

Georgia Department of Community Affairs • Construction Codes & Industrialized Buildings • 60 Executive Park South, N.E. • Atlanta, GA 30329-2231 404-679-3118 • www.dca.state.ga.us Volume 8, Number 2 • Fall 2006

#### SIX (6) NEW MANDATORY STATE MINIMUM STANDARD CODES FOR CONSTRUCTION AND GEORGIA STATE AMENDMENTS TO BECOME EFFECTIVE JANUARY 1, 2007

On November 1, 2006 the Department of Community Affairs (DCA) Board, on the recommendation of the State Codes Advisory Committee (SCAC), adopted the 2006 Editions of the: International Building Code, International Fire Code, International Plumbing Code, International Mechanical Code and International Fuel Gas Code all with Georgia State Amendments to become effective January 1, 2007. Also, the DCA Board adopted the 2006 International Residential Code with Georgia State Amendments to become effective January 1, 2007. There will be a 6 (six) month delay for the International Residential Code Section R301.2.1.1 Design Criteria, which is applicable to 100 mph inland hurricane-prone zones until July 1, 2007. Finally, a Georgia State Amendment to the 2000 International Energy Conservation Code was also adopted to become effective January 1, 2007.

In addition, the DCA Board also adopted a rule establishing a State Codes Advisory Committee Plan Review Appeals Subcommittee and an Affidavit of Plan Review by Private Professional Provider. This was done to fulfill the requirements of House Bill 1385.

The adopted Georgia State Amendments and the Rule and Affidavit regarding House Bill 1385 are available on the Department of Community Affairs webpage at: www.dca.state.ga.us/development/constructioncodes/programs/codeamendments.asp or by contacting the Construction Codes Program at 404-679-3118.

#### PLUMBING CODE CONSISTENCY TASK FORCE

The International Plumbing Code (IPC), 2006 Edition, with Georgia amendments, has been adopted and will become effective in the state of Georgia on January 1, 2007. As did the 2000 IPC, this code will also apply to commercial and residential plumbing construction. The 2006 IPC will replace the plumbing chapters of the 2006 International Residential Code (IRC), which will also go into effect on January 1, 2007.

Replacing the plumbing chapters of the IRC with the IPC streamlines the plumbing code and allows for one code to apply to all plumbing construction, however, the IRC plumbing chapters are specifically written for residential application. Because of this issue, the State Codes Advisory Committee (SCAC) will assign a task force in 2007 to identify and assess the differences between the 2006 IPC and the plumbing chapters of the 2006 IRC. Once the differences have been identified and assessed, the task force will work to write amendments that will eliminate the differences. The goal is to eliminate the differences and make these codes identical for residential plumbing application. This will allow the IPC and the plumbing chapters of the IRC to both be in effect and also be consistent in regard to residential plumbing application. If you have questions or would like to be put on the Interested Parties list for this task force please contact Max Rietschier, Department of Community Affairs Building Codes Consultant at 404-679-3104 or mrietsch@dca.state.ga.us.

# TASK FORCE TO BE FORMED TO REVIEW 2006 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

At its January 2007 quarterly meeting, the State Codes Advisory Committee (SCAC) will form a task force to review the 2006 International Energy Conservation Code (IECC). The task force will be charged with assessing the differences between the 2000 IECC with Georgia State Supplements and Amendments (existing code) and the 2006 IECC, and making recommendations regarding adoption of the 2006 IECC and any necessary supplements and amendments to the SCAC.

The task force will carry out its charge during the spring of 2007. The tentative effective date for the 2006 IECC with any Georgia State Supplements and Amendments is January 1, 2008.

If you would like to be added to the task force's Interested Parties list, please contact Tate Holt, Department of Community Affairs (DCA) Staff

Representative for the 2006 IECC Task Force, at (404) 679-3109 or tholt@ dca.state.ga.us.

#### FOAM PLASTIC PROTECTION: COMPLIANCE AND ENFORCEMENT

It has been brought to DCA's attention that a problem exists relative to compliance with, and enforcement of, code requirements for foam plastic protection in residential applications. Only those foam plastic products with an approved method of protection from termite damage are permitted to be "installed on the exterior face [of foundation walls] or under interior or exterior foundation walls or slab foundations located below grade", unless "the structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure-preservative-treated wood."

Section R324.4, Foam plastic protection, of the International Residential Code for One- and Two-Family Dwellings (IRC), 2000 Edition (2006 IRC Section R320.5), states: "In areas where the probability of termite infestation is "very heavy" as indicated in Figure R301.2(6), extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade. The clearance between foam plastics installed above grade and exposed earth shall be at least 6 inches (152 mm).

Exceptions:

- 1. Buildings where the structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure-preservative-treated wood.
- 2. When in addition to the requirements of Section R324.1 [2006 IRC Section R320.1], an approved method of protecting the foam plastic and structure from subterranean termite damage is used.
- 3. On the interior side of basement walls."

A DCA task force was formed nearly a decade ago to investigate the problem of moisture intrusion and termites in exterior insulation and finish systems (EIFS). As a result of this investigation, the foam plastic insulation board which is commonly used in insulating concrete forms (ICF) for poured-inplace concrete foundation walls and for insulating turned-down concrete slabs was determined to be an ideal hidden pathway through which subterranean termites can access wood frame construction. As a result, foam plastics were prohibited from these uses. However, Exception #2 above, which was initially incorporated into the 1995 CABO One and Two Family Dwelling Code by way of 2000 Georgia State Amendment, allows for foam plastic use when, in addition to the requirements of Section R324.1 (Section R320.1) for subterranean termite control, an approved method of protecting the foam plastic and structure from subterranean termite damage is provided. Since the 2000 Georgia State Amendment, the ICF and foam plastic industries have developed new foam plastic products which have been tested and evaluated by various agencies (ICC Evaluation Services is one such agency) and which may be acceptable as methods/materials with which to protect the foam plastic and structure from subterranean termite damage.

