



Georgia State Amendments to the International Building Code (2018 Edition)



Georgia Department of Community Affairs
Local Government Assistance Division
60 Executive Park South, N.E.
Atlanta, Georgia 30329-2231
(404) 679-3118
www.dca.ga.gov

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**GEORGIA STATE MINIMUM STANDARD BUILDING CODE
(INTERNATIONAL BUILDING CODE WITH GEORGIA STATE AMENDMENTS)**

The **INTERNATIONAL BUILDING CODE, 2018 Edition**, published by the International Code Council, when used in conjunction with these Georgia State Amendments, shall constitute the official *Georgia State Minimum Standard Building Code*.

GEORGIA STATE AMENDMENTS

CODE REFERENCE:

- (a) Replace all references to the ICC *Electrical Code* with references to the *Georgia State Minimum Standard Electrical Code (National Electrical Code with Georgia State Amendments)*.
- (b) Replace all references to the *International Energy Conservation Code (IECC)* with references to the *Georgia State Minimum Standard Energy Code (IECC with Georgia State Supplements and Amendments)*. The *Georgia State Minimum Standard Energy Code* shall be used for efficiency and coefficient of performance ratings of equipment.
- (c) Replace all references to the *International Existing Building Code (IEBC)* with references to Chapter 34 ‘Existing Buildings’ of these Georgia State Amendments.

Note: By Georgia law, the *International Existing Building Code* is a permissive or optional State Minimum Standard Code. Consequently, the provisions contained in the *International Existing Building Code* are not mandatory or applicable unless specifically referenced in the adopting ordinance of local governments.

APPENDICES:

Appendices are not enforceable unless they are specifically referenced in the body of the code or adopted by the Department of Community Affairs or the authority having jurisdiction.

SCOPE:

The provisions of the *Georgia State Minimum Standard Building Code* shall apply to the construction, *alteration*, relocation, 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 *dwelling*s and multiple single-family *dwelling*s (townhouses separated by a 2-hour fire-resistance-rated wall assembly) not more than three *stories* above *grade plane* in height with a 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 following table titled ‘Codes Reference Guide’ establishes specific primary and supplementary code applications and is to be applied by the authority having jurisdiction.

CODES REFERENCE GUIDE

Area	Primary	Supplement
Occupancy Classification	LSC	IBC
Building Construction Types including allowable height, allowable building areas, and the requirements for sprinkler protection related to minimum building construction types.	IBC	LSC
Means of Egress	LSC	NONE
Standpipes	IBC	IFC
Interior Finish	LSC	NONE
HVAC Systems	IMC	NONE
Vertical Openings	LSC	NONE
Sprinkler Systems minimum construction standard	LSC	NONE
Fire Alarm Systems	LSC	NONE
Smoke Alarms and Smoke Detection Systems	State Statute and LSC	NONE
Portable Fire Extinguishers	IFC	NONE
Cooking Equipment	LSC and NFPA 96	NONE
Fuel Fired Appliances	IFGC	NFPA 54
Liquid Petroleum Gas	NFPA 58	NFPA 54
Compressed Natural Gas	NFPA 52	NONE

**Revise the International Building Code, 2018 Edition, to read as follows:*

**CHAPTER 1
SCOPE AND ADMINISTRATION**

*Delete Chapter 1 ‘Scope and Administration’ entirely without substitution. Chapter 1 to remain in the Code as a reference guide for local governments to use in development of their own *Administrative Procedures*.
(Effective January 1, 2020)

**CHAPTER 2
DEFINITIONS**

**SECTION 202
DEFINITIONS**

*Add definition of ‘Elevator Door Opening Protective Device’ to read as follows:

ELEVATOR DOOR OPENING PROTECTIVE DEVICE. Any device that either independently or in conjunction with the (elevator) door assembly allows the device(s) to meet the requirements of Sections 716.5.3 716, 716.2.2.1 and 3008.6.3.
(Effective January 1, 2020)

**CHAPTER 3
OCCUPANCY AND USE CLASSIFICATION**

**SECTION 308
INSTITUTIONAL GROUP I**

*Add a new Section 308.3.3 ‘Assisted living communities’ to read as follows:

308.3.3 Assisted living communities. Assisted living communities, licensed by the State, housing twenty-five or more persons, meeting the Georgia State Fire Marshal’s Office Life Safety Code requirements shall be deemed as equivalent compliance to the *International Building Code* Chapters 3, 4, 8, 9, and 10.
(Effective January 1, 2020)

**CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY**

**SECTION 415
GROUPS H-1, H-2, H-3, H-4 AND H-5**

*Revise Section [F] 415.9.2 ‘Liquefied petroleum gas facilities’ to read as follows:

[F] 415.9.2 Liquefied petroleum gas facilities. The construction and installation of liquefied petroleum gas facilities shall be in accordance with the requirements of this code, the *International Mechanical Code*, NFPA 58 and NFPA 54 as adopted by the Rules and Regulations of the Safety Fire Commissioner Chapter 120-3-16, “*Rules and Regulations for Liquefied Petroleum Gases*”.
(Effective January 1, 2020)

**CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS**

**SECTION 504
BUILDING HEIGHT AND NUMBER OF STORIES**

*Revise Table 504.4 ‘Allowable Number of Stories Above Grade Plane^{a,b}’ for the Occupancy Classification “I-1 Condition 2” as shown and add a new footnote “i” to read as follows:

**TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE^{a, b}**

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION									
	SEE FOOTNOTES	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
I-1 Condition 2	NS ^{d, e}	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S ⁱ	UL	10	3	2	2	1	2	2	1

i. For all I-1 Condition 2, the building shall be protected throughout with an approved automatic sprinkler system, installed in accordance with NFPA 13 as adopted by the Rules and Regulations of the Safety Fire Commissioner. No increase in story height shall be permitted.

(Remainder of table unchanged)
(Effective January 1, 2020)

**CHAPTER 7
FIRE AND SMOKE PROTECTION FEATURES**

**SECTION 706
FIRE WALLS**

*Revise Section 706.2 ‘Structural stability’ to read as follows:

706.2 Structural stability. *Fire walls* shall be designed and constructed to allow collapse of construction on either side without collapse of the wall under fire conditions and loading per Section 1607.15.2. *Fire walls* designed and constructed in accordance with NFPA 221 shall be deemed to comply with this section.

Exception: In Seismic Design Categories D through F, where double *fire walls* are used in accordance with NFPA 221, floor and roof sheathing not exceeding 3/4 inch (19.05 mm) thickness shall be permitted to be continuous through the wall assemblies of light frame construction.

(Effective January 1, 2020)

*Delete Exception to Section 706.3 ‘Materials’ without substitution.
(Effective January 1, 2020)

**SECTION 713
SHAFT ENCLOSURES**

*Add new Section 713.14.1 ‘Designated floor lobbies for elevator return’ to read as follows:

713.14.1 Designated floor lobbies for elevator return. New elevators, escalators, dumbwaiters, and moving walks shall be installed in accordance with the requirements of ASME A17.1, Safety Code for Elevators and Escalators. The designated elevator lobby of the

designated floor and the designated alternate floor specified by ASME A17.1 Section 2.27.3 shall be separated from the remainder of the building by 1-hour fire-rated construction. In buildings equipped with automatic sprinkler protection, smoke partitions in accordance with the ‘Rules and Regulations of the Safety Fire Commissioner Chapter 120-3-3 Rules and Regulations for the State Minimum Fire Safety Standards’ may be used in lieu of 1-hour fire-rated construction. Except health care occupancies, openings in the elevator lobby shall be limited to those required for access to the elevators from exit access corridors only. Elevator lobbies may be used as part of the means of egress from the building.

Exceptions:

1. Designated floor elevator lobbies are not required within an atrium.
 2. Designated floor elevator lobbies are not required where elevators are installed on open exterior walls.
 3. Designated floor elevator lobbies are not required where elevators are installed in open air parking structures.
 4. Designated floor elevator lobbies are not required in buildings three stories or less with vertical openings protected in accordance with the applicable occupancy chapter.
 5. Existing installations acceptable to the authority having jurisdiction.
 6. For existing buildings or existing structures, reference Section 3401.7 (GA Amendments).
- (Effective January 1, 2020)

**CHAPTER 9
FIRE PROTECTION AND LIFE SAFETY SYSTEMS**

**SECTION 903
AUTOMATIC SPRINKLER SYSTEMS**

*Revise Section [F] 903.2.8 ‘Group R’ to add exception to read as follows:

[F] 903.2.8 Group R.

Exception: Group R-1 and R-2 occupancies which meet the exceptions allowed by the Rules and Regulations of the Safety Fire Commissioner Chapter 120-3-3 ‘Rules and Regulations for the State Minimum Fire Safety Standards’ are exempt from this requirement.
(Effective January 1, 2020)

*Revise Section [F] 903.2.8.1 ‘Group R-3’ to read as follows:

[F] 903.2.8.1 Group R-3. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group R-3 occupancies.
(Effective January 1, 2020)

*Revise Section [F] 903.2.8.2 ‘Group R-4, Condition 1’ to read as follows:

[F] 903.2.8.2 Group R-4, Condition 1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4, Condition 1 occupancies.
(Effective January 1, 2020)

*Revise Section [F] 903.2.8.4 ‘Care facilities’ to read as follows:

[F] 903.2.8.4 Care facilities. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in care facilities with five or fewer individuals in a single-family dwelling.

(Effective January 1, 2020)

*Revise Section [F] 903.3.1.3 ‘NFPA 13D sprinkler systems’ to read as follows:

[F] 903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one- and two-family *dwellings*; and *townhouses* separated by 2 hour firewalls shall be permitted to be installed throughout in accordance with NFPA 13D.

(Effective January 1, 2020)

SECTION 909 SMOKE CONTROL SYSTEMS

*Delete Section 909.21.1 ‘Pressurization requirements’ entirely and substitute to read as follows:

909.21.1 Pressurization requirements. The system shall be designed such that the maximum pressure differential shall not restrict or prohibit the free operation of the elevated cab and all hoistway doors serving all levels of the building. The air shall not be introduced into the hoistway in such a manner as to cause erratic operation by impingement of traveling cables, selector tapes, governor ropes, compensating ropes, and other components sensitive to excessive movement or deflection.

