0.31	189	3.2	36159	0.15	90	0.7

Load and AVF Summary

ROOM NAME	Area ft ²	Htg load Btuh	Clg load Btuh	Htg AVF cfm	Clg AVF cfm
great rm	619	4317	5574	186	287
pwdr rm	59	1374	672	59	35
wic 2	80	2399	666	103	34
bed 2	229	2498	1312	107	68
mech 1	53	0	0	0	0
bath 2	148	2687	834	116	43
bed 3	230	4642	3437	200	177
foyer	89	1587	802	68	41
dining	182	3194	3045	137	157
keeping	228	3739	3951	161	204
kitchen	248	366	2078	16	107
AHU 1	2165	26803	22370	1153	1153
bed 4	202	3172	2147	137	119
bath 3	72	150	238	6	13
rear vest	47	0	0	0	0
pantry	69	162	258	7	14
laundry	107	1789	1514	77	84
mstr bed	380	4685	4907	202	272
mstr bath	214	4610	3141	199	174
mstr wic	173	1430	668	62	37
hall1	53	0	0	0	0
mech 2	27	0	0	0	0
office	252	2099	1179	90	65
hall 2	67	0	0	0	0
AHU 2	1663	18097	14053	780	780
Entire House	3828	44901	36423	1933	1933





Loads for Multiple Orientations

Entire House

Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennIJonesHomeServices.com License...

Project Information

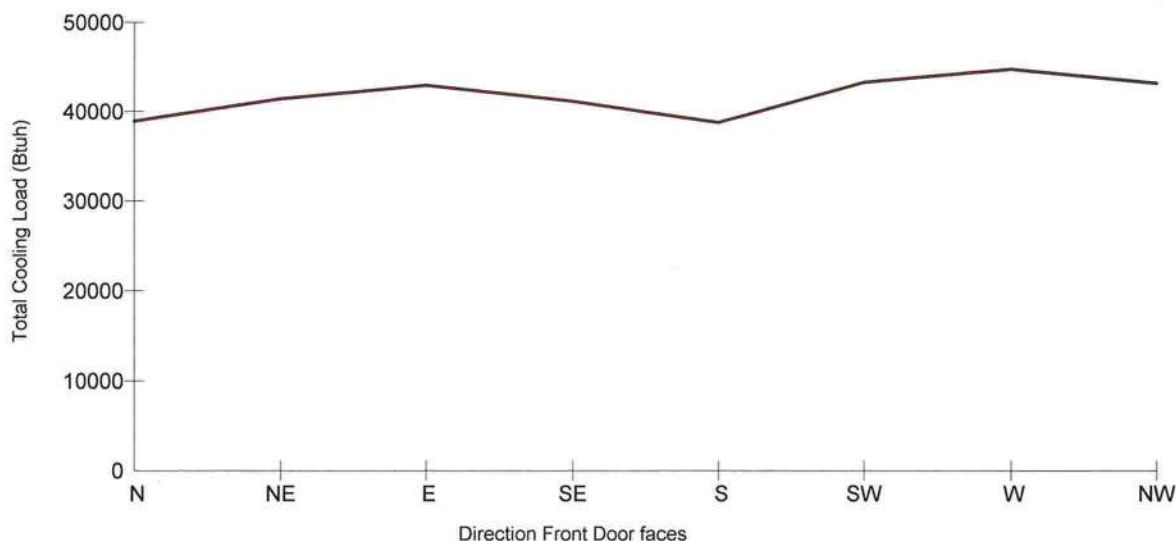
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		10.6	52.0
		Heating	Cooling	Infiltration:	
Dry bulb (°F)		33	92		
Daily range (°F)		-	19 (M)		
Wet bulb (°F)		-	77		
Wind speed (mph)		15.0	7.5		

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	31366	33834	35330	33537	31177	35659	37117	35542
Latent Load (Btuh)	7583	7583	7583	7583	7583	7583	7583	7583
Total Load (Btuh)	38949	41417	42913	41120	38760	43242	44700	43125
Heating AVF (cfm)	1933	1933	1933	1933	1933	1933	1933	1933
Cooling AVF (cfm)	1933	1933	1933	1933	1933	1933	1933	1933

Building Orientation Cooling Load



Current Orientation: Front Door faces East
Highest Cooling Load: Front Door faces West

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Loads for Multiple Orientations AHU 1

Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

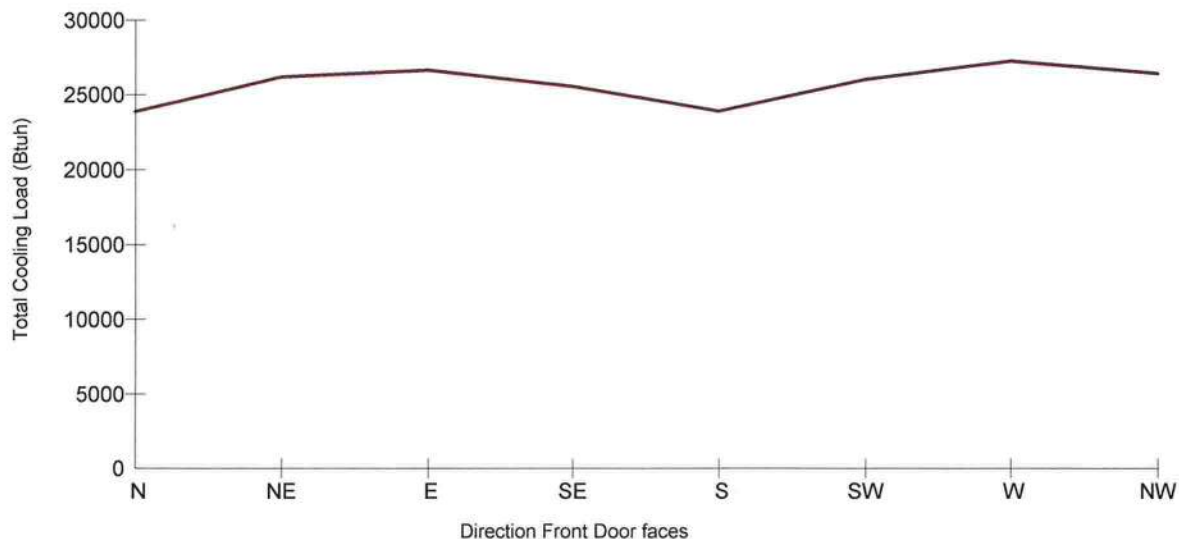
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	52.0
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92			
Daily range (°F)	-	19 (M)			
Wet bulb (°F)	-	77			
Wind speed (mph)	15.0	7.5			

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	18946	21255	21699	20606	18944	21062	22312	21471
Latent Load (Btuh)	4949	4949	4949	4949	4949	4949	4949	4949
Total Load (Btuh)	23895	26204	26648	25556	23893	26011	27261	26420
Heating AVF (cfm)	1153	1153	1153	1153	1153	1153	1153	1153
Cooling AVF (cfm)	1153	1153	1153	1153	1153	1153	1153	1153

Building Orientation Cooling Load



Current Orientation: Front Door faces East
Highest Cooling Load: Front Door faces West

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

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Page 2



Loads for Multiple Orientations AHU 2

Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

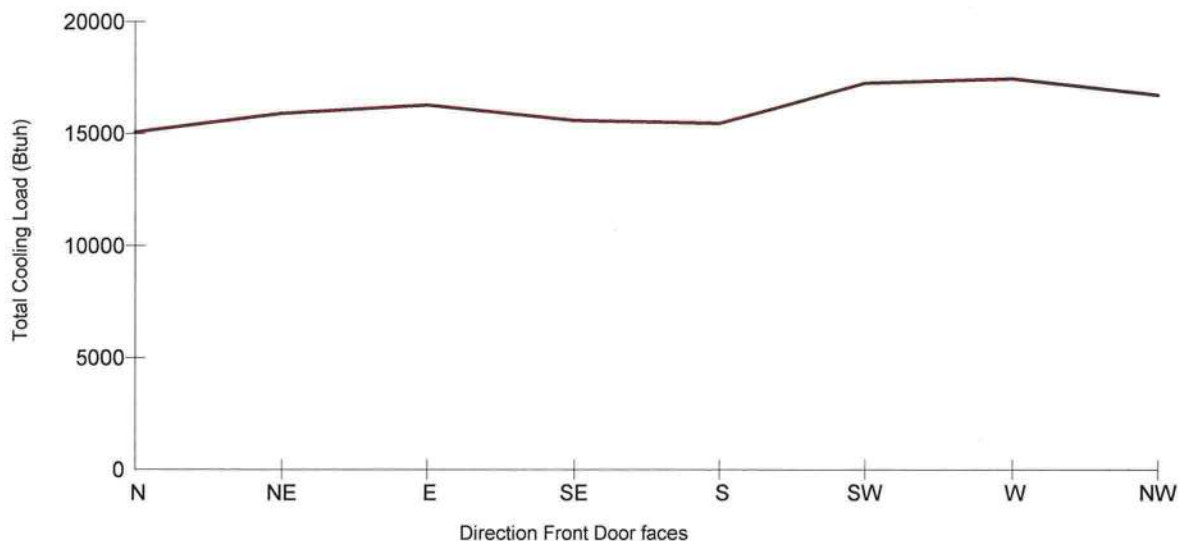
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	52.0
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92			
Daily range (°F)	-	19 (M)			
Wet bulb (°F)	-	77			
Wind speed (mph)	15.0	7.5			

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	12423	13258	13631	12931	12811	14597	14805	14071
Latent Load (Btuh)	2634	2634	2634	2634	2634	2634	2634	2634
Total Load (Btuh)	15057	15892	16265	15565	15445	17231	17439	16705
Heating AVF (cfm)	780	780	780	780	780	780	780	780
Cooling AVF (cfm)	780	780	780	780	780	780	780	780

Building Orientation Cooling Load



Current Orientation: Front Door faces East
Highest Cooling Load: Front Door faces West

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Building Analysis Entire House Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:

Gainesville, FL, US
Elevation: 151 ft
Latitude: 30°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

Cooling

92
19 (M)
77
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
37
30
10.6

Cooling

75
17
50
52.0

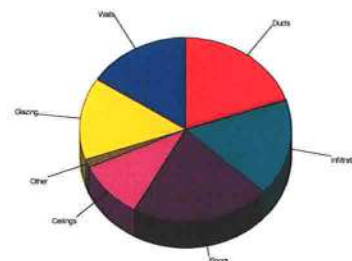
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
1 (Average)

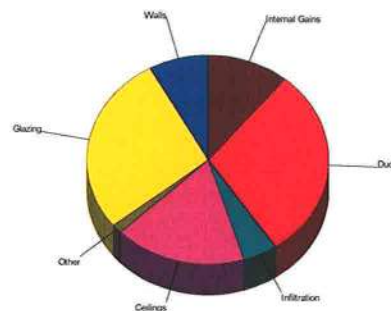
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.6	7108	15.8
Glazing	17.5	6491	14.5
Doors	10.7	676	1.5
Ceilings	1.2	4532	10.1
Floors	2.5	9563	21.3
Infiltration	3.2	7640	17.0
Ducts		8890	19.8
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		44901	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.5	2949	8.1
Glazing	27.0	10046	27.6
Doors	8.5	533	1.5
Ceilings	1.7	6449	17.7
Floors	0	0	0
Infiltration	0.7	1681	4.6
Ducts		10765	29.6
Ventilation		0	0
Internal gains		4000	11.0
Blower		0	0
Adjustments		0	0
Total		36423	100.0



