

Substantial Improvement

Columbia County New Building Permit Application

For Office Use Only Application # 43854 Date Received 10/21/19 By UH Permit # _____
Zoning Official JMA Date 10/21/19 Flood Zone AE Land Use CSV Zoning CSV
FEMA Map # 0551C Elevation 47.4' MFE 48.4' River Santa Fe Plans Examiner RC Date 11-5-19
Comments One ft Rise Cert Submitted - Need Elevation Certificate before CO.
☒ NOC ☒ EH ☐ Deed or PA ☒ Site Plan ☒ State Road Info ☒ Well letter ☐ 911 Sheet ☐ Parent Parcel # _____
☐ Dev Permit # 19-009 ☐ In Floodway ☐ Letter of Auth. from Contractor ☐ F W Comp. letter
☒ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ Ellisville Water ☒ App Fee Paid ☒ Sub VF Form
Septic Permit No. 19-0785 OR City Water ☐ Fax _____
Applicant (Who will sign/pickup the permit) Betsy Soto Phone 786-942-9190
Address 23676 S. US Hwy 441 High Springs FL 32643
Owners Name Betsy & Rolando Soto Phone 786-942-9190
911 Address 23676 S US Hwy 441 High Springs FL 32643
Contractors Name owner Builder Phone 786-942-9190
Address _____
Contractor Email betsygsoto@gmail.com ***Include to get updates on this job.
Fee Simple Owner Name & Address _____
Bonding Co. Name & Address _____
Architect/Engineer Name & Address Carol Chadwick
Mortgage Lenders Name & Address _____
Circle the correct power company ☐ FL Power & Light ☒ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy
Property ID Number 21-75-17-10045-000 Estimated Construction Cost _____
Subdivision Name _____ Lot _____ Block _____ Unit _____ Phase _____
Driving Directions from a Major Road 441 South across from Santa Fe Bar
Construction of Home Commercial OR ☒ Residential
Proposed Use/Occupancy Home site Number of Existing Dwellings on Property 1 being removed
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 _____ Side _____ Side _____ Rear _____
Number of Stories 1 Heated Floor Area _____ Total Floor Area _____ Acreage 2.02
Zoning Applications applied for (Site & Development Plan, Special Exception, etc.) S.R.W.M.D - from Engineer

Columbia County Building Permit Application

CODE: Florida Building Code 2017 and the 2014 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.


Print Owners Name


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.

Contractor's Signature

Contractor's License Number
Columbia County
Competency Card Number

Affirmed under penalty of perjury to by the Contractor and subscribed before me this _____ day of _____ 20____.

Personally known ☐ or Produced Identification _____

SEAL: _____

State of Florida Notary Signature (For the Contractor)

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 43 854 JOB NAME Sub

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 <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
MECHANICAL/A/C <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
PLUMBING/GAS <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
ROOFING <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
SHEET METAL <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
FIRE SYSTEM/SPRINKLER <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
SOLAR <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE
STATE SPECIALTY <input type="checkbox"/>	Print Name _____ Signature _____ Company Name: _____ CC# _____ License #: _____ Phone #: _____	Need - Lic - Liab - W/C - EX - DE

NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

21-75-17-10045-000

Clerk's Office Stamp

Inst: 201912024272 Date: 10/21/2019 Time: 11:07AM
Page 1 of 1 B: 1396 P: 2178, 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): Def 50 ft W of SE COR of SE 1/4 Trn 11 along US 441 35 ft, W 280 ft, S 515 ft,
a) Street (job) Address: 23676 S US Hwy 441 High Springs FL 32643 E 280 ft.
2. General description of improvements: New Residential Construction - House
3. Owner Information or Lessee information if the Lessee contracted for the improvements:
a) Name and address: Betsy & Rolando Soto
b) Name and address of fee simple titleholder (if other than owner):
c) Interest in property: owner
4. Contractor Information
a) Name and address: Owner Builder
b) Telephone No.:
5. Surety Information (if applicable, a copy of the payment bond is attached):
a) Name and address:
b) Amount of Bond:
c) Telephone No.:
6. Lender
a) Name and address:
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:
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: _____ 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): _____

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

10 Betsy Soto
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager
Betsy Soto Betsy Soto
Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this 21 day of October, 2019 by:

Betsy Soto as owner for Self
(Name of Person) (Type of Authority) (name of party on behalf of whom instrument was executed)

Personally Known _____ OR Produced Identification / Type FIDL

Notary Signature [Signature]

Notary Stamp or Seal:



Columbia County Property Appraiser

Jeff Hampton

2019 Preliminary Certified Values

updated: 8/14/2019

Parcel: << **21-7S-17-10045-000** >>**Owner & Property Info**

Result: 1 of 2

Owner	SOTO BETSY & ROLANDO 23676 S US HWY 441 HIGH SPRINGS, FL 32643		
Site	23676 S US HIGHWAY 441 , HIGH SPRINGS		
Description*	BEG 50 FT W OF SE COR OF SE1/4 RUN N ALONG US-441 315 FT, W 280 FT, S 315 FT, E 280 FT TO POB. PROB #98-41-CP ORB 854-2496 THRU 2507, 856-1216, 860-432, 950-957, 950-958, JTWRS 952-599, NEED CORR DEED FOR ORB 975-1869, 999-1076 THRU 1082, WD 1066-1367.		
Area	2.02 AC	S/T/R	21-7S-17
Use Code**	SINGLE FAM (000100)	Tax District	3

*The Description above is not to be used as the Legal Description for this parcel in any legal transaction.