Exception: In existing buildings, when testing existing elevator pressurization systems, they shall be certified to ensure a minimum positive pressure, subject to the approval of the authority having jurisdiction. This pressure shall be measured at the midpoint of each hoistway door, with all elevator cars at the floor of recall and all hoistway doors on the floor of recall open and all other hoistway doors closed. The opening and closing of hoistway doors at each level must be demonstrated during this test. The supply air intake shall be from an outside, uncontaminated source.

(Effective January 1, 2020)

CHAPTER 11 ACCESSIBILITY

*Delete Chapter 11 ‘Accessibility’ entirely without substitution.

{Cross-reference in State law: Title 30, Chapter 3 of the Official Code of Georgia Annotated (O.C.G.A) and the Rules and Regulations of the Georgia Safety Fire Commissioner.}

(Effective January 1, 2020)

**CHAPTER 14
EXTERIOR WALLS**

**SECTION 1404
INSTALLATION OF WALL COVERINGS**

*Add new Section [BS] 1404.19 ‘Installation of wall coverings’ to read as follows:

[BS] 1404.19 Installation of wall coverings. Except masonry veneer, wall cladding shall be installed a minimum of 6 inches above the finished earth grade, or a minimum of 2 inches above paved areas to provide a clear, visible inspection gap.
(Effective January 1, 2020)

**CHAPTER 17
SPECIAL INSPECTIONS AND TESTS**

**SECTION 1701
GENERAL**

*Add new Section 1701.2 ‘Construction documents’ to read as follows:

1701.2 Construction documents. The *construction documents* for special inspections shall include:

1. The statement of special inspections in accordance with Section 1704.3.
2. The following statement:
“Special inspection reports and a final report in accordance with Section 1704.2.4 shall be submitted to the building official prior to the time that phase of the work is approved for occupancy.”

(Effective January 1, 2020)

*Add new Section 1701.3 ‘Guidelines’ to read as follows:

1701.3 Guidelines. The local building official or authority having jurisdiction shall be authorized to use ACEC/SEAOG SI GL 01, Georgia Special Inspections Guidelines, in part or in whole for the purposes of implementing and enforcing the provisions of Chapter 17, ‘Special Inspections and Tests’, and/or establishing a Special Inspections program for their jurisdiction.
(Effective January 1, 2020)

SECTION 1704
SPECIAL INSPECTIONS AND TESTS,
CONTRACTOR RESPONSIBILITY AND
STRUCTURAL OBSERVATION

*Revise Section 1704.2 ‘Special inspections and tests’ to read as follows:

1704.2 Special inspections and tests. Where application is made to the *building official* for construction as described in this section, the owner or the *registered design professional in responsible charge* acting as the owner’s agent, other than the contractor, shall employ one or more *approved agencies* to provide *special inspections* and tests during construction on the types of work specified in Section 1705. These inspections are in addition to the inspections by the *building official* identified in Section 110.

Exceptions:

1. *Special inspections* are not required for construction of a minor nature that does not require the practice of professional engineering or architecture, as defined by Georgia statutes and regulations governing the professional registration and certification of engineers or architects or as warranted by conditions in the jurisdiction as *approved* by the *building official*.
2. Unless otherwise required by the *building official*, *special inspections* and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
3. *Special inspections* and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.1.2 or the conventional light-frame construction provisions of Section 2308.

(Effective January 1, 2020)

*Revise Section 1704.2.1 ‘Special inspector qualifications’ to read as follows:

1704.2.1 Special inspector qualifications. The special inspector shall provide written documentation to the *building official* demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of *special inspection* activities for projects of similar complexity and material qualities. The special inspector shall be qualified in accordance with Table 1704.2. These qualifications are in addition to qualifications specified in other sections of this code.

The *registered design professional in responsible charge* and engineers of record involved in the design of the project are permitted to act as the *approved agency* and their personnel are permitted to act as the special inspector for the work designed by them, provided they qualify as special inspectors.

(Effective January 1, 2020)

*Add new Table 1704.2 ‘Minimum Special Inspector Qualifications’ to read as follows:

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS			
Category of Testing and Inspection	Minimum Qualifications (refer to key at end of Table)		
	Shop Testing or Inspection	Field Testing or Inspection	Review Testing, Certification & Lab Reports
1704.2.5 Inspection of Fabricators			
Pre-cast concrete	A, C, E		
Structural steel construction	C, F, G		
Wood construction	A		
Cold formed metal construction	A		
1705.2, 1705.10, 1705.11 & 1705.12 Steel Construction			
Verification of welding consumables, filler metals, procedure specifications, procedure qualification records and personnel performance qualification records			C, F
Nondestructive testing of welding	G	G	
Inspection of welding	C, F	C, F	
Verification of fabricator and erector documents as listed in AISC 360, chapter N, paragraph 3.2			A, C
Material verification of weld filler materials			C, F
Inspection of high strength bolting and steel frame joint details		A, C	
Inspection of embedment		A, C, F	
Inspection of steel elements of composite construction		A, C, F	
Verification of reinforcing steel, cold formed steel deck and truss materials			A, C, F
Inspection of reinforcing steel, cold formed steel deck and trusses		A, C	
1705.3 & 1705.12 Concrete Construction			
Reinforcing placement, cast-in-place bolts, post installed anchors concrete and shotcrete placement and curing operations. Inspection of formwork for shape, location and dimensions		A, C, H	
Pre-stressing steel installation		A, C, D, E	
Erection of pre-cast concrete members		A, C, H	
Concrete field sampling and field testing		A, J	
Concrete strength testing		P	
Review certified mill reports			A, C
Verify use of required design mix		A, I, J, H, C	
Pre-stressed (pre-tensioned) concrete force application	A, C, E		
Post-tensioned concrete force application		A, C, D	
Review of in-situ concrete strength, prior to stressing of			

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS

Category of Testing and Inspection	Minimum Qualifications (refer to key at end of Table)		
	Shop Testing or Inspection	Field Testing or Inspection	Review Testing, Certification & Lab Reports
tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		A, C, D, H	
Reinforcing steel weldability, reinforcing welding, weld filler material		C, F	
Testing of welding of reinforcing steel		G	
1705.4 Masonry			
Verification of f'_m and f'_{AAC}		A, C, L, M	
Mortar joint construction, grout protection and placement, materials proportion, type/size/location of reinforcement, structural elements, anchorage, and connectors		A, C, K	
Sampling/testing of grout/mortar specimens		A, C, L, M	
Observe preparation of masonry prisms for testing of compressive strength of masonry, f'_m and f'_{AAC}		A, C, K, L, M	
Inspection of welding of reinforcing steel		C, F	
Testing of welding of reinforcing steel		G	
1705.6 & 1804 Soils			
Observe site preparation, fill placement testing of compaction for compliance with the construction documents for the project		A, C, I, N	
Observe test bearing materials below shallow foundations for ability to achieve design bearing capacity		A, C, N, I (Level III)	
Review compaction testing for compliance with the construction documents for the project			A
1705.5, 1705.10, 1705.11 & 1705.12 Wood Construction			
Observe structural panel sheathing, size of framing members, nail or staple diameter and length, number of fastener lines, and spacing of fastener lines and fasteners for compliance with construction documents for the project		A	
Observe temporary and permanent truss member restraint/bracing, field gluing of elements. Observe bolting, anchoring or other fastening of: shear walls, diaphragms, drag struts, braces and hold-downs		A	
1705.7, 1705.8, 1705.9 & 1810 Pile and Pier Foundations			
Observe installation		A, N	
Observe load tests		A	
1705.13 Sprayed Fire-Resistant Materials			
Observe surface conditions, application, average thickness and density of applied material, and cohesive/adhesive bond		A, C	

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS

Category of Testing and Inspection	Minimum Qualifications (refer to key at end of Table)		
	Shop Testing or Inspection	Field Testing or Inspection	Review Testing, Certification & Lab Reports
1705.14 Mastic and Intumescent Fire-Resistant Coatings			
Observe application compliance with AWCI 12-B		A, C	
1705.15 Exterior Insulation and Finish Systems			
Inspect EIFS systems		A, B, C, O	
1705.1 Special Cases			
Work of unusual or special nature		A, B, O	
1705.16 Fire-Resistant Penetrations and Joints	<i>See Requirements of IBC Sections 1705.16.1 and 1705.16.2</i>		
1705.17 Smoke Control	<i>See Requirements of IBC Section 1705.17.2</i>		
1705.10, 1705.11 & 1705.12 Seismic and Wind Resistance			
Periodic inspection of fabrication, installation and/or anchorage of building systems and components		A	

KEY:

- A. Georgia Professional Engineer (GA PE) competent in the specific task area or graduate of accredited engineering/engineering technology program under the direct supervision of a GA PE.
- B. Georgia Registered Architect (GA RA) or graduate of accredited architecture/architecture technology program under the direction of a GA RA.
- C. International Code Council (ICC) Special Inspector Certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- D. Post-tensioning Institute (PTI) Certification, Level 2, bonded or unbonded as applicable.
- E. Pre-stressed Concrete Institute (PCI) Certified Inspector.
- F. American Welding Society (AWS) Certified Welding Inspector (CWI) or AWS Certified Associate Welding Inspector working under the direct on-site supervision of a CWI.
- G. American Society for Nondestructive Testing (ASNT) Level II certification, or a Level III certification if previously certified as a Level II in the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- H. American Concrete Institute (ACI) Concrete Construction Special Inspector.
- I. National Institute for Certification in Engineering Technologies (NICET) Level II or higher certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- J. ACI Concrete Field Testing Technician with Grade 1 certification.
- K. Georgia Concrete and Products Association (GC&PA) – Masonry Association of Georgia (MAG) Masonry Construction Inspector Certification.
- L. National Concrete Masonry Association (NCMA) Concrete Masonry Testing Procedures certification.
- M. GC&PA – MAG Masonry Testing Technician certification.
- N. NICET Certified Engineering Technologist (CT).
- O. Other Qualified Special Inspector as approved by the Building Official.
- P. American Concrete Institute (ACI) Strength Testing Technician.

