

25 for 25 Cultural Access Project



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The Kennedy Center
Washington DC

Jack Catlin, FAIA

Partner
LCM Architects
Chicago, Illinois

Why Accessibility?

Children

24% of US population

Senior Citizens

13% of US population

People with Severe Disabilities

12.6% of US Population

U.S. Census Bureau



Why Accessibility?

Variation in human ability is ordinary, not special, and affects most of us for some part of our lives.

The Institute for Human Centered Design



Why Accessibility?



2001 - WHO Redefined Disability and Health:

Defined disability as a *contextual variable*. A person with a functional limitation is more or less disabled based upon the intersection with the environment:

- Physical environment
- Communication environment
- Information environment
- Social & Policy environments

Why Accessibility?

Design is powerful and profoundly influences our daily lives and our sense of **confidence**, **comfort**, and **control**.

The Institute for Human Centered Design



Why Accessibility?

- **Chicago Building Code** (Chapter 18-11)
Enforced by: Chicago Mayors for People with Disabilities (MOPD)
- **Illinois Accessibility Code** (IAC)
Enforced by: Illinois Attorney General
- **Americans with Disabilities Act** (2010 ADA Standards)
Enforced by: U S Department of Justice
- **Rehabilitation Act** (Section 504)
Enforced by: U S Department of Justice
- **International Building Code** (IBC)
Model Code w/ ANSI A-117.1
- **Fair Housing Act** (FHA)
Enforced by: U S Department of Justice & HUD



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Americans with Disabilities Act

“To provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities.”

Goals:

- Empowerment
- Inclusion
- Independence



Americans with Disabilities Act

Five Titles:

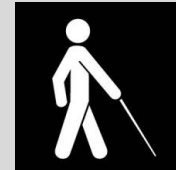
Title I	Employment
Title II	State and Local Government
Title III	Public Accommodations
Title IV	Telecommunications
Title V	Miscellaneous Provisions



Americans with Disabilities Act

Five Titles:

Title I	Employment
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Americans with Disabilities Act

- New Construction
- Additions
- Alterations
- Existing Facilities



Americans with Disabilities Act

New Construction

- 2010 ADA Standards:
On or after March 15, 2012, all newly constructed buildings and facilities must comply with the 2010 Standards.



Studio Gang Architects

- Applies to building open to & usable by:
 - Members of the Public
 - Employees (Limited)

Americans with Disabilities Act Additions

- Accessible Entrance
- Route to Addition
- Toilets



Americans with Disabilities Act Alterations

2010 ADA Standards

On or after March 15, 2012,
All altered facilities must
comply with the
2010 Standards.



Americans with Disabilities Act Alterations

- Alterations
- Path of Travel
- Historic Preservation



Americans with Disabilities Act Alterations

Any alteration shall be made so as to ensure that, to the **maximum extent feasible**, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.



Americans with Disabilities Act Alterations

“Maximum Extent Feasible”

Applies to the occasional case where the nature of an existing facility makes it virtually impossible to fully comply.

- Must provide maximum accessibility feasible
- Any altered feature that can be made accessible must be made accessible
- If alteration is not accessible for one type of disability it must provide accessible for other disabilities



Americans with Disabilities Act Alterations

“Technically Infeasible”

With respect to an alteration of a building or a facility, something that has little likelihood of being accomplished because existing structural conditions would require **removing or altering a**

load-bearing member that is an essential part of the structural frame; or because other **existing physical or site constraints** prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements.



2010 ADA Standards - Title II & III

Path of Travel

“An alteration that affects the usability of the facility and contains a **primary function** area must include an accessible **path of travel** to the altered area unless the cost of the path of travel is **disproportionate** to the cost of the overall alteration. “

2010 ADA Standards - Title II & III

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1. **Primary Function**
2. **Path of Travel**
3. **Disproportionate**

2010 ADA Standards - Title II & III

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“Primary Function”

“A major activity for which the facility is intended.”

NOT:

Roof & Exterior Walls

Entrance

Toilets, etc.

2010 ADA Standards - Title II & III

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“Path of Travel”

“A continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach and entrance to the facility, and other parts of the facility.”

2010 ADA Standards - Title II & III

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“Disproportionate”

“Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20 % of the cost of the alteration to the primary function area.”

Path of Travel – Case Study



Path of Travel – Case Study



Floors 1 & 2 - Class Rooms



Floor 3 - Laboratories

Path of Travel – Case Study

Project Scope

▪ Landscaping		\$ 98,000
▪ Envelope Stabilization		\$1,335,000
- New Roof	\$ 328,000	
- Tuck Pointing	\$ 389,000	
- New Windows	\$ 618,000	
▪ HVAC		\$ 360,000
▪ Class Room Alterations		\$4,497,000
- First Floor Class Rooms	\$ 325,000	
- Second Floor Class Rooms	\$ 386,000	
- Third Floor Class Rooms (Labs)	\$3,786,000	
	TOTAL	\$6,290,000

Path of Travel – Case Study

Primary Function Area Analysis:

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Total Primary Function Areas		\$4,497,000

Path of Travel – Case Study

Primary Function Budget = \$4,497,000

[20% of \$4,497,000 = \$899,400]

Entrance Ramp	\$ 40,000
Accessible Entrance Doors	\$ 22,000
3 Stop Elevator	\$225,000
Accessible Bathrooms (6)	<u>\$175,000</u>

Total Path of Travel Cost = \$462,000

Path of Travel – Case Study

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Americans with Disabilities Act Historic Preservation

- Alterations to historic properties must comply, to the maximum extent feasible.
- If the alteration would threaten or destroy the historic significance of the building or facility, alternative methods of access can be provided



Existing Facilities

- ADA Title II - Program Accessibility & Transition Plans
- ADA Title III - Readily Achievable Barrier Removal

ADA Title II Program Accessibility



ADA Title II & Sect. 504

Program Accessibility

Program & Facility Accessibility

A public entity shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and useable by individuals with disabilities.



ADA Title II & Sect. 504 Program Accessibility

- 1. A public entity is not necessarily required to make each existing facility accessible**

ADA Title II & Sect. 504 Program Accessibility

1. A public entity is not necessarily required to make each existing facility accessible



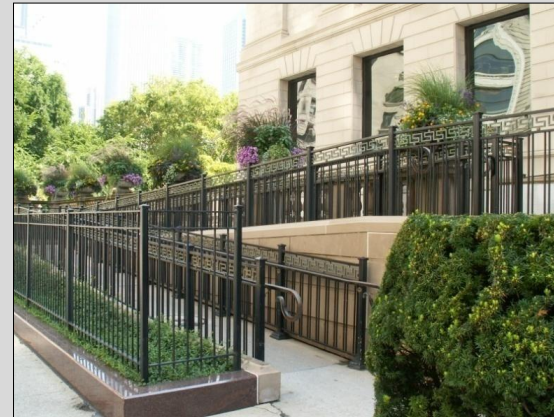
ADA Title II & Sect. 504 Program Accessibility

2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property



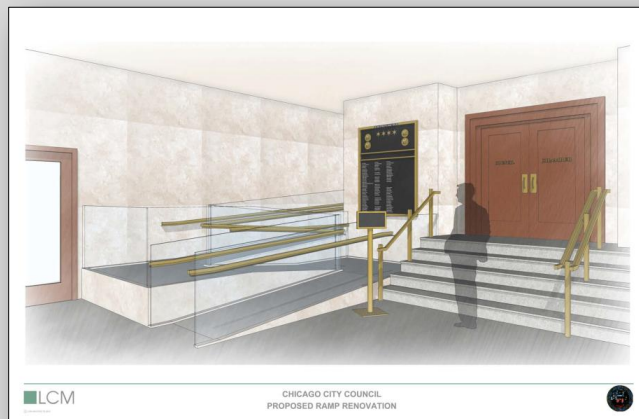
ADA Title II & Sect. 504 Program Accessibility

2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property



ADA Title II & Sect. 504 Program Accessibility

3. Take any action that it can demonstrate would result in a fundamental alteration in the program, service or activity.
4. Take any action that would result in an undue financial and administrative burden.



