



PLAYGROUND INSPECTION REQUIREMENTS

For Social Care Facilities

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General

- All day care playgrounds will be expected to comply with these standards. Facility operators must make improvements to existing playgrounds within reasonable time frames.
- The main areas of focus are summarized below along with the standards expected. Except where otherwise stated the CSA standards on children’s playspaces and equipment will be applied.
- CSA standards have been modified for simplification and in cases of potential hardship to operators. It is believed that these modifications will continue to provide adequate protection in social care facilities due to their controlled environments, including mandatory supervision by trained personnel, and because the numbers and age differences of children using equipment at the same time is limited.

Definitions

“Elevated Equipment”	any play equipment which has a fall height of greater than 500mm (20 in) from the surface.
“Moving Equipment”	for the purposes of this document, this shall mean any equipment on which an uncontrolled motion is created by swinging, rotation, or sliding/falling, and will include swings, slides, etc.
“Safe Fall Zone”	the area around elevated equipment designated as a landing or falling surface. This area must have appropriate surfacing and have no other obstructions, equipment, or objects that a child could strike while falling.
“Fall Height”	the vertical distance between a “designated play surface” <i>or the top of a guardrail</i> and the protective surface beneath it. For a swing, the fall height is measured from the highest point the swing could reach under reasonable use.
“Designated Play Surface”	any elevated surface intended for standing, walking, sitting, or climbing.

Requirements

1. Surfacing in Fall Zones

- The surface under outdoor elevated play equipment and in the safe fall zones shall be a recommended loose fill material such as pea gravel, sand, wood chips, wood mulch, or a unitary manufactured surface such as rubber tile, rubber pour-in-place, or other approved materials. The surface under indoor elevated play equipment and in the safe fall zones shall be a recommended unitary surface such as rubber tile, rubber pour-in-place, dense foam or other approved materials.
- The protective material shall extend the entire safe fall zone around all equipment and cover concrete footings at the base of the equipment.
- The depth of loose fill material shall be adequate for the fall height as described in Table 1, and at no time be less than 15 cm (6 in).
- Rubber tile or pour in place manufactured surfacing shall have adequate absorbency for the fall height. In these cases, the manufacturers design specifications will apply.
- The depth of indoor materials shall be adequate for the fall height as described in Table 2.

Table 1: Fall Heights for Different Depths of Loose Fill Material (CAN/CSA-Z614-98)

Material	Uncompressed Depth Required			Compressed Depth Required 225 mm (9 in)
	150 mm (6 in)	225 mm (9 in)	300 mm (12 in)	
Wood Chips	2.1 m (7 ft)	3 m (10 ft)	3.3 m (11 ft)	3.0 m (10 ft)
Bark Mulch	1.8 m (6 ft)	3 m (10 ft)	3.3 m (11 ft)	2.1 m (7 ft)
Wood Fibers	1.8 m (6 ft)	2.1 m (7 ft)	3.6 m (12 ft)	1.8 m (6 ft)
Fine Sand	1.5 m (5 ft)	1.5 m (5 ft)	2.7 m (9 ft)	1.5 m (5 ft)
Coarse Sand	1.5 m (5 ft)	1.5 m (5 ft)	1.8 m (6 ft)	1.2 m (4 ft)
Fine (Pea) Gravel	1.8 m (6 ft)	2.1 m (7 ft)	3.0 m (10 ft)	1.8 m (6 ft)
Medium Gravel	1.5 m (5 ft)	1.5 m (5 ft)	1.8 m (6 ft)	1.5 m (5 ft)
Shredded Tires	3.6 m (5 ft)	NA	NA	NA

- Notes:**
- a) the above table gives maximum fall heights for different depths of various materials. It can be used to determine appropriateness of surfacing for equipment present. For example a playground with 6 in of pea gravel can have a maximum fall height of 1.8 m (6 ft).
 - b) proper maintenance is necessary to ensure the reliability of surfacing materials. The compressed depth column demonstrates this.

