

# BUPA Rangeville

> Aged Care

RMA provided a thought out approach in the construction design to find efficiencies from the tender design phase utilising software and rigorous analysis methods.



Client	McNab
Location	Toowoomba
Type	Aged Care
Project scope	Design and construct

## Value Engineering

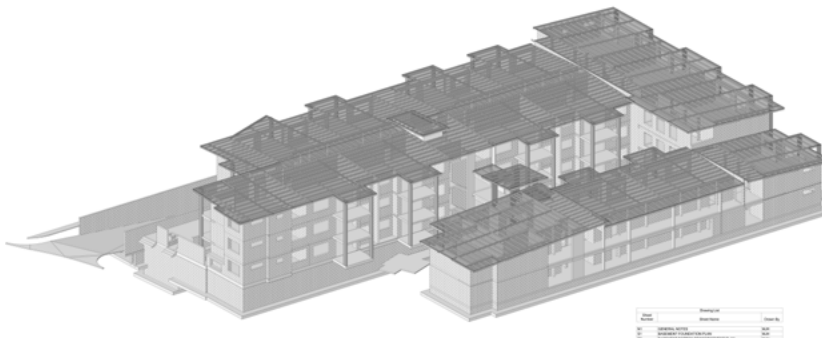
To meet the growing aged care needs of the local Toowoomba community, BUPA received development approval for a 108 bed residential, aged-care home catering for low-care, high-care and dementia.

During the tender process, McNab approached RMA for a peer review of the tender documentation due to concerns regarding the footings suitability for the site.

RMA's local knowledge confirmed what the client suspected and in turn adjusted their tender price to suit. McNab was awarded the contract and engaged RMA to complete the construction engineering for the project.

## Advantages of RMA's Input

- RMA Soils carried out sampling of the post earthworks site, confirming that the tender documentation was not suitable for the site and that soil properties were different to the original soil report. A footing design consisting of *high level pad footings to suit the new soil parameters was developed whilst meeting the clients budget.*
- RMA altered an area of the building supported by steel framing in place of core filled block work walls. The steel framing fabrication was completed during the footing installation and *presented a time and site labour saving for the client.*
- Utilising FEA software, the suspended slab thickness was reduced from 200mm to 180mm and *resulting in an overall reinforced reduction in some areas.* External pavement thickness was reduced using 'modulus of subgrade reaction' properties instead of conventional CBR methods.

CURRIMUNDI APARTMENTS

## Our Projects

"RMA is a very practical, solution-focused business. They are approachable, efficient, good value and very well connected within the industry."

Tom McVeigh,  
Director, Greenwattle Street Developments Pty Ltd

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### Kingfisher Community Living

**Client** Sommer & Staff

**Location** Toowoomba

**Type** Retirement living

**Project scope** Civil and Structural

These 120 individual units set the bench mark in community living for the Toowoomba region. With its community facilities, including swimming pool and bowling greens, Kingfisher has a picturesque aspect adjacent to one of Toowoomba's major beautified creek corridors.

As the name suggests several springs were encountered during construction resulting in some interesting challenges.

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### Currimundi Apartments

**Client** Caloundra Catholic Parish

**Location** Caloundra

**Type** Aged Care

**Project scope** Civil and Structural

This apartment complex is a multi-level concrete framed building with a basement carpark. The presence of a high water table and acid sulphate soils with low bearing capacity presented some design challenges. The most cost effective design was a fully sealed basement with a raft type footing to the underground basement carpark which had to be designed to resist the hydrostatic uplift of the high water table.

RMA completed all aspects of structural and civil engineering..

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### Sevenoaks Redevelopment

**Client** Cerebral Palsy League

**Location** Fig Tree Pocket

**Type** Residential Facility

**Project scope** Civil, Structural and Hydraulic

The Sevenoaks Development is a specialised facility residential facility for the accommodation of residents with Cerebral Palsy.

RMA carefully integrated the structural and civil design, to ensure suitable disabled access was available throughout the site. The structural design was largely domestic construction, however given the use of wheel chairs throughout, the design was created around robust, knock resistant detailing. The hydraulic detailing was also critical to the use of this specific development, regarding the use of additional tempering valves, dual reticulation of water and internal sprinklers to all facilities.