

ABN 20 607 206 290

Mr James Wright Bovis Lend Lease P/L Level 4/30 Hickson Rd Millers Point Sydney NSW 2000

28th July 2008

Dear James

Re:- Top Ryde Shopping Centre
Residential DA Buildings - Disability Access B & F & L3, 4 Car Parking.

As requested we have carried out an evaluation of the proposed Residential areas, buildings B & F & Levels 3 & 4 car parking.

The residential areas are a Class 2 building, which requires that all public and common areas be accessible up to the front door of each apartment.

The following issues have been identified:

Stairs: Two handrails are to be installed on the egress stairs for compliance with DDA criteria. A person with a disability may not when egressing the building be able to use either their left or right hand on the handrail when descending the stairs due to a disability, therefore two handrails are required in all stairwells.

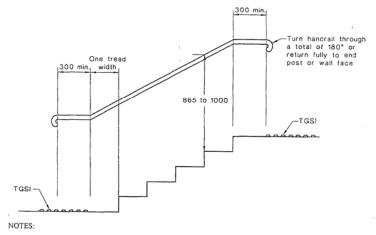
The DDA criteria for fire stair handrails illustrated below sets out an extension of the handrail from the first or last stair tread by the length of one going plus 300mm. This applies to all handrails whether they terminate on the landing in question or continue and should therefore be incorporated.

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- 1 The dimensions indicating the heights of handrails are taken vertically from the nosing of the tread to the top of the handrail.
- 2 The 300 mm extension is not required where the handrail is continuous, e.g. on the inside of an intermediate landing.

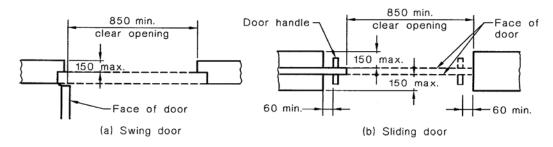
Nosings will also need to be compliant as per the following details.

- A contrasting strip with a luminance contrast of at least 30% compared to the tread.
- A width of between 50-75mm in depth across the full width of the tread at the nosing.

TGSI's will need to be applied wherever there is a break in one of the handrails, e.g. on every level where a door enters the stairs and to be in accordance with the following criteria.

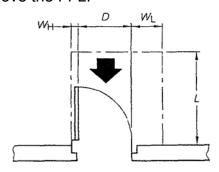
- The TGSIs shall be the "Warning Indicators" and shall be installed for the full width of the stairway, perpendicular to the angle of approach.
- They must be set back 300+/-10mm from the edge of the nosing on the top step and from the riser on the bottom step.
- If the approach is from an open area the depth of the TGSIs must be 600-800mm. If the approach is in an enclosed area, such as an enclosed landing or intermediate landing of a stairway, they must be 300-400mm in depth. The latter does not apply where there is a continuous handrail on both sides of the stairway.
- The luminance contrast criteria must be applied to the TGSIs compared to the surrounding floor surface.

Doorways: Doorways along a path of travel to the apartments or facilities such as the double doors and those leading into the common rooms will all need to have the required minimum opening of 850mm for the first door leaf to be opened. A suitable solution would be the use of a $\frac{2}{3}$, $\frac{1}{3}$ or cat & kitten doors.



DIMENSIONS IN MILLIMETRES

We also recommend the doors to the apartments are to allow for adequate circulation space, doorbells are to be located beside these entrance doors. No controls are to be within 500mm of an internal corner as people in wheelchairs in the majority of cases are unable to reach the control. Door bells will need to be set 500mm from an internal corner and 900mm to 1100mm above the FFL.



Dimension <i>L</i>	Dimension WH	Dimension WL
1350	110	470
1350	110	460
1350	110	445 435
1350	110	435
	1350 1350 1350 1350	L WH 1350 110 1350 110 1350 110 1350 110

(g) Front approach—door opens towards a user

LEGEND TO FIGURE C1:

D = Clear opening of doorway

L = Length

 $W_{H} = \text{Width-hinge side}$ $W_{L} = \text{Width-latch side}$

= Direction of approach
= Circulation space

Width of Corridors: Corridors all need to be a minimum of 1200mm clear width and 90° turns require 1450mm X 1200mm or 1200mm X 1200mm with the inside corner cut back to 1500mm. Grid reference D1/14.

At this stage for DA all other criteria appears to be compliant.

Should you require any further information or wish to discuss in this report, please do not hesitate to contact the undersigned.

Sincerely

Murray Mountain