Table 2: Fall Heights for Different Types of Approved Indoor Materials

Indoor Surface	Depth	Fall Height
Interlocking Foam Tiles	Double Layer	1.2 m (4 ft)
Dense Foam Mat (closed cell, cross linked polyethylene, 2 lb density)	3 cm (1¼ in)	1.8 m (6 ft)
Gymnastics Mat	15 cm (6 in)	1.8 m (6 ft)
All other Sleeping or Gymnastics Mats	5 cm (2 in)	90 cm (3 ft) or under or under
Rubber Tile and Pour-In-Place	Manufacturer's specifications	Manufacturer's specifications

2. Distance Allowances – Safe Fall Zones

The following distance requirements apply for elevated equipment. *Sides of equipment which are completely enclosed (including top), and on which there is no reasonable expectation of children climbing on the outside of the enclosure may be excluded from the safe fall zone and surfacing requirements at the discretion of the inspector.*

Safe Fall Zones:

- A. Stationary and rocking equipment requires a 1.8 m (6 ft) safe fall zone around all sides.
- B. Moving equipment requires a 1.8 m (6 ft) safe fall zone around all sides. (Measurement for a swing should begin from the furthest point the seat would reach under reasonable use.)
- C. Outdoor infant swings with restraint devices only require safe fall zones as far as the swing seat reaches. (The design of these swings is to prevent children from coming off the equipment without assistance.)
- D. For slides, if the platform height is less than 1.2 m (48 in) then a safe fall zone of 1.8 m (6 ft) is required from the exit section of the slide. If the platform height is greater than 1.2 m (48 in), then the safe fall zone of 2.4m (8 ft) is required from the exit section of the slide.

Clearances:

- A. Two pieces of stationary equipment can share a safe fall zone and therefore need only be 1.8 m (6 ft) apart.
- B. The distance between two pieces of moving equipment or one moving and one stationary must be 3.6 m (12 ft) in the direction movement is created.

- C. For “to-fro” swings, the distance between adjacent swings shall be 600 mm (24 in). The distance between a swing and the side support structure shall be 750 mm (30 in) measured at 1.5 m (60 in) above surface.
- D. For rotating (tire) swings, a distance of 750 mm (30 in) is required between the support structures and the swing, to be measured with the swing pulled as close to the structure as possible.
- E. For slides, a clear area, free of equipment shall surround the slide chute. This area is defined by a 1.5m (60 in) clear area above the slide surface and a 53 cm (21 in) clear area on either side of the slide.

3. Entanglement

- Equipment shall be free of any protrusions or recessions that may act as a hook or catch point for the entanglement of clothing. (This is of particular concern on equipment where there is uncontrolled motion such as slides.)
- Scarves, fringes, hooks and drawstrings shall be removed from children’s clothing before permitting them to play on uncontrolled motion equipment.

4. Entrapment

- All openings in playgrounds (including handrails and guardrails) shall be less than 9.0 cm (3.5 in) or greater than 23 cm (9.0 in).
- Bicycle or other helmets must not be worn on equipment.

5. Guardrails

- Guardrails shall be of solid and sound construction.
- Guardrails are required on elevated surfaces over 50 cm (20 in) when intended for use by children under 5 years of age, and on elevated surfaces over 75 cm (30 in) for children over 5 years of age.
- Guardrails shall completely surround elevated surfaces except at entrance and exit openings. Any opening greater than 38 cm (15 in) wide requires a top rail.
- The top of the guardrails shall be at least 73 cm (29 in) above the platform for children under 5, and at least 95 cm (38 in) above the platform for children over 5. The bottom edge of the guardrail shall be less than 9 cm (3.5 in).
- Guardrails shall discourage climbing and/or playing.
- No horizontal filler rails are permitted.

