



PROJECT DESCRIPTION

Holcim – Primary Dump Hopper and Feeder Replacement

Client: Holcim Australia – Beenleigh Quarry
Project: Primary Dump Hopper and Feeder Replacement
Duration: August 2017 - January 2018
Contract Value: \$850k

Description of ENAP's Scope:

Engineering Applications (ENAP) was engaged by Holcim Australia to perform the Civil, Structural & Mechanical works for the new Primary Dump Hopper & Feeder at the Beenleigh Quarry

The scope awarded to ENAP included:

- Structural Engineering Certification
- Fabrication of the new Dump Hopper, support structure and access ways
- Removal of the existing dump hopper, primary feeder, and support steelwork
- Civil / Concrete works (foundations)
- Installation of Dump hopper, primary feeder & access ways
- Commissioning works

Design drawings were supplied by Holcim, but these had not been RPEQ signed off. ENAP was able to complete this review using our in-house design capability and complete the engineering promptly, to keep the project on schedule.

ENAP completed the initial part of the civil foundation works two months prior to the planned plant shutdown. Works included the installation of rock anchors, steelwork, and formwork, prior to completing approximately 150m³ of concrete and foundation works.

The fabrication of the new dump hopper and support steelwork (approximately 50t) was completed at ENAP's fabrication workshops in Hemmant. Works were completed in a staged process over two months prior to the planned shutdown, with ENAP's in-house welding inspector and QA engineer completing quality checks and documentation, including workshop assembly. All steelwork was then blasted and painted to client specifications, prior to delivery to site.

The deconstruction and installation works were completed over three weeks during a Christmas – New Year's shutdown period. ENAP completed detailed shutdown planning, including preparation of engineered deconstruction and installation methodologies and shutdown schedules. ENAP mobilised an experienced installation team to the site, who safely completed the deconstruction and removal of the existing hopper and feeder involving complex rigging, lifting and oxy-cutting. The base slab for the new hopper was formed and poured, with the existing dump hopper and primary feed removed, which included the setout of the cast-in baseplates for structural columns for the new dump hopper.

The installation crew then undertook the installation of the new dump hopper and feeder support steelwork,

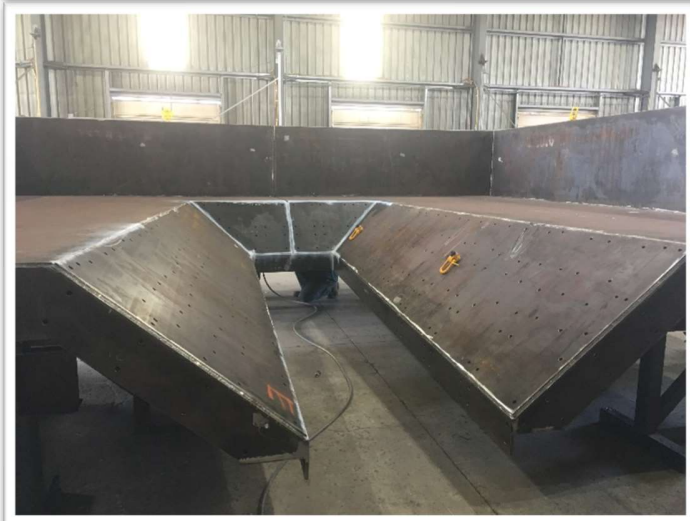
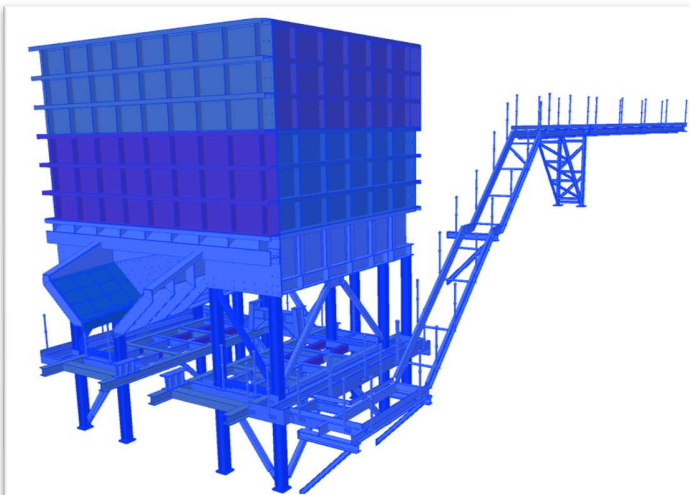
followed by the client supplied feeder and drive unit. The installation sequence to rig, lift and install the welded sections of the new hopper into position was critical as it was considerably larger than the existing. The installation was completed safely following the engineered methodology.

ENAP then completed the mechanical assembly and alignment of feeder components for successful commissioning of the equipment upon plant start-up following the shutdown window. The project was completed safely, on time, within the client's budget and with a high standard of workmanship.

Highlights and Achievements:

- Cost-effective and timely structural engineering certification
- Well planned and quality fabrication of large scale structural and plate steelwork
- Completion of multi-discipline scope of civil, structural and mechanical elements, bringing synergies between work packages and delivering a cost-effective solution for the client.
- Detailed shutdown planning works to coordinate safe installation and construction works during a planned outage period
- Complex deconstruction of existing dump hopper in a safe and efficient manner

Project Photos:





ENGINEERING APPLICATIONS

(07) 3390 5666



PO Box 173, Cannon Hill QLD 4170
8 Henricks Street, Hemmant Brisbane, QLD 4174 Australia

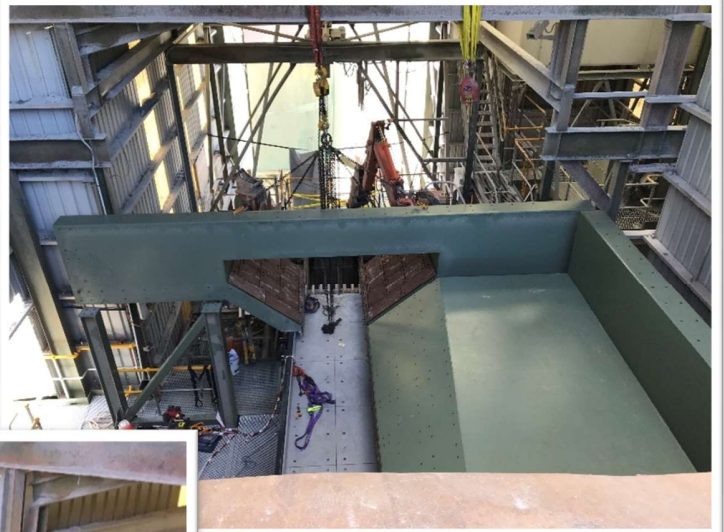


ENGINEERING
APPLICATIONS



ENGINEERING APPLICATIONS

(07) 3390 5666



PO Box 173, Cannon Hill QLD 4170
8 Henricks Street, Hemmant Brisbane, QLD 4174 Australia



ENGINEERING
APPLICATIONS



ENGINEERING APPLICATIONS

(07) 3390 5666



PO Box 173, Cannon Hill QLD 4170
8 Henricks Street, Hemmant Brisbane, QLD 4174 Australia

