Century Sign Builders

2010 ADA Standards of Accessible Design & How They Relate to Signage

Copyright Notice

Learning Objectives

Facilities That Must Comply

Compliance Date

U.S. Access Board

ANSI

Thank You!

Prezi

Century Sign Builders
Provider Number: L249

2010 ADA Standards of Accessible
Design & How They Relate to Signage
Course Number: L249102

CONTINUING EDUCATION
AIA

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Course Description

Understand the 2010 ADA Accessibility Guidelines (which are effective as of March 15, 2012) and how they relate to signage and wayfinding. Find out what you will need to know to be sure that your next project complies with the new guidelines.

Learning
Objectives

At the end of the this course, participants will be able to:

1. Understand how the 2010 ADA Standards of Accessible Design relate to signage.

2. Understand the compliance date and what facilities need to comply.

3. Understand the 3 categories of signs which need to comply
   o   Minimum Design Requirements
   o   Placement and Mounting

4. Discuss considerations to aid in designing an accessible building.

Americans with Disabilities Act (ADA)

The ADA is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability.

It is intended to protect the civil rights of the disabled, prohibiting discrimination in employment and access to goods and services.

Alphabet Soup

The Players
American National Standards Institute (ANSI)
Department of Justice (DOJ)
Government Services Agency (GSA)
United States Access Board

- 1968 - Architectural Barriers Act (ABA) enacted into law for Federal Facilities - Enforcement Agency is the   Access Board.
- 1990 - American with Disabilities Act (ADA) enacted into law for Public Entities, Public Transportation and Public Accommodations and Commercial Facilities - Enforcement Agency is the DOJ.
- 1991 - Access Board published design criteria known as Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- 2004 - Access Board combined the ADAAG & the Uniform Federal Accessibility Standards (UFAS) into a revised ADA and ABA Accessibility Guidelines (2004 ADAAG).
- 2006 - GSA adopted the 2004 ADAAG for Federal Facilities.
- 2011 - DOJ adopted the revised portion of the 2004 ADAAG and published it as the 2010 ADA Standards for Accessible Design.
- 2012 - March 15th, most facilities must comply with 2010 ADA Standards for Accessible Design.
- Each state's building codes and guidelines may reference ANSI or ADAAG; this is permissible as long as the guidelines are as strict or more strict than the 2010 ADA Standards for Accessible Design.

U.S. Access Board

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Vice-Chair of the Texas Disability Policy Consortium
Member for the Coalition of Texans with Disabilities

John Gunnar Box
Founder of Colours 'N Motion, Inc.

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Director of Urban and Transportation Projects for the Institute for
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Phillip D. Jenkins
Senior software engineer in IBM's Research Division

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Executive Director of the District of Columbia (DC) Developmental
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Assistant City Administrator for the City of West Palm Beach

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Public Policy Chair for National Association of the Deaf, Co-founder
and Chairperson of the Midwest Center on Law and the Deaf

Deborah A. Ryan
Head of Deborah A. Ryan & Associates

Nancy Starnes
Served as Director of External Affairs for the National
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Department of the Interior

ANSI

American National Standards Institute Committee A117

Secretary: Kermit Robinson, Senior Technical Staff
Technical Services Dept., 5360 Workman Mill Road – Whittier, CA 90601

Committee Members

Accessibility Equipment Manufacturers Assoc.
American Bankers Association
American Council of the Blind
American Hotel & Lodging Assoc.
American Institute of Architects
American Occupational Therapy Association
American Society of Interior Designers
American Society of Plumbing Engineers
American Society of Safety Engineers
American Society of Theatres Consultants
Association for Education & Rehabilitation of the Blind
   & Visually Impaired
Brain Injury Association of America
Builders Hardware Manufacturers Association, Inc.
Building Owners and Managers Association,
International
Disability Rights Education and Defense Fund
Hearing Loss Assoc. of America
International Association of Amusement Parks
   and Attractions
International Code Council, Inc.
International Sign Association
Little People of America
Montgomery County Dept of Permitting Services
National Assoc. of Home Builders
National Association of the Deaf

National Conference of States on Bldg Codes and Standards
National Electrical Mfrs Assoc.
National Elevator Industry, Inc.
National Fire Protection Assoc. International
National Multi-Housing Council
New Mexico Governor's Commission on Disability
Paralyzed Veterans of America
Plumbing Manufacturers Institute
Society for Environmental Graphic Design
Stairway Manufacturers Assoc.
United Cerebral Palsy Association, Inc.
United Spinal Association
United States Access Board
U.S. Department of Agriculture
U.S. Dept of Housing and Urban Development
World Institute on Disability

Individual Experts

Shahriar Amin
Todd Anderson
George P. McAllister, Jr
Jake Pauls
Ed Roether
John Salmen
Ken Schoonover (Chair)

Members in each category:

Builder/Owner/Operator - 6
Consumer/User - 11
Professional - 15
Producer/Distributor - 7
Regulatory - 7

Facilities That Must Comply

Title II

State and Local Government Facilities (including public entities and public transportation)

Title III

Public Accommodations and Commercial Facilities (including retailers, restaurants, hotels, banks, medical facilities, civic institutions, private schools and offices)

Compliance Date

March 15, 2012 is the compliance date for using the 2010 Standards for new construction, alterations, program accessibility and barrier removal. If your building is permitted on or after this day, it must comply regardless of the IBC the plans were designed under.

3 Categories of Signs That Must Comply

Signs that Identify Permanent Rooms and Spaces

Signs Identifying and Directing to Accessible Features

Directional and Information Signs

Exemptions from These Standards Include the Following:

- Building Directories
- Menus
- Seat & Row Designations in Assembly Areas
- Occupant Names
- Building Addresses
- Company Names & Logos
- Additionally, any temporary signs used for 7 days or less are not required to be compliant.

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Signs Identifying and Directing to Accessible Features

- Entrances, Elevators and Restrooms
- Parking, Check-Out Aisles and Amusement Rides
- Means of Egress
  - Area of Refuge
  - Exits
- TTYs (Text Telephone), Assisted Listening Systems and Volume Control Telephones

Entrances, Elevators and Restrooms

Identify
Where not all features are accessible, those that are accessible shall be identified with the ISA.

Direct
Where not all features are accessible, there shall be directional signs indicating the location of the nearest accessible feature.

International Symbol of Accessibility (ISA)

Parking

Identify
Those parking spaces that are accessible
- Shall be identified by the ISA.
- Contain the text "Van Accessible" if applicable
- Be mounted a minimum of 60" above the finished floor measured from the bottom of the sign

International Symbol of Accessibility (ISA)

Check-Out Aisles

Identify

Where more than one check-out aisle is provided, check-out aisles that are accessible shall be identified by the ISA.

International Symbol of Accessibility (ISA)

Amusement Rides

Identify

Amusement Rides that are accessible shall be identified by the ISA at the entries to queues and waiting lines.

