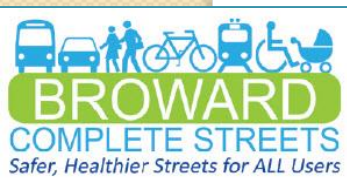# The Safety Dance

Incorporating Appropriate Roadway Treatments for People with Disabilities

*Complying with the Americans with Disabilities Act using the **ADA Standards for Transportation Facilities** and the **Public Rights of Way Accessibility Guidelines***

BROWARD COMPLETE STREETS
Safer, Healthier Streets for ALL Users

broward MPO
metropolitan planning organization

FDOT

Safe Streets Summit
*Deerfield Beach, FL   January 29, 2016*

Dean Perkins, Architect, ADA Coordinator

Introduction

- Brief overview of ADA
- New Concepts
- Key Features of Accessibility
  - Sidewalks, curb ramps, detectable warnings, accessible pedestrian signals, parking, alternate paths, etc.
- Public Involvement concerns
- Random Images
  - Some Good, Some Not So Good

Background of the ADA

- 1990 Americans with Disabilities Act
  - July 26, 1990 – enacted
  - July 26, 1991 –ADA Standards issued
  - January 26, 1992 – effective date
  - July 23, 2004 – new ADA guidelines (ADA/ABA)
  - Nov 23, 2005 – new PROW guidelines (PROWAG)
  - **Nov 29, 2006 – FHWA adopts ADA Standards for Transportation Facilities (ADASTF)**
  - **July 23, 2011 – Access Board issues NPRM for PROWAG (public comments)**
    - *Adoption as standards - pending*
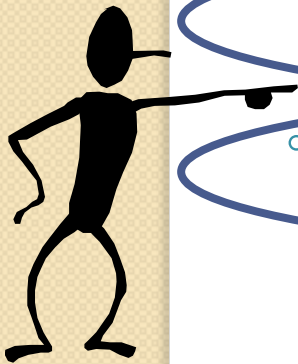
The Future of Accessibility within Public Rights of Way(?)

USDOT / FHWA recommends using **PROWAG** criteria where **ADASTF** do not address an issue

- *Frederick D. Isler, Associate Administrator for Civil Rights – January 23, 2006*

RECOMMENDATION:

Start learning **PROWAG!**
*(July 26, 2011 version is the latest)*

www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines
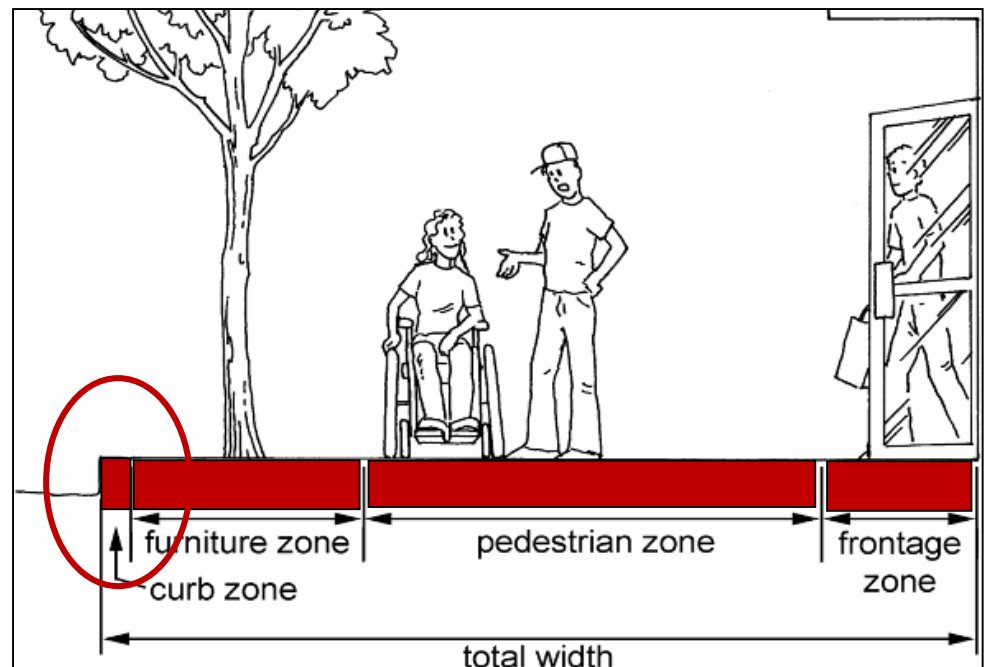
Pedestrian Access Route (PAR)

R302.3 Continuous Width

- The minimum continuous and unobstructed clear width of a pedestrian access route shall be 4 ft. <u>exclusive of the width of the curb</u>

Measure from back of curb!

