



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

PERMIT CARD – PLEASE POST AT JOB SITE

THIS DOCUMENT BECOMES YOUR PERMIT WHEN PROPERLY VALIDATED

Per FBC 105.3.3: An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies." The issuance of this permit does not grant permission to violate any applicable City, Orange County, State of Florida and/or Federal codes and/or ordinances. Separate permits are required for Signs, Roofing, Electrical, Gas, Plumbing and Mechanical services. This permit becomes VOID if the work authorized is not commenced within 6 months, or is suspended or abandoned for a period of 6 months after commencement. WORK SHALL BE CONSIDERED SUSPENDED IF AN APPROVED INSPECTION HAS NOT BEEN MADE WITHIN A 6 MONTH PERIOD. PERMISSION IS GRANTED TO DO THE FOLLOWING WORK ACCORDING TO THE CONDITIONS HEREON AND THE APPROVED PLANS AND SPECIFICATIONS, SUBJECT TO COMPLIANCE WITH THE ORDINANCES OF THE CITY OF BELLE ISLE, FLORIDA.

Scope of Work: MECHANICAL: c/o 3ton AC with no ductwork

Comments: None

Project Information

Address: 5025 Monet Avenue, Belle Isle, FL 32812
Parcel ID: 17-23-30-4380-05-190
Property Owner: Wertz, David & Ana
Phone Number: 407-367-8930

Company Name: No Sweat AC & Heating, LLC
Contractor Name: Thrift, Alan
License Number: CAC1816648
Address: 2798 Pepper Lane, Orlando, FL 32812
Phone Number: 407-497-4259

Permit Number: 2014-07-034

Date of Application: 07/22/2014
Date Permit Issued: 07/22/2014

WARNING TO OWNER: "YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT." ON THE JOB INSPECTION(S) MUST BE MADE BEFORE PROCEEDING WITH SUBSEQUENT WORK. THIS CARD MUST BE DISPLAYED OUTSIDE AND BE PROTECTED FROM THE WEATHER WHILE BEING VISIBLE FROM THE STREET UNTIL THE FINAL INSPECTIONS HAVE BEEN APPROVED.

BUILDING FEATURES

IMPACT FEES

Traffic \$
School \$

ZONING FEES

Zoning Fee \$

UNIVERSAL ENG - BUILDING FEES

Boat Dock \$
Boat House \$
Building \$
Demo \$
Door(s) \$
Driveway \$
Electrical \$
Fence \$
Gas \$
Irrigation \$
Low Voltage \$
Mechanical \$55.50
Plumbing \$
Pool \$
Roofing \$
Screen Encl \$
Shed \$
Temp Pole \$
Window(s) \$

SURCHARGE FEES

Surcharge Fee \$2.00
Surcharge Fee \$2.00

TOTAL FEES \$59.50

Date Paid 7-22-14

CC or Check # mc 0337

Amount Paid 59.50

The person accepting this permit shall conform to the terms of the application on file and construction shall conform to the requirements of the Florida Building Code (FS 553).

BUILDING INSPECTOR USE ONLY

IF APPLICABLE:

Have Zoning Approval Conditions Been Met? YES NO Have Stormwater Approval Conditions Been Met? YES NO Silt fencing in place? YES NO Turbidity Barrier in place? YES NO

BUILDING

1st _____ (Footing/Foundation)
Survey specific foundation plan must be onsite before slab pour. Approved Plan on Site? ____
2nd _____ (Slab)
3rd _____ (Lintel)(Wall Reinforcing on Masonry Building)
4th _____ (Exterior Framing)(Roof/Wall Sheathing)
5th _____ (Framing) (To be made after Plumbing/ Mechanical/ Electrical Rough-Ins & Windows/Doors Installed)
6th _____ (Insulation to be Made After Roof Installed)
7th _____ (Drywall)
8th _____ (Sidewalk/Driveway)
9th _____ (Other)
10th _____ (Final – After MEP and Other Applicable Finals)

ROOFING OSHA APPROVED ACCESS MUST BE MADE AVAILABLE TO INSPECTOR

1ST ROOFING Deck Nailing/Dry-in/Flashing _____
2nd ROOFING Covering In-Progress _____
3rd ROOFING Covering Final _____

PLUMBING (Pool-Piping, Solar, Irrigation, Water Treatment Equip, Etc...)

