

TABLE 3.3
MINIMUM IMPOSED ACTIONS FOR BARRIERS

Type of occupancy for part of the building or structure	Specific uses	Top edge			Infill	
		Horizontal kN/m	Vertical kN/m	Inwards, outwards or downwards kN	Horizontal kPa	Any direction (see Note 2) kN
A Domestic and residential activities	All areas within or serving exclusively one dwelling including stairs, landings, etc. but excluding external balconies and edges of roofs (see C3)	0.35	0.35	0.6	0.5	0.25
	Other residential, (see also C)	0.75	0.75	0.6	1.0	0.5
B, E Offices and work areas not included elsewhere including storage areas	Light access stairs and gangways not more than 600 mm wide	0.22	0.22	0.6	N/A	N/A
	Fixed platforms, walkways, stairways and ladders for access (see Note 1)	0.35	0.35	0.6	N/A	N/A
	Areas not susceptible to overcrowding in office and institutional buildings also industrial and storage buildings	0.75	0.75	0.6	1.0	0.5
C Areas where people may congregate						
C1/C2	Areas with tables or fixed seating	Areas with fixed seating adjacent to a balustrade, restaurants, bars, etc.	1.5	0.75	0.6	1.5
C3	Areas without obstacles for moving people and not susceptible to over-crowding	Stairs, landings, external balconies, edges of roofs, etc.	0.75	0.75	0.6	1.0
C5	Areas susceptible to over-crowding	Theatres, cinemas, grandstands, discotheques, bars, auditoria, shopping malls (see also D), assembly areas, studios, etc.	3.0	0.75	0.6	1.5
D	Retail areas	All retail areas including public areas of banks/building societies, (see C5 for areas where overcrowding may occur)	1.5	0.75	0.6	1.5

(continued)

TABLE 3.3 (continued)

Type of occupancy for part of the building or structure	Specific uses	Top edge			Infill	
		Horizontal	Vertical	Inwards, outwards or downwards	Horizontal	Any direction (see Note 2)
		kN/m	kN/m	kN	kPa	kN
F/G Vehicular	Pedestrian areas in car parks including stairs, landings, ramps, edges of internal floors, footways, edges of roofs	1.5	0.75	0.6	1.5	1.5
	Horizontal loads imposed by vehicles	See Clause 3.8				

NOTES:

- 1 This usage (under B, E) is for access to and safe working at places normally used by operating, inspection, maintenance and servicing personnel.
- 2 Applied over a panel of 2000 mm² or over two adjacent vertical balustrades, as appropriate.

3.7 ACTIONS FROM INSTALLED CRANES, HOISTS, LIFTS AND MACHINERY

3.7.1 General

Actions resulting from acceleration of masses in installed cranes, hoists, lifts and other machinery shall be treated as additional imposed loads.

The imposed loads used for the design of structures supporting such loads shall be—

- (a) provided by the manufacturer of that machinery based on an appropriate dynamic assessment; or
- (b) derived from AS 1418, AS 1735 or NZS 4332, as applicable.

In the absence of such information, the factors given in Clauses 3.7.2 and 3.7.3 shall be used.

3.7.2 Vertical actions

For the design of elements supporting lifts, cranes and machinery, the static vertical actions and their appropriate dynamic factors shall be as given in Table 3.4.

TABLE 3.4
DYNAMIC FACTORS FOR VERTICAL ACTIONS

Machinery	Dynamic factor	Element being designed	Action being considered
Lifts	2.0	Supports	Weight of moving components
Travelling cranes: Electric overhead cranes Hand-operated cranes	1.25 1.1	Gantry girders and their connections	Static wheel loads
Non-reciprocating machinery (e.g., light machinery, shaft or motor driven)	1.2	Supports	Weight of the machinery
Reciprocating machinery (e.g., compressors) or power-driven units (e.g., piston engines)	1.5	Supports	Weight of the machinery