Americans with Disabilities Act (ADA) Transition Plan

In the event that structural changes to facilities will be undertaken to achieve program accessibility, a public entity that employs 50 or more persons shall develop a transition plan.

- 1. Identify the barriers that must be removed,**
- 2. Provide a detailed description of how the barriers will removed,**
- 3. Provide an annual schedule for the barrier removal,**
- 4. Identify the official responsible for barrier removal**

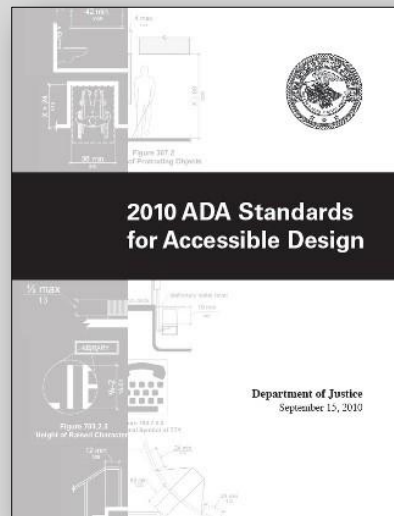
Americans with Disabilities Act (ADA) Transition Plan

A public entity shall provide an opportunity to interested persons, including individuals with disabilities or organizations representing individuals with disabilities, to participate in the development of the transition plan by submitting comments. A copy of the transition plan shall be made available for public inspection.



ADA Title II Program Accessibility

2010 Standards are new reference point for Program Accessibility



www.ada.gov/2010ADASTandards_index.htm

ADA Title III - Barrier Removal



ADA Title III

Barrier Removal

Section 36.304

“A public accommodation shall remove architectural barriers in existing facilities, including communication barriers that are structural in nature, where such removal is **readily achievable**.

“easily accomplishable and able to be carried out without much difficulty or expense.”

- **On Going Obligation**



ADA Title III

Barrier Removal - Priorities

A public accommodation is urged to take measures to comply with the barrier removal requirements of this section in accordance with the following order of priorities:

1. A public accommodation should take measures to provide **access to a place of public accommodation** from public sidewalks, parking, or public transportation.
2. A public accommodation should take measures to provide **access to those area of a place of public accommodation where goods and services are made available** to the public.

ADA Title III

Barrier Removal - Priorities

A public accommodation is urged to take measures to comply with the barrier removal requirements of this section in accordance with the following order of priorities:

3. A public accommodation should take measures to provide access to **restroom facilities**.
4. A public accommodation should take **any other measures necessary** to provide access to the goods, services, facilities, privileges, advantages, or accommodations of a place of public accommodation.

ADA Title III

Barrier Removal - Alternatives

When a public accommodation can demonstrate that the removal of barriers is not readily achievable, the public accommodation must make its goods and services available through alternative methods, if such methods are readily achievable.

Examples of alternatives to barrier removal include:

- Providing curbside service or home delivery
- Retrieving merchandise from inaccessible shelves or racks
- Relocating activities to accessible locations

ADA Title III Barrier Removal - Alternatives



de Young Museum, San Francisco

ADA Title II & III

Safe Harbor

Elements that have not been altered in existing facilities on or after March 15, 2012, and that comply with the corresponding technical and scoping specifications for those elements in either the 1991 Standards or in the Uniform Federal Accessibility Standards (UFAS), are not required to be modified in order to comply with the requirements set forth in the 2010 Standards.

- Applies element-by-element
- Applies only if element hasn't been altered

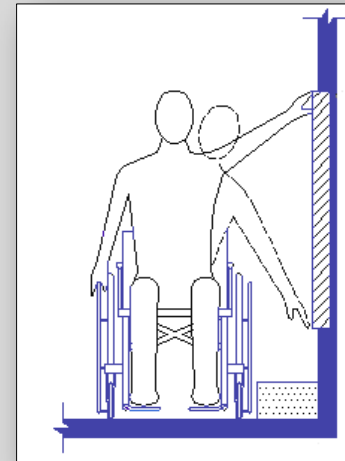


ADA Title II & III

Safe Harbor - Example

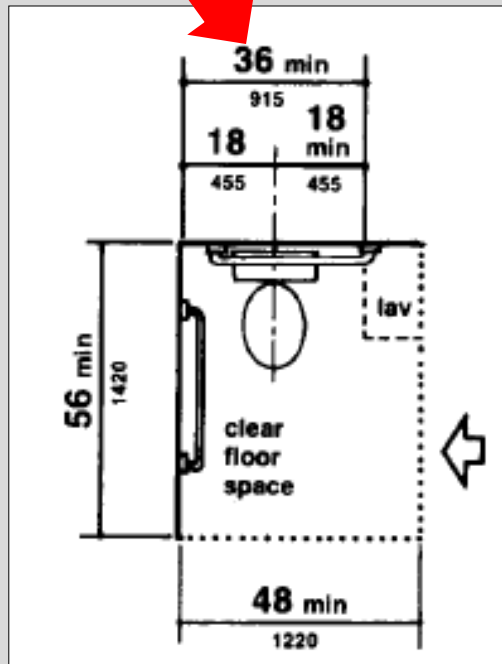
Light Switch - 54" AFF v 48" AFF

- 1991 ADA Standard - 54" AFF Max.
- 2010 ADA Standard - 48" AFF Max.