1ST _____ (Underground) 2nd _____ (Sewer)
3rd _____ (Rough-In/Tub Set) 4th _____ (Final)

CHECK APPROPRIATE BOX

GAS ___ Natural ___ LP MECHANICAL ELECTRICAL LOW VOLTAGE

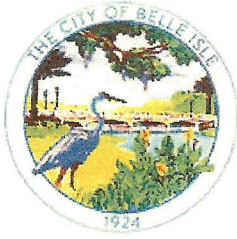
1st _____ (Rough-In) 2nd _____ (Final)

Inspection requests are to be emailed to BDscheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. Next-Day Inspection requests must be made by 1pm. Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.

For a copy of your permit, or to check inspection results, please visit <https://universalengineering.sharefile.com/f/fo94edc4-832d-44bd-9809-ecf32f9e2e63>

login ID = cobi@universalengineering.com

password = universal13



City of Belle Isle

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Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

Received
7-22-14

APPLICATION FOR MECHANICAL PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY 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 WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: July 21, 2014

PERMIT NUMBER 2014-07-034

PLEASE PRINT. The undersigned hereby applies for a permit to make installations as indicated below:

Project Address 5025 Monet Ave, Belle Isle FL 32809 32812
Property Owner Wertz, David and Ana Phone 407-367-8930
Property Owner's Mailing Address 5025 Monet Ave City Belle Isle
State FL Zip Code 32812 Parcel Id Number: 17-23-30-4380-05-190

To obtain this information, please visit <http://www.ocpafi.org/Searches/ParcelSearch.aspx>

Class of Building: Old New Type of Building: Residential Commercial Other
Type of Work: New Alteration Addition Repair

- REQUIRED Tie Down Engineering and Equipment Sizing Calculation
- REQUIRED, adding A/C to new space – provide Energy Calculations
- REQUIRED, if replacing unit with no duct work, Duct Certification as per FB 101.4.7.1, must be posted on unit

Please indicate the nature of work by completing the information below:

Air Conditioning: # of Units 1 Tons Per Unit 3.0 Total Tons 3.0
Type of System: Water to Air Chiller Split System Package Heat Pump Estimated Cost \$ _____

Heating: # of Units KWS Per Unit _____ Total KWS _____ BTU's _____ Estimated Cost \$ _____
Oil Electric Boiler Gas

(A) Estimated Cost Fee \$ 4625

Fees for items below are based on valuation of all units, equipment, materials and labor supplied by owner or contractor.

Ventilation:

(Number of) Grease _____ Heat _____ Hoods, Air Intakes _____ Exhaust Fans _____ Dryer Vents _____ Estimated Cost \$ _____

Refrigeration: Number of units _____ Estimated Cost \$ _____

Piping: Air _____ Vacuum _____ Steam _____ Chill Water _____ Estimated Cost \$ _____

Others: (Specify) _____ Estimated Cost \$ _____

Was the space previously Air Conditioned? Yes No (B) Estimated Cost Fee \$ _____

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances.

LICENSE HOLDER SIGNATURE Alan D Thrift LICENSE # CAC1816648

LICENSE HOLDER NAME Alan D Thrift COMPANY NAME No Sweat AC & Heating, LLC

Street Address 2798 Pepper Lane

City Orlando State FL Zip Code 32812 Phone Number 407-497-4259

Building Official: ccg per Keith Date 7-22-14

Review & Permit Fee \$ 55.50
3% Florida Surcharge \$ 4.00
Total Permit Fee \$ 59.50

NOTE: The Building Permit Number is required if the Mechanical Installation is associated with any construction or alteration where a Building Permit has been issued.

Building Permit Number _____

Certificate of Product Ratings

AHRI Certified Reference Number: 3412372

Date: 7/22/2014

Product: Split System: Air-Cooled Condensing Unit, Coil Alone

Outdoor Unit Model Number: 14AJM36

Indoor Unit Model Number: RCFL-H*3617+RXMD-C04

Manufacturer: RHEEM SALES COMPANY, INC.

Trade/Brand name: RHEEM, RUUD, WEATHERKING

Series name:

Manufacturer responsible for the rating of this system combination is RHEEM SALES COMPANY, INC.

