

DCA UPDATE

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Construction Codes & Industrialized Buildings
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CODE EPISODE

GEORGIA AMENDMENTS TO THE STATE MINIMUM STANDARD CODES TO BECOME EFFECTIVE JANUARY 1, 2005

The Department of Community Affairs (DCA) Board, on the recommendation of the State Codes Advisory Committee (SCAC), has adopted Georgia Amendments to the 2000 Standard Building Code (2000 International Building Code), the 2000 CABO One and Two Family Dwelling Code (2000 International Residential Code for One- and Two-Family Dwellings), the 2000 Standard Plumbing Code (2000 International Plumbing Code), the 2000 Standard Mechanical Code (2000 International Mechanical Code), the 2000 Standard Gas Code (2000 International Fuel Gas Code) and the 2000 International Energy Conservation Code, to become effective January 1, 2005. See insert for a list of code sections amended with notes as to amendment scope.

2003 INTERNATIONAL FIRE CODE WITH GEORGIA AMENDMENTS TO BECOME EFFECTIVE JANUARY 1, 2005

The DCA Board, on the recommendation of the SCAC, has also adopted the 2003 International Fire Code with Georgia Amendments, to become effective January 1, 2005, to replace the 2000 Standard Fire Prevention Code (2000 International Fire Code), in order to align the movements of DCA and those of the Office of Insurance and Safety Fire Commissioner with respect to this State Minimum Standard Code, i.e. the State Minimum Fire Safety Standards. See insert for a list of code sections amended with notes as to amendment scope.

TASK FORCE TO REVIEW 2005 NATIONAL ELECTRICAL CODE (NEC)

At its July meeting, the State Codes Advisory Committee (SCAC) voted to establish an Electrical Code Task Force, to review the 2005 Edition of the National Electrical Code (NEC) for adoption and to consider proposed Georgia State Amendments to it.

The task force will hold its first meeting in January 2005 and will submit its final report to the SCAC at the committee's regularly scheduled quarterly meeting in late July 2005.

If adopted, the 2005 NEC, with any Georgia State Amendments that may be made to it, will replace the 2002 NEC as the Georgia State Minimum Standard Electrical Code and will go into effect on January 1, 2006.

Proposed Georgia State Amendments to the 2005 NEC are to be submitted to the task force via DCA, both electronically and by mail; the 'Code Amendment Form and Instructions' are available online at DCA's website.

DCA is soliciting nominations from various trade associations for individuals to serve on the task force. The task force will consist of nine members with the chairman and vice-chairman appointed from the SCAC.

All task force meetings are open to the public and interested parties are welcome to attend. For more information or to place your name on the Interested Parties list, please contact DCA's Construction Codes and Industrialized Buildings Section at (404) 679-3118.



STUDY COMMITTEE OF SCAC MEMBERS AND OTHERS TO REVIEW FLEX DUCT ISSUE

At its July meeting, the State Codes Advisory Committee (SCAC), after considering two proposed Georgia State Amendments relating to flexible air ducts, voted to establish a Flex Duct Study Committee, to review the issue.

Section 603.5.1.1, Duct length, of the Standard Mechanical Code (International Mechanical Code, IMC), 2000 Edition, states: "Flexible air ducts shall not be limited in length." Item Number IMC-2000-03 on the docket for the 2004/2005 Code Amendment Cycle proposed to revise Section 603.5.1.1 to state: "Flexible air duct runs shall be limited to a maximum length of 14 feet."

Item Number IRC-2000-29 proposed to revise Section M1601.2.1, Duct insulation materials, of the CABO One and Two Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings), 2000 Edition, to state also: "Flexible air duct runs shall be limited to a maximum length of 14 feet."

The companion amendments were proposed to address the problems associated with excessive flexible duct length and, in doing so, to make compliance with the International Mechanical Code (IMC), 2000 Edition, and the International Energy Conservation Code (IECC), 2000 Edition, more feasible.

Flexible duct, due to its physical properties, creates more interior friction than hard duct and therefore loses more static pressure

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than hard duct. Excessive lengths result in reduced total airflow (if not included in design) or increased fan brake horsepower, fbhp (if included in design). Further, excessive lengths increase the opportunity for bends, compressed bends and sagging, each of which contributes to greater static pressure loss. The installation guidelines of some flexible duct manufacturers recommend using minimum lengths, not excessive lengths.

The 2000 Editions of the IMC and the International Energy Conservation Code (IECC) require HVAC systems to be balanced and sized in accordance with the Air Conditioning Contractors of America (ACCA) Manual J or the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) Fundamental Handbook. With an extended plenum consisting solely or primarily of flexible duct(s), compliance with ACCA Manual J, Manual D and/or the ASHRAE Fundamental Handbook, and therefore with the 2000 Editions of the IMC and the IECC, is difficult to achieve.

Proponents of the companion amendments suggest that by setting a limit on the length of flexible duct runs, the resulting ductwork system will be more efficient in delivering the manufacturer's intended equipment airflow.

The study committee will consist primarily of SCAC members; DCA is soliciting nominations from various trade associations for individuals to fill several slots. The study committee will hold its first meeting in January 2005 and will submit its final report to the full SCAC at the committee's regularly scheduled quarterly meeting in late July 2005.

All study committee meetings are open to the public and interested parties are welcome to attend. For more information or to place your name on the Interested Parties list, please contact DCA's Construction Codes and Industrialized Buildings Section at (404) 679-3118.

