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THE BUILDER'S

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CREATIVE ARCHITECTS'
NEWSLETTER PROVIDING
INFORMATION THAT IS VITAL
TO THE RESIDENTIAL
BUILDING INDUSTRY.

BRIEF

The 2006 & 2009 IRC Codes Bring Changes

Many cities have already adopted the 2006 International residential code and the state of Texas has approved the use of the 2009 IRC. Both have changes that effect the planning and construction of new homes

The International Code Council has published the books Significant Changes to the International Residential Code 2006 & 2009 Editions which are available from their website. (www.iccsafe.org) This newsletter highlights some of the major changes to the code depicted in the books.

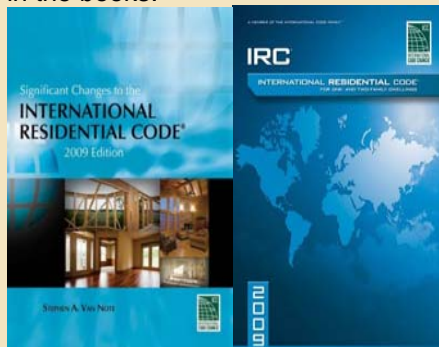
The 2006 IRC has changes that effect:

- Ramps
- 2nd Floor Windows
- Use of Green Board
- Framing Changes
- Outlets
- And More

The 2009 IRC has changes that effect:

- Attic Habitable Space
- Exterior Wall Fire Rating
- Fire Sprinklers
- Address Numbers
- Framing Changes
- Energy Usage
- And More

At Creative Architects we strive to keep informed about the building business so we can better serve you, The Builder. If you have any questions or are in need of design services please call us at 972-530-4872. You can see some of our work and learn more about us at our website. www.cr-ar.com



The Cities, subcontractors and suppliers are all working to understand and implement the Code changes. This newsletter only highlights some of the changes. We recommend talking to the Cities, questioning your subs and suppliers and reading the Code and other books.

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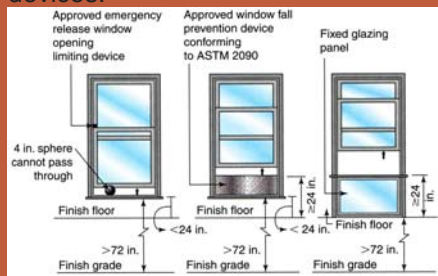
Second Floor Windows – New Fall Safety Rules

2006 IRC SECTION R613.2 & 2009 IRC SECTION R612.2

To reduce the number of falls through windows for small children the 2006 IRC requires that any window where the opening part of the window is more than 6' above the finished grade the lowest part of the opening must be a minimum of 2' above the finished floor of the room. The 2006 code allows the window if it only opens to where a 4" ball will not pass through the opening. Or, a special window guard must be installed up to the 2' level.

Doing the math a typical 5' tall window will not work in an 8' wall on the second floor. With a 6'-8" header the sill of a 5' window will be at 1'-8". (4" too low) The window would have to be installed at a 7' header to comply thus effecting roof overhang size. Some window manufacturers have shorter windows that meet the egress requirements.

The 2009 IRC has added criteria for "Fall Prevention Devices". They must meet ASTM F 2090 standards. More importantly the Code allows approved easy operating opening limiting devices. The 2009 Code sets the criteria of the limiting devices.



From [Significant Changes to the International Residential Code 2009 Edition](#)

No More Green Board at Showers & Tubs

2006 IRC SECTION R702.4.2

Green gypsum board is no long allowed to be used at tiled tub or shower walls. Only cement, fiber-cement or glass mat gypsum backers are allowed and they must be installed in accordance with manufacturer's recommendations

Electrical Changes:

GFI's Near Sinks:

2006 IRC SECTION E3802.7

All receptacle within 6 feet of the outside edge of a sink shall be GFCI protected. This included outlets not at the counter top.

Outlets in Bathrooms:

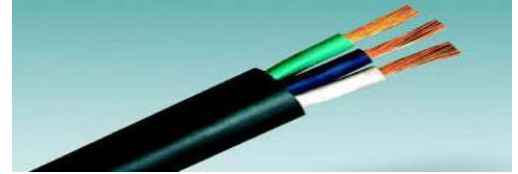
2006 IRC SECTION E3801.6

The 36" maximum distance for an outlet from a lavatory basin requirement is still in the code but the outlet can now be on the face of the cabinet within 12" of the counter top.