4'
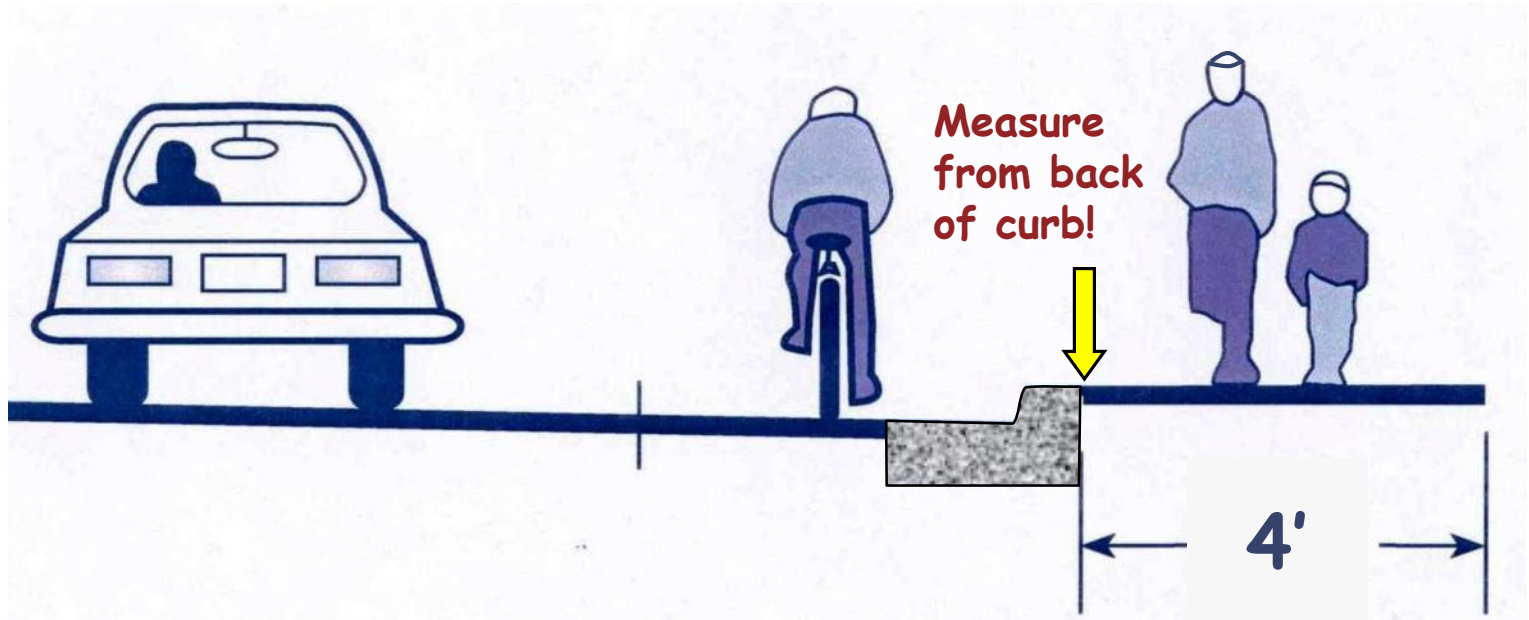
The Sidewalk 'Zone' System

- Curb Zone
- Furniture Zone
- Pedestrian Zone (PAR)
- Frontage Zone

Zone System: Residential

Zone System: Commercial

A difference between AR & PAR!
For sidewalks within the public right of way . . .

