

How Far from the Play Equipment Should the Surfacing Extend?

All equipment, excluding swings, slides and cable runways

The calculation of the extent of surfacing under the equipment, as set out in BS EN 1176 is as follows :

Free Fall Height

Less than 600 mm

More than 600 mm and less than 1500 mm

More than 1500 mm and less than 3000 mm

Extent of LIAS

No recommendation for surfacing

1500 mm

$(\text{Free fall height} \times 0.667) + 500 \text{ mm}$

Examples of how this works are:

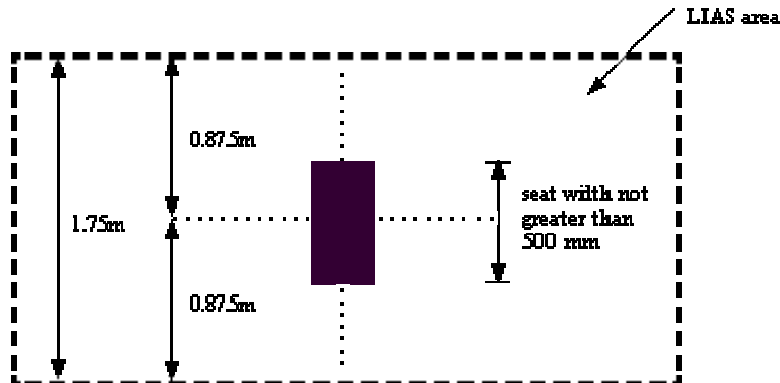
Fall height	Surface distance	Fall height	Surface distance
1.5 m	1.50 m	2.3 m	2.03 m
1.6 m	1.56 m	2.4 m	2.10 m
1.7 m	1.63 m	2.5 m	2.16 m
1.8 m	1.70 m	2.6 m	2.23 m
1.9 m	1.76 m	2.7 m	2.30 m
2.0 m	1.83 m	2.8 m	2.37 m
2.1 m	1.90 m	2.9 m	2.43 m
2.2 m	1.96 m	3.0 m	2.50 m

How Far from the Play Equipment Should the Surfacing Extend? (Continued)

Swings - Type 1 and Type 2

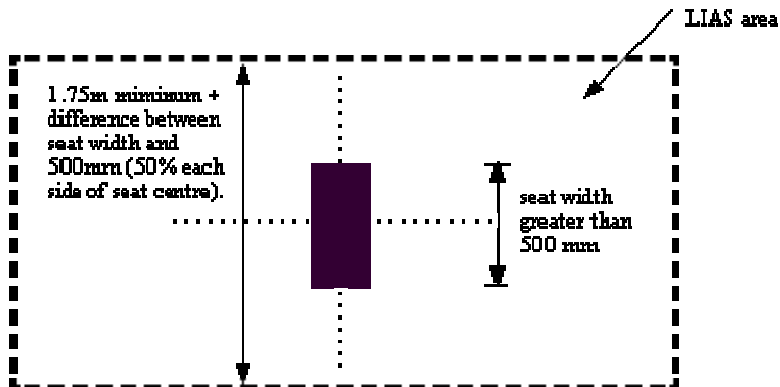
Seat width no greater than 500mm.

Plan View



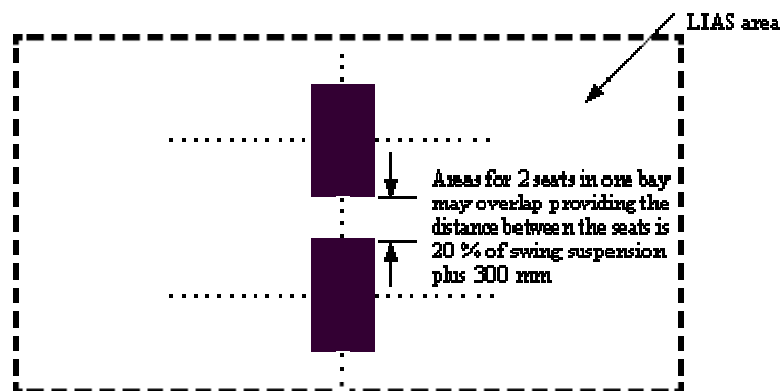
Seat width greater than 500mm.