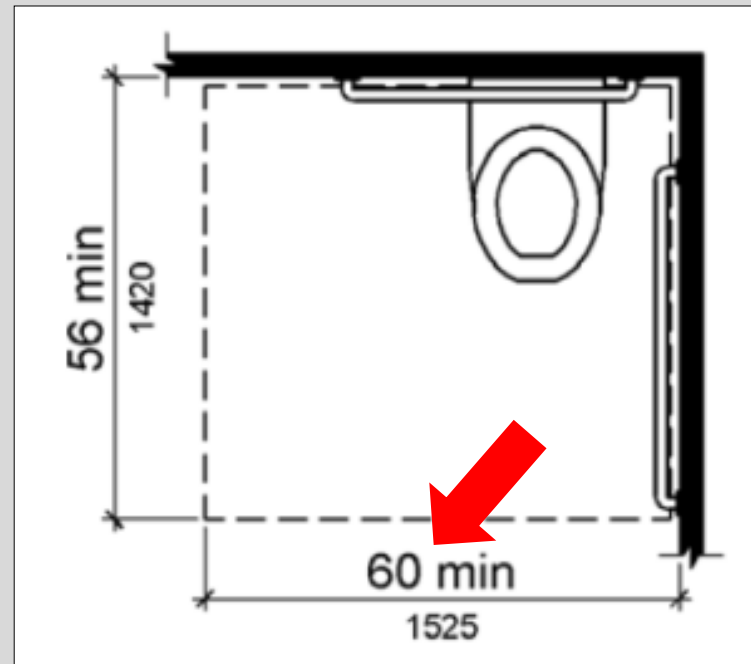


ADA Title II & III

Safe Harbor - Example

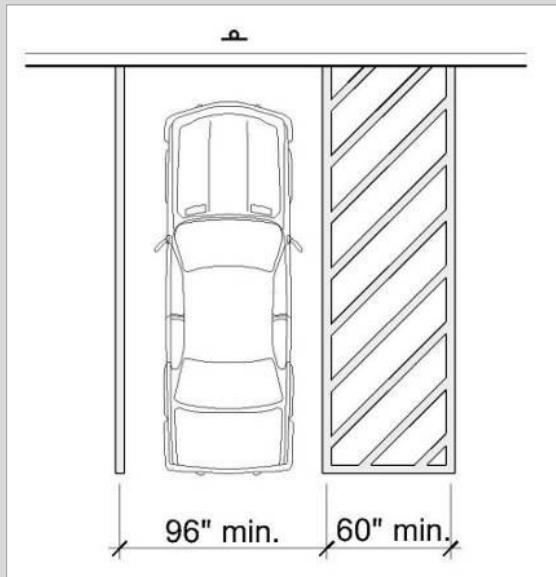


1991 ADA Standards

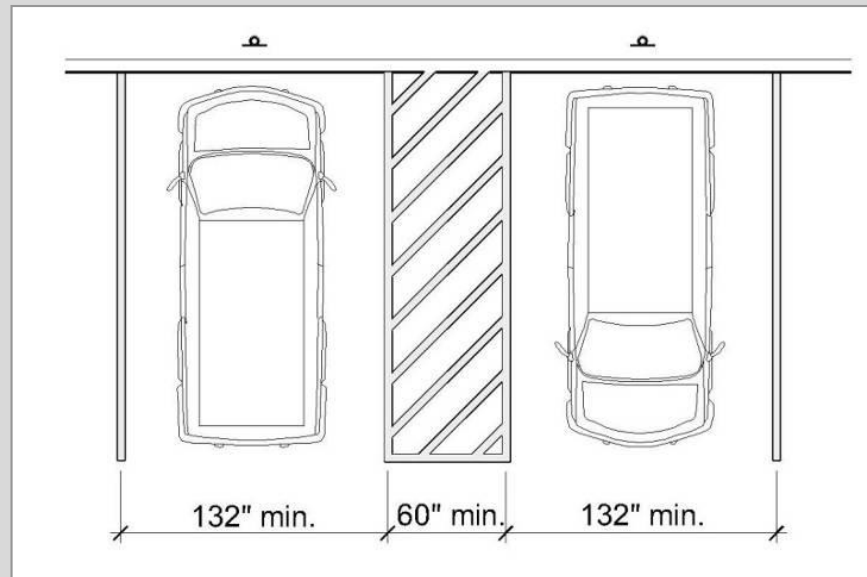


2010 ADA Standards

Accessible Parking

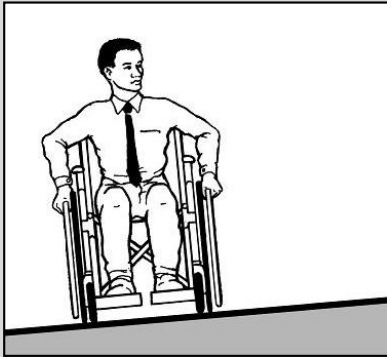


ADA

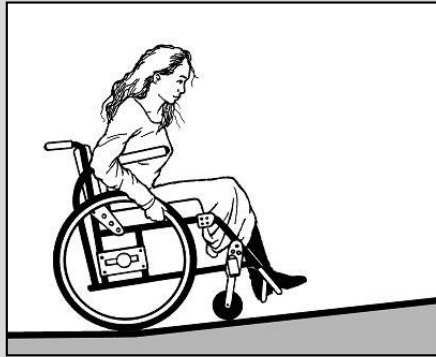


Illinois Accessibility Code (IAC)

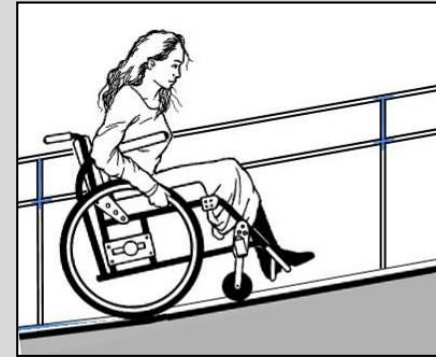
Slopes



Cross Slope 2.0% Max.



Walkway 5.0% Max.

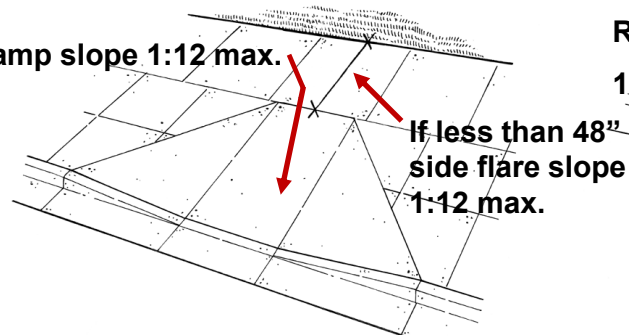


Ramp 5.0 – 8.3%

Curb Ramps

1. Flared

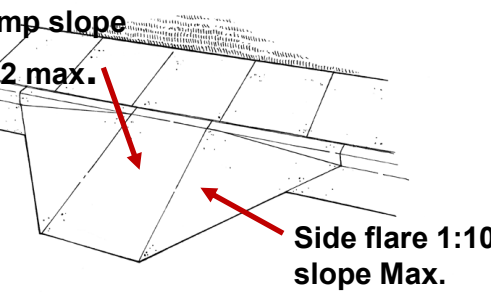
Ramp slope 1:12 max.



2. Built-Up

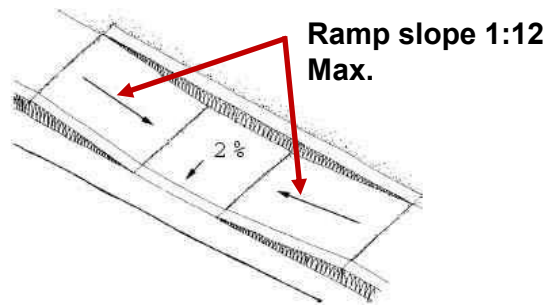
Ramp slope 1:12 max.