Latent Cooling Load = 7583 Btuh
Overall U-value = 0.076 Btuh/ft²-°F

Data entries checked.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Project Information

For: Leonard Johnson
871 SW Tustenugee Ave, Lake City, FL 32024

Design Conditions

Location:

Gainesville, FL, US
Elevation: 151 ft
Latitude: 30°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33

100

—

15.0

Cooling

92

19 (M)

77

7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
37
30
10.6

Cooling

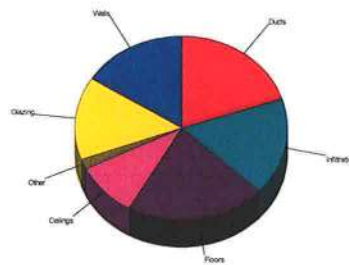
75
17
50
52.0

Infiltration:

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

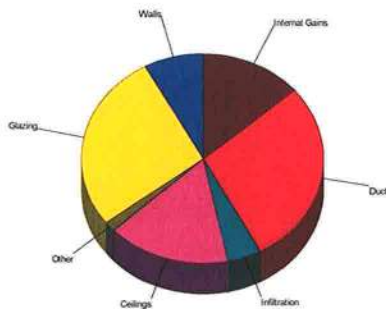
Heating

Component	Btuh/ft ²	Btuh	% of load
Walls	3.6	4280	16.0
Glazing	17.5	3918	14.6
Doors	10.7	451	1.7
Ceilings	1.2	2563	9.6
Floors	2.6	5672	21.2
Infiltration	3.2	4612	17.2
Ducts		5307	19.8
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	
Total		26803	100.0



Cooling

Component	Btuh/ft ²	Btuh	% of load
Walls	1.5	1776	7.9
Glazing	27.5	6142	27.5
Doors	8.5	355	1.6
Ceilings	1.7	3648	16.3
Floors	0	0	0
Infiltration	0.7	1015	4.5
Ducts		6395	28.6
Ventilation		0	0
Internal gains		3040	13.6
Blower		0	0
Adjustments		0	
Total		22370	100.0



Latent Cooling Load = 4949 Btuh
Overall U-value = 0.079 Btuh/ft²·°F

Data entries checked.



Building Analysis AHU 2 Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennI.JonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:

Gainesville, FL, US
Elevation: 151 ft
Latitude: 30°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

Cooling

92
19 (M)
77
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
37
30
10.6

Cooling

75
17
50
52.0

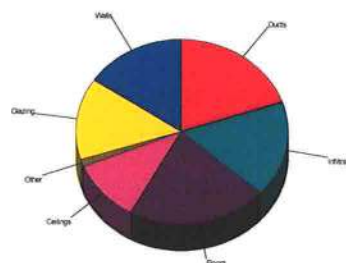
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
1 (Average)

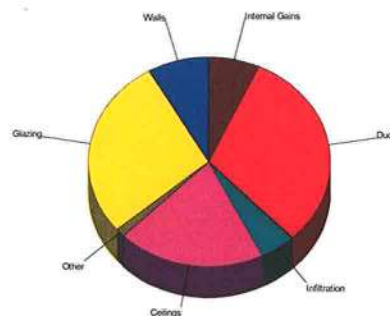
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.6	2828	15.6
Glazing	17.4	2574	14.2
Doors	10.7	225	1.2
Ceilings	1.2	1969	10.9
Floors	2.3	3891	21.5
Infiltration	3.2	3028	16.7
Ducts		3583	19.8
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		18097	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.5	1173	8.3
Glazing	26.4	3904	27.8
Doors	8.5	178	1.3
Ceilings	1.7	2801	19.9
Floors	0	0	0
Infiltration	0.7	666	4.7
Ducts		4370	31.1
Ventilation		0	0
Internal gains		960	6.8
Blower		0	0
Adjustments		0	0
Total		14053	100.0



Latent Cooling Load = 2634 Btuh
Overall U-value = 0.072 Btuh/ft²-°F

Data entries checked.





Component Constructions
Entire House
 Glenn I. Jones, Inc.

Job:
 Date: Mar 14, 2018
 By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennIJonesHomeServices.com License...

Project Information

For: Leonard Johnson
 871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	52.0
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92	Method		
Daily range (°F)	-	19 (M)	Construction quality		
Wet bulb (°F)	-	77	Simplified		
Wind speed (mph)	15.0	7.5	Average		
			1 (Average)		

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12B-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-11 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	504	0.097	11.0	3.59	1808	1.49	750
	e	632	0.097	11.0	3.59	2268	1.49	941
	s	363	0.097	11.0	3.59	1304	1.49	541
	w	482	0.097	11.0	3.59	1729	1.49	717
	all	1981	0.097	11.0	3.59	7108	1.49	2949

Partitions (none)

Windows

4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	n	30	0.470	0	17.4	522	13.0	390
	e	20	0.470	0	17.4	348	31.2	624
	s	15	0.470	0	17.4	261	13.0	195
	s	20	0.470	0	17.4	348	13.0	260
	w	15	0.470	0	17.4	261	31.2	468
	all	100	0.470	0	17.4	1739	19.4	1937
10D-v: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (7 ft window ht, 1 ft sep.); 6.67 ft head ht	e	42	0.490	0	18.1	761	23.2	973
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	e	8	0.470	0	17.4	130	29.4	220
	s	6	0.470	0	17.4	104	13.0	78
	all	14	0.470	0	17.4	235	22.1	298
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (6 ft window ht, 1 ft sep.); 6.67 ft head ht	e	144	0.470	0	17.4	2504	31.7	4559
	w	72	0.470	0	17.4	1252	31.7	2280
	all	216	0.470	0	17.4	3756	31.7	6839

Doors

11P0: Door, mtl pur core type	e	21	0.290	10.5	10.7	225	8.45	178
	w	42	0.290	10.5	10.7	451	8.45	355
	all	63	0.290	10.5	10.7	676	8.45	533

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 1/2" gypsum board int fnsh		3828	0.032	30.0	1.18	4532	1.68	6449
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Floors

22A-tp1: Bg floor, light dry soil, on grade depth

261	0.989	0	36.6	9563	0	0
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Component Constructions
AHU 1
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennI.JonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		10.6	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
Heating	33	Cooling	92		
	-		19 (M)		
	-		77		
	15.0		7.5		

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12B-Obw: Frm wall, brk 4" ext, 3/8" wood shth, r-11 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	414	0.097	11.0	3.59	1486	1.49	616
	e	398	0.097	11.0	3.59	1429	1.49	593
	s	57	0.097	11.0	3.59	205	1.49	85
	w	323	0.097	11.0	3.59	1160	1.49	481
	all	1193	0.097	11.0	3.59	4280	1.49	1776
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	n	30	0.470	0	17.4	522	13.0	390
10D-v: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (7 ft window ht, 1 ft sep.); 6.67 ft head ht	e	42	0.490	0	18.1	761	23.2	973
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	e	8	0.470	0	17.4	130	29.4	220
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (6 ft window ht, 1 ft sep.); 6.67 ft head ht	e	72	0.470	0	17.4	1252	31.7	2280
	w	72	0.470	0	17.4	1252	31.7	2280
	all	144	0.470	0	17.4	2504	31.7	4559
Doors								
11P0: Door, mtl pur core type	w	42	0.290	10.5	10.7	451	8.45	355
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 1/2" gypsum board int fnsh		2165	0.032	30.0	1.18	2563	1.68	3648
Floors								
22A-tpl: Bg floor, light dry soil, on grade depth		155	0.989	0	36.6	5672	0	0





Component Constructions
AHU 2
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	52.0
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92	Method	Simplified	
Daily range (°F)	-	19 (M)	Construction quality	Average	
Wet bulb (°F)	-	77	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12B-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-11 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	90	0.097	11.0	3.59	322	1.49	134
	e	234	0.097	11.0	3.59	839	1.49	348
	s	306	0.097	11.0	3.59	1099	1.49	456
	w	158	0.097	11.0	3.59	568	1.49	236
	all	788	0.097	11.0	3.59	2828	1.49	1173

Partitions (none)

Windows

4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	e	20	0.470	0	17.4	348	31.2	624
	s	15	0.470	0	17.4	261	13.0	195
	s	20	0.470	0	17.4	348	13.0	260
	w	15	0.470	0	17.4	261	31.2	468
	all	70	0.470	0	17.4	1217	22.1	1547
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	s	6	0.470	0	17.4	104	13.0	78
4A5-2ov: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% outdoor insect screen; 2 ft overhang (6 ft window ht, 1 ft sep.); 6.67 ft head ht	e	72	0.470	0	17.4	1252	31.7	2280

Doors

11P0: Door, mtl pur core type	e	21	0.290	10.5	10.7	225	8.45	178
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Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 1/2" gypsum board int fnsh		1663	0.032	30.0	1.18	1969	1.68	2801
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Floors

22A-tpl: Bg floor, light dry soil, on grade depth		106	0.989	0	36.6	3891	0	0
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...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Project Summary
Entire House
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gjinc.com Web: www.GlennIJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Notes: Contact is Leonard Jones @ 386-867-0142

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	36010 Btuh
Ducts	8890 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	44901 Btuh

Sensible Cooling Equipment Load Sizing

Structure	25658 Btuh
Ducts	10765 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	35330 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft ²)	3828	3828
Volume (ft ³)	36159	36159
Air changes/hour	0.31	0.15
Equiv. AVF (cfm)	189	90

Latent Cooling Equipment Load Sizing

Structure	5178 Btuh
Ducts	2405 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	7583 Btuh
Equipment total load	42913 Btuh
Req. total capacity at 0.70 SHR	4.2 ton

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H ₂ O
Space thermostat	n/a

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	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 cfm/Btuh
Static pressure	0 in H ₂ O
Load sensible heat ratio	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Page 1



Project Summary
AHU 1
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Notes: Contact is Leonard Jones @ 386-867-0142

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	21496 Btuh
Ducts	5307 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	26803 Btuh

Sensible Cooling Equipment Load Sizing

Structure	15975 Btuh
Ducts	6395 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	21699 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft ²)	2165	2165
Volume (ft ³)	21040	21040
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	114	55

Latent Cooling Equipment Load Sizing

Structure	3519 Btuh
Ducts	1430 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	4949 Btuh
Equipment total load	26648 Btuh
Req. total capacity at 0.70 SHR	2.6 ton

Heating Equipment Summary

Make	Daikin
Trade	DAIKIN
Model	DZ16TC0361A*
AHRI ref	6545476
Efficiency	9.5 HSPF
Heating input	
Heating output	34400 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	1153 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Daikin
Trade	DAIKIN
Cond	DZ16TC0361A*
Coil	AVPTC42D14A*
AHRI ref	6545476
Efficiency	12.5 EER, 16 SEER
Sensible cooling	24220 Btuh
Latent cooling	10380 Btuh
Total cooling	34600 Btuh
Actual air flow	1153 cfm
Air flow factor	0.052 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.82

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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Project Summary
AHU 2
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Notes: Contact is Leonard Jones @ 386-867-0142

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	14514 Btuh
Ducts	3583 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	18097 Btuh

Sensible Cooling Equipment Load Sizing

Structure	9683 Btuh
Ducts	4370 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	13631 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft ²)	1663	1663
Volume (ft ³)	15118	15118
Air changes/hour	0.30	0.14
Equiv. AVF (cfm)	75	36

Latent Cooling Equipment Load Sizing

Structure	1659 Btuh
Ducts	975 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	2634 Btuh
Equipment total load	16265 Btuh
Req. total capacity at 0.70 SHR	1.6 ton

Heating Equipment Summary

Make	Daikin
Trade	DAIKIN
Model	DZ16TC0241A*
AHRI ref	6545434

Efficiency	8.5 HSPF
Heating input	
Heating output	22400 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	780 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Daikin
Trade	DAIKIN
Cond	DZ16TC0241A*
Coil	DV30PTCC14A*
AHRI ref	6545434
Efficiency	11.8 EER, 15 SEER
Sensible cooling	16380 Btuh
Latent cooling	7020 Btuh
Total cooling	23400 Btuh
Actual air flow	780 cfm
Air flow factor	0.056 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.84

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

2018-Mar-16 08:36:26

Page 3



AED Assessment
Entire House
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gjjinc.com Web: www.GlennJonesHomeServices.com License...

