

Your integrated infrastructure solutions





Newcastle Light Rail



METRONET: Yanchep Rail Extension
and Thornlie – Cockburn Link





About us

Downer designs, builds, and sustains assets, infrastructure and facilities and we are the leading provider of integrated services in Australia and New Zealand.

At Downer, our customers are at the heart of everything we do. Our Purpose is to create and sustain the modern environment by building trusted relationships with our customers. Our Promise is to work closely with our customers to help them succeed, using world leading insights and solutions.

With a history dating back over 150 years, Downer is listed on the Australian Securities Exchange and New Zealand Stock Exchange as Downer EDI Limited (DOW).

Transport infrastructure

Downer has a long history of delivering transport infrastructure projects under a variety of contracting models. Services include the design and construction of light and heavy rail networks, major periodic maintenance, station upgrades and rail systems engineering solutions including conventional and communication-based solutions signalling, traction power, overhead line equipment and communications. In addition, we construct bridges and roads, and deliver, intelligent transport solutions, grade separations and airfield work.

We specialise in delivering multi-disciplined projects under a mature and robust systems engineering and safety assurance process, that aligns with our customers' needs and requirements, providing surety of compliance and delivery throughout the project lifecycle.

Our business is founded on four Pillars and we demonstrate these in everything we do:

Safety

Zero Harm is embedded in Downer's culture and is fundamental to the company's future success



Delivery

We build trust by delivering on our promises with excellence while focusing on safety, value for money and efficiency

Relationships

We collaborate to build and sustain enduring relationships based on trust and integrity

Thought leadership

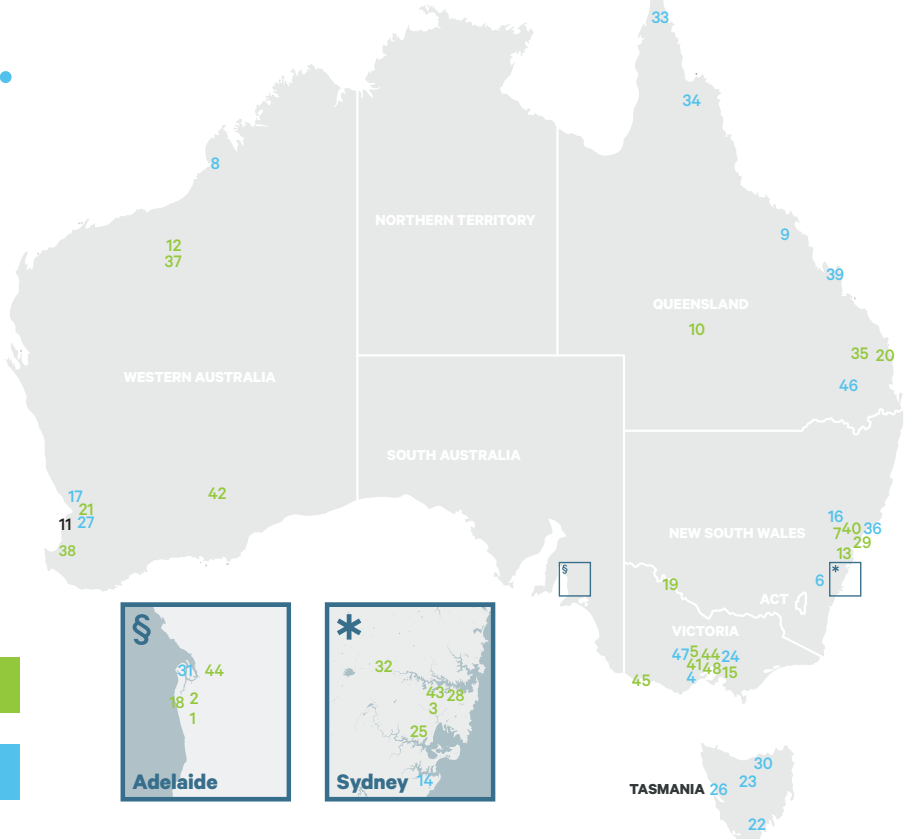
We remain at the forefront of our industry by employing the best people and having the courage to challenge the status quo

What we do

Local expertise.
World-class solutions.

