

**COMMENTARY ON AND ANALYSIS OF THE  
2004 AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES  
1994 DEPARTMENT OF JUSTICE ADA STANDARDS FOR ACCESSIBLE  
DESIGN  
2006 ICC INTERNATIONAL BUILDING CODE**

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## **EXECUTIVE SUMMARY**

### **Introduction**

The **Georgia State Financing and Investment Commission** contracted with **BDBlack Codes, Inc.** to develop a commentary on and analysis of the accessibility requirements of the 2004 Americans with Disabilities Act Accessibility Guidelines, the 1994 U.S. Department of Justice Standards for Accessible Design, and the International Code Council (ICC) 2006 *International Building Code*. Based on earlier comparative analyses developed for the U.S. Access Board and ICC, this work includes a commentary on the differences between the respective documents and color-coded indicators of where one or more may be more restrictive than the others. This Executive Summary highlights the major differences identified in the analysis.

### **Overview**

Accessibility for persons with disabilities has been addressed by our nation's building codes and standards since the early 1960s as a function of the "general welfare" that codes are developed to regulate. Concurrently, the federal government imposed

accessibility requirements on certain types of construction, typically tying compliance with the use of federal funds. It has only been since 1988 that access was addressed as a federal civil right, first by the Fair Housing Amendments Act of that year, and later by the Americans with Disabilities Act (ADA) of 1990.

In the ADA, Congress charged the U.S. Access Board with establishing guidelines for accessible design and construction, which the Board did in 1991. It charged the U.S. Department of Justice (DOJ) with establishing construction regulations consistent with these guidelines that apply to commercial construction, public accommodations, and state and local governments, and DOJ adopted the Board's guidelines (ADAAG) when they were first published. A few small amendments were made to the 1991 ADAAG (e.g., reach ranges on accessible ATMs) which DOJ later adopted by reference as well, but the "edition" of the ADA construction standards currently in effect is old ADAAG as amended through July 1994.

Subsequent to publishing the first ADAAG, the U.S. Access Board determined that its guidelines would be more effective if they reflected the current requirements of the model building codes and standards. It appointed a federal advisory committee to draft a new ADAAG patterned after the model building codes of the Building Officials and Code Administrators (BOCA), International Council of Building Officials (ICBO), and Southern Building Code Congress International (SBCCI), the "legacy" code organizations that later combined to become the International Code Council (ICC). The federal advisory committee also patterned its draft ADAAG to reflect the technical requirements of the ANSI A117.1 accessibility standard referenced by the three model building codes.

Since the publication of the draft New ADAAG in 1996, the U.S. Access Board and model code community have sought to harmonize the differences between their respective accessibility requirements, with the latter having the stated goal of meeting or exceeding the federal ADA and Fair Housing requirements wherever possible. This has been an ongoing process, with what is now the ICC making amendments to the International Building Code (IBC) based on interim drafts of the new ADAAG, and the Access Board modifying its provisions in light of new developments in the IBC and the ICC/ANSI A117.1 standard. The Access Board published its final new ADAAG in July 2004.

The result of this joint harmonization effort is that the differences between the IBC and the 2004 ADAAG are significantly smaller in number and impact than those between the IBC and the old ADAAG referenced in the 1994 DOJ Standards. The differences that remain are most often due to “structural differences” (to borrow a construction term) between the documents:

1. **Statutory language in the ADA.** Some requirements of the 2004 ADAAG and the DOJ Standards cannot be modified without an act of Congress. For example, Congress established the “elevator exception” found in the law and reflected in the DOJ Standards and 2004 ADAAG. Even though it bears no correlation to the cost of an elevator *versus* the space served (as does the IBC), it could not be harmonized by the Access Board.
2. **Research and guideline development by the Access Board.** The 2004 ADAAG has entire new sections on recreational facilities that have yet to be considered by the A117 Committee for adoption in its standard. Additionally, some of these items may be able to be regulated in the civil rights context of the ADA, but not be appropriate in a code that regulates buildings (*e.g.*, outdoor miniature golf courses).
3. **The larger building code context of the IBC.** Because accessibility is one small part of building design and construction regulated by the IBC, there are other pieces of the code that affect accessibility that are not a part of the federal civil rights context. For example, the IBC regulates a change of occupancy of an existing building as distinct from altering the building, and therefore is able to impose additional accessibility requirements on buildings undergoing a change of use. The IBC regulates all stairs, all doors, and all circulation paths/walking surfaces in its general means of egress requirements, and is thus able to mainstream accessibility requirements like wider doors and proscriptions against protruding objects to regulate these elements, regardless of whether they are related to accessible buildings or spaces.