Whenever alternative materials or methods of construction are proposed, it is incumbent upon the building official to determine whether the alternative is, in fact, equivalent to the material or method that is prescribed by the code. Product evaluation reports from various agencies may be helpful in making informed decisions as to whether a method of/material for protecting the foam plastic and structure meets the intent of Section R324.4 (Section R320.5).

If you have any questions or require further assistance, please contact the Construction Codes Program at 404-679-3118.

#### COMPLIANCE AND ENFORCEMENT FOR METAL BUILDING ROOFS UNDER GEORGIA ENERGY CODE

DCA has recently been made aware that, statewide, efforts to comply with, and enforce, the Georgia State Minimum Standard Energy Code's provisions for metal buildings—and in particular, metal roofs—are not what they should be. This is despite the fact that the 2006 Georgia State Supplements and Amendments to the 2000 International Energy Conservation Code (IECC) simplified compliance with, and enforcement of, provisions for metal roofs of all types and with any purlin spacing.

Many metal roof systems are not designed to accommodate a thermal break, and reportedly such systems are being installed prevalently in Georgia even though most Georgia Energy Code compliance methods for metal roofs *require* a thermal break.

The following are suggested for verification of compliance with the Georgia Energy Code's provisions for metal buildings:

1. *Plans submitted at permit application must demonstrate compliance*. This will be done with COMCheck unless the system is:

A standing-seam roof with R-19 insulation and 1-inch-thick thermal blocks;

Fiberglass insulation installed between the purlins (not compressed over them) to achieve U-0.065; or

#### Minimum R-15 rigid insulation installed at the roof

2. For standing-seam roofs, verify that R-19 insulation over the purlins incorporates thermal blocks and that the insulation expands to its full 6-inch depth between the purlins. *If thermal blocks are not incorporated, COMCheck is required.* 

3. For all screw-down/through-fastened metal roofs, both an insulation report (which includes roof R-value(s)) and a COMCheck report should be posted at the job site.

4. Insulation must be installed so that it can expand to its full 6-inch depth between the purlins. Insulation should not be installed in any manner other than that prescribed by its manufacturer.



O.C.G.A. Section 8-2-25-(C)(7) states that "At the time of issuing a building permit, the issuing county or municipality shall notify the holder of the permit of any local amendments to the state minimum standard codes which are in effect for that county or municipality and that any such amendments are on file with DCA. A county or municipality may satisfy this notice requirement by posting or providing a summary of the topic of such local amendment or amendments and the address and telephone number of DCA".



Q: Who is responsible for introducing gas into a building's gas piping system?

A: Although the code does not identify the party(s) responsible for introducing gas into the system, it requires that whomever does it must inspect the entire system, check the

system for leakage and if leakage is indicated, the gas supply shall be shut off until the repairs have been made.

The party/parties that introduce gas into the piping system may be:

\*Municipal owned system/employees

- \*Utility owned system/employees
- \*Plumbing contractor/employees
- \*HVAC contractor/employees
- \*Knowledgeable homeowner

### MARK YOUR 2007 CALENDAR

JANUARY		
11	Industrialized Building Advisory Committee 10:00 a.m. @ DCA	
18	State Codes Advisory Committee 10:00 a.m. @ DCA	
FEBRUARY		
26- March 2	International Code Council EduCode, Las Vegas, Nevada	
MARCH	-	
10-13	Modular Building Institute Convention & Trade Show, Carlsbad, CA	
22	2006 IRC Workshop, Valdosta, GA	
APRIL		
5	2006 IRC Workshop, Statesboro, GA	
26	State Codes Advisory Committee 10:00 a.m. @ DCA	
28- May 2	BOAG Annual Conference, Savannah, GA	
MAY		lf yo
20-26	International Codes Forum, Rochester, NY	incl
JUNE		Cor
3-7	NFPA World Safety Conference and Exposition, Boston, MA.	Ima



If you have any meetings that you would like to include in this newsletter, please contact the Construction Codes Program at 404-679-3118 or Imassey@dca.state.ga.us.

## **IB ANGLE:** MODULAR BUILDING CODE COMPATIBILITY

Modular Building Manufacturers must apply to Georgia's Department of Community Affairs before they can be accepted into the Industrialized Buildings Program. Each manufacturer's production program must receive approval before they will be allowed to build or ship modular buildings into the State of Georgia to be sold or used within the state. One element of the approval process on which each manufacturer must agree is that they must adhere to requirements of Georgia's adopted construction codes. All modular buildings manufactured within Georgia and those shipped into the state for sale or use must have been constructed to meet all requirements of Georgia's construction codes.

The Uniform Codes Act was passed by Georgia's legislature and became effective in 1991. It provided for a standard set of construction codes to be enforced through out the state. This was done to provide uniformity in the health and safety standards enforced through out Georgia's construction industry. Manufacturers within the modular building industry are also subject to the state's uniform set of codes. The use of the Georgia's mandatory codes within the modular building industry is the major characteristic that distinguishes modular homes from manufac-



tured homes (mobile homes). The U.S. Department of Housing and Urban Development (HUD) has jurisdiction over the production of manufactured homes and enforces a completely different set of construction standards for their manufacture.

Historically, mobile homes have received special consideration by local communities in their placement and use. This special consideration usually meant they were limited in the areas they could be placed and the manner in which they could be used. Modular buildings, however, generally receive the same consideration from local officials

as site-built buildings. Most local officials are aware that modular buildings are built to the same code standards as site-built buildings, and that their use within a community should receive the same consideration as that of similar site-built buildings. The manner and ease of fitting a modular building into the local community could be made much easier if each community would develop a set of architectural or esthetic standards for all builders and developers to follow.