Sidewalk grade – **ADASTF** vs. **PROWAG**
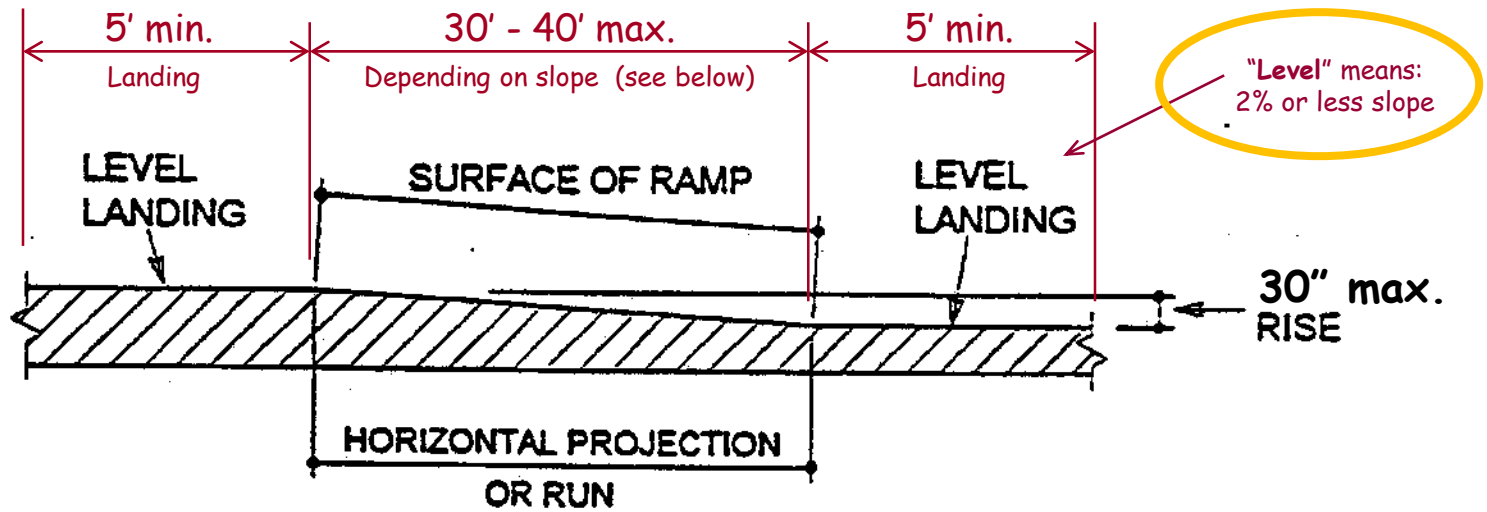- ADASTF: Provide accessible route (AR)
- PROWAG: Match roadway grade (PAR)

ADASTF   *PROWAG*

Ramps – "supported slopes"
i.e., Bridges

5' min. — Landing

30' – 40' max. — Depending on slope (see below)

5' min. — Landing

"**Level**" means: 2% or less slope

LEVEL LANDING

SURFACE OF RAMP

LEVEL LANDING

30" max. RISE

HORIZONTAL PROJECTION OR RUN

SLOPE	MAXIMUM RISE		MAXIMUM HORIZONTAL PROJECTION	
	IN	MM	FT	M
1:12 TO < 1:16	30	760	30	9
1:16 TO < 1:20	30	760	40	12

Fig 16
Components of a Single Ramp Run and Sample Ramp Dimensions

Curb Ramps and Detectable Warnings

- Curbs are an 'edge cue' for pedestrians who are blind or have low vision

- Curbs are a barrier for persons in wheelchairs

- Curb ramps remove the barrier for wheelchairs

- Curb ramps remove edge cue for peds with vision impairments

- Detectable warnings are a replacement cue to indicate location of the street
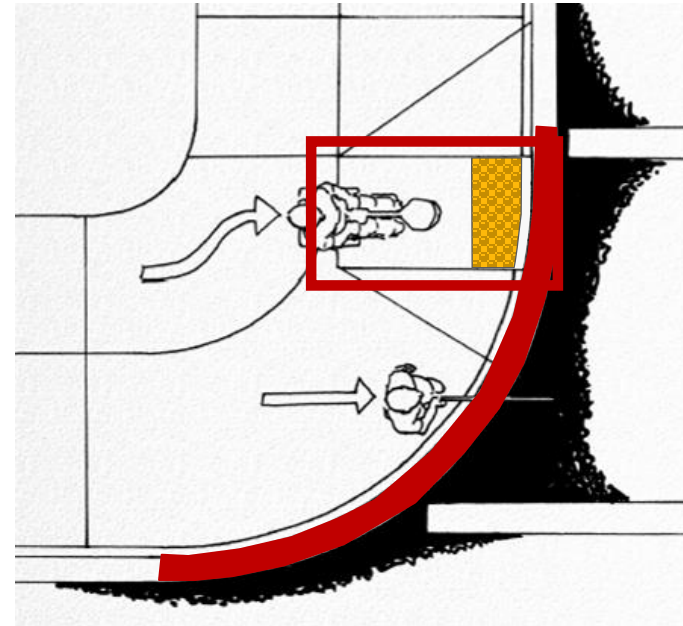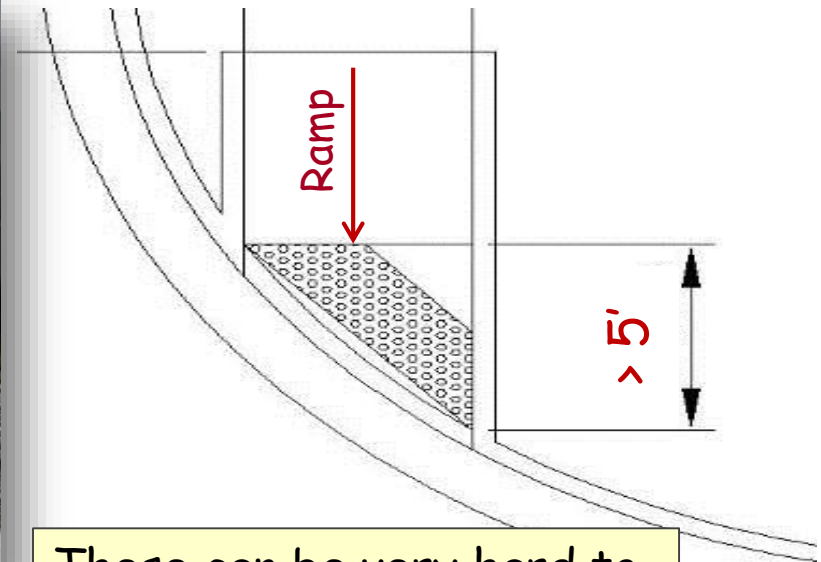
Perpendicular Curb Ramps
R305.2.1

