2010 ADA Standards for Accessible Design and 2012 Florida Accessibility Code

ADA Building Facilities Accessibility 2017

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FDOT
Introduction / Agenda

- What is ADA/FAC?
  - History, Purpose

- Features of Accessibility
  - ADA Accessibility Guidelines
  - Florida Access Code

- How ADA/FAC impacts FDOT
  - FDOT response

- Examples of FDOT projects
  - The Good, the Bad, the Ugly

- How you can help us comply
Introduction (cont.)

What’s wrong with this picture?
What is a Disability?

- A physical or mental impairment that **substantially limits** one or more of the **major life activities**
- A **record** of such an impairment
- **Being regarded** as having such an impairment
Types of Disabilities

- Mobility impairments
- Hearing impairments
- Vision impairments
- Learning disabilities
- Diseases

Diseases & Conditions such as: orthopedic, visual, speech and hearing impairments, cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation, emotional illness, specific learning disabilities, HIV, tuberculosis, drug addiction, and alcoholism.

USDOJ
Mobility Aids

- Cane
- Walker
- Crutches
- Wheelchair
  - Powered
  - Non-powered
- Scooter
- Service animal
White Cane

- Stride length
  - 18” to 30”
- Sweep width
  - 24” to 36”
- Pace
  - 2’ - 4’ per second
Crutches & Walker

**Crutches**
- Stride length  
  • 8” to 30”
- Width  
  • 36” to 42”
- Pace  
  • 1’ - 3’ per second

**Walker similar**
- Stride length  
  • 6” to 18”
Wheelchair & Scooter

Space needed
- 30” x 48” min. maneuvering space
- 60” turning diameter
- 60” to pass another wheelchair
- 48” to pass a pedestrian
Service Animal

- **Dog** only
- Guide Dog / Dog Guide
- Hearing assistance dog

Space needed
- 42” x 60” approx.
- Stride length
  - 18” to 30”
- Pace
  - 2’ - 4’ per second
- Similar to cane user
Vision Aids

- White cane
- Service animal
- Braille / large print
- Tactile Signage
  - Tactile characters
  - Braille

This is large print
16 pt.
or larger
Hearing Aids

- Sign language
- Signage
- Text telephones / TTY's / TDD's
- Assistive listening systems

Terminal Gates
A1-A10
Transportation........
ADA - Civil Rights Law

- 1964 Civil Rights Act
- 1968 Architectural Barriers Act
- 1973 Rehabilitation Act - Section 504
- **1990 Americans with Disabilities Act**
  - January 26, 1992 - effective date
  - July 1, 1994 - new final rule (enforceable stds.)
  - July 26, 2004 - new facilities guidance (ADA/ABA)
  - Nov 23, 2005 - new ROW guidance (PROWAG)
  - **ADA Standards for Transportation Facilities** - FHWA, Effective: Nov 29, 2006
  - **2010 ADA Standards for Accessible Design** - USDOJ, Effective: March 15, 2012
Facilities Access Code for Building Construction

1974–1989 – Florida accessibility laws adopted and revised
- Florida is more stringent than federal regulations and most other states

1993 – Florida adopts ADAS
- Florida Accessibility Code for Building Construction (FACBC) - Includes more stringent requirements

1998 – Florida Code certified by USDOJ
- Florida Access Code is equivalent to ADA Standards

2012 – Florida updates Florida Access Code
- Based on 2010 ADA Standards & Regulations
- Still includes more stringent requirements
- FBC, Effective: March 15, 2012
The 2010 ADA Regulations and 2010 ADA Standards are coordinating documents with some different 'application' language:
- Title II entities: public facilities - state and local governments
- Title III entities: public accommodations - private businesses

The 2012 Florida Accessibility Code uses the 2010 ADA Standards as a base document, includes language from the ADA Regulations, then adds Florida-specific requirements, most of which are held over from the prior Florida Access Code.
Incorporates references to new ADA Regulations:
- Applies to public buildings and facilities, places of accommodations and commercial facilities, state and local government facilities, and private clubs
- Applies to new construction and alterations
- Removal of architectural barriers shall not create a risk to health and safety of users

Compliance with Florida Accessibility Code is "presumption of rebuttable evidence" of compliance with ADA regulations
- "Presumption" does not apply to departures from criteria under "equivalent facilitation"
New Definitions - 206
(from 2010 ADA Regulations)