## PROFILE CORNER

#### TIM WILLIAMS, SCAC

Tim Williams is a remodeler and builder in the Gainesville area. Tim is proud to serve on the State Codes Advisory Committee. Tim is a Certified Graduate Remodeler and Master Plumber and has served as President of the Home Builders Association of Georgia, a 13,000 business member trade association.

Tim is also active in the



Tim Williams

area of workforce housing serving on the Affordable Housing Committee set up by the Hall County Commission to try to find answers to the workforce housing crisis. "With the cost of land, materials and labor skyrocketing it is almost impossible to deliver quality, affordable housing in Hall County. This makes it very difficult for young people or those with moderate to low incomes to realize the dream of homeownership and that's a shame. I believe that everyone should have the opportunity to own a home. It makes people care more about the community they live in and as a result they become more involved. I really enjoy serving on the State Codes Advisory Committee, I am a native Georgian and I feel honored to be able to serve the people of this great state by insuring that the building codes are up to date and are protecting Georgia families" says Williams.

#### EDWARD KESSIE, ARCHITECTURAL CONSULTANT

My interest in architecture began at the early age of ten. My mom and I would drive around admiring the designs of the various homes in our surrounding neighborhoods. I would often make the promise to her that

someday I would build her a beautiful home of her own. My motivation to pursue a career as an architect grew from my interest in the many aspects of design and the way buildings and communities are planned and constructed. I am inspired by the works of architects such as Frank Lloyd Wright, Le Corbusier and Frank Gehry, and also by the great buildings and cities of Chicago, New York and Italy.

Currently I reside in

Lawrenceville, Georgia. I

grew up in a place called

Edward Kessie

Reston, a planned community in Northern Virginia's Fairfax County just outside of Washington, D.C. Growing up in Reston and frequenting the District of Columbia's historic neighborhoods and districts helped foster my growing interest in planning and community development. Throughout my high school years, I took courses in architectural drafting and design. Continuing my education, I went on to study architecture and construction management in college. While in college I began my career working as a designer for an engineering consulting firm. Three years later I received a degree in Architecture and a certificate in Architectural Drafting and Design.

In 2004 I went on to work for one of the nation's largest builders as a product engineer. It was then that I had my first hands-on experience with factory-built housing. A year later I got my real estate license and began my own business as a design consultant. In 2006 I worked for a developer managing design and construction activities for a planned development in Selma, Alabama. I also got a chance to work with the local government of Pascagoula, Mississippi in efforts to provide emergency housing and assist the city with reconstruction after hurricane Katrina. I now look forward to furthering my career as an architectural consultant with the Department of Community Affairs, Planning and Environmental Management Division.

#### HOUSE BILL 1385: STATE CODES ADVISORY COMMITTEE (SCAC) PLAN REVIEW APPEALS SUBCOMMITTEE AND AFFIDAVIT

When, as provided for in, and in accordance with, paragraphs (12)(B) and (15) of subsection (g) of Code Section 8-2-26 of Part 2 of Article 1 of Chapter 2 of Title 8 of the Official Code of Georgia Annotated (O.C.G.A.), a decision by a local building official is appealed to the Department of Community Affairs, a Plan Review Appeals Subcommittee, as established herein, shall be convened to review and rule upon the appeal.

Each such subcommittee is to be comprised of six (6) members of the Department's State Codes Advisory Committee (SCAC): four (4) county and municipal building officials, all of whom will serve on every such subcommittee, and two (2) members appointed by the chairman of the SCAC whose experience uniquely qualifies them in the subject area of, or whose individual fields of expertise are closely related to, the subject matter being appealed.

In order for a Plan Review Appeals Subcommittee to be convened to review and rule upon an appeal, the appeal must be properly filed with the Department. 'Proper filing' shall mean forwarding the following information via certified mail to the Construction Codes and Industrialized Buildings Section of the Department:

- A notarized affidavit filed by the appellant containing thorough descriptions of (a) the decision by the local building official and (b) the nature of the dispute; (c) specific code citations (e.g. code(s), edition(s), section(s), subsection(s), state/local amendment(s), etc.) applicable to the subject matter in dispute.
- A filing fee in the amount of one-hundred dollars, in the form of a cashier's check, made payable to the "Georgia Department of Community Affairs," paid by the party appealing the decision by the local building official; and
- Any and all documentation from either of the disputing parties which may assist the subcommittee in its review (none will be accepted by the subcommittee after the receipt of a properly filed appeal).

The subcommittee shall consider the materials submitted, review the applicable construction codes and shall have a maximum of sixty (60) days from the date of receipt of a properly filed appeal to convene, review and rule upon the appeal. Upon the Plan Review Appeals Subcommittee making its finding, the Department shall forward copies of the subcommittee's ruling to each of the disputing parties. The ruling of the Plan Review Appeals Subcommittee shall be binding.

In addition, the DCA Board also adopted an Affidavit of Plan Review by Private Professional Provider. This was done to fulfill the requirements of House Bill 1385.

If you need additional information please contact Ted Miltiades, Manager, Construction Codes and Industrialized Buildings Section, at 404-679-3106 or tmiltiad@dca.state.ga.us.

#### 2006 INTERNATIONAL BUILDING CODE (IBC) WITH GEORGIA STATE AMENDMENTS

The provisions of the *Georgia State Minimum Standard Building Code (International Building Code with Georgia State Amendments)* shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception #1: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the Georgia State Minimum Standard One and Two Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings with Georgia State Amendments).

Exception #2: The table titled 'Codes Reference Guide' establishes specific primary and supplementary code applications and is to be applied by the authority having jurisdiction.

The amendments are as follows:

Delete Chapter 1 'Administration' in its entirety without substitution.

Revise Section 202 'Definitions' to add definition of 'Elevator Door Opening Protective Device.'