Downer provides end-to-end infrastructure solutions for complex infrastructure in metropolitan and remote locations.

Provider of multidisciplined infrastructure services across the full lifecycle of projects.



Project name	Civil	Rail infrastructure
1 Adelaide Heavy Rail O&M - Infrastructure		■
2 Adelaide Light Rail - AdelLINK Tram East Ext.		■
3 ATP - Advanced Train Control System		■
4 Barongarook Creek Bridge Replacement	■	
5 Bendigo and Eaglehawk Station Upgrade		■
6 Berry to Bomaderry Princes Highway Upgrade	■	
7 Bogie Centre (Cardiff)		■
8 Broome Chinatown Revitalisation	■	
9 Bruce Highway - Ingham to Innisfail Overtaking Lanes	■	
10 Central West Bridge Replacements		■
11 Denny Avenue Level Crossing Removal	■	■
12 Flash Butt Welding (Rio Tinto)		■
13 Gosford Passing Loops		■
14 Heathcote Road Upgrade	■	
15 High Capacity Metro Trains - Depot		■
16 Hunter Water CTGM Pipeline	■	
17 Karrinyup External Road Upgrade Works	■	
18 Level Crossing Renewal Adelaide to Tarcoola		■
19 Manangatang Resleeper Project		■
20 Maryborough Rail Depot		■
21 METRONET: Thornlie-Cockburn Link (TCL) and Yanchep Rail Extension (YRE)		■
22 Midland Highway Bagdad - Mangalore Stage 2	■	
23 Midland Highway Perth Link Road	■	
24 Midland Highway, Perth to Breadalbane	■	

Project name	Civil	Rail infrastructure
25 Mortdale Depot		■
26 Murchison Dam	■	
27 Murdoch Health and Knowledge Precinct	■	
28 New Intercity Fleet (NIF) Stations and Signalling Enabling Works		■
29 Newcastle Light Rail		■
30 O'Herns Rd Early Works and Stage 2	■	
31 Outer Harbour Sleeper Renewal	■	
32 Parramatta Light Rail Stage 1		■
33 Peninsula Development Rd: 10 Mile Ck and South of Duckholes	■	
34 Peninsula Development Rd: Kennedy River and Rocky Creek Upgrade	■	
35 QR SEQ Trenchless Culvert Replacements		■
36 RAAF Base Williamtown - P0008	■	
37 Rio Tinto Track Infrastructure Maintenance and Renewals Services		■
38 Roelands Bridge Replacement		■
39 Shoalwater Bay Training Area Remediation	■	
40 Sydney Metro Stations		■
41 Timber Bridge Elimination North Coast Line Supply		■
42 Track Surfacing and Tamping		■
43 Transport Access Programs (TAP) Train Station and Car Park Upgrades		■
44 V1 Alliance Passing Loops		■
45 Warnambool Line Upgrade (Waurin Ponds to Warnambool)		■
46 Warrego Highway Dalby to Miles Overtaking Lanes	■	
47 Western Port Highway	■	
48 Yarra Trams Track Renewals		■

What we do



Leading provider of end-to-end infrastructure

Track infrastructure

Downer has expertise in the design management, procurement, construction, and commission of rail infrastructure across passenger, freight, mining, and light rail networks. As an accredited Rail Infrastructure Manager, we provide our customers with solutions by applying technical skills with a comprehensive understanding of the latest construction techniques and practices, while integrating maintenance requirements

Light rail

Downer understands the challenges and opportunities inherent in delivering major public infrastructure in an urban corridor with complex community and stakeholder interfaces. Our unique offering includes teams with proven local and international light rail experience in:

- Rail tracks
- Vehicles
- Rail systems and signalling
- Power
- Road network management
- Operations
- Accreditation management
- Stations
- Depots
- Utilities
- Ticketing
- Traffic signals, lights, intelligent transport systems (ITS)
- Maintenance.

METRONET: Yanchep Rail Extension and Thornlie – Cockburn Link

As a member of the NEWest Alliance, Downer is delivering the greenfield Yanchep Rail Extension and the brownfield Thornlie – Cockburn Link, as part of Perth's METRONET.

