



PARMELIA HOUSE STRUCTURAL STRENGTHENING

PERTH, WA

MAINTENANCE - STRUCTURAL STRENGTHENING

PROJECT

Parmelia House Sun Hood Structural Strengthening

CLIENT

Australian City Properties

DURATEC CONTACT

Deane Diprose 0437 017 300

DESCRIPTION

Australian City Properties Pty Ltd engaged Duratec to perform a variety of repairs on the 19 storey Parmelia House facade on St Georges Terrace, Perth.

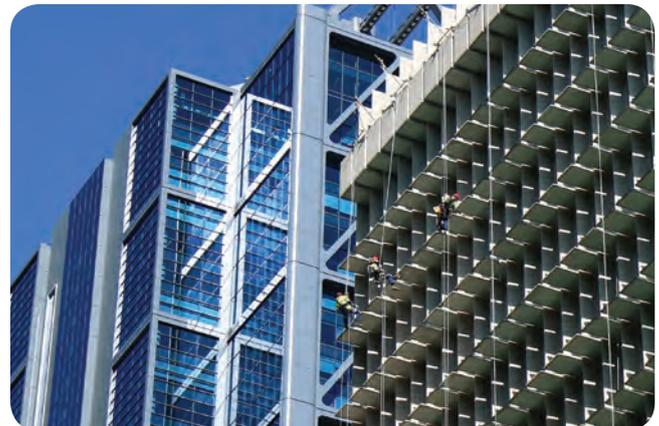
Parmelia House was built in 1968 with extensive use of reinforced concrete. The maintenance works currently being undertaken are designed to address issues of spalling concrete and the repair and strengthening of sun hoods on the north and south facades. The project commenced in April 2013 after initial sample panel repairs were approved by BG&E consulting engineers.

Corners of the sun hoods had broken off due to the reinforcement being well back from the edge. This had occurred over a number of years particularly when the building was accessed by rope access for window cleaning.

Some of the edges of the sun hoods and shades were also cracked and at risk of breaking causing safety concerns. The edges of the pre-cast concrete panels were repaired using form and pour techniques and stainless steel pins. All sun hoods received a four-layer reinforced membrane coating system that will strengthen them and eliminate the risk of further spalls. This method of structural strengthening was unique to this project.

HIGHLIGHTS

- ▶ Access involved a combination of four swing stages and up to 12 rope access personnel.
- ▶ Extra protection measures and systems were put in place to provide public protection from any falling debris.
- ▶ The project is expected to be completed by Christmas 2013 and was selected as the site for a Federal Safety Commission Audit.



IMAGES (FROM TOP TO BOTTOM)

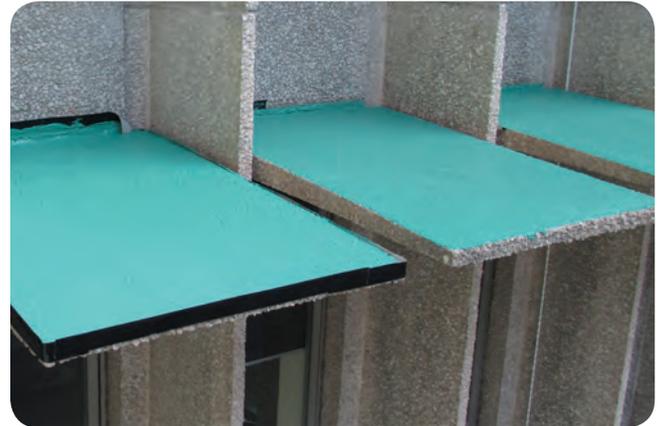
- ▶ The southern facade was accessed by swing stage.
- ▶ Rope access provided a very safe, fast and efficient method of repairing the sun awnings.
- ▶ Example of broken of edge of sun hood.



PARMELIA HOUSE STRUCTURAL STRENGTHENING

PERTH WA

MAINTENANCE - STRUCTURAL STRENGTHENING



IMAGES (FROM TOP TO BOTTOM)

- ▶ Helifix ties were utilised to reinforce the edges of the sun hoods.
- ▶ The sun hood was formed and repaired with an epoxy mortar.
- ▶ Priming the concrete sun hoods.

IMAGES (FROM TOP TO BOTTOM)

- ▶ First coat of the epoxy membrane.
- ▶ Duratec specialist embedding the glass fibre reinforcing into the wet membrane.
- ▶ Final Gemstone texture finishing coat.