Delete Section [F] 415.6.3 'Liquefied petroleum gas-distribution facilities' in its entirety and substitute.

Revise Section 508.3.1.3 'Separation' to add exception.

Revise Section 508.3.2.3 'Separation' to add exception.

Delete exception to Section 705.3 'Materials' without substitution.

Delete Sections 707.14 'Elevator, dumbwaiter and other hoistways' and 707.14.1 'Elevator lobby' and substitute.

Renumber Sections 707.14.2 'Enclosed elevator lobby pressurization alternative' through 707.14.2.5 'Activation of pressurization system' as 707.14.3 through 707.14.3.5 and add new Section 707.14.2 'Designated floors for elevator return.'

Revise Section [F] 903.2.7 'Group R' to add exception.

Delete Chapter 11 'Accessibility' in its entirety without substitution.

Add new Section 1404.11 'Exterior insulation finish systems.'

Add new Section 1405.18 'Exterior insulation finish systems.'

Add new Section 1405.19 'Installation of wall coverings.'

Revise Section 1507.4.4 'Attachment.'



Add new Section 1701.4 'Guidelines.'

Rename Section 1703.7 'Evaluation and follow-up inspection services' as 'Evaluation and follow-up inspection services of 'fabricated assemblies."

Revise first paragraph of Section 1704.1 'General.'

Revise Exception #1 to Section 1704.1 'General.'

Add new Table 1704.1 'Minimum Special Inspector Qualifications.'

Delete exception to Section 1802.2 'Where required' without substitution.

Revise second sentence of Section 1803.2 'Placement of backfill.'

Add new Section 1803.7 'Excavation greater than 10 feet (3048 mm).'

Revise Section 1808.1 'Definitions' to modify definition of 'Pier Foundations.'

Revise Section 1812.2 'Lateral dimensions and height.'

Revise Item #10 of Section 1901.4 'Construction documents.'

Revise Section 1905.6.1 'Qualified technicians.'

Revise second sentence of Section 2109.6.3.2 'Bonding with prefabricated joint reinforcement.'

Delete 'service sink' requirements of Table [P] 2902.1 'Minimum Number of Required Plumbing Fixturesa' without substitution.

Revise exception to Section [P] 2902.4.1 'Location of toilet facilities in occupancies other than covered malls.'

Revise Section 3006.5 'Shunt trip.'

Revise Section 3305.1 'Facilities required.'

Revise Section 3403.1 'Existing buildings or structures' to add at end.

Delete Section [EB] 3410 'Compliance Alternatives' in its entirety without substitution.

Revise Chapter 35 'Referenced Standards' to add.

#### 2006 INTERNATIONAL RESIDENTIAL CODE (IRC) FOR ONE- AND TWO-FAMILY DWELLINGS WITH GEORGIA STATE AMENDMENTS

The provisions of the Georgia State Minimum Standard One and Two Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings with Georgia State Amendments) shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with separate means of egress and their accessory structures.

Part VII, Plumbing (Chapters 25 through 32), is deleted from the INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS. Substitute for plumbing requirements the Georgia State Minimum Standard Plumbing Code (International Plumbing Code with Georgia State Amendments).

Part VIII, Electrical (Chapters 33 through 42), is deleted from the INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS. Substitute for electrical requirements the *Georgia State Minimum Standard Electrical Code (National Electrical Code with Georgia State Amendments)*.

#### The amendments are as follows:

Delete Chapter 1 'Administration' in its entirety without substitution.

Revise Section R202 'Definitions' to modify definition of 'Accessory Structure.'

Revise Section R202 'Definitions' to modify definition of 'Branch Vent.'

Revise Section R202 'Definitions' to add definition of 'Valve.'

Add new Section R306.5.

Add new Section R306.6 'General.'

Revise Section R309.2 'Separation required' to add exceptions.

Revise Section R311.5.3.1 'Riser height' to add exception.

Revise first sentence of Section R311.5.3.2 'Tread depth.'

Revise Section R312.1 'Guards' to add at end.

Revise Section R404.1 'Concrete and masonry foundation walls.'

Delete Table R404.1(1) 'Top Reactions And Prescriptive Support For Foundations Walls<sup>a</sup> without substitution.

Delete Table R404.1(2) 'Maximum Plate Anchor-Bolt Spacing For Supported Foundation Wall<sup>a'</sup> without substitution.

Delete Table R404.1(3) 'Maximum Aspect Ratio, L/W For Unbalanced Foundations' without substitution.

Revise Section R502.2.2 'Decks' to add at beginning.

Add new Section R502.2.2.1 'Deck ledger connection to band joist (conventional framing).'

Add new Table R502.2.2.1 'Fastener Spacing For A Residential Southern Pine Deck Ledger And A 2-Inch (51 mm) Nominal Solid-Sawn Band Joist (50 psf (2.39 kPa) Total Load)<sup>1,2,7</sup>

Add new Figure R502.2.2.1 'Placement Of Bolts In Deck Ledgers (Bands).'

Add new Section R502.2.2.2 'Deck ledger connection to band joist (wood I-joists with rim board).' Add new Section R502.2.2.3 'Deck ledger connection to open web floor truss system.' Revise first sentence of Footnote 'a' of Table R602.3(1) 'Fastener Schedule For Structural Members.' Delete Section R602.10.5 'Continuous wood structural panel sheathing' and substitute. Delete Footnote 'c' of Table R602.10.5 'Length Requirements For Braced Wall Panels In A Continuously Sheathed Wall<sup>a,b'</sup> without substitution. Delete Section R613.2 'Window sills' without substitution. Revise first sentence of Section R702.2 'Interior plaster.' Add Footnote α to 'Joint Treatment' heading of Table R703.4 'Weather-Resistant Siding Attachment And Minimum Thickness.' Revise first sentence of Section R703.9 'Exterior insulation finish systems, general.' Revise Section R802.3 'Framing details' to add sentence between first and second sentences. Delete Chapter 11 'Energy Efficiency' without substitution. Revise first and last sentences of Section M1305.1.3 'Appliances in attics.' Revise first sentence of Section M1305.1.4 'Appliances under floors.' Revise Section M1401.4 'Exterior installations.' Revise Section M1601.1 'Duct design.' Revise second and third sentences of Section G2419.4 (408.4) 'Sediment trap.' Add new Section G2420.2.1 'Point of delivery service valve.' Delete Section G2423.1 (413.1) 'General' and substitute. Delete Section G2447.2 (623.2) 'Prohibited location' without substitution. Delete Section G2447.3 (623.3) 'Domestic appliances' without substitution. Revise Chapter 43 'Referenced Standards' to add.