Notes:

1. The Special Inspector shall meet one of the minimum qualifications listed for the applicable Category of Testing and Inspection.
2. Materials testing shall be done by an Approved Testing Agency meeting the requirements of IBC Section 1703 and ASTM E 329.

(Effective January 1, 2020)

*Revise Section 1704.2.4 ‘Report requirement’ to read as follows:

1704.2.4 Report Requirement. *Approved agencies* shall keep records of inspections and tests. The *approved agency* shall submit reports of special inspections and tests to the *building official* and to the *registered design professional in responsible charge*. Reports shall indicate that work inspected was or was not completed in conformance to *approved construction documents*. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the *building official* and to the *registered design professional in responsible charge* prior to the completion of that phase of the work. A final report documenting required *special inspections* and correction of any discrepancies noted in the inspections or tests, shall be submitted to the *building official* prior to the time that phase of the work is approved for occupancy.
(Effective January 1, 2020)

**CHAPTER 18
SOILS AND FOUNDATIONS**

**SECTION 1810
DEEP FOUNDATIONS**

*Revise Section 1810.3.2.6 ‘Allowable stresses’ title to read as follows:

1810.3.2.6 Allowable axial stresses. The allowable stresses for materials used in deep foundation elements shall not exceed those specified in Table 1810.3.2.6.
(Effective January 1, 2020)

*Revise Table 1810.3.2.6 ‘Allowable Stresses for Materials Used in Deep Foundation Elements’ title and item 4 ‘Other conditions’ to read as follows:

**TABLE 1810.3.2.6
ALLOWABLE AXIAL STRESSES FOR MATERIALS USED IN DEEP FOUNDATION ELEMENTS**

MATERIAL TYPE AND CONDITION	MAXIMUM ALLOWABLE <u>AXIAL</u> STRESS ^a
4. Non-prestressed reinforcement in tension	
Within micropiles	$0.6 f_y$
Other conditions	
For load combinations not including wind or seismic loads	$0.5 f_y \leq 24,000$ 30,000 psi
For load combinations including wind or seismic loads	$0.5 f_y \leq 40,000$ psi

Remainder of table and footnotes remain unchanged.
(Effective January 1, 2020)

**CHAPTER 29
PLUMBING SYSTEMS**

**SECTION 2902
MINIMUM PLUMBING FACILITIES**

*Delete the requirements for “service sinks” from Table [P] 2902.1 ‘Minimum Number of Required Plumbing Fixtures^a’ without substitution.
(Effective January 1, 2020)

**CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS**

**SECTION 3001
GENERAL**

*Revise Table 3001.3 ‘Elevators and Conveying Systems and Components’ under ‘STANDARDS’ for Elevators, escalators, dumbwaiters, moving walks, material lifts to add the following new standards to read as follows:

**TABLE 3001.3
ELEVATORS AND CONVEYING SYSTEMS AND COMPONENTS**

TYPE	STANDARDS
Elevators, escalators, dumbwaiters, moving walks, material lifts	ANSI/ASSE A10.4, ANSI/ASSE A10.5

(Effective January 1, 2020)

**SECTION 3002
HOISTWAY ENCLOSURES**

*Revise Section 3002.4 ‘Elevator car to accommodate ambulance stretcher’ to add a new exception at the end of the section to read as follows:

3002.4 Elevator car to accommodate ambulance stretcher.

Exception: Elevators with 50 feet or less of travel serving only one residence of a one- or two-family dwelling or townhouse shall be in compliance with ASME A17.1 as currently adopted and amended by the Georgia Office of Safety Fire Commissioner.

(Effective January 1, 2020)

**SECTION 3005
MACHINE ROOMS**

*Delete Section 3005.4 ‘Machine rooms, control rooms, machinery spaces and control spaces’ and substitute to read as follows:

3005.4 Machine rooms and machinery spaces. Elevator machine rooms and machinery spaces shall be enclosed with *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. The *fire- resistance rating* shall be not less two hours. Openings in the *fire barriers* shall be protected with assemblies having a *fire protection rating* not less than that required for the hoistway enclosure doors.

Exception: Where machine rooms and machinery spaces do not meet the required *fire-resistance rating*, they shall require sprinklers and shunt trip breaker in accordance with NFPA 72.

(Effective January 1, 2020)

*Revise Section 3005.5 ‘Shunt trip’ to read as follows:

3005.5 Shunt trip. Where elevator hoistways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, Section 6.16.4, Elevator Shutdown, shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. If the means is located in the affected elevator machine room, it shall be in a water resistant enclosure. This means shall not be self-resetting. The activation of sprinklers outside the hoistway or machine room shall not disconnect the main line power supply. Machine rooms having a two-hour fire separation from the building and provided with smoke detection interconnected to the building fire alarm system are not required to be sprinklered.

(Effective January 1, 2020)

CHAPTER 34 EXISTING STRUCTURES

*Revise the title of Chapter 34 ‘Reserved’ to read as ‘Existing Buildings’ and carry forward all the provisions from Chapter 34 ‘Existing Buildings’ of the 2012 *International Building Code*.

(Effective January 1, 2020)

SECTION 3401 GENERAL

*Add new Section 3401.7 ‘Existing system conformance’ to read as follows:

3401.7 Existing system conformance. The extent to which the existing mechanical, electrical, plumbing and life safety systems shall be made to conform to the requirements of the State Minimum Standard Codes for new construction shall be as follows unless otherwise required by this section:

1. When the estimated cost of the new work is less than fifty percent (50%) of the replacement cost of the existing system, the new work shall be brought in to conformance with the requirements of the State Minimum Standard Codes for new construction.
2. When the estimated cost of the new work is equal to or greater than fifty percent (50%) of the replacement cost of the existing system, the entire system shall be made to conform to the requirements of the State Minimum Standard Codes for new construction.
3. For essential service facilities Occupancy Category IV type buildings as defined by Table 1604.5, when the estimated cost of the new work is equal to or greater than thirty percent (30%) of the replacement cost of the existing system, the entire system shall be made to conform to the requirements of the State Minimum Standard Codes for new construction.

(Effective January 1, 2020)

**SECTION 3408
CHANGE OF OCCUPANCY**

*Add new Section 3408.2.1 ‘Assisted living communities’ to read as follows:

3408.2.1 Assisted living communities. Existing buildings or portions of buildings proposed as a change of occupancy to Assisted Living Communities, licensed by the State, housing twenty-five or more persons, shall be allowed to meet the Georgia State Fire Marshal’s Office Life Safety Code requirements for primary equivalent compliance to the *International Building Code* Chapters 3, 4, 8, 9, and 10.

(Effective January 1, 2020)

**CHAPTER 35
REFERENCED STANDARDS**

*Revise Chapter 35 ‘Referenced Standards’ to add the following new reference standards to read as follows:

American Council of Engineering Companies of Georgia
Peachtree Center, Harris Tower, Suite 700
233 Peachtree Street
Atlanta, GA 30303

ACEC/GA

Standard reference number	Title	Referenced in code section number
ACEC/SEAOG SI GL 01—12	Georgia Special Inspections Guidelines (http://www.seaog.org/si.html)	1704.2.1, GA Amendments

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2859

Standard reference number	Title	Referenced in code section number
E 329—11c	Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection	1704.2.1, GA Amendments

ANSI/ASSE

American Society of Safety Engineers
520 N. Northwest Highway
Park Ridge, IL 60068

Standard reference number	Title	Referenced in code section number
A10.4-2016	Safety Requirements for Personnel Hoist and Employee Elevators on Construction and Demolition Sites	Table 3001.3, GA Amendments
A10.5-2013	Safety Requirements for Material Hoists	Table 3001.3, GA Amendments

Remainder of reference standards remain unchanged.

(Effective January 1, 2020)

APPENDIX O
DISASTER RESILIENT CONSTRUCTION

*The Department of Community Affairs hereby adopts Appendix O ‘Disaster Resilient Construction’ as optional. This document can be downloaded at <https://dca.ga.gov/local-government-assistance/construction-codes-industrialized-buildings/construction-codes>.
(Effective: January 1, 2020)



Georgia State International Building Code

Appendix O Disaster Resilient Construction (2020 Edition)



Georgia Department of Community Affairs
Local Government Assistance Division
60 Executive Park South, N.E.
Atlanta, Georgia 30329-2231
(404) 679-3118
www.dca.ga.gov

January 1, 2020

GEORGIA STATE INTERNATIONAL BUILDING CODE
APPENDIX O
DISASTER RESILIENT CONSTRUCTION

The INTERNATIONAL BUILDING CODE, 2018 Edition, published by the International Code Council, when used in conjunction with the Georgia State Amendments to the INTERNATIONAL BUILDING CODE, 2018 Edition and Appendix O Disaster Resilient Construction, shall constitute the official *Georgia State Minimum Standard Building Code*.

FORWARD

Introduction

The Department of Community Affairs (DCA) was awarded a grant through the U.S. Department of Housing and Urban Development (HUD) to develop Disaster Resilient Building Code (DRBC) Appendices for the International Building Code (IBC) and the International Residential Code (IRC). The DRBC Appendices are optional regulations that local jurisdictions may adopt, in whole or in part, through local ordinance. A task force of stakeholders was appointed to look for opportunities to improve any code provisions relating to damage from hurricane, flood, and tornado disasters. In addition to the approved recommendations from the task force, the state has developed and will conduct a comprehensive training program for code enforcement officials on the importance, implementation and enforcement of the Disaster Resilient Construction Appendices.

The meetings for the Disaster Resilient Building Code Appendices Task Force were open to the public, interested individuals and organizations that desired participation. The technical content of currently published documents on flooding, high-wind construction, and storm shelters, were used and referenced. Those publications included documents of the International Code Council (ICC), American Society of Civil Engineers (ASCE), the Federal Emergency Management Agency (FEMA), Mitigation Assessment Team (MAT) Program, Georgia Emergency Management Agency/Homeland Security (GEMA), APA – The Engineered Wood Association, National Institute of Standards and Technology (NIST), National Oceanic and Atmospheric Administration (NOAA), National Science Foundation (NSF), The State of Florida, American Forest & Paper Association’s American Wood Council, Southern Forest Products Association, NAHB Research Center, Insurance Institute for Business & Home Safety, and the Federal Alliance for Safe Homes.