GFI's in Garages:

2009 IRC SECTION E3902.2

All receptacles in a garage except for fire and alarm systems must be GFI. Freezer, sprinkler system and garage door outlets must now be GFIs.



Arc Fault Protection:

2008 NEC Article 210-12

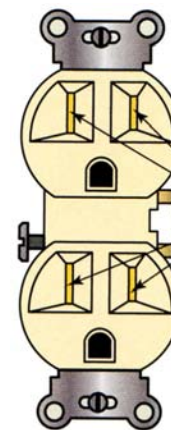
2009 IRC SECTION E3902.11

Arc-fault protection is now required in all rooms except kitchens, baths, laundry and garages. These excluded areas have GFIs as required in other parts of the code.

Tamper-Resistant Receptacles:

2009 IRC SECTION E4002.14

All required outlets including garage and outdoor outlets shall be Tamper-Resistant. These outlets have spring loaded safety shutter so both blades of a plug must engage the safety shutters simultaneously to open.

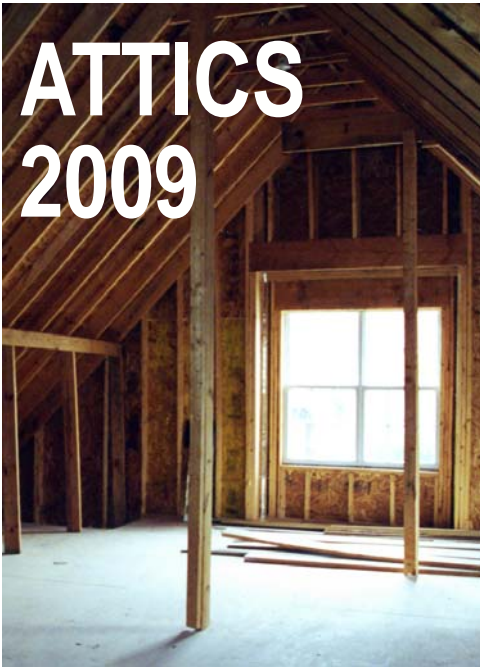


Spring-loaded safety shutters: Both blades of plug must depress safety shutters simultaneously to open

Tamper resistant receptacles

From [Significant Changes to the International Residential Code 2009 Edition](#)

ATTICS 2009



Habitable Attics:

2009 IRC SECTION R202

There is a new space definition in the 2009 IRC, "Habitable Attics". It is a finished or unfinished area, not considered a story and having an occupiable floor area of at least 70 square feet. The space must have ceiling heights as required in section R305 of the code. The attic does not have to be floored to be a Habitable Attic. It is a space enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.

Habitable Attics are not considered a story so a home can have 3 stories above grade plus the Habitable Attic. This is not possible under the 2006 IRC. Of course with this new definition there are new requirements.

Attic Floor Live Loads:

2009 IRC Table R301.5

Attics and their floor loading now fall under 3 categories with 3 different floor loadings.

- 1) *Attics without Storage:* 10 pounds live load
- 2) *Attics with limited storage:* 20 pound live load
- 3) *Habitable Attics and Attics Served with fixed stairs:* 30 pounds live load

This will require that Habitable Attics have a floor structure that is the same as in regular habitable areas. So even if the space will not be used as a room it must still have the floor structure of a regular room.

Egress from Habitable Attics:

2009 IRC SECTION R310.1

Now that some attics will now be "Habitable" they must have egress windows just like a bedroom. This applies whether they are finished or unfinished and no matter how they are used. While not addressed in the code you may be able to frame the attic space with low collar ties or other framing so it does not qualify as a Habitable attic. Check with your Building Official.

Safety Glazing – Hazardous Locations

2009 IRC SECTION R308.4

This whole section has been rewritten to be simplified. The 2006 Code identified 11 hazardous locations with 10 exceptions. The 2009 Code has 8 hazardous locations. One of the changes effects how fixed doors are treated. Check with your window supplier for application of the new rules.

