WE ARE RAIL
CONNECTING COMMUNITIES
We are the leading design and consultancy firm for natural and built assets. With a global network of over 27,000 Arcadians, we use our deep market sector insights and collective engineering, design, consultancy, project and management services to work in partnership with our clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets.

With over 75 years experience in Australia, we’ve helped some of the most iconic rail projects come to life, from Sydney Metro, to Gold Coast Light Rail, to Victoria’s Regional Rail Link.

We are in the business of creating Australia’s future cities.

WE WORK IN ALL AREAS OF THE RAIL LANDSCAPE

Our rail team has both national and international experience designing, planning and creating infrastructure that meets both our clients’ and the community’s needs, ranging from London’s Crossrail to the Grand Paris Metro.

OUR TEAM OF EXPERTS WORK ON ALL RAIL PROJECTS WITH PARTICULAR EXPERTISE IN:

- Metro Rail
- Light Rail
- Heavy Rail

WE HELP THE WORLD MOVE IN A BETTER WAY

Our rail team provides consultancy and design for all stages of a rail project. Our collaborative approach brings in expertise from the whole Arcadis business, allowing us to not only provide expert rail and infrastructure consulting but also energy and power design, business and program advisory, and environmental services.

Rail Alignment
Train Control
Overhead Wiring
Bridges
Intermodal Depots and Freight Yards
Mechanical and Electrical Systems
Fire Engineering

Trackform
Signalling
Telecommunications
Earthworks
Maintenance Facilities
Human Factors and Ergonomics
Asset Management

Rolling Stock
Traction Power
Tunnels
Stations
Operations
RAMS, Systems Engineering and Safety Assurance

75+ YEARS ON MAJOR PROJECTS ACROSS AUSTRALIA (AND COUNTING)

We are proud to work on the best projects across Australia, including iconic buildings and the most complex infrastructure.
MEET OUR EXPERTS

RICHARD FARGHER
Technical Director – Overhead Wiring

Area of expertise: Rail Electrification design and construction support.

Favourite project: Auckland Electrification Project. As the Design Manager, I was involved in the project from development through detail design and construction, to commissioning.

My passion: I enjoy being involved in major rail projects, it is extremely satisfying to see first-hand the difference we make to peoples’ lives.

CRAIG ANDERTON
Associate Technical Director – Traction Power

Area of expertise: High Voltage and Traction power design including Earthing and Electrolysis, specialising in railway systems.

Favourite project: Sydney Light Rail and Sydney Metro.

My passion: I love the challenges that are often associated with rail projects, either large-scale or small and complex. It is satisfying to see your work being implemented, knowing that you contributed to a good outcome for the public that will be there for people to use for years to come.

TOM MCPEAKE
Principal Rail Signalling Engineer

Area of expertise: Railway Signalling and Operations

Favourite project: The Hexham to Kooragang Re-signalling Project. I developed an alternative design solution that met the clients goals of increasing capacity by reducing signalling headways, and was implemented for a fraction of the original price.

My passion: I have enjoyed working with Arcadis to develop a rail operational modelling program that provides clients with optimised design solutions.

BRINGING SYDNEY METRO TO LIFE

SYDNEY METRO, UNDERGROUND STATION DESIGN AND TECHNICAL SERVICES

With 31 new stations and 66 kilometres of new metro rail, Sydney Metro is Australia’s biggest public transport project.

Arcadis and joint venture partner Mott MacDonald are the joint lead designers in the METRON consortium working on the Underground Station Design and Technical Services (USDTS) contract as part of Stage 2 of the Sydney Metro project - Stage 2 will include a 30 kilometre extension of metro rail under Sydney Harbour, through new CBD stations to Bankstown. The METRON design consortium includes global architecture house Foster + Partners, local architect Architectus, and engineers Arcadis, Mott McDonald and Robert Bird Group.

CRICLON
Associate Technical Director – Traction Power

Area of expertise: High Voltage and Traction power design including Earthing and Electrolysis, specialising in railway systems.

Favourite project: Sydney Light Rail and Sydney Metro.

My passion: I love the challenges that are often associated with rail projects, either large-scale or small and complex. It is satisfying to see your work being implemented, knowing that you contributed to a good outcome for the public that will be there for people to use for years to come.

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OUTCOMES

31 NEW METRO STATIONS
66KM OF NEW METRO RAIL

WULKURAKA NEW GENERATION ROLLINGSTOCK (NGR) MAINTENANCE CENTRE, QUEENSLAND

The Wulkuraka New Generation Rollingstock (NGR) Maintenance Centre is a state-of-the-art facility designed and built as part of a massive $4.4B investment by the Queensland Government in next-generation trains and public transport. Wulkuraka was developed to not only service and maintain 75 new high-tech passenger trains for the rapidly growing South East Queensland region, but also to stay fit for purpose for the next 50 years.

Arcadis set a new Australian benchmark for the use of Building Information Modeling (BIM) as part of the project. For the first time, Arcadis developed a unified platform able to integrate seven different design software packages.

A recent international case study of Wulkuraka found Arcadis’ innovative use of BIM delivered widespread benefits, including better asset management, cost accounting, environmental performance, productivity and safety, and fewer errors.

Now built, Wulkuraka and the ongoing NGR have already had a major impact on the people and economy of Queensland, generating around 500 full-time jobs and up to 1,500 indirect jobs drawn from the local and regional community.

OUTCOMES

$4.4B INVESTMENT
75 NEW TRAINS
NEW BENCHMARK IN BIM USE
Arcadis is the Program Partner (Systems) working with Network Rail’s existing Digital Railway team. Arcadis, supported by Ramboll, will help shape the Digital Railway program, delivering a range of services, including technical leadership, engineering management, project management, stakeholder engagement, risk management, business change and industry training, and data and asset management.

As Program Partner, Arcadis will lead the development of the Digital Railway Toolkit, creating a set of requirements, specifications, processes, and competency and training requirements that will support the potential roll-out of the Digital Railway on a number of strategic routes across the network. Arcadis will work with the route teams, train and freight operating companies, rolling stock companies, industry supply chain and other stakeholders to develop candidate schemes for digital rail. Arcadis will also support the preparation of Outline Business Cases to inform the next funding and regulatory period, known as ‘CP6’.

Arcadis will also spearhead the creation and set-up of the Digital Railway Academy to identify future training requirements and ensure the supply chain is equipped to respond to Network Rail’s long-term vision.

Arcadis, in association with Leighton Contractors and Aurecon, is providing design and construct services for the level crossing removals at Heatherdale Road in Mitcham, Blackburn Road in Blackburn, and Main and Furlong Roads in St Albans.

The project involves lowering the rail line to pass under the roads at all four locations. The St Albans, Ginifer and Heatherdale stations will also be rebuilt with platforms below street level.
Arcadis Australia Pacific is a leader in built and natural asset design and management. From major road and rail infrastructure to innovative waste, water, residential, retail and heritage projects, we strive to create smart, sustainable solutions for our valued clients.