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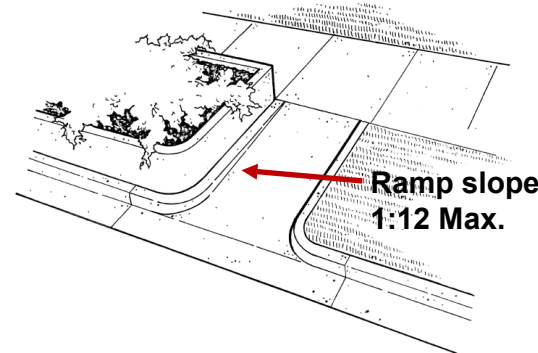
3. In-Line / Parallel

Ramp slope 1:12 Max.



4. Returned

Ramp slope 1:12 Max.



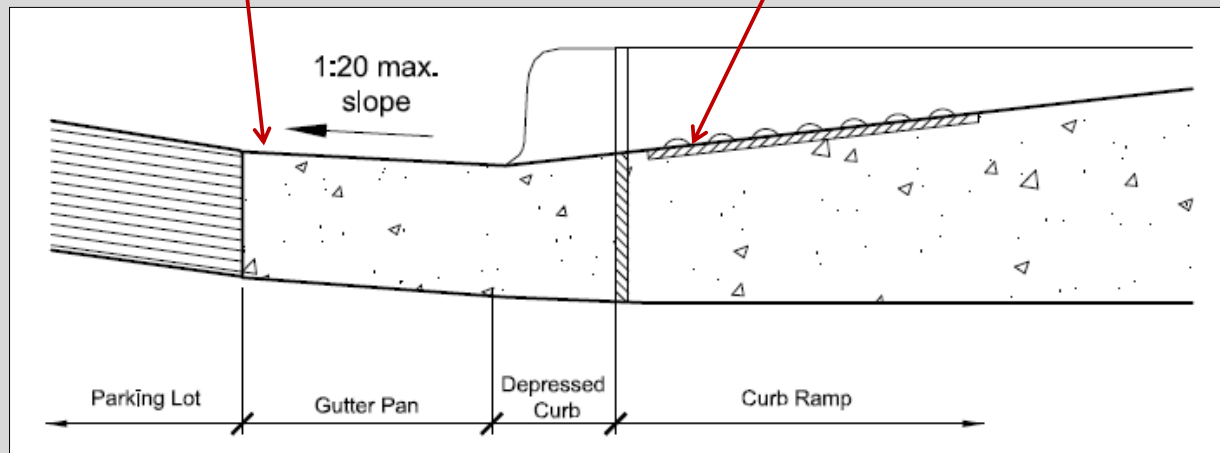
Detectable Warnings



Curb Ramp Counter Slope

Max. Counter
Slope 5%

Max. Curb Ramp
Slope 8.33%



Automatic Doors

CBC 18-11-1105.4 Automatic doors

At least one accessible entrance door to the following facilities, shall be a automatic door

2. Museums with an aggregate area of 5,000 square feet or more



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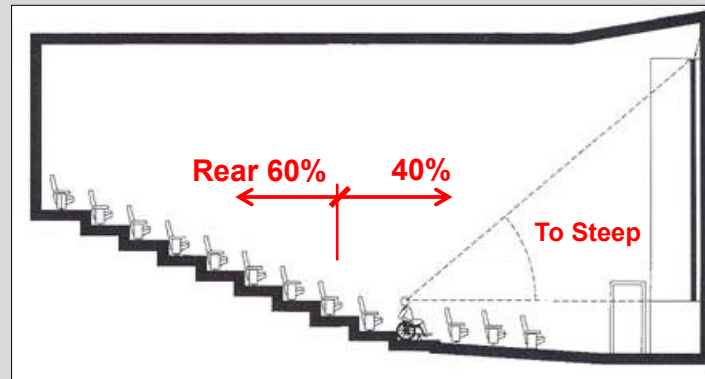
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Assembly Areas

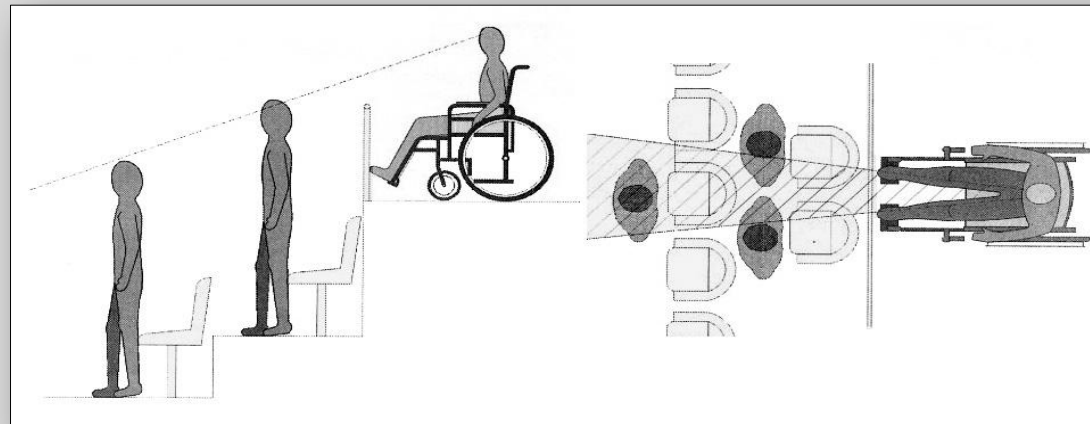
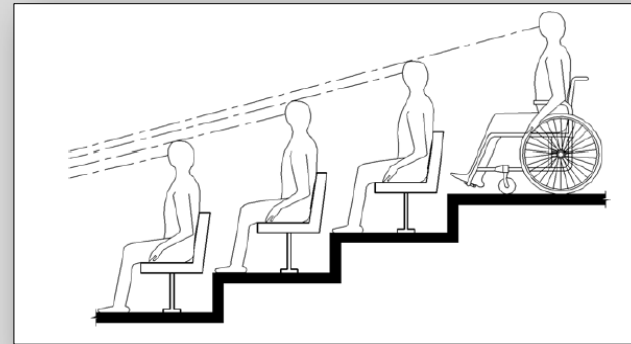
Stadium-style movie theaters shall locate wheelchair spaces and companion seats on a riser or cross-aisle in the stadium section that satisfies at least one of the following criteria:

1. It is located within the **rear 60%** of the seats provided in an auditorium; or
2. It is located within the area of an auditorium in which the **vertical viewing angles** (as measured to the top of the screen) are not too steep.