The Department of Community Affairs hereby adopts Appendix G 'Swimming Pools, Spas and Hot Tubs.'

#### 2006 INTERNATIONAL FIRE CODE (IFC) WITH GEORGIA STATE AMENDMENTS

The Georgia State Minimum Standard Fire Code (International Fire Code with Georgia State Amendments) establishes regulations affecting or relating to structures, processes and premises and safeguards from the hazards of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from fire hazards in the structure or on the premise from occupancy or operation. It also applies to the construction, extension, repair, alteration or removal of fire suppression and alarm systems. The amendments are as follows:

Delete Section 101.1 'Title' and substitute.

Delete Section 101.3 'Intent,' rename 'Purpose and intent' and substitute.

Revise Section 102.1 'Construction and design provisions' to add exception.

Revise Section 102.2 'Administrative, operational and maintenance provisions' to add exception.

Delete Section 102.3 'Change of use or occupancy' and substitute.

Delete Section 102.4 'Application of building code' and substitute.

Delete Section 102.5 'Historic buildings' and substitute.

Delete Section 102.6 'Referenced codes and standards' and substitute.

Add new Section 102.10 'Coordination of provisions.'

Add new Sections 102.11 'Liability' and 102.11.1 'Legal defense.'

Delete Section 103 'Department of Fire Prevention,' rename 'General Provisions for Existing and Proposed (New) Buildings' and substitute.

Section 105 'Permits' is not adopted.

Delete Section 107.6 'Overcrowding,' rename 'Overcrowding and life safety hazards' and substitute.

Section 108 'Board of Appeals' is not adopted.

Delete Sections 109.3 'Violation penalties' and 109.3.1 'Abatement of violation' and substitute.

Delete Section 201.3 'Terms defined in other codes' and substitute.

Revise Section 202 'General Definitions' to add definition of 'Day-care Center.'

Revise Section 202 'General Definitions' to add definition of 'Group Day-care Home.'

Revise Section 202 'General Definitions' to add definition of 'Personal Care Home / Assisted Living Facility.'

Revise Section 202 'General Definitions' to add definition of 'Residential Occupancies.'

Delete Section 303.5 'Fire extinguishers' and substitute. Revise Section 308.3.7 'Group A occupancies' to add exceptions. Delete Section 310.1 'General' and substitute. Add new Section 316 'Laboratories.' Revise Section 406.2 'Frequency' to add exception. Add new Sections 408.2.3 'Crowd managers' and 408.2.3.1. Revise Section 408.5.5 'Resident participation' to add exception. Add new Section 501.5. Delete Section 503.1.1 'Buildings and facilities' and substitute. Add new Section 504.1.1 'Access doors.' Delete Section 508.5.1 'Where required' and substitute. Add new Section 601.3. Delete Section 603.1.4 'Fuel oil' and substitute. Delete Section 603.4 'Portable unvented heaters,' rename 'Portable heaters' and substitute. Delete Section 605.10 'Portable, electric space heaters' and substitute. Add new Section 605.11 'Separation from transformers.' Delete Section [M] 609.1 'General' and substitute. Delete Section [M] 609.2 'Where required' and substitute. Add new Section 703.5 'Barrier identification.' Delete Section 704.1 'Enclosure,' rename 'Enclosures' and substitute. Delete Section 704.2 'Opening protectives' and substitute. Delete Sections 801 'General' through 804 'Interior Wall and Ceiling Trim in New and Existing Buildings' and substitute. Delete Section 901.4.2 'Non-required fire protection systems' and substitute. Add new Section 901.6.3. Delete Section 901.7.2 'Tag required' and substitute. Delete Sections 903.2 'Where required' through 903.2.13 'Other required suppression systems' and substitute. Delete Section 904.2.1 'Commercial hood and duct systems' and substitute. Delete Sections 904.11 'Commercial cooking systems' through 904.11.6.5 'Fusible link and sprinkler head replacement' and substitute. Delete Section 905.1 'General' and substitute. Delete Section 906.1 'Where required,' rename 'Portable fire extinguishers-general' and substitute. Delete Section 906.2 'General requirements' and substitute. Delete Section 906.9 'Height above floor' and substitute. Delete Section 907.1 'General,' rename 'Fire alarm systems—general' and substitute. Delete Sections 907.2 'Where required—new buildings and structures' through 907.16 'Automatic telephone-dialing devices' without substitution. Delete Section 909.1 'Scope and purpose' and substitute. Delete Section 909.2 'General design requirements' and substitute. Add new Section 909.2.1 'Smoke control.' Add new Section 914.7.3 'Limited use special amusement buildings.' Delete Sections 1001 'Administration' through 1027 'Means of Egress for Existing Buildings' and substitute. Delete Section 1028.1 'General' and substitute. Delete Section 1028.4 'Exit signs,' rename 'Exit signs, emergency lighting and emergency power systems' and substitute. Delete Section 1103.5 'Dispensing of flammable and combustible liquids' and substitute. Delete Sections 1106.1 'Aircraft motor vehicle fuel-dispensing stations' through 1106.21.1 'Direction of radar beams' and substitute. Delete Section 1107.1 'General' and substitute. Delete Sections 2201.1 'Scope' through 2201.6 'Heat-producing appliances' and substitute. Delete Sections 2203 'Location of Dispensing Devices' through 2208 'Compressed Natural Gas Motor Fuel-Dispensing Facilities' without substitution. Delete Section 2210 'Marine Motor Fuel-Dispensing Facilities' without substitution.

