

**ARCHITECTURAL AND
TRANSPORTATION BARRIERS
COMPLIANCE BOARD****36 CFR Part 1191**

[Docket No. 98-2]

RIN 3014-AA21

**Americans With Disabilities Act
Accessibility Guidelines; Play Areas**

AGENCY: Architectural and
Transportation Barriers Compliance
Board.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Architectural and Transportation Barriers Compliance Board (Access Board) proposes to amend the Americans with Disabilities Act Accessibility Guidelines (ADAAG) by adding a special application section for play areas. The section was developed by a regulatory negotiation committee composed of persons who represent interests affected by accessibility guidelines for play areas. The section would ensure that newly constructed and altered play areas are readily accessible to and usable by children with disabilities.

DATES: Comments should be received by July 29, 1998.

The Access Board will hold a public hearing on the proposed guidelines on Wednesday, June 3, 1998 from 8:30 a.m. to 5:30 p.m.

ADDRESSES: Comments should be sent to the Office of Technical and Information Services, Architectural and Transportation Barriers Compliance Board, 1331 F Street NW., suite 1000, Washington, DC 20004-1111. Fax number (202) 272-5447. To facilitate posting comments on the Board's Internet site, commenters are requested to submit comments in electronic format, preferably as a Word or WordPerfect file, either by e-mail or on disk. Comments sent by e-mail will be considered only if they include the full name and address of the sender in the text. E-mail comments should be sent to play@access-board.gov. Comments will be available for inspection at the above address from 9:00 a.m. to 5:00 p.m. on regular business days.

The public hearing will be held at the Westin Hotel, 1672 Lawrence Street in Denver, Colorado. Interested members of the public may contact the Board at (202) 272-5434 ext. 18 or (202) 272-5449 (TTY) to preregister to give testimony or may register on the day of the hearing.

FOR FURTHER INFORMATION CONTACT:
Peggy Greenwell, Office of Technical

and Information Services, Architectural and Transportation Barriers Compliance Board, 1331 F Street NW., suite 1000, Washington, DC, 20004-1111. Telephone number (202) 272-5434 extension 34 (Voice); (202) 272-5449 (TTY). E-mail address: greenwell@access-board.gov.

SUPPLEMENTARY INFORMATION:**Availability of Copies and Electronic Access**

Single copies of this publication may be obtained at no cost by calling the Access Board's automated publications order line (202) 272-5434, by pressing 1 on the telephone keypad, then 1 again, and requesting publication S-35 (Play Areas Notice of Proposed Rulemaking). Persons using a TTY should call (202) 272-5449. Please record a name, address, telephone number and request publication S-35. This document is available in alternate formats upon request. Persons who want a copy in an alternate format should specify the type of format (cassette tape, Braille, large print, or computer disk). This document is also available on the Board's Internet site (<http://www.access-board.gov/rules/playfac.htm>).

Background

The Architectural and Transportation Barriers Compliance Board (Access Board) is responsible for developing accessibility guidelines under the Americans with Disabilities Act of 1990 (ADA) to ensure that new construction and alterations of facilities covered by titles II and III of the ADA are readily accessible to and usable by individuals with disabilities.¹ The Access Board initially issued the Americans with Disabilities Act Accessibility Guidelines (ADAAG) in 1991 (36 CFR part 1191, Appendix A). ADAAG consists of

¹ The Americans with Disabilities Act (42 U.S.C. 12101 *et seq.*) is a comprehensive civil rights law which prohibits discrimination on the basis of disability. Titles II and III of the ADA require, among other things, that newly constructed and altered State and local government buildings, places of public accommodation, and commercial facilities be readily accessible to and usable by individuals with disabilities.

The Access Board is an independent Federal agency established by section 502 of the Rehabilitation Act (29 U.S.C. 792) whose primary mission is to promote accessibility for individuals with disabilities. The Access Board consists of 25 members. Thirteen are appointed by the President from among the public, a majority of who are required to be individuals with disabilities. The other twelve are heads of the following Federal agencies or their designees whose positions are Executive Level IV or above: The departments of Health and Human Services, Education, Transportation, Housing and Urban Development, Labor, Interior, Defense, Justice, Veterans Affairs, and Commerce; General Services Administration; and United States Postal Service.

general sections (ADAAG 1 to 4) that apply to all types of buildings and facilities, and special application sections (ADAAG 5 to 12) that contain additional requirements for certain types of buildings.²

Under the ADA, the Department of Justice is responsible for issuing regulations to implement titles II and III of the Act. The regulations issued by the Department of Justice must include accessibility standards for newly constructed and altered facilities covered by titles II and III of the ADA. The standards must be consistent with the accessibility guidelines issued by the Access Board. The Department of Justice has adopted ADAAG as the Standard for Accessible Design for title III of the ADA. (28 CFR part 36, Appendix A).³

Titles II and III of the ADA cover a wide variety of recreation facilities such as boating and fishing facilities, golf courses, parks, places of amusement, play areas, sports facilities, and trails. Newly constructed and altered recreation facilities are required to comply with ADAAG, as adopted by the Department of Justice as the Standards for Accessible Design, where the provisions can be applied. For example, parking areas, entrances, and toilet rooms that are part of newly constructed and altered recreation facilities must comply with ADAAG. Some recreation facilities have unique features for which additional provisions and special application sections need to be developed. The Access Board convened a Recreation Access Advisory Committee (RAAC) in July 1993 as the first step in developing the additional provisions and special application sections. The RAAC issued a report in July 1994 which addressed the various types of recreation facilities and identified the features of each facility type that are not adequately addressed by ADAAG. The RAAC made recommendations for developing

² The special application sections cover the following buildings and facilities: restaurants and cafeterias (ADAAG 5); medical care facilities (ADAAG 6); business, mercantile and civic (ADAAG 7); libraries (ADAAG 8); transient lodging (ADAAG 9); transportation facilities (ADAAG 10); judicial, legislative, and regulatory facilities (ADAAG 11); and detention and correctional facilities (ADAAG 12).

³ The Department of Justice's regulations currently include ADAAG 1 to 10. State and local governments currently have the option of using ADAAG or an earlier standard, the Uniform Federal Accessibility Standards (UFAS), when constructing or altering facilities under the Department of Justice regulations for title II of the ADA. (28 CFR 35.151(c)). The Department of Justice has issued a notice of proposed rulemaking to eliminate this option. 59 FR 31808 (June 20, 1994).

accessibility guidelines for those features.

The Access Board published an Advance Notice of Proposed Rulemaking (ANPRM) in September 1994 requesting public comment on the RAAC's recommendations. 59 FR 48542 (September 21, 1994). The public comments expressed support for many of the RAAC's recommendations. However, the public comments also revealed a lack of consensus on some major issues regarding play areas among interests that potentially would be affected by accessibility guidelines for those facilities. Consequently, the Access Board decided to develop a special application section for play areas through regulatory negotiation. Regulatory negotiation is a supplement to the traditional rulemaking process that allows for face-to-face negotiations among representatives of affected interests, including the agency, with a goal of arriving at a consensus decision on the text of a proposed rule. The proposed rule is then published in the **Federal Register** and the public has an opportunity to comment. Based on public comments received, the final rule may differ from the proposed rule.

The regulatory negotiation committee on accessibility guidelines for play areas was established in March 1996. A notice of intent to form a regulatory negotiation committee was published in the **Federal Register** on December 22, 1995 (60 FR 66537). This notice proposed a committee membership and requested comments on the establishment of the committee and the proposed membership. The final membership of the committee included:

American Society of Landscape Architects
ASTM Public Playground Committee (F15.29)
ASTM Soft Contained Play Committee (F15.36)
ASTM Playground Surfacing Systems Committee (F 08.63)
International Play Equipment Manufacturers Association
National Association of Counties
National Association of Elementary School Principals
National Child Care Association
National Council on Independent Living
National Easter Seal Society
National League of Cities
National Parent-Teacher Association
National Recreation and Park Association
Spina Bifida Association of America
TASH
United Cerebral Palsy Associations
U.S. Access Board

The committee met seven times between March 1996 and July 1997 as a full committee. In addition, several workgroups met to gather information or develop recommendations for the full committee. Committee members sought input from the public on issues related to accessibility in play areas. The meetings were held in different locations across the country and were attended by over 250 members of the public. A formal public comment period was held at the end of each day of the full committee meetings. In August 1996, the committee met in the suburbs of Minneapolis, Minnesota. As a part of this meeting, the committee participated in a day long tour of playground sites, representing the various elements under discussion by the committee. In October 1996, the committee met in conjunction with the National Recreation and Park Association Annual Congress. This meeting was attended by over 100 members of the public. All committee meetings were facilitated by the Federal Mediation and Conciliation Service. An interest based model of negotiation was used during the negotiations.

The committee began its deliberations examining available information related to providing access for children with disabilities in play areas. The committee relied heavily upon three documents: the Recreation Access Advisory Committee (RAAC) Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas (July 1994), the ASTM F 1487-95 Public Playground Equipment Safety Standard, and the Recommendations for Accessibility Standards for Children's Environments Technical Report (July 1992). This technical report was based on a research project conducted for the Access Board by the National Center on Accessible Housing, North Carolina State University.

The committee identified basic principles to guide its negotiations. The committee agreed that accessibility guidelines should:

- be based on children's anthropometric dimensions and other resource information;
- be based on children with disabilities using a variety of assistive devices;
- provide opportunity for use by children who have a variety of abilities;
- support social interaction and encourage integration;
- create challenge, not barriers;
- maintain safety consistent with ASTM requirements;
- be reasonable in terms of cost relative to benefit;

- be based on independent use, as much as possible;
- address access for parents and care givers;
- provide access to elevated structures (additional ground level accessible play components may be required, depending on the type of vertical access provided to elevated structures); and
- provide advisory information in an understandable format to assist designers, operators, and owners, to effectively incorporate access into their designs.

The committee reached consensus on the accessibility guidelines for newly constructed and altered play areas covered by the ADA. Committee members represented the diverse interests of those affected by this rulemaking, including persons with disabilities, owners and operators of play areas, State and local governments, designers, manufacturers, and voluntary standards groups. Where safety, cost, and access interests conflicted, consensus was difficult. Committee members explored many approaches and compromised in many areas to reach agreement on minimum accessibility guidelines for play areas.