Assembly Areas

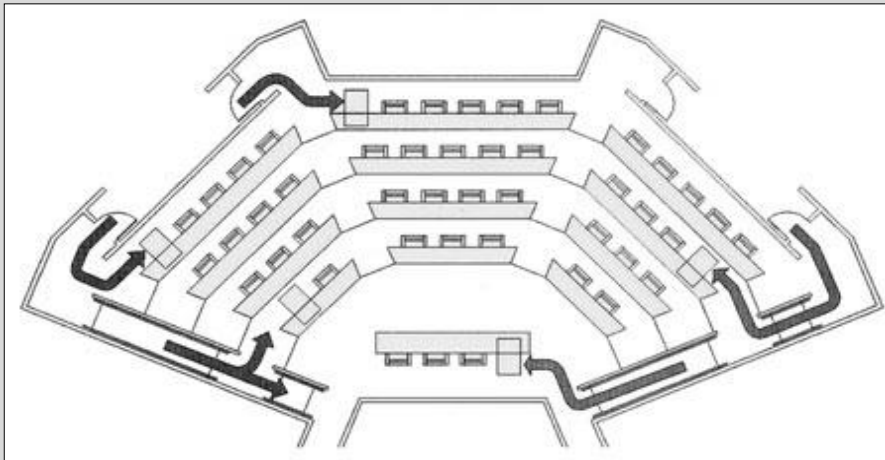
Comparable lines of sight over seated and standing spectators



Assembly Areas

Accessible spaces must be dispersed & Integrated

- **Horizontally** (side-to-side)
- **Vertically** (front-to-back)



Assembly Areas

- Companion seats shall be equivalent in size, quality, comfort, and amenities to the seating in the immediate area.
- “Fixed” companion seat no longer required



1991 ADA Standards



2010 ADA Standards

Assembly Areas

Assistive Listening Devices

In each assembly area where audible communication is integral to the use of the space, an assistive listening shall be provided



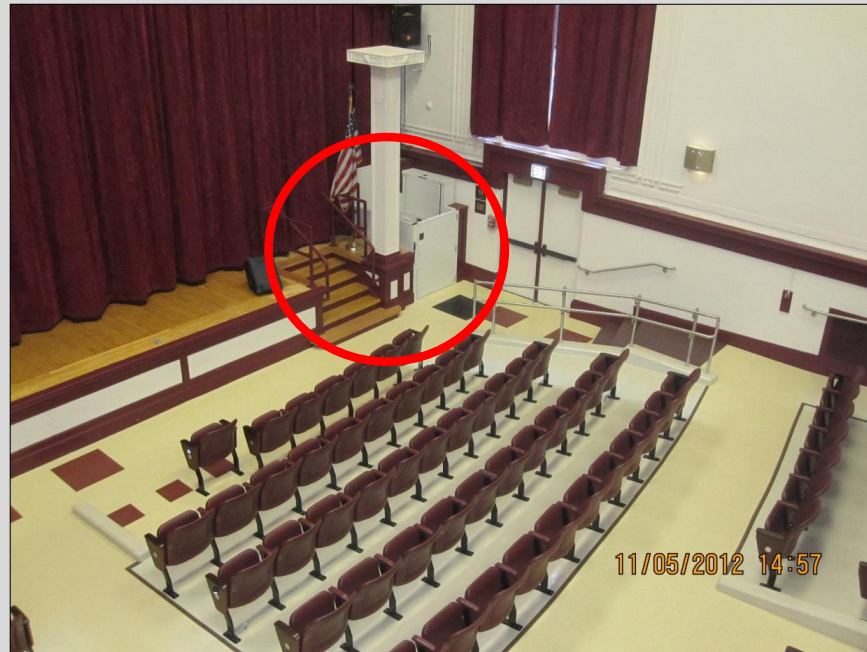
Assembly Areas

Where a circulation path directly connects a performance area to an assembly seating area, an accessible route shall directly connect the assembly seating area with the performance area.



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Historic Preservation

Alterations to historic properties must comply, to the maximum extent feasible, with the provisions applicable to historic properties.

If it is not feasible to provide physical access to an historic property in a manner that will not threaten or destroy the historic significance of the building or facility, alternative methods of access shall be provided pursuant to the requirements of ADA § 35.151(b)(ii)

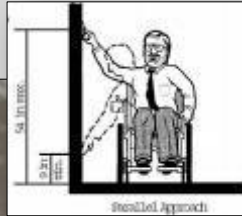
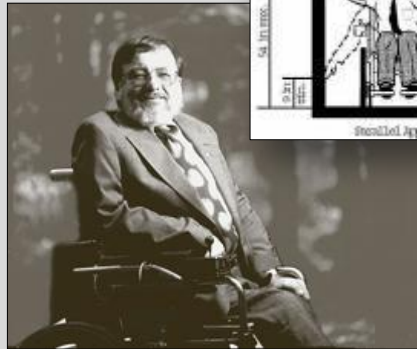


Universal Design



Universal Design

“Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”



