5 Martin Place Sydney

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Abstract

The 5 Martin Place development transformed a 1916 heritage building in Sydney's CBD into an iconic 20-level premium grade office building. Development constraints prohibited any modification of heritage building, structure and any extra permanent loading on the heritage structures. This posed what was considered to be an impossible challenge through being either 'unbuildable' or 'unfundable'. An innovative architectural design and believed world-first structural solution unlocked the site's potential. To use all available development area, the proposal was to cantilever 10-levels of tower 22 metres over the heritage building. The outcome exceeded expectations and created benchmarks for design and construction methodology that could be adopted for much taller buildings.

Keywords: Cantilever; composite construction; transfer structure; structural analysis; heritage buildings; structural aesthetics; steel structure.

1 Introduction

Completed in 2015, 5 Martin Place is a 20 level Premium Grade building comprising the redevelopment of existing heritage buildings and an extended new development. The development repositions the existing property through a major reconfiguration of the existing 'heritage' component, the construction of an additional nine levels of premium office accommodation and the restoration of the historic Rowe Street laneway. The building provides approximately 33,860sqm of NLA. Floor plates from the ground level to level 10 provide approx. 2,400sqm, while new levels 11 to 20 each provide approx. 1,090sqm.



Figure 1. View of completed development