GEORGIA ASSOCIATION OF HOME INSPECTORS FORMS PARTNERSHIP WITH INTERNATIONAL CODE COUNCIL

The Georgia Association of Home Inspectors (GAHI), the only professional home inspector organization that requires International Code Council (ICC) certification for full member status, announced the formation of a partnership with the ICC to provide training for home inspectors throughout the State of Georgia and the Southeast. Under the terms of the agreement, GAHI will be the primary provider of a Residential Inspection Training Program for inspectors.

Under the terms of the agreement, GAHI will administer and deliver seminars covering all of the components of the ICC Residential Building Inspector Program through its Tim Birch Technical Academy. In exchange, the ICC will develop the content, provide course materials and post the schedule on the ICC's website.

"We are honored to have been selected by the ICC to deliver this important training for residential inspectors," explained Gary Lewis, president of GAHI. "We are proud of the quality educational opportunities delivered through the Tim Birch Technical Academy and look forward to adding ICC's Residential Building Inspector Program to our already rigorous curriculum."

"After substantial research into the quality programming and professional educators already present in the academy, ICC is pleased to have GAHI as a partner in meeting the needs of code professionals in Georgia," said Lisa Leffel, ICC's Manager of Business Development for Training and Education.

To support the increase in educational offerings, GAHI has announced that Keith Gipe, the former Vice President of GAHI, will become the Curriculum Developer and Coordinator for the Tim Birch Technical Academy.

"This partnership with ICC not only recognizes the significant impact of our educational offerings but also re-affirms our commitment to increasing the professionalism of the industry," concluded Lewis.

About the ICC

The ICC, a membership association dedicated to fire prevention and building safety, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt construction codes choose those developed by the ICC.

About GAHI

GAHI is a professional organization dedicated to improving the service and reputation of the home inspection industry. Based in Marietta, Georgia, GAHI has the strictest membership requirements of any professional inspector association in the United States. GAHI is a proud training partner of the Greater Atlanta Home Builders Association and is an affiliate of the Certified Professional Home Builders Program offered by the Housing Institute, Inc.



MARK YOUR 2005 CALENDAR

January

- 13 Industrialized Buildings Advisory Committee 10:00 a.m. @ DCA
- 27 State Codes Advisory Committee 10:00 a.m. @ DCA

February 21 - March 6

International Code Council Forum, Cincinnati, Ohio

March

- 5-8 Modular Building Institute Convention & Trade Show, Las Vegas, Nevada

April

- 21 State Codes Advisory Committee 10:00 a.m. @ DCA

May

- 14-18 BOAG Annual Conference, Jekyll Island

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



CODY SAYS

Local amendments are not enforceable until they have been properly filed with DCA in accordance with the Official Code of Georgia Annotated (O.C.G.A.) Title 8, Chapter 2, Article 1, Part 2.



CODE SECTIONS AMENDED INSERT

INTERNATIONAL BUILDING CODE, 2000 EDITION

- * Revise Section 202 'Definitions' to add definition of 'Elevator Door Opening Protective Device.'
- * Delete Section 403.9 'Elevators,' rename 'Elevators and elevator lobbies' and substitute.
- * Delete Section 707.14.1 'Elevator lobby' of the Georgia Amendments revised January 1, 2002. Delete Section 707.14 'Elevator and dumbwaiter shafts' and substitute.
- * Revise Section 1615.1 'General procedure for determining maximum considered earthquake and design spectral response accelerations' to add exception and two new figures.
- * Revise Section 1616.3 'Determination of seismic design category' to add exception.
- * Revise Section 2304.9.5 'Fasteners in preservative-treated and fire-retardant-treated wood' and rename 'Fasteners in naturally durable, preservative-treated and fire-retardant-treated wood.'

INTERNATIONAL RESIDENTIAL CODE, 2000 EDITION

- * Revise Section R309.2 'Separation required' to add exception.
- * Revise Section R323.3 'Fasteners.'
- * Revise Section R404.2.6 'Fastening.'
- * Revise Section R404.3 'Wood sill plates.'
- * Revise Footnote a of Table R602.3(1) 'Fastener Schedule For Structural Members.'
- * Revise Section R602.10.5 'Continuous structural panel sheathing' to add exception.

INTERNATIONAL PLUMBING CODE, 2000 EDITION

- * Revise Section 306.3 'Backfilling.'
- * Revise Section 502.2 'Water heaters installed in garages' to add exception.
- * Revise Section 504.6.1 'Discharge' of the Georgia Amendments revised January 1, 2002 and rename 'Relief discharge.'
- * Revise Section 504.7 'Required pan' of the Georgia Amendments revised January 1, 2002 to add exception.
- * Revise Section 602.2 'Potable water required' to add exception.
- * Revise Section 1003.4 'Oil separators required' to add sentence.
- * Delete Section 1003.5 'Oil separators' of the Georgia Amendments revised January 1, 2001 without substitution. Revert to original Section 1003.5 'Sand interceptors in commercial establishments.'
- * Delete Appendix J in the current Georgia State Amendments without substitution.

INTERNATIONAL MECHANICAL CODE, 2000 EDITION

- * Revise Section 403.3 'Ventilation rate' to add exception.
- * Revise Section 603.1 'General' to add.
- * Revise Chapter 15 'Referenced Standards' to add.