Project Information

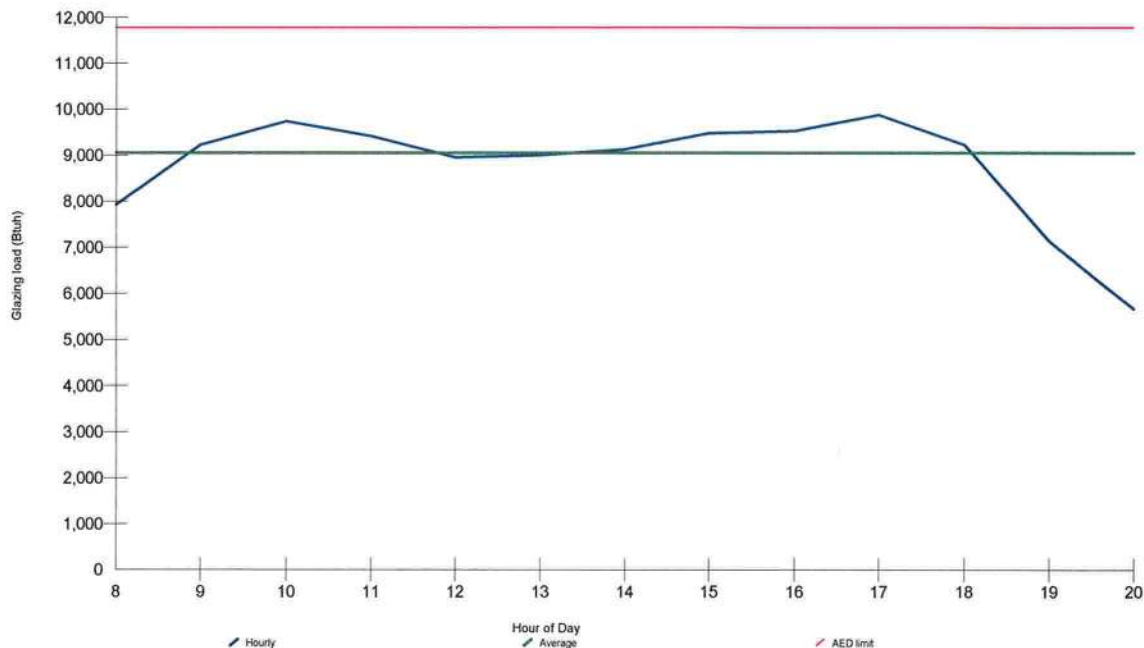
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:			Indoor:	Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)	70	75
Elevation: 151 ft			Design TD (°F)	37	17
Latitude: 30°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	10.6	52.0
			Heating	Cooling	Infiltration:
Dry bulb (°F)			33	92	
Daily range (°F)			-	19 (M)	
Wet bulb (°F)			-	77	
Wind speed (mph)			15.0	7.5	

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 9.1%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btu/h



AED Assessment
AHU 1
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennIJonesHomeServices.com License...

Project Information

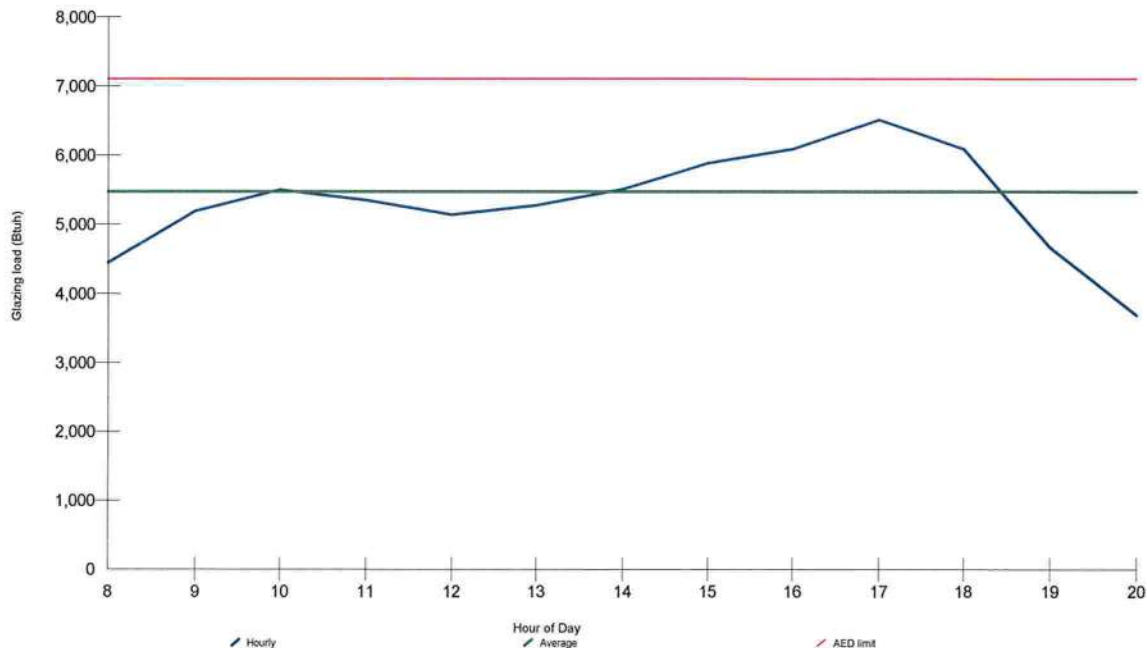
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		10.6	52.0
	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92			
Daily range (°F)	-	19 (M)			
Wet bulb (°F)	-	77			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 19.1%.

Zone has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

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AED Assessment
AHU 2
Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

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Project Information

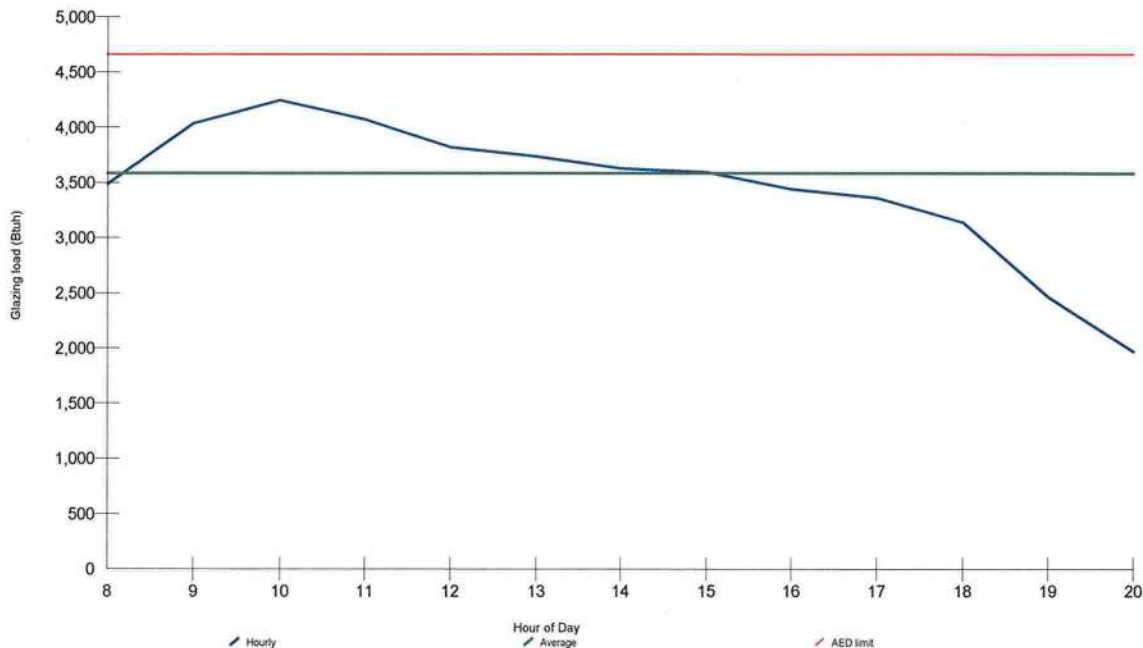
For: Leonard Johnson
871 SW Tustenuggee Ave, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		10.6	52.0
		Heating	Cooling	Infiltration:	
Dry bulb (°F)		33	92		
Daily range (°F)		-	19 (M)		
Wet bulb (°F)		-	77		
Wind speed (mph)		15.0	7.5		

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 18.4%.

Zone has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



Right-Suite® Universal 2013 13.0.15 RSU01086

...nn\Johnson, Leonard residence\jones-johnson.rup Calc = MJ8 Front Door faces: E

2018-Mar-16 08:36:26

Page 3

Right-J® Worksheet

Entire House

Glenn I. Jones, Inc.