- ## Perpendicular Curb Ramp
  - ### Place DW at back of curb or at grade break

SIDEWALK

Ramp

CURB RAMP

24"
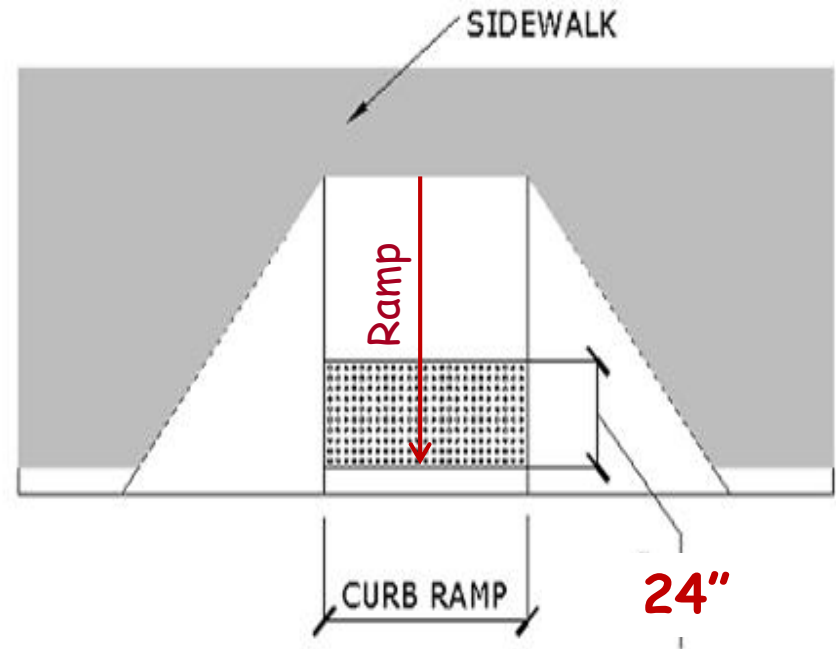
Directional/Linear Ramps
R305.2.1

- ## Greater than 5 feet setback . . .
  - Place DW on bottom landing if level landing is more than 5' deep at any point
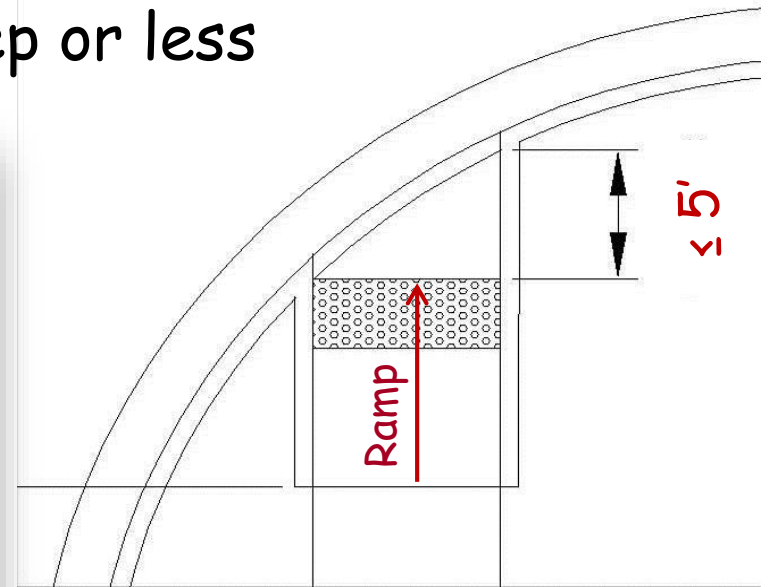

Ramp

> 5'

