



Capital Consulting  
ENGINEERS  
*"Your Partners in Success"*

DEVELOPING ENGINEERING SOLUTIONS

**Engineering Consultants  
Project Managers**

## CAPABILITY STATEMENT:

# Structural Design



**Capital Consulting Engineers Offer Innovative Solutions for:**

- Reinforced Concrete Structures;
- Structural Steel;
- Heavy Duty and Industrial Pavements
- Project Management of Engineering, Procurement and Construction
- Quality Assurance

*For multi-discipline project delivery from concept through to completion Capital Consulting Engineers offer high quality certified Project Managers backed up by an experienced in-house Engineering Team. We offer innovative and cost effective solutions to your Engineering problems.*

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# Technology at work for you

Developing Engineering Solutions

## ENGINEERING SOLUTIONS

Project Development

Management services

Urban & Environmental  
Planning & design

Investigation, Engineering  
Design & Supervision of  
Infrastructure Works

Structural Steel Design

Steel Fabrication Drawings

Reinforced Concrete Design

Industrial Floor Slabs

Container Handling  
Paving

3D Modeling

## Practical Experience

Capital Consulting Engineers have practical experience in projects from research and development, investigations, feasibility studies, planning, design and project management in industry and mining.

We are a multidisciplinary consultancy providing a well-rounded approach to project management, delivering an integrated solution that works.

## Complete Project Delivery

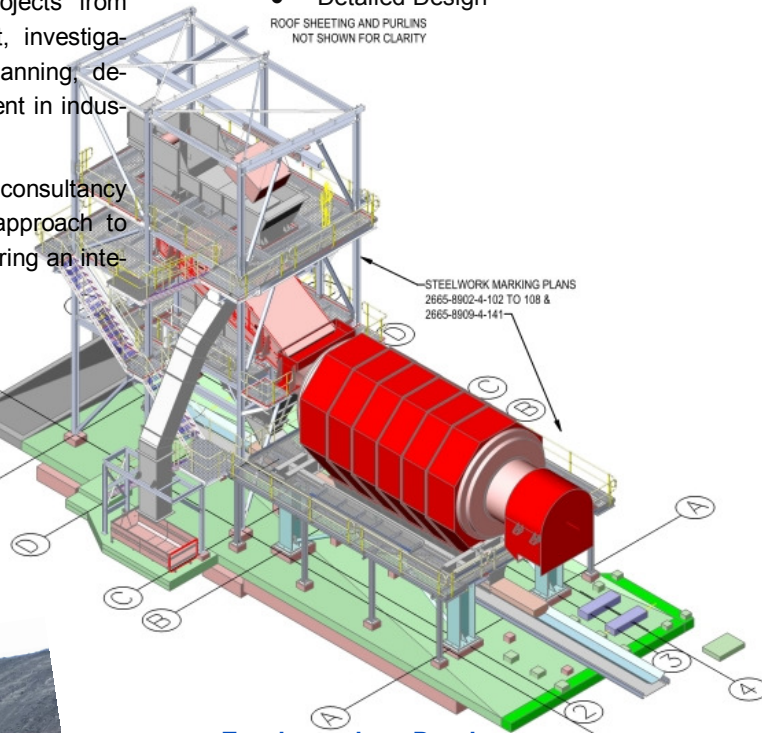
Capital Consulting Engineers provides clients with in-house services covering most aspects of civil and structural engineering projects from consent to completion. Access to our in-house mechanical and electrical engineering capability ensures a coordinated approach to design.

## Capabilities

Capital Consulting Engineers provides clients with value in the design process by clarifying a Client's needs, challenging assumptions and developing solutions to achieve the highest level of design quality, sustainability and productivity. CCE's areas of capability include:

- Feasibility Studies
- Financial Evaluation and Feasibility Assessment
- Engineering Estimates
- Planning Services
- Detailed Design

ROOF SHEETING AND PURLINS  
NOT SHOWN FOR CLARITY



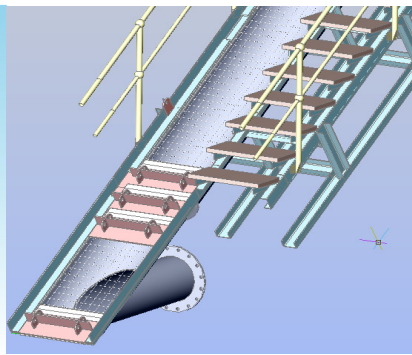
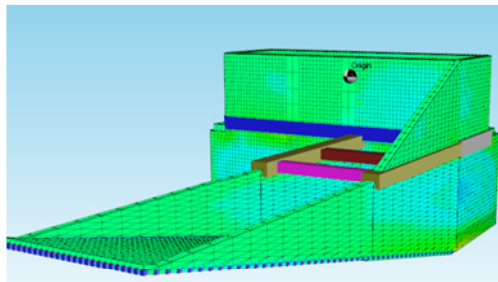
## Engineering Design

Detailed structural engineering design plans covering heavy duty concrete pavements, retaining walls and all manner of mine related concrete and steel frame structures.