Adoption

Local jurisdictions may adopt this entire appendix with chosen options or specific sections that apply to their communities through a local ordinance. The adopting ordinance must also be filed on record with DCA. A sample ordinance has been included in this document to assist the local jurisdictions with the adoption process. Recommended training is being offered to assist code enforcement officials in the implementation and enforcement of the appendices documents. Contact DCA at (404) 679-3118 or www.dca.ga.gov for more information.

Neither The Disaster Resilient Building Code Appendices Task Force, its members nor those participating in the development of Appendix O Disaster Resilient Construction accept any liability resulting from compliance or noncompliance with the provisions of Appendix O Disaster Resilient Construction.

The 2012 Disaster Resilient Building Code (DRBC) Appendices Task Force was charged with the development of two appendices. One appendix is for the International Residential Code and the other appendix is for the International Building Code. These two appendices look for opportunities to improve any provisions relating to hurricane, flood, and tornado disasters. In addition to improving existing provisions in the codes, the task force also developed new provisions to be included in the appendices that address these issues. These appendices contain increased construction requirements for disaster resilience and are intended to be made available for adoption by local jurisdictions in the State of Georgia.

These appendices have reasonable and substantial connection with the public health, safety, and general welfare. In addition, the financial impact and costs associated with these appendices have been taken into consideration.

Members:

Mr. Gregori Anderson, Chairman, States Codes Advisory Committee (SCAC)
Mr. David L. Adams, Vice Chairman, States Codes Advisory Committee (SCAC)
Mr. Bill Abballe, AIA, American Institute of Architects (AIA) – Georgia Chapter
Mr. John Hutton, P.E., S.E., American Council of Engineering Companies of Georgia (ACEC/G)
Mr. Ron Anderson, Code Consultant
Mr. Lamar Smith, Home Builders Association of Georgia (HBAG)
Mr. Thomas Harper, Georgia State Inspectors Association (GSIA)
Mr. Tom Buttram, Building Officials Association of Georgia (BOAG)
Capt. Zane Newman, Georgia State Fire Marshal’s Office (Local Fire Official)
Mr. Terry Lunn, Georgia Emergency Management Agency (GEMA)
Mr. Alan Giles, CFM, Georgia Department of Natural Resources (EPD / Floodplain Management Unit)
Mr. Tony Hebert, HUD Georgia State Representative (Region IV Office)
Mr. Jim C. Beck, Sr., Georgia Underwriting Association
Mr. Tim Thornton, Georgia Association of Realtors (GAR)
Mr. Steve Harrison, Building Owners and Managers Association – Georgia (BOMA)
Mr. Tom Aderhold, Georgia Apartment Association (GAA)
Mr. Tim Bromley, Accessibility Consultant – Georgia State ADA Coordinator’s Office
Mayor Mark Mathews, Georgia Municipal Association (GMA)
Commissioner Jeff Long, Association of County Commissioners of Georgia (ACCG)

Ad Hoc Subcommittee:

Mr. Tom Buttram, Chairman, DRBC Task Force Liaison (BOAG)
Mr. Ron Anderson, Vice Chairman, Code Consultant
Mr. Stephen V. Skalko, Concrete Industry
Mr. Jeffrey B. Stone, Wood Industry (AWC)
Mr. Robert Wills, Steel Industry (AISC)
Mr. Tom Cunningham, PhD., Residential Building Design
Mr. Duncan J. Hastie, P.E., Disaster Mitigation

DCA Staff:

Mr. Ted Miltiades, Director of Construction Codes & Industrialized Buildings
Mrs. Deirdre “Dee” Leclair, DRBC Grant Project Manager
Mr. Max Rietschier, Lead Codes Consultant
Mr. Bill Towson, 2012 International Residential Code Task Force Liaison, Code Consultant
Mr. Calvin Jordan, 2012 International Building Code Task Force Liaison, Code Consultant

How to Use Appendix O Disaster Resilient Construction

The appendix may be adopted in whole or in part by Local Jurisdictions to fit the needs of their community. The following sample ordinance has been provided to aid in the process of identifying Chapters and Sections of the appendix that may be adopted. The format easily allows for choosing to adopt, revise or delete individual Chapters and Sections. Download the MS Word (.doc) version from the DCA website to take advantage of the dropdown menu choices and edit ability features of the document. Note that in Chapter 3, choose one of three options for flood elevation. Only one option may be chosen and that option must be higher than what has been previously adopted and enforced by the jurisdiction. Also note that in Chapter 4, choose one of three options for increased wind load. Only one option may be chosen and that option must be higher than what has been previously adopted and enforced by the jurisdiction. The Sample Ordinance document takes into account the flood elevation option in Chapter 3 and the wind load option in Chapter 4 of this appendix.

**SAMPLE ORDINANCE FOR ADOPTION OF
GEORGIA STATE INTERNATIONAL BUILDING CODE
APPENDIX O
DISASTER RESILIENT CONSTRUCTION**

ORDINANCE NO. _____

An ordinance of the [JURISDICTION] adopting the latest edition as adopted and amended by the Georgia Department of Community Affairs of *Appendix O Disaster Resilient Construction* regulating and governing the mitigation of hazard to life and property from natural weather related disasters, high-wind damages, flooding, and establishing construction standards for storm shelters in the [JURISDICTION]; providing for the issuance of permits and collection of fees therefore; repealing Ordinance No. ____ of the [JURISDICTION] and all other ordinances or parts of the laws in conflict therewith.

The [GOVERNING BODY] of the [JURISDICTION] does ordain as follows:

Section 1. That a certain document, three (3) copies of which are on file in the office of the [TITLE OF JURISDICTION'S KEEPER OF RECORDS] of [NAME OF JURISDICTION], being marked and designated as *Appendix O Disaster Resilient Construction* to the International Building Code, the latest edition as adopted and amended by the Georgia Department of Community Affairs, be and is adopted as the *Appendix O Disaster Resilient Construction* of the [JURISDICTION], in the State of Georgia for regulating and governing the mitigation of hazard to life and property from natural weather related disasters, high-wind damages, flooding, and establishing construction standards for storm shelters; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, penalties, conditions and terms of said *Appendix O Disaster Resilient Construction* on file in the office of the [JURISDICTION] are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any prescribed in Section 2 of this ordinance.

Section 2. [NAME OF JURISDICTION] hereby:

Choose an item. CHAPTER AO1 SCOPE AND ADMINISTRATION Choose an item.

Choose an item. SECTION AO101 ADMINISTRATION Choose an item.

Choose an item. AO101.1 Purpose Choose an item.

Choose an item. AO101.2 Objectives Choose an item.

Choose an item. AO101.3 Scope Choose an item.

AO101.3.1 Insert [Name Of Jurisdiction] for [NAME OF JURISDICTION].

Choose an item. AO101.4 Violations Choose an item.

Insert [Name Of Jurisdiction] for [NAME OF JURISDICTION].

Choose an item. SECTION AO102 APPLICABILITY Choose an item.

Choose an item. AO102.1 General Choose an item.

Choose an item. AO102.2 Other laws Choose an item.

Choose an item. AO102.3 Referenced codes and standards Choose an item.

Choose an item. SECTION AO103 POST DISASTER EVENT INSPECTIONS GUIDLINES Choose an item.

Choose an item. AO103.1 Inspections Choose an item.

Choose an item. AO103.1.1 Right of entry Choose an item.

Choose an item. AO103.2 Types of inspections Choose an item.

Choose an item. AO103.3 Post disaster building safety evaluation chart Choose an item.

Choose an item. Figure AO103.3 Post Disaster Building Safety Evaluation Chart Choose an item.

Choose an item. AO103.4 Evaluation Forms Choose an item.

Insert [Name Of Jurisdiction] for [NAME OF JURISDICTION].

Choose an item. AO103.5 Placement and remove of placards Choose an item.

Choose an item. CHAPTER AO2 DEFINITIONS Choose an item.

Choose an item. SECTION AO201 GENERAL Choose an item.

Choose an item. AO201.1 Scope Choose an item.

Choose an item. AO201.2 Terms defined in other codes Choose an item.

Choose an item. AO201.3 Terms not defined Choose an item.

Choose an item. SECTION AO202 DEFINITIONS Choose an item.

Choose an item. CHAPTER AO3 FLOOD-RESISTANT CONSTRUCTION Choose an item.

Choose an item. SECTION AO301 HAZARD IDENTIFICATION Choose an item.

- Choose an item. AO301.1 Identification of flood hazard areas Choose an item.
- Insert [Name Of Jurisdiction] for [NAME OF JURISDICTION].
- Insert [Date of Issuance] for [DATE OF ISSUANCE].
- Choose an item. SECTION AO302 SCOPE Choose an item.
- Choose an item. AO301.1 Flood Loads Choose an item.
- Choose an item. FLOOD ELEVATION OPTION Choose an item. Choose an item.
- Choose an item. SECTION AO303 FLOOD DAMAGE-RESISTANT MATERIALS Choose an item.
- Choose an item. AO303.1 Flood damage-resistant materials Choose an item.
- Choose an item. AO303.2 Location of flood damage-resistant materials Choose an item.
- Choose an item. AO303.3 Fasteners and connectors used for flood-resistant materials Choose an item.
- Choose an item. CHAPTER AO4 HIGH-WIND RESISTIVE CONSTRUCTION Choose an item.
- Choose an item. SECTION AO401 GENERAL Choose an item.
- Choose an item. AO401.1 Applications Choose an item.
- Choose an item. AO401.2 Limitations Choose an item.
- Choose an item. AO402 DEFINITIONS AND NOTATIONS Choose an item.
- Choose an item. AO403 WIND LOADS Choose an item.
- Choose an item. AO403.1 Wind Directionality Factor Choose an item.
- Choose an item. AO403.2 Exposure Choose an item.
- Choose an item. AO403.3 Enclosure classification Choose an item.
- Choose an item. AO403.4 Continuous operation of Risk Category IV buildings Choose an item.
- Choose an item. SECTION Choose an item. Choose an item.
- Choose an item. CHAPTER AO5 STORM SHELTERS, SAFE ROOMS AND BEST AVAILABLE REFUGE AREAS Choose an item.
- Choose an item. SECTION AO501 GENERAL Choose an item.
- Choose an item. AO501.1 General Choose an item.
- Choose an item. AO501.2 Occupant load Choose an item.
- Choose an item. AO501.3 Construction documents Choose an item.
- Choose an item. AO501.4 Signage Choose an item.
- Choose an item. SECTION AO502 DEFINITIONS AND NOTATIONS Choose an item.
- Choose an item. AO502.1 Definitions Choose an item.
- Choose an item. AO502.2 Additional definitions Choose an item.
- Choose an item. SECTION AO503 BEST AVAILABLE REFUGE AREAS Choose an item.
- Choose an item. AO503.1 General Choose an item.
- Choose an item. AO503.2 Occupant Density Choose an item.
- Choose an item. AO503.3 Identification of best available refuge areas Choose an item.
- Choose an item. SECTION AO504 APPLICABILITY Choose an item.
- Choose an item. AO504.1 Required storm shelters or safe rooms Choose an item.

