CONTECTS

BUILDING HOMES THAT PROTECT THE ENVIRONMENT

ENERGY STAR

ENERGY STAR Certification Process

Homes that earn ENERGY STAR must meet guidelines for energy efficiency set by the U.S. Environmental Protection Agency. ENERGY STAR qualified homes are at least 15% more energy efficient than homes built to the 2004 International Energy Conservation Code (IECC). Contects - Consultants & Architects verifies this exemplary performance by following the procedures outlined below.

Step One: Plan Review

Prior to construction of an ENERGY STAR home, the builder submits a set of architectural plans and specifications. Contects will compare the plans and specifications to the performance criteria of the program. Recommendations for energy efficiency improvements are made as needed. The following information is required prior to the plan review:

- ☐ Signed fee proposal with project address.
- ☐ A copy of the plans - digital CAD or hard copies are acceptable.
- ☐ Information on the specific building components that affect energy performance; windows, insulation, air conditioning equipment, water heaters, etc. A blank project specification form, with recommendations, is available from Contects.

Step Two: Field Inspections and Testing

Field inspections and testing help identify and correct mistakes before they are hidden behind walls and verifies that the home meets EPA's strict guidelines for energy efficiency.

Insulation Inspection Checklist

The items below should be completed prior to scheduling a thermal envelope inspection. This inspection should be performed after wall insulation is installed, but prior to interior drywall or exterior finishes. A more complete thermal envelope inspection checklist is available from Contects.

- ☐ Exterior wall insulation installed and visible for inspection.
- ☐ Penetrations thru exterior walls and interior top plates air sealed.
- ☐ Exterior air barrier "system" visible for inspection.
- ☐ Knee wall and vaulted ceiling insulation installed and visible for inspection.

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Duct Leakage Test

Air leaking from forced-air ductwork is not as obvious as leaking water pipes. However, it can cause serious problems such as back-drafting of combustion appliances, contamination of indoor air, and high energy bills. The energy and air quality penalties are especially harsh when the ductwork is located in the attic. The items below should be completed prior to scheduling a duct leakage test.

- ☐ Interior air-conditioning equipment installed with all access doors in-place.
- ☐ Supply and return air plenums installed and sealed.
- ☐ Ductwork and sheet metal boxes installed and sealed.
- ☐ An ACCA Manual J load calculation must be furnished by the mechanical contractor if AC sizing exceeds 600 square feet per ton.
- ☐ Temporary power source available at the site.

Building Infiltration Test Checklist

A tightly sealed home improves comfort and indoor air quality while reducing energy bills. This pressure test estimates the rate of air infiltration within a home and helps locate the largest and most costly leaks. The items below should be completed prior to scheduling a building envelope infiltration test.

- ☐ Attic insulation installed with installer's certification.
- ☐ Permanent exterior doors and weather-stripping installed.
- ☐ Windows installed.
- ☐ Interior access door(s) to attic installed and sealed.
- ☐ AC supply boxes sealed to drywall and grills installed.
- ☐ Fireplace flue and damper installed.
- ☐ Airtight recessed lighting cans installed and sealed to drywall.
- ☐ Exterior exhaust fans and dryer ducts installed and vented to the exterior.
- ☐ Permanent or temporary power source available at the site.

Step Three: Certification

At the successful conclusion of steps one and two above, Contects will issue an ENERGY STAR label to be affixed to the home's electrical breaker box. If requested, Contects can provide the required documentation for homes participating in Texas Veterans Land Board mortgage financing or Fannie-Mae energy efficient mortgages.

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