INTERNATIONAL FUEL GAS CODE, 2000 EDITION

- * Delete existing Exception #1 of Section 305.2 'Elevation of ignition source' of the Georgia Amendments revised January 1, 2001 and substitute.
- * Add new Section 310 'Bonding' with Sub-Section 310.1 'Gas pipe bonding.'

INTERNATIONAL ENERGY CONSERVATION CODE, 2000 EDITION

- * Revise Figure 302.1(11) 'Georgia' to change Cherokee County and Forsyth County from Climate Zone 8 to Climate Zone 7A.
- * Revise Note #2 of Section 502.2.1.2 'Roof/ceiling.'
- * Revise Section 502.2.1.6 'Basement walls,' add superscript '1' to title and add exceptions and notes.
- * Revise Section 502.2.3.6 'Basement walls,' add superscript '1' to title and add exceptions and notes.
- * Add new Table 502.2.3.6 'Conditioned Walls in Basements.'
- * Revise Section 502.2.4 'Compliance by prescriptive specification on an individual component basis.'
- * Revise Chapter 9 'Reference Standards' to update NFRC Standard Reference Numbers.
- * Revise Table 502.2.1 of Appendix B of the Georgia Supplements and Amendments revised January 1, 2003 to add Note 1 and renumber notes.
- * Revise Table 502.2.3.1(1a) 'Wall R-values* 2 x 4 Wood Studs 16" OC (Insulation plus sheathing)' of Appendix B of the Georgia Supplements and Amendments revised January 1, 2003.
- * Delete Tables 502.2.4(1-9) and Tables 502.2.4(1-5) and 602.1 of the Georgia Supplements and Amendments revised January 1, 2003 and substitute with new Tables 502.2.4(1-7) and 602.1.
- * Revise Table 701 'Minimum Thermal Component Requirements' of the Georgia Supplements and Amendments revised January 1, 2003.
- * Delete Single Step Residential Energy Code Compliance Tables of Appendix B of the Georgia Supplements and Amendments revised January 1, 2003 and substitute.

INTERNATIONAL FIRE CODE, 2003 EDITION

- * Delete Section [EB] 102.5 'Historic buildings' entirely and substitute 'Existing and Special Historic Buildings.'
- * Delete Section 102.6 'Referenced codes and standards' entirely and substitute.
- * Add new Section 102.10 'General Provisions.'
- * Delete Section 103 'Department of Fire Prevention' entirely and substitute 'Purpose and Intent.'
- * Add a paragraph to Section 105 'Permits.'
- * Delete Section 107.6 'Overcrowding' entirely and substitute.
- * Add a paragraph to Section 108 'Board of Appeals.'
- * Add a paragraph to Section 109 'Violations.'
- * Add a paragraph to Section 110 'Unsafe Buildings.'
- * Add a paragraph to Section 111 'Stop Work Order.'
- * Delete Section 303.5 'Fire extinguishers' entirely and substitute.
- * Delete Section 503.1.1 'Buildings and facilities' entirely and substitute.
- * Add new Section 504.1.1 'Access Doors.'
- * Delete Section 508.5.1 'Where required' entirely and substitute.
- * Add new Section 601.3.
- * Delete Section 603.1.4 'Fuel oil' entirely and substitute.
- * Add new Section 703.5 'Barrier Identification.'
- * Delete Section 801.1 'Scope' entirely and substitute 'General.'
- * Delete Section 901.4.2 'Non-required fire protection systems' entirely and substitute.
- * Add new Section 901.6.3.
- * Delete Section 903.2 'Where required' entirely and substitute.
- * Delete Section 904.11 'Commercial cooking systems' entirely and substitute 'Fire Protection for Cooking Operations.'
- * Delete Section 905.1 'General' entirely and substitute.
- * Delete Section 906.1 'Where required' entirely and substitute 'Portable Fire Extinguishers -General.'
- * Delete Section 906.2 'General requirements' entirely and substitute.
- * Delete Section 907.1 'General' and substitute 'Fire Alarm Systems - General;' retain existing sub-sections.
- * Delete Section 907.2 'Where required—new buildings and structures' entirely and substitute 'Smoke Detectors - General.'
- * Delete Section 907.3 'Where required—retroactive in existing buildings and structures' in its entirety without substitution.
- * Add new Section [B] 909.2.1 'Smoke Control.'
- * Add Exception 2 to Section 910.1 'General.'
- * Delete Section 1001.1 'General' entirely and substitute.
- * Add new Section 1001.3 'Overcrowding Prevention.'
- * Delete Section 1103.5 'Dispensing of flammable and combustible liquids' entirely and substitute.
- * Delete Section 1107.1 'General' entirely and substitute.
- * Delete Section 2701.1 'Scope' entirely and substitute.
- * Add superscript "k" to Oxidizers in the Material column of Table 2703.11.1 and add footnote "k".
- * Delete Section 3306.5.1.3 'Small arms primers' entirely and substitute.
- * Delete Section 3308.1 'General' entirely and substitute 'General Provisions.'
- * Delete Chapter 38 'Liquefied Petroleum Gases' in its entirety and substitute.