Plan View



Areas for two seats in one bay.

Plan View



Freespace: The free space is 500 mm from seat centre line measured horizontally to the front and 1000 mm either side with the seat at 60° to vertical.

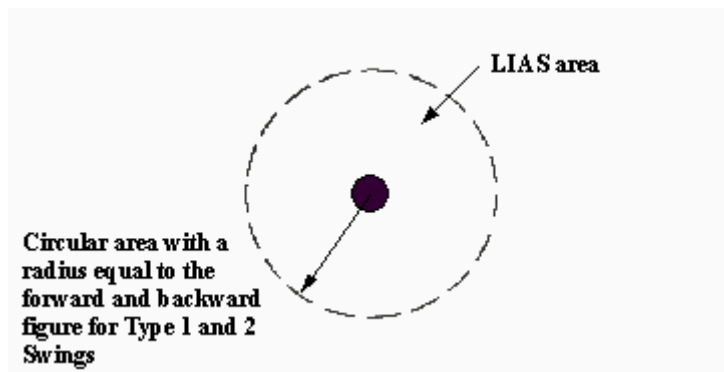
RoSPA consider that a barrier should be outside the loose-fill surfacing area.

Continued....

How Far from the Play Equipment Should the Surfacing Extend? (Continued)

Swings - Type 3

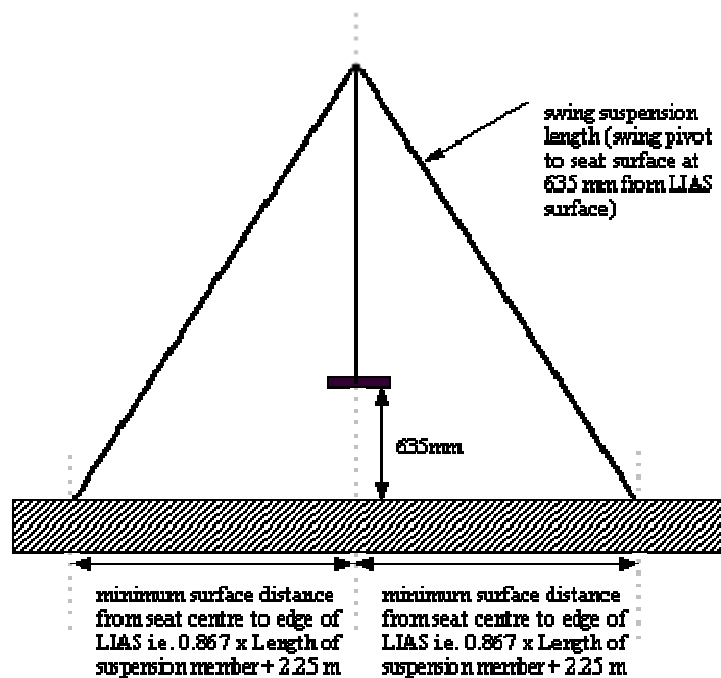
Plan View



Free fall height - Forward and Back

- Free fall height is calculated from the centre of the stationary seat surface at 60° (half swing suspension length + height of swing seat at rest (RoSPA suggests 635 mm))