Downer's scope of work includes railway construction, relocation of freight lines, station platform extensions, station construction and other station modifications as well as the construction of new road-over-rail bridges and other associated work.

Downer is also directly supplying the rail signalling design and assurance staff to the alliance. To date, the assurance team has provided support to PTA in not only delivering the project but also in helping to understand and refine the systems engineering and safety assurance deliverables for the project.



Parramatta Light Rail

Downer, in Joint Venture with CPB, delivered the Parramatta Light Rail Stage 1 project, an integrated light rail service through Sydney's second major urban hub connecting Westmead to Carlingford via the Parramatta CBD and Camelia with a 12 kilometre two-way track.

The scope included light rail track and depot construction, roadworks, 16 platform stops, three transport interchanges, complex utility relocations, pedestrian zones, and urban design.

Downer has received an Infrastructure Sustainability Council (ISC) rating for this project through our effort to meet a high standard in sustainability.



What we do



Rollingstock maintenance facilities and stations

Downer has comprehensive expertise in the design and construction of state-of-the-art rollingstock, maintenance facilities, stabling yards, cleaning, and bio wash facilities.

Drawing on our long history of transport operations and maintenance, we ensure our facilities provide the capacity and technology to meet current and future operational requirements and ensure rollingstock assets can be managed safely and efficiently over their whole-of-life.

Downer specialises in the design and construction of railway stations, having delivered more than 40 stations across Australia in both brownfield and greenfield settings.

Train station upgrades are complex, multi-disciplined engineering projects that require significant planning and smart engineering to ensure the safe operation of the existing railway system and minimise the impact to the community.

High Capacity Metro Trains depot

Downer partnered with Plenary Group and CRRC Changchun to deliver the \$2.3 billion High Capacity Metro Trains (HCMT) PPP under the Evolution Rail consortium. The project required a new depot to stable and maintain the new fleet of trains. Downer delivered the HCMT depot under a D&C contract. The depot included 19,000m² of maintenance buildings and amenities, stabling yard with 10 roads, train wash facilities, simulator, wheel lathe, Victoria's first test track, a full condition monitoring system, more than 20 kilometres of new track, overhead lines and signalling and communications systems, and the Calder Park Light Service Facility.

The new depot was built using at least 87 per cent local content.



Transport Access Program (TAP)

Transport for NSW commissioned the upgrade of multiple train stations across NSW to improve accessibility for commuters and to comply with the Disability Discrimination Act.

As Managing Contractor, Downer has overseen the design and construction of more than 16 stations under the TAP program. Upgrades include the installation of new lifts, stairs, foot bridges, amenity facilities, lighting, CCTV and general accessibility improvements at platforms and multimodal interchanges.

Downer's experience in live-rail corridor possession, management of community interfaces and access, and design management of brownfield heritage infrastructure has enabled successful outcomes on this program.



What we do



Civils, roads, bridges and airfields

Downer is a leading provider of civil construction, engineering and asset maintenance services to road, rail, water, and other infrastructure sectors.

Our civil capability draws on the combined strength of our specialist staff, management systems and comprehensive resources.

Key civil services:

- Construction and maintenance of roads, bridges and airfields
- Rail infrastructure
- Stabilisation and pavement solutions
- Earthworks and drainage
- Landscaping and road furniture
- Lighting and Intelligent Traffic Systems (ITS)
- Services relocation
- Traffic management.

Downer holds R5, B4, F150+ prequalification under the Ausroads National Prequalification System. We undertake bridge projects ranging from large, multiple-span highway bridges to small, single-span bridges to suit customers' needs. Our subsidiary, VEC Civil Engineering (VEC) provides specialised bridge construction and rehabilitation services to complement Downer's broader offering.

Berry to Bombaderry Princes Highway upgrade

Downer, in joint venture with Seymour Whyte, delivered the Berry to Bomaderry Princes Highway Upgrade for Roads and Maritime Services. The project involved the construction of 10.5 kilometers of four lane highway, underpasses, overpass bridges, U-turn facilities, intersections, interchanges, and utility relocations.