Section 3. That Ordinance No. ____ of [JURISDICTION] entitled [FILL IN HERE THE COMPLETE TITLE OF THE LEGISLATION OR LAWS IN EFFECT AT THE PRESENT TIME SO THAT THEY WILL BE REPEALED BY DEFINITE MENTION] and all other ordinances or parts of laws in conflict herewith are hereby repealed.

Section 4. That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The [GOVERNING BODY] hereby declares that it would have passed this law, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

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Section 5. That nothing in this ordinance or in *Appendix O Disaster Resilient Construction* hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing under any act or ordinance hereby repealed as cited in Section 3 of this ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this ordinance.

Section 6. That the **[JURISDICTION'S KEEPER OF RECORDS]** is hereby ordered and directed to cause this ordinance to be published. (An additional provision may be required to direct the number of times the ordinance is to be published and to specify that it is to be in a newspaper in general circulation. Posting may also be required.)

Section 7. That this ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect **[TIME PERIOD]** from and after the date of its final passage and adoption.

Section 8. Chapter AO6 Resources, of this document is intended to be used by the building officials as a resource guide.

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APPENDIX O
DISASTER RESILIENT CONSTRUCTION
CHAPTER AO1
SCOPE AND ADMINISTRATION

SECTION AO101
ADMINISTRATION

AO101.1 Purpose. The scope of this appendix is to promote enhanced public health, safety and general welfare and to reduce public and private property losses due to hazards and natural disasters associated with flooding, high-winds, and windborne debris above that which is provided in the general provisions of this appendix.

AO101.2 Objectives. The objectives of this appendix are to:

1. Protect human life, to minimize property loss and to minimize the expenditures of public money associated with natural weather related disasters, including flooding, tornadoes and other high-wind events.
2. Establish enhanced design and construction regulations consistent with nationally recognized good practices for the safeguarding of life and property.

AO101.3 Scope.

AO101.3.1 The provisions of this appendix are not mandatory unless specifically referenced in an adopting ordinance of [NAME OF JURISDICTION]. If adopted, the provisions shall apply to all new development and to substantial improvements to existing development.

AO101.3.2 The provisions of this appendix supplement the jurisdiction's building and fire codes to provide for enhanced provisions to mitigate the hazard to life and property from natural weather related disasters, including flooding, tornadoes and other high-wind events.

AO101.3.3 The provisions of this appendix establish design and construction standards for storm shelters.

AO101.4 Violations. Any violation of a provision of this appendix or failure to comply with a permit of variance issued pursuant to this appendix or any requirement of this appendix shall be handled in accordance with the ordinances of [NAME OF JURISDICTION].

SECTION AO102
APPLICABILITY

AO102.1 General. This appendix provides enhanced minimum requirements for development of new construction and substantial improvement of existing development above that contained in the *International Building Code (IBC)*.

AO102.1.1 The provisions of this appendix shall apply to all new construction and additions, and shall apply to substantial alterations in flood hazard areas unless it is technically infeasible or otherwise exempted in Section 3403.2 of the *International Building Code*.

AO102.1.2 Regardless of the category of work being performed, the work shall not cause the structure to become unsafe or adversely affect the performance of the building; shall not cause an existing mechanical or plumbing system to become unsafe, hazardous, insanitary or overloaded; and unless expressly permitted by these provisions, shall not make the building any less compliant with this appendix or to any previously approved alternative arrangements than it was before the work was undertaken.

AO102.1.3 Where there is a conflict between a requirement of the *International Building Code* and a requirement of this appendix, the requirement of this appendix shall govern. Where there is a conflict between a general requirement of this appendix and a specific requirement of this appendix, the specific requirement shall govern. Where, in any specific case, different sections of this appendix specify different materials, methods of construction or other requirements, the most restrictive shall govern.

AO102.2 Other laws. The provisions of this appendix shall not be deemed to nullify any provisions of local, state or federal law.

AO102.3 Referenced codes and standards. The codes and standards referenced in this appendix shall be those that are listed in Chapter AO7 and such codes and standards shall be considered as part of the requirements of this appendix to the prescribed extent of each such reference. Where differences occur between provisions this appendix and referenced codes and standards, the provisions of this appendix shall apply.

SECTION AO103
POST DISASTER EVENT INSPECTIONS
GUIDELINES

AO103.1 Inspections. The building official or agents shall inspect buildings and structures to determine the habitability of each with the goal of getting the

community back into their residences quickly and safely. Inspections shall always be performed by teams of at least two individuals, also known as disaster assessment teams.

AO103.1.1 Right of entry. Unless permitted under the exigent circumstances provisions or from an order from State or Federal Authorities, disaster assessment teams shall confirm the right of entry requirements with the incident commander. Upon approval, the assessment teams shall be authorized to enter the structure or premises at reasonable times to inspect or perform duties as provided by this code, provided that the structure or premises be occupied, that credentials are presented, that entry is requested, and that entry is granted by the owner or person having charge over the structure or premises.

AO103.2 Types of inspections.

AO103.2.1 Rapid evaluation. Rapid evaluation is performed after a disaster event to determine if a building is apparently safe or obviously unsafe. The evaluation should last 10 to 30 minutes per building and shall be performed by the building official and/or their designated responders. Evaluation shall determine if a detailed evaluation is necessary. Placards are posted on buildings indicating status as one of the following:

1. INSPECTED
2. RESTRICTED USE
3. UNSAFE

See Section AO605 for Placards that may be reproduced for use in the field during evaluations. The jurisdiction shall alter placards to meet the jurisdiction and building department's requirements.

AO103.2.2 Detailed evaluation. Detailed evaluation is a thorough visual examination of a damaged building performed by a team of two, including an inspector and a design professional. Evaluation should last 30

minutes to 4 hours per building. Evaluation shall determine necessary restrictions on a damaged building's use, the need for an engineering evaluation or to evaluate postings.

AO103.2.3 Engineering evaluation. When indicated by the building official as necessary, engineering evaluations shall be completed by a registered design professional hired by the building owner.

AO103.3 Post disaster building safety evaluation chart. See Figure AO103.3 for Post Disaster Building Safety Evaluation Chart.

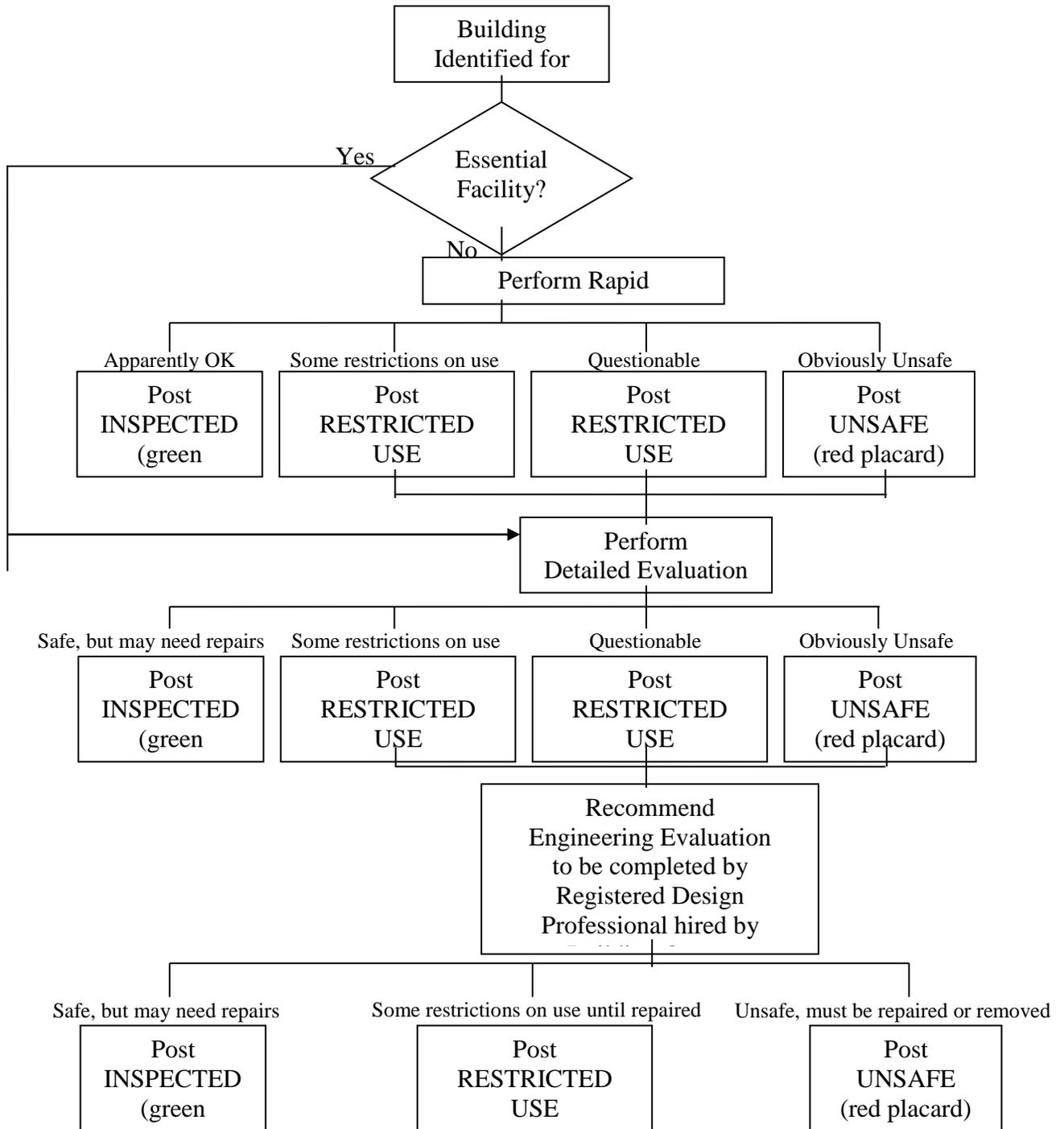
AO103.4 Evaluation Forms. *ATC-45 Rapid Evaluation Safety Assessment Form* and *ATC-45 Detailed Evaluation Safety Assessment Form* shall be used by [Name of Jurisdiction]'s Building Official for post disaster inspections. See Section AO605 for copies of the Safety Assessment Forms.

