1.4 Recreation, Part 1
Standards for Accessible Playgrounds

26th Annual Mid-Atlantic ADA Update

The United States Access Board is an independent federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards.
SESSION AGENDA

- Application of ABA and ADA Standards
- Play Area Terminology
- Existing Play Areas
- Ground Level Play Components and Accessible Routes
- Elevated Play Components and Accessible Routes
- Water and Soft Contained Play Structures
- Questions

Current ADA Standards

Department of Justice’s 2010 Standards
March 15, 2012
What Standards Apply to Existing ADA Facilities?

• Title II — Program accessibility

• Title III — Readily achievable barrier removal

For more information, contact DOJ @ 800 514-0301

Architectural Barriers Act (ABA) Accessibility Standards

- Buildings and facilities constructed or altered or leased on behalf of the federal government

- Where?
  - employee day care centers, federal parks, other federal leased facilities

- Play area accessibility guidelines effective May 8, 2006 - GSA
Play Area Guidelines

The play area standards also do not apply to:

• Play areas designed for children under 2 years old

• Family childcare facilities where the proprietor resides

• Amusement attractions
Play Area Terms

Alterations
Alterations vs. Maintenance

Normal maintenance activities such as replacing worn “S” hooks or topping off ground surfaces are not considered alterations.

Alterations

- Actions that affect, or could affect, the usability of the play area.

- Examples include removing a climbing play component & replacing it with a spring rocker, or changing the ground surfacing.
Alterations

*Additional Requirements*

- **When altering a “primary function area”**
  - Area altered must be in compliance with ADA or ABA Accessibility Standards
  - Provide “path of travel” to the altered area
- **20% Disproportionality Rule**

When altering the play component...not the surface
Replacing the entire ground surface...

Applying the standards

Inside the Play Area

Outside the Play Area
Play Area
- Contains play components
- Designed and constructed for children

Applying the standards, 2

Play Area
- A portion of a site containing play components designed and constructed for children.

Area of Sport Activity
- That portion of a room or space where the play or practice of a sport occurs.
Geographically Separated Play Areas

Multiple play areas on same site
Accessibility must be maintained in each phase of development.

**What is a Play Component?**

A play component is an element designed to generate specific opportunities for play, socialization, and learning.
Natural feature play components
Ground level play components

Approached and exited at ground level

Elevated play components

- Approached from elevated level
- Attached to composite play structure
- Components (counted once)
Determining Ground or Elevated

Ground-Level Play Component

Elevated Play Component

Ground Level Scoping Provisions
Ground-level Requirement
One of Each Type

Ground-Level Requirements

More than one — integrated in the play area
Minimum number based on the number of elevated play components provided

- Minimum quantity of ground-level play components

<table>
<thead>
<tr>
<th>Number of Elevated Play Components</th>
<th>Min. Number Ground Level Components Required to be on Accessible Route</th>
<th>Min. Number of Different Types of Ground Level Components Required to be on Accessible Route</th>
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<tbody>
<tr>
<td>1</td>
<td>Not applicable</td>
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<tr>
<td>2 - 4</td>
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<td>23 - 25</td>
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<tr>
<td>More than 25</td>
<td>8 plus 1 for each additional 3 over 25, or fraction thereof</td>
<td>5</td>
</tr>
</tbody>
</table>

Play Types

Identified by the experience the play component generally is designed to provide

- Climbing
- Spinning
- Rocking
- Swinging
Technical Provisions

Ground Level Accessible Routes

- Surface
- Clear width
- Clear width reductions
- Changes in level
- Running Slope
- Cross Slope
- Openings
- Protruding Objects
Ground-Level Accessible Route

Clear width 60 inches minimum

Smaller Play Areas < 1000 sq.ft. must have:
- Ground accessible routes that are 44 inches in width
- Wheelchair turning space if route exceeds 30 ft. in length.
Clear width reductions

Changes in Level

Changes in level of 1/4 inch high maximum permitted to be vertical.

Changes in level between 1/4 inch high minimum and 1/2 inch high maximum to be beveled with a slope not steeper than 1:2.

Changes in level greater than 1/2 inch high must be ramped.
Running Slope

Maximum 1:16 running slope on ground-level accessible routes

1: 16

Cross Slope

• Cross slope of ground level route must not be steeper than 1:48.
  – Cross slope is the slope of the surface perpendicular to the direction of travel.
  – Cross slope is measured the same way as slope is measured (i.e., the rise over the run).
Openings

Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Playground Surfaces
Referenced standards

- **ASTM F 1292-99 or 04** - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.
- Use of “Equivalent facilitation” for more recently published versions of these standards.