Job:
Date: Mar 14, 2018
By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

1	Room name					Entire House				AHU 1				
2	Exposed wall					261.3 ft				155.0 ft				
3	Room height					9.4 ft				9.7 ft				
4	Room dimensions					d				d				
5	Room area					3827.8 ft²				2165.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6 11	W	12B-0bw	0.097	n	3.59	1.49	534	504	1808	750	444	414	1486	616
	G	4A5-2ov	0.470	n	17.39	13.00	30	0	522	390	30	0	522	390
	W	12B-0bw	0.097	e	3.59	1.49	866	632	2268	941	520	398	1429	593
	G	10D-v	0.490	e	18.13	23.17	42	8	761	973	42	8	761	973
	G	4A5-2ov	0.470	e	17.39	29.35	8	3	130	220	8	3	130	220
	G	4A5-2ov	0.470	e	17.39	31.20	20	5	348	624	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	144	32	2504	4559	72	16	1252	2280
	D	11P0	0.290	e	10.73	8.45	21	21	225	178	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	404	363	1304	541	57	57	205	85
	G	4A5-2ov	0.470	s	17.39	13.00	6	12	104	78	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	15	30	261	195	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	20	40	348	260	0	0	0	0
	W	12B-0bw	0.097	w	3.59	1.49	611	482	1729	717	437	323	1160	481
	G	4A5-2ov	0.470	w	17.39	31.20	15	4	261	468	0	0	0	0
	G	4A5-2ov	0.470	w	17.39	31.66	72	16	1252	2280	72	16	1252	2280
	D	11P0	0.290	w	10.73	8.45	42	42	451	355	42	42	451	355
	C	16B-30ad	0.032	-	1.18	1.68	3828	3828	4532	6449	2165	2165	2563	3648
	F	22A-1pl	0.989	-	36.59	0.00	3828	261	9563	0	2165	155	5672	0
	6	c) AED excursion								0				0
		Envelope loss/gain							28371	19977			16884	11920
12	a) Infiltration							7640	1681			4612	1015	
	b) Room ventilation							0	0			0	0	
13	Internal gains: Occupants @ 230 Appliances/other					10			2300 1700	8			1840 1200	
	Subtotal (lines 6 to 13)							36010	25658			21496	15975	
14 15	Less external load							0	0			0	0	
	Less transfer							0	0			0	0	
	Redistribution							0	0			0	0	
	Subtotal							36010	25658			21496	15975	
	Duct loads					25%	42%	8890	10765	25%	40%	5307	6395	
	Total room load							44901	36423			26803	22370	
	Air required (cfm)							1933	1933			1153	1153	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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1	Room name					AHU 2									
2	Exposed wall					9.1 ft				106.3 ft					
3	Room height					d									
4	Room dimensions														
5	Room area					1662.8 ft²									
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6 . . . 11	W	12B-0bw	0.097	n	3.59	1.49	90	90	322	134					
	G	4A5-2ov	0.470	n	17.39	13.00	0	0	0	0					
	W	12B-0bw	0.097	e	3.59	1.49	347	234	839	348					
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0					
	G	4A5-2ov	0.470	e	17.39	29.35	0	0	0	0					
	G	4A5-2ov	0.470	e	17.39	31.20	20	5	348	624					
	G	4A5-2ov	0.470	e	17.39	31.66	72	16	1252	2280					
	D	11P0	0.290	e	10.73	8.45	21	21	225	178					
	W	12B-0bw	0.097	s	3.59	1.49	347	306	1099	456					
	G	4A5-2ov	0.470	s	17.39	13.00	6	12	104	78					
	G	4A5-2ov	0.470	s	17.39	13.00	15	30	261	195					
	G	4A5-2ov	0.470	s	17.39	13.00	20	40	348	260					
	W	12B-0bw	0.097	w	3.59	1.49	173	158	568	236					
	G	4A5-2ov	0.470	w	17.39	31.20	15	4	261	468					
	G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0					
	D	11P0	0.290	w	10.73	8.45	0	0	0	0					
	C	16B-30ad	0.032	-	1.18	1.68	1663	1663	1969	2801					
	F	22A-tpi	0.989	-	36.59	0.00	1663	106	3891	0					
	6	c) AED excursion								0					
		Envelope loss/gain								11487	8057				
12	a) Infiltration								3028	666					
	b) Room ventilation								0	0					
13	Internal gains:		Occupants @	230		2			460						
			Appliances/other						500						
	Subtotal (lines 6 to 13)								14514	9683					
14	Less external load								0	0					
	Less transfer								0	0					
	Redistribution								0	0					
15	Subtotal								14514	9683					
	Duct loads						25%	45%	3583	4370					
	Total room load								18097	14053					
	Air required (cfm)								780	780					

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					AHU 1				great rm				
2	Exposed wall					155.0 ft				19.0 ft				
3	Room height					9.7 ft				11.0 ft				
4	Room dimensions					d				1.0 x 619.3 ft				
5	Room area					2165.0 ft²				619.3 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0bw	0.097	n	3.59	1.49	444	414	1486	616	0	0	0	0
	G	4A5-2ov	0.470	n	17.39	13.00	30	0	522	390	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	520	398	1429	593	209	167	599	249
	G	10D-v	0.490	e	18.13	23.17	42	8	761	973	42	4	761	973
11	G	4A5-2ov	0.470	e	17.39	29.35	8	3	130	220	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	72	16	1252	2280	0	0	0	0
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	57	57	205	85	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	w	3.59	1.49	437	323	1160	481	0	0	0	0
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.39	31.66	72	16	1252	2280	0	0	0	0
	D	11P0	0.290	w	10.73	8.45	42	42	451	355	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	2165	2165	2563	3648	619	619	733	1043
	F	22A-tpi	0.989	-	36.59	0.00	2165	155	5672	0	619	19	695	0
6	c) AED excursion									0				-286
	Envelope loss/gain								16884	11920			2789	1980
12	a) Infiltration								4612	1015			661	145
	b) Room ventilation								0	0			0	0
13	Internal gains: Occupants @ 230 Appliances/other						8			1840 1200	8			1840 0
	Subtotal (lines 6 to 13)								21496	15975			3451	3965
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			12	15
14	Subtotal								21496	15975			3462	3981
15	Duct loads						25%	40%	5307	6395	25%	40%	855	1593
	Total room load								26803	22370			4317	5574
	Air required (cfm)								1153	1153			186	287

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet
AHU 1
Glenn I. Jones, Inc.

Job:
 Date: Mar 14, 2018
 By:

552 NW Hilton Ave, Lake City, FL 32055 Phone: 386-752-5389 Fax: 386-755-3401 Email: customercare@gijinc.com Web: www.GlennJonesHomeServices.com License...

1	Room name					pwdr rm 9.3 ft				wic 2 18.7 ft					
2	Exposed wall					9.0 ft				9.0 ft					
3	Room height					9.3 x 6.3				6.7 x 12.0					
4	Room dimensions					heat/cool				heat/cool					
5	Room area					59.1 ft²				80.0 ft²					
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	108	108	388	161	
	G	4A5-2ov	0.470	n	17.39	13.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	e	3.59	1.49	84	77	275	114	60	60	215	89	
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0	0	0	0	0	
11	G	4A5-2ov	0.470	e	17.39	29.35	8	2	130	220	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	w	10.73	8.45	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	59	59	70	100	80	80	95	135	
	F	22A-tpl	0.989	-	36.59	0.00	59	9	342	0	80	19	683	0	
6	c) AED excursion									-38				-42	
	Envelope loss/gain								817	396			1381	343	
12	a) Infiltration								266	58			531	117	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			0			0	0			0	
			Appliances/other							0				0	
	Subtotal (lines 6 to 13)								1082	454			1912	460	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								19	25			12	15	
14	Subtotal								1102	480			1924	476	
15	Duct loads							25%	40%	272	192	25%	40%	475	190
	Total room load								1374	672			2399	666	
	Air required (cfm)								59	35			103	34	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					bed 2					mech 1				
2	Exposed wall					13.3 ft					0 ft				
3	Room height					9.0 ft 1.0 x 229.3 ft					9.0 ft 9.3 x 5.7 ft				
4	Room dimensions					229.3 ft²					52.9 ft²				
5	Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6 11	W	12B-0bw	0.097	n	3.59	1.49	120	90	323	134	0	0	0	0	
	G	4A5-2ov	0.470	n	17.39	13.00	30	0	522	390	0	0	0	0	
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0	
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	29.35	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	w	10.73	8.45	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	229	229	272	386	53	53	63	89	
	F	22A-tpl	0.989	-	36.59	0.00	229	13	488	0	53	0	0	0	0
	6	c) AED excursion									-82				-7
		Envelope loss/gain								1604	828			63	82
12	a) Infiltration b) Room ventilation								380 0	84 0			0 0	0 0	
13	Internal gains: Occupants @ 230 Appliances/other						0			0 0	0			0 0	
	Subtotal (lines 6 to 13)								1984	912			63	82	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								19	25			-63	-82	
	Subtotal								2003	937			0	0	
15	Duct loads						25%	40%	495	375	25%	40%	0	0	
	Total room load								2498	1312			0	0	
	Air required (cfm)								107	68			0	0	

1 2 3 4 5	Room name		Exposed wall		Room height		Room dimensions		Room area		bath 2		bed 3	
	9.0 ft		20.3 ft		heat/cool		9.0 ft		30.3 ft		1.0 x 148.0 ft		1.0 x 230.2 ft	
	148.0 ft²													
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0bw	0.097	n	3.59	1.49	123	123	441	183	60	60	215	89
	G	4A5-2ov	0.470	n	17.39	13.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	17.39	29.35	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	33	33	118	49
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	w	3.59	1.49	60	60	215	89	180	144	517	214
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0	36	4	626	1140
	D	11P0	0.290	w	10.73	8.45	0	0	0	0	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	148	148	175	249	230	230	273	388
	F	22A-1pl	0.989	-	36.59	0.00	148	20	744	0	230	30	1110	0
6	c) AED excursion									-54				384
	Envelope loss/gain								1576	468			2859	2264
12	a) Infiltration								579	127			864	190
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
	Appliances/other									0				0
	Subtotal (lines 6 to 13)								2155	595			3723	2454
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								2155	595			3723	2454
15	Duct loads						25%	40%	532	238	25%	40%	919	982
	Total room load								2687	834			4642	3437
	Air required (cfm)								116	43			200	177

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					foyer 8.3 ft				dining 19.0 ft				
2	Exposed wall					10.0 ft				9.0 ft				
3	Room height					8.3 x 10.7 ft				12.7 x 14.3 ft				
4	Room dimensions					88.9 ft²				181.6 ft²				
5	Room area													
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	33	33	118	49
11	G	4A5-2ov	0.470	n	17.39	13.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	29.35	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	24	24	86	36
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0
W	12B-0bw	0.097	w	3.59	1.49	83	41	148	62	114	78	280	116	
G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0	36	4	626	1140	
D	11P0	0.290	w	10.73	8.45	42	42	451	355	0	0	0	0	
C	16B-30ad	0.032	-	1.18	1.68	89	89	105	150	182	182	215	306	
F	22A-tpi	0.989	-	36.59	0.00	89	8	305	0	182	19	695	0	
6	c) AED excursion									-52				409
	Envelope loss/gain								1009	515			2021	2056
12	a) Infiltration b) Room ventilation								264 0	58 0			541 0	119 0
13	Internal gains:		Occupants @ Appliances/other	230		0			0 0	0			0 0	0 0
	Subtotal (lines 6 to 13)								1273	573			2562	2175
14	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
	Subtotal								1273	573			2562	2175
15	Duct loads						25%	40%	314	229	25%	40%	632	871
	Total room load								1587	802			3194	3045
	Air required (cfm)								68	41			137	157

