

## DESIGN & CONSTRUCT GRAY & BROWN RD WATER MAINS CONTRACT 75438



The scope of this project involved the design and construction of reticulation water mains in Gray and Brown Road, Green Hill to replace the existing aged AC network. The works consisted of:

- Management of the complete design process under AS4902, including all stakeholder and approvals management;
- Maintenance of supply to all residents for the duration of the construction works;
- Installation of a total of 4600m of 125mm OD PN16 HDPE water main within the road reserve of Gray and Brown Roads;
- Installation of multiple DN100 DICL road crossings as well as both aerial and horizontal directional drilled creek crossings; and
- Removal of existing AC pipework and aerial creek crossings.

Project opportunities and challenges included:

- Liaison with design consultants and Council to optimize the design to limit the number of road crossings whilst also minimizing the required length of service connections to be installed by Council;
- Coordination with Council's operational staff to develop a construction and commissioning plan to ensure maintenance of supply and allow the entire new pipework to be installed in parallel with the existing fragile AC system;
- Works within sensitive Remnant Vegetation and Cassowary Habitat areas, and within flowing waterways triggering the Department of Agriculture and Fisheries' Water Barrier Works conditions;
- Horizontal directional drilling beneath flowing water courses;
- Removal of existing and installation of new water main on existing elevated road bridge (working over water); and
- Liaison with local farmers to coordinate harvesting/clearing of sugar cane encroaching into the road reserve to allow for installation of the pipeline.



Unit 5, 2 James Street  
North Cairns, QLD 4870

PO Box 6665 Cairns, 4870

T: (07) 4041-4350

Fax: (07) 4041-4969

E: [fgfdev@fgf.com.au](mailto:fgfdev@fgf.com.au)

ABN 67102 951 039

**Location:**

Gray and Brown  
Roads, Green Hill

**Client:**

Cairns Regional Council

**Civil Engineering**

**Consultant:**

Jacobs

**Duration:**

January 2017 – August  
2017