



Gavin Bradford

Major Infrastructure Delivery Specialist

Objective

Gavin Bradford is the founder and Managing Director of CAPSTAR RESOURCES Pty Ltd. Since 2019, CAPSTAR has supported the construction delivery of large civil infrastructure, tunnelling, resources, energy and mining projects, specialising in major project pre-construction, and delivery start-ups.

Qualifications

Bachelor of Mining Engineering (Hons) 1988, University of Queensland
Western Australian Underground Supervisor's Certificate of Competency No. A752, 1992
Western Australian First Class Mine Manager's Ticket 1995; Licence No. 498
Graduate Certificate in Executive Leadership (GCELead) 2012, University of Queensland
Master of Business Administration (MBA) 2017, University of Queensland

Capabilities

Senior manager able to operate at Project Director/Construction Director level on major projects, or General Manager/Operations Manager across portfolio of projects

Competent engineering, bid or design manager; can lead design, tender or procurement teams

Comprehensive technical experience across many aspects of transport, mining, resources and energy heavy civil construction

Ability to work client side, contractor side, or independently, and understand the key drivers of all parties

Proven track record of leading multidisciplinary teams in the successful delivery of large projects

Strategic approaches for start-up and completion phases of major projects

Strong & genuine safety focus, **SAFETY FIRST ALWAYS**

Authentic leadership style

Superior financial management, commercial, and contract management skills

Strong technical competencies related to:

- On-site Project and Program Management
- Risk Management, especially early identification, and mitigation of major project risks;
- Relationship Management between cost, time, risk & opportunity;
- Subcontractor Management;
- Bid & Tender Management, Design Management, Quality Management;
- Rail construction, including embankments and culverts;
- Transmission line construction;
- Shotcrete application;
- Pipeline construction;
- Shaft sinking and underground cavern construction;
- Roadheader NATM (New Austrian Tunnelling Method), especially shallow cover;
- Drill & blast (surface works and underground);
- Underground mine development and production;
- Tunnel & mine ventilation;
- Tunnel grouting and waterproofing;
- TBM (Tunnel Boring Machine) precast segment manufacture;
- Canopy tube and lattice girder installation;
- Ground support including rockbolts, rock anchors, soil nails and cable bolts
- Reinforced concrete structures;
- Hard rock & EPB Tunnel Boring Machines;
- Metro rail station construction;
- Heavy civils tunnel fit out and managing complex major project interfaces;
- Mechanical & electrical tunnel fit out;
- Cast-in-situ arch concrete tunnel and shaft linings;
- Reinforced concrete pavements including drainage and subgrade
- Piled structures;
- Bridge launching;
- Demolition works

Always available for talent mentoring and development, especially for young engineers
Recognised ability to engage and manage clients, and all key project stakeholders
Competent planner, strategist, negotiator, and collaborator
Adaptable to challenging cultural environments; offshore experience in Chile and Singapore
Deep understanding of the value diversity brings to construction teams, and to the bottom line

Major Projects

Melbourne CityLink, Melbourne, Australia 1997-1998

Los Pelambres Copper Mine Development, Salamanca, Chile, 1999

Epping to Chatswood Rail Line, Sydney, Australia, 2002 – 2005

Airport Link Project, Brisbane, Australia, 2008 – 2012

NorthConnex (client-side Transurban), Sydney, Australia, 2014 – 2019; 25 km tunnels total

Sydney Metro Western Sydney Airport Business Case, Q3/Q4 2019

Snowy 2.0 (client-side Snowy Hydro Limited), Lobs Hole, NSW, Australia, 2020;
27 km of power waterway tunnels and almost 40 km of tunnels total

Sydney Metro Western Sydney Airport pre-tender support 2020

Davis Aerodrome Project, Australian Antarctic Division, Hobart, Tasmania; \$4B; June 2021 – Jan 2022

Inland Rail PPP, Construction Director Regionerate Rail (bid team and successful Preferred Proponent team) Brisbane, Queensland, Australia, \$6B; November 2020 – December 2022

Snowy 2.0 (contractor side Future Generation JV), Lobs Hole Underground Construction Mgr; MAT and ECVT TBMs and Powerhouse Complex drill & blast, \$12B; March 2022 – September 2022

Copperstring 2.0 transmission project; \$5B client-side advisory services supporting operational readiness and transition from pre-contract to construction in Q2 2023; June 2022 – present

NSW Telco Authority Critical Communications Enhancement Program (CCEP); Strategic Executive Consultant providing Program Director level advisory services and support \$1.6B; January 2023 – present

\$1.6B Tanami Expansion 2 (TE2) Project; Callie Underground Mine, Northern Territory; Client side Newmont – Worley Integrated Management Team; Underground Area Manager for 1,460-metre-deep shaft completion & remediation works, crusher chamber and vertical ore management systems; June 2023 – present