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					keeping					kitchen					
2	Exposed wall					16.7 ft					0 ft					
3	Room height					10.0 ft					9.0 ft					
4	Room dimensions					16.7 x 13.7 ft					1.0 x 247.9 ft					
5	Room area					227.8 ft²					247.9 ft²					
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)			
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool		
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	n	17.39	13.00	0	0	0	0	0	0	0	0		
	W	12B-0bw	0.097	e	3.59	1.49	167	95	340	141	0	0	0	0		
	G	10D-v	0.490	e	18.13	23.17	0	0	0	0	0	0	0	0		
11	G	4A5-2ov	0.470	e	17.39	29.35	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	e	17.39	31.66	72	8	1252	2280	0	0	0	0		
	D	11P0	0.290	e	0.00	0.00	0	0	0	0	0	0	0	0		
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	s	0.00	0.00	0	0	0	0	0	0	0	0		
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	w	17.39	31.66	0	0	0	0	0	0	0	0		
	D	11P0	0.290	w	10.73	8.45	0	0	0	0	0	0	0	0		
	C	16B-30ad	0.032	-	1.18	1.68	228	228	270	384	248	248	294	418		
	F	22A-tpl	0.989	-	36.59	0.00	228	17	610	0	248	0	0	0		
6	c) AED excursion									-99				-134		
	Envelope loss/gain									2471	2705			294	284	
12	a) Infiltration									527	116			0	0	
	b) Room ventilation									0	0			0	0	
13	Internal gains:		Occupants @	230			0			0	0				0	
			Appliances/other							0					1200	
	Subtotal (lines 6 to 13)									2999	2821			294	1484	
	Less external load									0	0			0	0	
	Less transfer									0	0			0	0	
	Redistribution									0	0			0	0	
14	Subtotal									2999	2821			294	1484	
15	Duct loads							25%	40%	740	1129		25%	40%	72	594
	Total room load									3739	3951			366	2078	
	Air required (cfm)									161	204			16	107	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					AHU 2				bed 4				
2	Exposed wall					106.3 ft				19.7 ft				
3	Room height					9.1 ft				10.0 ft				
4	Room dimensions					d				1.0 x 201.7 ft				
5	Room area					1662.8 ft²				201.7 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0bw	0.097	n	3.59	1.49	90	90	322	134	0	0	0	0
	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	347	234	839	348	0	0	0	0
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.20	20	5	348	624	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	72	16	1252	2280	0	0	0	0
	D	11P0	0.290	e	10.73	8.45	21	21	225	178	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	347	306	1099	456	23	23	84	35
	G	4A5-2ov	0.470	s	17.39	13.00	6	12	104	78	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	15	30	261	195	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	20	40	348	260	0	0	0	0
	W	12B-0bw	0.097	w	3.59	1.49	173	158	568	236	173	158	568	236
	G	4A5-2ov	0.470	w	17.39	31.20	15	4	261	468	15	2	261	468
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	D	11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	1663	1663	1969	2801	202	202	239	340
	F	22A-tpl	0.989	-	36.59	0.00	1663	106	3891	0	202	20	720	0
6	c) AED excursion													
	Envelope loss/gain													
									11487	8057			1871	1274
12	a) Infiltration													
	b) Room ventilation													
									3028	666			622	137
									0	0			0	0
13	Internal gains:		Occupants @		230		2				0			
			Appliances/other											
									460	500			0	0
	Subtotal (lines 6 to 13)													
									14514	9683			2493	1411
	Less external load													
	Less transfer													
	Redistribution													
									0	0			0	0
									0	0			0	0
									0	0			50	69
14	Subtotal													
									14514	9683			2544	1479
15	Duct loads													
							25%	45%	3583	4370	25%	45%	628	668
	Total room load													
	Air required (cfm)													
									18097	14053			3172	2147
									780	780			137	119

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					bath 3				rear vest					
2	Exposed wall					0 ft				0 ft					
3	Room height					8.0 ft				8.0 ft					
4	Room dimensions					8.3 x 8.7 ft				8.3 x 5.7 ft					
5	Room area					72.2 ft²				47.2 ft²					
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	0	0	0	0	
11	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0	
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.20	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	e	10.73	8.45	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0		
G	4A5-2ov	0.470	w	17.39	31.20	0	0	0	0	0	0	0	0		
G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0		
D	11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0		
C	16B-30ad	0.032	-	1.18	1.68	72	72	86	122	47	47	56	80		
F	22A-1pl	0.989	-	36.59	0.00	72	0	0	0	47	0	0	0		
6	c) AED excursion									-5				-3	
	Envelope loss/gain									86	117			56	76
12	a) Infiltration									0	0			0	0
	b) Room ventilation									0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0	0
			Appliances/other							0				0	
	Subtotal (lines 6 to 13)									86	117			56	76
14	Less external load									0	0			0	0
	Less transfer									0	0			0	0
	Redistribution									35	47			-56	-76
15	Subtotal									120	164			0	0
	Duct loads							25%	45%	30	74	25%	45%	0	0
	Total room load									150	238			0	0
	Air required (cfm)									6	13			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					pantry 0 ft					laundry 11.7 ft				
2	Exposed wall					8.0 ft 6.7 x 10.3 ft					9.0 ft 8.0 x 13.3 ft				
3	Room height					heat/cool					heat/cool				
4	Room dimensions					68.9 ft²					106.7 ft²				
5	Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	33	33	118	49	
		4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	72	51	183	76	
		10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0	
11		4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	e	17.39	31.20	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
		11P0	0.290	e	10.73	8.45	0	0	0	0	21	21	225	178	
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	w	17.39	31.20	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
		4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
		11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	69	69	82	116	107	107	126	180	
	F	22A-tpl	0.989	-	36.59	0.00	69	0	0	0	107	12	427	0	
6	c) AED excursion									-5				-43	
	Envelope loss/gain									82	111			1080	439
12	a) Infiltration									0	0			332	73
	b) Room ventilation									0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0	500
	Appliances/other									0					
	Subtotal (lines 6 to 13)									82	111			1412	1012
	Less external load									0	0			0	0
	Less transfer									0	0			0	0
	Redistribution									49	66			23	31
14	Subtotal									130	178			1435	1043
15	Duct loads							25%	45%	32	80	25%	45%	354	471
	Total room load									162	258			1789	1514
	Air required (cfm)									7	14			77	84

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					mstr bed				mstr bath				
2	Exposed wall					21.7 ft				31.0 ft				
3	Room height					10.0 ft				8.0 ft				
4	Room dimensions					1.0 x 380.0 ft				1.0 x 214.2 ft				
5	Room area					380.0 ft²				214.2 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12B-0bw	0.097	n	3.59	1.49	57	57	203	84	0	0	0	0
11	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	160	88	316	131	115	95	340	141
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.20	0	0	0	0	20	3	348	624
	G	4A5-2ov	0.470	e	17.39	31.66	72	8	1252	2280	0	0	0	0
	D	11P0	0.290	e	10.73	8.45	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	133	107	385	160
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	6	6	104	78
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	20	20	348	260
W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	
G	4A5-2ov	0.470	w	17.39	31.20	0	0	0	0	0	0	0	0	
G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
D	11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0	
C	16B-30ad	0.032	-	1.18	1.68	380	380	450	640	214	214	254	361	
F	22A-tpl	0.989	-	36.59	0.00	380	22	793	0	214	31	1134	0	
6	c) AED excursion									16				-92
	Envelope loss/gain								3014	3151			2913	1532
12	a) Infiltration b) Room ventilation								685 0	151 0			785 0	173 0
13	Internal gains:		Occupants @ Appliances/other	230		0			0 0	2			460 0	
	Subtotal (lines 6 to 13)								3699	3302			3697	2164
14	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								58	80			0	0
15	Subtotal								3758	3381			3697	2164
	Duct loads						25%	45%	928	1526	25%	45%	913	977
	Total room load								4685	4907			4610	3141
	Air required (cfm)								202	272			199	174

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					mstr wic					hall1				
2	Exposed wall					10.3 ft					0 ft				
3	Room height					8.0 ft					10.0 ft				
4	Room dimensions					1.0 x 172.8 ft					13.3 x 4.0 ft				
5	Room area					172.8 ft²					53.3 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6 11	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0	
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.20	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	
	D	11P0	0.290	e	10.73	8.45	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	s	3.59	1.49	83	83	297	123	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	17.39	31.20	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	173	173	205	291	53	53	63	90	
	F	22A-1pl	0.989	-	36.59	0.00	173	10	378	0	53	0	0	0	
	6	c) AED excursion									-19				-4
		Envelope loss/gain									879	395		63	86
12	a) Infiltration									262	58		0	0	
	b) Room ventilation									0	0		0	0	
13	Internal gains:		Occupants @	230		0				0	0			0	
			Appliances/other							0				0	
	Subtotal (lines 6 to 13)									1141	452		63	86	
14	Less external load									0	0		0	0	
	Less transfer									0	0		0	0	
	Redistribution									6	8		-63	-86	
	Subtotal									1147	461		0	0	
15	Duct loads						25%	45%		283	208	25%	45%	0	
	Total room load									1430	668			0	
	Air required (cfm)									62	37			0	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1 2 3 4 5	Room name Exposed wall		Room height		Room dimensions		Room area		mech 2 0 ft 10.0 ft 6.7 x 4.0 ft 26.7 ft²				office 12.0 ft 9.0 ft 21.0 x 12.0 ft 252.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S
6	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0	0	0	0	0	0	0
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.20	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0	0	0	0	0	0	0
	D	11P0	0.290	e	10.73	8.45	0	0	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0	108	93	334	138	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	15	15	261	195	0	0
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0	0	0	0	0	0	0
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.39	31.20	0	0	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0
	D	11P0	0.290	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	27	27	32	45	252	252	298	425	0	0
	F	22A-tpi	0.989	-	36.59	0.00	27	0	0	0	252	12	439	0	0	0
6	c) AED excursion									-2					-34	
	Envelope loss/gain								32	43			1332	724		
12	a) Infiltration								0	0			342	75		
	b) Room ventilation								0	0			0	0		
13	Internal gains:		Occupants @	230			0			0	0			0	0	
			Appliances/other							0				0	0	
	Subtotal (lines 6 to 13)								32	43			1674	799		
	Less external load								0	0			0	0		
	Less transfer								0	0			0	0		
	Redistribution								-32	-43			10	13		
14	Subtotal								0	0			1684	813		
15	Duct loads						25%	45%	0	0	25%	45%	416	367		
	Total room load								0	0			2099	1179		
	Air required (cfm)								0	0			90	65		