**The Use Code is a FL Dept. of Revenue (DOR) code and is not maintained by the Property Appraiser's office. Please contact your city or county Planning & Zoning office for specific zoning information.

Property & Assessment Values

2018 Certified Values		2019 Preliminary Certified	
Mkt Land (1)	\$17,624	Mkt Land (1)	\$17,624
Ag Land (0)	\$0	Ag Land (0)	\$0
Building (1)	\$31,863	Building (1)	\$37,714
XFOB (1)	\$200	XFOB (1)	\$200
Just	\$49,687	Just	\$55,538
Class	\$0	Class	\$0
Appraised	\$49,687	Appraised	\$55,538
SOH Cap [?]	\$28,050	SOH Cap [?]	\$29,943
Assessed	\$25,118	Assessed	\$25,595
Exempt	HX H3 \$25,000	Exempt	HX H3 \$25,000
Total Taxable	county:\$118 city:\$118 other:\$118 school:\$118	Total Taxable	county:\$595 city:\$595 other:\$595 school:\$595

Aerial Viewer Pictometry Google Maps

☒ 2019 ☐ 2016 ☐ 2013 ☐ 2010 ☐ 2007 ☐ 2005 ☒ Sales
**▼ Sales History**

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
11/28/2005	\$120,000	1066/1367	WD	I	Q	
11/4/2003	\$24,800	999/1082	WD	I	Q	
3/29/2002	\$100	952/0599	PR	V	U	01
3/29/2002	\$100	950/0957	QC	I	U	01
1/14/2002	\$100	950/0958	QC	I	U	01
5/4/1998	\$0	860/0432	PR	I	U	01

▼ Building Characteristics

Bldg Sketch	Bldg Item	Bldg Desc*	Year Blt	Base SF	Actual SF	Bldg Value
Sketch	1	SINGLE FAM (000100)	1937	1236	1236	\$37,714

*Bldg Desc determinations are used by the Property Appraisers office solely for the purpose of determining a property's Just Value for ad valorem tax purposes and should not be used for any other purpose.

▼ Extra Features & Out Buildings (Codes)

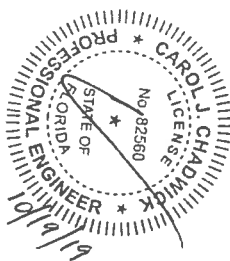
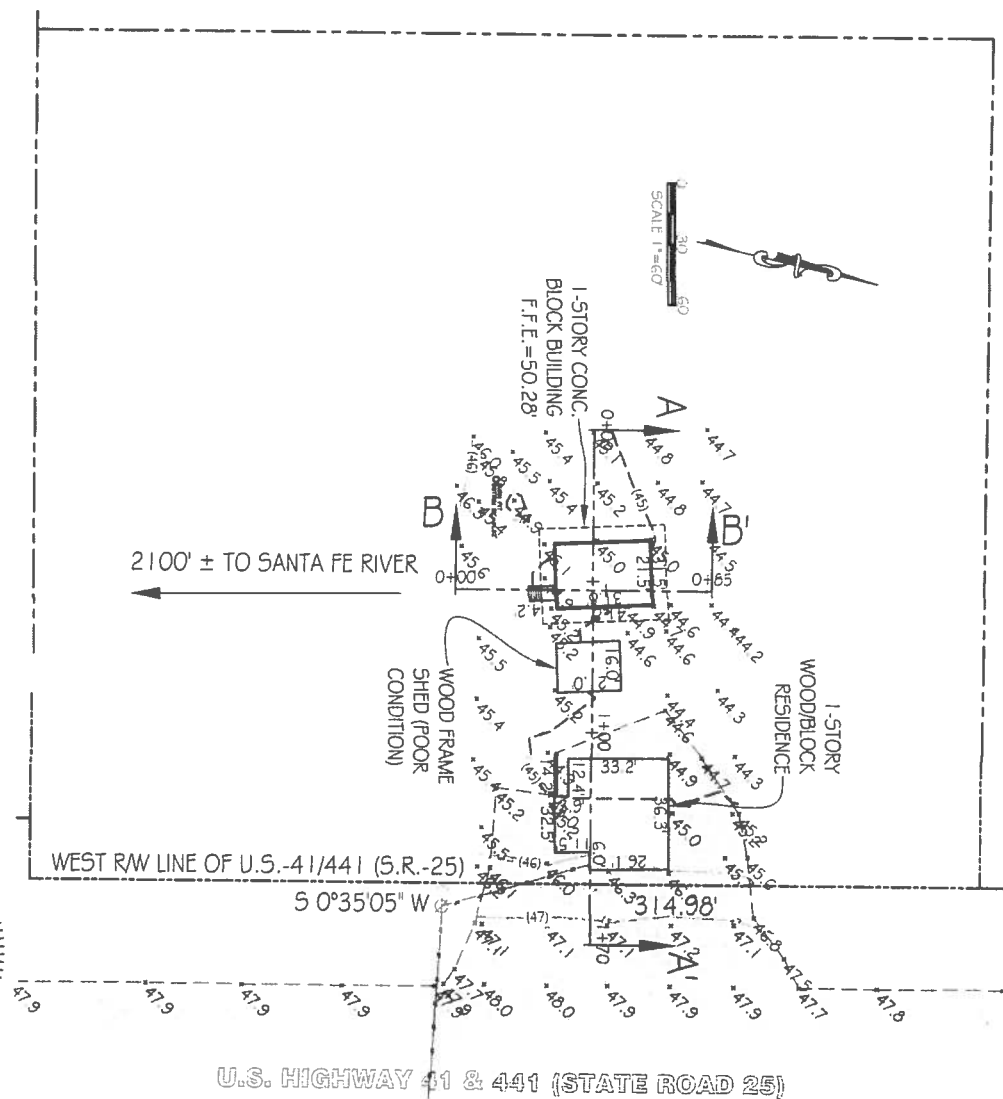
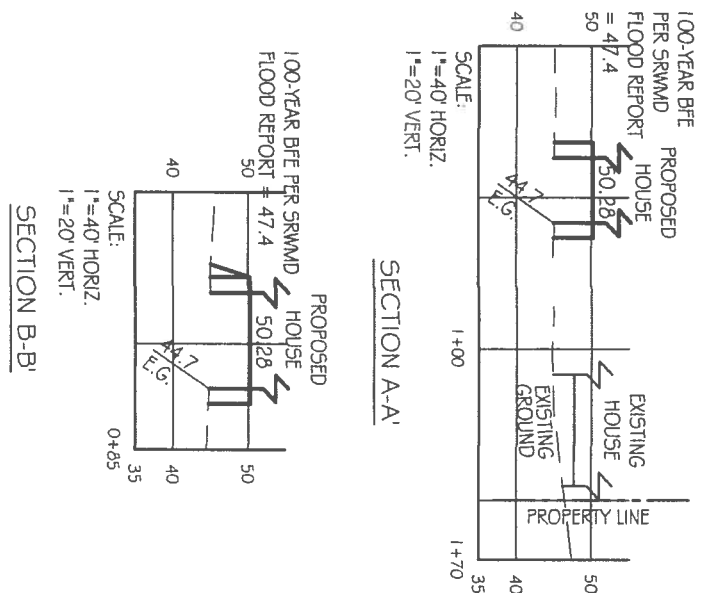
Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
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U5H-3270