- Alteration
- Commercial Facilities
- Designated Public Transportation
- Specified Public Transportation
- Disability
- Existing Facility
- Housing at a Place of Education
- Maximum Extent Feasible
- Path of Travel
- Place of Public Accommodation
- Primary Function
- Private Club
- Public Accommodation
- Public Entity
- Readily Achievable
- Resort Condominium
- Shopping Center or Mall
- Theme Park or Entertainment Complex
- Wheelchair
Access required to "all levels"

Some Exceptions:
1) Service and equipment spaces and rooms
2) Unoccupiable spaces, not designed for human occupancy
3) Occupiable spaces and rooms that house no more than five persons,
4) Theaters, etc., with stadium-style seating
5) Play and recreation areas
6) Employee work areas
7) Exempted Facilities, sites and spaces

Waiver Still Required!
(221.1.1)
Some added information:

- Accessible routes (206.3)
- Detectable warnings on curb ramps (406.8)
- Bus boarding areas (810.2.2), and
- Rail station platforms (810.5.3).

* Public transit facilities
Barriers at common or emergency entrances and exits of business establishments conducting business with the general public that are existing, under construction, or under contract for construction which would prevent a person from using such entrances or exits shall be removed.

Basically: Improve existing entrances and maintain access during construction.
Parking - 208

- Size (12' min. space and 5' min. access aisle)
- Van Spaces (in parking structures – 1st level)
- Accessible Route Requirements (44" min.)
- Dispersion (nearest accessible entrances)
- Theme Parks (single accessible lot allowed)

Little change from prior FACBC
Dispersed seating
- Vertical: all 'accessible' levels
- Horizontal: around the stage/performance

Temporary Facilities
- Must not obstruct sight-lines

Stadium-style Movie Theaters
- 40th-100th percentile viewing angles

Sightlines comparable to other seating
404.2.9 - Opening Force

- Interior Doors: 5.0 pounds force max.
- Exterior Doors: 8.5 pounds force max.

Little change
From prior FACBC
Toilet rooms & stalls - 604

604.8.1.7 - **Required** for new construction

Advisory - **Recommended** for alterations

- Lavatory inside room/stall
- Water closet in corner diagonal to door

**Little change from prior FACBC**
Transportation
Components of Accessibility

- Reach Ranges
- Accessible Routes
- Surfaces
- Protruding Objects
- Parking & Loading Zones
- Curb Ramps
- Ramps
- Stairs
- Elevators

More...
Components of Accessibility (cont.)

- Doors
- Water fountains / Water Coolers
- Water Closets
- Toilet Stalls/Rooms
- Lavatories
- Telephones
- Handrails
- Controls
- Warnings
Reach Ranges

**Note:**
Old side range - 9''-54''
New side range - 15''-48''

Side Reach range now matches Front Reach range
Accessible Routes

- 36” continuous unobstructed path
  - 48” in public ROW
- 32” min. at a point (max. 24”)

Slopes:
- 1:12 max. allowed (8.33%)
- >1:20 is a ramp (>5%)
- ≤1:20 is not a ramp (≤5%)

Cross-slope
- Basically level
- 1:48 max. allowed (2%)
  • Design to 1½%
Surfaces

- Firm, stable, slip-resistant
  - Dry / wet
- Changes in level
  - $\leq \frac{1}{4}''$ --- vertical
  - $>\frac{1}{4}'' \leq \frac{1}{2}''$ --- 1:2 slope
  - $>\frac{1}{2}''$ --- 1:12 slope
- Gratings
Protruding Objects

- **27” - 80” above grade**
  - Post-mounted
    - 12” max. protrusion
  - Wall mounted
    - 4” max. protrusion
- **Overhanging**
  - 80” min.
Parking

- **Size**
  - 12’ min. Parking Space
  - 5’ min. Access Aisle

- **Signage**
  - Symbol / text
  - Penalty
  - 60” above grade - ADA/FAC
  - 84” above grade - FDOT

Facilities Access
Parking (cont.)