WEB SITES OF INTEREST

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

Easy Living
www.easylivinghome.org

International Codes Council
www.intlcode.org

Building Officials Association of Georgia
<http://boag-codes.tripod.com>

State of Georgia
www.state.ga.us

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

National Association of Home Builders
www.nahb.com



PROFILE CORNER



PHIL GRUBER, Building Official, Gainesville/Hall County

I grew up in the farming country of central New York State and always had an interest in electricity and electronics. At age eighteen, I came to Georgia and attended Toccoa Falls College where I met Carol, my future wife. I returned to New York after that one year and went to work as a Utilities Site Inspector for the Town of Walkill. In 1974 Carol and I were married and moved to Arlington, Virginia where I went to work for Blue Cross/Blue Shield in the computer department. After attending two more years of college (Washington Bible College), I began my career as an electrician. I attended four years of apprenticeship school in Fairfax, Virginia and became a journeyman electrician upon graduation. A year later, I was able to get my Master Electrical

License. Working in the Washington D.C. area, I wired homes for a variety of people, including congressmen, professional football players, and military officials. One of my most rewarding commercial jobs was doing the wiring of new jet ways at the Dulles International Airport. I soon went out on my own and had a very successful electrical contracting business.

As our family grew and the Northern Virginia area became more hectic, my wife and I decided to move to Georgia, where we both had family. I obtained my Georgia Electrical Contractors License and began a business working mostly in Stephens and Habersham Counties. In the fall of 1996, the director of the Building and Planning Department in Habersham County asked me if I would consider applying for a Building Inspector position with the intent of developing a more aggressive inspections department. After much consideration and receiving approval by the Commissioners, I went to work for Habersham County in June of 1997. After two years, I became the next director of the department and held that position for three years. During that time, I was able to enter into the SBCCI Certification Program and earned many certifications as Inspector and Plans Examiner. I am very grateful to Habersham County for having a good program of allowing their inspectors to get the certifications they need. In November of 2002, I was offered a position with the City of Gainesville/Hall County Building Inspections Department as a Plans Review Officer, working under Larry Brown, Building Official. Besides reviewing commercial plans I am also the Coordinator of Continuing Education for our inspectors as well as contractors who need continuing education for their state licenses.

My wife and I have been married for thirty years and have been blessed with five children: our son Josh and his wife Stephanie live in Chicago where he is a junior at Moody Bible Institute; Caris, a physical therapy aide; Kara, a freshman at Toccoa Falls College; Hannah, a high school sophomore; and David, our 11-year old, lively Down Syndrome son who keeps all of us on our toes. I enjoy reading, watching football, cooking and leading music at our church. My professional memberships include ICC, IAEE, BOAG, and GPTA.



TATE HOLT, Building Codes Consultant

My fascination with the built environment took root when I was very young. As it developed, my interest peaked in learning how elements of this environment work together and how space is—must be—configured to allow for this.

I first studied architecture at the Pratt Institute in Brooklyn, New York, during the summer between my junior and senior years of high school.

I earned my Bachelor's in Architecture at the University of California at Berkeley, just across the San Francisco Bay from where I was born and later grew up, Marin County. While at Cal, I worked at a small print shop near campus where I was able to interact daily with local architects, engineers, designers and builders, not to

mention my professors, classmates and students in other design- and building-related majors, primarily City Planning and Landscape Architecture.

I have traveled extensively throughout both this country and Western Europe, and have also been to the Eastern Mediterranean and Southeast Asia. I have been enthralled and inspired—especially in a design sense—by each of the places I have visited, particularly the cities.

Before coming to DCA, I lived in Savannah, where I worked as a carpenter and also for an architectural firm.

Tate's short for Tatum, which is my middle name. I am a sports fan, reader, writer, film buff and music lover. I enjoy my work as a Building Codes Consultant very much and am excited to be a part of the DCA team.



MAX RIETSCHIER, Building Codes Consultant

I grew up in Baton Rouge, Louisiana and after I graduated from high school I enlisted into the US Coast Guard. After two years stationed on a cutter, I attended Coast Guard Electrician "A" school in Yorktown, Virginia, and then I was stationed as a Maintenance Electrician at US Coast Guard Base Miami Beach. I finished my remaining 2 years of enlistment in Miami and used my GI Bill to attend Louisiana State University.

I majored in Construction Management because I have been interested in construction since I was young and helped my father renovate a duplex he owned in downtown Baton Rouge. While attending LSU, I decided to join the Coast Guard Reserves. I also worked part time for a residential electric company

wiring new homes. During my years at LSU, I learned about the different aspects of the construction industry in classes and at work. While in the Construction Management Program, I became president of the Construction Student Association which sponsored different projects involving construction such as "Habitat for Humanity" and land improvement projects. The following year I was activated into the US Coast Guard after the 9/11 tragedy and was involved in homeland security for the petroleum/chemical plants in and around the Port of Baton Rouge. When I was released from my duties, I returned to college with a year left to graduate. I was activated again and was involved in Homeland Security in Port Arthur, Texas during "Operation Iraqi Freedom." I was honored to serve my country during my two activations. After I was released from duty, I was able to finish school and graduate with a BS in Construction Management. Upon graduation, I was recruited by a residential home building company which brought me to Atlanta. Working as a Residential Construction Superintendent gave me the opportunity to put my education to use and also learn more about residential construction.

I met my wife Lisette while stationed in Miami. She has been a great support during my military activations and college. She has worked for Target Corporation for four years and is currently an Executive Manager for the Newnan Target store. We have a two-year-old son named Liam who loves parks and being outside.

I am excited to be working as a Codes Consultant with the Department of Community Affairs and welcome the new challenges.