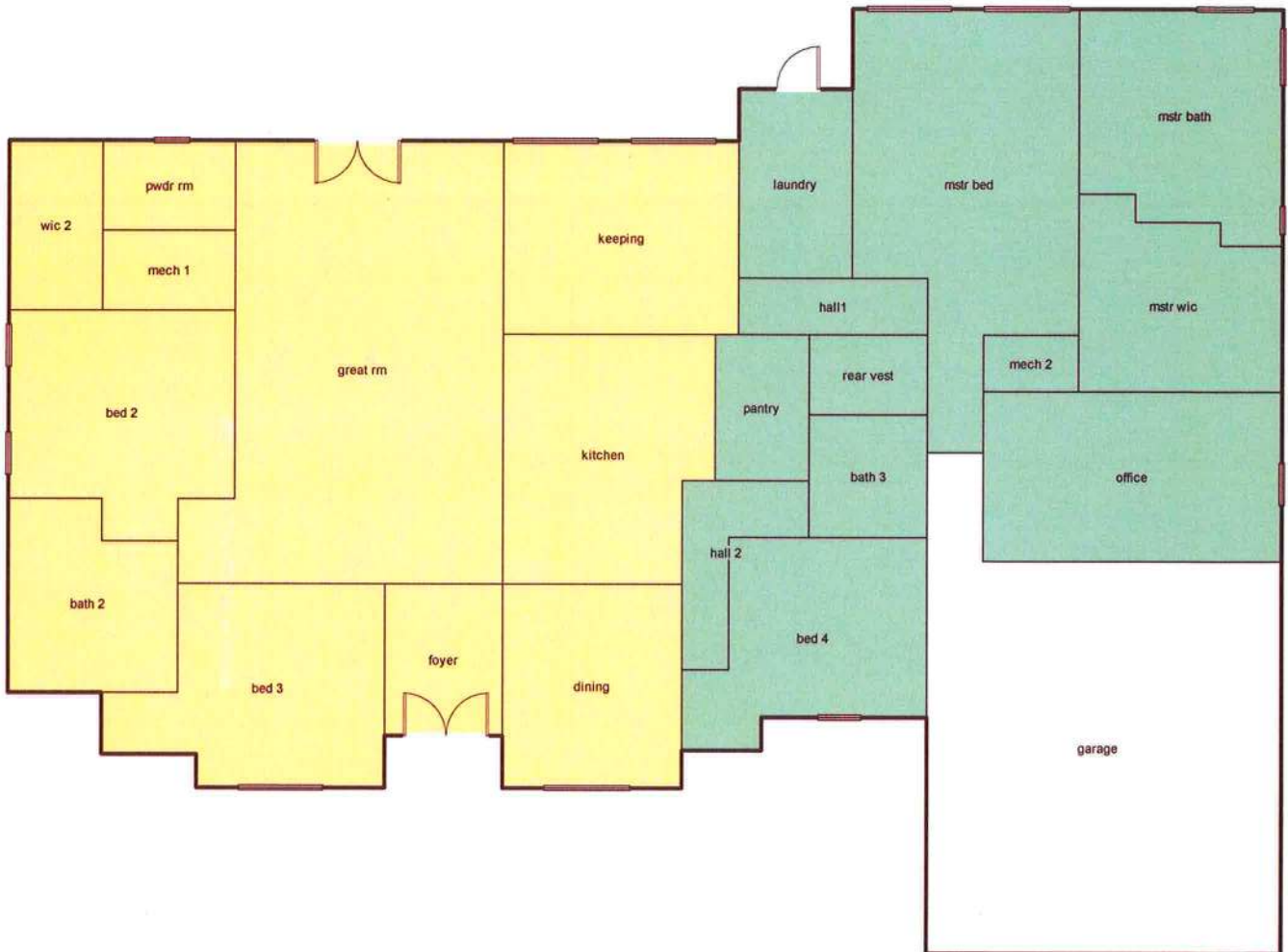
Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

1	Room name					hall 2									
2	Exposed wall					0 ft									
3	Room height					10.0 ft				heat/cool					
4	Room dimensions					1.0 x 67.1 ft									
5	Room area					67.1 ft²									
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6 . . . 11	W	12B-0bw	0.097	n	3.59	1.49	0	0	0	0					
	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0					
	W	12B-0bw	0.097	e	3.59	1.49	0	0	0	0					
	G	10D-v	0.490	e	0.00	0.00	0	0	0	0					
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0					
	G	4A5-2ov	0.470	e	17.39	31.20	0	0	0	0					
	G	4A5-2ov	0.470	e	17.39	31.66	0	0	0	0					
	D	11P0	0.290	e	10.73	8.45	0	0	0	0					
	W	12B-0bw	0.097	s	3.59	1.49	0	0	0	0					
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0					
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0					
	G	4A5-2ov	0.470	s	17.39	13.00	0	0	0	0					
	W	12B-0bw	0.097	w	3.59	1.49	0	0	0	0					
	G	4A5-2ov	0.470	w	17.39	31.20	0	0	0	0					
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0					
	D	11P0	0.290	w	0.00	0.00	0	0	0	0					
	C	16B-30ad	0.032	-	1.18	1.68	67	67	79	113					
	F	22A-tpl	0.989	-	36.59	0.00	67	0	0	0					
	6	c) AED excursion									-5				
		Envelope loss/gain									79	108			
12	a) Infiltration									0	0				
	b) Room ventilation									0	0				
13	Internal gains:		Occupants @	230		0				0	0				
			Appliances/other							0	0				
	Subtotal (lines 6 to 13)									79	108				
14	Less external load									0	0				
	Less transfer									0	0				
	Redistribution									-79	-108				
	Subtotal									0	0				
15	Duct loads							25%	45%	0	0				
	Total room load									0	0				
	Air required (cfm)									0	0				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Level 1



Job #:
Performed for:
Leonard Johnson
871 SW Tustenuggee Ave
Lake City, FL 32024

Glenn I. Jones, Inc.
552 NW Hilton Ave
Lake City, FL 32055
Phone: 386-752-5389 Fax: 386-755-3401
www.GlennIJonesHomeServices.com customercare...

Scale: 1 : 157
Page 1
Right-Suite® Universal 2013
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STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL
SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT

PERMIT NO. 28-0094
DATE PAID: 2/1/18
FEE PAID: 316.00
RECEIPT #: 1327446

APPLICATION FOR:

☒ New System ☐ Existing System ☐ Holding Tank ☐ Innovative
☐ Repair ☐ Abandonment ☐ Temporary ☐

APPLICANT: Randolph Jones (Linard Johnson)AGENT: Robert FordTELEPHONE: 386-755-6372MAILING ADDRESS: 741 SE STATE Rd 100 Lake City Fla 32025

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.105(3) (m) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

PROPERTY INFORMATION

LOT: 1 BLOCK: 1 SUBDIVISION: 20-43-17 PLATTED: PROPERTY ID #: 08579-004 ZONING: SF I/M OR EQUIVALENT: ☐ Y ☒ NPROPERTY SIZE: 3.00 ACRES WATER SUPPLY: ☒ PRIVATE PUBLIC ☐ ≤ 2000 GPD ☐ > 2000 GPDIS SEWER AVAILABLE AS PER 381.0065, FS? ☐ Y ☒ NDISTANCE TO SEWER: NA FTPROPERTY ADDRESS: Tustunuggee Rd.DIRECTIONS TO PROPERTY: Hwy 441 SOUTH TR ON Tustunuggee
1 1/2 miles on left to site

BUILDING INFORMATION

☒ RESIDENTIAL☐ COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	<u>S/F Res.</u>	<u>4</u>	<u>3663</u>	
2				
3				
4				

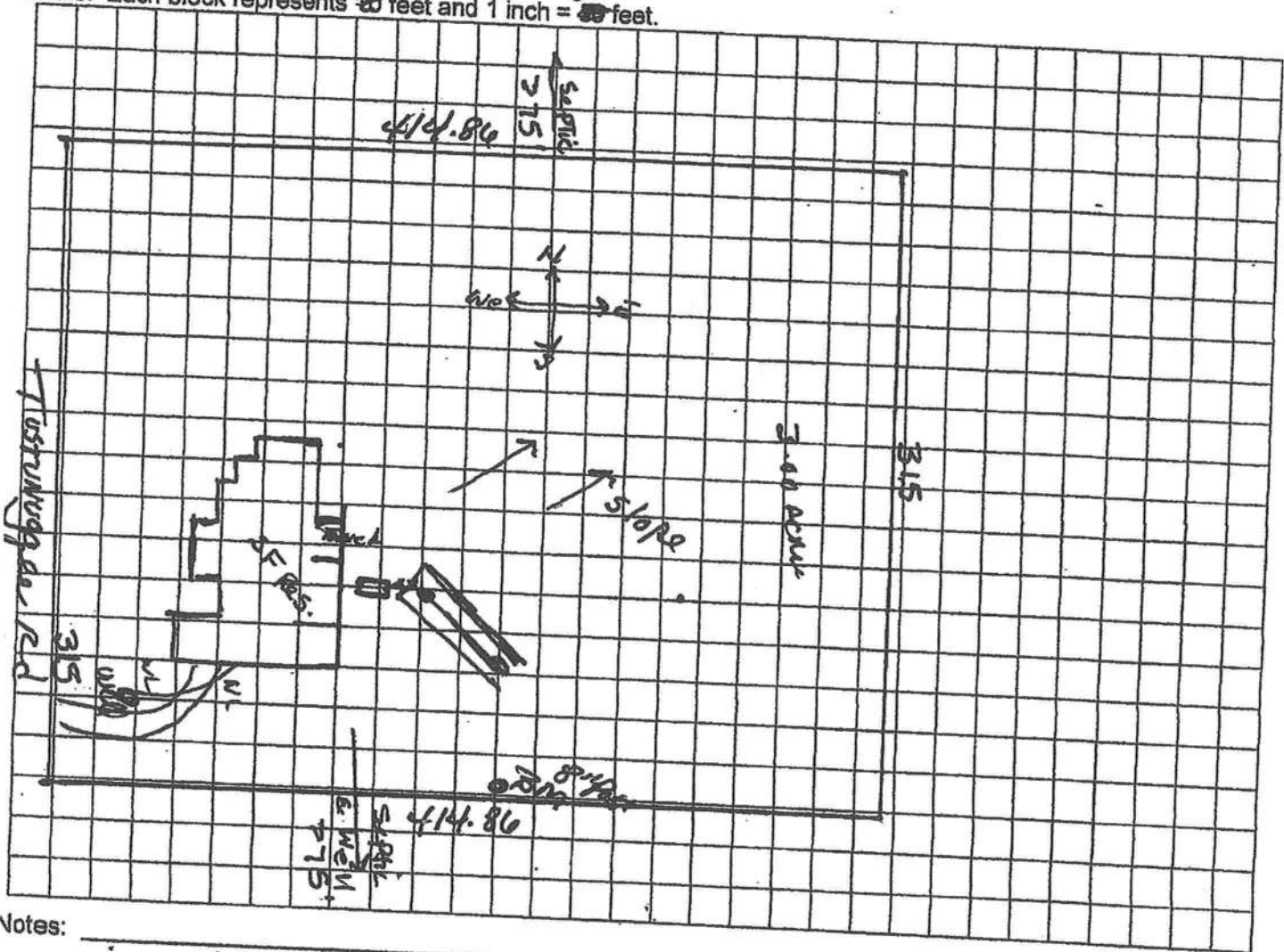
☐ Floor/Equipment Drains ☐ Other (Specify) SIGNATURE: Robert W. FordDATE: 2-5-18

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 18-0094

----- PART II - SITEPLAN -----

Scale: Each block represents ^{20'}~~20~~ feet and 1 inch = ^{80'}~~80~~ feet.



Notes:

Linard Johnson

3.00 ACRES

Site Plan submitted by: Robert W. Fardn 2-5-18

Plan Approved Yes

Not Approved _____

by _____

Date 2/20/18

Celidus

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

JOHNSON RESIDENCE STRUCTURAL PLANS COLUMBIA COUNTY, FL

Plan Sheet Index:

Sheet No.	Description
1	title/index sheet
2	foundation plan
3	wall detail/strapping requirements
4	special details



*See
High lights*

Note: These plans are companion plans to the Johnson Residence plans prepared by Teena Ruffo and supercede those plans where applicable.