Where accessible unload areas also serve as accessible load areas, signs indicating the location of accessible load and unload areas shall be provided at entries to queues and waiting lines.

International Symbol of Accessibility (ISA)

Means of Egress - Areas of Refuge

Identify
Each door providing access to an Area of Refuge shall be identified by a sign stating "Area of Refuge" or "Exterior Area For Assisted Rescue."

Direct
There shall be directional signs indicating the location of the nearest Area of Refuge or Exterior Area For Assisted Rescue.

Inform (IBC & NFPA)
In the Area of Refuge or Exterior Area For Assisted Rescue, instructions on the use of the area under emergency conditions shall be posted.

International Symbol of Accessibility (ISA)

Means of Egress - Exit

Identify

Doors at exit passageways, exit discharges and exit stairways shall be identified by tactile and Braille signs. It is safe to always accompany an overhead exit sign with a tactile exit sign.

Direct

The same tactile exit sign may be used at the door of an exit passageway or exit stairway. We recommend a best practice similar to California's more stringent code that requires different terminology depending on the type of exit being identified.
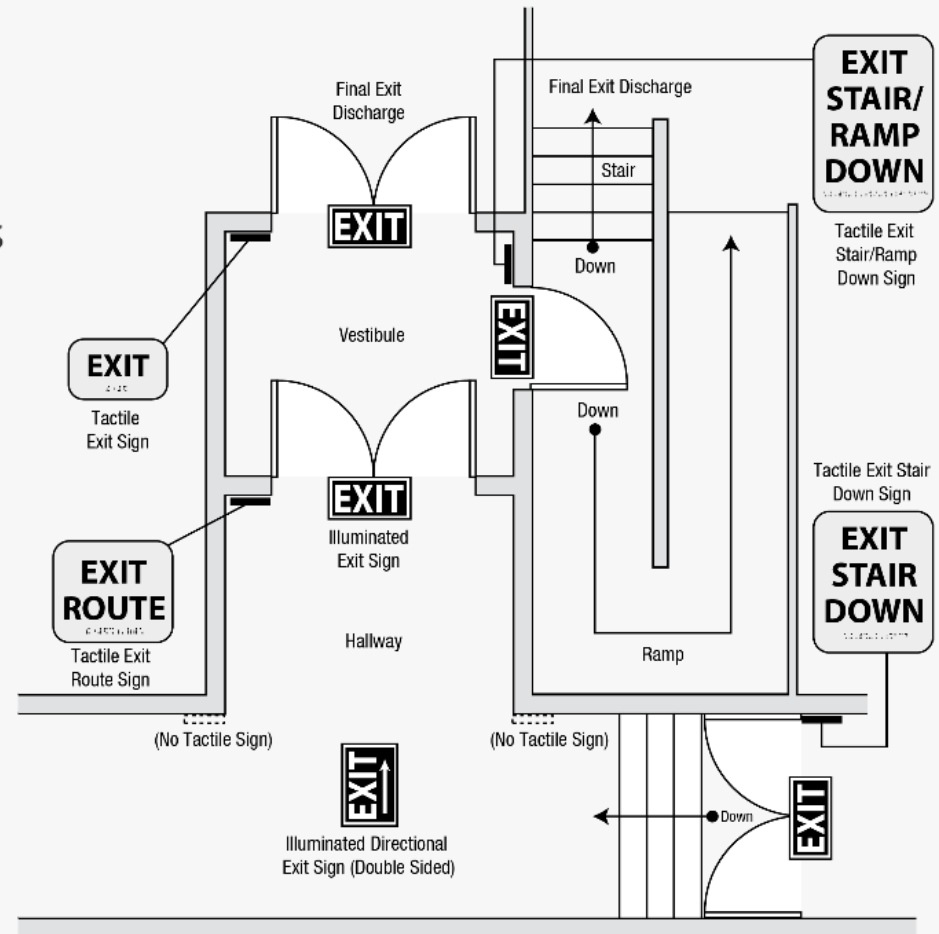
TTYs (Text Telephone)

Identify

Public TTYs shall be identified by the International Symbol of TTY.

Direct

Directional signs indicating the location of the nearest TTY shall be provided at all banks of public telephones. In addition, where directional signs to public telephones exist, TTYs need to be noted on that sign.

International Symbol of TTY

Assisted Listening Systems

Identify

Provide signs at each covered assembly area to inform patrons that assisted listening systems are available. An exception to this requirement permits assembly areas that have ticket offices/windows to display the required signs at the ticket window.

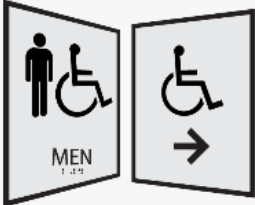International Symbol of Access for Hearing Loss

Volume Controlled Telephones
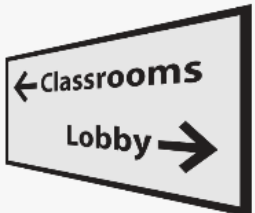
Identify

Telephones with a volume control
shall be identified by a volume
control telephone pictogram.

Volume Control Telephone Pictogram

Minimum Design & Mounting Requirements for the 3 Types of Signs

		Tactile Characters	Grade II Braille	Visual Characters	Pictograms	Finish & Contrast	Mounting
	Signs that Identify Permanent Rooms and Spaces	✓	✓	✓	✓	✓	✓
	Directional and Information Signs			✓		✓	✓
	Signs that Identify and Direct to Accessible Features	✓*	✓*	✓	✓*	✓	✓

*Applies only to signs that Identify Exit Doors, Area of Refuge, and Accessible Restrooms

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Tactile Characters and Grade II Braille

Must be raised 1/32 inch minimum above background
Must be accompanied by Grade II Braille
Must be all UPPERCASE and sans serif
Not all sans serif fonts are approved

Approved Fonts:
- Helvetica
- Futura
- Gil Sans
- Arial
- many others...