Those differences that remain between the 2004 ADAAG and 2006 IBC are listed below.

## 2004 ADAAG is More Restrictive than the 2006 IBC

### 1. Administration

- ADAAG does not permit tolerances outside of dimensions that are provided in a minimum-maximum range.

### 2. Occupancies

- ADAAG makes a distinction between public buildings covered by Title II and private buildings covered by Title III of the ADA and specifies more restrictive requirements for the former; the IBC does not make this distinction.
- ADAAG has requirements for residential dwelling units covered by Section 504 of the Rehabilitation Act of 1973 and Title II of the ADA; the IBC does not have specific requirements for these.

### 3. Building Blocks

- ADAAG and the IBC generally limit operable parts in new construction to a 48 inch maximum height. The IBC permits latches on swimming pool gates to be located 54 inches maximum high to place them beyond the reach of young children.

### 4. Accessible Routes

- ADAAG requires a single leaf of power doors to provide a minimum 32 inch opening in an emergency break-out mode; the IBC access requirements do not address power doors in an emergency mode.
- ADAAG limits the use of Limited-Use/Limited-Application elevators to buildings that are otherwise exempt from its vertical access requirements. The IBC does not limit the use of these types of passenger elevators.

## 5. General Site and Building Elements

- ADAAG requires that access aisles along accessible passenger loading zones extend the entire length of the vehicle to be served, while the IBC specifies a 20 foot minimum access aisle. There may be buses with lifts in the rear that would not be accommodated by the IBC requirement.
- ADAAG regulates handrails installed on level walking surfaces (*e.g.*, rails in a nursing home corridor). The IBC does not, as these rails are not considered handrails in the code (which are located only on stairs and ramps).

## 6. Plumbing Elements and Facilities

- ADAAG requires a forward approach for all accessible drinking fountains. The IBC permits a parallel approach at existing fountains, or where an existing fountain is replaced with a new one.
- ADAAG required a 13 ½ inch minimum elongation of accessible urinal rims. The IBC does not require elongation.

## 7. Communication Elements and Features – no significant differences

## 8. Special Rooms and Spaces

- ADAAG has specific requirements for key stations in transportation facilities; the IBC does not address key transportation stations.

## 9. Built-In Furnishings and Equipment – no significant differences

## 10. Residential

Because the ADAAG residential dwelling unit requirements are scoped differently than the IBC accessible dwelling unit and sleeping unit requirements, no meaningful comparison can be made. The regulation of nontransient residential construction is discussed further below.

## 11. Other

- ADAAG covers a number of recreational facilities that are not addressed by the ICC/ANSI A117.1-2003 accessibility standard and thus not scoped for accessibility by the IBC:
  - Play areas
  - Amusement rides
  - Exercise machines
  - Saunas and steam rooms
  - Swimming and wading pools
  - Boating facilities
  - Fishing facilities
  - Golf
  - Miniature golf
  - Shooting facilities

### 2006 IBC is More Restrictive than the 2004 ADAAG

#### 1. Administration

- The IBC has some reference standards (*e.g.*, ASME A17.1, ASME A18.1, and NFPA 72) that are more current than those permitted by ADAAG.

#### 2. Occupancies

- The IBC imposes accessibility requirements on buildings owned and operated by religious entities.
- The IBC addresses (and is recognized as a safe harbor for) the design and construction requirements of the Fair Housing Act. The Fair Housing Act regulations are beyond the purview of the Access Board and DOJ regulatory control and are established by the U.S. Department of Housing and Urban Development.
- The IBC has additional requirements for existing buildings that undergo a change of occupancy. ADAAG applies the basic alteration requirements that are also addressed by the IBC.