Framing Changes:

2006 & 9 IRC Section R602

Both the 2006 & 2009 International Residential Codes contain numerous changes to framing. Some of the areas with changes are:

- 1) Table R602.3(1) Fastener Schedule – nail sizes, sheathing nailing and more.
- 2) 2006 R602.3.2 – Top plate joints do not have to be over studs.
- 3) 2009 R602.3(5) – Stud height and spacing and Habitable Attic changes
- 4) 2006 & 2009 R602.10 – Multiple changes to wall bracing requirements

The changes to framing alone would fill multiple newsletters. Be aware that there are changes and check with the building officials or your engineers before framing. It is cheaper to do it right the first time.

OTHER BITS



Equipment Access for Inspection and Service:

2006 IRC SECTION M1305.1

A 30 inch by 30 inch level access area is required in front of the control side of the appliance.

No More "Self-Flashing Windows:

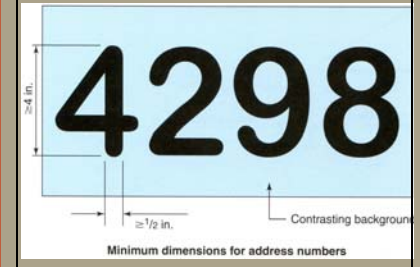
2006 IRC SECTION R703.8

All windows shall have approved applied shingle fashion flashing. "Self-Flashing" windows are no longer allowed

Address Numbers:

2009 IRC SECTION R319.1

The 2009 Code now dictates the minimum size for address numbers. Numbers must be 4" tall or greater, 1/2" wide strokes and have a contrasting background. Plus the sign must be visible from the street.



New Ramp Rules

2006 IRC SECTION R311.6.1

Ramps where installed can have a maximum slope of 1/12 (8.3%). The old maximum was 1/8 (12.5%) This change makes the ramps consistent with non-residential ramps.



SPRINKLER SYSTEMS



Automatic Fire Sprinklers are Required by the 2009 Code!! but..

2009 IRC SECTION R313

The requirement for fire sprinkler systems in homes was moved from the appendix of the 2006 Code into the main body of the 2009 Code thus making installation of fire sprinkler systems mandatory in all new homes. January 1, 2011 is the date this requirement starts.

But, the State of Texas Legislature passed and the Governor signed a law in which municipalities will no longer have authority to enact ordinances that would require builders to install fire protection sprinkler systems in residential construction. Any existing ordinances would be allowed to stand. Builders would still have to offer buyers the option of installing a sprinkler system. Check with your local Building Officials and Fire Marshall.

Smoke Alarms:

2009 IRC SECTION R314

The section covering smoke alarms has been reorganized. Smoke alarms now have to be installed in "Habitable Attics" Check with the alarm installer for the new requirements.

Carbon Monoxide Alarms:

2009 IRC SECTION R315

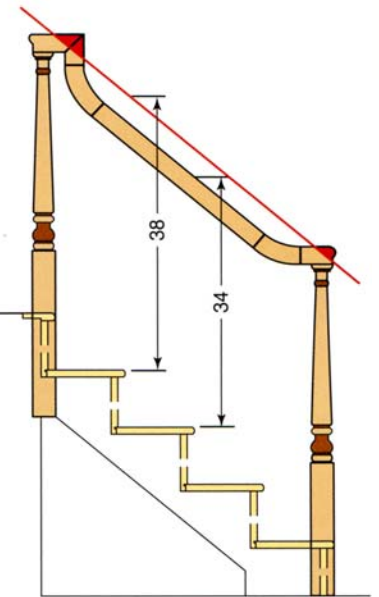
Carbon Monoxide Alarms are required in the 2009 Code outside the sleeping areas and near fuel fired appliances and in units with attached garages.

Handrails:

2009 IRC SECTION R311.7.7

The handrail continuity provision of the code has been difficult to comply with. Some new exceptions allow for easier construction of the transitions of the railing.

- 1) The use of a volute, turnout or starting easing shall be allowed over the lowest tread.
- 2) When handrail fittings or bendings are used to provide continuous transition between flights, the transition from handrail to guardrail, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.



Handrail height at transition fittings

There are many other changes in the codes. More than can be explained in a newsletter. Work with you suppliers, building officials and study NAHB materials to incorporate the changes as they become applicable.

Sources:

Significant Changes to the International Residential Code – 2006 Edition
Significant Changes to the International Residential Code – 2009 Edition
Available at www.iccsafe.org



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