T & J CONSTRUCTIONS

GILLMAN DRAIN




LOCATION
Hanson Road,
Gillman

CONTRACT VALUE
$850,000.00

CONSTRUCTION PERIOD
October 2014 –
November 2014

FORM OF CONTRACT
AS2124-1997 Amended

CLIENT
Renewal SA

PROJECT SUPERVISOR:
Luca Radogna

REFEREE
Renewal SA
Kathryn Heitmann
0434 070 846

DESCRIPTION OF PROJECT:
Design and construction of one kilometre of open drain across low lying swamp land and reclaimed areas including construction of a culvert crossing for heavy trucks.

PROJECT CHALLENGES:
The site was low lying with a watertable some 300mm below the surface that made the area impassable to excavators due to the soils liquification when disturbed by plant. As specialised methodology was established including excavating from floating platforms. The work was completed in a very tight timeframe to coincide with external contractual requirements. The project was completed 1 week ahead of schedule and on budget. The excavated soils were tested and classified as acid sulphate soil which required lime stabilisation before stockpiling.

KEY CONSTRUCTION PROCESSES:
The drain was surveyed and a haul road was constructed along the length of the low lying area from soil that was excavated from the drain in the already reclaimed and filled area. The road allowed for all plant and trucks access to the drain and the acid sulphate soil was returned to a central stockpile.
Hydrated lime was sourced locally and stockpiled on site for blending with the acid sulphate soil at a rate of 15kg per tonne. All soil was tested after treatment to confirm the process was achieving the desired result.
The truck crossing was constructed using pipe on a shot rock and concrete base that was required to establish a suitable base to construct on. All fill was excavated and stockpiled on site into the various classed topsoil, clean fill and acid sulphate soil. The drain was re topsoiled at the completion of works. The drain was constructed below the existing water level and had a grade 0.1%.
Renewal SA had strict time constraints on the project so the design, environmental testing and construction was compressed into an extremely tight time frame and all parties needed to undertake their component as construction was commencing.