The proposed accessibility guidelines for play areas include requirements for accessible play components with interactive manipulative features to be within certain reach ranges (16.1.5.3 Reach Ranges). Examples of manipulative or interactive features of a play component include the opening of a talk tube or the letters of a tic-tac-toe board. The committee considered it important for children with disabilities to reach these features to use the play component fully. The committee used a modified version of the dimensions for reach ranges that were included in the proposed accessibility guidelines for children's facilities, which were available during the committee's deliberations. (61 FR 37964, July 22, 1996). Final guidelines for building elements designed for children's use were issued after the committee's deliberations. (63 FR 2060, January 13, 1998.) Those final guidelines include reach range specifications for children of various age groups in the appendix as advisory information for designers to use where appropriate. This flexibility was incorporated into the final guidelines since it is not always clear which building elements are used primarily by children and should be within these reach ranges. In a play area, however, play components are designed specifically for use by children. Therefore, the proposed accessibility guidelines for play areas

require that where manipulative or interactive features are provided on accessible play components, they must be within the reach ranges of children with disabilities.

Section-by-Section Analysis

This section of the preamble contains a summary of the proposed guidelines for play areas. The text of the proposed rule follows this section.

16. Play Areas

Definitions

This section defines terms used in the proposed rule. To avoid potential confusion, terms and definitions already established within the industry have been used to the greatest extent possible.

The term *play area* is defined as a portion of a site containing play components designed and constructed for children in a specified age range as designated by ASTM F 1487-95, a voluntary safety standard. ASTM F 1487-95 recommends that play areas designed for children 2-5 years old and children 5-12 years old be separated. Where play areas are designed and constructed for specified age groups, each play area is required to meet the requirements in section 16.

Question 1. Safety standards for play areas require play equipment designed for children ages 2-5 and 5-12 to be separated. In assessing the benefits of these proposed accessibility guidelines, the Board is interested in gathering more data on the incidence of disabilities within these different age groupings. The Board is interested in any specific data sources where this information can be obtained.

The term *play component* is defined as an element intended to generate specific opportunities for play, socialization, or learning. The committee carefully reviewed definitions established by the industry and the Recreation Access Advisory Committee in developing this definition. The committee wanted the proposed definition to address the variety of play components. The committee considered elements that generate specific opportunities for play, socialization, or learning. Elements that provide experiences such as sliding, swinging, rocking, spinning, climbing, crawling, pretending, and bouncing are considered play components. Conversely, elements not specifically intended for play, socialization, or learning such as ramps, decks, steps, transfer systems, and roofs are not play components.

Play components may be manufactured or natural. Examples of

natural play components include children's gardens and land forms designed to create gathering places. Manufactured play components may be stand alone or a part of a composite structure. Spring rockers and sand tables are generally placed in stand alone locations. Manufactured composite structures often combine slides, climbers, and activity panels on one unit. Landscape architects and other designers supported including natural elements in the description of play components. They were concerned that the definition would focus solely on manufactured play equipment.

A *composite play structure* is defined as two or more play components attached or functionally linked to create an integrated unit that provides more than one play activity. This definition clarifies that composite structures include play components combined to provide multiple play experiences. The manner in which play components are combined is not relevant so long as they are functionally linked. When individual parts of a composite structure act as a single unit, they are considered functionally linked, even if the parts are not physically attached to the structure. Examples may include a balance beam that may not be attached to the main structure, but serves as a play opportunity adjoining the main play structure. Although not physically attached, the balance beam allows a child to progress from one structure to another.

An *elevated play component* is defined as a play component that is part of a composite play structure and approached above or below grade. A stand alone slide, for example, would not be considered an elevated play component since it is not part of a composite play structure and is not approached above or below grade.

A *ground level play component* is a play component that is approached and exited at the ground level. Stand alone slides, balance beams, swings, and spring rockers are examples of ground level play components. Although portions of a ground level play component may be elevated, the key element of this definition is that the play component (slide, balance beam, swing, or a spring rocker) is approached and exited at the ground level.

The proposed definition of *use zone* includes the ground level area beneath and immediately adjacent to a play structure or equipment that is designated for unrestricted circulation around the equipment and on whose surface it is predicted that a user would land when falling from or exiting the equipment. This definition is consistent

with the ASTM definition, except that the term "ground level" is added to clarify that the area beneath a play structure or equipment includes the ground level area. Designers and operators sometimes use the term "fall zone" to identify the "use zone".

The term *soft contained play equipment* is defined as a play structure made up of one or more components where the user enters a fully enclosed play environment that uses pliable material(s) (e.g., plastic, netting, fabric). These structures are often associated with fast serve restaurants and other retail establishments and differ from most play areas found in parks and schools. Soft contained play areas are fully enclosed environments designed for users to enter the structures at various entry points. This definition was developed in cooperation with the ASTM Soft Contained Play Subcommittee F 15.36.

16.1 Play Areas

This section applies to each play area designed for children ages two and over and requires compliance with the applicable provisions in this section. The application of these guidelines is consistent with ASTM F 1487-95, which establishes safety standards beginning at age two.

The committee considered developing accessibility guidelines for children under the age of two years. It did not, however, believe that there was sufficient information available to establish guidelines for accessible play areas for children with disabilities in this age group. The committee also considered that regardless of disability, many children in this age group need assistance in using a play area. The absence of safety guidelines or standards for this age group was also recognized. While specific accessibility guidelines have not been developed for play areas for children under the age of two, these areas are covered by the ADA and the Department of Justice title II and title III regulations.

Several technical provisions are proposed that include a range of dimensions, which permits a designer to consider the primary user population served. The voluntary safety standard, ASTM F 1487-95, recommends play areas to be separated by age groups. Specifically, this standard recommends play areas designed for children 2-5 years old and 5-12 years old to be separated. These proposed accessibility guidelines also consider areas designed for these age groups to be separate play areas even if they are in the same facility.

The Board recognizes the value and importance of innovation in the design of play area surfaces and components. It is expected that new devices, technologies, and creativity will result in play area innovations not seen today. These changes are invited and welcome. ADAAG Section 2.2 (Equivalent Facilitation) permits "departures from particular technical and scoping requirements" where the result will provide substantially equivalent or greater access to and usability of the facility. Section 2.2 applies to every section in ADAAG, including proposed section 16 Play Areas.

16.1 Exception 1

Exception 1 to this section refers to the requirements of ADAAG 4.1.6 (Alterations). This exception permits play equipment to be relocated to create safe use zones without triggering the alterations requirements of ADAAG 4.1.6, if the surface is not changed or extended for more than one use zone. Many existing play areas are considered unsafe because of the close proximity of the various pieces of play equipment. This situation is commonly addressed by moving play equipment apart and extending the impact attenuating (also referred to as "resilient") surfaces to create a safe use zone.

This exception is proposed to minimize the potential cost impact of creating safer play areas, while balancing the need for accessibility for children with disabilities. This exception has been limited to surface changes that are not more than one use zone. The use zone of playground equipment is defined in ASTM F 1487-95 and generally requires a six foot radius of resilient surfacing underneath play equipment, except for swings and slide exits. Any surface alteration or change beyond one use zone would be subject to the alteration requirements of ADAAG 4.1.6.

16.1 Exception 2

Exception 2 to this section permits the use of platform lifts (wheelchair lifts) complying with ADAAG 4.11 and applicable State or local codes as part of an accessible route within a play area. The committee proposed that platform lifts be permitted so that they may be used in newly constructed play areas that may have unique environments where ramp access may not be feasible. The committee considered the use of platform lifts in play areas similar to the use of platform lifts on an accessible vertical route to a performing area in an assembly occupancy as permitted by ADAAG 4.1.3 Exception 4.

16.1 Exception 3

Exception 3 to this section exempts play areas from complying with the provisions for protruding objects in ADAAG 4.4. ADAAG 4.4 generally requires that elements mounted along circulation paths not project more than 4 inches, if the leading edge is above 27 inches and below 80 inches. The committee carefully considered the unique environments of play areas. In many cases, eliminating protruding objects from all circulation paths may have the effect of substantially altering the nature and design of a play area. The committee discussed several approaches to providing access for children who are blind or visually impaired, and the effect on the nature or design of a play area. The committee proposed that at least one accessible route be free of protruding objects. Section 16.1.3.1 requires that objects shall not protrude into the accessible route for a height of 80 inches measured from the surface. Because accessible routes must maintain a clear minimum unobstructed width, this requirement will provide at least one route within the play area that is clear of protrusions.

16.1.1(1) Ground Level Play Components

Paragraph 1 of this section requires one of each type of ground level play component to be accessible. The technical requirements for an accessible play component are addressed in 16.1.5. The committee proposed this requirement to give children with disabilities a choice of at least one of each of the different types of play components provided at the ground level. Swings, climbers, and spring rockers are examples of the different types of play components often found at the ground level in a play area. Providing choice and variety in play areas can facilitate social growth and interaction among children. The committee considered requiring all of the ground level play components to be accessible, however, it concluded that the additional cost may be prohibitive. Requiring at least one of each type to be accessible is also consistent with other ADAAG provisions where multiple elements serving the same function and in the same location are provided.

16.1.1(2)

Paragraph 2 of this section requires accessible ground level play components to be provided in a number equal to at least 50% of the total number of elevated play components. The committee added paragraph 2 as a result of its discussion related to providing

vertical access to elevated play components. The committee wanted to provide additional accessible ground level play components based on the total number of elevated play components provided. Elevated play components that are only accessible to children who are able to or choose to transfer have limited play value for children who are unable to or choose not to transfer. This provision is an attempt to provide children with disabilities additional opportunities where only transfer access is provided to elevated play components.

Accessible ground level play components required by paragraph 1 can satisfy this requirement. For example, if ten elevated play components are provided, a total of five ground level play components must be accessible under paragraph 2. If three different types of ground level play components are provided, paragraph 1 would require one of each of the three types to be accessible. Paragraph 2 would require an additional two ground level play components to be accessible for a total of five.

16.1.1(2) Exception

The committee proposed an exception to this requirement when ramp access is provided to each elevated play component. Under this exception, additional accessible ground level play components are not required, when each elevated play component can be accessed by a ramp. Since children using wheelchairs and other mobility devices would have access to the entire structure, additional accessible play components are not required at the ground level.

16.1.1(3)

Paragraph 3 of this section requires accessible ground level play components to be integrated in the play area. In some play area designs, accessible play components are grouped into one area. These designs have the effect of segregating children with disabilities. Under the ADA, segregation of people with disabilities is not permitted. This provision is critical to promote social interaction among children with and without disabilities.

16.1.2 Elevated Play Components

This section requires at least 50% of all elevated play components to be accessible. Since elevated play components are often the most popular elements of a play area for children, the committee wanted to ensure that children with disabilities have adequate opportunities to use them. The committee also considered 50%

appropriate given the types of elements provided on composite structures. For example, an elevated composite structure with ten play components may include two slides, four climbers, and four activity panels. Using this example, at least five of the elevated components must be accessible. Section 16.1.2 allows the designer and operator to decide which elevated play components will be accessible.

