

# Existing Buildings as Your Economic Catalyst

Georgia Downtown Conference  
Wednesday 24 August 2022  
Macon, Georgia

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## OUR AGENDA

1. Building Code Adoption + Amendment in Georgia
2. How the International Existing Building Code Helps Communities
3. Applying the International Existing Building Code
4. Present Support for Adoption
5. Questions + Answers

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## WHY DO WE HAVE BUILDING CODES?

Building codes and the associated permitting and inspection activities are intended to protect the occupants and buildings and members of the public.

Design should observe the requirements of the building code.

Permitting checks for compliance before a building permit is issued.

Inspections check for compliance of the constructed work.

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## GEORGIA'S UNIFORM CODES ACT

1. Official Code of Georgia (O.C.G.A.) 8-2-20 through 8-2-31
2. Effective October 1, 1991
3. Department of Community Affairs Maintains and Updates State Minimum Standard Codes for Construction
4. Eleven (11) State Minimum Standard Codes- (8) Mandatory and (3) Permissive
5. State Codes Advisory Committee
6. State Code Amendment Process
7. Local Enforcement of Codes

## STATE CODES ADVISORY COMMITTEE

1. Created by the Uniform Codes Act to advise the DCA Board on code matters.
2. Composed of 21 members - experts in various areas: building and fire inspectors, engineers, contractors, and industry/trade representatives.
3. Reviews new codes and proposed Georgia State code amendments.
4. Recommends adoption of all codes and amendments to DCA Board.
5. Typically one effective date for codes & amendments.

## SCAC MEMBERS

Safety Fire Commissioner	Manufactured Homes
Commissioner of Public Health	Electrical Contractor
Commissioner of DCA	Material Dealer
Home Building	Plumbing Contractor
Industrialized Building	Air Conditioning Contractor
General Contracting	Structural Engineer
Mechanical Engineering	Four Code Officials
Architect	Two Local Fire Officials
Electrical Engineer	

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## STATE CODES ADVISORY COMMITTEE



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## IS ENFORCEMENT MANDATORY?

In Georgia...

1. Enforcement lies with local governments.
2. Code enforcement is not a requirement.
3. If the local government does not enforce the codes in its jurisdiction, this does not negate the responsibility of the constructor to comply with the applicable mandatory State Minimum Standard Codes.

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## IF THERE'S ENFORCEMENT

In Georgia...

1. If the local government enforces codes, it must enforce the State Minimum Standard Codes as adopted and amended by DCA.
2. The local government must have Administrative Procedures adopted through local ordinance in order to have the enforcement and administrative authority to enforce the codes.
3. Local amendments must comply with the requirements of the Uniform Codes Act.

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## GEORGIA'S MANDATORY CODES

International Building Code 2018 (2020) (2022)  
 International Residential Code 2018 (2020)  
 International Fire Code 2018 – See State Fire Marshal Rules & Regulations  
 International Plumbing Code 2018 (2020) (2022)  
 International Mechanical Code 2018 (2020)  
 International Fuel Gas Code 2018 (2020) (2022)  
 National Electrical Code 2020  
 International Energy Conservation Code 2015 (2020) (2022)  
 International Swimming Pool and Spa Code 2018 (2020)  
 Life Safety Code (NFPA 101) + Georgia Accessibility Code – See SFM

## GEORGIA'S PERMISSIVE CODES

Disaster Resilient Building Code IBC Appendix (2013)  
 Disaster Resilient Building Code IRC Appendix (2013)  
 International Property Maintenance Code 2018 (2021)  
 International Existing Building Code 2018 (2021)  
 National Green Building Standard 2008 (2011)

# INTERNATIONAL CODE COUNCIL (ICC)

Building Confidence,  
Building Community

Our mission is to provide the information, tools, and resources that members rely on, building safety professionals turn to, and the public trusts.

[LEARN MORE](#)

Building Safety Solutions

Membership  
Product Evaluation and Listing  
Codes and Standards  
Software and Technology  
Accreditation  
Professional Development  
Consulting

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## MODEL BUILDING CODES

1. The International Code Council (ICC) was established in 1994. It publishes a family of fifteen coordinated building codes.
2. The ICC is based in and holds its code amendment process meetings in the United States.
3. All fifty states, the District of Columbia, and over 55 other countries have adopted the I-Codes at the state or jurisdictional level.

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# INTERNATIONAL CODE COUNCIL (ICC)

The screenshot shows the ICC website interface. At the top, there is a search bar with the text "All Categories" and "Search here...". Below the search bar, there are navigation options for "Help", "Sign In", and "Cart". The main content area displays three product listings:

- Premium Complete (Digital Codes Premium)**: As low as \$66.00. Includes an "Add to Cart" button.
- 2021 International Building Code®**: As low as \$8.20. Includes an "Add to Cart" button.
- 2021 International Residential Code®**: As low as \$8.05. Includes an "Add to Cart" button.