6. Inappropriate Equipment

The following equipment is not allowed due to increased risk of injury:

For children under 5 years old:

- See-saws without spring centered mechanism or other method of minimizing impact with the ground
- Swinging trapeze bars
- Rope swings
- Climbing ropes which are not anchored
- Chain or cable walks
- Free standing arch climbers
- Sliding poles
- Track or cable rides

For all children:

- Trampolines (regular and mini)
- Merry go-rounds
- Animal swings or other swing seats which are very heavy and pose a risk of impact injury

7. Swings

In addition to requirements noted elsewhere:

- Swing seats to be made of impact absorbing material
- Rope shall not be used as a method of suspending swings.

8. Slides

In addition to requirements noted elsewhere:

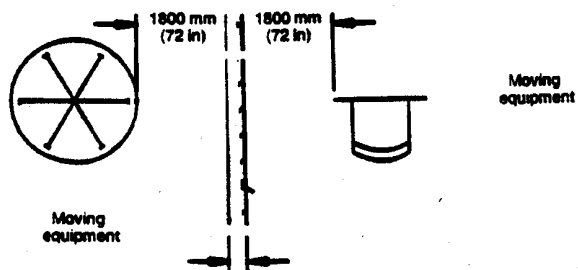
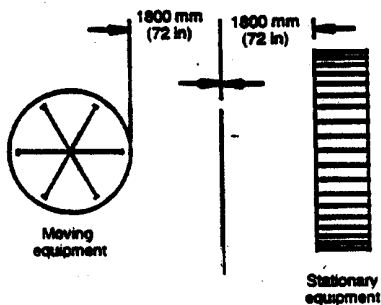
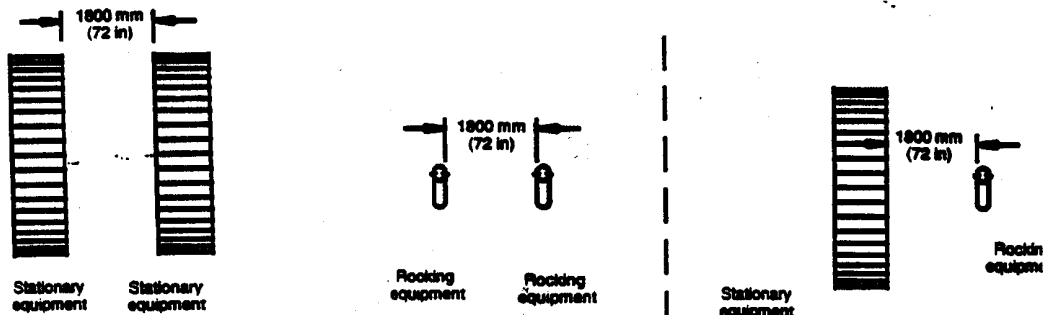
- There shall be no entanglement points at the top of the slide (see diagram Appendix A)
- There shall be continuous handrails from the first step to the top of the ladder
- Slides shall have protective side walls at least 10 cm (4 in) high
- Metal slides should be faced east or north to protect them from the heat of the sun

9. Equipment Condition and General Safety

- equipment shall have no sharp points, nuts, bolts, or other parts that can cut or pierce a child
- there shall be no exposed moving parts on the equipment which could pinch or crush a child's body or fingers
- equipment shall be free of cracks, splinters, rust or chipped paint and be in generally good condition and repair
- equipment shall be strongly anchored to the ground
- stable chains or ropes which suspend play equipment shall be in good repair and show no signs of wear
- the play area shall be safely accessible and adequately separated from traffic
- debris, litter, broken glass, animal droppings, skipping ropes etc. shall be removed from the play surface as required
- the equipment and protective surfacing shall be free from snow and ice
- non lead based paint shall be used on all new equipment and on repainting all old equipment
- new equipment and materials used for repairs shall not contain Chromated Copper Arsenate (CCA) treated wood