The committee debated this requirement at great length. The committee frequently heard from members of the public who were concerned with the costs associated with providing an accessible route, as well as those concerned with ensuring a variety of accessible elevated play components. Section 16.1.3 (Accessible Route) addresses the requirements for an accessible route connecting accessible elevated play components.

The committee found a requirement for the integration of accessible elevated play components to be unnecessary since integration should occur naturally due to the number of elevated play components required to be accessible. Moreover, the committee recognized that designs using a single point of entry to access a number of elevated structures may be cost effective.

16.1.3 Accessible Routes

This section requires at least one accessible route within the boundary of a play area. Auxiliary pathways may also be provided throughout a play area. These other pathways are not required to be accessible and may incorporate changes in level and varying slopes.

The accessible route is required to connect accessible play components, including entry and exit points. Access to both entry and exit points is required to ensure usability by children with disabilities. This provision, applied to an accessible slide, will require an accessible route, with accessible surfacing, serving the entry and exit points of the slide. The committee recognized that many children with disabilities will require some assistance in moving mobility aids to the exit points of accessible play components. This provision will also provide access to parents and care givers with disabilities.

Entry and exit points of accessible play components may be on the ground level or be elevated. The committee carefully considered when access by ramp, transfer system, and other means should be provided to elevated play components. Committee members examined how the RAAC approached the issue of providing ramp access to elevated structures. The RAAC

differentiated between larger and smaller structures, based on the number of elevated play components provided. During the comment period of the ANPRM, commenters supported the concept of differentiating between larger and smaller play structures, however, there was no consensus on the number of elevated play components that should trigger a requirement for ramp access.

Like the RAAC, the committee used an approach that differentiates between play areas based on the numbers of elevated play components. They contrasted the relative cost of providing a ramp system and transfer system with the total cost of the structure and the amount of area required. Ramp access costs always exceeded the costs of transfer access. For example, the cost of providing a transfer system to 3 feet above the ground is approximately 6–10 percent of the cost of a ramp system. For the ramp to be cost effective, the committee proposed to require ramp access only on larger structures that contain 20 or more play components.

16.1.3 Exception 1

Exception 1 permits accessible elevated play components to be connected by transfer systems, where less than 20 elevated play components are provided. This exception is based on the committee's consideration of the cost impact and available area. The committee was concerned that ramp access to smaller structures might result in a reduction in the number of play components that can be purchased within a specified budget.

To illustrate the application of the exception, a play structure with 18 elevated play components is required to provide at least 9 (50% minimum) accessible elevated components by 16.1.2. The exception would permit these accessible elevated components to be connected by a transfer system. Of course, ramp access is also permitted.

Where a transfer system is used to connect accessible play components on an elevated structure, an accessible play component may be used to connect to another accessible play component. For example, a transfer system may connect to an accessible crawl tube. Additional accessible play components complying with 16.1.5 may be located at the end of an accessible crawl tube on an elevated structure.

16.1.3 Exception 2

Exception 2 permits no more than 50% of accessible elevated play components to be connected by transfer systems, where 20 or more elevated play components are provided. To illustrate the application of this exception, a play

structure with 24 elevated play components is required to have at least 12 (50% minimum) accessible elevated play components by 16.1.2. Assuming that 12 accessible elevated play components are provided, the exception would permit no more than 6 of these play components to be connected by a transfer system. The other 6 play components must be connected by ramps. Of course, ramp access is also permitted to all accessible elevated play components.

As discussed in 16.1.3 Exception 1, where a transfer system is used to connect accessible play components on an elevated structure, an accessible play component may be used to connect to another accessible play component. For example, a transfer system may connect to an accessible crawl tube. Additional accessible play components complying with 16.1.5 may be located at the end of an accessible crawl tube on an elevated structure.

16.1.3 Exception 3

This exception does not require handrails at ramps located in the use zone of a play area. The committee considered this an important safety precaution because obstacles such as handrails cannot be in these areas where it is predicted that users may fall.

16.1.3.1 Clear Width and Height

This provision requires the accessible route to be a minimum of 60 inches wide and to be clear of protrusions at or below 80 inches above the surface. The minimum 60 inch width is proposed for the accessible route for several purposes. Since this may be the only area where accessible surfacing is required, the committee considered a minimum 60 inch width necessary for adequate maneuvering space. This route will support and encourage interaction on the play area between children with and without disabilities. Unlike typical interior environments, the minimum width established in this provision is likely to be the only width requirement. For example, corridors in office buildings tend to be far wider than the minimum 36 inches required for accessible routes. Designers and landscape architects consider the minimum 60 inch width requirement necessary so that children may maneuver freely and pass each other without meeting transition points or edges between loose fill and firm surfaces. This requirement is also consistent with the recommendations of the RAAC and ASTM F 1487–95.

16.1.3.1 Exception 1

Exception 1 permits the use of a minimum 44 inch wide accessible route in play areas less than 1,000 square feet, provided that there is at least one turning space complying with ADAAG 4.2.3 where the route exceeds 30 feet in length. The committee proposed this exception based on concerns expressed by the child care industry regarding smaller facilities. Many child care facilities are often limited in the amount of space to designate for play. Concerns were raised about the potential impact of a wider accessible route in reducing the number of play components provided at smaller facilities. This exception is proposed to address these concerns.

16.1.3.1 Exception 2

Exception 2 permits the width of the accessible route to be reduced to a minimum 36 inches for a maximum distance of 60 inches. This reduction in the width of the accessible route is permitted if multiple segments are separated by 60 inch wide minimum segments that are at least 60 inches in length. The committee considered an occasional reduction in the minimum clear width necessary to accommodate obstacles such as trees and boulders in the play area. Because the accessible route also serves as a play area, any reduction in the clear width affects opportunities for socialization and interaction. Therefore, the committee developed these minimum criteria for spacing the narrowed segments and to ensure that adequate turning space is provided between narrowed segments of the accessible route.

16.1.3.1 Exception 3

Exception 3 permits the width of an elevated accessible route to be a minimum of 36 inches. Elevated accessible routes may include ramps between the ground and elevated structures, or ramps between elevated structures. This is consistent with the recommendations from the RAAC and ASTM F 1487-95. The committee considered a minimum 36 inch width to be appropriate for elevated structures where features such as edge protection and handrails typically are provided. Commonly available manufactured products will comply with this provision.

16.1.3.1 Exception 4

Exception 4 permits the clear width of the elevated accessible route to be reduced to 32 inches minimum for a maximum distance of 24 inches. This proposed exception is consistent with

existing ADAAG sections 4.2.1 and 4.13.5.

16.1.3.2.1 Ramp Slope

This section requires ramps provided within the boundary of a play area to meet the requirements of ADAAG 4.8 with some modifications. Ground level accessible routes may not exceed a slope of 1:16. The committee proposed this requirement for several reasons. Initial concerns were raised about the ability of children with disabilities to move around within a play area where there is no limitation on the length of the accessible route connecting accessible play components. A more gradual slope requires wheelchair users and many others to expend less energy to traverse a distance. Additionally, proposed 16.1.3 Exception 3 does not require handrails on ramps in a use zone. Since ramps in the use zone will not have handrails, the committee considered this another reason for limiting the slope of the accessible route on the ground level. Additionally, preliminary information regarding some artificial or synthetic surfaces shows that they may perform more efficiently where slopes are gradual.

16.1.3.2.2 Ramp Rise

This provision requires that any ramp run have a maximum rise of 12 inches. The RAAC recommended that there be a 12 foot limitation on the length of a ramp run to limit the distance between landings and other areas where children gather on a structure. The committee has proposed a maximum rise, rather than run, for ramps. This solution limits distance without increasing slopes unnecessarily. The committee believed that limiting ramp run is important to promote interaction between children with and without disabilities. ASTM F 1487-95 also uses a 12 foot limitation on ramp runs to discourage inappropriate and unsafe use of ramps.

16.1.3.2.3 Handrail Height

This section requires ramp handrails to be provided 20 inches minimum to 28 inches maximum above the ramp surface. This height is considered appropriate for children. This is not an additional handrail requirement. Instead, the committee proposed that handrails are only provided to serve children. This range is based on a research project sponsored by the Access Board.

16.1.4 Transfer Systems

Section 16.1.3 permits some accessible elevated play components to be connected by a transfer system complying with 16.1.4. The transfer

system provides one method of reaching the play equipment and is designed for use by children with disabilities who can transfer from their wheelchair or mobility device. Similar transfer systems are used to provide access into swimming pools. Manufactured transfer systems for play areas have been available since 1990. The transfer system consists of two components, a transfer platform and transfer steps. The transfer platform serves as an entry platform and is provided at a height that allows wheelchair users to transfer from wheelchairs. Transfer steps are designed to facilitate movement above or below the platform to accessible play components.

16.1.4.1 Transfer Platforms

16.1.4.1.1 Size

This section requires transfer platforms to have a level surface 14 inches minimum in depth and 24 inches minimum in width. This minimum size requirement allows for adequate space for transferring and maneuvering. The committee based this size requirement on the recommendations of the RAAC and ASTM F 1487-95. Transfer platforms can be designed in unique shapes such as a triangle, if the minimum clear space is provided.

16.1.4.1.2 Height

This section requires the transfer platform to be 11 inches minimum to 18 inches maximum above the ground or floor surface. The committee proposed a height range to allow designers flexibility to design for the intended age group and to accommodate existing manufactured composite play structures. The height ranges are also consistent with ASTM F 1487-95 and recommendations from the RAAC, and within the range of transfer height for other functions requiring transfer such as toileting.

16.1.4.1.3 Transfer Space

This section requires a level, clear and unobstructed space complying with ADAAG 4.2.4 to be provided along a 24 inch minimum side of the transfer platform. An unobstructed side of a transfer platform is necessary to permit a transfer. A level, clear space allows space for a stationary wheelchair adjacent to the transfer platform. Transfer steps connected below the platform may be used to facilitate access closer to the ground or floor surface. However, transfer steps shall not be connected to the unobstructed side of the platform.

16.1.4.1.4 Transfer Supports

This section requires a means of support to be provided for transferring. Such means may consist of a gripable edge of the transfer platform or some other element that provides a means of support. The committee agreed that this was integral to the process of transferring, but did not have sufficient information or technical data to require a specific location for the transfer support.

Question 2. What types of transfer supports are most effective in facilitating transfer? What is the most effective placement and why?