These can be very hard to construct correctly
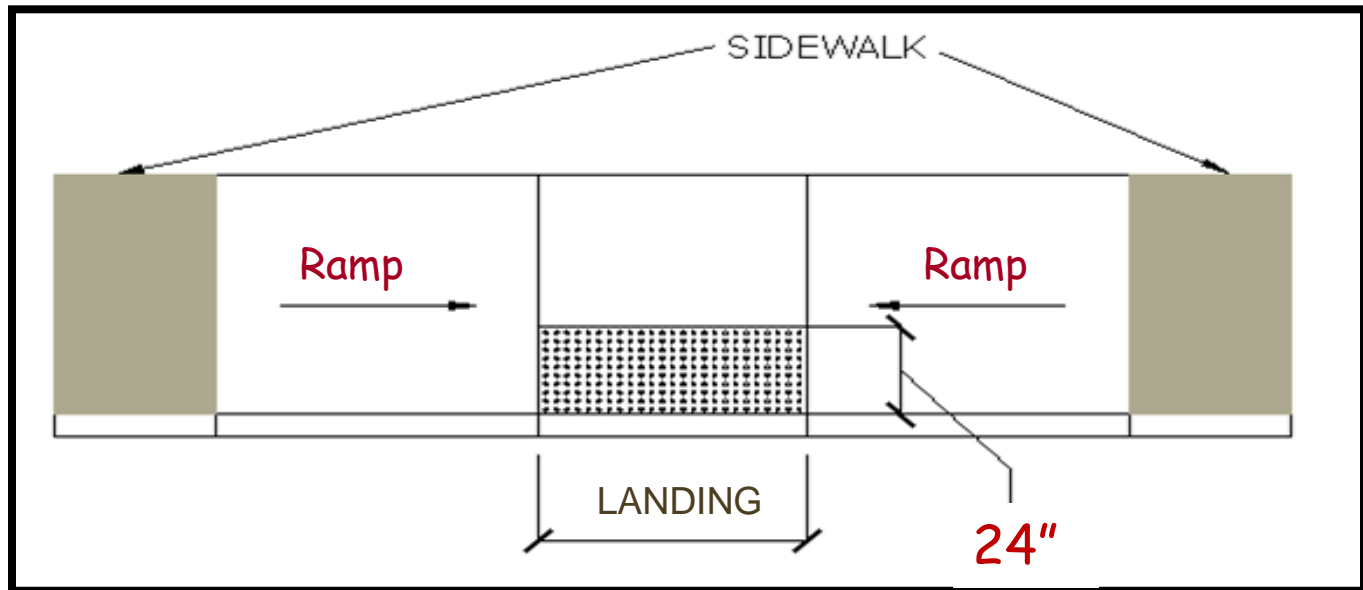
Directional/Linear Ramps
R305.2.1

- Equal to or less than 5 feet setback from bottom of curb ramp . . .
  - Place DW at grade break if level landing at bottom of ramp is 5' deep or less

Ramp

≤ 5'

These are much easier to build

Parallel Ramps
R305.2.2

SIDEWALK

Ramp →   Ramp

LANDING

24"

Detectable Warnings
Equivalent to "STOP" or "YIELD" signs

- Detectable warnings help delineate the edge of the street for a pedestrian who is blind or has low vision
  - DWs, generally, <u>do not</u> designate the best crossing location
  - DWs, generally, <u>do not</u> provide directional information

Detectable Warnings
To align or not to align . . .

- Detectable warnings 'warn' of roadway edge
- Dome alignment typically *NOT* used as directional cue
  - Other methods: traffic sounds, sidewalk curbs, APSs (if available), etc.
- In a perfect world, truncated domes would be aligned with the crossing
  - Easier to construct and use
- However, not all curb ramp configurations or site conditions permit TD alignment

Detectable Warnings
To align or not to align . . .

- So…
  - Dome alignment is *desirable*, <u>**but not required**</u>

Perfect World

Real World

Accessible Pedestrian Signals
R209 & MUTCD 4E.09-4E.13

- For pedestrians with vision impairments
- Used in conjunction with pedestrian signal timing
- Add "non-visual" information:
  - Tactile features
  - Audible tones
  - Vibrating surfaces
  - Speech messages
- Must indicate which crossing is served by each device
  - If less than 10' apart, must '*speak*' to you