Career Summary

April 2019 – present: **Small Business Owner - CAPSTAR RESOURCES**, Brisbane

- CAPSTAR provides onsite short to medium term relief project management support, and pre-contract support, to clients and Tier 1 contractors on active and pending major infrastructure, tunnelling, and underground mining projects, in Australia, New Zealand and SE Asia. CAPSTAR can assist with role gaps at senior levels at all stages of projects, from Project Manager, Construction Manager, Bid Director, Construction Director, through to Project/Program Director.
- CAPSTAR can assist with pre-delivery support from project genesis, through to expression of interest and bid stages.
- CAPSTAR also compliments existing project teams with high quality personnel in form of Project Managers and Project Engineers, surveillance officers, geotechnical specialists, underground engineers, quality engineers, frontline supervision, and tunnelling plant operation training & mentoring

Capstar's current and recent key clients...

Copperstring 2.0 Townsville to Mt Isa transmission line; client-side pre-contract advisory, and support to transition to construction and operational readiness, June 2022 – January 2023

Future Generation JV, Snowy 2.0 pumped hydro, Cabramurra (Lobs Hole) NSW; General Superintendent Powerhouse Complex & Lobs Hole Underground Construction Manager, March 2022 – September 2022

Regionerate Rail (Clough, WeBuild, GS Engineering) Inland Rail PPP bid team November 2020 – July 2021, and support to Preferred Phase March 2022 to December 2022

KPMG Infrastructure Assets & Places, NSW Telco Authority Critical Communications Enhancement Program; embedded Program Delivery Director; January 2023 – June 2023

Worley Australia, Tanami Expansion 2 (TE2) Project; Callie Underground Mine, Northern Territory; Area Manager Underground; June 2023 - present

History prior to Capstar...

Dec 2017 – March 2019 (client role): **Construction Director NorthConnex**; Transurban, Sydney

- Expanded role to take responsibility for all construction on NorthConnex
- Monitoring of all major traffic management on M1 & M2.
- Oversight of project schedule and monthly interrogations of Contractor's programme submission including detailed monthly schedule risk analyses.
- Key stakeholder management responsibilities, coordinating RMS, Independent Verifiers (APP-Arcadis), and Contractor (Lendlease-Bouygues JV).

Dec 2014 – Dec 2017: **Construction Manager Tunnels NorthConnex**; Transurban, Sydney

- 24 kilometres tunnels total, 9 kilometres twin mainline tunnels excavated by roadheaders, linking the M2 and M1 motorways.
- 4 No. access shafts ranging in depth 40 metres to 90 metres.
- \$3 billion total value.
- 2.6 million bank cubic metres of spoil management, 40% to Hornsby Quarry

2014: **Project Manager, CMC di Ravenna**; Singapore MRT, Downtown Line 3, Lot C926

- 4 No. EPB TBM's, 6.7 m diameter.
- 2 No. operating shafts 26 metre diameter 35 metres deep.
- 1 No. 32 metre deep metro station, doubling as civil defence structure with very complex reinforced concrete.
- Complex interfaces internal between tunnels & station, and interfaces with separate contracts/contractors at each end of the job

2012 – 2013: **Operations Manager Tunnelling, Thiess**; Narrows Marine Crossing, Central Qld

- Finalised commercial terms with Saipem Australia, then led delivery of 4.5-kilometre tunnel excavated by 3.4 m diameter EPB TBM linking Curtis Island's Santos GLNG gas plant to the mainland, tunnelling under Gladstone Harbour.
- 250 metre long sheet piled dive structure for TBM launch, 22 metre deep receival shaft on Curtis Island, complex marine and spoil disposal approval processes.

2008 - 2012 **Tunnel Construction Manager, Thiess**; Airport Link Project, Brisbane, Qld

- 6.8-kilometre tunnels and roads linking Gateway Motorway to the Clem 7 tunnel in Brisbane CBD.
- Combination of 2 No. 13 metre diameter EPB TBM's and 17 No. 300 kW roadheaders for excavation.
- Complex combination of shafts and temporary declines for access.
- Large caverns at tunnel merge points in variable ground conditions.
- Extreme programme pressures and variable geological conditions.
- Led combined, diverse blue- and white-collar teams more than 600 persons.
- \$4.5 billion project delivered 'only' 12 days late on 13 July 2012.