_DC, P. Dewitt Cason, Columbia County B:1066 P:1367

Parcel I.D. No. 21-7S- [REDACTED] HX

THIS INSTRUMENT WAS PREPARED BY: JANNETTE S. BOYD, an employee of U.S. TITLE, 642 N.E. SANTA FE BLVD., HIGH SPRINGS, FLORIDA 32643, as a necessary incident to fulfill the requirements of a Title Insurance Binder issued by it. USH-3379.

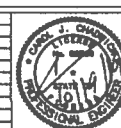


PROJECT NO. FL19074
DATE OCT. 19, 2019
DESIGNER DATE
DRAWN BY DATE

SOTO RESIDENCE
SITE PLAN
23676 S US HWY 441
HIGH SPRINGS, FL

DESIGNED BY
ROLANDO SOTO
23676 S US HWY 441
HIGH SPRINGS, FL
786-942-9190

NO.	REVISION DESCRIPTION



CAROL CHADWICK, P.E.
Professional Engineer
1201 SW 1st Ave. Suite 100
Tampa, FL 33601
813-288-1271
carol@chadwickpe.com
www.carolchadwickpe.com
FLOOD ENGINEERING
ORANGE COUNTY, FLORIDA



COLUMBIA COUNTY BUILDING DEPARTMENT

135 NE Hernando Ave., Suite B-21

Lake City, FL 32055

Office: 386-758-1008 Fax: 386-758-2160

OWNER BUILDER DISCLOSURE STATEMENT

Florida Statutes Chapter 489.103:

1. I understand that state law requires construction to be done by a licensed contractor and have applied for an owner-builder permit under an exemption from the law. The exemption specifies that I, as the owner of the property listed, may act as my own contractor with certain restrictions even though I do not have a license.
2. I understand that building permits are not required to be signed by a property owner unless he or she is responsible for the construction and is not hiring a licensed contractor to assume responsibility.
3. I understand that, as an owner-builder, I am the responsible party of record on a permit. I understand that I may protect myself from potential financial risk by hiring a licensed contractor and having the permit filed in his or her name instead of my own name. I also understand that a contractor is required by law to be licensed in Florida and to list his or her license numbers on permits and contracts.
4. I understand that I may build or improve a one-family or two-family residence or a farm outbuilding. I may also build or improve a commercial building if the costs do not exceed \$75,000. The building or residence must be for my own use or occupancy. It may not be built or substantially improved for sale or lease, unless I am completing the requirements of a building permit where the contractor listed on the permit substantially completed the project. If a building or residence that I have built or substantially improved myself is sold or leased within 1 year after the construction is complete, the law will presume that I built or substantially improved it for sale or lease, which violates the exemption.
5. I understand that, as the owner-builder, I must provide direct, onsite supervision of the construction.
6. I understand that I may not hire an unlicensed person to act as my contractor or to supervise persons working on my building or residence. It is my responsibility to ensure that the persons whom I employ have the licenses required by law and by county or municipal ordinance.

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

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

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

10. I understand that I may obtain more information regarding my obligations as an employer from the Internal Revenue Service, the United States Small Business Administration, the Florida Department of Financial Services, and the Florida Department of Revenue. I also understand that I may contact the Florida Construction Industry Licensing Board at **850-487-1395** or <http://www.myfloridalicense.com/> for more information about licensed contractors.