PUSH BUTTON FOR

Accessible Pedestrian Signals
R209 & MUTCD 4E.09-4E.13
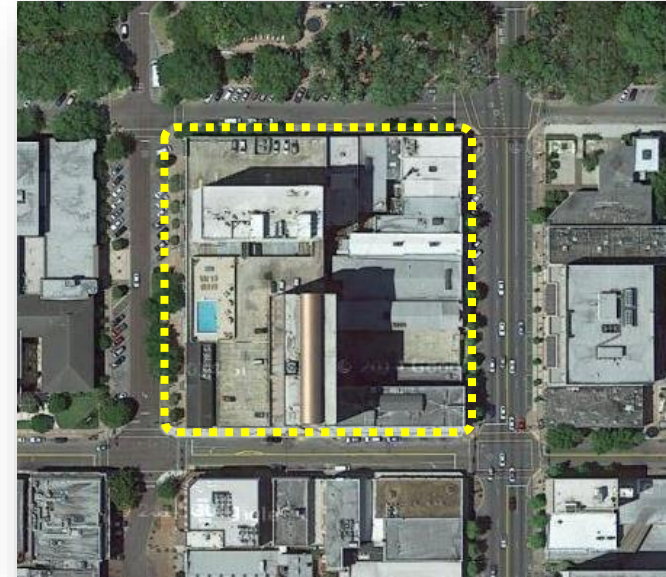

Speakers   Tactile Arrows

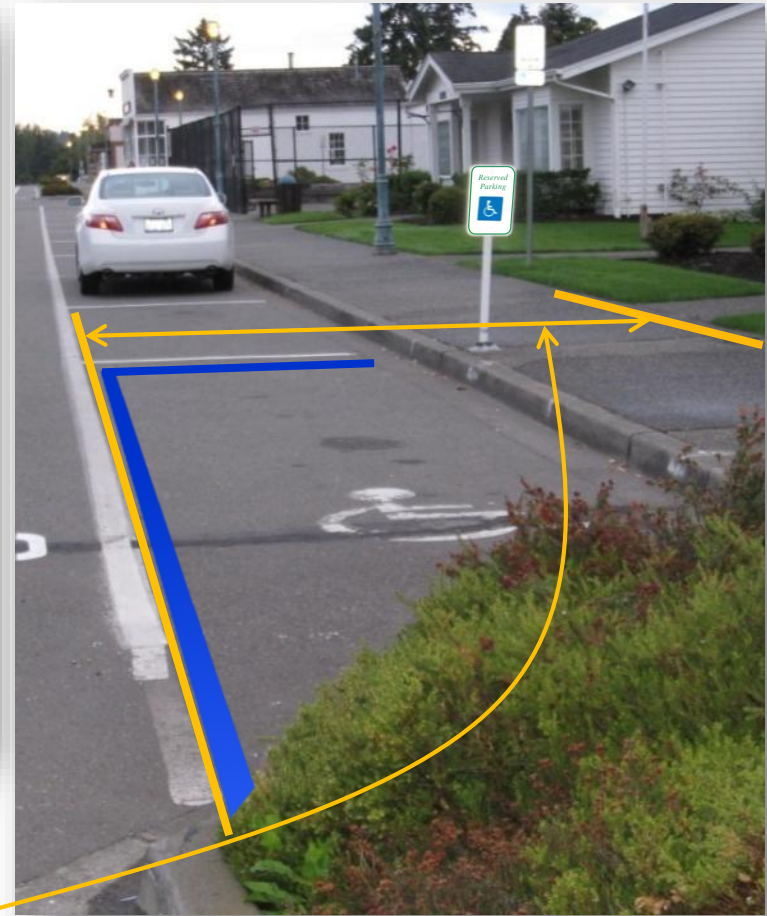# On-Street Parking Spaces
R214

- Accessible parking spaces per block perimeter
  - Approx. 4% of total
  - Table R214