Revise Section 2701.1 'Scope' to add exceptions.

Add Footnote 'k' to Table 2703.11.1 'Maximum Allowable Quantity Per Indoor and Outdoor Control Area in Group M and S Occupancies Nonflammable Solids, Nonflammable and Noncombustible Liquids<sup>d,e,f'</sup> and add Superscript 'k' to 'Oxidizers<sup>b,c'</sup> in the 'Material<sup>a'</sup> column.

Delete Sections 3301 'General' through '3307 'Blasting' and substitute.

Delete Section 3308.1 'General,' rename 'General provisions' and substitute.

Delete Section 3308.11 'Retail display and sale' and substitute.

Add Item #10 to Section 3401.2 'Non-applicability.'

Delete Sections 3801 'General' through 3811 'Parking and Garaging' and substitute.

Revise Chapter 45 'Referenced Standards.'

#### 2006 INTERNATIONAL PLUMBING CODE (IPC) WITH GEORGIA STATE AMENDMENTS

The provisions of the *Georgia State Minimum Standard Plumbing Code (International Plumbing Code with Georgia State Amendments)* shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within the State of Georgia. It shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, non-medical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the *Georgia State Minimum Standard Gas Code (International Fuel Gas Code with Georgia State Amendments)*.

The amendments are as follows:

Delete Chapter 1 'Administration' in its entirety without substitution.

Revise Section 202 'General Definitions' to modify definition of 'Branch Vent.'

Add new Section 300 'General Applicability Standards.'

Revise Section 304.4 'Openings for pipes.'

Revise Section 305.6.1 'Sewer depth.'

Revise Section 306.3 'Backfilling.'

Add new Section 306.5 'Open trenches.'

Delete Section 308.6 'Sway bracing' without substitution.

Delete Section 308.7 'Anchorage' without substitution.

Delete Section 311 'Toilet facilities for workers' without substitution.

Revise Section 312.1 'Required tests.'

Revise Section 312.5 'Water supply system test.'

Delete Section 314 'Condensate Disposal' without substitution.

Add new Section 401.4 'Prohibited locations.'

Delete 'service sink' requirements of Table 403.1 'Minimum Number of Required Plumbing Fixturesa' without substitution.

Revise 'Other' column of Table 403.1 'Minimum Number of Required Plumbing Fixturesa' for R-2 and R-3 occupancies to add.

Revise exception of Section 403.4.1 'Location of toilet facilities in occupancies other than covered malls.'

Revise Section 406.3 'Waste connection.'

Revise Section 410.1 'Approval.'

Add new Section 501.9 'Water heaters over 200,000 BTU/h.'

Revise Section 502.3 'Water heaters installed in attics.'

Delete Section 504.6 'Requirements for discharge piping' and substitute.

Delete Section 504.7 'Required pan' and substitute.

Add new Section 506 'Minimum Capacities for Residential Water Heaters.'

Add new Table 506 'Minimum Capacities for Water Heaters' (See Note for Manufacturer's Specifications).'

Revise Item #4 of Section 605.9 'Prohibited joints and connections' to add exception.

Revise Section 605.14.3 'Soldered joints.'

Revise Section 605.15.4 'Soldered joints.'

Add Location #4 to Section 606.2 'Location of shutoff valves.'

Delete Section 607.1 'Where required' and substitute.

Revise first sentence of Section 607.2.3 'Recirculating pump.'

Revise Section 608.16.5 'Connections to lawn irrigation systems.'

Revise first paragraph of Section 610.1 'General.'

Revise Section 701.2 'Sewer required.'

Revise Section 703.2 'Drainage pipe in filled ground.' Revise Section 705.8.2 'Solvent cementing.' Revise Section 705.9.3 'Soldered joints.' Revise Section 705.10.3 'Soldered joints.' Revise Section 705.14.2 'Solvent cementing.' Revise Section 706.3 'Installation of fittings.' Delete Section 706.4 'Heel- or side-inlet guarter bends' without substitution. Delete Section 708.3.1 'Horizontal drains within buildings' and substitute. Revise Section 708.3.2 'Building sewers.' Delete Section 708.3.4 'Base of stack' without substitution. Revise Section 708.3.5 'Building drain and building sewer junction.' Revise first sentence of Section 708.7 'Minimum size.' Revise first sentence of Section 904.1 'Roof extension.' Delete exception to Section 906.1 'Distance of trap from vent' without substitution. Revise first sentence of Section 910.2 'Stack installation.' Revise last sentence of Section 911.2 'Vent connection.' Revise Section 912.2.2 'Connection.' Add new Section 912.4 'Appendix reference.' Add new Appendix H 'Section 912, Combination Drain and Vent Systems.' Revise first paragraph of Section 1002.1 'Fixture traps.' Revise Section 1002.4 'Trap seals.' Delete Section 1002.8 'Recess for trap connection' without substitution.

Revise Section 1003.4 'Oil separators required.'

#### 2006 INTERNATIONAL MECHANICAL CODE (IMC) WITH GEORGIA STATE AMENDMENTS

The provisions of the *Georgia State Minimum Standard Mechanical Code (International Mechanical Code with Georgia State Amendments)* shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. It shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed therein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the *Georgia State Minimum Standard Gas Code (International Fuel Gas Code with Georgia State Amendments)*.

The amendments are as follows:

Delete Chapter 1 'Administration' in its entirety without substitution.