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

23676 S US HWY 441 High Springs FL 32643
(Write in the address of jobsite property)

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

Florida Statutes Chapter 489.503:

State law requires electrical contracting to be done by licensed electrical contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own electrical contractor even though you do not have a license. You may install electrical wiring for a farm outbuilding or a single-family or duplex residence. You may install electrical wiring in a commercial building the aggregate construction costs of which are under \$75,000. The home or building must be for your own use and occupancy. It may not be built for sale or lease, unless you are completing the requirements of a building permit where the contractor listed on the permit substantially completed the project. If you sell or lease more than one building you have wired yourself within 1 year after the construction is complete, the law will presume that you built it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person as your electrical contractor. Your construction shall be done according to building codes and zoning regulations. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances.

An owner of property completing the requirements of a building permit, where the contractor listed on the permit substantially completed the project as determined by the local permitting agency, for a one-family or two family residence, townhome, accessory structure of a one-family or two-family residence or townhome or individual residential condominium unit or cooperative unit. Prior to the owner qualifying for the exemption, the owner must receive approval from the local permitting agency, and the local permitting agency must determine that the contractor substantially completed the project. An owner who qualifies for the exemption under this paragraph is not required to occupy the dwelling or unit for at least 1 year after the completion of the project.

Before a building permit shall be issued, this notarized disclosure statement must be completed and signed by the property owner and returned to the local permitting agency responsible for issuing the permit.

TYPE OF CONSTRUCTION

- ☒ *Single Family Dwelling* ☐ *Two-Family Residence* ☐ *Farm Outbuilding*
☐ *Addition, Alteration, Modification or other Improvement* ☐ *Electrical*
☐ *Other* _____
☐ *Contractor substantially completed project, of a* _____
☐ *Commercial, Cost of Construction* _____ *for construction of* _____

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

Signature: _____

Betsy Soto
(Signature of property owner)

Date: _____

10/21/2019

NOTARY OF OWNER BUILDER SIGNATURE

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

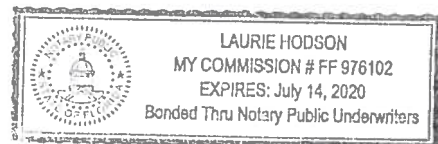
Notary Signature _____

LMA

Date _____

10/21/19

(Seal)





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

PERMIT NO. 19-2283
DATE PAID: 10/22/19
FEE PAID: 200.00
RECEIPT #: 1442498

APPLICATION FOR:

[] New System [☒] Existing System [] Holding Tank [] Innovative
[] Repair [] Abandonment [] Temporary []

APPLICANT:

Betsy and Rolando Soto

AGENT:

TELEPHONE:

MAILING ADDRESS:

23676 S. US Hwy 441 High Springs, FL 3264

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: _____ BLOCK: _____ SUBDIVISION: _____ PLATTED: _____

PROPERTY ID #: 21-75-17-10045-000 ZONING: _____ I/M OR EQUIVALENT: [☒] N]

PROPERTY SIZE: 2.02 ACRES WATER SUPPLY: [☒] PRIVATE PUBLIC [] <=2000GPD [] >2000GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? [☒] Y / N]

DISTANCE TO SEWER: _____ FT

PROPERTY ADDRESS:

23676 S US Hwy 441, High Springs

DIRECTIONS TO PROPERTY:

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
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1	<u>Residential</u>	<u>2</u>	<u>684</u>	<u>original built 1937</u>
---	--------------------	----------	------------	----------------------------

2				
---	--	--	--	--

3				
---	--	--	--	--

4				
---	--	--	--	--

NO ORIGINAL
FOUND

See Photos

[] Floor/Equipment Drains [] Other (Specify) _____

SIGNATURE:

