

Steel transformation releases St Kilda potential

A St Kilda motel building at 2-8 Carlisle Street, nearing the end of its useful commercial life, has been transformed into sparkling new apartments. This transformation is part of a property trend to rejuvenate older buildings in inner city areas into residential apartments.

The project involved the modification and extension of two blocks of an existing four storey motel on three street fronts - Carlisle, Havelock and Albert Streets. Two separate buildings have been connected by a steel walkway and a new enclosed steel stair structure, converting 24 small motel units to create 19 new apartments.

Extensive structural steelwork was used to extend the floor and balcony areas on the 3 upper levels of the building without compromising the existing ground level car parking areas.

Block A incorporated the construction of new units at the front (southern) part of the building while the 4 storey Block B was modified and enlarged. In Block B the floor areas were extended on each of the 3 upper levels and some internal walls taken out.

John McFarlane of McFarlane & Partners, structural engineers on the project, said that the work to Block B was the more complex because the extensions were designed without

new columns at ground level so as not to interfere with the existing ground floor car parking space.

“This was done essentially by hanging new steelwork off the existing building. Only one new ground floor column was required for the room extensions and this was placed next to an existing ground floor column at the north east corner of the building,” John said.

“On the western edge of the building the existing cantilevered concrete balconies were extended by constructing a cantilevered steel frame. Again, columns were restricted in the car parking area so the one new steel column needed was positioned adjacent to existing concrete columns so as not to restrict the existing car parking space,” John concluded.

Ali Epi from Perkins Architects said that on the western extension there is only one major beam (460UB) which back spans towards the building. Exposed angled tension rods form part of the add-on structure, providing additional strength and tension. The new steel structure frames the louvered systems controlling the airflow to the new units. A similar type of structure is on the long north face.

Shelford Engineering & Construction, steel fabricator on the project, estimates that the steel tonnage was around 50 tonnes.

Project team

Developer: Simon Broons

Architect: Perkins Architects

Structural Engineer: McFarlane & Partners

Builder: Simon Broons

Fabricator: Shelford Engineering & Construction

Columns were placed next to an existing ground floor column.



The new enclosed steel stairway.



Angled tension rods form part of the add-on structure, providing additional strength and tension.

Galvanised structural steel beams. All the steel on the project was galvanised in the Dandenong workshop of GB Galvanizing.