- The IBC and ADAAG require accessible paths of travel where an area containing a primary function is altered. The IBC applies this requirement to nontransient residential construction, ADAAG does not.
- The IBC exempts raised employee work areas less than 150 square feet from providing an accessible route. ADAAG has a similar exception for spaces less than 300 square feet in size.

### 3. Building Blocks

- The IBC has “mainstreamed” the protruding object proscriptions of ICC/ANSI A117.1 into its Chapter 10 Means of Egress requirements. The result is that these requirements apply in buildings and spaces, regardless of whether they are required to be accessible. The protruding object requirements of ADAAG are limited to buildings and spaces that must be accessible.

### 4. Accessible Routes/Egress

- The IBC requires vertical accessible routes in multistory buildings and to mezzanines, but provides an exception for stories and mezzanines where the aggregate of the space not served by an accessible route is 3,000 square feet or less. ADAAG has a vertical accessible route exception that generally exempts all two story buildings, regardless of size, and all buildings of any height as long as no story is larger than 3,000 square feet. The result is that the IBC requires elevators in far more buildings than does ADAAG.
- ADAAG exempts nonpublic courtroom stations (judges’ benches, bailiff and court reporter stations, *etc.*) from being served by an accessible route. The IBC does not, as the personnel may differ from case to case or, in the case of court reporters, be contract employees for which access modifications cannot be easily or quickly made.
- The IBC requires ramp landings at doors that may be locked to provide a turning space. ADAAG does not specify this, and while both documents require the doors to have proper maneuvering spaces, a landing conforming to ADAAG may not provide enough space for a 5 foot diameter or space for a T-turn.

- The IBC has mainstreamed the ICC/ANSI A117.1 door opening and threshold requirements in its Chapter 10 Means of Egress requirements, thus applying these to doors that are not required to be accessible by ADAAG.
- ADAAG references older editions of the IBC for its accessible means of egress requirements. These editions do not require areas of refuge in buildings equipped throughout with a supervised automatic sprinkler system. The 2006 IBC deleted this exception as sprinkler systems may not protect persons who cannot use stairs from noxious smoke and fumes [Note that in some jurisdictions like Georgia, the state may adopt and enforce Chapter 10 – including its accessibility requirements -- even where that jurisdiction has not opted to use the IBC Chapter 11, Section 3409, and Appendix E accessibility requirements.].

### 5. General Site and Building Elements

- The IBC has mainstreamed the ICC/ANSI A117.1 stair provisions in its Chapter 10 Means of Egress requirements, applying to stairs in buildings and facilities that are not required to be accessible.

### 6. Plumbing Elements and Facilities

- The IBC has a requirement for accessible unisex toilet and bathing facilities in addition to those accessible facilities required by the *International Plumbing Code* in large mercantile and assembly occupancies. These are provided for persons with disabilities who need assistance from a spouse or friend of the opposite sex.
- The IBC requires vertical grab bars at accessible water closets, bathtubs, and showers. ADAAG does not.
- The IBC has provisions for swing-up grab bars to be installed at water closets in institutional occupancies where patients or residents may need assistance transferring to the seat.

### 7. Communication Elements and Features – no significant differences

## 8. Special Rooms and Spaces

- The IBC has dimensional specifications for providing horizontal and vertical dispersion of wheelchair seating in assembly areas.
- The IBC has dimensional specifications for wheelchair spaces that provide sightlines over standing spectators.
- The IBC has specific requirements for wheelchair seating in movie theaters that require wheelchair locations to be located within the rear 70% of the seats provided and on tiers in tiered theaters.
- The IBC has requirements for public address systems in assembly areas to be accessible to deaf persons, e.g., text displays of messages provided over the audible system.

## 9. Built-In Furnishings and Equipment – no significant differences

## 10. Residential

Because the ADAAG residential dwelling unit requirements are scoped differently than the IBC accessible dwelling unit and sleeping unit requirements, no meaningful comparison can be made. The regulation of nontransient residential construction is discussed further below.