Betsy Soto

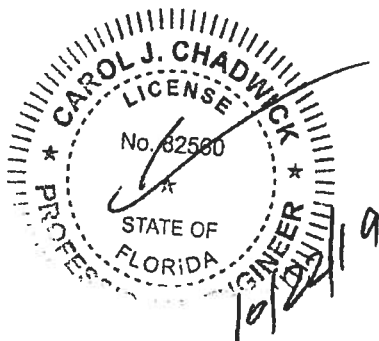
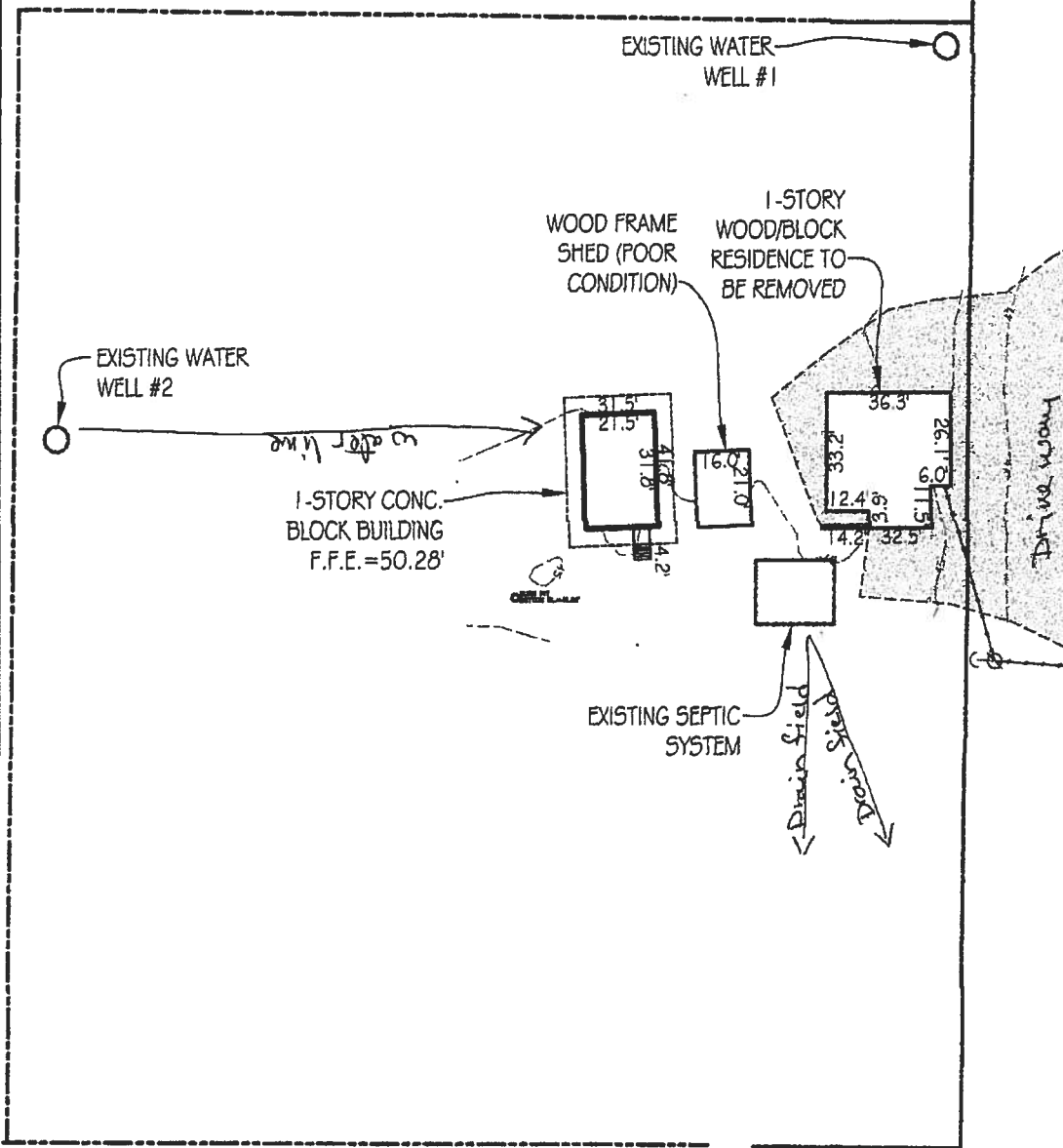
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10.22.19

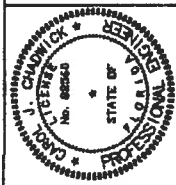
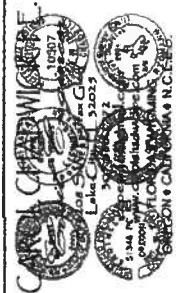
DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC

SITE PLAN
23676 S US HWY 44 I
HIGH SPRINGS, FL

19-0285



0 25 50
SCALE 1"=50'



REVISION DESCRIPTION	DATE

PREPARED FOR
BETSY & ROLANDO SOTO
23676 S US HWY 44 I
HIGH SPRINGS, FL
786.942.9190

SOTO RESIDENCE
23676 S US HWY 44 I
HIGH SPRINGS, FL

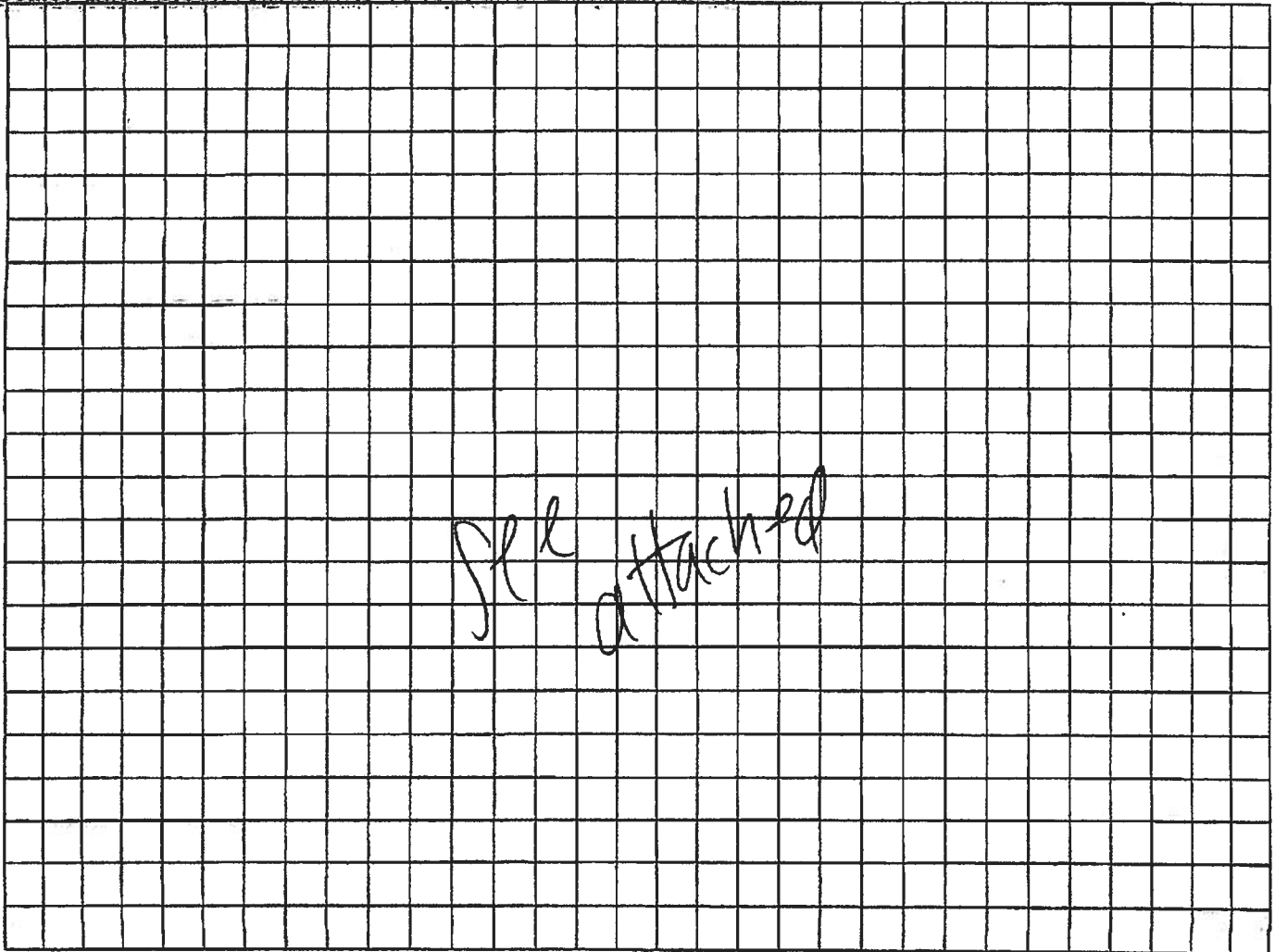
PROJECT NO.	FL19074
DATE	OCT. 22, 2019
REVISION DATE	
SHEET	1 of 1
SHEETS	