JANUARY 15 SUBMITTAL DEADLINE FOR PROPOSED AMENDMENTS TO THE STATE MINIMUM STANDARD CODES

The deadline to submit any proposed amendments to the State Minimum Standard Codes is January 15, 2005. Amendments may be proposed by anyone. A copy of the Code Amendment Form is available on the DCA website at www.dca.state.ga.us.

LOCAL AMENDMENTS

The Uniform Codes Act provides that local governments may, under certain conditions, adopt local amendments to the state minimum standard codes. Please note that DCA does not approve or disapprove any local amendment. The department provides a recommendation only. However, in order to enforce any local amendment, the local government must submit the proposed amendment to DCA for review (O.C.G.A. Section 8-2-25(c)).

There are several requirements local governments must meet in order to enact a local code amendment. These requirements are as follows:

- The requirements in the proposed local amendment cannot be less stringent than the requirements in the state minimum standard code;
- The local requirements must be based on local climatic, geologic, topographic, or public safety factors;
- The legislative findings of the local governing body must identify the need for the more stringent requirements; and
- The local government must submit the proposed amendment to DCA 60 days prior to the proposed adoption of such an amendment.

After submittal of the proposed local amendment, DCA has 60 days in which to forward its recommendations to the local government. DCA may respond in three ways: recommend adoption of the amendment, recommend the amendment not be adopted, or have no comment on the proposal. If DCA recommends against the adoption of the proposed amendment, the local governing body must vote specifically to reject DCA's recommendation before the local amendment can be adopted and enforced. If DCA fails to respond within the 60-day timeframe, the local government may adopt the proposed local amendment.

After adoption by the local governing authority, copies of local amendments must be filed with DCA.

CHANGES COMING TO THE INDUSTRIALIZED BUILDINGS PROGRAM



I B A N G L E

Changes to this State's Industrialized Buildings Program are being proposed by way of legislative changes to the Industrialized Buildings Act. In 1982, Georgia's Legislature recognized the need for establishing uniformity in health and safety standards and in inspection procedures for the State's factory-built building industry, and passed the Industrialized Buildings Act. It also recognized that with the imposition of these new standards the industry would realize reductions in building construction costs thereby reducing the cost of buildings and homeownership to the general public.

The Industrialized Buildings Act has remained unchanged since it was approved and became affective in 1982. Industrialized building manufacturers, contractors and program

administrators have long recognized the need for changes in the program if the industry is to live up to the lofty goals some have projected. Following are some of the changes proposed in this new legislation:

1. Re-define "industrialized building" to incorporate the term "modular." This change has long been advocated to better distinguish industrialized buildings from mobile homes.
2. The proposed legislation has incorporated a requirement that prohibits local jurisdictions from enacting zoning ordinances that place restrictions on industrialized buildings that are not placed on site-built buildings. This regulation was brought forth from its obscurity in "The Rules of the Commissioner of Community Affairs for Industrialized Buildings," the rules and regulations under which the Industrialized Buildings Program is administered, and placed in the Industrialized Buildings Act to remove any obscurity and to gain greater compliance from local jurisdictions.
3. The new legislation would allow the Commissioner of Community Affairs to set architectural standards for all new buildings manufactured in or shipped into the state. Many local jurisdictions have enacted zoning regulations that restrict the placement of industrialized buildings. In most instances, local officials say the changes were made to their zoning ordinances because of industrialized buildings brought into their jurisdictions that were indistinguishable from mobile homes.
4. The Industrialized Buildings Advisory Committee will undergo several changes with the passage of this new legislation. Proposed changes include the manner in which committee members are chosen, the length of time members serve on the committee and a change in the flow of proposed changes through the approval process.

These proposed legislative changes have been addressed and will be placed on the legislative agenda for consideration during the next session of Georgia's General Assembly, which will convene in the January, 2005.

Anyone who is interested in the proposed amendments to the Industrialized Buildings Act and would like to obtain copies, or has questions concerning proposed changes may call John Watts at (404) 679-5246 or Alonzo Allen at (404) 679-3102.

LICENSURE REQUIREMENTS FOR UTILITIES INSTALLATIONS

There have been recent concerns as to whether city and county jurisdictions can prohibit licensed and registered manufactured and mobile home installers from installing electrical, plumbing and conditioned air utility equipment without being subject to the electrical, conditioned air and plumbing licensure requirements of the Official Code of Georgia Annotated (O.C.G.A.) Title 43, Chapter 14 as it pertains to utility equipment installations for industrialized/modular buildings and manufactured/mobile homes.

Code Section 43-14-1

"This chapter is enacted for the purpose of safeguarding homeowners, other property owners, tenants, and the general public against faulty, inadequate, inefficient, or unsafe electrical, plumbing, low-voltage wiring, utility contracting, or conditioned air installations. The practice of electrical contracting, plumbing contracting, installing, or repairing, low-voltage contracting, utility contracting, and conditioned air contracting are declared to be businesses or professions affecting the public interest; and this chapter shall be liberally construed so as to accomplish the purpose stated in this Code section."

As per industrialized/modular buildings:

No person shall engage in the business of electrical, plumbing or conditioned air contracting unless such person has a valid license from said division of licensing.

Refer to Code Sections 43-14-2, 43-14-6, 43-14-8 and 43-14-13.

In summary, per Code Section 43-14-13, licensure is required except for the following:

- a. In a single family dwelling owned and occupied by him or her, provided that all such work must be done in conformity with all the provisions, rules, regulations and orders of any city, county or state municipality.

