



1 The fully open 8 level atrium. 2 View of interior.

15 Stout Street Development

Project Location: Wellington

Holmes Fire for Argosy Property Limited

Disciplines: Fire Engineering and Fire Protection Engineering



The development involved the transformation of the listed heritage building into a modern 5 Green Star office space, with an integrated fit out for a single tenant, all new services and central plant, new core risers and toilets as well as additional lifts.

The addition of a new structure creating an additional 3,000 square metres to the building's gross floor area included the creation of a fully open 8 level atrium. Holmes Fire undertook both the Fire Engineering and Fire Protection Engineering design for the building over a 3 year period from concept design to on-site commissioning of the smoke control systems.

The design involved the use of three dimensional smoke modelling combined with computer based evacuation simulations. The fire engineering design was undertaken to ensure the openness of the atrium and central heritage stair was maintained and allowing for large contiguous floor plates. An innovative far field velocity controlled smoke control system was developed for the building that leveraged the building's HVAC design not only eliminating the need for many fire separations but critically not requiring smoke separations to the atrium nor to the central heritage stairwell, thus allowing the visual connection between floors and offering uninterrupted sea views to the upper storeys.

To the best of our knowledge, we have been unable to find evidence of any similar design approaches being adopted either within or outside of New Zealand. In addition to Argosy as the Client, McKee Fehl as the Main Contractor, acknowledgements are well deserved for COR Associates (undertaking the mechanical design, and the project's Green Star Accredited Professional), and the Architect, Warren and Mahoney.

Judging & Copyright Statement

This project is a Finalist entry in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be announced on Friday 2 September, 2016.

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