16.1.4.2 Transfer Steps

16.1.4.2.1 Size

This section requires transfer steps to comply with 16.1.4.1.1. Thus, the transfer step and platform are required to be the same minimum size. This regularity is important as the function of the step and platform are similar; serving as a deck to sit and push off of to move around. Transfer steps provide the opportunity for a child to ascend to the next level on an elevated structure.

16.1.4.2.2 Height

This provision requires a transfer step to be 8 inches high maximum. A maximum height is necessary to ensure use by children with disabilities in their movement from a transfer platform to an accessible play component. The 8 inches coincides with knee to foot range measurements and the maximum distance for children to move from step to step.

16.1.4.2.3 Transfer Supports

Similar to the requirement for the transfer platform, this section requires a means of support for transferring to be provided. Such means may consist of a gripable edge of the transfer step or some other element that provides a means of support. Transfer supports are also important to support the effort involved in moving from a transfer platform to an accessible play component. The accessible play component will often be located above the level of the transfer platform and may require movement over a series of transfer steps. (See Question 2.)

16.1.5 Accessible Play Components

This provision includes technical requirements for accessible play components. The committee examined what features of a play component make it accessible. Initially the committee focussed on individual play components and developed draft provisions for components such as

climbers, spring rockers, and swings. Through this detailed examination, the committee identified features critical to making play components accessible for children with a variety of disabilities. These key features included clear space adjacent to the play component, maneuvering space on the same level as the play component, providing manipulative and interactive features of the play component within the reach of children with disabilities, and having the entry point or seat at an appropriate height for transfer and with transfer supports. The identification of these features provided the basis for the proposed technical provisions of this section. Establishing the general features will provide more flexibility to designers, and also should guide the development of emerging technologies and play component designs.

16.1.5.1 Maneuvering Space

This section requires maneuvering space to be provided on the level of the accessible play component. This maneuvering space is necessary so that children with disabilities can negotiate within a play area. This provision requires the space to be on the same level as the accessible play component that it serves. Maneuvering space shall have a slope not steeper than 1:48 in all directions. Except for swings, the maneuvering space is not required to be located adjacent to the accessible play component. The committee considered the location of the maneuvering space critical for use of a swing. This maneuvering space is required to be located at the swing to facilitate both transfer onto the swing and to allow space for a parent or care giver to assist children. Consistent with existing ADAAG requirements, maneuvering space and clear space may overlap.

16.1.5.1 Exception

This exception eliminates the requirement for maneuvering space on elevated structures with transfer access only. These systems are designed for movement on the structure without a wheelchair, therefore the maneuvering space is not needed.

16.1.5.2 Clear Floor or Ground Space

This provision requires a clear floor or ground space at accessible play components. This space is required to comply with ADAAG 4.2.4 which provides space for a stationary wheelchair or mobility device. This space is important for the use of play components. Since each play component is used differently, designers may choose the appropriate orientation and location of this space. The clear

floor or ground space shall have a slope not steeper than 1:48 in all directions.

16.1.5.2 Exception

This exception eliminates the requirement for clear floor or ground space for elevated structures with transfer access only. Accessible clear floor or ground space is not necessary where structures are not designed to accommodate wheelchairs. Where ramp access is not provided, a transfer system is required.

16.1.5.3 Reach Ranges

This provision specifies reach ranges for heights of manipulative and interactive features of accessible play components. These features may include steering wheels, tic-tac-toe boards, and other operable equipment provided for use by children with disabilities on accessible play components. This section modifies the reach range requirements of ADAAG 4.2 which are based on adult dimensions and anthropometrics.

The table in this section specifies high and low reach ranges for children according to age: 36 inches high and 20 inches low for ages 2 through 5; and 40 inches high and 18 inches low for ages 5 through 12. These age ranges correspond to those specified in ASTM F 1487-95. The selection shall correspond to the age range of the primary user group served.

16.1.5.4 Height of Play Components

This provision specifies that when an accessible play component requires transfer, the entry point or seat must be located between 11 inches minimum and 24 inches maximum above the clear ground or floor space. This height is necessary for children using wheelchairs and other mobility devices to transfer onto the play component. The committee based these dimensions on information in a Board sponsored research project that examined seat heights and other elements that are often designed for transferring. The committee used these dimensions, since transfer height is also critical to these elements. A range has been established to avoid conflicts with height requirements of play components designed for movement (rocking, springing, bending).

Play components may be designed without an entry point or seat. In this case, the provisions of 16.1.5.4 do not apply. Swings and spring rockers are examples of play components with seats or entry points. Play components where seats or entry points are not provided include climbers and balance beams.

16.1.5.5 Transfer Supports

Similar to the requirement for the transfer platform and transfer steps, this section requires a means of support for transferring to be provided. Where an accessible play component requires transfer to the entry point or seat, such means may consist of a gripable edge of the play component or some other element that provides a means of support. Transfer supports are also important to support the effort involved in moving from a wheelchair or assistive device to an accessible play component. (See Question 2.)

16.1.6 Accessible Surfaces

16.1.6.1

This provision requires accessible surfaces located within play areas at ground level to comply with ADAAG 4.5.1 and this section. Surfaces within the play area that are required to be accessible must be firm, stable, and slip resistant and also meet the requirements of the ASTM PS 83 (Provisional Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment).⁴ The Board will request approval to incorporate by reference ASTM PS 83 in these guidelines from the Director of the Office of the Federal Register prior to publication of the final guidelines.

The committee has proposed to use ASTM PS 83 to measure the accessibility of a surface in a play area. This provisional standard provides a specification for determining the accessibility of the various surfaces used in play areas. The committee agreed to this approach to provide more specific guidance to operators and designers when selecting surfaces for play areas. Owners and operators are often required to make this determination without sufficient guidance related to the factors that make a surface accessible to people using wheelchairs and other mobility aids.

The ASTM F 08.63 subcommittee has worked since May 1994 to prepare a specification for measuring surfaces to determine accessibility. ASTM's work was done at the urging of the Access Board and others interested in identifying objective methods of measuring the level of accessibility of various surfaces used in play areas. A playground surface would have to meet the specifications in the ASTM provisional standard before it would be considered an accessible surface.

The ASTM provisional standard specifically addresses the issue of "maneuverability". Maneuverability measures the effort needed to move a wheelchair across a surface. The development of this ASTM provisional standard included testing with people with disabilities who use wheelchairs and other mobility devices and was conducted at Beneficial Designs in Santa Cruz, CA. Effort required for turning and straight line movements were measured on different surfaces and slopes. The ASTM provisional standard assumes that the more difficult a surface is to turn and travel across, the less accessible it is. When compared to effort to travel across a very accessible surface, such as concrete, a minimum acceptable level of effort is yielded.

16.1.6.2

This provision requires accessible surfaces located within the use zone to be impact attenuating and to comply with the ASTM F 1292 provision for drop testing. The Board will request approval to incorporate by reference ASTM F 1292 in the guidelines from the Director of the Office of the **Federal Register** prior to publication of the final guidelines. The need for play areas to include safe surfaces, which are impact attenuating in case of a fall, is critical for children and for owners and operators. While the committee did not consider the requirement for an impact attenuating surface in a play area to be an accessibility issue, several playground surfaces may be considered accessible but would not meet the requirements for impact attenuation as defined by ASTM. For example, accessible surfaces such as concrete or pavement would not meet the requirements for impact attenuation as defined by ASTM.

There is controversy about which surfaces currently available meet the requirements for impact attenuation and accessibility. Cost is also an important factor. General estimates provided to the committee show large differences in costs between non-accessible loose fill surfaces that are impact attenuating and surfaces considered both accessible and impact attenuating. Sand and other loose fill materials, for example, presently range from approximately \$.25 to \$1.25 per square foot. However, rubber matting, poured-in-place rubber, and other accessible impact attenuating surfaces, presently range from approximately \$6.00 to \$20.00 per square foot.

The committee did not propose to require an entire play surface to be accessible because of a variety of considerations. These include a desire

to maximize play value, allow for diversity in the play experience, and balance the costs with the benefits. The committee identified those areas where accessible surfacing is necessary so that children with disabilities can use and enjoy play components.

Question 3. Impact attenuating surfaces have been used to cover concrete for safety purposes in play areas. The border between the resilient surface and adjacent surfaces forms a transition between the two surfaces. Some manufacturers have noted difficulty in meeting the requirements of ADAAG 4.5.2 for changes in level and for beveled surfaces. Should there be an exception? If so, under what conditions should the exception apply?

16.1.7 Handrails

This provision proposes that the diameter or width of handrails be 0.95 inch minimum to 1.55 inch maximum, or a shape that provides an equivalent gripping surface. This requirement will apply to all handrails within the play area. The committee proposed this requirement to be consistent with ASTM F 1487-95.

16.2 Soft Contained Play Structures

This section requires soft contained play structures to comply with 16.2. Soft contained play structures are designed differently than the more traditional play areas found in parks, schools, and child care centers. They are designed to promote play inside a structure and were originally developed as an alternative to the more open designs to reduce injuries due to falls. Users must fully enter the play system to participate in this opportunity. The play experience is provided largely within the structure and can include elements such as ball pools, slides, climbing nets, and crawl tubes. Children maneuver through the system by crawling, climbing, pulling and sliding.

16.2.1 Access to Entry Points

This section requires that where three or fewer entry points are provided for each structure, a minimum of one entry point shall be on an accessible route. Where four or more entry points are provided, an accessible route is required to at least two entry points. The committee agreed that the proposed accessibility guidelines developed for the more traditional play environments would not be appropriate for soft contained play structures. As a result, the committee proposed requirements to ensure access to the entry points of soft contained play structures. The committee did not consider the interior space of these structures suitable for

⁴ Copies of ASTM PS 83 are available through the American Society for Testing and Materials (ASTM) 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Telephone (610) 832-9585.

wheelchairs or other mobility devices. Additionally, these structures do not include open decks or platforms that would accommodate a wheelchair.

16.2.1 Exception 1

Exception 1 to this section permits the use of a transfer system complying with 16.1.4 to be a part of the accessible route connecting the entry points. The committee considered the use of transfer systems appropriate to connect entry points, since the interior space is not suitable for wheelchairs or other mobility devices. For example, a child either independently or with assistance can enter into a system at a transfer point, play in a ball pool, maneuver through a tube, and exit through a slide.

16.2.1 Exception 2

Exception 2 to this section permits the use of platform lifts (wheelchair lifts) complying with ADAAG 4.11 and applicable State or local codes as part of an accessible route for a soft contained play structure. The committee proposed that platform lifts be permitted so that they may be used in newly constructed play areas that may have unique environments where ramp access may not be feasible. The committee considered the use of platform lifts to connect entry points in soft contained play structures similar to the use of platform lifts on an accessible vertical route to a performing area in an assembly occupancy as permitted by ADAAG 4.1.3 Exception 4.