- Accessible parking spaces are best located where the street has the least crown & grade and close to key destinations (i.e., near crosswalks?)
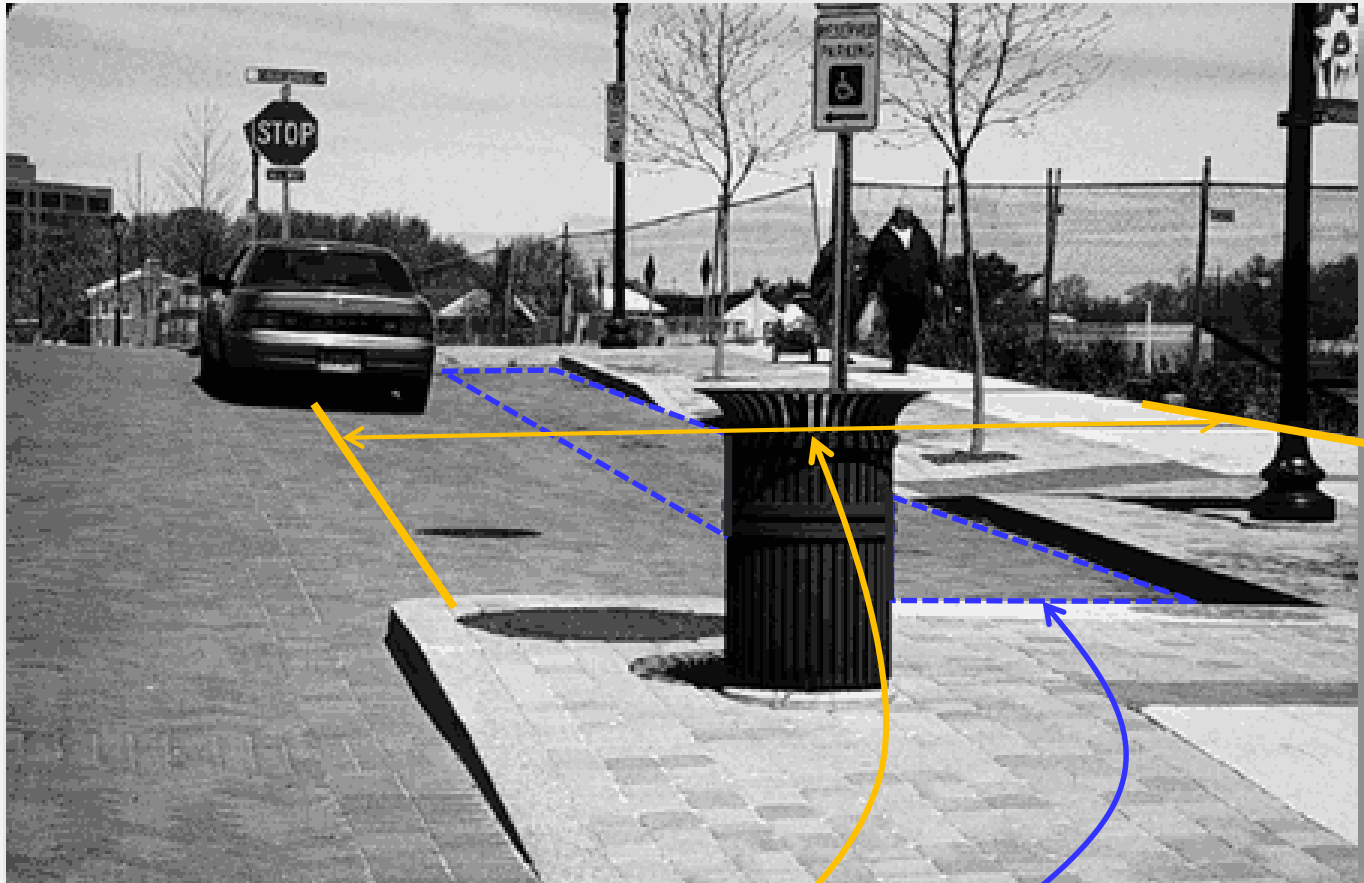
Parallel Parking Spaces
R309

If sidewalk is ≤14 ft. wide, side access aisle is not required

Parallel Parking Spaces
R309

If sidewalk is >14 ft. wide,
side access aisle* _IS_ required

Need not be marked

Alternate PARs

- R205 specifies that the alternate pedestrian access route shall be:
    - Provided on the same side of the street as the disrupted route, to the maximum extent feasible
    - Where exposed to adjacent construction, traffic or other hazards, shall be protected with a _pedestrian barricade_ or _channelization device_
        - Continuous, stable, non-flexible
        - Consist of features identified in the **MUTCD** Chapter 6F
            - _Plastic tape is not acceptable!!!_
            - _Rows of barrels and/or cones is not acceptable… unless they are connected by a continuous 'detectable' edge_

Longitudinal Channelizing Devices (LCDs)

Hand Trailing Edge

Detectable Edge

Warning Light

Forklift Access
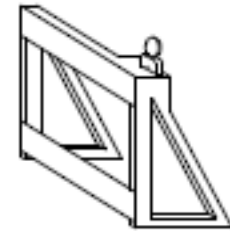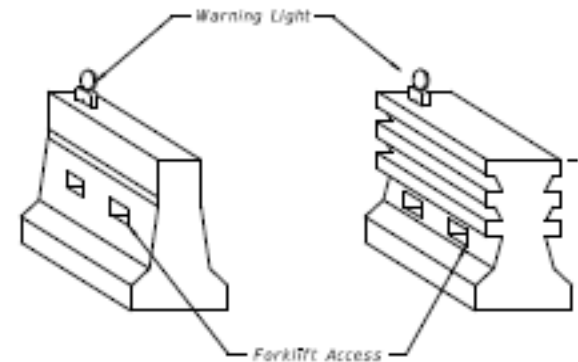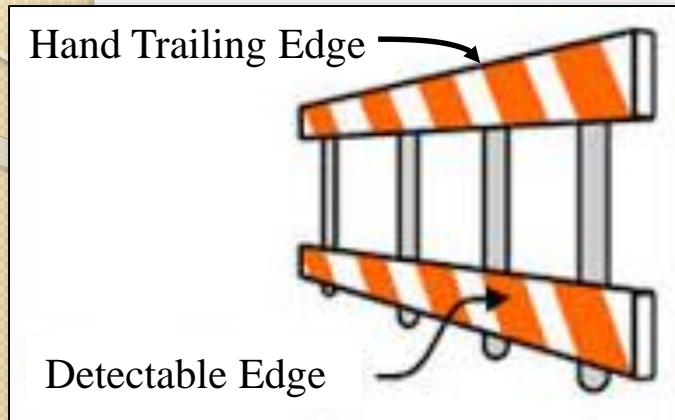
LONGITUDINAL CHANNELIZING DEVICE