Tactile Characters Height/Braille and Surrounding Space

- Tactile lettering height - minimum 5/8" - maximum 2"
- Space around tactile lettering - characters shall be separated from raised borders and decorative elements by 3/8" minimum
- Space from tactile lettering to Braille - a minimum of 3/8"
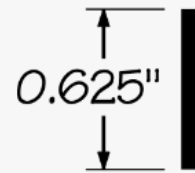- Braille shall be positioned below the corresponding text
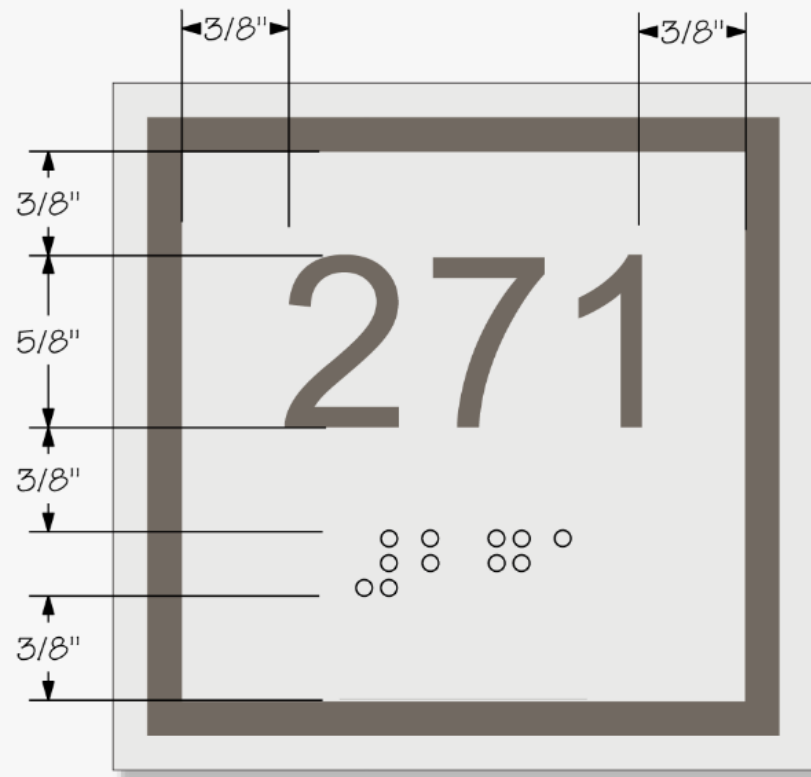
Tactile Character - Proportions

To be compliant, the width of the uppercase "O" needs to be between 55% to 110%* of the height of the uppercase "I" in the font.
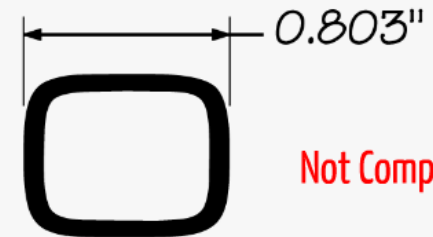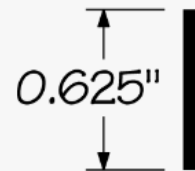
Minimum Width of the Uppercase "O" =.34375"

Maximum Width of the Uppercase "O" =.6875"
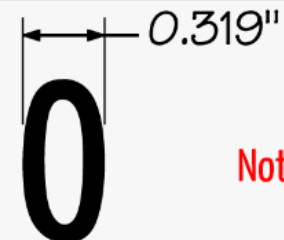
*CA Title 24 is 60% to 100%

Arial Regular 0.625" 0.598" Compliant

Eurostile Extended Roman 0.625" 0.803" Not Compliant

Futura Condensed 0.625" 0.319" Not Compliant

Tactile Character - Stroke Thickness

To be compliant, the stroke thickness of the uppercase "I" in a font shall be 15%* maximum of the height of the character.
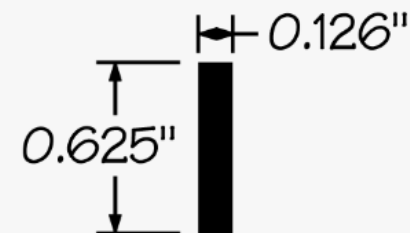
Maximum Stroke Thickness of the Uppercase "I" =.09375"
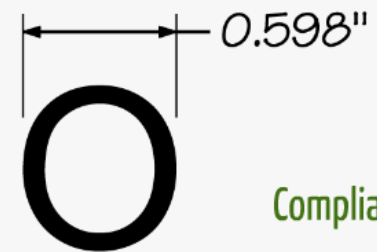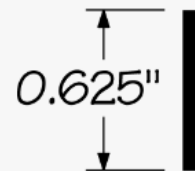
Arial Regular	⊢ 0.083" 0.625"	Compliant
Arial Bold	⊢ 0.126" 0.625"	Not Compliant
Futura Bold	⊢ 0.172" 0.625"	Not Compliant

*CA Title 24 is between 10% to 20%

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Tactile Character - Spacing

To be compliant, the character spacing between the two closest points of adjacent raised characters within a message needs to be:

Non-Beveled Characters
Minimum 1/8" spacing
Maximum 4 times the stroke width

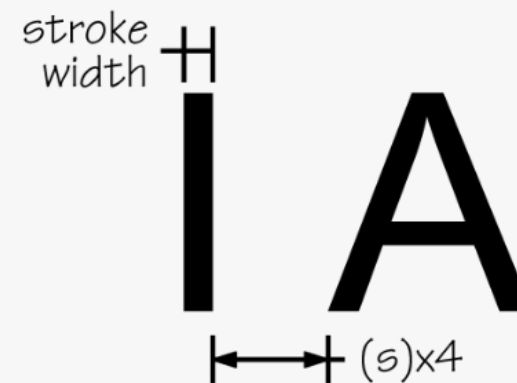**Beveled Characters**
At the top of the cross section
   Minimum 1/8" spacing
   Maximum 4 times the stroke width

At the base of the cross section
   Minimum 1/16" spacing
   Maximum 4 times the stroke width
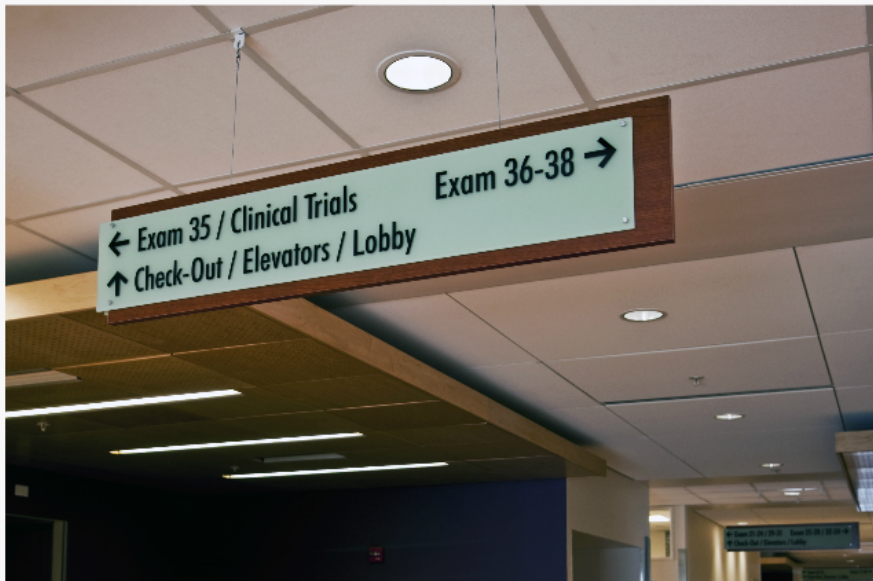
IA
⊢⊢1/8"

stroke
width
IA
⊢⟶⊢ (s)x4

Visual Characters

May be UPPER or lower case
May be serif or sans serif
May NOT be italic, oblique, script, or highly decorative
Some proportion requirements apply