Regulatory Process Matters

Executive Order 12866: Regulatory Assessment

The Access Board has determined that this proposed rule is an economically significant regulatory action under Executive Order 12866 and has prepared a regulatory assessment of the potential costs and benefits of the rule. The regulatory assessment has been placed in the docket and is available for public inspection.

This proposed rule is the result of regulatory negotiation among 17 organizations representing the various interests affected by the rule. These interests include child care centers, elementary schools, park and recreation agencies, city and county governments, persons with disabilities, play equipment designers and manufacturers, and voluntary consensus standards groups. The regulatory negotiation committee considered many proposals made by the various interests. As discussed in the background section of the preamble, the regulatory negotiation committee agreed to basic

principles to guide its negotiations. Among those principles are that the guidelines should provide opportunity for children with a variety of abilities to use play areas, support social interaction and integration, be based on independent use as much as possible, create challenge not barriers, maintain safety, and be reasonable in terms of cost relative to benefit. The section-by-section analysis of the preamble discusses the factors that the regulatory negotiation committee considered in reaching consensus on the proposed rule. Where alternatives were presented, the regulatory negotiation committee aimed for the most cost effective approach for achieving the regulatory objectives. For example, section 16.1.3 of the proposed rule requires at least 50 percent of elevated play components to be accessible and contains different provisions for connecting the accessible elevated play components by transfer system or ramp based on the number of elevated play components provided.

The major alternatives which were considered and rejected by the committee included the following:

(1) Requiring the entire surface of a play area to be accessible and requiring ramp access to all play components on an elevated structure. While both alternatives would ensure access for all children with disabilities in a play area, the cost was considered excessive. Many owners and operators have an established budget to work within when designing and constructing play areas. The cost impact of these alternatives would reduce the amount of "play value" and fewer play components would be designed or purchased. The guidelines identify only those areas where accessible surfacing is necessary so that children with disabilities can use and enjoy play components.

(2) Providing a lower level of access for children with disabilities. The committee considered requiring only transfer access to all of the elevated structures and requiring ramp access to a certain height. While these were considered lower cost alternatives, there was little support from committee members who felt that these approaches limited access for children with disabilities in a way that was not consistent with the intent and purposes of the ADA. Specifically, the committee did not believe these approaches gave children with disabilities sufficient opportunity to interact and socialize with other children.

The regulatory assessment examines the potential cost impact of the proposed rule on three play areas: (1) a medium-size play area such as may be found in an elementary school; (2) a

small play area such as may be found in a child care center; and (3) a large play area such as may be found in a public park. Baseline costs were established for each play area based on the Department of Justice's "Americans with Disabilities Act Title II Technical Assistance Manual" (1994 Supplement), administrative complaints, ASTM F 1487-95 and ASTM PS 83, and common industry practices.

The regulatory assessment estimates equipment and surfacing cost increases over the baseline for providing access to elevated and ground level play components. For equipment, installation costs are estimated separately at 20 percent to 40 percent of equipment costs. If installed and maintained properly, it appears that engineered wood fiber, rubber mats or tiles, and poured-in-place rubber would be permitted for surface materials. The regulatory assessment considers two surfacing options for each play area: (1) using engineered wood fiber for the entire play area; and (2) using a unitary material such as rubber matting for accessible surfaces and loose fill material such as sand, wood chips, or pea gravel for the rest of the play area. The estimated cost range for engineered wood fiber is \$.85 to \$3.00 per square foot installed and for rubber matting is \$6.00 to \$15.00 per square foot installed. The cost ranges are fairly wide due to the wide range of existing site conditions.

The medium-size play area examined in the regulatory assessment is for children age 5 to 12 years old and has a composite play structure with 4 levels and 10 elevated play components. For the baseline, 8 elevated play components are included and a transfer system is provided to the first level of the composite structure making 2 play components on that level accessible. The play area also has a set of swings and 4 other ground level play components. For the baseline, the swing set and 2 other ground level play components are included and the accessible route does not extend to any of the ground level play components where a combination of unitary and loose fill surfacing materials is used. The total baseline costs for the play area range from \$16,446 to \$24,361 using engineered wood fiber, and from \$16,197 to \$26,116 using a combination of unitary and loose fill materials.

Providing a transfer step between the first and second levels to make a play component on the second level accessible and adding another play activity to both the first and second levels so that at least 50 percent of the elevated play components are accessible

would increase the equipment costs \$1,871, plus \$374 to \$748 for installation. Adding 2 play activities at the ground level so that the number of ground level play components equals at least 50 percent of the total number of elevated play components would increase equipment costs \$992, plus \$199 to \$397 for installation. Where engineered wood fiber is used for the entire play area, the surfacing costs would increase \$238 to \$786 because the use zone is made larger by the addition of 2 ground level activities. Where a combination of unitary and loose fill materials is used, the surfacing costs would increase \$2,447 to \$5,811 because additional unitary material is needed to extend the accessible route to reach the base of one of the elevated play components and each of the ground level play components. The total costs for the play area applying the proposed rule would range from \$20,120 to \$29,155 using engineered wood fiber (a 21 percent change over the baseline), and from \$21,937 to \$32,592 using a combination of unitary and loose fill materials (a 38 percent change over the baseline).

The small play area examined in the regulatory assessment is divided by age groups. One area is for infants and toddlers up to 24 months old. The other area is for children age 2 to 5 years old. The infant and toddler area is not affected by the proposed rule and thus there is no cost impact for that area. The area designed for children age 2 to 5 years old has a composite play structure with 4 elevated play components on one level, a sand and water play table, portable painting easels, and 3 imaginative play items on the ground level. For the baseline, a transfer system is provided to the composite play structure making at least 50 percent of the elevated play components accessible. The sand and water table and the paint easels are located along an existing sidewalk when in use since they are not required to be located over impact alternating material, and one of the imaginative play items is located on an accessible route within the play area. The total baseline costs for the play area range from \$12,548 to \$16,980 using engineered wood fiber, and from \$12,961 to \$17,639 using a combination of unitary and loose fill materials. The proposed rule would not require any changes over the baseline for the small play area. The proposed rule allows accessible routes in play areas smaller than 1,000 square feet to be 44 inches minimum clear width which may offer some cost savings over the 60 inches

minimum clear width specified in the ASTM F 1487-95 standard.

The large play area examined in the regulatory assessment is for children age 5 to 12 years old and has a composite structure with multiple decks on 4 levels and 20 elevated play components. For the baseline, 19 elevated play components are included and a transfer system is provided to a deck on the first level which is connected by a bridge to another deck on the same level, making 5 play components on that level accessible by a transfer system. The play area also has a set of swings, an independent slide, a sand play area, and 7 other ground level play components. For the baseline, the swing set, the independent slide, the sand play area, and 3 other ground level play components are included and the accessible route is located along a side of the sand play area but does not extend to any of the other ground level play components where a combination of unitary and loose fill surfacing materials is used. The total baseline costs for the play area range from \$40,223 to \$54,578 using engineered wood fiber, and from \$40,965 to \$54,409 using a combination of unitary and loose fill materials.

In addition to providing access to at least 25 percent of the elevated play components by a transfer system, the proposed rule would require at least 25 percent of the elevated play components to be accessible by ramp since the composite play structure has 20 or more elevated play components. A sloped earth berm is used to gain 24 inches elevation along the accessible route outside the use zone and a ramp is used to connect the berm to a 36 inch high deck, making 4 play components on that deck accessible. The berm costs \$4,100, including a retaining wall, paving, fill, landscaping materials, and installation. Using a ramp and landings to reach the same elevation as the berm (24 inches) would cost from \$4,205 to \$18,420 depending on the type of equipment and surfacing materials used. Berms may be more economical than ramps for elevation gains of 2 feet or less, especially if these natural topographic conditions exist on a site and can be incorporated into the play area with ramp access. In addition to the berm and ramp, the size of the deck connected by the ramp is increased and a play activity is added to the deck so that at least 25 percent of the elevated play components are accessible. The additional cost for the berm, ramp, increasing the size of the deck, and adding a play activity to the deck is \$6,892, plus \$1,378 to \$2,757 for installation.

Adding a transfer system to the sand play area and 4 play activities at the ground level so that the number of ground level play components equals at least 50 percent of the total number of elevated play components would increase equipment costs \$3,039, plus \$608 to \$1,216 for installation. The surfacing costs would increase \$128 to \$450 where engineered wood fiber is used for the entire play area because the use zone is made larger by the addition of the ramp, and \$2,735 to \$7,800 where a combination unitary and loose fill materials is used because additional unitary material is needed to extend the accessible route to reach the required number of ground level play components. The total costs for the play area applying the proposed rule would range from \$51,546 to \$67,590 using engineered wood fiber (a 26 percent change over the baseline), and from \$54,796 to \$74,471 using a combination of unitary and loose fill materials (a 35 percent change over the baseline).

The regulatory assessment also examines the potential cost impact of the proposed rule on soft contained play structures. The proposed rule would require at least one entry point to be located on an accessible route where three or fewer entry points are provided, and at least two entry points to be located on an accessible route where four or more entry points are provided. Transfer systems are permitted. The proposed rule would add \$400 to \$1,200 in equipment and surfacing costs on a structure with three or fewer entry points and \$800 to \$2,400 on a structure with four or more entry points, which is 2 percent to 6 percent of the original structure cost.

The variety of play area designs is nearly limitless. It is not possible to examine every design and develop precise cost data for the proposed rule. From the designs examined in the regulatory assessment, some general conclusions can be made. The total cost increase for play areas designed to meet the requirements of the proposed rule generally can be kept within 20 percent to 40 percent of the baseline that would be provided in the absence of the proposed rule. In the case of small play areas, there may be no additional cost incurred over the baseline. For soft contained play structures, the cost increase is expected to be 2 percent to 6 percent of the original structure cost. The most important factor in controlling cost is good design and careful planning to find the most efficient balance of costs, safety, maintenance, desired features, and accessibility.

The average cost of a play area has risen approximately 25 percent to 30

percent over the past seven years. This increase in cost is largely due to increased safety measures incorporated into the design of manufactured play equipment (both modular and individual play components) and resilient playground surfacing. Despite these increases in cost, equipment sales have increased by approximately 21 percent each year over the past five years.

Question 4. The Board is interested in what, if any, effects any increased cost to provide accessibility for children with disabilities will have on new play areas. Similar to what occurred with safety measures, is it reasonable to assume that any additional costs associated with accessibility will be absorbed? What alternatives will designers and operators consider in meeting the proposed accessibility guidelines without sacrificing play value? Will schools and parks consider decreasing the size of play areas to ensure that both children with and without disabilities will have equal opportunities?

