



Materials and Asset Engineering

Maintaining value for life

Specialised knowledge of materials performance, in a range of environments from benign to aggressive, is key to the success of infrastructure projects.

Whether working with clients in rail, in mining and resources, in water, in highways, or even in ports, we use this knowledge to help them to achieve their desired outcome in terms of cost, programme, risk and quality.

Our worldwide experience covers a wide variety of asset types such as buildings, car parks, bridges, tunnels, water treatment works, desalination plants, industrial facilities, ports and harbours, coastal and river defences, and airport and highway pavements.

We deal with maintenance issues for many different construction materials: concrete, metals, plastics, masonry, grout, coatings, ceramics and timber.



Our services

We can provide support in the design, construction and service phases of an asset's life.

■ Design

- materials selection, specification and sourcing (concrete and steel)
- thermal and shrinkage modelling
- durability planning
- coatings and linings
- cathodic protection design, specification inspection and commissioning.

■ Construction

- steel selection, procurement, fabrication, performance and welding advisory
- assessing suppliers
- concrete mix design (including HPC and SCC)
- review of construction techniques
- NCR, concrete cracking, material failure
- independent quality audits.

■ Service

- condition assessment and structural surveys
- non-destructive testing and sampling
- due diligence and defect assessment
- repair and maintenance strategies
- repair design, specification and auditing

At any time during the programme life of an asset, we're also able to provide loss adjustor and litigation services:

- independent reports for dispute resolution
- forensic engineering
- client advisor
- expert witness.

Delivering value – case studies

■ Desalination Plant, Gold Coast



Durability design of fibre reinforced tunnel segments and construction support.

■ Airport Link Tunnel, Brisbane



Specification for concrete lining and construction support.

■ VLocity Service Pit, Melbourne



Contamination investigation, structural design of pit and specification, and construction support.

■ Bogong Power Development, Victoria



Design and modelling of cooling system for concrete pours

Why Halcrow?

We have been working for clients throughout Australia, New Zealand and the Asia-Pacific region since 1993. We have offices in Sydney, Melbourne, Brisbane and Perth.

At Halcrow we pride ourselves on our strong local delivery capability and client focus. However, when you work with Halcrow you also draw upon our global skills, expertise and experience.

Our success has made us one of the world's leading consultancies, contributing global thinking and local knowledge to water, transportation and infrastructure development commissions in over 70 countries.

Our 'One Halcrow' approach means that, whatever the challenge, there's a Halcrow person somewhere in the world who can develop a solution.

Contact us

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