AO103.5 Placement and removal of placards.

AO103.5.1 Placement. Placards are to be posted in a clearly visible location near the main entrance and shall be visible from the public right-of-way. RESTRICTED USE or UNSAFE placards shall be placed at all entrances.

AO103.5.2 Removal. Placards shall not be removed or replaced, except by the authorized representatives of the local jurisdiction.

Figure AO103.3 Post Disaster Building Safety Evaluation Chart ^a



^(a)*When Disaster Strikes* by the International Code Council, Inc., Seventh Printing: November 2011, copyright 2007

CHAPTER AO2 DEFINITIONS

SECTION AO201 GENERAL

AO201.1 Scope. Unless otherwise expressly stated the following words and terms shall, for the purposes of this appendix, have the meanings shown in this chapter.

AO201.2 Terms defined in other codes. Where terms are not defined in this appendix and are defined in other *International Codes*, such terms shall have the meanings ascribed to them as in those codes.

AO201.3 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have their ordinarily accepted meanings such as the context implies.

SECTION AO202 DEFINITIONS

500-YEAR FLOOD. Flood having a 0.2% annual probability of being equaled or exceeded.

ADVISORY BASE FLOOD ELEVATION (ABFE). An advisory base flood elevation (BFE) issued by the Federal Emergency Management Agency (FEMA) that reflects post-storm conditions and vulnerability to damages from future flooding.

BASE FLOOD. Flood having a 1% chance of being equaled or exceeded in any given year, also referred to as the 100-year flood.

BASE FLOOD ELEVATION (BFE). The elevation of flooding, including wave height, having a 1% chance of being equaled or exceeded in any given year established relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the *Flood Insurance Rate Map (FIRM)*.

BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of the *International Building Code*, or the building official's duly authorized representative.

DESIGN FLOOD. The greater of the following two flood events:

- (1) The *base flood*, affecting those areas identified as *special flood hazard areas* on the community's FIRM;
- (2) The flood corresponding to the area designated as a *flood hazard area* on a community's *flood hazard map* or otherwise legally designated.

DESIGN FLOOD ELEVATION (DFE). The elevation of the *design flood*, including wave height, relative to the datum specified on the community's legally designated flood hazard map. In areas designated as Zone AO, the *design flood elevation* shall be the elevation of the highest existing grade of the building's perimeter plus the depth number (in feet) specified on the flood hazard map.

FLOOD [DAMAGE]-RESISTANT MATERIAL. Any building product [material, component or system] capable of withstanding direct and prolonged contact with floodwaters without sustaining significant damage.

FLOOD HAZARD MAP. Map delineating *flood hazard areas* adopted by the authority having jurisdiction.

FLOOD INSURANCE RATE MAP (FIRM). An official map of a community on which the Federal Emergency Management Agency (FEMA) has delineated both the *special flood hazard areas* and the risk premium zones applicable to the community.

FREEBOARD. A factor of safety expressed in feet above a flood level for purposes of floodplain management.

FUTURE-CONDITIONS FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year based on future-conditions hydrology. Also known as the 100-year future-conditions flood.

FUTURE-CONDITIONS FLOOD ELEVATION. The flood standard equal to or higher than the Base Flood Elevation. The future-conditions flood elevation is defined as the highest water surface anticipated at any given point during the future-conditions flood.

CHAPTER AO3 FLOOD-RESISTANT CONSTRUCTION

Forward: This appendix provides three different options for increased freeboard. The jurisdiction may pick only one option that is higher than previously adopted and enforced by the jurisdiction. The National Flood Insurance Program (NFIP) minimum standards reference Base Flood Elevation without any freeboard in high risk flood hazard areas. Due to the flood damage prevention updates performed during the Map Modernization initiative that led to flood risks being digitally identified in all 159 Georgia counties, all Georgia NFIP participating communities have freeboard standards that meet or exceed the 1 foot standard used in the State model ordinances for areas where BFEs have been established.

SECTION AO301 HAZARD IDENTIFICATION

AO301.1 Identification of flood hazard areas. To establish flood hazard areas:

- (a) flood hazard map adopted by jurisdiction based on areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled “The Flood Insurance Study of [INSERT NAME OF JURISDICTION],” dated [INSERT DATE ISSUANCE], and amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto.
- (b) FIRM maps provided by the Federal Emergency Management Agency.

SECTION AO302 SCOPE

AO302.1 Flood loads. Buildings designed and constructed in flood hazard areas defined in IBC Section 1612.3+ shall comply with the following:

AO302.1.1 Flood hazard areas without base flood elevations. In flood hazard areas without base flood or future-conditions flood elevation data, new construction and substantial improvements of existing structures shall have the lowest floor of the lowest enclosed area (including basement) elevated no less than three (3) feet above the highest adjacent grade to the building foundation.

OPTION A – FLOOD ELEVATION

AO302.1.2 Increase to base flood elevation requirements. Floors required by ASCE 24 to be built above base flood elevations as follows:

The higher of:

- (a) Design flood elevation plus one (1) foot, or
- (b) Base flood elevation plus one (1) foot, or
- (c) Advisory base flood elevation, or
- (d) Future-conditions plus one (1) foot, if known or
- (e) 500-year flood, if known

OPTION B– FLOOD ELEVATION

AO302.1.3 Increase to base flood elevation requirements. Floors required by ASCE 24 to be built above base flood elevations as follows:

The higher of:

- (a) Design flood elevation plus two (2) feet, or
- (b) Base flood elevation plus two (2) feet, or
- (c) Advisory base flood elevation, or
- (d) Future-conditions plus one (1) foot, if known or
- (e) 500-year flood, if known

OPTION C – FLOOD ELEVATION

AO302.1.4 Increase to base flood elevation requirements. Floors required by ASCE 24 to be built above base flood elevations as follows:

The higher of:

- (a) Design flood elevation plus three (3) feet, or
- (b) Base flood elevation plus three (3) feet, or
- (c) Advisory base flood elevation, or
- (d) Future-conditions plus one (1) foot, if known or
- (e) 500-year flood, if known

SECTION AO303 FLOOD DAMAGE-RESISTANT MATERIALS

AO303.1 Flood damage-resistant materials. Flood damage-resistant materials comply with FEMA Technical Bulletin 2, Table 2. Types, Uses, and Classifications of Materials.

AO303.2 Location of flood damage-resistant materials. Building components and materials located below the increase to base flood elevation as determined by the local jurisdiction in accordance with AO302.1 shall be flood damage-resistant as defined by Section AO303.1.

AO303.3 Fasteners and connectors used for flood damage-resistant materials. Fasteners and connectors used for flood damage-resistant materials to be made of stainless steel, hot-dipped zinc-coated galvanized steel, mechanically deposited-zinc coated, silicon bronze or copper. Copper fasteners shall not be permitted for use in conjunction with steel.

CHAPTER AO4 HIGH-WIND RESISTIVE CONSTRUCTION

SECTION AO401 GENERAL

AO401.1 Applications. Buildings, and parts thereof shall be designed to withstand the minimum wind loads and meet the opening protection requirements of IBC Section 1609 as modified in this chapter. **Wind Load Option A, B or C shall be selected. Table AO401.1 may be used to assist in the selection of an appropriate Wind Load Option.**

AO401.2 Limitations. The following limitations shall apply to the design and construction of buildings with respect to winds.

AO401.2.1 Empirical masonry. The empirical masonry provisions in IBC Section 2109 or Chapter 5 of TMS 402/ACI 530/ASCE 5 shall not be permitted to be used for the wind load resisting elements of buildings, or parts of buildings or other structures.

AO401.2.2 Unreinforced (plain) masonry. The unreinforced masonry provisions in IBC Section 2109 or sections 2.2, 3.2 or 8.2 of TMS 402/ACI 530/ASCE 5 shall not be permitted to be used for the wind load resisting elements of buildings, or parts of buildings or other structures.

AO401.2.3 Conventional light-frame construction. The *conventional light-frame construction* provisions in IBC Section 2308 shall not be permitted to be used for the wind load resisting elements of buildings, or parts of buildings or other structures.

Exception: Compliance with AF&PA WFCM shall be permitted subject to the limitations therein and the limitations of this appendix.

SECTION AO402 DEFINITIONS AND NOTATIONS

AO402.1 General. The following terms are defined in Chapter 2 of the International Building Code:

**CONVENTIONAL LIGHT-FRAME
CONSTRUCTION.**

MASONRY.

Unreinforced (plain) masonry.

WIND-BORNE DEBRIS REGION.

WIND SPEED, V_{ult} .

SECTION AO403 WIND LOADS

AO403.1 Wind Directionality Factor. The directionality factor for Wind Option B and C shall be taken as 1.0.

AO403.2 Exposure. Wind pressures for Wind Option B and C shall be based on exposure category C or D in accordance with IBC Section 1609.4 or ASCE 7.

AO403.3 Enclosure classification. The enclosure classification shall be determined in accordance with ASCE 7 with the largest door or window on a wall that receives positive external pressure considered as an opening.