Ron Mace
1941 - 1998

Ron Mace, FAIA

*The Center for Universal Design
NC State University*



Principles of Universal Design

1. Equitable Use
2. Flexibility in Use
3. Simple, Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach & Use



Universal Design



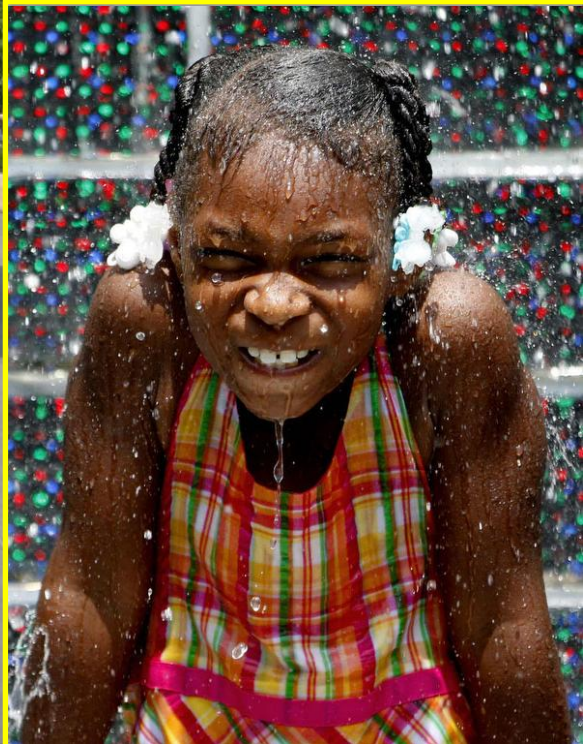
Millennium Park - Chicago

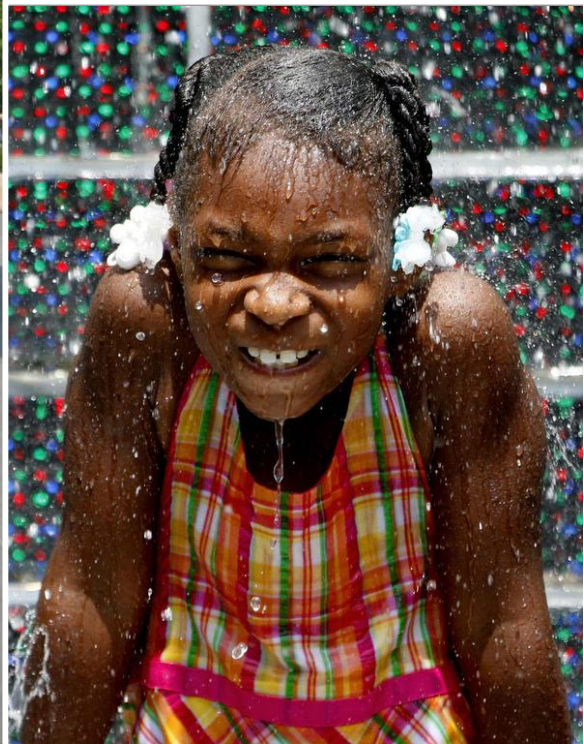
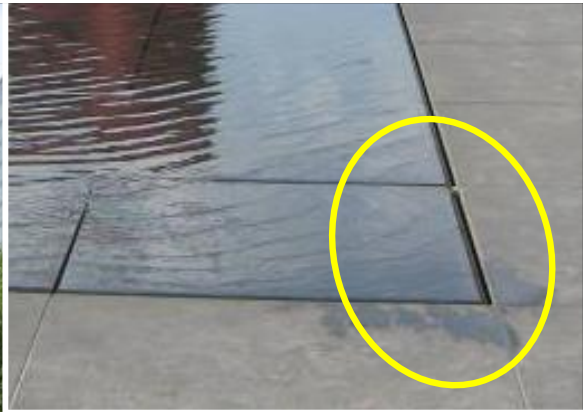
Accessibility | Universal Design