As per manufactured/mobile homes:

A person licensed as a manufactured/mobile home installer may perform the following without being subject to licensure requirements:

- a. Coupling the electrical connection from the service entrance panel outside the manufactured/mobile home to the distribution panel board inside the manufactured/mobile home.
- b. Connecting the manufactured/mobile home's sewer outlets to the above-ground sewage/septic connections.
- c. Connecting the manufactured/mobile home's exterior water line to the above-ground water connections.

A person registered as a manufactured/mobile home installer may not perform the above connections without being subject to licensure requirements.

Code Section 43-14-13 also includes other exceptions. Please refer to Senate Bill 550 which can be downloaded from www.legis.state.ga.us.

Local jurisdictions have the authority to implement the licensing requirements set forth by these code sections as well as the jurisdictions' own established rules and regulations.

If you would like more information on the Industrialized Buildings Program, connect to www.dca.state.ga.us. Click on the Planning and Codes headline and scroll to the bottom of the page to the Industrialized Buildings Program. Click on the category for which you are seeking information. If you need further assistance, call Alonzo J. Allen at (404) 679-3102 or John Watts at (404) 679-5246; or email IB@dca.state.ga.us.



MOLD AND MOISTURE RECOMMENDATIONS

On January 29, 2004 the State Codes Advisory Committee (SCAC), at its regularly scheduled quarterly meeting, authorized the formation of a task force to address the difficult issue of mold and moisture in the construction industry in Georgia. The Mold and Moisture Task Force was formed on March 31, 2004 with Mr. Gregori Anderson of the SCAC as Chairman.

The scope of the task force included a review of current State Minimum Standard Codes with Georgia Amendments and/or portions thereof and a determination of if any mandatory code provisions contribute to problems related to moisture intrusion. In the scope of the review, the task force was to propose any amendments to the codes that may be deemed appropriate to reduce the likelihood of moisture intrusion. In addition, the task force was to make recommendations to the building construction industry as to ways to reduce the likelihood of mold growth.

The members of the task force were: Gregori Anderson, Chairman, SCAC, representing the Building Officials; Barry Abernathy, Conditioned Air Contractors; Bill Smith, Home Builders Association; Brad McCahill, Building Owners and Managers Association; Michael Brown, Georgia Apartment Association; Larry Marler, Construction Suppliers Association; Earl Ferguson, PE, Manufactured Housing and David O'Haren, Associated General Contractors. The task force held six (6) meetings and heard presentations from four (4) guest speakers representing four (4) organizations. The guest speakers made recommendations regarding mold and moisture, mildew and other fungi in residential and commercial construction in Georgia. Areas for consideration included new construction, renovation and maintenance.

The SCAC approved two sets of recommendations from the Mold and Moisture Task Force. The first set is as follows and consists of recommendations only:

(1.) It should be the intent of this code that the structure should provide protection from the weather and that moisture intrusion should be controlled so as to prevent damage to the structure or injury to its occupants.

Reason: No statement to indicate this intent has been found in the code. {Ref. IRC Section 301.1}

(2.) (1.) Insulation should be installed in accordance with the manufacturer's installation instructions. (2.) Insulation should be installed in wall cavities before the installation of interior wall coverings, assemblies or fixtures which provide interior finish. (3.) Insulation subject to water damage or retention should not be installed until the building has been made weather tight. {Ref. IRC Section 320.2}

(3.) (1.) Revise R322.1 to duplicate Section 502.1.1 of the Georgia Energy Code. (2.) Add a cross reference to the Energy Code section.

Reason: Provide a standard for Vapor Retarders and for their selection.

Note: This section was moved to the Energy Code by the 2004 Georgia Amendments and should be returned to the IRC with a cross reference to the Energy Code.

(4.) The toe of a slope should be H/2 but not less than 10 FT.

Reason: To increase the minimum distance from an adjacent slope to the structure. For example, the present statement allows the toe of a 10 FT. embankment to be located 5 FT. from the structure. {Ref. IRC 403.1.7.1}

(5.) Means should be provided to insure that the operation of installed mechanical venting equipment does not create a negative pressure across the boundary of the building envelope.

Reason: To state the purpose of the chapter and to prevent negative pressure across the building envelope which would cause the unwanted intrusion of outside non-conditioned air to be drawn into the interstitial spaces of the envelope. {Ref. IRC M1501.1}