### 1994 DOJ Standards for Accessible Design

Comparing the old ADAAG, 1994 DOJ Standards with the 2004 ADAAG and 2006 IBC products of a decade of harmonization efforts proved to be the most difficult aspect of the analysis first performed for the federal Access Board and replicated in this new comparative matrix. Old ADAAG was based on the 1984 Uniform Federal Accessibility Standards (UFAS), which in turn was based on the 1980 edition of ANSI A117.1, and the change in the “science of accessibility” that occurred between 1980 and 2003 (the date of the newest A117.1 standard) has been phenomenal. As a result, there is a long list of items in the DOJ Standards that are different from either the IBC or both the IBC and new ADAAG.

Those requirements that are more restrictive than the 2006 IBC are highlighted in yellow in the matrix, and noted by ***bold italicized text in the list below***. (These are also more restrictive than the 2004 ADAAG in most cases). Note, however, that “more restrictive” may not mean “better”, and that many refinements to our accessibility requirements as reflected by 2004 ADAAG and the 2006 IBC have the effect of making accessibility provisions more realistic and therefore more enforceable.

Quite frankly, some of the old ADAAG, 1994 DOJ Standards are sloppy or poorly written, due to their reliance on an outdated A117.1 standard or, perhaps, the rush to publish the first ADAAG on the first anniversary of the signing of the ADA. For example, the Standards have technical specifications for sinks, but never scope where they are required. Public telephones are regulated inside buildings, but not where provided on an exterior location. The height of museum displays is regulated in historic buildings but nowhere else. And the outdoor McDonalds sign affixed on the building’s roof must be replicated in braille, though any braille reader will know full well he or she is going to the fast food restaurant.

### 1. Administration

- The DOJ Standards have no requirements for children’s facilities.
- The DOJ Standards include permissive language and rely on figures instead of text to convey requirements.
- The DOJ Standards regulate additions as alterations instead of new construction, permitting less access in some instances.
- ***The DOJ Standards state that where alterations of elements in a space constitute an alteration of the entire space, the requirements apply to the entire space.***
- ***The DOJ Standards have requirements for display heights in historic buildings.***

### 2. Occupancies

- The DOJ Standards have no requirements for judicial or detention facilities.

- While the DOJ Standards have a section that specifically regulates sites and exterior facilities, some elements regulated within buildings are not regulated when outside a building (e.g., drinking fountains and public telephones).

### 3. Building Blocks

- The DOJ Standards permit a 54 inch side reach for accessible operable parts; 2004 ADAAG and the IBC specify a 48 inch height maximum.

### 4. Accessible Routes

- ***The DOJ Standards require accessible routes between all arrival points and accessible facilities on a site. 2004 ADAAG and the IBC have an exception for where vehicular access is the only connection provided.***
- ***The DOJ Standards require access to all public two story buildings regardless of size; all levels of traffic control towers; access to all small press boxes. New ADAAG and the IBC exempt second stories in public buildings that are less than 500 square feet, serve less than five persons, and are not open to the public. They exempt all top levels (cabs) of air traffic control towers, and have additional exceptions for small press boxes.***
- The DOJ Standards require 50% of public entrances to be accessible; 2004 ADAAG and the IBC require 60%.
- The DOJ Standards accessible means of egress requirements provide less protection than does the IBC.

### 5. General Site and Building Elements

- ***All documents require 10% of parking to be accessible in outpatient facilities and 20% in facilities that specialize in mobility impairments. The DOJ Standards apply the higher accessible parking space numbers for medical care facilities to all parking areas of the facilities. New ADAAG and the IBC exempt medical care employee-only parking areas from the higher numbers.***

- ***The DOJ Standards require canopies at medical care passenger loading zones at building entrances.***
- The DOJ Standards require 1 in 8 accessible parking spaces to be van accessible; 2004 ADAAG and the IBC require 1 in 6.
- The DOJ Standards require accessible stairs only where levels are not connected by an accessible route; 2004 ADAAG and the IBC require this of all means of egress stairs.