Add new Section 301.16 'Related fire codes.'

Revise Section 303.3 'Prohibited locations' to add exception.

Delete Section 303.5 'Indoor locations' and substitute.

Revise Section 304.9 'Clearances from grade.'

Delete second and third paragraphs of Section 306.5 'Equipment and appliances on roofs or elevated structures.'

Revise Section [B] 309.1 'Space-heating systems' to add exceptions.

Add new Section 401.7 'Alternate ventilation procedure.'

Add new Section 405.2 'CO2 Sensors.'

Revise Section [F] 502.5 'Valve-regulated lead-acid batteries in cabinets.'

Add new Section 505.2 'Commercial installations of domestic systems.'

Add new Section 505.3 'Exhaust ducts.'

Delete Section 506.1 'General' and substitute.

Delete Section 507.1 'General' and substitute.

Delete Section 507.2.3 'Domestic cooking appliances used for commercial purposes' without substitution.

Renumber Section 508.1 'Makeup air' as 508.2, renumber Section 508.2 'Compensating hoods' as 508.3, and add new Section 508.1 'General.'

Delete Section 509.1 'Where required' and substitute.

Revise first of sentence Section 603.2 'Duct sizing.'

Revise Section 603.6 'Flexible air ducts and flexible air connectors' to add at end.

Revise second sentence of Section 603.9 'Joints, seams and connections.'

Add new Section 603.9.1 'Sealing of low pressure metallic duct systems.'

Rename Section 606.2.1 'Return air systems' as 'Supply air systems' and revise first paragraph.

Rename Section 606.2.2 'Common supply and return air systems' as 'Common supply air systems' and delete all occurrences of the word 'return' from section text.

Revise Requirement #3 of Section 804.3.8 'Mechanical draft systems for manually fired appliances and fireplaces.'

Delete Section 917.2 'Prohibited location' without substitution.

Delete Section 917.3 'Domestic appliances' without substitution.

Revise Section 1001.1 'Scope' to add at end of first paragraph.

Revise Section 1007.1 'General' to add at end.

Renumber Section [F] 1105.3 'Refrigerant detector' as 1105.3 and revise.

Renumber Section [F] 1106.5 'Remote controls' as 1106.5 and revise.

Renumber Section [F] 1106.6 'Emergency signs and labels' as 1106.6 and revise.

Revise Section 1206.8 'Steam piping pitch' to add at end.

Revise Section 1301.1 'Scope' to add at end.

Add new Section 1402.8 'Protection of drains.'

Add new Section 1402.9 'Warning label.'

Revise Chapter 15 'Referenced Standards' to add.

Add new Appendix C 'Design and Installation of Residential Flexible Ductwork Systems.' \*\*\*This appendix is not enforceable unless it has been specifically adopted by the authority having jurisdiction.\*\*\*

#### 2006 INTERNATIONAL FUEL GAS CODE (IFGC) WITH GEORGIA STATE AMENDMENTS

The Georgia State Minimum Standard Gas Code (International Fuel Gas Code with Georgia State Amendments) shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, gaseous hydrogen systems and related accessories in accordance with Sections 300.1.1 through 300.1.5 therein. Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the Georgia State Minimum Standard One and Two Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings with Georgia State Amendments).

The amendments are as follows:

Delete Chapter 1 'Administration' in its entirety without substitution.

Add new Section 300 'General Applicability Standards.'

Delete exception to Section 301.11 'Flood hazard' without substitution.

Revise Section [M] 307.3 'Drain pipe materials and sizes' to add exception.

Revise Section 404.8 'Protection against corrosion.'

Rename Section 406.6.2 'Before turning gas on' as 'Turning gas on' and revise.

Add new Section 409.2.1 'Point of delivery service valve.'

Delete Section 412 'Liquefied Petroleum Gas Motor Vehicle Fuel-Dispensing Facilities' and substitute.

Delete Section 413 'Compressed Natural Gas Motor Vehicle Fuel-Dispensing Facilities' and substitute.

Add new Section 624.3 'Boilers/water heaters.'

Add new Section 631.4 'Additional regulations.'

Revise Chapter 8 'Referenced Standards' to add.

### 2000 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

The provisions of the Georgia State Minimum Standard Energy Code (International Energy Conservation Code with Georgia State Supplements and Amendments) shall regulate the design of building envelopes for adequate thermal resistance and low air leakage and the design and selection of mechanical, electrical, service water-heating and illumination systems and equipment which will enable effective use of energy in new building construction. It is intended that these provisions provide flexibility to permit the use of innovative approaches and techniques to achieve effective utilization of energy.

The new amendment is as follows:

Delete Table 701 'Minimum Thermal Component Requirements' of the Georgia State Supplements and Amendments revised January 1 of 2003 and 2005 without substitution.

#### **RESUBMISSION OF LOCAL AMENDMENTS WITH NEW CODE EDITIONS**

With the adoption of the new 2006 International Code editions with Georgia State Amendments becoming effect on January 1, 2007, it is important that local governments review their local code amendments to ensure that they reference the correct code titles, code editions, section titles, and section numbers. The new 2006 code editions with Georgia amendments are as follows: International Building Code (IBC), International Residential Code for One- and Two-Family Dwellings (IRC), International Plumbing Code (IPC), International Mechanical Code (IMC), International Fuel Gas Code (IFGC), and the International Fire Code (IFC). Local governments should review their local amendments and ensure that the following references are correct: 1) code titles and editions and 2) code section titles and section numbers. If a local amendment must be amended then a copy of the updated local amendment must be mailed to the Department of Community Affairs (DCA) for filing purposes at the following address:

Georgia Department of Community Affairs Construction Codes and Industrialized Buildings Section 60 Executive Park South, N.E. Atlanta, Georgia 30329-2231

One example of language that would allow for code edition changes without requiring the amending of local amendments would be: (for example only)

International Building Code International Residential Code for One- and Two-Family Dwellings International Plumbing Code International Mechanical Code International Fuel Gas Code International Fire Code International Energy Conservation Code" National Electrical Code

If you have questions concerning the new code editions please contact the Department of Community Affairs Construction Codes and Industrialized Buildings Section at 404-679-3118.

