



Forum Apartments

Adelaide

THE BUILDING INCLUDES SOME 2-STOREY AND 3-STOREY APARTMENTS BETWEEN GROUND FLOOR AND LEVEL 2.

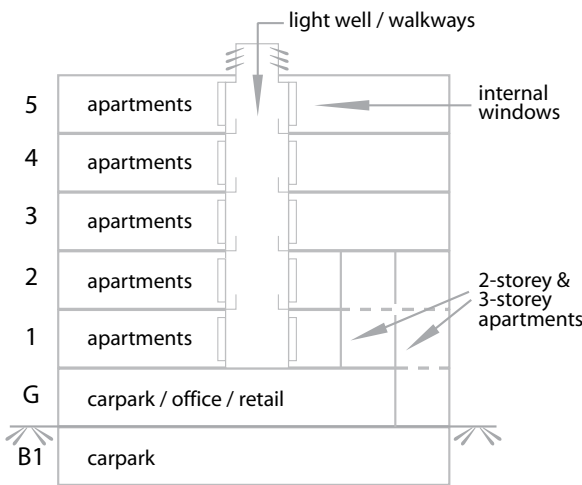


Figure 3: Cross-Section Elevation of Forum Apartments Building

The structural protection is as follows:

- the basement carpark is constructed using reinforced concrete and achieves an FRL complying with DTS (ie 60/60/60 FRL)
- columns and primary beams at Ground Floor are protected to achieve an FRL of 60/-/-
- secondary beams at Ground Floor are unprotected
- steel beams and columns are unprotected in apartment storeys.

The solution was approved on the basis that, in the apartment storeys, sprinklers are more effective in achieving the BCA objectives than FRLs. At Ground Floor, the required FRL of 60/-/- has been determined by consideration of the likely maximum fire size and duration and estimation of the FRL necessary to survive burnout.

DEVELOPER/BUILDER

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The Forum Stage 2 building has a basement carpark, mixed uses at Ground Floor and five storeys of apartments above. Ground Floor includes small areas of carpark, office, retail and apartment uses. The building includes some 2-storey and 3-storey apartments between Ground Floor and Level 2.

The building has a light well connecting Levels 1 to 5. The apartments have internal windows facing this light well.

The building is sprinkler-protected throughout. It has an effective height of less than 25 m. The carpark contains more than 40 car spaces.

FORUM APARTMENTS – FIRE RESISTANCE REQUIREMENTS SUMMARY

| BUILDING ELEMENT | ELEMENT REQUIREMENT | |
|----------------------------------|-----------------------------------|---|
| | DTS | Alternative Solution |
| Apartments – beams | 90/-/- | Unprotected |
| Apartments – columns | 90/-/- | Unprotected |
| Retail / office – beams | 180/-/- | Primary beams: 60/-/- Other beams: unprotected |
| Retail / office – columns | 180/-/- | 60/-/- |
| Carpark – beams | 60/-/- or 30 m ² /t | 60/-/- |
| Carpark – columns | 60/-/- | 60/-/- |
| Sprinklers | Yes | Yes (with enhancements) |

Table 5



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