Marty J. H.
3-8-18

SHEET

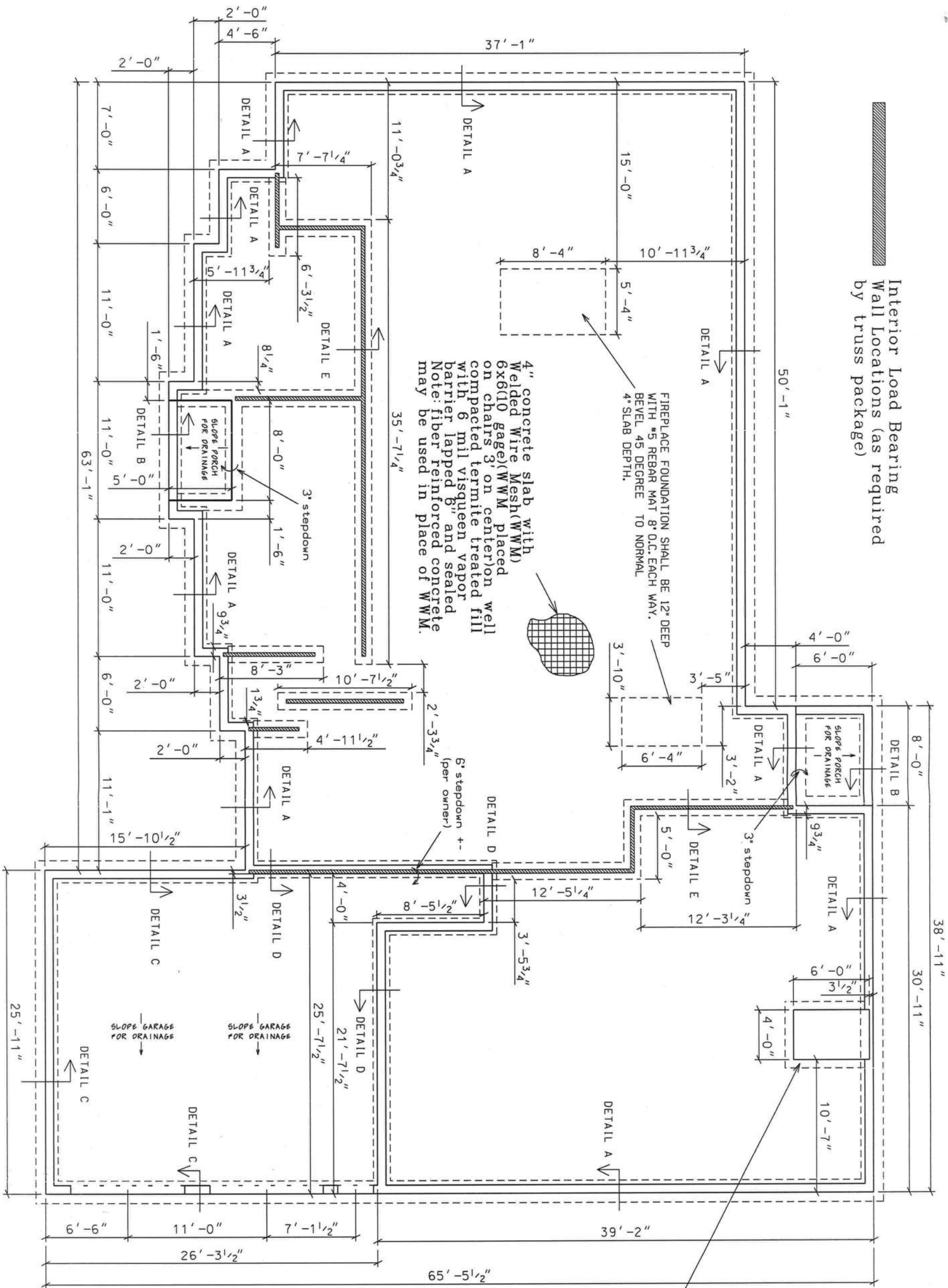
1
OF
4

JOHNSON RESIDENCE
STRUCTURAL PLANS
COLUMBIA COUNTY, FL

PLANS PREPARED BY:
MARTY J. HUMPHRIES P.E. # 51976
7932 240TH ST., O'BRIEN, FL 32071

7

Interior Load Bearing
Wall Locations (as required
by truss package)



FOUNDATION PLAN

NOTE: DIMENSIONS ARE FROM OUTSIDE EDGE OF BLOCK/SLAB.

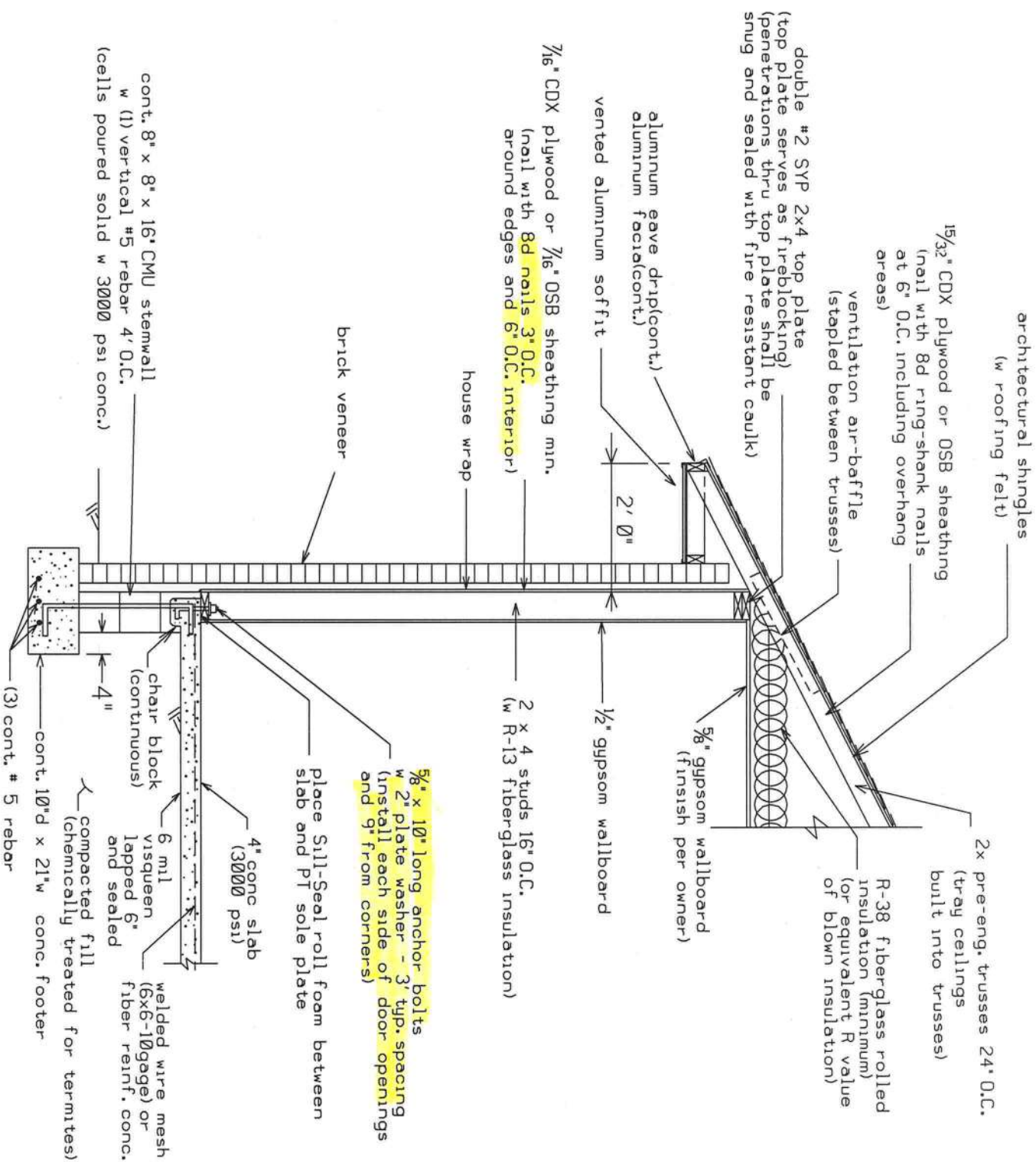
0 4' 8'
SCALE

Marty J. Humphries
3-8-18

JOHNSON RESIDENCE
STRUCTURAL PLANS
COLUMBIA COUNTY, FL

PLANS PREPARED BY:
MARTY J. HUMPHRIES P.E. # 51976
7932 240TH ST., O'BRIEN, FL 32071

SHEET
2
OF
4



DETAIL A - WALL TYPICAL (N.T.S.)

HEADER SIZES/MATERIAL SHALL BE AS FOLLOWS:

WINDOWS AND DOORS: 2 - #2 SYP 2X12's w 1/2" plywood or OSB between nailed with 4 -12d nails 10" O.C.

GARAGE DOORS: 2 - #2 SYP 2X12's w 1/2" plywood or OSB between nailed with 4 -12d nails 10" O.C.

INTERIOR LOAD BEARING WALLS: 2 - #2 SYP 2X12's w 1/2" plywood or OSB between nailed with 4 -12d nails 10" O.C.

PORCHES: 2 - #2 SYP 2X10's w 1/2" plywood or OSB between nailed with 4 -12d nails 10" O.C.

SYP = SOUTHERN YELLOW PINE

STRAPPING AND ANCHOR REQUIREMENTS

(Designed in accordance with the 2017 FBC.)

WINDLOAD DATA AND EXPOSURE:

Basic Wind Speed = 130 mph Vult.
Importance Factor = 1.0
Exposure Category = B
Residential Occupancy = Group R3
Mean Roof Height = 18'
Height and Exposure Adjustment Coefficient = 1.0
Roof Cross Slope = 8:12
Wall Height = 9'
Risk Category = II
Component and Cladding Pressures = Roof(Zone 1=16.7,-18.0, Zone 2=16.7,-21.0, Zone 3=16.7,-21.0), Wall(Zone 4=18.2,-19.0, Zone 5=18.2,-24.0)(units are psf)

TRUSS ANCHORS/HANGERS:

At Truss to Exterior Wall, Porch Beam and interior load bearing wall locations: install one Simpson model H10A anchor for all trusses. For Jack trusses under 10' in length install Simpson H2.5A clip. For double ply trusses install Simpson H10A-2 and one H2.5A clip. For hip trusses install Simpson HCP clip and one H3 clip. Install HTU26 hanger for truss to girder truss connection.

EXTERIOR WALL STRAPPING:

At top and bottom of exterior walls install one Simpson model SP4 at each side of each door and window 4' or less in width. At top and bottom of wall for windows and doors larger than 4' in width install two Simpson model SP4's each side of opening. At top and bottom of the wall on each side of the garage door openings install 2-Simpson SPH4's each side of opening. All other wall locations install one SP4 top and bottom of the wall 4' on center.

INTERIOR LOAD BEARING WALL STRAPPING:

Strap top and bottom of interior load bearing wall with Simpson SP4's 32' on center and each side of openings for openings 3' or less in width, for larger openings install two SP4's each side. Install 5/8" x 10" anchor bolts 3' on center and each side of door openings.

SHEATHING:

Wall sheathing shall be installed with long dimension vertical on exterior walls and full-depth blocking shall be required at horizontal joints in sheathing.