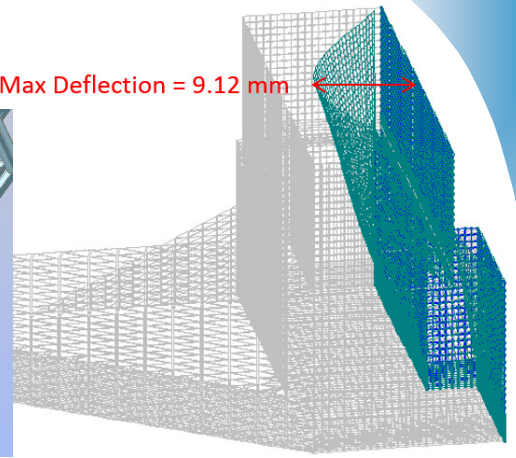
Service Authority liaison and Council Approvals.







Max Deflection = 9.12 mm



# flexible solutions for your business needs

technology consulting provides a total end to end solution

## Structural Steel Design for Cook CHPP 2014 Upgrade

CCE carried out the design and construction supervision new Coal Handling and Preparation Plant for Caledon Coal's Cook Colliery near Blackwater Queensland:

- A new ROM Hopper, Breaker Station and Fines Building;
- Structural modifications to the existing CHPP;
- The new Fines Building comprises a 19m high steel portal framed structure adjoining two braced framed annexes.
- The Breaker and Scalping Screen structure comprises a 19mm high braced steel framed structure supporting a rotary breaker, scalping screen and 34 tonne chute.
- Structures were modeled in Space Gass and geometrically designed in 3d using BricsCAD.
- Complete fabrication drawings were provided.

## ROM Hopper Design

This comprises a reinforced concrete box structure extending 11m below ground with an open concrete ramp extending from the one side. The concrete structure supports a grizzly screen and 260tonne steel hopper bin and two conveyors. The structure comprises nearly 1000m<sup>3</sup> of concrete.

## Retaining Walls and Transformer Blast Walls

Detailed design and supervision of domestic and industrial retaining and blast walls.

## Structural Inspection of OPT North Tower for Sydney Ports Corporation

Sydney Ports Corporation required a detailed structural inspection of an existing structural steel tower at the northern end of the Overseas Passenger Terminal at Circular Quay in Sydney.

## Investigation and remediation of Structural Timber Building at Moore's Wharf

Sydney Ports administration office near the Harbour Bridge is a structural timber framed 3-storey heritage building over 100 years old has been attacked by termites. SPC required a detailed investigation of the structure and technical advice and supervision of the repair process. Several 300mmx300mm columns require removal and replacement.