DOG   CAT

Dog   Cat

Letter Visibility Chart

Upper & Lower Case		ALL CAPITAL	
Letter Height: Upper & Lower Case	Maximum Legible Distance	Letter Height: ALL CAPITALS	Maximum Legible Distance
0.5"	14'	0.5"	12'
0.75"	22'	0.75"	19'
1"	29'	1"	25'
1.25"	36'	1.25"	31'
1.5"	43'	1.5"	37'
1.75"	51'	1.75"	43'
2"	58'	2"	50'
2.5"	72'	2.5"	62'
3"	87'	3"	75'
3.5"	101'	3.5"	87'
4"	116'	4"	100'
4.5"	130'	4.5"	112'
5"	145'	5"	125'
6"	174'	6"	150'
8"	232'	8"	200'
10"	290'	10"	250'
12"	348'	12"	300'
16"	464'	16"	400'
18"	522'	18"	450'
20"	580'	20"	500'
24"	696'	24"	600'
30"	870'	30"	750'
36"	1044'	36"	900'
48"	1392'	48"	1200'

We hope you find this letter visibility chart useful in determining the proper size lettering for all wayfinding signs and exterior signage.

The information presented in this chart is based on lettering using the font Helvetica as black text on a white background in a composition using optimal negative space seen in natural lighting. This condition represents a sign with maximum legibility. Factors that would decrease the legibility of the sign are: font selection, color choice, lighting, negative space, and other environmental factors.

CENTURY SIGN BUILDERS

(800) 279-2904
CSBsigns.com

The Big Builder of Little Signs

The information presented in this chart represents data interpreted (by Century Sign Builders) from the Pennsylvania Transportation Institute, Penn State University and the United States Sign Council (USSC) ©1998. Please refer to the original study, *Sign Legability: The impact of Color and Illumination on Typical On-Premise Sign Fonts.* For further details please contact the USSC at (215) 785-1922.

Visual Character - Style

A

Arial Regular
Sans Serif

A

Century School Book
Serif

A

Century School Book
Italic

A

Univers 55
Oblique

A

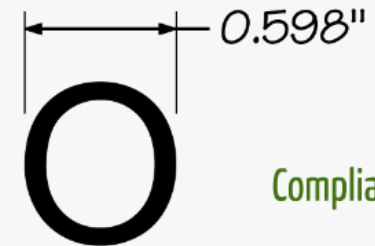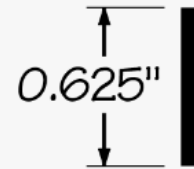**Brush Script**
Script

A

Ravie
Unusual Form

Visual Character - Proportions

To be compliant the width of the uppercase "O" needs to be between 55% to 110% of the height of the uppercase "I" in the font.
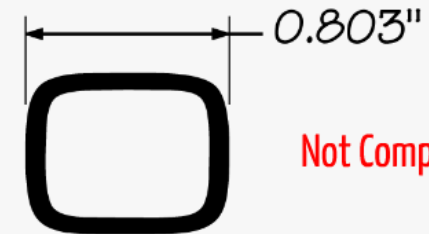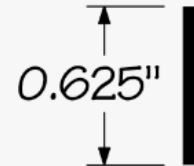
Minimum Width of the Uppercase "O" =.34375"
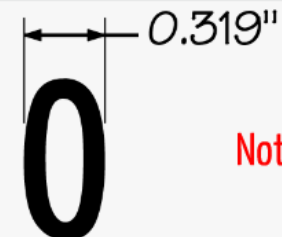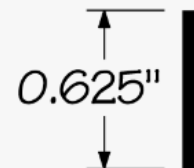
Maximum Width of the Uppercase "O" =.6875"

Arial Regular — 0.625" — 0.598" — **Compliant**

Eurostile Extended Roman — 0.625" — 0.803" — **Not Compliant**

Futura Condensed — 0.625" — 0.319" — **Not Compliant**

Visual Character - Stroke Thickness

To be compliant the stroke thickness of the uppercase "I" in a font shall be 10% minimum and 30% maximum of the height of the character.
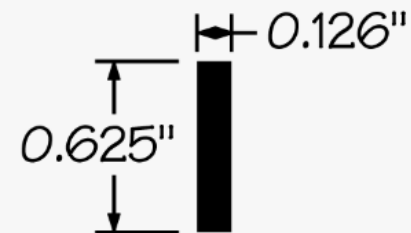
Minimum Stroke Thickness of the Uppercase "I" =.0625"

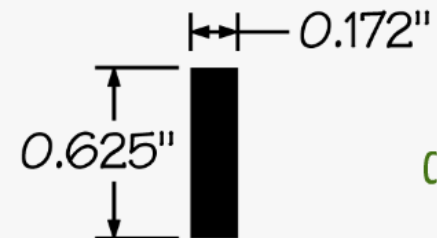Maximum Stroke Thickness of the Uppercase "I" =.1875"
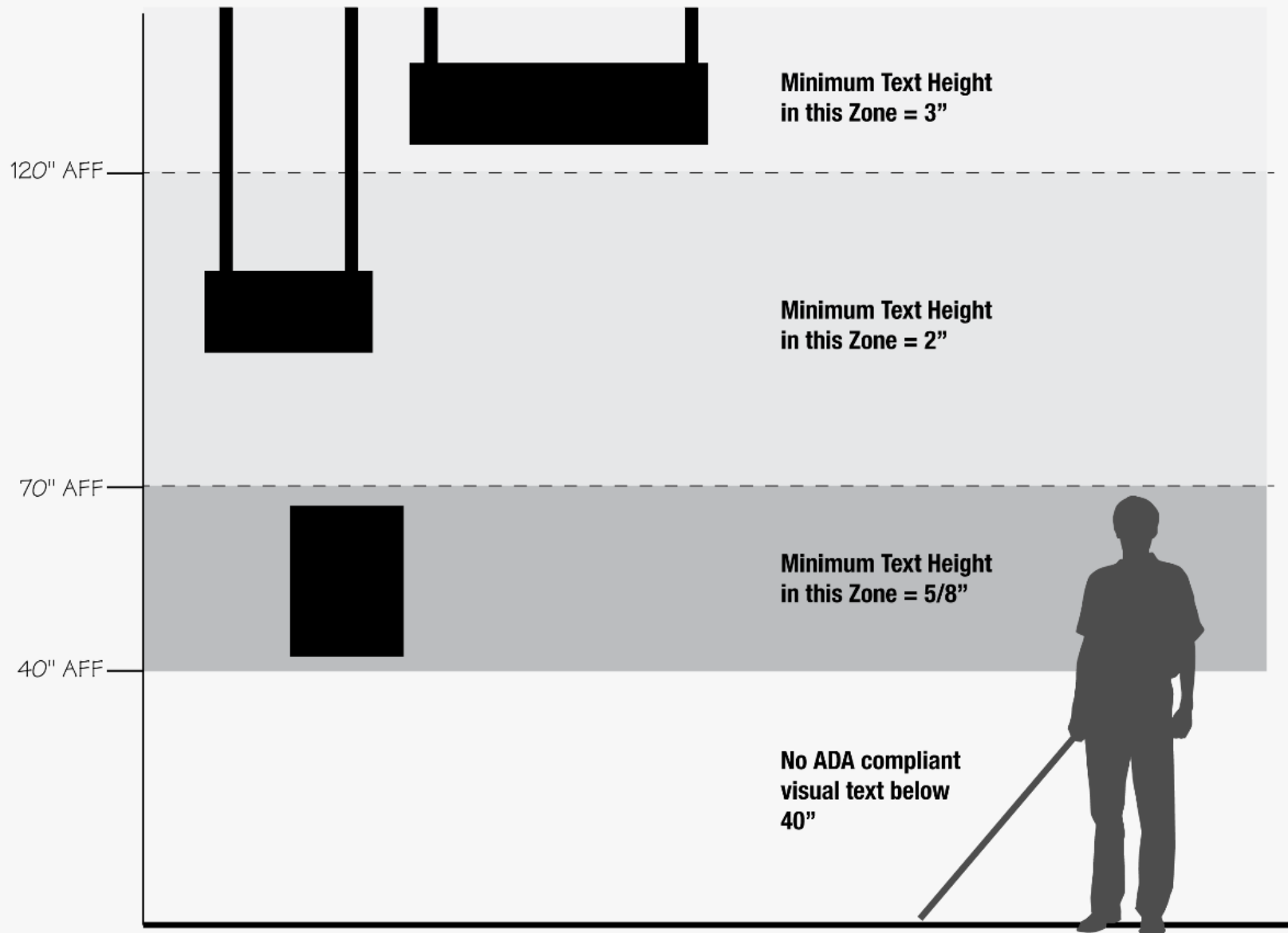
Arial
Regular