To leave a lasting legacy in the local area, the Downer Seymour Whyte Joint Venture team set ambitious employment and training targets to deliver jobs and training to upskill target groups, including apprentices/trainees, women, Aboriginal or Torres Strait Islander peoples, people under 25 years of age and long-term unemployed, asylum seekers and refugees.

The team prioritised procurement and partnering with Indigenous-owned NSW organisations to further build their service offering and capability. The project's spend with Indigenous organisations is more than \$5.5 million.



RAAF Williamtown

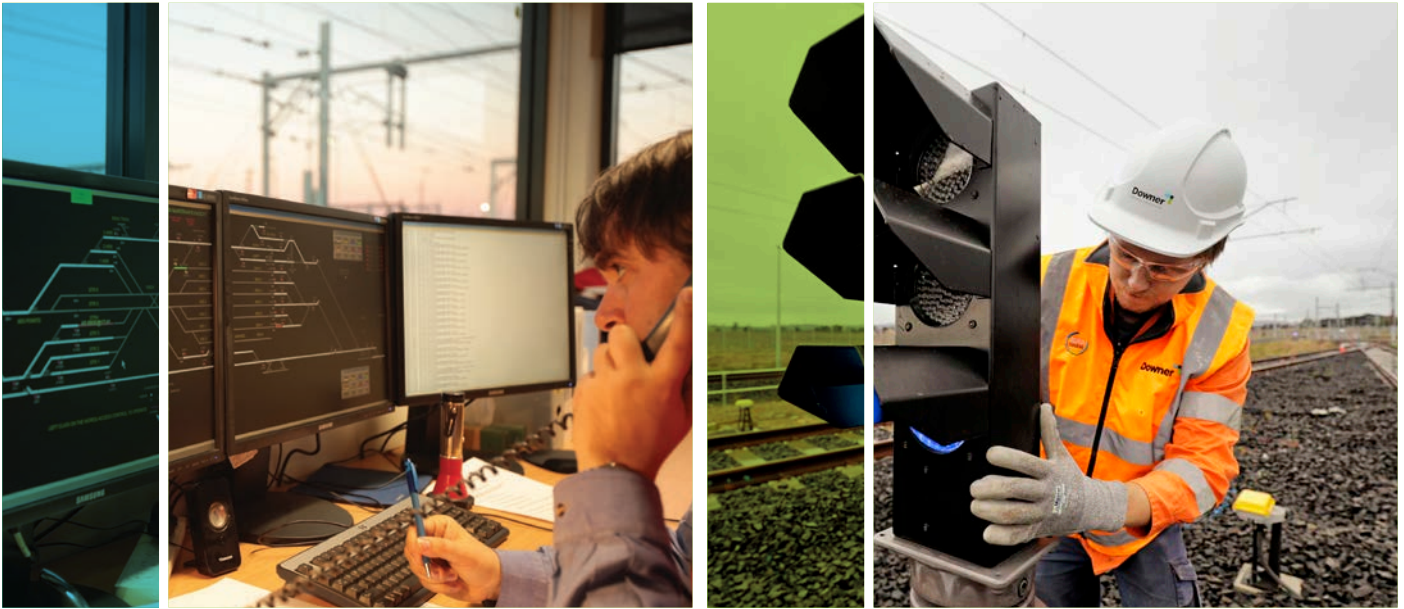
Downer has a long history of providing services to the Department of Defence.

As part of Defence's National Airfields Program, Downer was awarded the contract to upgrade the Williamtown RAAF base at Newcastle under an Early Contractor Involvement Head Contract model.

The scope involved major aircraft pavement works on runways and taxiways, stormwater drainage and aeronautical ground lighting. To deliver the project, Downer combined expertise in specialised airfield pavements with project management delivery capability to minimise interruption to airfield operations.



What we do



Rail Systems Engineering, signalling and assurance

Downer's Rail Systems Engineering team strengthens and complements our whole-of-life rail offering. We provide customers across Australia with integrated end-to-end solutions for rail infrastructure assets and systems.

Rail Systems Engineering brings together our extensive rail sector experience, in-house capabilities and cross-sector understanding to provide a customised and specialist service for rail projects.