Number
- Sliding percentage - per lot
  - 4% → 2%
  - See Table 208.2
- 1:6 ‘van-accessible’ spaces

Location
- Nearest accessible entrance(s)
- Distributed among multiple entrances
Passenger Loading Zones

- 5’ wide (similar to access aisle)
- Length of Space (20’ min.)
- At least 1 per 100’ of loading zone
Curb Ramps

- Typ. 6" rise (7'-4\(\frac{1}{4}\)" run!)
  - Recommended: 7'-6" or 8'-0" ramp length
- 1:12 max. slope (8.3%)
  - 1:14 recommended (7.1%)
  - 1:48 max. cross slope (2%)
  - 1:10 max. flared sides/transition slopes (10%)

Detectable Warnings

Landing
- 48" min. at top
Detectable Warnings

- **NOT Required** on most sites: driveways & parking lots
- **Required** on sites of "Transportation Facilities"
  - Subject to USDOT regulations (49 CFR 27 & 37)
  - Platform edges, curb ramps, etc.
- **Required within** public rights of way
  - Street Crossings
  - Major Driveways with traffic signal

Facilities Access
Detectable Warnings

- Truncated domes
  - Design Standards - Index 304

- At curb ramps
  - Full width of ramp & 24” deep
  - Not on flared sides

- At landings and flush transitions
  - 24” deep from back of curb
Detectable Warnings

- **Truncated Domes**
  - Aligned pattern
- **Overlay mat, tile, paver**
  - Retrofit, 3R, Maintenance, New Construction
- **Color/contrast with surrounding materials**
  - Light-on-dark, Dark-on-light
  - **Safety yellow**, black, brick red, green, etc.
  - **NOT BLUE!**
Crossings

- Curb ramp is “wholly within” markings
- Check Transitions (≤ 13% max., 11% rec.)
- Verify Slopes (1:12 max.)
- Check Cross-slopes (1:48 max.)
- Look for Level changes (\(\frac{1}{4}''\), \(\frac{1}{2}''\))
Bus Stops / Shelters

- On Accessible Route
- Boarding & alighting area (96” x 60” min.)
  - Place for bus lift to deploy
  - Firm, stable, and slip-resistant surface
  - Must connect to streets, sidewalks, etc.
- 30” x 48” clear floor area within shelter
- 36” min. approach to clear floor area
Benches / Shelters

Bus bench and/or Shelter *shall not* block sidewalk!
- Maintain 36” min. clearance
- 60” preferred

Facilities Access
Ramps & Landings

5’ min.
Top/Interim Landing

30’ - 40’ max.
Depending on slope (see below)

5’ min.
Bottom Landing

"Level" means:
2% or less slope

30” max.

<table>
<thead>
<tr>
<th>SLOPE</th>
<th>MAXIMUM RISE</th>
<th>MAXIMUM HORIZONTAL PROJECTION</th>
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<tbody>
<tr>
<td>1:12 TO &lt; 1:16</td>
<td>30 760</td>
<td>30 9</td>
</tr>
<tr>
<td>1:16 TO &lt; 1:20</td>
<td>30 760</td>
<td>40 12</td>
</tr>
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</table>
Ramps (cont.)

Handrails required
- 2” o.d. max.
- 34” - 38” above ramp
- 12” extensions top & bottom
Stairs

- **Handrail Extensions**
  - 12” horizontal @ top
  - Tread length @ bottom
    - No horizontal extension
- 34”-38” Above nosing
Elevators

- **Call buttons**
  - 42” above floor - & between buttons

- **Hall Lanterns**
  - ≥72” above floor

- **Tactile Signage**
  - 48”-60” above floor
  - at Hoistway Entrance

- **Reopening Device**
  - Non-contact
  - 5” & 29” above floor (min.)
Doors

- 32” Clear Width
  - 36” Door
- Doors in series
  - 48” Clearance
Doors (cont.)

Energy to operate
- (a) exterior hinged doors: 8.5 lbf (FAC)
- (b) interior hinged doors: 5 lbf
- (c) sliding or folding doors: 5 lbf

Maneuvering space
- 36”+ wide (min.) x 48”+ deep on both sides
- +18”-24” additional width on ‘pull’ side
Water Fountains/Coolers

- Knee/toe space
- Spout height - 36” max.
  - within 5” of front of unit
  - 4” high water flow
- Controls
  - Front and/or side
Water Closets

- 17"-19" seat height
- 16-18" centerline to side wall
- 36" grab bar at rear
- 42" min. grab bar at side
- 30" x 48" Maneuvering space at front and at side

Facilities Access
Toilet Stalls

Facilities Access
Lavatories

- Knee/toe space
- Clear floor space
- Insulate under lavatory
  - Hot pipes
  - Sharp objects
- Faucet controls
  - Levers
  - Electronic
- Mirror - 40” to 'reflecting surface'
Controls

- In reach ranges
  - 48” max. (ADA)
  - 42” max. (FDOT/MUTCD)
- Maneuvering space (level, 30”x48” min.)
Controls

- Telephones & Vending Machines
- In reach ranges (48” max.)
  - Highest operable part (coin slot?)
- Maneuvering space
Storage