The Play Equipment Section of the National School Supply and Equipment Association (NSSEA) maintains a voluntary reporting system for play equipment sales. Participating companies reported \$205 million in equipment sales for 1996. Non-participating companies are estimated to have \$125 million in equipment sales for 1996. Assuming installation costs at 30 percent of equipment sales, surfacing costs at 12 percent of equipment sales, and professional design fees, grading, landscaping, and other expenses at 10 percent of the equipment sales, the total estimated expenditures for play areas in 1996 is estimated to be \$502 million, of which approximately 80 percent is for new construction. This amount does not include soft contained play structures, which are estimated to have \$86 million in total expenditures for 1996, with approximately 85 percent of the amount for new construction. It is estimated that there are 250,000 play areas in the country and that licensed child care facilities operate 95,000 (38 percent) of the play areas, elementary schools operate 53,900 (22 percent) of the play areas, and parks operate 101,000 (40 percent) of the play areas. Assuming each of these entities builds new play areas in the same proportion as it operates them and a 20 percent to 40 percent cost increase based on the examples of the medium and large size play areas examined in the regulatory assessment, the economic impact of the proposed rule on elementary schools and parks is estimated to be \$50 million to \$100 million annually. For purposes

of the proposed rule, it is assumed that licensed child care facilities have an average capacity of 65 to 70 children, that the children use the play areas in small groups, and that the play areas operated by those entities are likely to be small. Since no additional cost was projected in the example of the small play area examined in the regulatory assessment, no economic impact is estimated for small play areas operated by licensed child care facilities.

Question 5. The Board seeks information on licensed child care facilities, including the size of play areas operated, types of play equipment used, and current practices for providing access to new play areas.

For soft contained play structures, the economic impact of the proposed rule is estimated to be \$1.5 million to \$4.5 million annually.

Initial Regulatory Flexibility Analysis

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601, *et seq.* (RFA), was enacted to ensure that small entities are not unnecessarily burdened by government regulations. The RFA requires agencies to review rules that may have a "significant economic impact on a substantial number of small entities." The Board has determined that this proposed rule is an economically significant regulatory action and therefore the preparation of an Initial Regulatory Flexibility Analysis (IRFA) is appropriate. Accordingly, pursuant to the RFA, the Board's IRFA is as follows.

I. Need For and Final Objectives of the Guidelines

The Access Board is responsible for developing accessibility guidelines under the Americans with Disabilities Act of 1990 (ADA) to ensure that new construction and alterations of facilities covered by titles II and III of the ADA are readily accessible to and usable by individuals with disabilities. Titles II and III of the ADA cover a wide variety of recreation facilities such as boating and fishing facilities, golf courses, parks, places of amusement, play areas, sports facilities, and trails. While these facilities are covered by the existing provisions of ADAAG, some recreation facilities have unique features for which additional provisions and special application sections are needed.

In July 1993, the Access Board convened the Recreation Access Advisory Committee (RAAC) to make recommendations concerning the development of additional guidelines to address areas unique to recreation facilities. The RAAC issued a report in July 1994 which addressed the various

types of recreation facilities and identified the features of each facility type that were not adequately addressed by ADAAG. In September 1994, the Board published an Advance Notice of Proposed Rulemaking (ANPRM) requesting public comment on the RAAC's recommendations. Following the issuance of the ANPRM, the Access Board established a regulatory negotiation committee on accessibility guidelines for play areas in March 1996. The regulatory negotiation committee developed these proposed guidelines which address newly constructed and altered play areas.

As proposed, these guidelines address access to ground level and elevated play components. Additional ground level accessible play components may be required, depending on the type of vertical access provided to elevated structures. The guidelines are based on children's anthropometric dimensions and other resource information, including children with disabilities using a variety of assistive devices. Where possible, the guidelines are based on independent use of the facility by children with disabilities. The guidelines also address access for parents and care givers who may have a disability.

The guidelines maintain safety standards consistent with ASTM F 1487-95 and provide information to assist designers, operators, and owners to effectively incorporate access into their designs. The guidelines are intended to be reasonable in terms of cost relative to these benefits.

II. Description and Estimate of the Number of Small Businesses to Which These Guidelines Will Apply

These guidelines address play facilities covered under titles II and III of the ADA and ensure that the construction or alteration of those facilities is readily accessible to and usable by individuals with disabilities. Title II of the ADA covers buildings constructed or altered by, on behalf of, or for the use of State and local governments, while title III of the ADA addresses places of public accommodation and commercial facilities.

Small Businesses

The term *small business* is defined by the RFA as having the same meaning as the term *small business concern* under section 632 of the Small Business Act, 15 U.S.C. 632. A *small business concern* is defined as "one which is independently owned and operated and which is not dominant in its field of operation." The Administrator of the

Small Business Administration may provide additional criteria by which a concern may be determined to be a small business concern.

There are 10 industry categories established by the Small Business Administration which are applicable to these guidelines. However, as discussed below, many of the categories noted are overbroad in the inclusion of potential businesses affected by these proposed guidelines and accordingly the number of potential business provided in the census data is higher than the actual estimate. For example, in the category of landscape counseling and planning services, only those businesses which are engaged in designing play areas would be impacted by the provisions proposed in these guidelines. Similarly, in the category of amusement parks and kiddie parks, these guidelines would apply to play areas in those facilities, but do not address mechanical rides, refreshment stands or picnic grounds. Additional examples are discussed in the list of categories of businesses potentially affected by the guidelines which follows:

(1) *Establishments primarily engaged in the manufacturing of sporting and athletic goods.* This category would include gymnasium and playground equipment; golf and tennis goods; baseball, football, basketball and boxing equipment; fishing tackle; roller skates and ice skates; billiard and pool tables; and bowling alleys and equipment.⁵ These establishments are considered to be small businesses if they have 500 or less employees. (See 13 CFR 121.201.) Census data indicates that there are 2,115 such entities, of which 98% or 2,064 are considered small businesses.⁶ However, because these guidelines are limited to equipment manufactured for play areas, this category is over inclusive and many of the manufacturers included in the census data for this class would not be impacted by these guidelines.

(2) *Establishments primarily engaged in child day care services.* This would include the care of infants or children, or providing prekindergarten education, where medical care or delinquency correction is not a major element. These establishments may or may not have substantial educational programs. They generally care for prekindergarten or preschool children, but may care for older children when they are not in

school.⁷ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 43,449 such establishments, of which 99% or 43,321 are small business concerns.⁸

(3) *Elementary and secondary schools.* This would include elementary and secondary schools furnishing academic courses, ordinarily for kindergarten through grade 12. Included in this industry are parochial schools and military academies furnishing academic courses for kindergarten through grade 12, and secondary schools which furnish both academic and technical courses.⁹ With respect to private schools, these establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 16,646 elementary or secondary schools which are private or military establishments, of which 91% or 13,341 are small business concerns.¹⁰ Because these guidelines address play areas, typically only the elementary schools, and not secondary schools, included in the census data would be impacted. With respect to public schools, there are 60,052 elementary public schools.¹¹ However, only those elementary schools operated by government entities with populations of less than 50,000 are considered small entities for purposes of the RFA.¹²

(4) *Civic, Social, and Fraternal Associations.* This category would include organizations engaged in civic, social or fraternal activities.¹³ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 39,962 such establishments, of which 99% or 39,883 are small business concerns.¹⁴ However, many of the

entities identified in the category and included in the census data would not be impacted by these guidelines. For example, this category includes booster clubs, citizens' unions, university clubs, tenant associations and other such organizations. Only those entities such as parent-teacher associations or community groups which might be engaged in providing play facilities would be impacted by the guidelines.

(5) *Eating places.* This would include establishments primarily engaged in the retail sale of prepared food and drinks for on-premise or immediate consumption. Caterers and industrial and institutional food service establishments are also included in this industry.¹⁵ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 262,563 such establishments, of which 98% or 256,281 are small business concerns.¹⁶ As with previous categories, not all of the businesses identified in this category will be impacted by these proposed guidelines. Only those eating places which provide play areas for patrons such as fast serve restaurants will be affected by the guidelines.

(6) *Sporting goods stores and bicycle shops.* This category includes establishments primarily engaged in the retail sale of sporting goods, sporting equipment, and bicycles, bicycle parts, and accessories.¹⁷ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 20,345 such establishments, of which 99% or 20,192 are small business concerns.¹⁸ However, only those establishments which are engaged in the retail sale of playground equipment would be affected by these proposed guidelines.

(7) *Sporting and recreational camps.* This would include establishments primarily engaged in operating sporting and recreational camps, such as boys' and girls' camps, and fishing and

⁷ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 8351).

⁸ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 8351 (U.S. Bureau of the Census data under contract to the SBA).

⁹ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 8211).

¹⁰ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 8211 (U.S. Bureau of the Census data under contract to the SBA).

¹¹ Department of Education, National Center for Education Statistics, Digest of Education Statistics 1995, Table 5.

¹² 5 U.S.C. 601(5).

¹³ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 8641).

¹⁴ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table

3, SIC 8641 (U.S. Bureau of the Census data under contract to the SBA).

¹⁵ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 5812).

¹⁶ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 5812 (U.S. Bureau of the Census data under contract to the SBA).

¹⁷ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 5941).

¹⁸ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 5941 (U.S. Bureau of the Census data under contract to the SBA).

⁵ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 3949).

⁶ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 3949 (U.S. Bureau of the Census data under contract to the SBA).

hunting camps.¹⁹ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 2,812 such establishments, of which 100% or 2,812 are small business concerns.²⁰

(8) *Establishments of the type known as amusement parks and kiddie parks which group together and operate in whole or in part a number of attractions, such as mechanical rides, amusement devices, refreshment stands, and picnic grounds.*²¹ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 861 such establishments, of which 93% or 797 are small business concerns.²²

(9) *Establishments primarily engaged in landscape counseling and planning services.*²³ As determined by the Small Business Administration, these establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) According to the U.S. Bureau of the Census data, there are approximately 4,581 such firms, of which approximately 100% qualify as small businesses.²⁴

(10) *Lumber and other Building Materials Dealers.* This would include establishments engaged in selling primarily lumber, or lumber and a general line of building materials, to the general public. While these establishments may sell primarily to construction contractors, they are considered as retail in the trade.²⁵ These establishments are considered to be small businesses if they have \$5 million or less in annual receipts. (See 13 CFR 121.201.) Census data indicates that there are 19,713 such establishments, of which 85% or 16,718 are small business

concerns.²⁶ Not all of the entities which are engaged in selling lumber and other building materials would be impacted by these guidelines. Many of the businesses included in this category are engaged in the sale of brick, tile, doors, flooring and other materials not typically utilized in a play area and therefore would not be affected by the requirements of this rule.