Rail Systems offers:

- Turnkey projects
- Depot systems, stabling yards signalling and train control
- Digital technologies
- Asset management solution.

Downer is now placed to implement Digital Technologies into Rail Systems, bringing highly capable and experienced team members to provide optimised solutions to our customers. We bring experience in the following areas:

- European Train Control Systems
- Communication Based Train Control
- Automatic Train Protection
- Computer Based Interlockings
- Network and communication systems.

Adelaide Metro

Downer, as part of the Keolis Downer joint venture, operates and maintains the Adelaide Metro passenger rail system.

Downer's rail systems engineering team supports the day-to-day operations of the network. This includes integration of new infrastructure upgrade projects into operations, asset management and integration of various rail systems including signalling, train control and OHLE.



Warrnambool Line Upgrade

Rail Projects Victoria awarded Downer the contract to upgrade the Warrnambool Line to improve the frequency of passenger services along this corridor.

The scope included the construction of track, crossing loops, station upgrades and new stabling facilities. To provide a turnkey solution, Downer also self-performed the complex end-to-end signalling design, delivery, and commissioning, which includes six new signalling interlockings controlling over 80 new signals, improving safety. To enable the new timetable to become operational, Downer also developed a Train Control System that interfaced with the adjacent legacy system.

Downer's systems engineering and safety assurance team ensured the project was delivered to meet the customer's requirements and ensured that the rigorous testing and assurance activities were performed to deliver a safe system.



What we do



Track maintenance

Downer provides comprehensive solutions for the maintenance of rail infrastructure. We have a proven track record of delivering cost effective maintenance solutions for the rail industry. With experienced people and specialist rail plant we are able to offer a complete maintenance package. This can be tailored to suit the requirements of a wide range of customers from one-off yard maintenance projects to long-term national contracts. We are proud of our culture that strives to maximise the life of assets and deliver value for money in a safe and efficient manner.

Overhead Line Equipment (OHLE)

Our overhead wire team are experts in all aspects of OHLE maintenance and construction with experience throughout Australia and overseas. Our team can develop and deliver OHLE maintenance regimes ranging from:

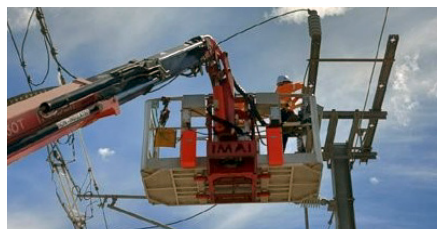
- Reactive maintenance activities such as bonding repairs and vegetation removal
- Preventative maintenance activities such as bonding and spark gap Inspections, isolator and section insulator maintenance
- Asset renewal of life expired conductors or entire OHLE sections.

Our teams also specialise in construction and commissioning of new OHLE systems including: footings, structures, small part steelwork, conductor installation, resistance testing and assurance documentation.

Track renewals, Rio Tinto

Downer is a preferred supplier for Rio Tinto, delivering a comprehensive range of track maintenance services, from rail renewal, flash butt welding and track surfacing support, through to full scale track and turnout renewals delivered under track possession conditions. Downer deploys a wide range of specialised rail plant and equipment to minimise track occupation times.

Downer works with Rio Tinto and the community to achieve strong local content targets. This includes partnerships with local businesses, the development of a Pilbara rail workshop facility, and the delivery of rail training to improve the skills and capability of local suppliers.



How we work



Innovation

Innovation is promoted across Downer. We draw on innovation to ensure continuous improvement across our business groups and to provide services that are aimed to exceed the expectations of our customers. We do this by encouraging staff to take ownership of innovation through active involvement in their worksite, providing tools and support to change managers, and giving formal recognition and reward for efforts. Our people have a vested interest in doing things smarter, safer, and more efficiently and realise innovation results in an improved working environment. Team meetings and management forums are used to promote and share innovations, and communicate processes, tools and methods that contribute to sustainable development and deliver cost savings and efficiency improvements. We also work collaboratively within our organisation and with our customers, suppliers, and subcontractors to ensure our innovations are targeted to achieve world's best practice and maintain our position as a leading service provider.