On the left side, there are filters for "CODE YEAR" (2022, 2021, 2020, 2019, 2018, 2017), "LANGUAGE" (English, Spanish), and "FORMAT" (Digital Codes Premium, PDF Download). The page number "15" is visible at the bottom right, and the footer text "2022 Georgia Downtown Conference" is at the bottom left.

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## GEORGIA'S PERMISSIVE CODES

- Disaster Resilient Building Code IBC Appendix (2013)
- Disaster Resilient Building Code IRC Appendix (2013)
- International Property Maintenance Code 2018 (2021)
- International Existing Building Code 2018 (2021)**
- National Green Building Standard 2008 (2011)

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## WHAT IS AN “EXISTING BUILDING”?

An existing building is any building that has been issued a certificate of occupancy – even if the building was recently completed and the certificate was issued this morning.

Don’t assume an “existing building” is a very old or historic building.

Building code provisions governing existing buildings cover all buildings except those under construction.

## INTL EXISTING BUILDING CODE ADOPTION

Chapter 34 of the 2012 International Building Code governs existing buildings. Georgia uses 2012 IBC language rather than the current IEBC.

1. Chapter 34 of the 2012 IBC is prescriptive and lacks the flexibility building code officials need to address issues found in existing buildings of various ages.
2. Georgia’s adopted language isn’t coordinated with current building code language.
3. The DCA has reviewed the 2018 IEBC and published amendments.
4. There are many users of the 2018 IEBC: institutional knowledge.

## INTL EXISTING BUILDING CODE ADOPTION

**“The greenest building is one that is already built.”**

A report by the US National Trust for Historic Preservation in 2016 found, through a series of case studies, that ‘it takes between 10 and 80 years for a new building that is 30 per cent more efficient than an average-performing existing building to overcome, through efficient operations, the negative climate change impacts related to the construction process’.

The report concluded that **‘reusing an existing building and upgrading it to be as efficient as possible is almost always the best choice regardless of building type and climate’.**

## INTL EXISTING BUILDING CODE ADOPTION

The IEBC is widely adopted. Here’s a snapshot of adoption by southeastern states:

Alabama: 2021 IEBC

Florida: Based on 2018 IEBC

Georgia: Chapter 34 from 2012 IBC

Louisiana: 2015 IEBC

Mississippi: 2018 IEBC

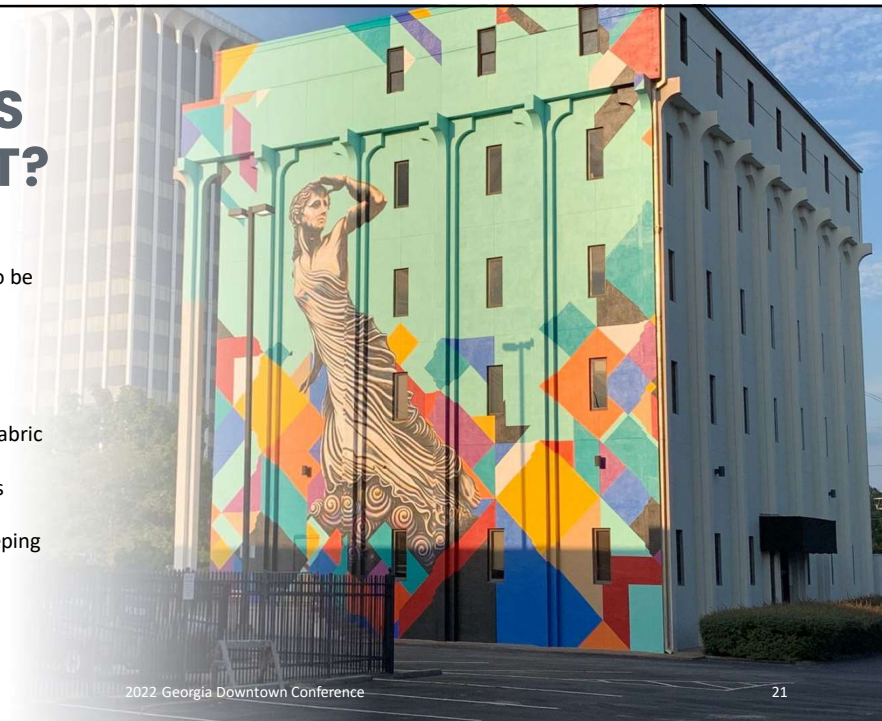
North Carolina: Based on 2015 IEBC

South Carolina: Based on 2015 IEBC

Tennessee: Local Adoption (No Statewide Adoption)

## WHY IS THIS IMPORTANT?

- Maximize Ability for Buildings to be Safely Occupied
- Avoid Losing Occupants and Businesses in our Communities
- Discourage Gaps in our Urban Fabric
- Avoid Glut of Unleasable Spaces
- Keeping Existing Buildings = Keeping Community Character



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## STATUS OF GEORGIA CODE TODAY

IBC prescriptive path (*currently adopted*) has requirements that may be too strict for an existing building to handle, leaving buildings or tenant spaces unoccupied. It is more geared for new construction.

