

BEACH STREET PUMP STATION



LOCATION

Beach Street, Grange

CONTRACT VALUE

\$500,000

CONSTRUCTION PERIOD

May 2012 - August 2012

FORM OF CONTRACT

AS2124-1992

CLIENT

City of Charles Sturt

PROJECT SUPERVISOR:

Luca Radogna

REFEREE

Alan Chesters

City of Charles Sturt

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DESCRIPTION OF PROJECT:

A significant area of the Charles Sturt Council stormwater collection area sits behind the sand dunes and requires an automated high volume pump station to manage the risk of localised flooding. The existing stormwater pump station on Beach Street had exceeded its service life and required additional capacity to meet the ongoing needs of the council. T & J Constructions was contracted to install high volume pumps and pits and link them to the existing underground detention tanks located in the road. The new pump station was 7m deep by 9m by 5m and was accompanied by an equally deep Junction box on the end of the detention tank.

PROJECT CHALLENGES:

1. The site material was free flowing sand with ground water at 1.6m. Spear dewatering was required all around the excavation to drop the water and allow for excavation.
2. The proposed site for installation was directly below SA power network overhead infrastructure. T & J Constructions worked with SA power to have the section of line de-energised and the links for the local street lighting removed to minimise the risk to crane and excavator operators. Tiger tail line high visibility indicators were also installed.
3. The deep excavation was beside a stobie pole which required the pole to be propped to manage the risk of the footing sliding into the excavation.
4. By the time the contract was awarded and site possession granted it was the middle of winter. T & J Constructions had three 6" pumps onsite to manage stormwater bypass management. During the works the highest rainfall day on record was encountered and our risk management ensured no flooding. T & J Construction had staff working onsite during the night to ensure the pumps kept up with the water flow.

KEY CONSTRUCTION PROCESSES:

The Beach Street Pump Station was next to a kindergarten, community centre and church and on a busy through road. Stakeholder management included meeting with each of the resident centres and the local shops as well as multiple letter drops providing advanced warning and a progress update for local residents. The worksite traffic management included detours, stop go, complete road closures and partial road closures depending on the stage of the works. All stormwater coming from the site required processing through a sediment tank before being pumped into the stormwater outlet (at Grange Beach).

Works involved in the project include;

Minor works including construction, reconstruction and widening
Service Adjustments

Medium Size Culvert Works including precast components
Non-complex service relocation

At grade intersection and channelisation works
Granular and or Asphalt Pavements Pavement Construction
Cross and Longitudinal Drainage

General Earthworks exceeding 5m in cut or fill
Mechanically stabilised Earth Construction to a nominal 5m in height

Moderately complex worksite traffic management
Pavement construction using modified materials

Moderately complex to complex community/stakeholder management