

# Impact of ADA Requirements on Exhibit and Attraction Design

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## Abstract

*Exhibit and themed projects in the U.S. require careful consideration of the impact of the **Americans with Disabilities Act (ADA)**. All facilities (existing or new) are covered by the Act. The Act requires: access by the removal of physical barriers; access by the removal of communications barriers; and provision of auxiliary aids (such as hearing assist systems) to ensure effective communication. These requirements affect the design of not only the architectural aspects of the project, but also the audio-visual systems within it.*

## Background

The ADA was passed into law on July 26, 1990. Title III of this law (the part that affects public facilities), became effective on July 26, 1992, and is enforced by the Department of Justice. The purpose of Title III is to “prohibit discrimination on the basis of disability by private entities in places of public accommodation.” It states, “No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodations . . .”

‘**Public accommodations**’ refers to any facility operated by a private entity, whose operations affect commerce, and which falls within one of these 12 categories:

1. places of lodging;
2. establishments serving food or drink;
3. **places of exhibition or entertainment (e.g.: theatres and stadiums);**
4. **places of public gathering (e.g.: auditoria and convention centres);**
5. sales or rental establishments (e.g.: shopping centres and stores);
6. service establishments;
7. terminal, depot, or stations used for specified public transportation;
8. **places of public display or collection (e.g.: museums and libraries);**
9. **places of recreation (e.g.: amusement/theme parks and zoos);**
10. **places of education;**
11. social services centre establishments;
12. places of exercise or recreation (e.g.: gym, spa, golf course).

A ‘**private entity**’ is, essentially, anyone other than government. While there are some exemptions for religious groups and private clubs, these do not extend to areas made available to the public. ‘**Operations affect commerce**’ essentially means you are providing goods and services to consumers, clients, or visitors.

An example:

A motion picture film studio is normally considered a commercial facility under the Act, and the Title III requirements do not apply. If, however, this studio conducts public tours, the tour, and its route through the studio, are subject to the requirements of the Act.

## Intent of the ADA

The intent of the legislation is to restrict a public facility from discriminating against people with disabilities by giving them different or separate goods or services, by giving them unequal goods or services, or by denying them the opportunity to benefit from goods and services.

One of the critical phrases that affects many aspects of the design (not the least, the audio-visual elements) is “*full and equal enjoyment*” of facilities, services, advantages, and privileges. This means that the disabled have the right to participate, and to have an equal opportunity to obtain the same results as others. In fact, the disabled cannot be denied the right to participate in programs. The Act specifically addresses the need to provide services to the disabled in an integrated setting. The intent is to eliminate segregated services that relegate the disabled to the status of second-class citizens.

The Act addresses access to the facility and its public areas, as well as the provision of auxiliary aids (e.g.: hearing assist systems) to ensure effective communication. Existing facilities must comply as far as is practical – this generally requires removal of architectural and communications barriers and provision of auxiliary aids. Renovations must meet more stringent compliance, and new construction must fully comply.

As well as changes to the facility proper, the Act requires the elimination of eligibility standards and rules denying the disabled equal participation, along with reasonable modifications to policies, practices, and procedures.

## Access

The Act contains guidelines that set out minimum dimensions for various aspects of a facility to comply with the access requirements. These include corridor and door widths, wheelchair space sizes, washroom details, etc.

### ALTERATIONS

The Act refers to any alteration that affects the usability of, or access to, a major activity for which the facility is intended. These alterations must be made so that, to the maximum extent feasible, the path of travel to the altered area (also restrooms, drinking fountains, and telephones servicing the area) is useable by, and readily accessible to, disabled people – including wheelchair users. If removal of barriers is impractical, you must try to provide alternative access.

### NEW CONSTRUCTION

The priority of the Act is on “*getting through the door.*” It places high priority on measures and construction that will enable individuals with disabilities to physically enter a space – from the parking lot through to the “*main attraction.*” In fact, at least one accessible route must connect accessible building entrances with all accessible spaces and elements within the facility.

## Seating

The intent of the ADA regulations on seating, is to eliminate the practice of relegating wheelchairs to the back of an assembly hall. In places of assembly *with fixed seating*, wheelchair spaces must be provided as follows:

| Number of Seats | Required Wheelchair Spaces              |
|-----------------|---|
| 4 to 25         | 1                                       |
| 26 to 50        | 2                                       |
| 51 to 300       | 4                                       |
| 301 to 500      | 6                                       |
| over 500        | 6, plus 1 for each additional 100 seats |

Table 1. Wheelchair Spaces vs. Number of Seats

Wheelchair spaces must meet certain minimum size requirements, and must be located such that they have the same lines of sight and selection of admission prices as non-disabled members of the public. **One percent (and not less than one) of the fixed seats must be an aisle seat with no armrest (or removable or folding armrests) on the aisle side.**

## Paging and Emergency Systems

Wherever an audible alarm (i.e.: bell, siren, etc.) is installed in an area for common use, a visible strobe-lamp signal device must also be installed. The situation becomes more complex where an emergency paging system is installed. Given that the ADA requires equal access, the facility should also provide a visual messaging system to complement the audio paging system.

Coverage is an interesting issue. While it is easy to provide relatively wide coverage with a few audible alarms and paging speakers, *visible* coverage is limited to line of site, and will likely require many more visual units than audible units. In fact, the ADA has requirements that no one may be more than 50 feet horizontally from a device. In rooms greater than 100 feet across, devices may be placed around the perimeter spaced a maximum of 100 feet apart.

New technologies are rapidly being introduced to accommodate these requirements – some are more effective than others. Careful study should be given before committing to a particular visual annunciation technique.

## Audio Systems

Any assembly area where audio amplification systems are used (e.g.: theatres and lecture halls), and which have fixed seating, must have a permanently installed hearing assistive listening system. **The minimum number of receivers must be equal to four percent of the seating, to a minimum of two units.**

Various types of assistive listening technology are approved. Attention must be paid to selecting the correct technology for the space and its intended use.

## Visual Displays

Public Service Announcements funded with government monies must be captioned. While the ADA does not directly refer to captioning of video, film, and 35mm slide programs, this certainly fits within the general provisions and intent of the Act. **It would be prudent for a designer or producer to consider incorporating this to avoid problems.** If a disabled visitor to your attraction files a suit, the court can order the changes to be made, assess a civil penalty not exceeding \$50,000, and award all costs.

As an indication of the trend in this area, the FCC approved new regulations on 08/07/97 (further modified 09/17/98) covering video captioning – this added a new section 713 to the Telecommunications Act. Basically, most new program material must be captioned, and older library material must be captioned within a designated time period. The responsibility for accomplishing this captioning is expected to fall to the content producer.

There are a number of captioning decisions to be made: open vs. closed vs. closed-on-demand; fixed or variable location; special character support; and colour vs. monochrome. There are a variety of technologies and equipment available both to encode the captioning and to display it both for video and other presentation methods.

## Exemptions from Provision of Auxiliary Aids

A public facility must provide all required auxiliary aids (e.g.: hearing assist systems, captioning, etc.) to ensure that the disabled are not denied services, segregated, excluded, or otherwise treated differently. The only exemption is if the facility can satisfactorily demonstrate that taking such steps would “*fundamentally alter the nature of the goods, services, facilities, or advantages being offered, or would result in an undue burden.*” These are, generally, difficult cases to make.

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## Disclaimer

This article is not meant to be a comprehensive summary of the ADA legislation. In each instance above, there are more detailed requirements that must be met in varying circumstances. In the case of auxiliary aids, there are a range of technologies to choose from – it is important to select the correct one for the given situation.

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