### 6. Plumbing Elements and Facilities

- ***The DOJ Standards require at least one accessible urinal where urinals are provided. 2004 ADAAG and the IBC have an exception for rooms where only one urinal is provided.***
- All require drinking fountains for standing persons. 2004 ADAAG and the IBC provide technical specifications for these elements.
- The DOJ Standards do not scope accessible sinks.
- The DOJ Standards permit smaller alternate water closet compartments in existing buildings. 2004 ADAAG and the IBC require the same dimensions as required in new construction for water closet compartments in existing buildings.
- The DOJ Standards permit lavatories to encroach on the clearance for accessible water closets. 2004 ADAAG and the IBC prohibit any encroachment within five feet of the side wall where the accessible water closet is placed.

### 7. Communication Elements and Features

- The DOJ Standards do not scope exterior public telephones.
- The DOJ Standards scope TTYs at a level significantly lower than 2004 ADAAG and the IBC. For example, 2004 ADAAG and the IBC have specific requirements for the number of TTYs provided in a bank of phones, on building floors, and at exterior sites, and have additional requirements for TTYs at roadside rest stops and correctional facilities.
- The DOJ Standards scope volume controls only on accessible telephones. 2004 ADAAG and the IBC require this on all public phones.

- 2004 ADAAG and the IBC have specific technical requirements to make ATMs accessible to blind and visually impaired persons. The DOJ Standards do not.
- The DOJ Standards have outdated requirements for visual fire alarms.
- 2004 ADAAG have specific requirements for braille sizing and placement. The DOJ Standards have general requirements for these.

## 8. Special Rooms and Spaces

- ***The DOJ Standards have requirements for key stations in transportation facilities.***
- ***The DOJ Standards require more wheelchair spaces in large assembly areas***
- ***The DOJ Standards require more assistive listening systems for hard-of-hearing persons in assembly areas.***
- The IBC has specific technical requirements for sightlines over standing spectators in assembly areas. The DOJ Standards do not specifically address this
- While the DOJ Standards require a greater number of assistive listening devices in certain assembly areas, none of the receivers provided is required to be hearing-aid compatible. 2004 ADAAG and the IBC require 25% of the assistive listening system receivers to be hearing-aid compatible.
- 2004 ADAAG and the IBC require more guest rooms to be equipped with communication features for hearing impaired persons than do the DOJ Standards.
- ***The DOJ Standards regulate pricing options and smoking/non-smoking areas in assembly areas.***

## 9. Built-In Furnishings and Equipment

- ***The DOJ Standards require 60 inch minimum accessible bar and counter surfaces.***
- 2004 ADAAG and the IBC address laundry equipment and kitchens/kitchenettes; the DOJ Standards do not.

## 10. Residential

- The DOJ Standards do not address nontransient residential accessibility (See below).

### Nontransient Residential Construction

No where are the three documents reviewed more divergent than in the area of nontransient residential construction. For this reason it requires further examination.

As noted above, the 2004 ADAAG and IBC requirements for accessible nontransient residential dwellings are scoped entirely differently and are meant to address totally separate needs. Accordingly, a side-by-side analysis is not only difficult, but would be meaningless in terms of applying the different requirements.

The IBC requirements for Type B dwelling units and sleeping units are driven solely by the goal to replicate the design and construction requirements of the Fair Housing Act as established by the Department of Housing and Urban Development. Added to the Type B requirements are provisions for fully Accessible units in some institutional and residential occupancies (nursing homes, dormitories, fraternity houses) that reflect the access requirements of the ADA. Finally, the IBC requires a small percentage of units to meet the ICC/ANSI A117.1 Type A requirements, which have no counterparts in federal regulations, but are meant to provide a small number of “adaptable” units for persons with severe mobility impairments. Note that the IBC does not include additional accessibility requirements for residential construction that is operated by a state or local government entity or funded in whole or in part with federal dollars.

Neither the 2004 ADAAG nor the 1994 DOJ Standards address the Fair Housing requirements, and cannot do so because that is a separate law with different regulatory mandates. However, the ADA does require accessibility in housing provided by state or local governments (including entities like state universities). 2004 ADAAG has specific scoping and technical criteria for this type of nontransient residential construction. The DOJ Standards do not, but the DOJ’s ADA regulations for state and local governments reference the 1984 Uniform Federal Accessibility Standards (UFAS) which do have a section on accessible/adaptable dwelling units.