- (6.)** The light and ventilation in a bathroom, toilet compartment or similar room should be operated by a single switch. Reason: The current requirement for separate switching results in the mechanical vent not being operated when needed. {Ref. NEC 2000, Article 430.}
- (7.)** All materials should be inspected for moisture prior to installation, and discarded if noted to contain moisture. {Ref. IBC section 2510.2}
- (8.)** Backing should be a mold resistant or inorganic material. {Ref. IBC section 2510.5}
- (9.)** Weather resistive barriers should be installed in such a way as to prevent the gypsum sheathing from coming in contact with moisture. {Ref. IBC section 2510.5.2.1}
- (10.)** Weather resistive barriers should be installed in such a way as to prevent the gypsum sheathing from coming in contact with moisture. {Ref. IBC section 2510.5.2.2}
- (11.)** Weather resistant barriers should be continuous and sealed at all perimeter locations. Proper flashing should be installed. System should be installed so as to allow drainage past weather resistant barrier and out of the assembly. {Ref. IBC section 2510.6}
- (12.)** Plaster should not be applied to any porous and/or organic compound. {Ref. IBC section 2511.2}
- (13.)** (1.) External conditions should be controlled to keep outside elements from coming into contact with interior plaster installation. (2.) To the fullest extent possible, humidity should be controlled during the installation process. {Ref. IBC section 2511.5}
- (14.)** There should be no interruptions in a moisture barrier. {Ref. IBC section 2511.5.1}
- (15.)** Flashing should be installed at penetrations and openings to evacuate water out of the system at all floor levels. {Ref. IBC section 2512.1.2}
- (16.)** Mechanical systems, both existing and new, and components thereof should be maintained in a proper operating condition in accordance with the original design and the manufacturer's instructions, and in a safe and sanitary condition. Devices or safeguards which are required by the code should be maintained in compliance with the code sections under which they were installed. The owner or the owner's designated agent should be responsible for the maintenance of mechanical systems. Code officials should have the authority to require a mechanical system to be re-inspected.
- (17.)** (1.) Equipment selection should be based on the load calculations of the structure. (2.) Care should be taken in matching the equipment output performance, as shown by the manufacturer's data, with the design requirements of the structure. {Ref. IMC section 312.1}
- (18.)** Conditioned air equipment should be supplied with a drain pan underneath. Drain pans should not be less than 1.5 inches (38 mm) deep and should be of sufficient size and shape to receive all dripping or condensate from the equipment. Drain pans should be drained by an indirect waste pipe having a minimum diameter of 3/4 inch (19 mm) and a minimum slope of 2 percent. {Ref. IMC section 307.2}
- (19.)** (1.) Water heaters should be supplied with a drain pan or floor drains underneath. (2.) Drain pans should be not less than 1.5 inches (38 mm) deep and should be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. (3.) Drain pans should be drained by an indirect waste pipe having a minimum diameter of 3/4 inch (19 mm) and a minimum slope of 2 percent. {Ref. IPC section 504.7.1}

The SCAC also approved an additional set of recommendations which potentially could become code amendments pending DCA Board approval. These are not code amendments but recommendations from the SCAC. The department will notify all interested parties if these recommendations receive DCA Board approval and become code amendments. This second set of recommendations is as follows:

INTERNATIONAL BUILDING CODE (IBC), 2000 EDITION

Section 1405.1 General. Revise Section 1405.1 to add a new sentence at the end of the first paragraph to read as follows:
Unless otherwise indicated herein, exterior cladding shall be installed according to the manufacturer's installation instructions.

Section 1405.3 Flashing. Revise Section 1405.3 to read as follows:
 Flashing shall be installed in such a manner so as to prevent moisture from entering the wall and the top and sides of exterior window and door openings or to redirect it to the exterior. Flashing shall be installed in such a manner so as to prevent moisture from entering at the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting flanges on both sides under stucco copings; under and at the ends of masonry, wood or metal copings and sills; continuously above projecting wood trim; at the intersection of exterior walls and porches and decks; at wall and roof intersections with the step-flashing method; and at built-in gutters.

Section 1503.2 Flashing. Revise the first sentence of Section 1503.2 to read as follows:
 Flashing shall be installed in such a manner as to prevent moisture entering the wall and roof through the joints in the copings, through moisture-permeable materials, and at intersections with ~~the roof plane or at~~ parapet walls and other penetrations through the roof plane.

INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS (IRC), 2000 EDITION

Section R202 Definitions. Add the following new definitions to Section R202:
AIR RETARDER. A material or system in building construction that is designed and installed to reduce air leakage either into or through the opaque wall. (From ASTM E1677)



WATER-RESISTIVE BARRIER. A material that is intended to perform as a secondary barrier behind an exterior cladding, providing a means to resist penetration of liquid water that penetrates behind the exterior covering or cladding.

(Source: Presently being balloted at NIBS. Intent is to standardize on this term in preference: Weather Barrier, Weather-resistant barrier and similar usage.)

Section R303.3 Bathrooms. Delete Section R303.3 and substitute to read as follows:

Bathrooms, water closet compartments and similar rooms shall be provided with a mechanical ventilation system providing a minimum eight (8) air changes per hour of intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation shall be to the outside.

Section R405.2.4 Foundation drainage. Add a new Section R405.2.4 to read as follows:

Backfill shall be placed in 6" to 8" layers and tamped to consolidate the fill and remove voids where water might collect. Material used for backfill shall be free of trash and construction debris. Final grade shall comply with Section R403.3.2.

Section R613.1 General. Revise Section R613.1 to read as follows:

This section prescribes performance and construction requirements for exterior window systems installed in wall systems. ~~Waterproofing, sealing and flashing systems are not included in the scope of this section.~~ Windows and doors shall be installed and flashed in accordance with the manufacturer's supplied written instructions.

Section R703.4 Attachments. Revise Section R703.4 to add the following at the end:

All exterior walls shall have waterproof sheathing as per the manufacturer's installation instructions. If installation instructions are not available, refer to Table R703.4.

Table R703.4. Revise Table R703.4 to read as follows:

1. Under the "Sheathing Paper Required" column to require sheathing paper in all cases except as noted by notes m and y.
2. Add a new column "Foam Plastic Sheathing" with note z.
3. Add entries for Fiber Cement Panel and Lap Siding from the 2003 IRC including footnotes s, x, y and z, and footnotes t, u, v and w from the attached revised table.