0.625"

⊢⊢ 0.083"

Compliant

Arial
Bold

0.625"

⊢⊢ 0.126"

Compliant

Futura
Bold

0.625"

⊢⊢⊢ 0.172"
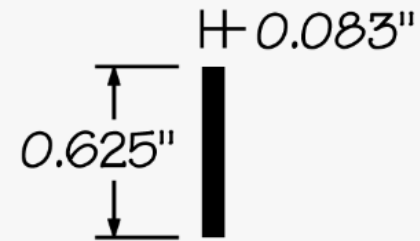
Compliant

Visual Character Height Table

	Horizontal Viewing Distance	Minimum Character Height
Between 40" and 70" Above Finished Floor	≤ 6'	5/8"
	> 6'	5/8" + 1/8" per foot of viewing distance beyond 6'
Between 70" and 120" Above Finished Floor	≤ 15'	2"
	> 15'	2" + 1/8" per foot of viewing distance beyond 15'
Above 120"	≤ 21'	3"
	> 21'	3" + 1/8" per foot of viewing distance beyond 21'

2010 ADA Standards for Accessible Design, Page 191, Table 703.5.5

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Visual Character Height Zones

Minimum Text Height in this Zone = 3"

120" AFF

Minimum Text Height in this Zone = 2"

70" AFF

Minimum Text Height in this Zone = 5/8"

40" AFF

No ADA compliant visual text below 40"

Pictograms

Must have field height of 6 inches minimum

Text must be below (not within) the 6 inch field

Text must be in tactile and Braille

No requirement for size of pictogram

Finish & Contrast

- Characters and background must have a non-glare finish
- Must have appropriate level of contrast (light on dark/dark on light)

Best Practice:
Contrast should equal or exceed 70%

$$\text{Contrast} = [(B1-B2)/B1] \times 100$$

B1 = Light Reflectance Value (LRV) of lighter area

B2 = LRV of darker area

Resource for LRV: Matthews Paint & Rowmark Plastics

http://www.rowmark.com/MARK/techhelpdocs/ADA%20color%20contrast%20charts/LRV%20Reference%20Table.pdf

http://www.ppg.com/coatings/matthewspaint/color/Documents/ColorSelector2008PrintVersion.pdf

Dual Sign

When large characters are desired for design purposes, clear tactile and Braille can be used to fulfill ADA requirements for accessibility.

Where separate raised and visual characters are used, the raised tactile character height can be 1/2" minimum, rather than the typical 5/8".
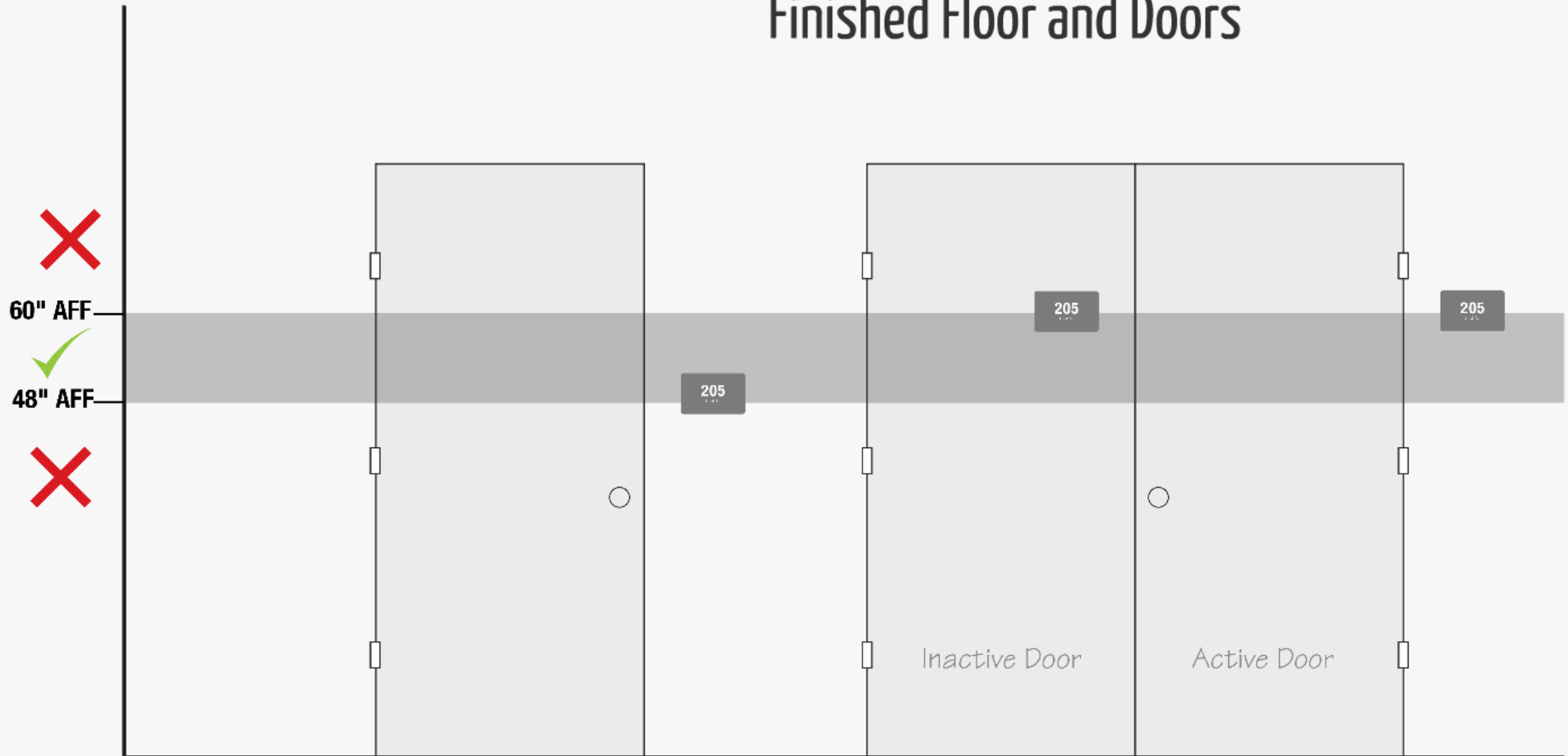
Placement and Mounting