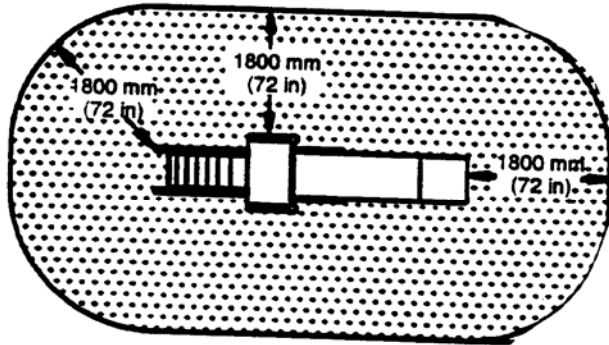
It is recommended that all operators obtain a copy of the *CSA Children's Playspaces and Equipment (CANCSA Z614-98)* Standard for greater detail on playground safety and design. A copy of this Standard may be purchased from the CSA Website (www.csa.ca), go to the online store and catalogue and search for Z614-98. The cost is \$45.

Appendix A: Distance Allowances – Safe Fall Zones



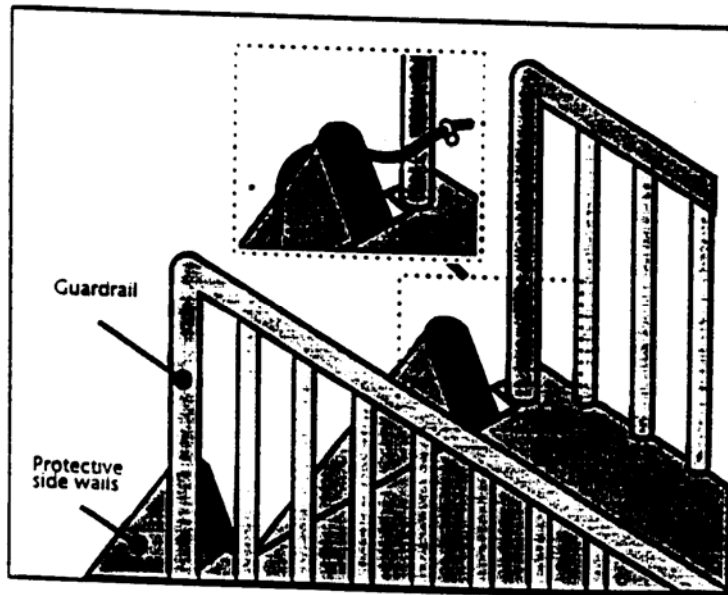
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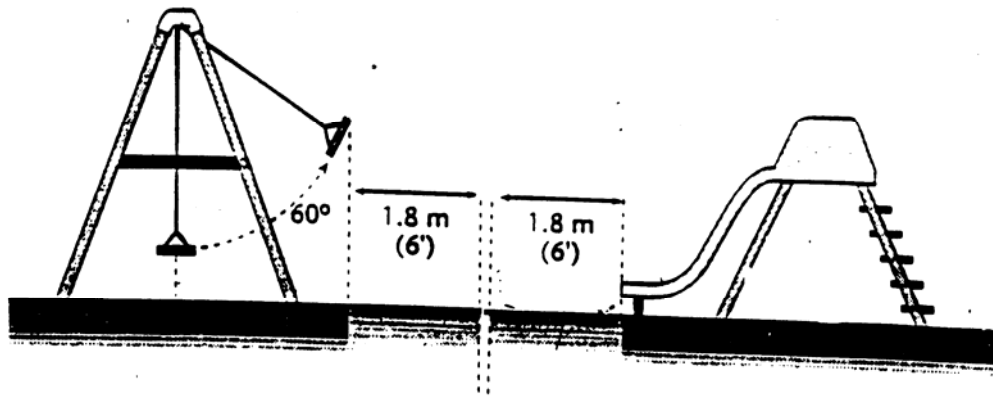
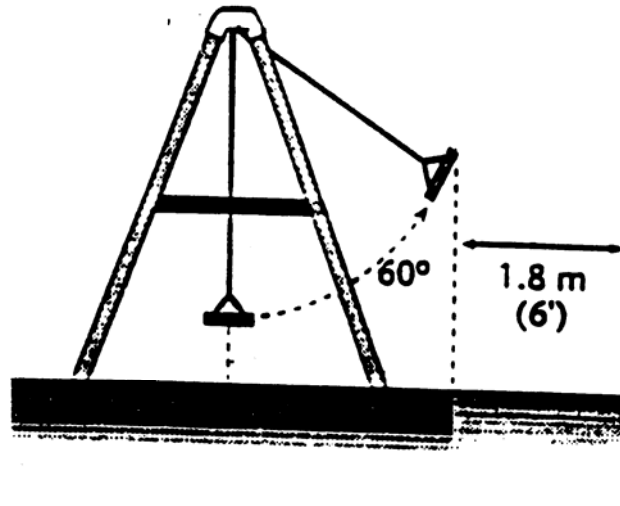
- (1) Examples of stationary equipment include climbing apparatus, monkey bars, and rocking equipment. Examples of moving equipment include slides (exiting section), swings, and merry-go-rounds.
- (2) The reduced fall height associated with rocking equipment allows a minimum clearance between adjacent items of rocking equipment of 300 mm (72 in).