This rule applies to State and local governments under title II of the ADA and would therefore apply to parks and recreational areas operated by these entities. The National Recreation and Park Association estimates that there are 4,800 park and recreation departments operated by municipalities, public/private entities and counties. For purposes of the RFA, governments of cities, counties, towns, townships and villages are considered small governmental jurisdictions if they have a population of less than 50,000.²⁷ Available U.S. Census Bureau data does not identify the number of local governments which have populations of less than 50,000. The Board is seeking information on the number of small governmental jurisdictions which would be impacted by these guidelines.

III. Description of Reporting, Recordkeeping and Other Compliance Requirements

Owners and operators developing new play areas will be required to provide a minimum level of accessibility for children with disabilities. For components which are not elevated, at least one of each type of play component must be accessible. (See 16.1.1 Ground Level Play Components.) In many playgrounds, this will mean that at least one rocking or spring animal, or at least one sand digger in a series of diggers must be accessible. Accessible play components must be reachable by children seated in wheelchairs through accessible surfacing. (See 16.1.5 Accessible Play Components.)

For elevated play components, different levels of accessibility are required based on the size of the structures. Since additional costs are often incurred when providing ramp access to elevated structures, many small structures are not required to have ramp access. Instead, small structures are permitted to have a "transfer system." (See 16.1.4 Transfer System.) "Transfer systems" provide an opportunity for children with

disabilities to transfer from their wheelchairs or other mobility devices to use play components. To provide opportunities for children who are unable to transfer to the elevated structures, a certain percentage of additional accessible play components are required on the ground level. This requirement may be partially met through making "one of each type" of ground level play component accessible.

When owners and operators alter a play area, they would be required to follow the proposed accessibility guidelines as it applies to the element that they are altering. For example, if an existing spring animal is altered, the accessibility guidelines for accessible ground level play components would apply. If no other accessible spring rockers are already provided, this would require the operator to design the altered spring rocker to be accessible for children with disabilities.

An important exception has been included in the proposed accessibility guidelines to limit the impact of alterations that may be triggered by safety surface replacement. As proposed, the guidelines would allow play equipment to be relocated to create safe use zones without triggering the alterations requirements of ADAAG 4.1.6 if the surface is not changed or extended for more than one use zone.

Several additional exceptions have been included within the proposed accessibility guidelines which will minimize the impact of the guidelines. Those exceptions include:

(1) *Application.* These guidelines apply to play areas designed for children ages two and over which is consistent with voluntary safety standards for playgrounds. They do not apply to play areas for children ages two and under. (See 16.1 Play Areas.)

(2) *Alterations.* As discussed previously, the guidelines allow play equipment to be relocated to create safe use zones without triggering the alterations requirements of ADAAG 4.1.6 if the surface is not changed or extended for more than one use zone. This will minimize the potential cost impact of creating safer play areas, while balancing the need for accessibility for children with disabilities. (See 16.1 Play Areas, Exception 1.)

(3) *Platform lifts.* This exception allows the use of a platform lift as part of an accessible route to an elevated structure. This provides designers and operators with another way to provide vertical access in these unique environments. (See 16.1 Play Areas, Exception 2.)

¹⁹ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 7032).

²⁰ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 7032 (U.S. Bureau of the Census data under contract to the SBA).

²¹ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 7996).

²² U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 7996 (U.S. Bureau of the Census data under contract to the SBA).

²³ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 0781).

²⁴ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 0781 (U.S. Bureau of the Census data under contract to the SBA).

²⁵ Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987) (SIC 5211).

²⁶ U.S. Small Business Administration, Industry and Employment Size of Enterprise for 1993, Table 3, SIC 5211 (U.S. Bureau of the Census data under contract to the SBA).

²⁷ 5 U.S.C. 601(5).

(4) *Protruding objects.* This exception exempts play areas from the prohibitions against protruding objects contained in ADAAG 4.4 (Protruding Objects) except for the accessible route within a play area. Generally, elements mounted along circulation paths may not project more than 4 inches, if the leading edge is above 27 inches and below 80 inches. The regulatory negotiation committee considered the unique environment of the play area and believed that this requirement may have the effect of substantially altering the nature and design of a play area and therefore proposed an exception. (See 16.1 Play Areas, Exception 3.)

(5) *Accessible routes.* The guidelines permit the width of the accessible route in play areas to be reduced. These exceptions reduce the amount of accessible surfacing that is required where there are special conditions. The accessible route can be reduced to 44 inches, for example, in play areas with less than 1,000 square feet. This provision will assist the smaller child care facilities in meeting these guidelines. (See 16.1.3.1 Clear Width and Height, Exception 1.)

(6) *Soft contained play structures.* Soft contained play structures are designed to promote play inside the structure and are often found in fast serve restaurants and other retail establishments. Exceptions have been proposed which consider these unique environments and limit access to the entry points of the structure. (See 16.2 Soft Contained Play Structures.)

In addition to these exceptions, ADAAG Section 2.2 (Equivalent Facilitation) which would apply to these proposed guidelines, provides that covered entities may depart from the particular technical and scoping requirements where the result will provide substantially equivalent or greater access to and usability of the facility.

As discussed in further detail in this Regulatory Process section, the Board has prepared a regulatory assessment which examines the potential cost impact of these guidelines on three play areas including a small, medium and a large size play area. (See Executive Order 12866: Regulatory Assessment.) The baseline costs for the assessment were based on the Department of Justice's "Americans with Disabilities Act Title II Technical Assistance Manual" (1994) Supplement, administrative complaints, ASTM F 1487-95 and ASTM PS 83, and common industry practices. In small play areas, the proposed guidelines would not result in any additional costs; for medium size play areas, the cost

increase would be approximately 21 to 38 percent depending on the type of surfacing materials used; and for larger play areas, the increased cost would be from 26 to 35 percent depending on the surface materials. For soft contained play structures, the proposed rule would result in an increase of 2 to 6 percent of the original structure costs.

As proposed, there are no recordkeeping requirements in these guidelines.

IV. Description of Steps Taken to Minimize the Significant Economic Impact Consistent with the Stated Objectives and Significant Alternatives Considered and Rejected

Efforts to Minimize Impact

As previously discussed, these proposed guidelines were the result of a regulatory negotiation process. The regulatory negotiation committee members included individuals representing small businesses and entities including the National Child Care Association, International Play Equipment Manufacturers Association, National Recreation and Park Association, National League of Cities, National Association of Counties, and the National Parent-Teacher Association. Various State and local government entities also participated in the discussions of the committee. Meetings of the committee were held in different locations across the country. At the conclusion of each day of a full committee meeting, public comment was invited and over 250 members of the public attended. In addition, the committee members visited play area sites operated by small entities. One of the committee meetings was held in conjunction with the National Recreation and Park Association Annual Congress and over 100 members of the public attended. The National Recreation and Park Association includes small municipal park and recreation agencies.

Throughout its deliberations, the committee carefully considered and incorporated several alternatives which minimized the impact of the guidelines on small entities. Those provisions include the following:

(1) The Board's ANPRM requested public comment on the RAAC's recommendation to include a requirement that, in the design process, covered entities document accessible routes of travel for play areas, accessible points of access for elevated equipment and provision of play components accessible by ramp and transfer systems. The ANPRM also requested comment on requiring covered entities to document

consultation with person with disabilities during the planning process of a play area. The majority of the comments received in response to this recommendation did not support the inclusion of a requirement for such documentation. The regulatory negotiation committee viewed the requirements for documentation as too onerous and not practical in all settings. The guidelines do not propose a recordkeeping requirement.

(2) The committee differentiated between play areas with a smaller number of play components and those with a greater number of components. As ramp access costs always exceed the costs of transfer access, the committee has proposed to require ramp access only on larger structures with a great number of components. For the ramp to be cost effective, the committee determined that the play structure should contain 20 or more play components before a ramp is required. (See 16.1.3 Exception 1.) In addition, the committee has proposed that platform lifts may be used in lieu of ramps to elevated play structures. (See 16.2.1 Access to Entry Points, Exception 2.)

(3) In play areas with less than 1,000 square feet, the guidelines provide that ground accessible routes shall be permitted to be 44 inches minimum clear width, a reduction from the 60 inches minimum clear width required in larger play areas. (See 16.1.3.1 Clear Width and Height.)

(4) Where soft contained play structures have three or less entry points, the committee has recommended that only one entry point be required to be on an accessible route. Where four or more entry points are provided, only two are required to be on an accessible route. (See 16.2.1 Access to Entry Points.)

(5) The committee proposed a maximum height for transfer platforms consistent with existing manufactured composite play structures. (See 16.1.4.1.2 Height.)

In addition to the foregoing provisions, the Access Board provides technical assistance and training to small businesses covered by the ADA and these guidelines. The Access Board's toll-free number allows callers to receive technical assistance at no cost and to order informational publications. The Access Board conducts in-depth training programs to advise and educate the general public, as well as architects and other professionals on the accessibility guidelines and requirements.

Significant Alternatives That Were Rejected

Throughout its deliberations, the regulatory negotiation committee addressed a number of alternatives to providing accessibility within a play area for children with disabilities. The major alternatives which were considered and rejected by the committee included the following:

(1) Requiring the entire surface of a play area to be accessible and requiring ramp access to all play components on an elevated structure. While both alternatives would ensure access for all children with disabilities in a play area, the cost was considered excessive. Many owners and operators have an established budget to work within when designing and constructing play areas. The cost impact of these alternatives would reduce the amount of "play value" and less play components would be designed or purchased. The guidelines identify only those areas where accessible surfacing is necessary so that children with disabilities can use and enjoy play components.

(2) Providing a lower level of access for children with disabilities. The committee considered requiring only transfer access to all of the elevated structures and requiring ramp access to a certain height. While these were considered lower cost alternatives, there was little support from committee members who felt that these approaches limited access for children with disabilities in a way that was not consistent with the intent and philosophy of the ADA. Specifically, the committee did not believe these approaches gave children with disabilities sufficient opportunity to interact and socialize with other children.

Executive Order 12612: Federalism

The proposed rule is issued under the authority of the Americans with Disabilities Act. Ensuring the civil rights of individuals with disabilities has been recognized as a responsibility of the Federal government. The proposed rule does not otherwise affect the relationship between the Federal government and the States or the distribution of power and responsibilities among the various levels of government to warrant an assessment of federalism implications under Executive Order 12612.