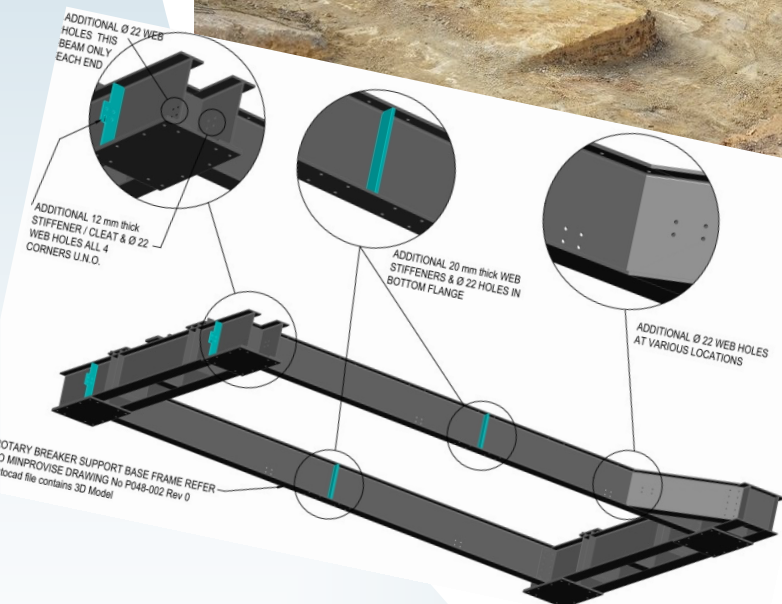
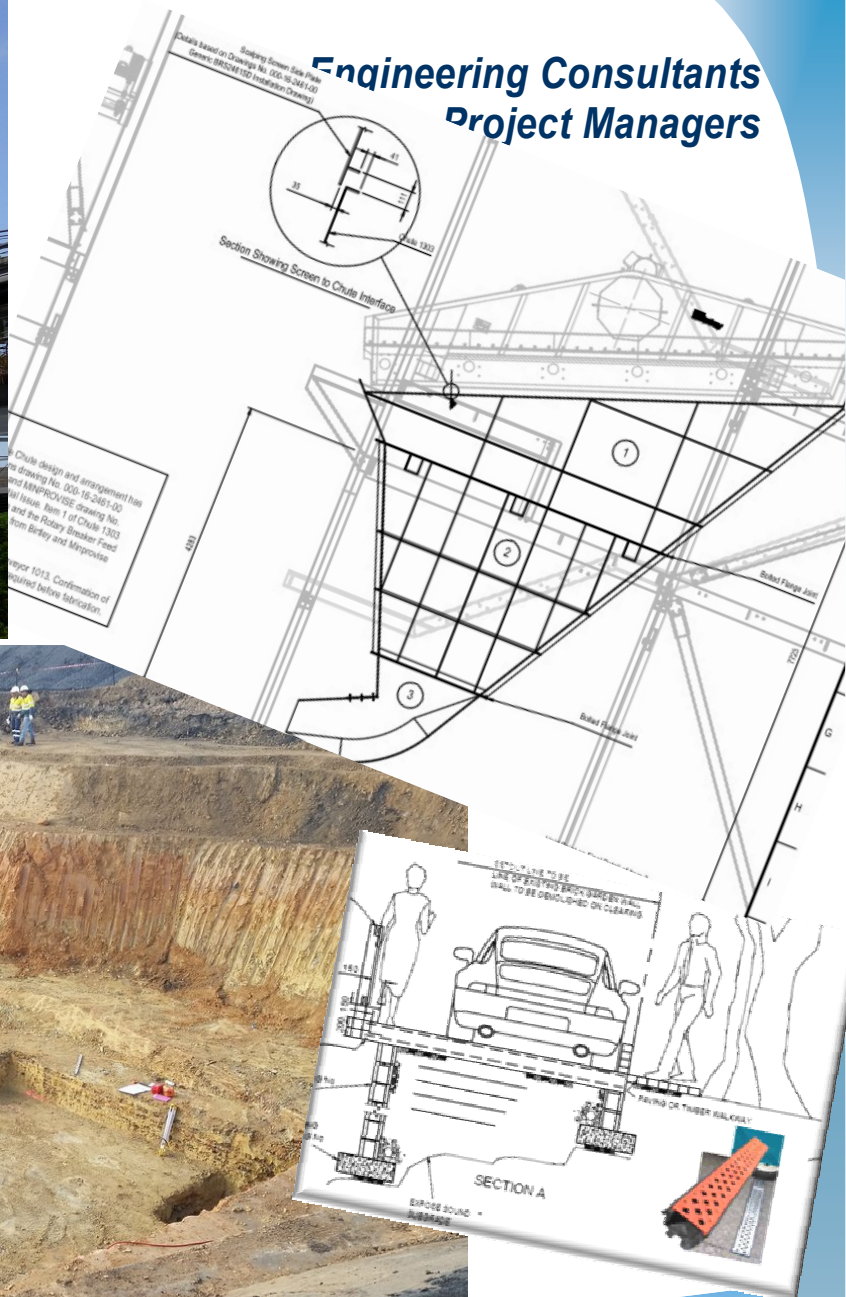
## Mining Support

CCE provides significant technical support to the mining industry and are involved in the design of retaining walls, transformer blast walls, bunded tank farms, dozer wash bays, rail sidings and on-grade heavy duty pavement slabs etc.

## Innovative Software Solutions

CCE uses AutoCAD based drafting, modeling and detailing software. Structural design software includes Space Gass, Helix. Other support software includes 12d model and Solidworks.





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