

## CASE STUDY >

# SUPPLY, INSTALLATION AND PRE-COMMISSIONING OF HV, LV AND TELECOMMUNICATIONS EQUIPMENT FOR MAYNE YARD NORTH AND BREAKFAST CREEK

## PROJECT OVERVIEW

Mayne Yard North is an expansion of Queensland Rail's existing Mayne Yard depot at Bowen Hills. The upgrade is part of the Queensland Rail Stabling Program delivered as a part of the Cross River Rail project within the Unity Alliance package of works, as it is a key inner-city stabling solution to support network growth and operations. The new train stabling facility at Mayne Yard North is able to stable up to 17 trains. Mayne Yard North is also used to stable, clean and maintain trains used on the South East Queensland rail network.

## SCOPE OF WORK

RSGx was engaged to supply electrical and communication equipment, install and construct electrical and communication services, complete construction verification and pre-commissioning. Scope of Works associated with the Mayne Yard Project were separated into two portions

### Separable Portion 1 – Breakfast Creek Traction Substation:

- ◆ Unloading and Installation of free-issued 1Ph, 25kV Track Sectioning Cabin (TSC) at Breakfast Creek including free-issued structural steel and stairs, enclosures, awnings, AC Units and Return Current Cabinet
- ◆ Installation, Termination and testing of Free-issued 25kV Traction Power and 3.3kV Return Current cabling from Switchroom to OHLE Masts interfacing with Rail Corridors
- ◆ Supply and Installation of above and below ground earthing inclusive of Earth Grid testing
- ◆ Supply and Installation of cable containment underneath Switchroom

### Separable Portion 2 – Mayne Yard North Stabling Yard

Low Voltage Systems:

- ◆ Shop Drawing Design, Supply and Installation of Distribution Boards
- ◆ Installation of 11kV Kiosk Transformer Substation inclusive of SAT Testing, kiosk earth grid and incomer 11kV cable supply, installation and testing
- ◆ Installation of Auxiliary Transformers on OHLE Masts and LV Fuse Switches and cabling
- ◆ Supply, installation and testing of all submain cables and final subcircuit cables
- ◆ Supply and installation of the stabling yard luminaires, carpark, footpath and perimeter batten lighting systems
- ◆ Supply and installation of the lighting control system
- ◆ Testing and verification

Telecommunication Systems:

- ◆ Shop Drawing Design, Supply and Installation of Field Cabinets and EACS Cabinets inclusive of supply and installation of CISCO Network
- ◆ Supply and Installation of backbone and local fibre systems inclusive of termination and testing
- ◆ Supply and Installation of Public Address equipment and cabling
- ◆ Supply and Installation of Electronic Access Control System (TECOM) inclusive of Intercom Commend Equipment
- ◆ Supply and Installation of CCTV System
- ◆ Supply and Installation of Perimeter Fence Detection System
- ◆ Supply and Installation of Wireless Access System

Subsequent to the base Subcontract RSGx was awarded Completions and Commissioning Subcontract. Scope of Works associated with the completions subcontract included,

- ◆ Testing and Verification of 415V/240V Power Distribution System including Lighting, DALI Lighting Control and Small Power, 24kV TSC SAT test and HV Equipment protection setting testing.
- ◆ Close out and management of punch list works / close out works and handover to Queensland Rail Operation team. All quality documentation and as built to QR requirement.

## ACHIEVEMENTS TO DATE

RSGx performance on Mayne Yard North package led to RSGx being awarded additional Subcontract works on Victoria Park feeder station and Park Road Traction Substations.

### CLIENT

CPB CONTRACTORS  
(UNITY ALLIANCE)

### SERVICES PROVIDED

INSTALLATION AND PRE-COMMISSIONING  
ELECTRICAL & COMMUNICATIONS

### SCOPE

CONSTRUCTION  
PRE-COMMISSIONING  
COMPLETIONS

### INDUSTRY

RAIL

### LOCATION

BRISBANE, QUEENSLAND



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