2006 - 2008 **Project Manager, Thiess**; Boggo Road Busway Alliance (BRBA), Brisbane, Qld

- Led the Stage 2 Target Cost Estimate process from genesis to commercial agreement at \$104 million.
- Then led the delivery of 450 m long bus tunnel underneath heritage listed Boggo Road Gaol.
- Restrictive settlement criteria.
- Interfaces with BRBA Stage 1, Dutton Park Cemetery and Dutton Park public space

2002 - 2006 **Project Manager, Thiess**; Epping to Chatswood Rail Link (Sydney) & Clem7 Tunnel Bid Team (Brisbane);

- Excavation, support and heavy civils for Macquarie University Station and Epping Station.
- Arch concrete lining and heavy civil base slabs to TBM running tunnels, complex interfaces with station fit-outs and cross-passages.
- Relocated to Brisbane and led the constructability team for Clem7 Bid team (formally North South Bypass Tunnel).

1999 - 2001 **Senior Project Engineer, Leighton Contractors**; SET 1B Bus Tunnel & Port of Brisbane Motorway Alliance;

- 440-metre-long busway tunnel
- Y-Junction in shallow cover, cable bolts to surface under live traffic
- Constrained work sites in multi-use urban environment.

1999 - 1999 **Site Manager, Shaft & Tunnel Pty Ltd**; Los Pelambres Copper Mine, Chile

- 4.8-kilometre-long conveyor tunnel at maximum altitude of 3,800 metres.
- 2.6-kilometre-long soft ground river diversion tunnel.
- Challenging expatriate environment with scarce resources on many fronts.
- Mitsui S200 roadheaders transported from Australia

1998 - 1999 **Underground Supervisor/Trainer, Faminco Pty Ltd**; Pajingo Gold Mine, North Qld

1997 - 1998 **Project Tunnel Engineer, Transfield Obayashi**; Burnley Tunnel, Melbourne CityLink:

- Construction of a 1.6-kilometre pedestrian tunnel with drill & blast and small roadheaders adjacent the mainline roadway tunnel.

1989 - 1997 **Underground Operator & Supervisor, Mining Engineer, Mine Manager**;

- Various underground locations and different underground contractors, Western Australia, including:
- Eltin Contractors Mt Pleasant Gold Mine, Lancefield Gold Mine, & Telfer Gold Mine
- Kalgoorlie Consolidated Gold Mines at Lakeview and Perseverance Shafts on the Kalgoorlie Golden Mile.
- National Mine Management (now MacMahon) at Golden Chief, Mt Lyell (Tasmania), Mount Dimer and Yilgarn Star (Southern Cross)

Key Achievements

- In a Construction Director role and as part of the bid leadership team, Gavin supported the Regionerate Rail consortium (Clough, WeBuild, GS Engineering) from October 2020 to June 2021 for the PPP section of Inland Rail from Toowoomba to Brisbane. In March 2022, Regionerate Rail were successfully announced Preferred Proponent for this \$6 billion + project. **Gavin played a key role in creating trusted relationships with the client ARTC, and leading a technical based solution driven bid, for a very complex project, underpinned by the promise that the people who delivered the bid, will also deliver the project – “build what you bid”.**
- Snowy 2.0 pumped hydro project – on behalf of Snowy Hydro Ltd, Gavin led an Owners site-based construction team, that against the odds of the January 2020 bushfires, unseasonal heavy rains in February and March 2020, COVID-19, and the ongoing restrictions of operating in alpine winter conditions and extremely restricted access, achieved the initial Main Access Tunnel Portal in Lobs Hole ready to accept the first TBM deliveries on schedule late August 2020.
- NorthConnex Project - from January 2015 to January 2016 Gavin played a key role for Transurban in negotiating an Environmental Impact Statement for a \$35 million project to sustainably fill Hornsby Quarry with up to 1 million m3 of tunnel spoil from the NorthConnex project, on behalf of Hornsby Council, NSW State Government and Federal Government funding. Despite the project's small scope, this was followed by a complex commercial negotiation culminating in a delayed final deal reached in June 2016. But it still aligned with the NorthConnex tunnel spoil production programme and maintained the project's feasibility resulting in 1.25 million cubic metres of pit void successfully deposited by January 2019, 30% more than original forecast. **Sometimes the best incentive for Gavin to get things done is for enough people to tell him that it cannot be done.**
- NorthConnex Project – from 2016 through to 2018 Gavin led the tunnel design review process and chaired weekly meetings with Contractor, Independent Verifier, RMS & NorthConnex Project Company, with the aim of resolving outstanding comments on drawings packages in a collaborative face-to-face environment. The key outcome of this critical intervention was that no works in the field were delayed due to lack of Approved For Construction drawings. **Gavin is an expert at getting key stakeholders around the table and playing the umpire to get diversity of views and thoughts out in the open, with the resulting benefit of best-for-project outcomes.**
- NorthConnex Project - in 2015 Gavin worked together with the JV Contractors to formulate a streamlined process to enable efficient approval of non-conformance reports (NCRs) and Requests for Information (RFIs). This was dealt with by having the Independent Verifier and NorthConnex Project Company set up as guests within the Contractor's in-house proprietary Quality Management system. Over time, with fine tuning, this process resulted in significant time savings in the approvals of NCRs and facilitated timely subsequent approval of Work Lots. Most importantly, this intervention, if not implemented, would have meant all NCRs had to be processed formally as Changes in line with the Project Deeds, and cumbersome formal correspondence exchanged upstream and downstream for approval of every NCR. **Bureaucracy for bureaucracy's sake does not help anyone. If you can innovate and safely stay within the rules of the game, then go for it.**

