Existing Residential Home Kit for New or Existing HVAC Units for Renovations and/or Additions

Typically, Architects Design the Permit Documents Showing Only New Renovations or Additions; Their Drawings Do Not Usually Show Enough Information of the Existing Residence to Perform the Code Required Manual J Room-by-Room Heat Load for an HVAC Design and Energy Calculations Consisting of the Entire Home. Energy Code Consulting Has Developed this Existing Residential Home Kit Just for This Purpose.

Knowing that Older Homes May Not Have Scaled Drawings, a Field Sketch of the Existing Building Showing the Geometry and Envelope Component Materials Will be Needed. All Rooms Served by the HVAC System(s) Still Require the Room-by-Room Heat Load Calculation to Determine Capacity and Demand Associated with Existing, Added or Renovated Rooms. This Heat Load Calculation Will Also Determine Room-by-Room Air Balance for The Building. Adding Rooms to an Existing Unit Means Removing the Current Amount of Air Delivered, Thus to Correctly Design an HVAC System, a Full Energy Study of the Entire Building is Required to Ensure Home Comfort and Equipment Sizing.

Our Existing Residential Kit is Designed to Provide the Code Required Site Information Along with the Architect's Permit Ready Drawings, Which Will be Combined with the Existing Residential Information Form and "Kit" to Make Up the 3D Energy Model That Exactly Matches that Particular Building.

In the "Kit" You Will Find a Sample Sketch, Blank Graph Paper and Our Basic Residential Form Used on All Other Projects.

Sketch the Existing Building on the Graph Paper Provided. Match as Much of the Same Information in the Format Shown on the Sample Drawing, Along with the Notes Below.

Particular Detail Should Be Given:

- Show the Compass Orientation Via a North Arrow, List Address and Permit Jurisdiction
- Draw Each Room to Scale (Each Block on the Graph Paper Equals 1 Square Foot)
- Add Your Designated Room Names and Show Ceiling Heights
- Identify Each Building Envelope Component Type (Floor, Walls, Roof Type Including Cladding, Windows and Doors) with R-Values
 - Show Each Change in Floor (on Slab, Raised Floor Over Garage, Etc.)
 - Show Each Wall as Block or Frame for Exterior and Interior
 - Indicate the Roof Structure and Its Cladding (Shingles, Metal, Tile, Etc. with Color)
 - Ceiling Heights and Types per room (Flat, Cathedral, Tray or High Hat, Etc.)
 - Show Each Door Type in Inches with Width Times Height and Material (French Doors and Sliders are Considered Windows)
 - Show Each Window Type in Inches with Width Times Height (Fixed, Operable Single or Double Hung, Case, Horizontal, Etc. and Whether Single or Double Pane); Sliding Glass or French Doors Require the Same Information
 - Indicate How Much Roof Overhangs/Extends Past the Walls, as Well as Measure the Offset (The Distance from the Top of the Window to the Highest Point of the Overhang)
- If Available, Sketch Current Duct Layout
- Complete the Residential Information Form Showing the Envelope Component Materials for the New and Existing Particular Building.

While This May Seem Like a Lot of Information, It Is Needed to Complete the HVAC Drawing, Energy Code Calculations, Provide the Most Precise Calculations for Your Home's Indoor Comfort and Possibly Most Important, Whether Your Existing Unit will have the Capacity to Meet the New Building Design.



HVAC RESIDENTIAL INFORMATION FORM - BUILDING ENVELOPE DATA REQUIRED FOR NEW, EXISTING / RENOVATIONS OR ADDITIONS

Energy Code Consulting's HVAC Design Packages Include All 5 Code Required Calculations (Manual J Room by Room Heat Load Calculations, Manual S Equipment Selection, Manual D Duct Pressure Calculations, Manual T Air Device Selection and Florida Energy Code Forms). All reports and Color CAD HVAC Drawings are Provided to Ensure You Have an Efficient, Compliant and Comfortable Design That Matches Your Home.