The Crown Fountain



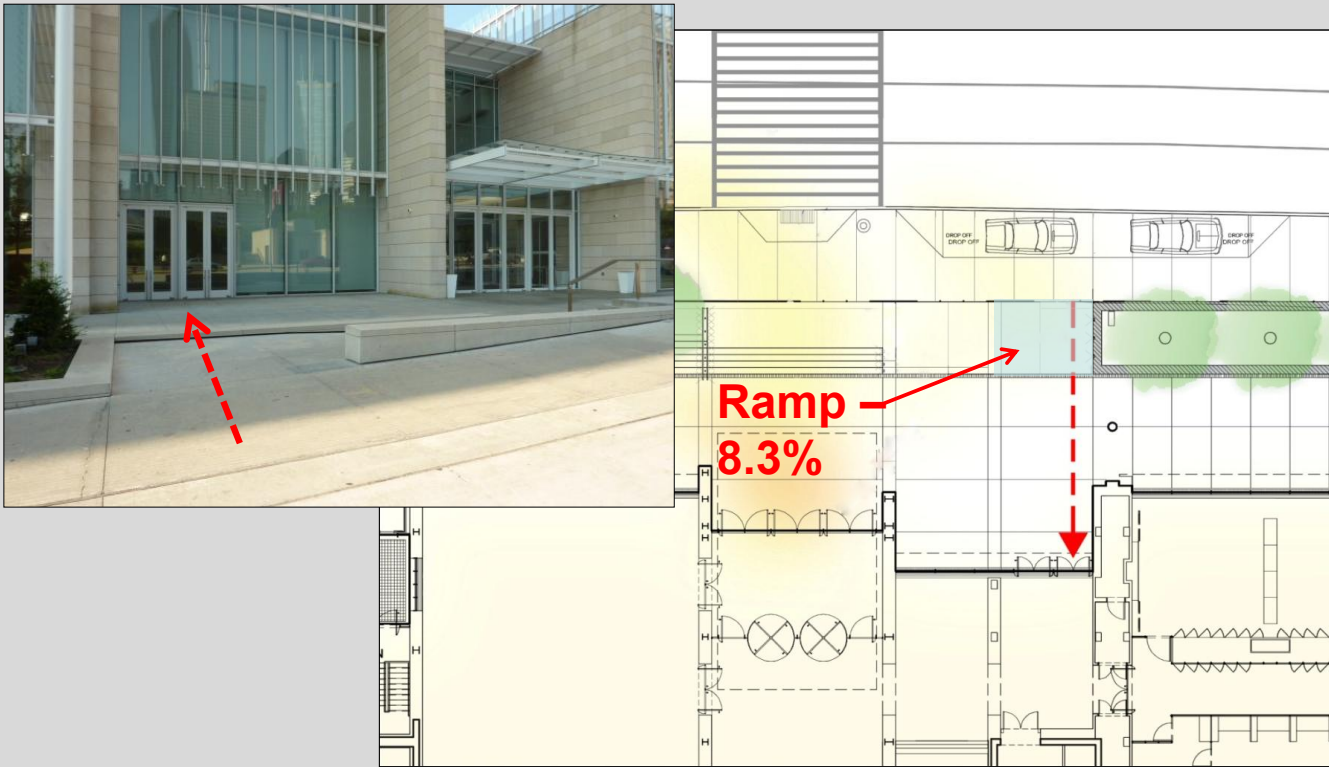




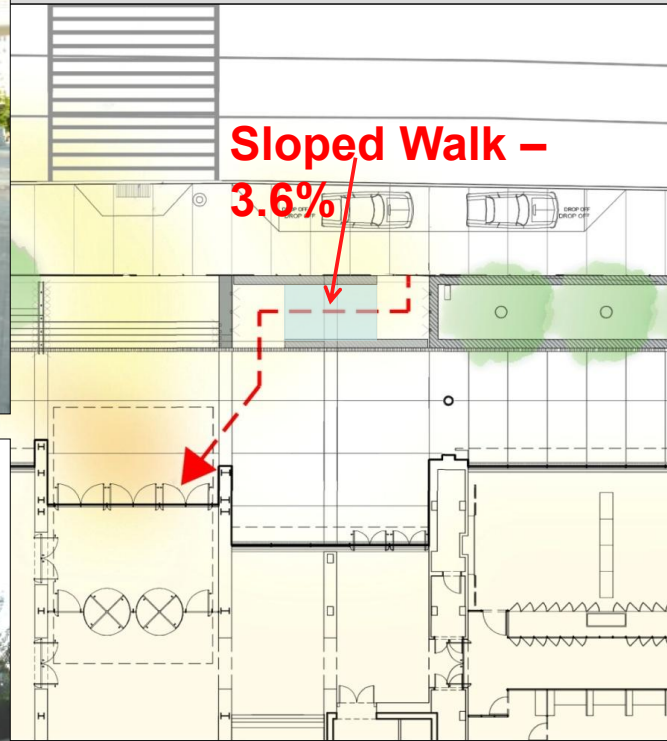




The Chicago Art Institute - Modern Wing



The Chicago Art Institute - Modern Wing



The Chicago Art Institute - Modern Wing

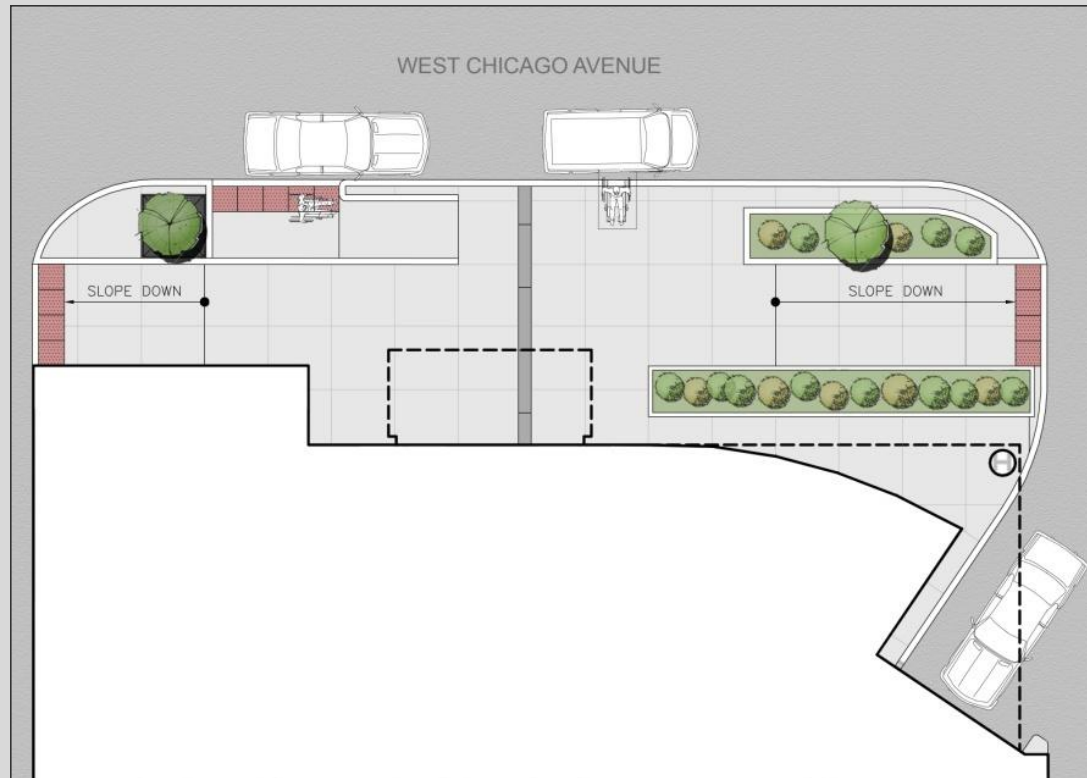


Access Living

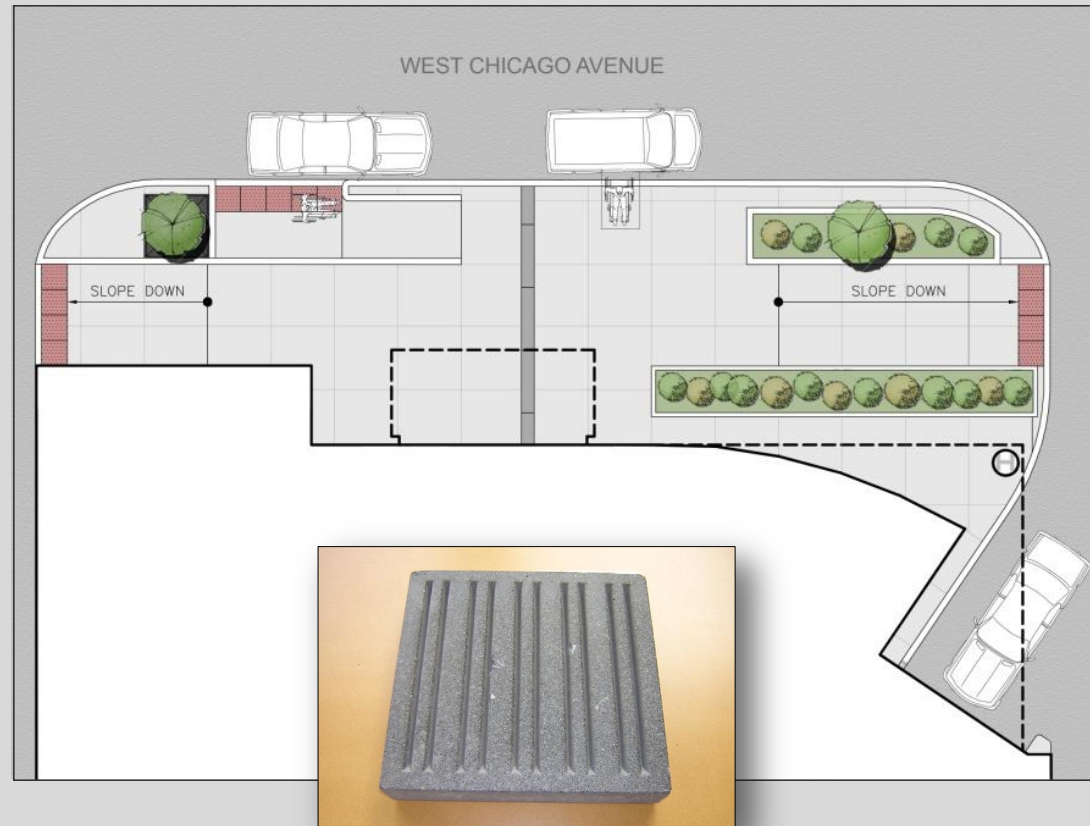
115 West Chicago Ave, Chicago, IL



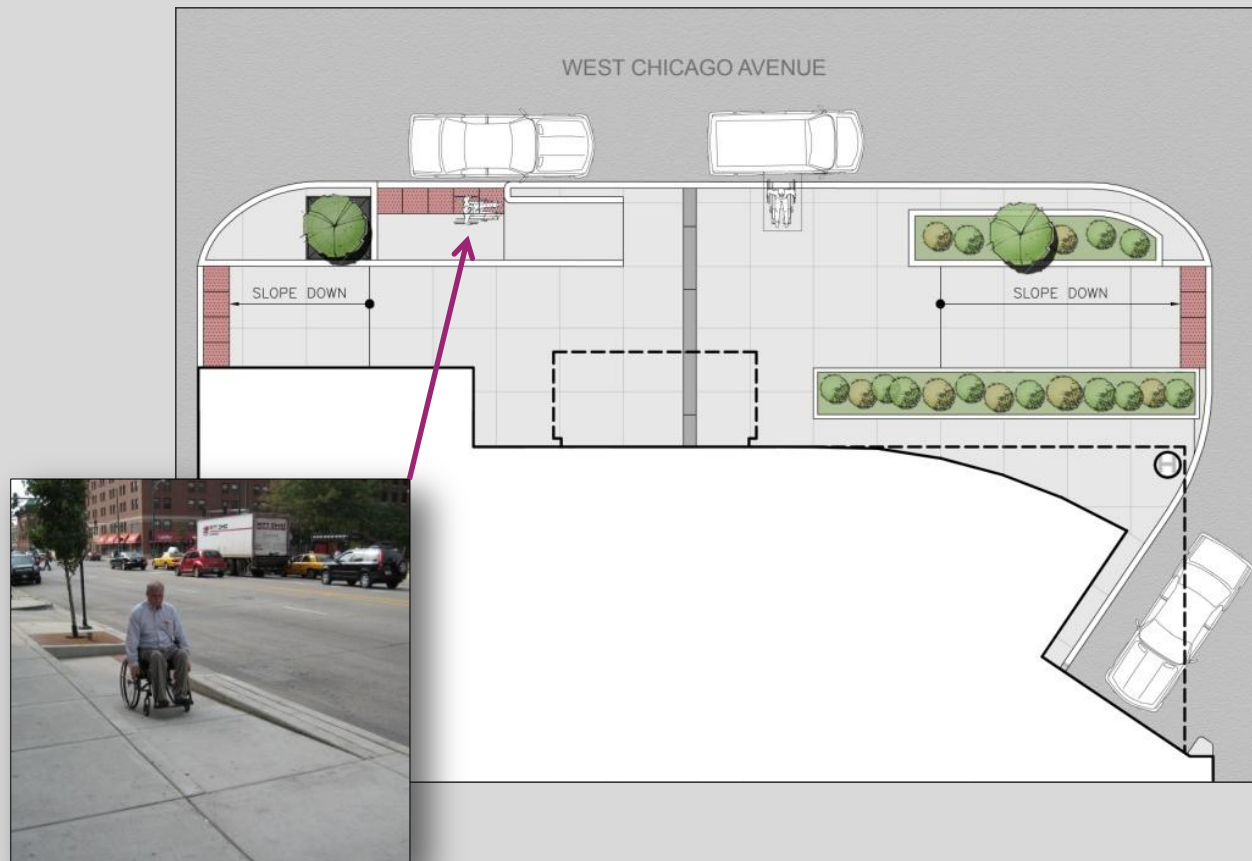
Access Living - Plaza



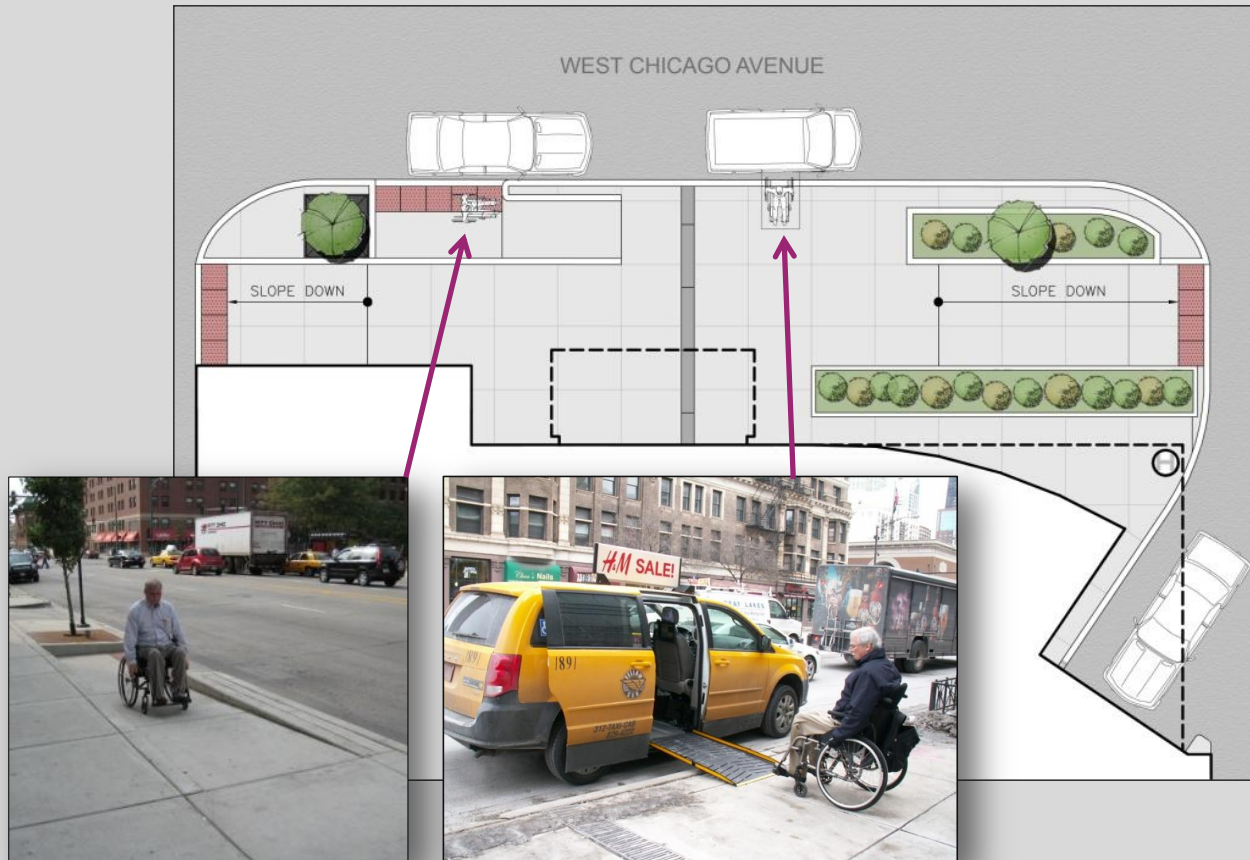
Access Living - Plaza



Access Living - Plaza



Access Living - Plaza



Access Living - Reception



LCM Architects

Access Living - Reception