Newcastle Light Rail

Newcastle Light Rail is the first full catenary-free (wire-free) system in the southern hemisphere. Features like the revolutionary on-board energy storage and rapid charge system at the light rail stops saw the project awarded the Australian Construction Achievement Award in 2020.

The light rail system runs 2.7 kilometre in length from Wickham to Newcastle Beach, incorporating six stops and a light rail vehicle maintenance facility along the way.

The \$252 million project, involving complex stakeholder interfaces and a busy urban environment, was delivered within the 60-month timeframe without compromising on quality or safety.

This project, delivered under a Managing Contractor model, is an excellent example of meeting critical milestones safely through positive relationships and communication between contractor, customer, city, council, and community.



Embedded Rail Technology

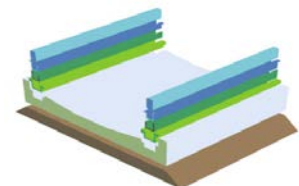
Downer is proud to introduce the innovative, value-engineered Embedded Rail Technology (ERT) solution.

The fundamental design of conventional ballast track has remained unchanged over the past 200 years. ERT is a state-of-the-art track system that comprises a slipform or pre-cast concrete base with an embedded rectangular block rail and shell, removing the need for the many components used in fastening and anchoring traditional rail.

The benefits of this simple design are fewer contained defects, less maintenance and track possession times, enabling more track availability, higher speeds and tonnage, and lower whole-of-life-cost.

Having secured federal funding to establish a Cooperative Research Centre Project, Downer has teamed with ERT Ltd, the University of Wollongong and The University of Technology Sydney to bring Embedded Rail Technology to the Australian market.

To find out more visit www.downerert.com



Our approach



Zero Harm

At Downer, Zero Harm means sustaining a work environment that supports the health and safety of our people and conducting our operations in a manner that is environmentally responsible and sustainable.

Our Zero Harm culture is built on leading and inspiring, verifying the effective management of risks that have the potential to cause serious harm, rethinking processes, continuously improving our management systems, applying lessons learnt, as well as adopting and adapting practices that aim to achieve zero work related injuries and unintentional harm to the environment.

We're focused on developing solutions to reduce our energy consumption and greenhouse gas emissions, while at the same time increasing our cost competitiveness.



Sustainability

To Downer, sustainability is delivering financial growth and value to our customers, looking after the health and safety of our people, having a diverse and inclusive workforce, and minimising our impact on the environment. Downer is committed to transitioning to a low carbon economy, and pride ourselves on developing industry-leading, environmentally sustainable solutions for our customers.

Revitalising local economies and developing local workforces

Downer understands its contribution to the economic prosperity of the regions we work in. Our projects revitalise regions by;

- Providing local jobs and training
- Creating local supply chain opportunities
- Providing employment opportunities for disadvantaged workers
- Transforming cities with transport and infrastructure

Downer has achieved ISC accreditation on various projects including Parramatta Light Rail, Newcastle Light Rail, and the High-Capacity Metro Trains Depot. The sustainability credentials of our project have also been recognised by the Australian Rail Association, with the HCMT Depot project being awarded the Sustainability & Environment Excellence award.



Downer and Bama build a legacy

Downer has a long-standing and successful partnership with multi-award-winning Indigenous business, Bama Services.

Downer has partnered with Bama on a range of projects and initiatives since 2014. In 2020 we formed the Bama Downer Joint Venture.

The partnership has delivered more than \$30 million worth of major road and associated civil infrastructure on the Peninsula Developmental Road in Cape York, Far North Queensland.

As well as the successful delivery of the Cape York project joint venture, our partnership includes:

- A Downer project manager seconded to Bama to provide support and expertise in 2014 via the Jawun program, who is now a permanent Bama employee
- Local Indigenous labour to assist Downer's VEC business on its bridge strengthening project on the Mulligan Highway in Cape York
- Bama employees engaged through Downer's Defence maintenance contracts to deliver landscaping work at the Royal Australian Air Force (RAAF) Scherger military air base at Weipa
- Exploring further partnerships for joint road and civil project delivery in Cape York and beyond, consisting of bridge projects, traffic management and secondment, and people development opportunities.

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