- Shelves
  - In reach ranges*

- Closets
  - In reach ranges*

- Coat hooks
  - In offices
  - In toilet stalls

* If higher, provide assistance to reach
Signage

- **Size / Font**
- **Tactile Sign**
  - Raised characters
  - Braille
- **Mounting height**
  - Old: 60" to centerline of sign
  - New: 48"-60" to base of text

Not for this

For this
Components of Accessibility 2

- Sidewalks
- Curb cuts
- Parking spaces
- Ramps
- Entrances
- Doors
- Restrooms
- Drinking fountains
- Telephones
- Controls
Sidewalks

- Are Accessible Routes (36” min.)*
- Check Cross-slopes (≤1:48)
- Check Surfaces (firm, stable, slip-resistant)
- Look for Level changes (¼”, ½”)
- Look for Protruding Objects (27”–80”)

* Except for public rights-of-way - 48”
Curb Ramps

- Check Slopes (≤1:12)
- Check Cross-slopes (≤1:48)
- Check Detectable Warnings
- Landing at top

"X" = 48”

Facilities Access
Parking

- Accessible space
  - Width = 12'-0" min.

- Access aisle
  - Width = 5'-0" min.

- Curb ramp
  - Outside space & aisle

- Slopes
  - 1:48 max. any direction
Ramps

- Check for ramp conditions
- Check for cross-slopes (≤1:48, 2%)
- 2” curb or bottom rail

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<td>30/760</td>
<td>40/12</td>
</tr>
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Doors

- Check for clear width
  - 32” clear
  - 36” door

- Maneuvering space
  - Pull side
  - Push side

Door jamb
Door slab face (ignore hardware)

NOTE: x = 12 in (305 mm) if door has both a closer and latch.
Controls

- Must be within reach ranges
- Check for maneuvering space
- Check for protruding objects
Compliant ? ! ?
ENTRANCE

PLAN AT VESTIBULE

RAMP

60° × 60° MIN. LANDING REQUIRED WHERE CHANGE OF DIRECTION OCCURS

EDGE PROTECTION

30° 2'4"

6" MAX 2"

MEASUREMENT GUIDE
Actual Examples

随机照片

- 一些好的
- 一些不那么好的
Walking surfaces & controls
Grating, level changes (pattern)
Walk around at driveway apron
Handrail - Ramp
Facilities Access

Handrail - Stair
Facilities Access

Entry door – power operated
Standing and seated heights

Facilities Access
Facilities Access

Call buttons

Tactile sign

42"

60"

Facilities Access

Coin slot

48"
Volume control
Facilities Access
Nice try, but...
Facilities Access
Not even close

Facilities Access
How do I get there?

Curb Ramp over here
Facilities Access

Sorry, this won't work
Good for drainage, but...
Poor planning
Watch those surfaces; especially 'temporary' ones
Ramps MAY NOT curve!
That's gotta hurt!
Would YOU want to roll through this?
This is okay, right?!?
Facilities Access
Awkward!?!
Maybe use a different display...
Good design; poor use...
Very Nice!

Facilities Access
Not so nice!

Facilities Access
Watch out for those sharp/serrated edges!

Raise to 48” AFF
Knee Space?!?

Facilities Access
Okay from the left, but not from the right

Facilities Access
What's wrong with this picture?
Summary

- What ADA is
- How ADA impacts us
- Features of Accessibility
- Examples

*Your work is important for compliance!*
Resources

**U.S. Access Board**
- Accessibility Guidelines - ADAAG
- [www.access-board.gov](http://www.access-board.gov)

**U.S. Dept. of Justice - ADA**
- Accessibility Standards for Facilities & Sites
- [www.ada.gov](http://www.ada.gov)

**U.S. Dept. of Transportation - FHWA**
- Accessibility Guidance & Standards for Public Rights of Way

**Florida Dept. of Transportation - FDOT**
- ADA information on Website
- [http://www.fdot.gov/designsupport/ADA/default.shtm](http://www.fdot.gov/designsupport/ADA/default.shtm)
Help is available

**City/County/State:**
- YOUR ADA Coordinator
- FDOT District ADA Coordinator
- Department of Professional Regulation

**Federal:**
- U.S. Architectural & Transportation Barriers Compliance Board *(Access Board)*
- U.S. Department of Justice
- U.S. DOT
Contact us...

Dean Perkins, Architect
ADA Coordinator

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or
YOUR ADA Coordinator
This is how a person with a disability may see the world . . .

Think about it!