- Tactile Character Zone
- Sign Location in Relationship to Finished Floor and Doors
- Clearance Area
- Sidelight Placement
- Protruding Signs/Displays

Tactile Character Zone

# Sign Location in Relationship to Finished Floor and Doors

- The baseline of any tactile character must lie between 48" and 60" above the finished floor.
- Single Doors - locate sign alongside the latch side of the door
- Double Doors with one active leaf - locate sign on the inactive leaf
- Double Doors with two active leafs - locate sign to the right of the right hand door

# Sign Location in Relationship to the Door - **Exception**

205
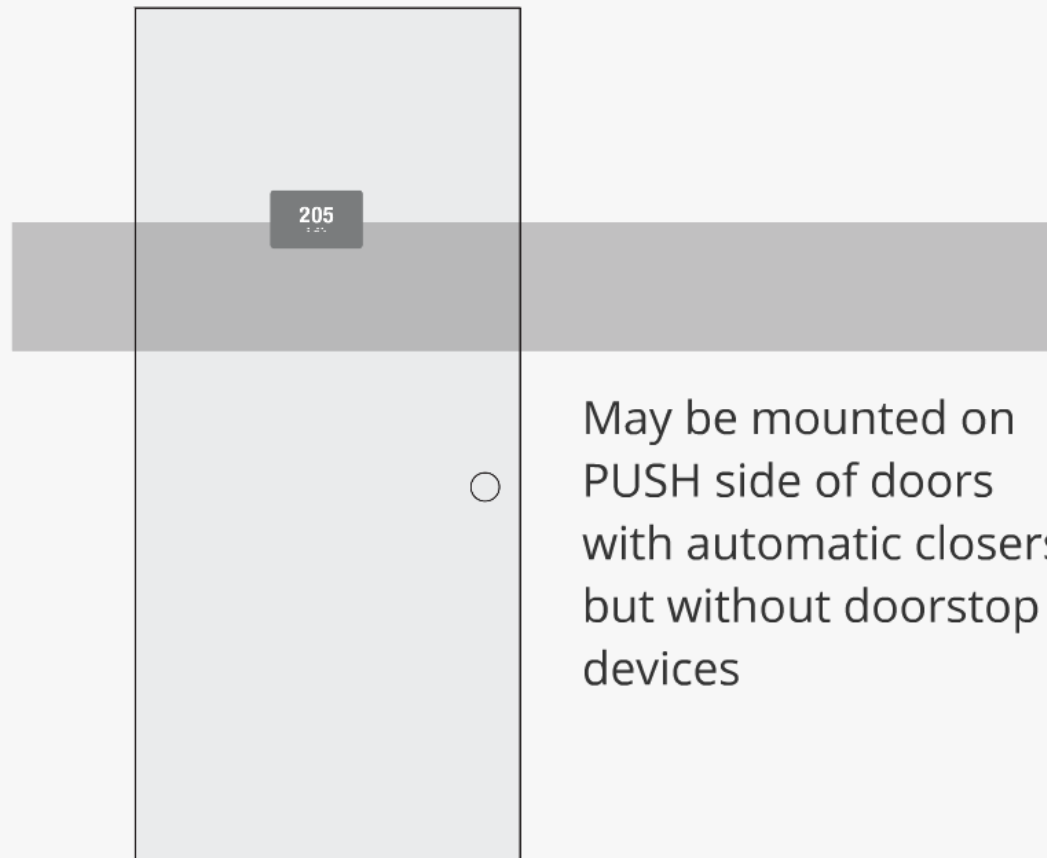
May be mounted on PUSH side of doors with automatic closers but without doorstop devices

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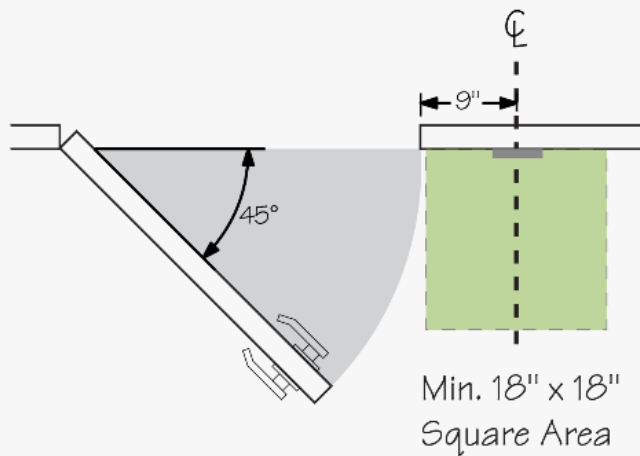
Clearance Area

Tactile signs shall be located so that a clear floor space of 18" x 18" (min) is provided beyond the arc of any door swing between the closed position & the 45 degree open position. The sign must be installed at a minimum of 9" from the door jam to the **center of the tactile characters.**
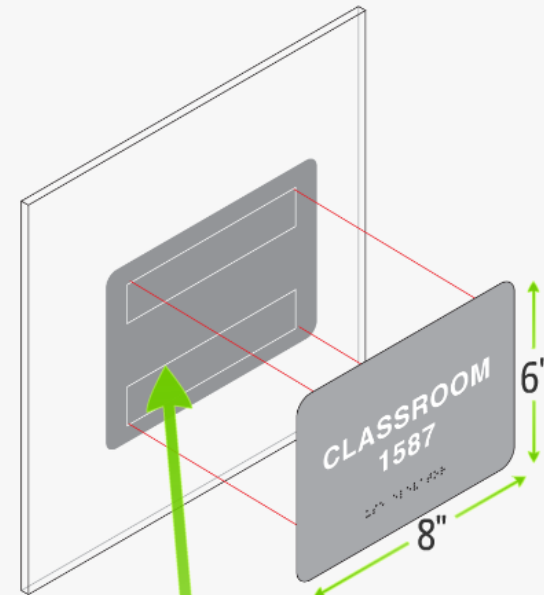
Min. 18" x 18" Square Area