REAR PORCH COLUMN:

Install Simpson ABU44 and Simpson AC4EMax.

PORCH CEILINGS:

Install 1x4 SPF lathes 16' on center nailed to trusses with 2-8d nails or install 1/6" OSB sheathing nailed with 8d nails 6" on center and cover with solid aluminum or vinyl soffit material.

PORCH HEADER TO HOME CONNECTION:

Install Simpson model HUC410 hanger connecting porch header to wall of home.

Equivalent capacity anchors may be substituted, installed in accordance with the manufacturer's requirements.

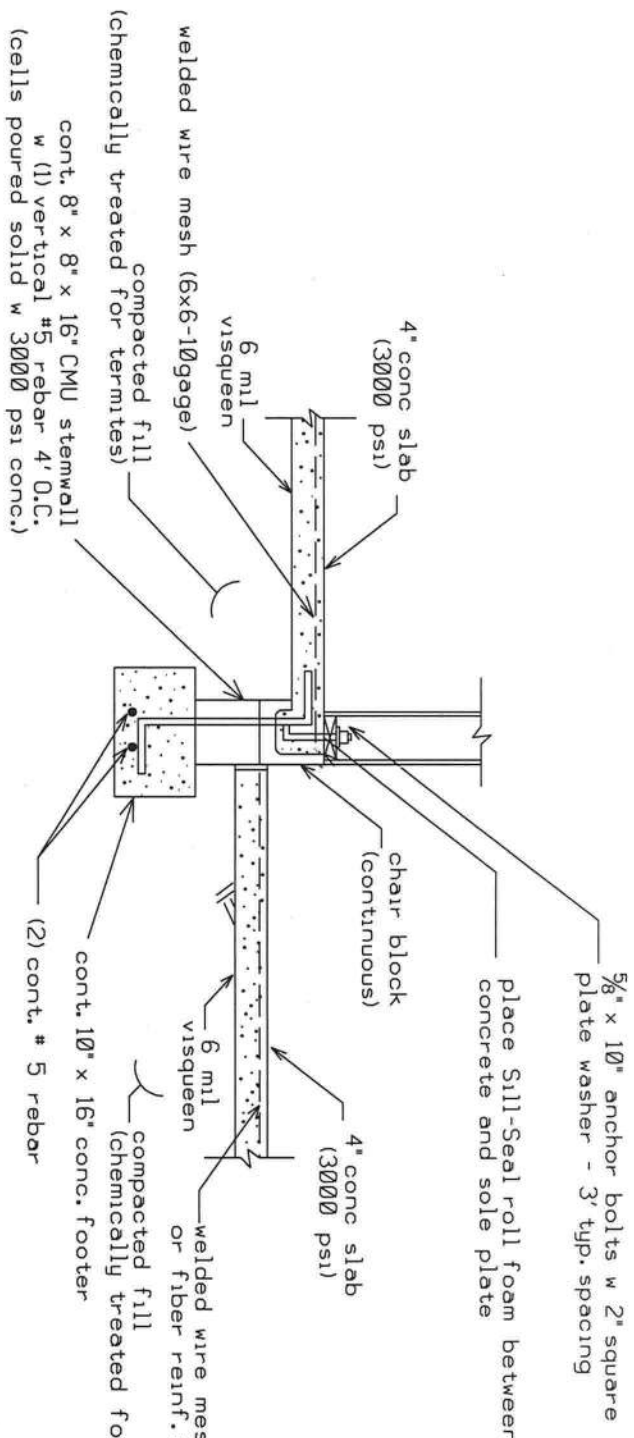
JOHNSON RESIDENCE
STRUCTURAL PLANS
COLUMBIA COUNTY, FL

PLANS PREPARED BY:
MARTY J. HUMPHRIES P.E. # 51976
7932 240TH ST., O'BRIEN, FL 32071

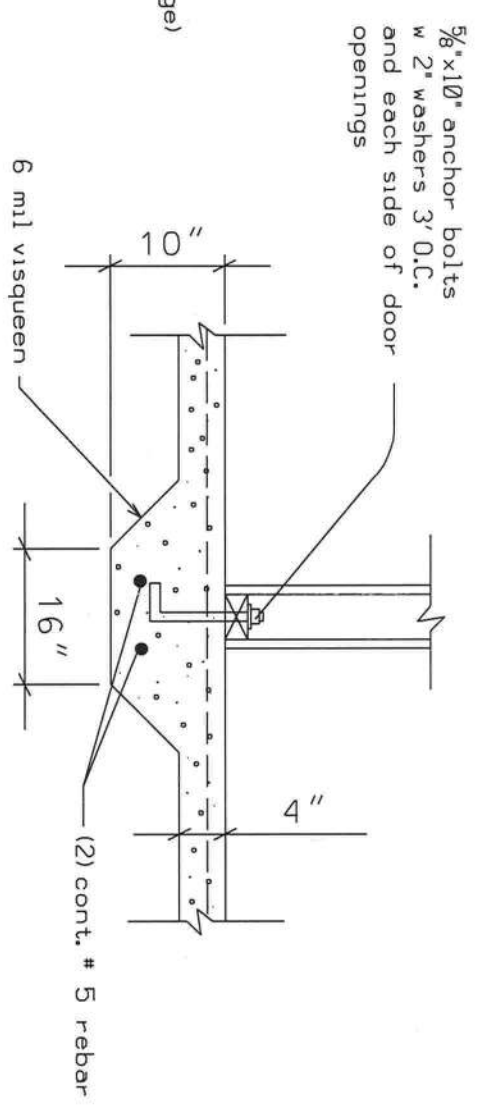
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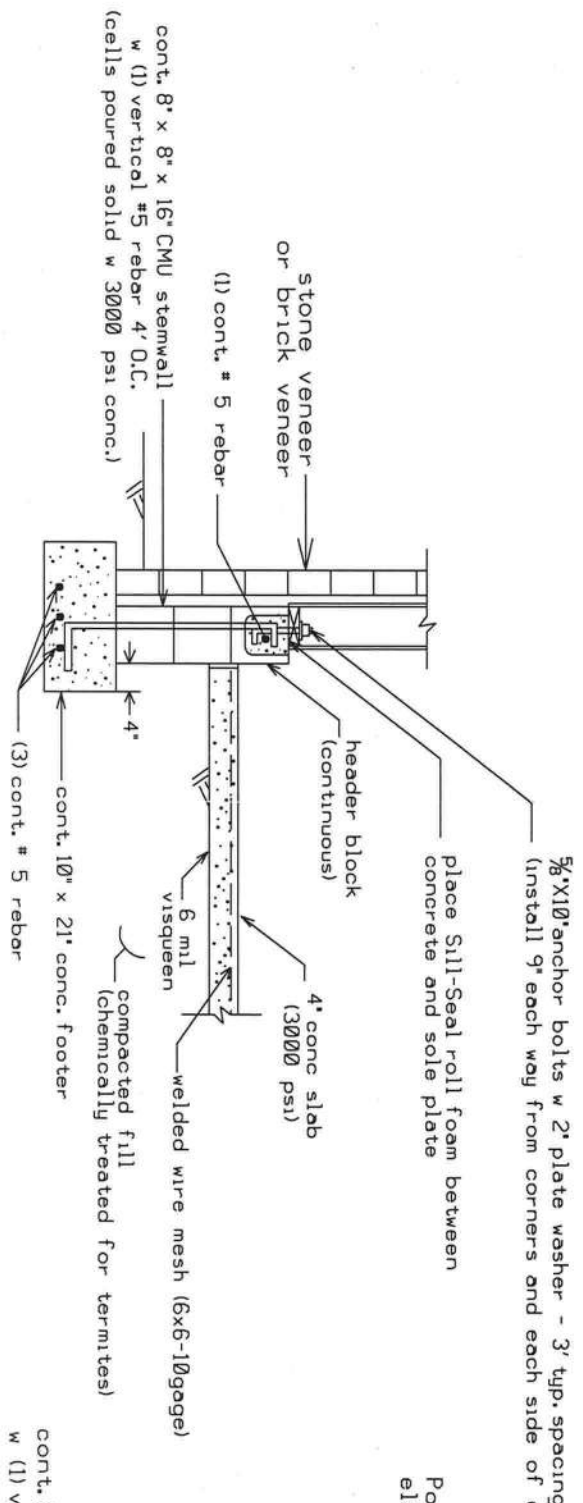
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OF
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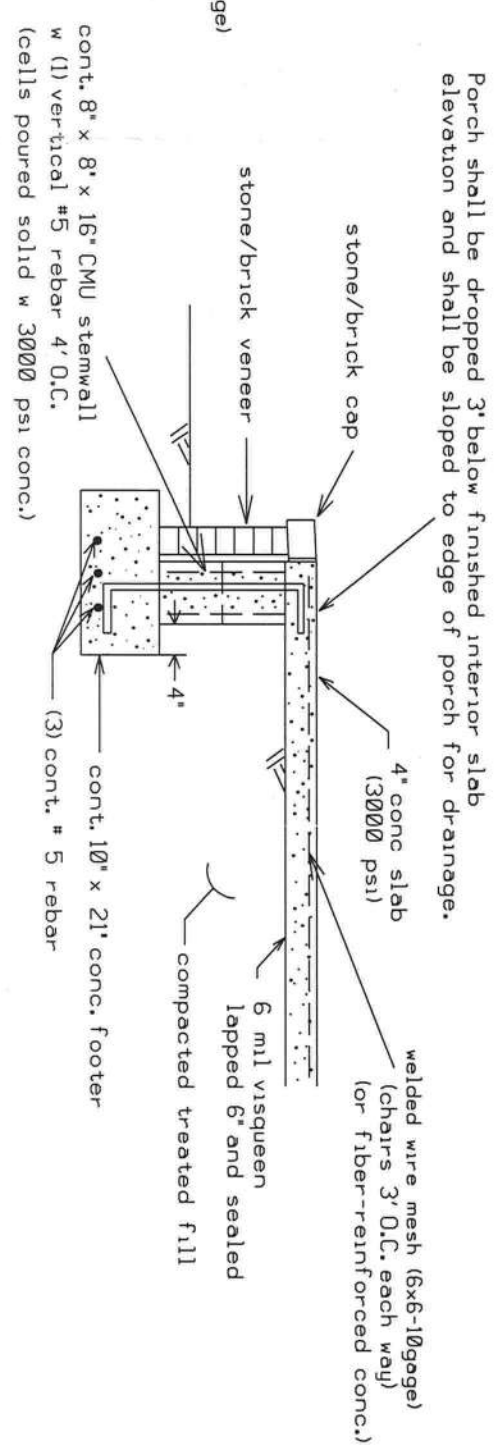
DETAIL "D"
INTERIOR GARAGE STEMWALL WITH FLOATING SLAB(N.T.S.)



DETAIL E - INTERIOR MONOLITHIC FOOTER (N.T.S.)
(located as required by Truss Package)



DETAIL "C" - (AT STONE/BRICK VENEER LOCATIONS)
GARAGE STEMWALL WITH FLOATING SLAB(N.T.S.)



DETAIL "B" - PORCH FOUNDATION DETAIL (N.T.S.)

MJH 5.22
3-8-18