**ASTM F 1487-01**

- Defines the use zone as the ground area beneath and immediately adjacent to a play structure or play equipment.
- Provides for unrestricted circulation around the equipment and on whose surfaces where it is predicted that a user would land when falling from or exiting play structures or equipment.
**ASTM F 1292-99 or 04**

- If located within the use zone, the accessible ground surfaces must also be impact attenuating

- No values shall exceed:
  - 200 g-max
  - 1000 HIC

**ASTM F 1951-99**

- Wheelchair Work Test Method
- A lab test in a controlled environment
- 7% ramp used as baseline
- Measures work per sq. ft. for straight propulsion and turning.
- Records data applied to push rim over 6 ½ ft. distance
Longitudinal Study on Playground Surfaces
Field Testing

ASTM F1292-99/04
Impact Attenuation
Field Test: TRIAX

ASTM F1951-99
Wheelchair Work Force
Field Test: Rotational Penetrometer

Elevated Play Component Requirements

At least 50% of the elevated play components must be on an accessible route.
Minimum Number of Elevated Components

50% of all elevated play components in a play area must be reached by an accessible route.

Less than 20 elevated components: ramp and/or transfer = 50%

20 or more elevated components: 25% ramp + 25% ramp and/or transfer = 50%

Providing Ramp Access to 50% of the Play Components

No additional ground level components required
Elevated Accessible Routes

- Ramps
- Transfer Systems

Elevated Accessible Route Width

- 36-inch minimum clear width
- Exceed where possible
- Some reductions permitted
32-inch narrowed width permitted for 24-inch length to accommodate features in the composite structure

Openings

- Shall not allow passage of a sphere more than 1/2 inch diameter

- Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

- Opening criteria only applies when elevated access is by ramp
Changes in Level

Changes in level of 1/4 inch high maximum permitted to be vertical.

Changes in level between 1/4 inch high minimum and 1/2 inch high maximum must be beveled with a slope not steeper than 1:2.

Changes in level greater than 1/2 inch high must be ramped.

Running Slope

Maximum running slope for ramps on elevated accessible routes = 1:12
Ramp Rise

*Rise* of a ramp is the amount of vertical distance the inclined or slanted surface ascends or descends.

Maximum 12 inch vertical rise

Handrails

- Continuous within the full length of the ramp run
- Gripping surfaces with a circular cross section must have an outside diameter of 0.95 in. min. and 1.55 in. max.
- No extensions required
Handrails

- Top of handrail gripping surfaces must be 20 in. min. and 28 in. max. above the ramp surface.

- Clearance between handrail gripping surfaces and adjacent surfaces = 1 1/2 in. min.

Edge Protection

- Edge protection – extend deck 12 inches minimum OR provide a curb/barrier within 4 inches of ramp surface
Landings

- Level landings required at the top and bottom of elevated ramps
- If ramps change direction = 60 in. by 60 in. min.
- As wide as the ramp leading to it & 60 inches minimum in length

Turning Space, Landings, and Clear Floor or Ground Spaces may overlap
Transfer Systems

- Transfer platforms
- Transfer steps
- Transfer supports
- Clear floor or ground space

Transfer Platform

- 14 in. deep X 24 in. wide minimum
- 11–18 in. above the floor or ground surface
- 24 in. side to be unobstructed

Where it is expected that an individual would transfer onto the play structure and leave behind their wheelchair or mobility device
Transfer Steps

- 14 in. deep by 24 in. wide minimum
- 8 in. maximum height

Transfer Supports

A means of support must be provided
Clear Floor and Ground Space

Adjacent to platform

Transfer System Design

Limiting the distance required for movement
Connected Elevated Play Components

• Where transfer systems are used...
  – Elevated play components may connect other elevated play components
  – Care must be taken

Clear Floor or Ground Space

• 30 in. x 48 in. min.
• Discretionary placement
• Applies to ground-level & elevated components accessed by ramp
Entry Points and Seats

- 11 in. minimum to 24 in. maximum above the ground or floor surface
- Mid-level height of 18 in. is recommended

Play Tables

- For ages 5 years old and over
- Knee clearance minimums
  - 24 inches high
  - 30 inches wide
  - 17 inches deep
- Top of rim 31 inches maximum
Reach Ranges

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Reach Range</th>
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<tbody>
<tr>
<td>3 - 4 year olds</td>
<td>20 to 36 in.</td>
</tr>
<tr>
<td>5 - 8 year olds</td>
<td>18 to 40 in.</td>
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<tr>
<td>9 - 12 year olds</td>
<td>16 to 44 in.</td>
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Water Play Components

Ground level access and transfer access to elevated play components required
Soft Contained Play Structure Entry Points

A play structure made of one or more components where the user enters a fully enclosed environment that utilizes pliable materials

- 3 or fewer entry points = 1 on accessible route
- 4 or more entry points = 2 on accessible route

Transfer system permitted

Access Board Resources

• TA Guide
• FAQ’s
• Webinars
• Access Currents
• Completed Research

Online Guides to the ADA / ABA Standards