AO403.4 Continuous operation of Risk Category IV buildings. When a building or an internal area within a building in Risk Category IV is required to remain operational during a design wind event (target performance level OB), that building or that internal area shall be designed in accordance with ICC-500 or FEMA-361.

SECTION AO404 WIND LOAD OPTION A

AO404.1 Basic wind speed. The ultimate design wind speed, V_{ult} , for use in the design of buildings and structures shall be obtained from IBC Section 1609.3.

AO404.2 Debris Hazard and Protection of Openings. Buildings shall be designed for impact resistance in accordance with IBC Section 1609.2 or ASCE 7.

Exception:

1. For Risk Category III buildings with a Life Safety target performance level for the entire building, the exterior glazing shall be impact resistant or be protected with an impact resistant covering meeting the requirements of ASTM E1996.
2. For Risk Category IV buildings with an Immediate Occupancy target performance level for the entire building, the exterior glazing shall be impact resistant or be protected with an impact resistant covering meeting the requirements of ASTM E1996 for *Enhanced Protection*.

**SECTION AO405
WIND LOAD OPTION B**

AO405.1 Basic wind speed. The ultimate design wind speed, V_{ult} , for use in the design of Risk Category I buildings and structures shall be obtained from Section 1609.3. The ultimate design wind speed, V_{ult} , for use in the design of Risk Category II buildings and structures shall be obtained from IBC Figure 1609.3(1). The ultimate design wind speed, V_{ult} , for use in the design of Risk Category III and IV buildings and structures shall be obtained from IBC Figure 1609.3(1) or 135 mph, whichever is greater.

AO405.2 Debris Hazard and Protection of Openings. Buildings shall be designed for impact resistance in accordance with this Section in addition to IBC Section 1609.2 or ASCE 7.

Exception:

- For Risk Category IV buildings, all components of the exterior envelope shall be impact resistant or be protected with an impact resistant covering meeting the requirements of ASTM E1996 for *Enhanced Protection*.

**SECTION AO406
WIND LOAD OPTION C**

AO406.1 Basic wind speed. The ultimate design wind speed, V_{ult} , for use in the design of Risk Category I buildings and structures shall be obtained from IBC Section 1609.3. The ultimate design wind speed, V_{ult} , for use in the design of Risk Category II buildings and structures shall be obtained from IBC Figure 1609.3(1). The ultimate design wind speed, V_{ult} , for use in the design of Risk Category III and IV buildings and structures shall be obtained from IBC Figure 1609.3(1) or 170 mph, whichever is greater.

AO406.2 Debris Hazard and Protection of Openings. Buildings shall be designed for impact resistance in accordance with this Section in addition to IBC Section 1609.2 or ASCE 7.

Exception:

- For Risk Category IV buildings, all components of the exterior envelope shall be impact resistant or be protected with an impact resistant covering meeting the requirements of ASTM E1996 for *Enhanced Protection*.

**Table AO401.1
WIND LOAD OPTIONS:
TARGET PERFORMANCE LEVELS AND DESIGN CRITERIA⁴**

OPTION	DESIGN WIND EVENT	Risk Category II ¹			Risk Category III ¹			Risk Category IV ¹		
		Target Performance Level ²	Min Wind Speed V_{ult}	Wind-Borne Debris	Target Performance Level ²	Min Wind Speed V_{ult}	Wind-Borne Debris	Target Performance Level ²	Min Wind Speed V_{ult}	Wind-Borne Debris
A	EF0 & 1 Tornado – IBC level Hurricane	CP ³	IBC 1609.3	IBC 1609.2 or ASCE 7	CP ³	IBC 1609.3	IBC 1609.2 or ASCE 7	CP ³	IBC 1609.3	IBC 1609.2 or ASCE 7
					LS		Glazing	IO ⁵		Glazing
B	EF2 Tornado – Cat 3 Hurricane	CP ³ for EF0-EF1-IBC Hurricane for Risk Cat. III/IV	IBC 1609.3 for Risk Cat. III/IV	IBC 1609.2 or ASCE 7	LS	145 mph	Req'd for glazing per IBC 1609.2 and ASCE 7	IO ⁵	145 mph	Exterior Envelope
C	EF3 Tornado – Cat 4 Hurricane	CP ³ for EF0-EF1-IBC Hurricane for Risk Cat. III/IV	IBC 1609.3 for Risk Cat. III/IV	IBC 1609.2 or ASCE 7	LS	170 mph	Req'd for glazing per IBC 1609.2 and ASCE 7	IO ⁵	170 mph	Exterior Envelope

Notes:

- Risk Category per IBC Section 1604.5
- Performance Levels:
 CP: Collapse Prevention
 LS: Life Safety
 IO: Immediate Occupancy
 OB: Operational Building
- LS for occupants away from exterior envelope. IO for storm shelters or safe rooms.
- See Section AO401 and Section AO403 for additional limitations and criteria.
- OB for building or an internal area within a building designed to ICC-500 or FEMA 361.

CHAPTER AO5 STORM SHELTERS, SAFE ROOMS AND BEST AVAILABLE REFUGE AREAS

SECTION AO501 GENERAL

AO501.1 General. This section applies to the location and construction of storm shelters and safe rooms when constructed as separate detached buildings or as internal areas within buildings for the purpose of providing safe refuge for storms that produce high winds, such as tornados and hurricanes, and to the selection of best available refuge areas. Storm shelters shall be designed and constructed in accordance with IBC Section 423. Safe rooms shall be designed and constructed in accordance with FEMA 361. Storm shelters, safe rooms, and best available refuge areas shall be located on an accessible route.

Exception: *Residential Safe Rooms* and safe rooms serving a Business Group B Occupancy and having an *occupant load* not exceeding 16 persons may be constructed in accordance with FEMA 320.

AO501.2 Occupant load. The occupant load for storm shelters and safe rooms shall be determined by ICC 500 and FEMA 361 respectively.

AO501.3 Construction documents. Construction documents for buildings containing a storm shelter or safe room shall include the information required in ICC 500 or FEMA 361 respectively. Construction documents for buildings with access to a remote community storm shelter or safe room shall indicate the location of and access to the community storm shelter or safe room. Construction documents for buildings not containing or without access to a remote storm shelter or safe room, shall indicate the best available refuge area.

AO501.4 Signage. The location(s) of storm shelters, safe rooms or the best available refuge area(s) shall be clearly marked with a permanent sign.

SECTION AO502 DEFINITIONS AND NOTATIONS

AO502.1 Definitions. The following terms are defined in Chapter 2 of the International Building Code:

DWELLING UNITS.

OCCUPANT LOAD.

STORM SHELTER.

Community Storm Shelter.

Residential Storm Shelter.

AO502.2 Additional definitions.

BEST AVAILABLE REFUGE AREAS. Areas in a building that have been deemed by a registered design professional to likely offer the greatest safety for building occupants during a tornado or hurricane. Because these areas were not specifically designed as storm shelters or safe rooms, their occupants may be injured or killed during a tornado or hurricane. However, people in the best available refuge areas are less likely to be injured or killed than people in other areas of a building.

SAFE ROOM. A building, structure or portions thereof, constructed in accordance with FEMA 361 and designed for use during a severe wind storm event, such as a hurricane or tornado.

Community Safe Room. A safe room not defined as a “Residential Safe Room”

Residential Safe Room. A safe room serving occupants of *dwelling units* and having an *occupant load* not exceeding 16 persons.

SECTION AO503 BEST AVAILABLE REFUGE AREAS

AO503.1 General. Best available refuge area occupants may be injured or killed during a tornado or hurricane. However, people in the best available refuge areas are less likely to be injured or killed than people in other areas of a building.

AO503.2 Occupant Density. The minimum required floor area per occupant for best available refuge area(s) shall be determined in accordance with ICC 500 Table 501.1.1.

AO503.3 Identification of best available refuge areas. Best available refuge areas shall be identified by a registered design professional in accordance with the Wind Hazard Checklist of FEMA 361, Appendix B and FEMA P-431.

SECTION AO504 APPLICABILITY

AO504.1 Required storm shelters or safe rooms.

1. All new kindergarten through 12th grade schools with 50 or more occupants in total, per school, shall have a storm shelter or safe room.
2. All new 911 call stations, emergency operation centers, and fire, rescue, ambulance, and police stations shall have a storm shelter or safe room.

CHAPTER AO6 RESOURCES

SECTION AO601 CONTACTS

**Georgia Department of Community Affairs (DCA)
Construction Codes**
Georgia State Amendments to the State Minimum
Standard Codes
dca.ga.gov/local-government-assistance/construction-codes-industrialized-buildings/construction-codes
Phone: 404-679-3118

**Georgia Department of Natural Resources (DNR)
Floodplain Management**
4220 International Parkway, Ste. 101
Atlanta, GA 30354-3902
www.georgiadfirm.com
Phone: 404-675-1757

Federal Emergency Management Agency (FEMA)
www.fema.gov; www.floodsmart.gov
www.fema.gov/rebuild/buildingscience/
FEMA Publications and Technical Bulletins:
(www.fema.gov/library/index.jsp)
(www.fema.gov/plan/prevent/floodplain/techbul.shtm)

Georgia Emergency Management Agency (GEMA)
Georgia Office of Homeland Security
P.O. Box 18055
Atlanta, GA 30316-0055
www.gema.ga.gov
www.ready.ga.gov
Phone: 404-635-7000

Georgia Association of Regional Commissions (GARC)
www.garc.ga.gov
(<http://garc.ga.gov/main.php?Regional-Commissions-2>)
(for assistance in identifying Flood Hazard Areas)

International Code Council (ICC)
www.iccsafe.org

National Weather Service
www.weather.gov

State Fire Marshal's Office
2 Martin Luther King Jr. Drive
Suite 920 / West Tower
Atlanta, Georgia 30334
www.oci.ga.gov
Phone: 404-656-7087