IEBC work area method (*not currently adopted*) could allow more flexibility for the design professionals while not reducing the health, safety, and welfare of the building occupants.



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## ECONOMIC BENEFITS

Flexibility is key.

With more flexibility to keep our existing building stock, we can maintain the important investment and tax base in Georgia's communities, both large and small.

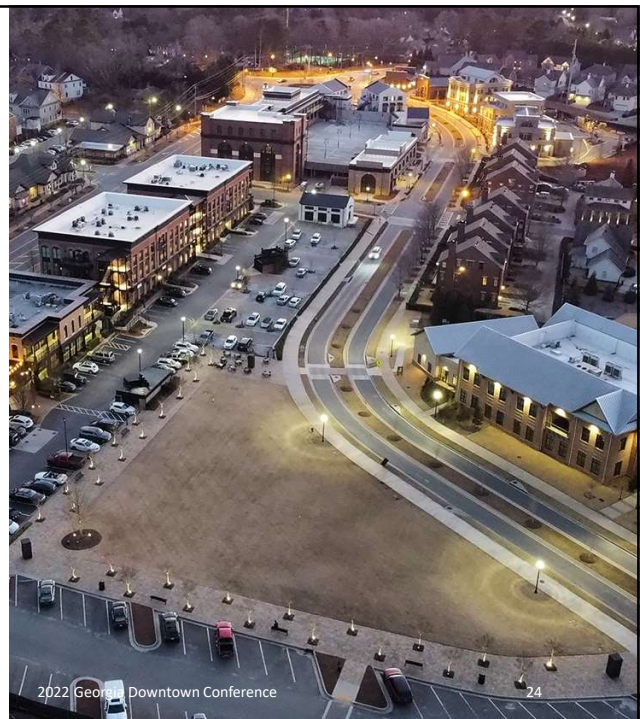
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## RESPONSIBILITIES

The work area method puts the responsibility on the designer.

The licensed design professionals have the responsibility of ensuring these buildings meet the health, safety, and welfare needs of the occupants. There is flexibility to keep using certain systems even if they don't meet current code.



