



# **IMPORTANT NOTICE**

## **BUILDERS AND IRRIGATION CONTRACTORS WORKING IN NORTH RICHLAND HILLS, TEXAS**

**August 4<sup>th</sup>, 2011**

**RE: New Energy Code Requirements**

To all contractors in North Richland Hills:

During the 81<sup>st</sup> session of the Texas Legislature in 2009, the 2009 International Energy Conservation Code was adopted for residential construction to be effective on January 1, 2012. As a result, the City of North Richland Hills has adopted these provisions and will be enforcing the applicable sections beginning Monday, January 2, 2012. The purpose of this e-mail is to remind everyone that the new requirements/procedures will go into effect on that date.

Below is a list of some the most significant changes that will affect builders in North Richland Hills:

1. Mechanical designs prepared by the mechanical contractor will be required to be submitted with the building plans for plan review. Interior design temperatures must be no greater than 72 degrees F for heating and no lower than 75 degrees F for cooling; and must be sized in accordance to section M1401.3 of the residential code. Oversized units are not allowed.
2. Insulation installers will be required to provide a certification listing of each insulation type, manufacturer, and R-value of insulation installed in each element of the building envelope. This report must be signed and dated by the installer and posted in a conspicuous location on the job site.

For blown or sprayed insulations (fiberglass or cellulous), the report will need to contain:

- a. Initial thickness
- b. Settled thickness
- c. Settled R-value
- d. Installed density
- e. Coverage area
- f. Number of bags

Sprayed polyurethane foam, the report will need to contain:

- a. The installed thickness of the area covered
  - b. R-value of the installed thickness
3. The builder will be required to provide a building compliance certificate that is permanently posted on (or inside) of the electrical panel. The certificate must contain the following:
- a. Predominant R-values of all walls, floors, slab insulation (if provided), basements, crawlspaces, duct insulation
  - b. Window u-values
  - c. Window SHGC's
  - d. Types and efficiencies of heating, cooling and water heating equipment
  - e. Identify gas-fired unvented heaters, electric furnaces, and base board heaters (if provided)
4. In most cases, all houses must provide the following minimum standards:
- Minimum U-values for windows = 0.50  
Minimum SHGC for windows = 0.30  
Minimum R-Value for walls = R-13  
Minimum R-Value for ceilings = R-30
5. In attics that contain insulation in the ceiling cavity, a framed baffle or insulation retainer will be required around pull-down stairs in order to provide full depth loose-fill insulation around the opening and to prevent loose fill insulation from falling down into the residence. Pull down stairs must be weather stripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Equipment platforms that reduce the thickness of the attic insulation will no longer be allowed; and raised decking or pathways (catwalks) will be required in order to prevent compression of required insulation levels.
6. The building envelope will be required to demonstrate air tightness by one of the following methods:
- a. Prior to final inspection, a blower door test will be required by a 3<sup>rd</sup> party energy company verifying that air leakage is less than seven air changes per hour at a pressure of 50 pascals (1 psf); **or**,

- b. Obtain an insulation inspection from NRH staff and request a copy of the Insulation/Air Barrier Check-off form. Use of this method will need to be indicated at the time of building permit application and will require additional attention to sealing the building envelope. Please note that staff will not be able to use this option if thermal ply-type sheathing or non-taped sheathing/building paper systems are used as the sole infiltration barrier. Taping joints of sheathing products which have not been tested and approved for that purpose is not sufficient for utilizing this option.
7. Wood burning fire places must have gasketed doors and outdoor combustion air.
8. Recessed lighting must be sealed to limit air leakage between conditioned and unconditioned spaces with a gasket or caulk between the housing and the interior wall or ceiling covering.
9. All air ducts, air handlers, filter boxes and building cavities used as ducts must be sealed.
10. All HVAC ducts will be required to be pressure tested for air leakage by a certified third-party testing company. An exception exists if all of the ducting is installed inside of the building envelope.
11. HVAC ducts located in an attic will be required to have R-8 insulation. All other ducts may have R-6 insulation. Please note that duct systems located entirely within the building envelope are not required to be insulated.
12. Heat pumps with electrical resistance supplementary heat must have controls that will prevent the electric resistance coils from operating when the heating load can be met by the heat pump alone.
13. R-3 insulation must be provided on refrigeration lines that carry fluids above 105 degrees F (appx. 3/4 inch Armaflex Insulation).
14. HVAC thermostats must be initially programmed with a heating temperature set no higher than 70 degrees F and a cooling temperature set no lower than 78 degrees F.
15. Heated pools and spas must contain covers with an R-12 rating.
16. Pool heaters must be provided with a readily accessible on/off switch, including timer switches.
17. A minimum of 50% of the light bulbs within permanently installed light fixtures must be equipped with high-efficiency light bulbs (CFL or LED typically)
18. All new house plans submitted for permit must include an International Code Compliance Calculator report "IC3" which can be generated on-line at <http://ic3.tamu.edu>. RES-Check can still be submitted, but it will no longer be

accepted as the sole source to demonstrate energy code compliance. The IC3 calculator can be accessed free on-line at <http://ic3.tamu.edu/>.

Please note that the above list is intended to give our builders a reminder of what will be required starting January 2, 2012. Since this is a state law, all houses that have not commenced construction by that date (i.e. completed foundations) will be required to meet these standards. Staff anticipates that the most significant of these standards will be the requirements noted in items #1, 2, 3, 5, 6, 10, 12, and 18.

Although the city does not intend to adopt the 2009 International Residential Code, we will begin approving non-ventilated attics without the 1 Perm (or less) vapor barrier previously required by the 2006 IRC; provided, however, that all the provisions of section R806.4 of the 2009 International Residential Code are met (see attached PDF for reference).

Attached are a check list and a compliance guide published by the State Energy Conservation Office (SECO) that may be of assistance. Feel free to contact Penny Peterson or me if you have any questions.

Most sincerely,

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