Side Elevation



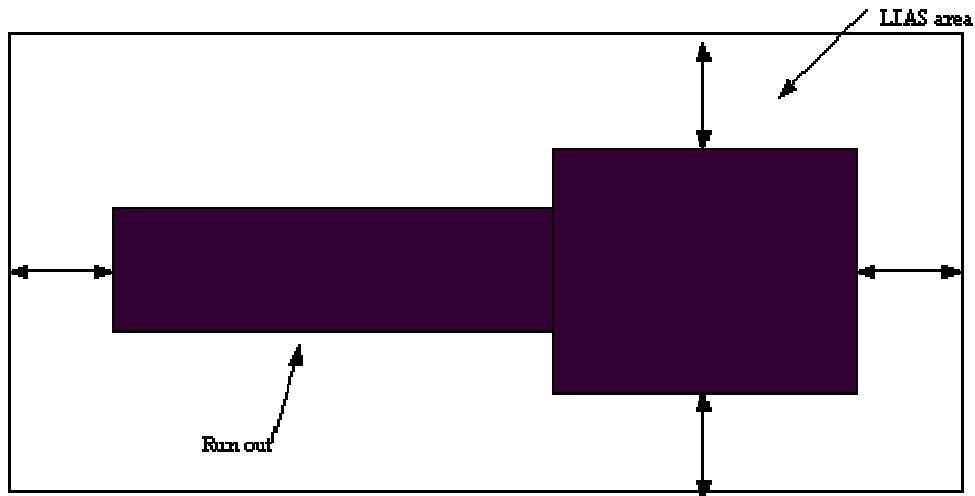
Length*	Loose-fill	Length*	Loose-fill
1.5	3.55	2.1	4.07
1.6	3.64	2.2	4.16
1.7	3.72	2.3	4.24
1.8	3.81	2.4	4.33
1.9	3.90	2.5	4.42
2.0	3.98		

- Length of suspension member (pivot to seat surface at 635 mm from LIAS)
The above table has been calculated using the following formula:- $0.867 \times \text{length of suspension member} + 2.25$ metres

How Far from the Play Equipment Should the Surfacing Extend? (Continued)

Slides - Type 1 and Type 2

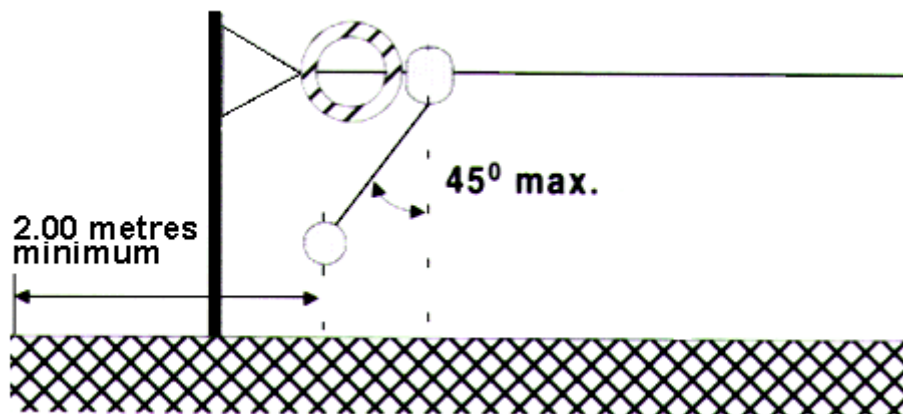
Plan View



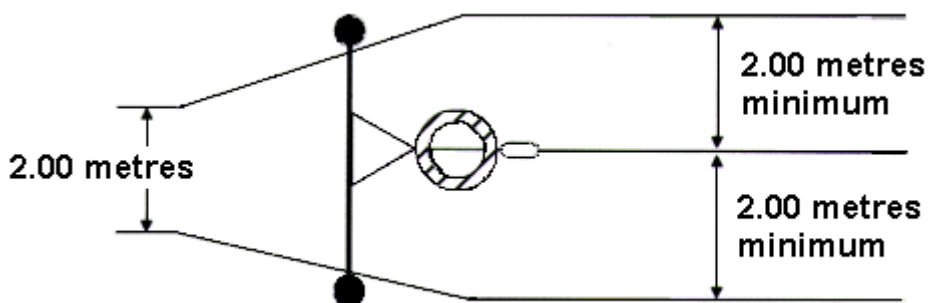
Type 1 slide - 1 metre each side and 2 metres beyond the runout
Type 2 slide - 1 metre each side and 1 metre beyond the runout

Cable Runways

Side Elevation



Plan View



Continued....

How Far from the Play Equipment Should the Surfacing Extend? (Continued)

Rotating Equipment

- There are no special extra requirements for surfacing areas.
- Surfaces should be continuous underneath and level.

Rocking Equipment

- There are no special extra requirements for surfacing areas.



Contact

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