Min. 18" x 18" Square Area
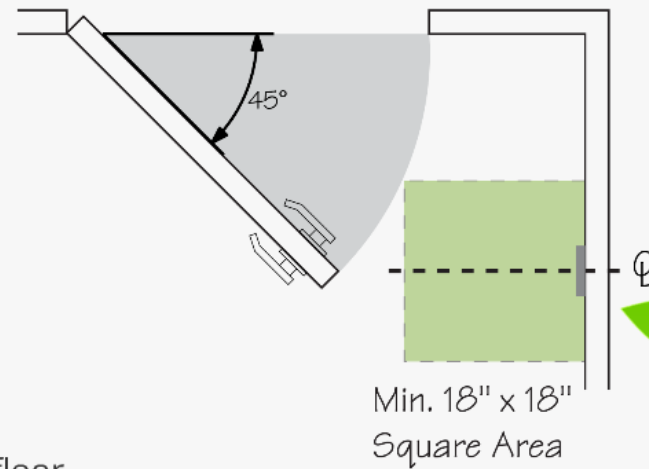
Adjacent Wall - when no space available on latch side of door
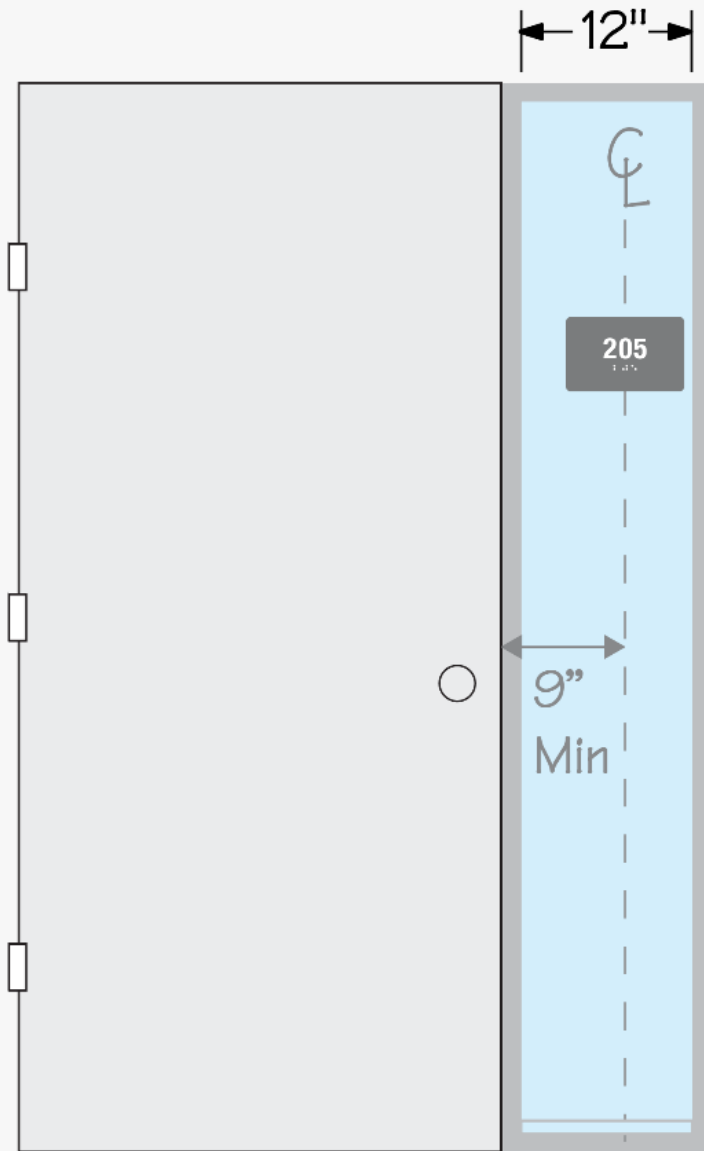
Sidelight Mounting
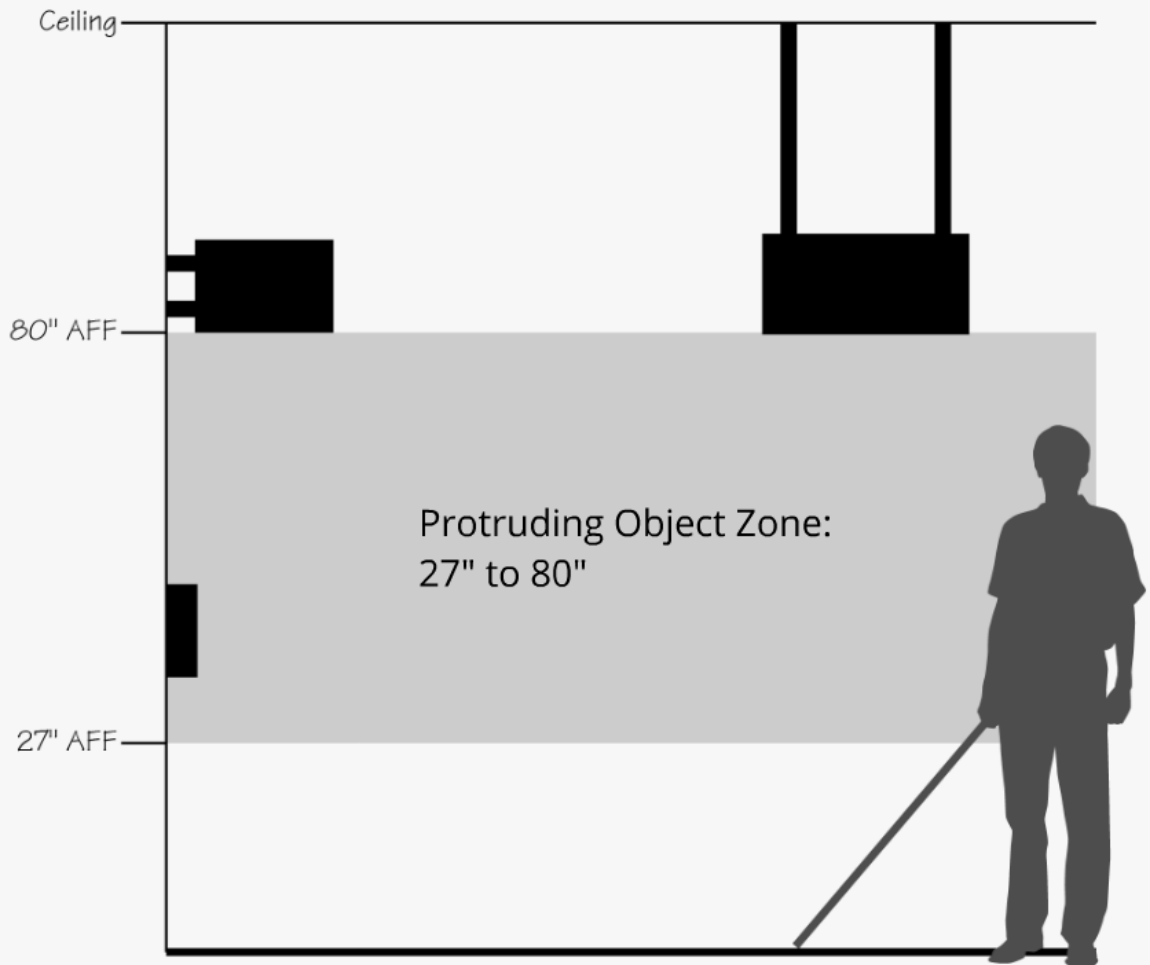Sign might not be centered on glass