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International Building Code	vs	International Existing Building Code
Chapter 3401-3411 --> Prescriptive Compliance <i>(this is in 2012 and earlier versions of IBC; Georgia uses the 2012 version of Chapter 34)</i>	↔	Chapter 4 --> Prescriptive Compliance
		OR
		Chapters 5-13 --> Work Area Compliance
		OR
Chapter 3412 --> Compliance Alternatives <i>(this is in 2012 and earlier versions of IBC; Georgia uses the 2012 version of Chapter 34)</i>	↔	Chapter 14 --> Performance Compliance
<p><b>PREScriptive COMPLIANCE</b></p> <p>Other than a few exceptions, alterations to any building or structure shall comply with the IBC requirements for new construction.</p> <ul style="list-style-type: none"> <li>Exception given for stairs where existing space does now allow a reduction in pitch or slope (but still must comply with NFPA 101)</li> </ul>	<p><b>WORK AREA COMPLIANCE</b></p> <p>An existing building shall not be altered such that the building becomes less safe than its existing condition.</p> <p>If use or occupancy changes, building is required to comply with IBC.</p> <p>The greater percentage of building being altered, the more requirements of IBC that are triggered.</p> <p>Otherwise, follow steps given in IEBC to allow for flexibility of existing conditions. <b>The following page gives a few examples of where IEBC allows for this flexibility when IBC does not.</b></p>	<p><b>PERFORMANCE COMPLIANCE</b></p> <p>Proposed work is to undergo investigation and evaluation as it relates to: fire safety, means of egress, and general safety.</p> <p>A point system based on different attributes of the building. The building must meet a mandatory total safety score.</p> <p>This method is less commonly used.</p>
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International Building Code	vs	International Existing Building Code
Chapter 34		Chapter 5-13 --> Work Area Compliance
<p><b>General</b></p> <ul style="list-style-type: none"> <li>MEP and Life Safety Systems (stairs, elevators, guardrails, exit capacity, etc) are required to be brought to new construction standards when the cost of new work is 50% or greater than replacement cost.</li> </ul>		<p><b>General</b></p> <ul style="list-style-type: none"> <li>Allows for more flexible requirements depending on level of work and whether occupancy type changes. <i>For example, Level 1 Alteration (no reconfiguring of rooms and only replacement of components) has no area limitations. Level 3 Alteration would be required to comply with IBC building heights and areas.</i></li> </ul>
<p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>Any change in occupant load kicks in requirements for plumbing fixture quantities to meet new construction standards. <i>This means if a new tenant fit-out adds one more occupant to a floor than the existing condition had, plumbing facilities must be added.</i></li> </ul>		<p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>Where the occupant load of the story is increased by more than 20%, plumbing fixture quantities shall meet new construction standards. <i>This allows for a more manageable threshold before having to add facilities to an existing building.</i></li> </ul>
<p><b>Elevator Lobbies</b></p> <ul style="list-style-type: none"> <li>Tenant fit-out work often kicks in the need to meet new construction requirements of elevator lobbies when many existing buildings in Georgia do not have elevator lobbies. <i>Elevator lobbies can cost \$40k - \$80k and are not accounted for in tenant fit-out budgets.</i></li> </ul>		<p><b>Elevator Lobbies</b></p> <ul style="list-style-type: none"> <li>If an existing structure does not have elevator lobbies and does not change occupancy, it does not need to provide an elevator lobby.</li> </ul>
<p><b>Structure</b></p> <ul style="list-style-type: none"> <li>Gravity Loads: Structural elements with an increase in design gravity loads of more than 5% shall be altered.</li> <li>Seismic: Where a change of occupancy results in a structure being reclassified to a higher risk category, the structure shall conform to requirements for a new structure of the higher risk category.</li> </ul>		<p><b>Structure</b></p> <ul style="list-style-type: none"> <li>Gravity Loads: Structural components do not need to be modified if additional dead load is less than a 10% increase.</li> <li>Use of reduced seismic forces (75%) per 301 when full building/ structural analysis required. <i>This is a big cost savings to not have to use 100% design forces to upgrade a building's structural system.</i></li> </ul>
<p><b>Roofing</b></p> <ul style="list-style-type: none"> <li>Comply with requirements for new construction.</li> </ul>		<p><b>Roofing</b></p> <ul style="list-style-type: none"> <li>706.1 Re-roofing shall not be required to meet the minimum design slope requirement of 1/4" / 12' slope for positive drainage. <i>This avoids significant alterations to the existing roof structure or costly rework using tapered insulation and raised parapet walls.</i></li> </ul>
<p><b>Energy Code</b></p> <ul style="list-style-type: none"> <li>All building entrances to have vestibules. <i>This can add cost and take up space in buildings that did not create space to accommodate.</i></li> <li>Replacement of glass shall be as required for new installations. <i>For small alterations where some exterior windows need to be replaced, this can be costly or result in windows looking different.</i></li> </ul>		<p><b>Energy Code</b></p> <ul style="list-style-type: none"> <li>Only new construction elements are required to comply with IECC instead of entire building. <i>This avoids the need to over-insulate roofs to accommodate existing walls that may not be insulated.</i></li> <li>Replacing existing exterior doors does not kick-in requirement for current energy code mandated vestibules.</li> <li>If less than 50% of fenestration units are replaced, may be replaced with like-units instead of current IECC compliant units. <i>Allows for window replacements to match existing.</i></li> </ul>
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# ECONOMIC BENEFITS

- SUSTAINABILITY – Reuse of existing buildings instead of demolition
- DEVELOPMENT – Existing buildings can be more economically feasible
- PROTECTION – Maintain the fabric our neighborhoods in urban areas
- PRESERVE – Enrich our communities by preserving the architectural heritage
- FINANCIAL – Unlock the potential use of historic tax credits



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# ECONOMIC BENEFITS



Excelsior Mill – Smith Dalia Architects

BEFORE



AFTER



Lower Tuck – Smith Dalia Architects

# ECONOMIC BENEFITS



"The Office" Apartments, ARC3 Architecture

# ECONOMIC BENEFITS



Centennial Yards Phase 1 – SBCH Architects



# ECONOMIC BENEFITS

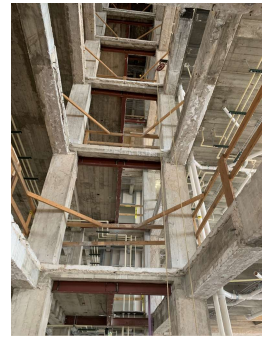
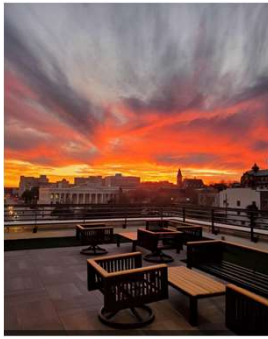


Poptown Macon, Georgia – Dunwody/Beeland Architects, Inc. Architects

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# ECONOMIC BENEFITS



Hotel 45 Macon, Georgia – Dunwody/Beeland Architects, Inc. Architects

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**Thanks for joining our discussion!**

**Questions? Comments?**

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