

evaluation will strike a balance between the removal of borders and the maintenance of the character and fabric of a place or experience. Sensitivity to the special needs of older users may not be intuitive.

Playgrounds

The design of play areas and playgrounds should provide a variety of play equipment and special areas for different age groups and activities. The design should provide for shade and sunny areas and places for quiet activity and observation as well as more physically active play. The U.S. Consumer Products Safety Commission estimates that 100,000 children are treated at hospital emergency rooms for injuries suffered at playgrounds (private and public). Most of these children are between the ages of 5 and 10 years old. The majority of these injuries are related to design issues and not supervision issues. The evaluation of existing playground equipment should begin with a routine inspection at the startup and throughout the season; loose parts should be tightened and friction points lubricated (see also Table 4.13).

The ASTM has developed three important specifications for playground designers. The *ASTM F 1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use* addresses the safety and performance of equipment; it was revised and updated in 2001. The *ASTM F 1951 Surfacing Standard* and the *ASTM F 1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment* address surfacing and fall protection. The Americans with Disabilities Act also applies to playgrounds. Selections for playground equipment should be compared to these consensus standards. The U.S. Consumer Product Safety Commission (CPSC) also publishes technical information guides to assist in the evaluation and selection of materials and products.

Ideally the access to the playground should not include direct street access, and it should be located at least several hundred feet from the street. Playgrounds should be sized on the basis of 70 ft²/child or 21 ft²/family. A 2000-ft² playground

TABLE 4.13 Evaluation of Playground Equipment Potential Hazards

Pinch points or crush points
Sharp edges and catch points
Exposed screws and bolts
Spacing of rings, rungs, rails (choking hazards)
Spacing of equipment
Overlap of fall zones
Hard surfaces
Fall hazards

Compiled from data supplied by U.S. Consumer Product Safety Commission and American Society of Testing and Materials.