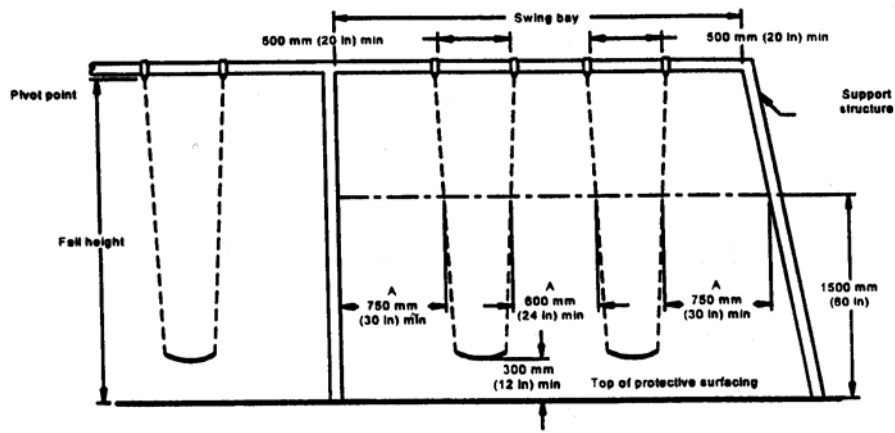


 Protective surface

Entanglement Points on Slides

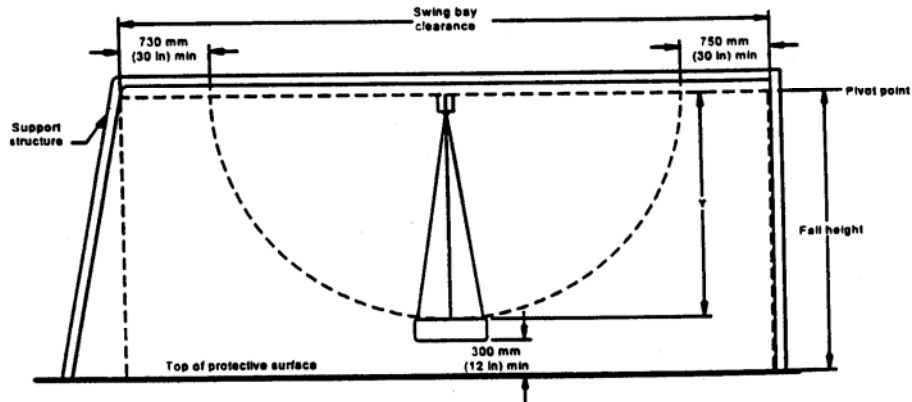






Note: Dimension A is measured when seat is occupied by maximum user.

Figure 38
To-Fro Swings



Note: Y = the vertical distance from the pivot point to the sitting surface of the seat.

Figure 39
Rotating Swings