Rated as follows in accordance with AHRI Standard 210/240-2008 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	35000
EER Rating (Cooling):	12.00
SEER Rating (Cooling):	14.50
IEER Rating (Cooling):	

AHRI CERTIFIED[®]
www.ahridirectory.org

* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate.

DISCLAIMER

AHRI does not endorse the product(s) listed on this Certificate and makes no representations, warranties or guarantees as to, and assumes no responsibility for, the product(s) listed on this Certificate. AHRI expressly disclaims all liability for damages of any kind arising out of the use or performance of the product(s), or the unauthorized alteration of data listed on this Certificate. Certified ratings are valid only for models and configurations listed in the directory at www.ahridirectory.org.

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CERTIFICATE VERIFICATION

The information for the model cited on this certificate can be verified at www.ahridirectory.org, click on "Verify Certificate" link and enter the AHRI Certified Reference Number and the date on which the certificate was issued, which is listed above, and the Certificate No., which is listed at bottom right.

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AIR-CONDITIONING, HEATING,
& REFRIGERATION INSTITUTE

we make life better™

CERTIFICATE NO.:

130505218569997308



DesignStar Load Calculation

Results are intended for use with Rheem heating and cooling systems

The New Degree of Comfort™

Customer Information

Street Address	5025 Monet Ave, Orlando, FL 32812
Latitude, Longitude	29.1462°, -81.0534°
House Square Footage:	1627 sq. ft.
Name:	Wertz
Phone:	407-367-8930
Email:	anawertz@gmail.com

House Information

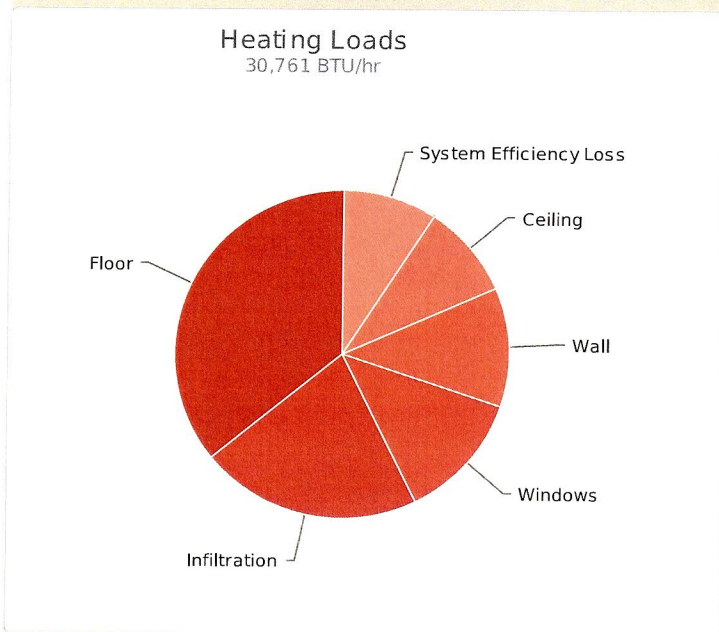
SHR	.75
Number of residents	2
Ceiling height	9
Wall U-value R-value	0.09 11
Floor U-value R-value	0.2 5
Ceiling U-value R-value	0.053 19
Window U-value	0.5
Window SHGF	0.85
Moisture grains	58
Duct loss %	10
Duct gain %	10
Cooling infiltration (ACH)	0.6
Heating infiltration (ACH)	0.8
Winter ventilation	0
Summer ventilation	0

Design Conditions

Outdoor	Heating	Cooling
Dry bulb (°F)	37	90
Daily range		L
Relative humidity		50%
Moisture difference		58
Indoor	Heating	Cooling
Indoor temperature (°F)	70	75
Design temperature difference(°F)	33	15

Heating Loads

Area	Btuh	% of load
Wall	3615	11.8
Floor	11035	35.9
Ceiling	2846	9.3
Windows	3878	12.6
Infiltration	6591	21.4
System Efficiency Loss	2796	9.1
Total:	30761	