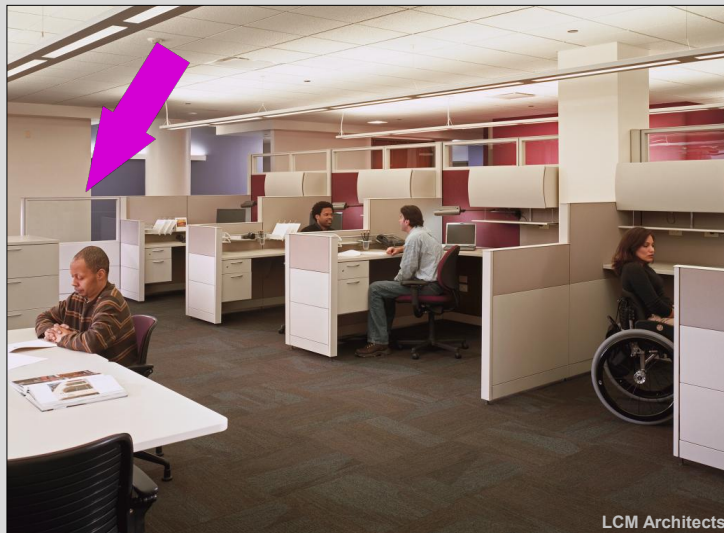


LCM Architects

Access Living – Work Stations



Access Living – Work Stations



Universal Design Resources

United States Access Board

www.access-board.gov



The IDeA Center

<http://idea.ap.buffalo.edu/Home/index.asp>



The Institute for Human Centered Design

www.adaptenv.org



Center for Universal Design

www.design.ncsu.edu/cud



ADA 25 CHICAGO

GREATER > TOGETHER

Emily J. Harris

Executive Director
ADA 25 Chicago
c/o Chicago Community Trust
225 North Michigan Avenue, Suite 2200
Chicago, IL 60601

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