Contact Person: Email:
Company Name: Phone: Date:
PROVIDE REQUIRED PROJECT INFORMATION AND DRAWINGS LISTED BELOW
Builder Name: Project Name:
Project Address: Project City, Zip Code:
Project County: Permit Office Name or Jurisdiction #:
MINIMUM DRAWING REQUIREMENTS:
Site Plan or North Arrow, Scaled Floor Plan, Building Elevations, Detailed Wall Section.
Conditioned / Living Area Square Feet Per Level, Garage Area Square Feet and Room Names Must be Listed on the Floor Plans.
Provide Floor and Framing Plans on Multi-Level Homes, along with Detailed Truss Types and Sizes
Each Building Envelope Component's Insulation R-Value and Glass NFRC Ratings (Floor, Wall, Door, Glass and Roof).
Provide Glass Envelope Component Locations in Addition to the SHGC and U-Values.
Electrical Floor Plan Preferred.
Provide Existing Duct Layout if Re-using Existing Duct Systems; Show Supply, Return, Ventilation / Exhaust items, Etc.
For Items Not Shown on the Architectural Permit Beady Drawings or Not Provided Below. Those Items Will be Equal to the Energy Code Baseline Values and Li
on HVAC Drawing 1, "Total Building Summary Loads," Which is Only One of the Items Included in Your Efficiency, Compliant and Comfort HVAC Design Pack
PROVIDE NEEDED INFORMATION BELOW TO MEET FLORIDA REQUIREMENTS, BUT ALSO TO FINE TUNE YOUR CUSTOM HVAC DESIGN
Home's Front Door Faces Which Direction: N NE E SE S SW W NW Existing Home Year Constructed:
Floor(s): Slab on Grade? Yes No Raised Floor(s) Thermal Laver R-Value =
Interior Floor Covering Percentage: Tile – % Wood/Vinvl – % Carpet – %
Roof Color: Light Medium Dark Galvanized Galvalum
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Roof Type: Hot vented Attic Cool Sealed Attic Flat Built up Single Assembly Sloped Other:
Roof Cover: Barrel File Flat File/Slate Shingle Metal Concrete Gravel Membrane Other:
Roof / Ceiling Thermal Layer: R-Value = Credits = Radiant Barrier Interior Radiation Control Coating
Roof Configuration: Full Hip Gable Shed Flat Other: Roof Pitch = /12
Block Exterior Wall: Thermal Layer(s) R-Value = Insulation Location = Exterior Interior Integral
Frame Exterior Wall(s): Thermal Layer R-Value = Garage Wall R-Value = Partition Wall R-Value =
Exterior Wall Color: Light Medium Dark or Solar Absorptance Fraction =
Exterior Door Type: Solid Wood Metal Insulation Fiberglass Core (For Glass Doors, See Window Selection)
Existing Glass: A) Frame: Metal Wood Vinvl B) Panes: Single Double Triple C) Coating: Clear Tinted Low-F
New Operable Windows II Value – Selar Heat Gain Coefficient – Frame: Metal Clad Wood Vinvl
New Operable Windows 0-Value = Solar Heat Gain Coefficient = Traine. Inetal Clad Wood Vinyl
New Fixed Windows O-Value = Solar Heat Gain Coefficient = Frame. Metal Clad Wood Vinyl
New Sliding Glass Door(s) U-Value = Solar Heat Gain Coefficient = Frame: Metal Clad Wood Vinyl
New French Glass Door(s) U-Value = Solar Heat Gain Coefficient = Frame: Metal Clad Wood Vinyl
Storage Water Heater: Gallons = I ype = Electric N Gas P Gas EFF= Location: Garage Attic Interior
Instant Water Heater: Type = Electric N Gas P Gas EFF = Location: Garage Attic Interior Exterior
HVAC System(s): Condenser Location = < Exterior (Show Exact Locations of Equipment on Drawing)
HVAC System(s): Air Handler Location = Garage Attic Interior Exterior (Show Location(s) on Drawing)
NOTES:
2018 Undate: In cases where the Energy Code Baseline Values do not nass code. ECC will select components to achieve a passing coor
NEATLY FILL IN DATA • CHANGES MADE AFTER SUBMISSION WILL REQUIRE A NEW PROJECT SUBMISSION FORM AND DESIGN PACKAGE REQUE