12. For pedestrian longitudinal channelizing devices, the device shall have a minimum of 8" continuous detectable edging above the walkway. A gap not exceeding a height of 2" is allowed to facilitate drainage. The top surface of the device shall be a minimum height of 32" and have smooth connection points between the devices to facilitate hand trailing. The bottom and the top surface of the device shall in the same vertical plane. If pedestrian drop-off protection is required, the device shall have a footprint or offset of at least 2', otherwise the device must be 42" in height above the walkway and be anchored or ballasted to withstand a 200 lb. later point load at the top of the device.

FDOT Design Standards -Index 600

Construction Work Zones

- Unfortunately, too many bad examples…

Public Involvement

- Are you including your ALL customers?
  - How do you identify your 'public'?
    - Census, School Board, Community offices, Social service agencies, transit providers, etc.
    - Sociocultural Effects Evaluation
    - Transportation Outreach Planner Tool
  - General project announcements
    - Newspapers, Internet, PSAs, Flyers, etc.
  - Targeted project announcements
    - Advocacy groups, CILs, Elder centers, etc.

Public Involvement

- How do you interact with your customers with disabilities?
  - Public meetings: When in project, How often, What time of day/week, etc.
  - Where located: Near project, Near transit, etc.
  - Provide accommodations: alternate formats, etc.
    - *"If you need an accommodation due to a disability . . ."*
- How do you ensure equity for all users?
  - Seek input: Go to them, don't wait for them to come to you; especially traditionally underserved communities

Resources

U.S. Access Board

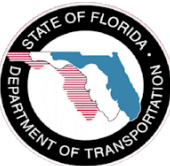- Accessibility Guidelines - ADAAG
- www.access-board.gov

U.S. Dept. of Justice - ADA

- Accessibility Regulations & Standards for Buildings & Sites
- www.ada.gov

U.S. Dept. of Transportation – FHWA

- Accessibility Guidance & Standards for Transportation Facilities & Public Rights of Way
- www.dot.gov/citizen_services/disability/disability.html

Florida Dept. of Transportation - FDOT

- ADA information on Website
- www.dot.state.fl.us/projectmanagementoffice/ADA

Random Images

- Some good

- Some not so good

This is what we want…

Not this . . .

Or this . . .

Nice!

Well Done!

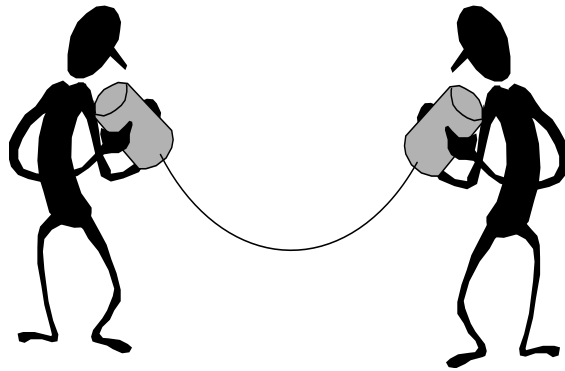Combination return curb and flared side

Full Width ... *Good!*

This *CAN* be fixed.

Very good! Measure _before_ you build
(Identity withheld)

Contact _**Your**_ ADA Coordinator

or

Dean Perkins, Architect
FDOT ADA Coordinator
850-414-4359
dean.perkins@dot.state.fl.us

Thank You!

Merci!   Todah Rabbah
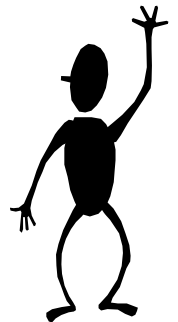
Arigato!

Dhanya Vaad!

Xie Xie!

Gracias!

Shokran!

Danke!

Live long and prosper!