The city municipal housing authority building affordable housing units and state university building a detached single family home for the university President are subject to the UFAS access requirements.

Complicating this further, the IBC regulates dormitories and fraternity and sorority as nontransient residential construction, whereas the ADA (in the DOJ Standards) treats these as transient occupancies, similar to hotels and motels.

Finally, beyond both the ADA and the Fair Housing Act are federal accessibility requirements that are triggered by the fact that an entity doing the construction receives federal funds. The 2004 ADAAG has technical requirements for this construction, as do the new Architectural Barriers Act Accessibility Guidelines that were approved and published concurrent with the new 2004 ADAAG. None of this is reflected in the IBC.

### **Less versus More Restrictive (and the law of Unintended Consequences)**

When aligning the *verbatim* text sections of different accessibility documents, it is easy to fall into a trap of comparing the words or numbers on the page and making judgments as to which is more or less restrictive based on the text one reads. While this works most of the time, the analysis points out those instances where what appears to be more in one column when compared to the others may in fact result in less accessibility when applied in the real world. Two examples:

1. The DOJ Standards require more wheelchair spaces in large assembly areas than do either the 2004 ADAAG or the IBC. At face value, this suggests more or better accessibility. However, the history of the ADA suggests a) these additional spaces are never used (there has never been 700 spectators in wheelchairs at an NFL football game), and b) the excessive number of wheelchair spaces required invites 'creative solutions' to the problem of unused wheelchair spaces that may result in less access than that required by the lower numbers of new ADAAG and the IBC.

In the 1990s, the Ellerbe-Beckett architectural firm designed new hockey arenas for at least 11 cities across the country. The designs included flat, gaping holes in the seating bowls to accommodate the ADA required number

of wheelchair locations, holes which the building owners realized would never be filled and which represented a large revenue loss because regular seats were not in those locations. As a result, Ellerbe-Beckett devised a tiered "infill seating design" that not only increased the number of regular seats available in the venue, but detracted significantly from the options available to persons in wheelchairs trying to buy a ticket for a hockey game. Theoretically, the required wheelchair spaces existed below the "temporary" seat risers that took hours to install or remove. Practically, disabled patrons were stuck in the inferior spaces that remained once the regular tiered seats were installed, most likely for the entire season.

2. Limited-Use/Limited-Application elevators are small, slow, low-rise passenger elevators, first introduced in the 1995 ASME A17.1 Elevator Safety Code as a safe and accessible alternative to the misuse and misapplication of platform/wheelchair lifts and private residence elevators that was occurring at the time. The 2004 ADAAG restricts their use to buildings in which "full passenger elevators" are not required. New ADAAG also references an ASME A18.1 Platform Lift Standard that permits vertical lifts to penetrate floors. The result may be a small town hall or library, prohibited from using a limited-use elevator to provide access to a second story, will opt for the \$20,000 platform lift instead of the \$60,000 2500 lb. hydraulic elevator. The result is less access for persons with disabilities and less usability by the employees and general public.

### **Conclusion**

Jurisdictions like the State of Georgia are increasingly looking to adopting a model building code or family of codes (e.g., the ICC I-Codes) to establish uniform minimum criteria for the design and construction of buildings under their purview. While most decisions are based on issues related to structural integrity, economic conditions in the state or city, or consistency with neighboring jurisdictions, the area of accessibility for persons with disabilities in the design and construction of the built environment includes an entirely separate, federal civil rights patina that is unique in the building code world.



Decisions made as to who enforces which requirements, which provisions are better for a jurisdiction or whether to adopt the ICC approach, opt for the new 2004 ADAAG requirements, or rely on the current DOJ Standards that still have the force of law are essentially political in nature. What may work for Pennsylvania or California may not work for Georgia. Regardless, the attached commentary and analysis attempts to compare and contrast the three sets of accessibility criteria under consideration and identify where one or more is more or less restrictive than the rest.

To the extent that this better informs the ongoing discussion in the state, it accomplishes our mutual goal.