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 19-0785

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

Scale: Each block represents 10 feet and 1 inch = 40 feet.



Notes: _____

Site Plan submitted by: Betsy Soto TITLE _____ DATE: 10/22/19
Plan Approved X Not Approved _____ Date 10/23/19
By [Signature] Chubny County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 99

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

1. New home or, addition	1. <u>New (From Plans)</u>	12. Ducts, location & insulation level	
2. Single-family or multiple-family	2. <u>Single-family</u>	a) Supply ducts	R <u>6.0</u>
3. No. of units (if multiple-family)	3. <u>1</u>	b) Return ducts	R <u>6.0</u>
4. Number of bedrooms	4. <u>2</u>	c) AHU location	Attic
5. Is this a worst case? (yes/no)	5. <u>No</u>	13. Cooling system:	Capacity <u>17.6</u>
6. Conditioned floor area (sq. ft.)	6. <u>610</u>	a) Split system	SEER <u>14.0</u>
7. Windows, type and area		b) Single package	SEER <u> </u>
a) U-factor:(weighted average)	7a. <u>0.300</u>	c) Ground/water source	SEER/COP <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	7b. <u>0.250</u>	d) Room unit/PTAC	EER <u> </u>
c) Area	7c. <u>60.0</u>	e) Other	<u> </u>
8. Skylights		14. Heating system:	Capacity <u>17.6</u>
a) U-factor:(weighted average)	8a. <u>NA</u>	a) Split system heat pump	HSPF <u>8.2</u>
b) Solar Heat Gain Coefficient (SHGC)	8b. <u>NA</u>	b) Single package heat pump	HSPF <u> </u>
9. Floor type, insulation level:		c) Electric resistance	COP <u> </u>
a) Slab-on-grade (R-value)	9a. <u>0.0</u>	d) Gas furnace, natural gas	AFUE <u> </u>
b) Wood, raised (R-value)	9b. <u> </u>	e) Gas furnace, LPG	AFUE <u> </u>
c) Concrete, raised (R-value)	9c. <u> </u>	f) Other	<u> </u>
10. Wall type and insulation:		15. Water heating system	
A. Exterior:		a) Electric resistance	EF <u>0.95</u>
1. Wood frame (Insulation R-value)	10A1. <u> </u>	b) Gas fired, natural gas	EF <u> </u>
2. Masonry (Insulation R-value)	10A2. <u>5.0</u>	c) Gas fired, LPG	EF <u> </u>
B. Adjacent:		d) Solar system with tank	EF <u> </u>
1. Wood frame (Insulation R-value)	10B1. <u> </u>	e) Dedicated heat pump with tank	EF <u> </u>
2. Masonry (Insulation R-value)	10B2. <u> </u>	f) Heat recovery unit	HeatRec% <u> </u>
11. Ceiling type and insulation level		g) Other	<u> </u>
a) Under attic	11a. <u>0.0</u>	16. HVAC credits claimed (Performance Method)	
b) Single assembly	11b. <u> </u>	a) Ceiling fans	<u> </u>
c) Knee walls/skylight walls	11c. <u> </u>	b) Cross ventilation	<u>No</u>
d) Radiant barrier installed	11d. <u>No</u>	c) Whole house fan	<u>No</u>
		d) Multizone cooling credit	<u> </u>
		e) Multizone heating credit	<u> </u>
		f) Programmable thermostat	<u>Yes</u>

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

I certify that this home has complied with the Florida Building Code, Energy Conservation, 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: High Springs, FL