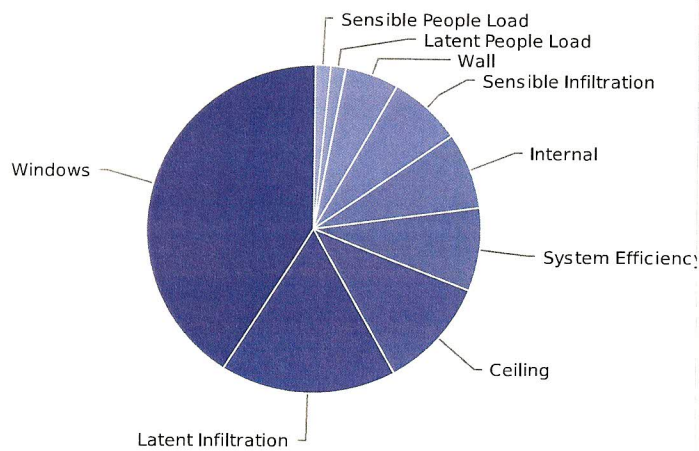


Cooling Loads

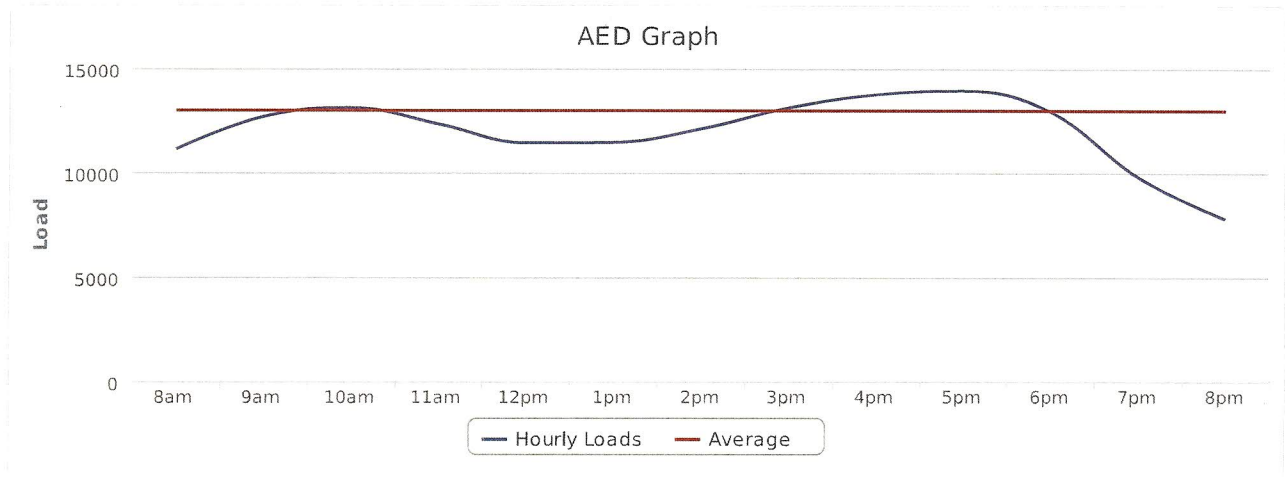
Area	Btuh	% of load
Wall	1643	5.2
Ceiling	3449	10.9
Windows	12971	41.1
Sensible Infiltration	2247	7.1
Latent Infiltration	5371	17
System Efficiency Gain	2568	8.1
Internal	2400	7.6
Sensible People Load	460	1.5
Latent People Load	460	1.5
Total:	31569	
Sensible load	25738	
Latent load	5831	
SHR	0.82	
Capacity at .75 SHR	2.86 Tons	

Cooling Loads

31,569 BTU/hr



Adequate Exposure Diversity



Equipment selection

System equipment selection will be made using the following derived values.