Section R703.9 Exterior insulation finish systems, general. Revise Section R703.9 of the 2002 Georgia Amendments to replace "PS49" with "ASTM C 1397" throughout.

Section R903.4 Roof drainage. Add the following sentence at the beginning of Section R903.4:

In areas where expansive or collapsible soils are known to exist, all dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least 5 feet (1524 mm) from foundation walls or to an approved drainage system (per Section R801.3).

Section M1411.3 Condensate disposal. Revise Section M1411.3 to add the following new sentence at the end of the first paragraph:

All horizontal sections of drain piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1 percent slope).

Section M1501 General. Add a new section M1501 to read as follows:

M1501.1 Scope. It is the intent of this chapter to provide adequate ventilation capacity to remove moisture and odors from habitable space.

(Renumber all remaining subsequent sections.)

Section M1601.3.1 Joints and seams. Delete Section M1601.3.1 and substitute to read as follows:

All longitudinal and traverse joints, seams and connections shall be securely fastened and sealed in accordance with *SMACNA HVAC Duct Construction Standards – Metal and flexible or the NAIMA Fibrous Glass Duct Construction Standards*

Chapter 43 Referenced Standards. Add the following ASTM References to the list in Chapter 43 of the IRC:

American Society for Testing and Materials
100 Barr Harbor Drive

ASTM

West Conshohocken, PA 19428

Standard reference number	Title	Referenced in code section number
C-926-00	Standard Specification for the Application of Portland Cement Plaster	R702.2
C-1193-00	Standard Guide for the Use of Joint Sealants	R703
C-1397-03	Standard Practice for the Application of Class PB Exterior Insulation and Finish Systems	R703

INTERNATIONAL MECHANICAL CODE (IMC), 2000 EDITION

Section 307.2.2 Drain pipe materials and sizes. Revise the last sentence of Section 307.2.2 to read:

All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope, maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1 percent slope).

Table 403.3 Required Outdoor Ventilation Air. Revise Table 403.3 to read as follows:

OCCUPANCY CLASSIFICATION	ESTIMATED MAXIMUM OCCUPANT LOAD, PERSONS PER 1,000 SQUARE FEET ^a	OUTDOOR AIR [cubic feet per minute(cfm) per person] UNLESS NOTED ^a
Private dwellings, single and multiple Toilet rooms and Bathrooms ^g		See footnote h. Mechanical Exhaust capacity of 50 cfm intermittent or 20 cfm continuous

h. Mechanical ventilation system providing a minimum of eight (8) air changes per hour of intermittent ventilation or 20 cfm for continuous ventilation.

Section 603.8 Joints, seams and connections. Revise Section 603.8 to read as follows:

All longitudinal and traverse joints, seams and connections shall be securely fastened and sealed in accordance with the International Energy Conservation Code: *SMACNA HVAC Duct Construction Standards – Metal and flexible or the NAIMA Fibrous Glass Duct Construction Standards.*

INTERNATIONAL PLUMBING CODE (IPC), 2000 EDITION

Section 417.5.2 Shower lining. Revise Section 417.5.2 to add the following new sentence at the end:

In addition, prior to installation of the shower lining, all wall(s) insulation and pipe insulation shall be completed. This shall include proper caulking, sealing and water barrier lining of all walls of the shower lining cavity.

INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2000 EDITION

Section 502.1.4 Air leakage. Revise Section 502.1.4 to add the following:

Air retarders, if provided, shall comply with ASTM E 1677. The selection of sealants shall utilize the Guide for the Use of Joint Sealants, ASTM E 1193.

Section 503.3.3.4.3 Sealing required. Revise Section 503.3.3.4.3 to add a new sentence at the end:

All longitudinal and traverse joints, seams and connections shall be securely fastened and sealed in accordance with *SMACNA HVAC Duct Construction Standards – Metal and flexible or the NAIMA Fibrous Glass Duct Construction Standards.*

Section 803.2.8 Duct and plenum insulation and sealing. Revise Section 803.2.8 to add a new sentence at the end to read as follows:

All longitudinal and traverse joints, seams and connections shall be securely fastened and sealed in accordance with *SMACNA HVAC Duct Construction Standards – Metal and flexible or the NAIMA Fibrous Glass Duct Construction Standards.*

Chapter 9 Referenced Standards. Add the following ASTM reference to Chapter 9:

American Society for Testing and Materials 100 Barr Harbor Drive		
ASTM West Conshohocken, PA 19428		
Standard reference number	Title	Referenced in code section number
E-1677-95 (2000)	Standard Specifications for an Air Retarder (AR) Material or System for Low-Rise Building Walls	501.4.2

If you need additional information please contact Walter Koch at (404) 679-4845 or wkoch@dca.state.ga.us.



Q: Are gas pipes required to be protected according to the Standard Gas Code?

A: Yes. Section 403.8, Protective coating, of the Standard Gas Code (International Fuel Gas Code), 2000 edition, and Section G2413.8 (403.8), Protective coating, of the CABO One and Two Family Dwelling Code (International Residential Code for One- and Two-Family Dwellings), 2000 edition, both state: "Where in contact with material or atmosphere exerting a

corrosive action, metallic piping and fittings coated with a corrosion-resistant material shall be used."

The black iron pipe exposed to the outdoors (atmosphere) extending from the meter to the building must be protected. One method of protection is to prime and paint the piping including fittings and threads, with approved exterior grade paint.