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Soto	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	610	Lot #	
Owner Name:	Betsy Soto	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:	No	County:	Alachua
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	High Springs , FL ,
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	610	4880

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	610	4880	Yes	3	2	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	101 ft	0	610 ft²	----	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	682 ft²	0 ft²	Medium	N	0.9	N	0.9	No	20	26.6

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Unvented	0	610 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Unvented)	Main	0	Blown	610 ft²	0.1	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS

✓	#	Omt	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	Concrete Block - Int Insul	Main	5	20	0	8	0	160.0 ft²	0	0	0.8	0
✓	2	E	Exterior	Concrete Block - Int Insul	Main	5	30	6	8	0	244.0 ft²	0	0	0.8	0
✓	3	S	Exterior	Concrete Block - Int Insul	Main	5	20	0	8	0	160.0 ft²	0	0	0.8	0
✓	4	W	Exterior	Concrete Block - Int Insul	Main	5	30	6	8	0	244.0 ft²	0	0	0.8	0

DOORS

✓	#	Omt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
✓	1	E	Wood	Main	None	.39	3		7		21 ft²
✓	2	S	Wood	Main	None	.39	3		7		21 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Omt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	n	1	Vinyl	Low-E Double	Yes	0.3	0.25	N	15.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
✓	2	e	2	Vinyl	Low-E Double	Yes	0.3	0.25	N	30.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
✓	3	W	4	Vinyl	Low-E Double	Yes	0.3	0.25	N	15.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000203	325.3	17.86	33.59	.0765	4

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
✓	1	Electric Heat Pump/	Split	HSPF:8.2	17.6 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	Split	SEER: 14	17.6 kBtu/hr	cfm	0.8	1	sys#1

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Main	0.95	40 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None			ft²		

INPUT SUMMARY CHECKLIST REPORT

DUCTS

✓	#	--- Supply ---			--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
	1	Attic	6	150 ft ²	Attic	90 ft ²	Prop. Leak Free	Attic	--- cfm	18.3 cfm	0.03	0.50	1	1

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> 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	80	80	80	80
	PM	80	80	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
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.)	0 ft ²	0 ft	0.3	Main

2017 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

Project Name: Soto Street: City, State, Zip: High Springs , FL , Owner: Betsy Soto Design Location: FL, Gainesville			Builder Name: Permit Office: Permit Number: Jurisdiction:	CHECK
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		
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 on 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 Building Code, Energy Conservation, 6th Edition (2017)

Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS:

High Springs , FL ,

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.** Residential buildings designed to be operated at a positive indoor pressure or for mechanical ventilation shall meet the following criteria:
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).** The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.5.

- ☐ **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.

Project Information

For: Betsy Soto
High Springs, FL

Notes:

Design Information

Weather: Gainesville Regional AP, 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 47 gr/lb

Heating Summary

Structure 12377 Btuh
Ducts 2353 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 14729 Btuh

Sensible Cooling Equipment Load Sizing

Structure 11037 Btuh
Ducts 3021 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.97
Equipment sensible load 13637 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft²)	610	610
Volume (ft³)	4880	4880
Air changes/hour	0.61	0.32
Equiv. AVF (cfm)	50	26

Latent Cooling Equipment Load Sizing

Structure 1634 Btuh
Ducts 494 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Equipment latent load 2128 Btuh
Equipment Total Load (Sen+Lat) 15765 Btuh
Req. total capacity at 0.80 SHR 1.4 ton

Heating Equipment Summary

Make Goodman Mfg.
Trade GOODMAN
Model GSZ140181L
AHRI ref 202630554
Efficiency 8.2 HSPF
Heating input 18000 Btuh @ 47°F
Heating output 28 °F
Temperature rise 587 cfm
Actual air flow 0.040 cfm/Btuh
Air flow factor 0.53 in H2O
Static pressure
Space thermostat
Capacity balance point = 30 °F

Cooling Equipment Summary

Make Goodman Mfg.
Trade GOODMAN
Cond GSZ140181L
Coil ARUF25B14A
AHRI ref 202630554
Efficiency 11.5 EER, 14 SEER
Sensible cooling 14080 Btuh
Latent cooling 3520 Btuh
Total cooling 17600 Btuh
Actual air flow 587 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0.53 in H2O
Load sensible heat ratio 0.87

Backup:
Input = 4 kW, Output = 14788 Btuh, 100 AFUE

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



Duct System Summary

Entire House

Job: Soto
Date: 10/24/19
By: DJM

Project Information

For: Betsy Soto
High Springs, FL

	Heating	Cooling
External static pressure	0.53 in H2O	0.53 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.53 in H2O	0.53 in H2O
Supply / return available pressure	0.372 / 0.158 in H2O	0.372 / 0.158 in H2O
Lowest friction rate	0.458 in/100ft	0.458 in/100ft
Actual air flow	587 cfm	587 cfm
Total effective length (TEL)	116 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bath	h 703	28	13	0.498	4.0	0x0	VIFx	4.6	70.0	
Bed 1	c 3645	146	152	0.473	7.0	0x0	VIFx	8.6	70.0	
Bed 2	c 3797	143	159	0.468	7.0	0x0	VIFx	9.5	70.0	
Kit/Liv	c 2923	109	122	0.470	7.0	0x0	VIFx	9.2	70.0	
Kit/Liv-A	c 2923	109	122	0.467	7.0	0x0	VIFx	9.7	70.0	
WIC	h 1294	52	19	0.458	4.0	0x0	VIFx	11.2	70.0	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb4	0x0	143	159	34.5	0.458	454	8.0	0x0		VIFx	
rb3	0x0	226	184	34.0	0.465	414	10.0	0x0		VIFx	
rb1	0x0	218	244	32.5	0.486	448	10.0	0x0		VIFx	