Executive Order 12875: Intergovernmental Partnership

The Access Board has involved State and local governments in the development of the proposed rule. The

National Association of Counties, National League of Cities, National Recreation and Park Association, and National Association of Elementary School Principals were members of the regulatory negotiation committee. Members disseminated information regarding the rulemaking through their organizations and presented their concerns during the regulatory negotiation process. The regulatory negotiation committee also met in different cities and provided an opportunity for public comment at each meeting. In addition, the Access Board published an ANPRM requesting public comment on the Recreation Access Advisory Committee's report, which included recommendations for providing access to play areas. State and local governments commented on the ANPRM. The regulatory negotiation committee was convened in response to the public comments on the ANPRM to allow State and local governments and other interests affected by the rulemaking to be more directly involved in the development of the proposed rule.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act does not apply to proposed or final rules that enforce constitutional rights of individuals or establish or enforce any statutory rights that prohibit discrimination on the basis of race, color, religion, sex, national origin, age, handicap, or disability. Since the proposed rule is issued under the authority of the Americans with Disabilities Act, an assessment of the rule's effects on State, local, and tribal governments, and the private sector is not required by the Unfunded Mandates Reform Act.

List of Subjects in 36 CFR Part 1191

Buildings and facilities, Civil rights, Individuals with disabilities, Transportation.

Authorized by vote of the Access Board on July 9, 1997.

Patrick D. Cannon,

Chair, Architectural and Transportation Barriers Compliance Board.

Editorial Note: This document was received at the Office of the Federal Register on April 23, 1998.

For the reasons set forth in the preamble, the Architectural and Transportation Barriers Compliance Board proposes to amend Part 1191 of title 36 of the Code of Federal Regulations as follows:

PART 1191—AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES

1. The authority citation for 36 CFR Part 1191 continues to read as follows:

Authority: 42 U.S.C. 12204.

Appendix A to Part 1191 [Amended]

2. Appendix A to Part 1191 is amended by adding and reserving a new section 15.

3. Appendix A to Part 1191 is amended by adding a new section 16 to read as follows:

Appendix A to Part 1191—Americans With Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities

* * * * *

16. PLAY AREAS.

Definitions.

Composite Play Structure. Two or more play components attached or functionally linked to create an integrated unit that provides more than one play activity.

Elevated Play Component. A play component that is part of a composite play structure and approached above or below grade.

Ground Level Play Component. A play component that is approached and exited at the ground level.

Play Area. A portion of a site containing play components designed and constructed for children in a specified age range as designated by ASTM F 1487-95.

Play Component. An element intended to generate specific opportunities for play, socialization, or learning. Play components may be manufactured or natural, and be stand alone, or part of a composite play structure.

Soft Contained Play Equipment. A play structure made up of one or more components where the user enters a fully enclosed play environment that uses pliable material(s) (e.g., plastic, netting, fabric).

Use Zone. The ground level area beneath and immediately adjacent to a play structure or equipment that is designated for unrestricted circulation around the equipment and on whose surface it is predicted that a user would land when falling from or exiting the equipment as designated by ASTM F 1487-95.

16.1 Play Areas. Where provided, each play area designed for children ages 2 and over shall comply with the applicable provisions in section 4, except as modified or otherwise provided in this section.

Exception 1: This section does not apply to existing play areas where play equipment is relocated to create safe use zones and where the surface is not changed or extended for more than one use zone.

Exception 2: Platform lifts (wheelchair lifts) complying with 4.11 and applicable State or local codes are permitted to be used as part of an accessible route within a play area.

Exception 3: The provisions of 4.4 shall not apply within the boundary of the play area.

16.1.1 Ground Level Play Components

(1) Where ground level play components are provided, at least one of each type shall comply with 16.1.5.

(2) Where elevated play components are provided, ground level play components complying with 16.1.5 shall be provided in a number at least equal to 50% of the total number of elevated play components.

Exception: Where ramp access is provided to each elevated play component, 16.1.1(2) shall not apply.

(3) Where more than one accessible ground level play components are provided, they shall be integrated in the play area.

16.1.2 Elevated Play Components. Where elevated play components are provided, at least 50% shall comply with 16.1.5.

16.1.3 Accessible Routes. At least one accessible route shall be located within the boundary of the play area and shall connect accessible play components, including accessible entry and exit points of accessible play components, and accessible elements.

Exception 1: Where less than 20 elevated play components are provided, accessible elevated play components required by 16.1.2

shall be permitted to be connected by a transfer system complying with 16.1.4 (See Table 1). An accessible play component may be used to connect to another accessible play component.

Exception 2: Where 20 or more elevated play components are provided, no more than 50% of the accessible elevated play components required by 16.1.2 shall be permitted to be connected by a transfer system complying with 16.1.4 (See Table 1). An accessible play component may be used to connect to another accessible play component.

TABLE 1

Number of elevated play components provided throughout a play area	Minimum percentage required to be accessible and accessed by transfer system or ramp	Minimum percentage required to be accessible and accessed by ramp	Total (percent)
1-19	50	none	50
20 plus	25	25	50

Exception 3: Handrails are not required at ramps located in the use zone of a play area.

16.1.3.1 Clear Width and Height. Accessible routes shall be 60 in (1525 mm) minimum clear width. Objects shall not protrude into the accessible route at or below 80 in (2030 mm) above the surface.

Exception 1: In play areas less than 1,000 square feet, ground accessible routes shall be permitted to be 44 in (1120 mm) minimum clear width. At least one turning space complying with 4.2.3 shall be provided where the accessible route exceeds 30 feet (9.14 m) in length.

Exception 2: Ground level accessible routes shall be permitted to be 36 in (915 mm) minimum clear width for a distance of 60 in (1525 mm) maximum, provided that multiple 36 in (915 mm) wide segments are separated by segments that are 60 in (1525 mm) minimum in length and 60 in (1525 mm) minimum in width.

Exception 3: Elevated accessible routes shall be permitted to be 36 in (915 mm) minimum clear width.

Exception 4: The clear width of elevated accessible routes shall be permitted to be reduced to 32 in (815 mm) minimum for a distance of 24 in (610 mm) maximum.

16.1.3.2 Ramp Slope and Rise. Ramps shall comply with 4.8 except as modified by 16.1.3.2.

16.1.3.2.1 Slope. The maximum slope for ground level accessible routes within the boundary of a play area shall be 1:16.

16.1.3.2.2 Ramp Rise. Where a ramp is a part of an elevated accessible route, the maximum rise of any ramp run shall be 12 in (305 mm).

16.1.3.2.3 Handrail Height. Top of gripping surfaces of handrails shall be 20 in (510 mm) minimum to 28 in (710 mm) maximum above the ramp surface.

16.1.4 Transfer Systems. Transfer systems connecting levels having accessible play components shall include transfer platforms complying with 16.1.4.1 or transfer steps complying with 16.1.4.2.

16.1.4.1 Transfer Platforms. Transfer platforms shall comply with 16.1.4.1.

16.1.4.1.1 Size. Platforms shall have a level surface 14 in (335 mm) minimum in depth and 24 in (610 mm) minimum in width.

16.1.4.1.2 Height. Platform surfaces shall be 11 in (280 mm) minimum to 18 in (455 mm) maximum above the ground or floor surface.

16.1.4.1.3 Transfer Space. A level space complying with 4.2.4 shall be provided along a 24 in (610 mm) minimum unobstructed side of the transfer platform.

16.1.4.1.4 Transfer Supports. A means of support for transferring shall be provided.

16.1.4.2 Transfer Steps. Transfer steps shall comply with 16.1.4.2.

16.1.4.2.1 Size. Transfer steps shall comply with 16.1.4.1.1.

16.1.4.2.2 Height. A transfer step shall be 8 in (205 mm) maximum high.

16.1.4.2.3 Transfer Supports. A means of support for transferring shall be provided.

16.1.5 Accessible Play Components. Accessible play components shall comply with 16.1.5.

16.1.5.1 Maneuvering Space. Maneuvering space complying with 4.2.3 shall be provided on the same level as the play components served. Maneuvering space shall have a slope not steeper than 1:48 in all directions. The maneuvering space required for accessible swings shall be located at the swing.

Exception: Maneuvering space is not required at accessible elevated play components connected only by a transfer system.

16.1.5.2 Clear Floor or Ground Space. Clear floor or ground space shall be provided at accessible play components and shall be 30 in (760 mm) by 48 in (1220 mm) minimum. Clear floor or ground space shall have a slope not steeper than 1:48 in all directions.

Exception: Clear floor or ground space is not required at accessible play components connected only by a transfer system.

16.1.5.3 Reach Ranges. Manipulative and interactive features of accessible play components shall be within the reach ranges specified in 16.1.5.3.1.

16.1.5.3.1 Forward and Side Reach. The high forward or high side reach, and the low forward or low side reach shall comply with Table 2 below and shall correspond to the age range of the primary user group.

TABLE 2.—FORWARD AND SIDE REACH

Age Range	High Reach (not more than)	Low Reach (not less than)
Ages 2 through 5	36 in (915 mm)	20 in (510 mm)
Ages 5 through 12	40 in (1015 mm)	18 in (455 mm)

16.1.5.4 Height of Play Components. Where an accessible play component requires transfer to the entry point or seat, the entry point or seat shall be 11 in (280 mm) minimum and 24 in (610 mm) maximum above the required clear ground or floor space.

16.1.5.5 Transfer Supports. Where an accessible play component requires transfer to the entry point or seat, a means of support for transfers shall be provided.

16.1.6 Accessible Surfaces. Accessible surfaces located within play areas at ground level shall comply with 4.5.1 and 16.1.6.

16.1.6.1 Accessible surfaces located within play areas shall comply with the provisions of ASTM PS 83 Provisional Standard Specification for Determination of

Accessibility of Surface Systems Under and Around Playground Equipment (April 1997).

16.1.6.2 If located within use zones, accessible surfaces shall be impact attenuating and shall comply with ASTM F 1292.

16.1.7 Handrails. Where handrails are provided within a play area, the handrails shall have a diameter or width of 0.95 in (24.1 mm) minimum to 1.55 in (39.4 mm) maximum, or the shape shall provide an equivalent gripping surface.

16.2 Soft Contained Play Structures. Soft contained play structures shall comply with 16.2.

16.2.1 Access to Entry Points. Where three or fewer entry points are provided, at least one shall be located on an accessible

route. Where four or more entry points are provided, at least two shall be located on an accessible route. Accessible routes shall comply with 4.3.

Exception 1: A transfer system complying with 16.1.4 shall be permitted.

Exception 2: Platform lifts (wheelchair lifts) complying with 4.11 and applicable State or local codes are permitted to be used as part of an accessible route for soft contained play structures.

* * * * *

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