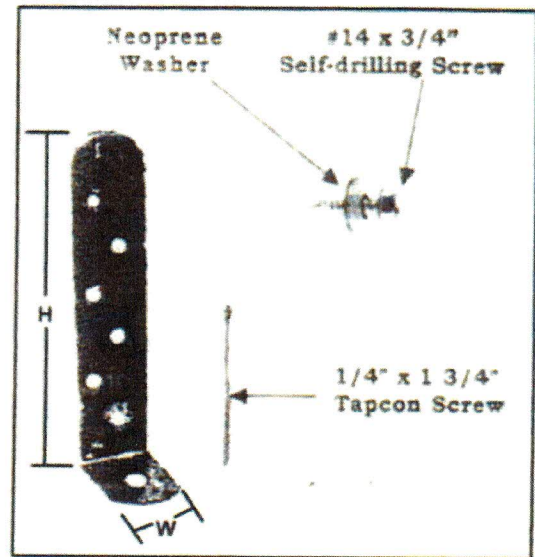
Glass (E)	118 sq. ft.
Glass (S)	17 sq. ft.
Glass (N)	17 sq. ft.
Glass (W)	83 sq. ft.
Summer Outdoor	90°F
Summer Wet Bulb	77°F
Summer Indoor	75°F
Summer Design Grains	50%
Winter Outdoor	37°F
Winter Indoor	70°F
Sensible Cooling	25,738 Btuh
Latent Cooling	5,831 Btuh
Required Cooling Airflow	1,170 CFM
Sensible Heating	30,761 Btuh
Required Heating Airflow	399 CFM

All calculations are based upon approved hvac industry standards and procedures, and comply with all local, state and federal code requirements. All computed results are Estimates. Product provided by Energy Design Systems and Idea Tree

PART NO.	H DIM.	W DIM.	DESCRIPTION
# 771	4"	1"	4 pk. Clips only
# 773	6"	1"	4 pk. Clips only

ANCHOR CLIP NOTES :

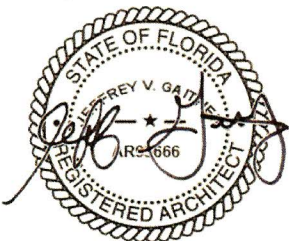
1. The anchor clip are 16 Gauge, G-90 hot-dip galvanized steel rated for corrosion of coastal applications.
2. 196 mph ultimate wind speed (3-second gust) rating based on a condenser unit surface area of 10.2 sq. ft. facing wind ; calculations based upon equations in ASCE 7-10 Chapter 26 ; and Chapter 16, Section 1609 2010 FBC. Exposure C or D (facing water direction) ; Risk category III ; Max. 500 Lb. condenser unit that withstands 196 mph wind speed for 3 second gusts.
3. On condenser units near bodies of water AHJ may require condenser units to be raised above ground level. (Suggest The Metal Shop's equipment wall stand for these areas)
4. The anchor clips with self-drilling screws and Tapcon screw are for ground mounted condensing units only on 2000 psi or higher psi concrete pads ONLY. Other pads or configurations must be custom engineered.
5. Engineer seal affixed hereto validates design as shown only. Use of this plan by Contractor, et. al, indemnifies and saves harmless this engineer and The Metal Shop for all costs & damages, including legal fees & appellate fees resulting from deviations of this plan.



ANCHOR CLIP

ANCHOR CLIP INSTALLATION INSTRUCTIONS

1. SUITABLE FOR GROUND MOUNTED UNITS ONLY. DISCONNECT POWER BEFORE INSTALLATION.
2. Minimum of 4 clips required equally spaced around condensate unit : Minimum of 2- #14 x 3/4" self-drilling screws (per clip) with neoprene washer required to fasten 4 clips to condenser unit base. 1/4" x 1-3/4" Tapcon concrete screw required to fasten each anchor clip into concrete condenser pad (2000 psi or higher psi concrete).
3. Adjust anchor clip accordingly to fit on the condenser unit and attach 2 self-drilling screws through the anchor clip and into the condensate unit, at the same time ensuring that the base of the anchor clip is still in contact with the concrete pad.
4. Attach each Tapcon screw to the base of the anchor clip and into the concrete pad in accordance with Tapcon instructions.
5. All hardware must be fastened prior to connecting refrigerant lines and electrical power to the condensate unit.



Jeff Gaither
AR93666

Jeff Gaither, AIA 4101 Woodlynn Ln. Orlando, FL 32812		The Metal Shop 2541 W. Dunnellon Rd. Dunnellon FL 34434 Ph: (352) 522-0006 Fax: (352) 522-0007 Web: www.metalshop.org	
		TITLE ANCHOR CLIP INSTALLATION INSTRUCTIONS- 196 mph (3-second gusts)	
CONNECTION DETAIL FOR CONFORMANCE WITH 2010 FBC		SIZE B	REVISED FOR 2010 FBC
SCALE N. T. S.		DATE April 4 2011	SHEET 1 OF 1