SECTION 4: STRUCTURAL REQUIREMENTS

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DESIGN STANDARDS CHANGE LOG FEBRUARY 2013

No changes
4.1 INTRODUCTION

This section provides details of minimum structural requirements. The consultant is expected to produce their own specification incorporating the following information and submit all designs to the University’s Manager (Engineering and Infrastructure) for review prior to any works commencing on site.

4.2 LOADINGS AND STANDARDS

4.2.1 Floor Loadings

Floor loadings shall be in accordance with the relevant Australian Standard except for the following minimum loads:

(a) Office Floor (irrespective of whether open office areas are initially envisaged)
   - general live load 4 kPa
   - demountable partitions 1 kPa
(b) Compactus areas 10 kPa
(c) Computer equipment areas 5 kPa
(d) Air handling, refrigeration and boiler plant rooms 7 kPa

Areas suitable for full compactus installations shall be readily identifiable. The total area available for such installations shall generally be not less than 5% of the floor area unless otherwise specified.

Consideration must be given to buildings of dedicated science or research requirements in relation to floor vibration coefficients, vibration due to foot fall, and general slab stability required for balancing, microscopy and other sensitive laboratory equipment.

The structural engineer shall determine the required stability coefficients based on the building’s functional needs and future flexibility. The structural design for vibration reduction should take into account the building’s location relative to access roads around the University e.g. main roads and trams routes.

In addition to the live load, a dead load allowance of 0.3kPa for ceiling and services shall be provided.

Some heavily loaded areas, such as archives and library shelving, will require computations to establish the floor loadings.

Any heavy dead load equipment is to be placed as close as possible to load bearing walls, typically at the perimeter of the building.