#### 2000-2006 PROGRESSION OF IRC SECTION R301.2.1.1, DESIGN CRITERIA

Section R301.2.1.1, Design criteria, of the 2000 IRC, states: "Construction in regions where the basic wind speeds from Figure R301.2(4) equal or exceed 110 miles per hour (177.1 km/h) shall be designed in accordance with one of the following:

- 1. American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One- and Two-Family Dwellings (WFCM); or
- 2. Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10); or
- 3. Minimum Design Loads for Buildings and Other Structures (ASCE-7); or
- 4. Cold-formed steel construction shall be designed in accordance with the provisions of this code."

Section R301.2.1.1, Design criteria, of the 2003 IRC\*, states: "Construction in regions where the basic wind speeds from Figure R301.2(4) equal or exceed 110 miles per hour (177.1 km/h) shall be designed in accordance with one of the following:

- 1. American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One- and Two-Family Dwellings (WFCM); or
- 2. Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10); or
- 3. Minimum Design Loads for Buildings and Other Structures (ASCE-7); or
- American Iron and Steel Institute (AISI), Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings (COFS/PM).
- 5. Concrete construction shall be designed in accordance with the provisions of this code."

\*The 2003 IRC was never adopted in Georgia. It is quoted herein only for purposes of setting out, logically, the section's complete progression.

Section R301.2.1.1, Design criteria, of the 2006 IRC, states: "Construction in regions where the basic wind speeds from Figure R301.2(4) equal or exceed 100 miles per hour (45 m/s) in hurricane-prone regions, or 110 miles per hour (49 m/s) elsewhere, shall be designed in accordance with one of the following:

- 1. American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One- and Two-Family Dwellings (WFCM); or
- 2. Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10); or
- 3. Minimum Design Loads for Buildings and Other Structures (ASCE-7); or
- 4. American Iron and Steel Institute (AISI), Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings (COFS/PM) with Supplement to Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings.
- 5. Concrete construction shall be designed in accordance with the provisions of this code."

(Bold, italicized text indicates modifications within the section from one code edition to the next.)

#### SIX-MONTH POSTPONEMENT OF 2006 IRC DESIGN CRITERIA PROVISIONS

The following is stated in the introduction to the 2007 Georgia State Amendments to the International Residential Code for One- and Two-Family Dwellings (IRC), 2006 Edition:

"PLEASE NOTE: The provisions of Section R301.2.1.1, Design criteria, of the *2006* edition of the International Residential Code for One- and Two-Family Dwellings, *shall not become effective until July 1, 2007*. For the period from January 1, 2007, through June 30, 2007, the provisions of Section R301.2.1.1, Design criteria, of the 2000 edition of the International Residential Code for One- and Two-Family Dwellings, shall remain in effect."

"Use of the IRC-prescriptive wind provisions" is already prohibited in areas with basic wind speeds of 110 mph or greater—Georgia's coastal region is already accustomed to these stronger design criteria requirements. Regions slightly further inland from the Atlantic coast, and from the Gulf coast in southwest Georgia, however, are not. The purpose of the six-month postponement of the 2006 design criteria provisions, then, is to provide those who fall on the 100-mph line, or between it and the 110-mph line (Figure R301.2(4)), time to make a smooth transition, to get accustomed to the stronger requirements.

During the transition (from January 1 through June 30, 2007) the Department of Community Affairs (DCA) will be co-sponsoring, in conjunction with the Home Builders Association of Georgia (HBAG), the Building Officials Association of Georgia (BOAG), the Southwest Georgia Inspectors Association (SWGIA) and the Coastal Georgia Inspectors Association (CGIA), several workshops in the impacted areas. Workshops are tentatively scheduled to be held in Valdosta on March 22, 2007, and Statesboro on April 5, 2007. Stay tuned for an announcement of confirmed locations and dates.

For the exact verbiage modifications within the section, see article entitled "2000-2006 Progression of IRC Section R301.2.1.1, Design Criteria." Also, included in this Codes Update is a map showing construction code enforcement in Georgia overlaid with the lines of basic wind speed from Figure R301.2(4).

For more information regarding the code change, please contact Tate Holt, DCA Staff, at (404) 679-3109 or tholt@dca.state.ga.us. For more information regarding the workshops, please contact one of their co-sponsors, or Ted Miltiades, Manager of DCA's Construction Codes Program, at (404) 679-3106 or tmiltiad@dca.state.ga.us.

# WEB SITES OF INTEREST

Department of Community Affairs www.dca.state.ga.us

EasyLiving Home<sup>cm</sup> Program www.easylivinghome.org

International Code Council (ICC) www.iccsafe.org

Building Officials Association of Georgia www.boagcodes.org



State of Georgia www.georgia.gov

State Fire Marshal www.inscomm.state.ga.us

National Association of Home Builders www.nahb.com



## GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

#### CODES AND INDUSTRIALIZED BUILDINGS

60 Executive Park South, NE Atlanta, Georgia 30329-2231 Website Address: www.dca.state.ga.us

#### GEORGIA AMENDMENTS MAY BE DOWNLOADED DIRECTLY FROM THE WEBSITE!

The main telephone and fax numbers for the Codes and Industrialized Buildings Section are: (404) 679-3118 Lynn Massey, Administrative Assistant (404) 679-0572 (Fax) Email: Imassey@dca.state.ga.us Ted Miltiades, Manager, Codes and Industrialized Buildings Section (404) 679-3106 Email: tmiltiad@dca.state.ga.us

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