Manual S Compliance Report

Entire House

Job: Soto
Date: 10/24/19
By: DJM

Project Information

For: Betsy Soto
High Springs, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	14059	Btuh	Entering coil DB:	76.6°F
Outdoor design WB:	76.3°F	Latent gain:	2128	Btuh	Entering coil WB:	63.2°F
Indoor design DB:	75.0°F	Total gain:	16186	Btuh		
Indoor RH:	50%	Estimated airflow:	587	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140181L+ARUF25B14A
Actual airflow:	587	cfm	
Sensible capacity:	14487	Btuh	103% of load
Latent capacity:	2704	Btuh	127% of load
Total capacity:	17191	Btuh	106% of load SHR: 84%

Heating Equipment

Design Conditions

Outdoor design DB:	33.4°F	Heat loss:	14729	Btuh	Entering coil DB:	69.2°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140181L+ARUF25B14A
Actual airflow:	587	cfm	
Output capacity:	18000	Btuh	122% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	30	°F	
Economic balance:	-99	°F	

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	587	cfm	
Output capacity:	4.3	kW	100% of load Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.



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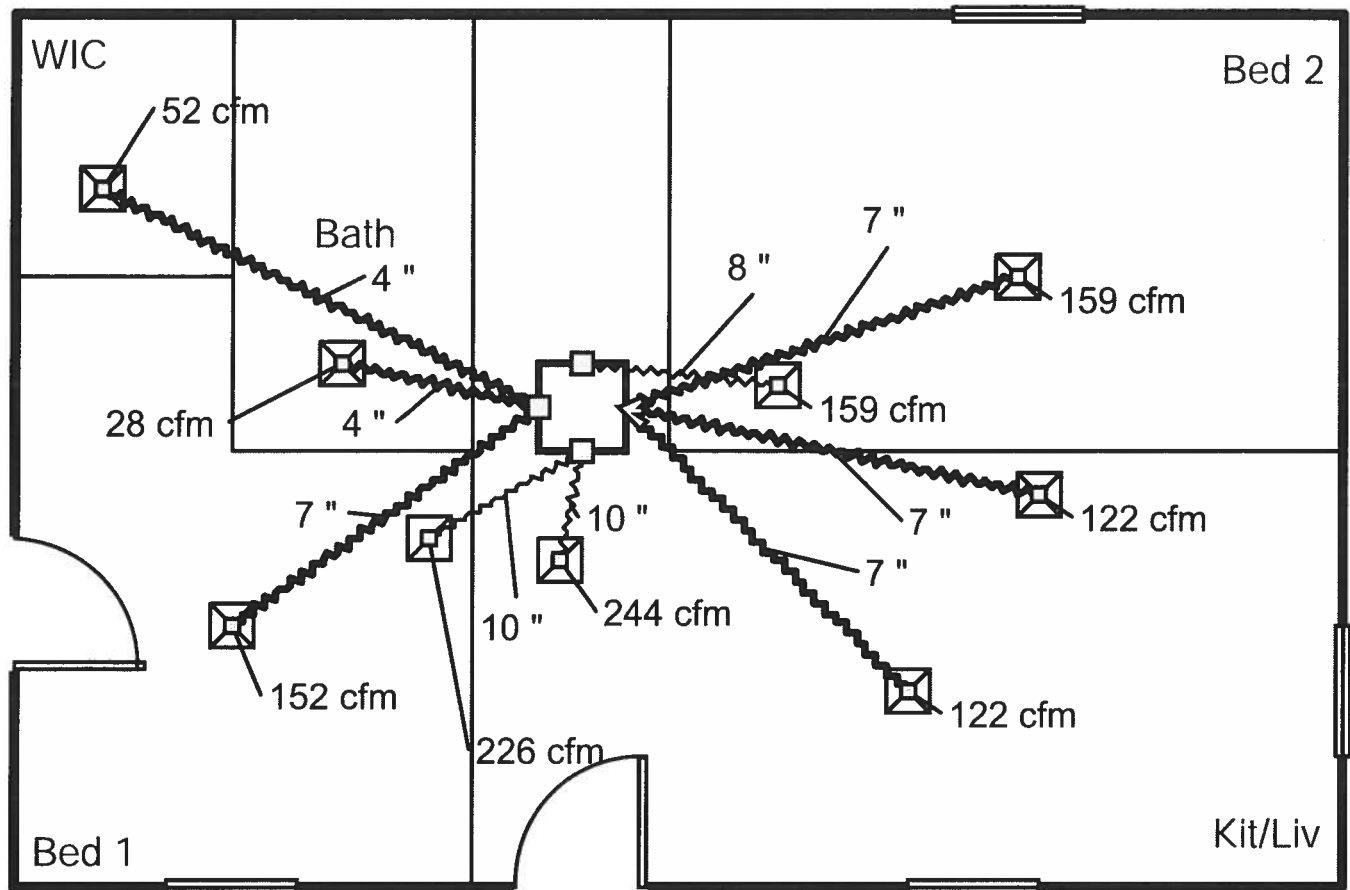
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Duct Layout



Job #: Soto
Performed by DJM for:
Betsy Soto
High Springs, FL

Scale: 1 : 51
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