Vinyl Patch
to hide tape

Protruding - Wall and Ceiling Signs

Overhead signs may not hang below 80"

Sign or wall elements may not protrude more than 4" from the wall if in the projection zone

Ceiling

80" AFF

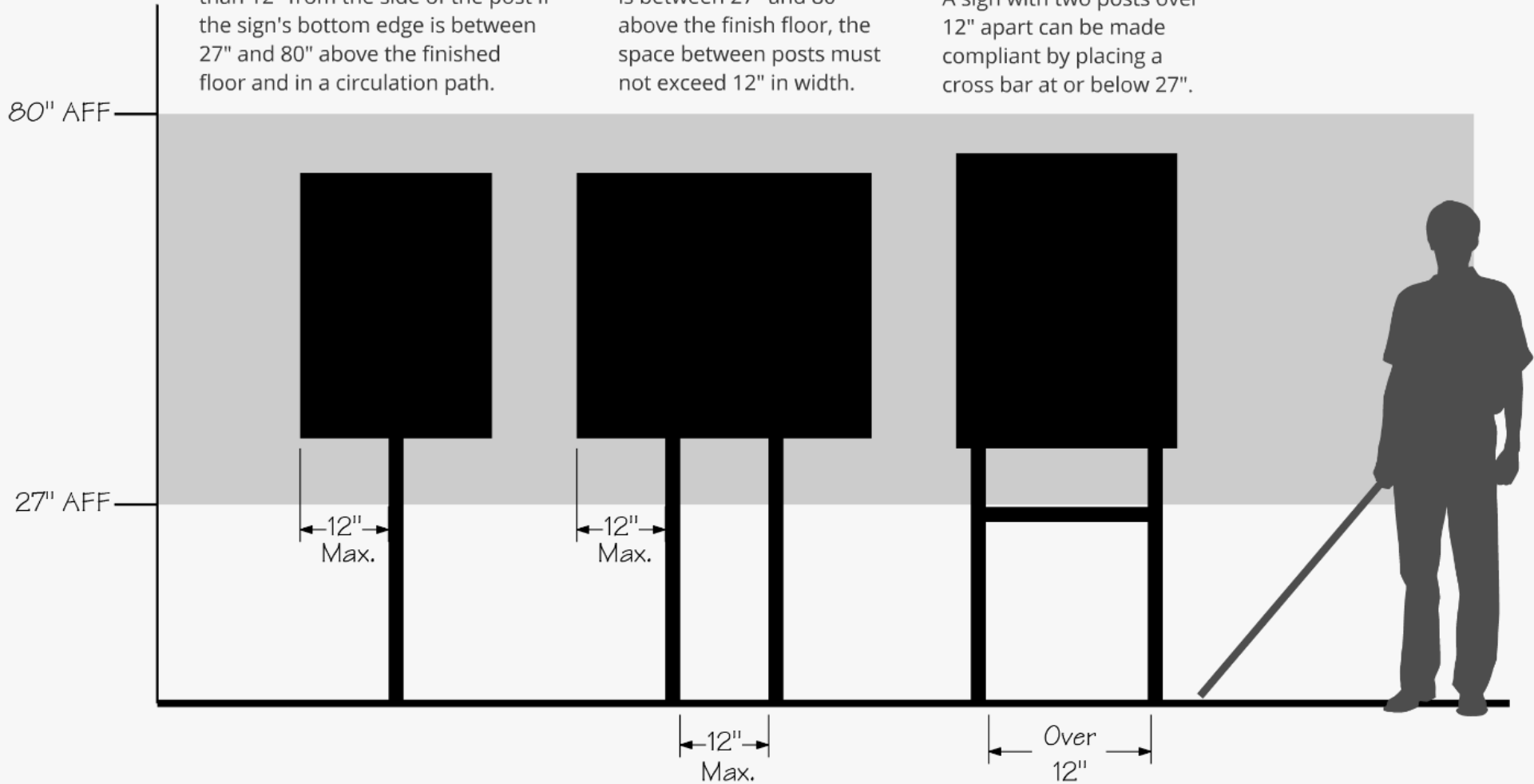Protruding Object Zone:
27" to 80"

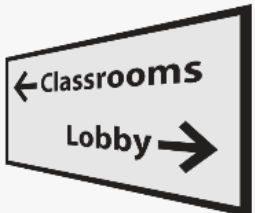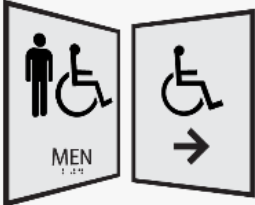27" AFF

Protruding - Free Standing Signs

A free standing sign with either one or two posts must not project more than 12" from the side of the post if the sign's bottom edge is between 27" and 80" above the finished floor and in a circulation path.

If a sign includes two posts and the bottom sign edge is between 27" and 80" above the finish floor, the space between posts must not exceed 12" in width.

A sign with two posts over 12" apart can be made compliant by placing a cross bar at or below 27".

80" AFF

27" AFF

12" Max.

12" Max.

12" Max.

Over 12"

Minimum Design & Mounting Requirements for the 3 Types of Signs

		Tactile Characters	Grade II Braille	Visual Characters	Pictograms	Finish & Contrast	Mounting
204 Classroom	**Signs that Identify Permanent Rooms and Spaces**	✓	✓	✓	✓	✓	✓
←Classrooms Lobby→	**Directional and Information Signs**			✓		✓	✓
MEN	**Signs that Identify and Direct to Accessible Features**	✓*	✓*	✓	✓*	✓	✓

*Applies only to signs that Identify Exit Doors, Area of Refuge, and Accessible Restrooms

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Considerations for Designing Accessible Buildings

- Room Numbers should be in logical sequence.
- If names of rooms will be used instead of room numbers, work with your client to provide names that will fit on a sign.
- Standardize sign size to work in the most situations.
- If you are going to use signs identifying permanent rooms, they must comply with the standards we have outlined. Remember, it is about the "spirit of equal access."
- Letter Visibility - Who is your audience?

Prezi

This concludes The American Institute of Architects Continuing Education Systems Course

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Thank You!
Please take this time to ask us any questions you may have.