SECTION AO602 EMERGENCY INSPECTION KIT^b

- | | | |
|--|---|--|
| <input type="checkbox"/> Staff's disaster response management plan | <input type="checkbox"/> Safety glasses | <input type="checkbox"/> Duct tape |
| <input type="checkbox"/> Team contact list | <input type="checkbox"/> Sunglasses | <input type="checkbox"/> Staples & stapler |
| <input type="checkbox"/> Area maps | <input type="checkbox"/> Pocket knife | <input type="checkbox"/> Staple gun |
| <input type="checkbox"/> Official identification | <input type="checkbox"/> Matches | <input type="checkbox"/> Calculator |
| <input type="checkbox"/> Personal identification | <input type="checkbox"/> Antibacterial hand wipes or alcohol-based hand sanitizer | <input type="checkbox"/> Tire repair kit |
| <input type="checkbox"/> Inspection forms and placards | <input type="checkbox"/> Insect repellent (w/ Deet or Picaridin) | |
| <input type="checkbox"/> Communication equipment | <input type="checkbox"/> Sunscreen (SPF 15 or greater) | |
| <input type="checkbox"/> Clipboard | <input type="checkbox"/> Camera | |
| <input type="checkbox"/> Hard hat | <input type="checkbox"/> Black markers | |
| <input type="checkbox"/> Orange safety vest | <input type="checkbox"/> Pens & pencils | |
| <input type="checkbox"/> Dust mask | <input type="checkbox"/> Envelope for expense receipts | |
| <input type="checkbox"/> Work gloves | <input type="checkbox"/> Compass, GPS unit | |
| <input type="checkbox"/> Steel toe and waterproof boots | <input type="checkbox"/> Backpack, waistpack | |
| <input type="checkbox"/> Whistle | <input type="checkbox"/> Flashlight and extra batteries | |
| <input type="checkbox"/> First aid kit | <input type="checkbox"/> Battery-operated radio | |
| <input type="checkbox"/> Latex gloves | | |

(b) *Disaster Mitigation: A Guide for Building Departments* by the International Code Council, Inc., copyright 2009

SECTION AO603 SAFETY TIPS^a

1. Always travel in teams of at least two people.
2. Always wear a hard hat, gloves, goggles, safety vest, and dust masks.
3. Always wear safety shoes capable of protecting the toes and bottom of the foot.

4. Survey the building exterior completely before entering.
5. Enter building only if authorized and if deemed safe to do so.
6. Be alert for falling objects.
7. In case of fire, injuries or victims, evacuate the area and alert the fire department immediately.
8. Avoid downed power lines and buildings under them or water surrounding them.
9. In case of gas leaks, shut off the gas (if possible) and report the leak.
10. In a flood situation, have a “walking stick.”

(a) *When Disaster Strikes* by the International Code Council, Inc., Seventh Printing: November 2011, copyright 2007

SECTION AO604 MAJOR DISASTER PROCESS

(from link <https://www.fema.gov/disaster-declaration-process><http://www.fema.gov/hazard/dproc.shtm>)

A Major Disaster Declaration usually follows these steps:

- **Incident occurs and local government responds**, supplemented by neighboring communities and volunteer agencies. If overwhelmed, turn to the state for assistance;

Generally the local government will issue a local state of emergency

- **The State responds** with state resources, such as the National Guard and state agencies;

Prior to committing state resources, the Governor will declare a state of emergency in the counties impacted by the event for which assistance is needed.

- **Damage assessment** by local, state, federal, and volunteer organizations determine losses and recovery needs;

Generally the locals will submit a preliminary damage assessment to the state and the state will review and determine if state and/or federal assistance is needed. If federal assistance is needed, the state will request FEMA perform a preliminary joint damage assessment. If the Governor determines that the incident is of such severity and magnitude that effective response is beyond the capabilities of the state and the affected local governments then supplementary Federal assistance is requested (next step).

- **A Major Disaster Declaration** is requested by the Governor, based on the damage assessment, and agreement to commit state funds and resources to the long-term recovery;
- **FEMA evaluates** the request and recommends action to the White House based on the disaster, the local community and the state’s ability to recover;
- **The President approves** the request or FEMA informs the Governor it has been denied. This decision process could take a few hours or several weeks depending on the nature of the disaster.

SECTION AO605 SAMPLE EVALUATION FORMS AND INSPECTION PLACARDS ^b (following pages)

Figure AO605.1
_b

ATC-45 Rapid Evaluation Safety Assessment Form

Inspection

Inspector ID: _____ Inspection date: _____
 Affiliation: _____ Inspection time: _____ AM PM
 Areas inspected: Exterior only Exterior and interior

Building Description

Building name: _____
 Address: _____
 Building contact/phone: _____
 Number of stories: _____
 "Footprint area" (square feet): _____
 Number of residential units: _____

Type of Building
 Mid-rise or high-rise Pre-fabricated
 Low-rise multi-family One- or two-family dwelling
 Low-rise commercial

Primary Occupancy
 Dwelling Commercial Government
 Other residential Offices Historic
 Public assembly Industrial School
 Emergency services Other: _____

Evaluation

Investigate the building for the conditions below and check the appropriate column. **Estimated Building Damage (excluding contents)**

Observed Conditions:	Minor/None	Moderate	Severe	Estimated Building Damage (excluding contents)
Collapse, partial collapse, or building off foundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> None
Building significantly out of plumb or in danger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> > 0 to < 1%
Damage to primary structural members, racking of walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1 to < 10%
Falling hazard due to nonstructural damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10 to < 30%
Geotechnical hazard, scour, erosion, slope failure, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 30 to < 70%
Electrical lines / fixtures submerged / leaning trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 70 to < 100%
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 100%

See back of form for further comments.

Posting

Choose a posting based on the evaluation and team judgment. Severe conditions endangering the overall building are grounds for an Unsafe posting. Localized Severe and overall Moderate conditions may allow a Restricted Use posting.

INSPECTED (Green placard) **RESTRICTED USE** (Yellow placard) **UNSAFE** (Red placard)

Record any use and entry restrictions exactly as written on placard: _____

Number of residential units vacated: _____

Further Actions

Check the boxes below only if further actions are needed.

Barricades needed in the following areas: _____

Detailed Evaluation recommended: Structural Geotechnical Other: _____

Substantial Damage determination recommended

Other recommendations: _____

See back of form for further comments.

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Figure AO605.2^b

ATC-45 Detailed Evaluation Safety Assessment Form

Inspection

Inspector ID: _____ Inspection date: _____
 Affiliation: _____ Inspection time: _____ AM PM

Final Posting from page 2

- Inspected
 Restricted Use
 Unsafe

Building Description

Building name: _____
 Address: _____
 Building contact/phone: _____
 Number of stories: _____
 "Footprint area" (square feet): _____
 Number of residential units: _____

Type of Building

- Mid-rise or High-rise
 Low-rise multi-family
 Low-rise commercial
 Pre-fabricated
 One- or two-family dwelling
 Other: _____

Primary Occupancy

- Dwelling
 Other residential
 Public assembly
 Emergency services
 Commercial
 Offices
 Industrial
 Other: _____
 Government
 Historic
 School

Evaluation

Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.

	Minor/None	Moderate	Severe	Comments
Overall hazards:				
Collapse or partial collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Building or story lean or drift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fractured or displaced foundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Structural hazards:				
Failure of significant element/connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Column, pier, or bearing wall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Roof/floor framing or connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Superstructure/foundation connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Moment frame	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Diaphragm/horizontal bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Vertical bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Shear wall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nonstructural hazards:				
Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Canopy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ceilings, light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stairs, exits, access walkways, gratings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Interior walls, partitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Mechanical & electrical equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Building contents, other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Geotechnical hazards:				
Slope failure, debris impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Ground movement, erosion, sedimentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Differential settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Continue on page 2

Figure AO605.2^b (Continued)

INSPECTED

LAWFUL OCCUPANCY PERMITTED

This structure has been inspected (as indicated below) and no apparent structural hazard has been found.

- Inspected Exterior Only
- Inspected Exterior and Interior

Report any unsafe condition to local authorities; reinspection may be required.

Inspector Comments:

Facility Name and Address:

Date _____
Time _____

This facility was inspected under emergency conditions for:

_____ (Jurisdiction)

Inspector ID / Agency

**Do Not Remove, Alter, or Cover this Placard
until Authorized by Governing Authority**

Figure AO605.4^b

RESTRICTED USE

Caution: This structure has been inspected and found to be damaged as described below:

Entry, occupancy, and lawful use are restricted as indicated below:

- Do not enter the following areas: _____
- Brief entry allowed for access to contents: _____
- Other restrictions: _____

Facility name and address:

Date _____
Time _____

This facility was inspected under emergency conditions for:

(Jurisdiction)
Inspector ID / Agency

**Do Not Remove, Alter, or Cover this Placard
until Authorized by Governing Authority**

Figure AO605.5^b

UNSAFE

**DO NOT ENTER OR OCCUPY
(THIS PLACARD IS NOT A DEMOLITION ORDER)**

This structure has been inspected, found to be seriously damaged and is unsafe to occupy, as described below:

Do not enter, except as specifically authorized in writing by jurisdiction. Entry may result in death or injury.

Facility Name and Address:

Date _____
Time _____

This facility was inspected under emergency conditions for:

(Jurisdiction)

Inspector ID / Agency

**Do Not Remove, Alter, or Cover this Placard
until Authorized by Governing Authority**

CHAPTER AO7 REFERENCES

REFERENCED STANDARDS

ASCE Standards ASCE/SEI 24-14 Flood Resistant Design and Construction
 FEMA P-320, Fourth Edition / December 2014 Taking Shelter From the Storm: Building a Safe Room For Your Home or Small Business, Includes Construction Plans and Cost Estimates
 FEMA 361, Third Edition / March 2015 Design and Construction Guidance for Community Safe Rooms
 FEMA P-431, Second Edition/October 2009 Tornado Protection: Selecting Refuge Areas in Buildings
 FEMA Technical Bulletin 2, Table 2. Types, Uses, and Classifications of Materials

REFERENCED RESOURCES

- (a) *When Disaster Strikes* by the International Code Council, Inc., Seventh Printing: November 2011, copyright 2007
- (b) *Disaster Mitigation: A Guide for Building Departments* by the International Code Council, Inc., copyright 2009

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End of Amendments.
Authority: O.C.G.A. § 8-2-20 et seq.