- In 2014, Gavin introduced an “Extreme Hazard Focus” safety intervention program on Downtown Line 3 in Singapore with specific focus on rail rolling stock hazards. This reduced the frequency of serious incidents involving electric locomotives and associated plant from approximately one per month in period February – May 2014, to zero in entire period June - November 2014. **If you honestly treat SAFETY as a true key result area in the same manner and with the same rigour and vigilance as COST, TIME, PEOPLE, ENVIRONMENT and QUALITY, the path to operational excellence becomes much easier. Also, when coming off a low base with respect to SAFETY, the incremental improvements can be massive if you stick to compliance fundamentals and maintain a high level of visible leadership on site, intervening, coaching & influencing where the real work happens.**
- 14 years continuous tenure with the Leighton Holdings Group 1999-2013, 11 years with Thiess Pty Ltd including major projects value \$4.5 billion+. **Gavin holds his nerve, goes the distance, and does not give up easily.**
- In 2013, Gavin negotiated sensitive key marine operation approvals with Gladstone Port Corporation to allow LNG tunnelling works to commence on time on Curtis Island in Gladstone. Gavin also negotiated key tunnel spoil dumping approvals with Gladstone Regional Council as part of their plans to place a capping layer over old power station fly-ash ponds for their future showground and racecourse development. **Gavin takes a genuine interest in the needs of key stakeholders and adopts a collaborative “make the pie bigger” approach to negotiations.**
- In 2013, Gavin led a major post-award design change effort for the Gladstone Narrows Marine Crossing which replaced the tender design from a launch shaft to a sheet piled open slot and offered 45 days saving on TBM launch and initial drive. This also delivered additional time savings in the spoil handling and removal operation, in the order of several months. **Gavin’s instinct and experience inform him that a project’s opportunities are maximised at start-up. Attention needs to be paid to the big-ticket items like head contract, choice of major plant, Enterprise Bargaining Agreement negotiation, major subcontracts, and critical design issues. If you optimise these, then ongoing good management should deliver the outcomes that the tender pricing allows.**
- Key senior management member of Thiess-John Holland JV for Airport Link Project 2008 - 2012, at the time Australia's largest ever road project at \$4.8 billion final cost. Successfully managed cost flows exceeding \$35 million/month and workforce exceeding 700 persons. **Especially when the project is mega, Gavin can grasp the links between revenue flow, cost flow, labour histograms, work breakdown structures and programmes, to ensure money is expended and claimed at the required rates.**
- In 2007, Gavin led and delivered the Stage 2 Boggo Road Busway Alliance Target Cost Estimate for \$104 million; from concept and genesis, tender & final design, through project start-up and majority of construction. **Gavin understands that the job of getting a project to the point of construction is often more challenging than the task of building it.**
- 2007 - tunnelled under heritage listed Boggo Road Gaol in South Brisbane with no ground settlement issues; all settlements less than 10 mm in line with design predictions. **Gavin understands the value of building what you bid, and the critical importance of having the same key people continuously working through the early design, tender, start-up, and delivery of projects.**

- 2004 - reconfigured the Epping to Chatswood Rail Line hard rock TBM tunnel arch concrete lining form system from two trains of three forms, to three trains 2 x 2 forms & 2 x 1 forms. This innovation, combined with a roster change from 12-hour shifts to 10-hour shifts and a "Super Bull-gang" to cover the shift gap during pours and Saturdays, allowed greater flexibility in pour timing & locations, reduced fatigue & ergonomic related issues, and increased the weekly pours from 14 to 26 average over a 5-month period. Maximum weekly pours of 35 No. were achieved twice (almost 1 pour/day/form in a 6-day week). **Gavin backs his team's collective experience when big ideas and big decisions are required to turn around big problems. The original idea for this success story came from the Tunnel Superintendent, not Gavin.**
- Expatriate experience in South America in 1999; doubled local tunnelling advance rates with S200 roadheaders in Chile. **Gavin has advanced negotiation skills that can help bridge cultural distance.**
- 1998 – Gavin coached drill & blast teams via innovative methods to extract tightly held high grade quartz veins at Pajingo Gold Mine in North Queensland. **This led to halving of overall drill, blast & haul stoping costs for widths less than 1.5 metres, and a revision to minimum stope widths and grade cut-off. Importantly for the client, this in turn led to a small increase in overall mine reserves.**
- Gavin has hands-on proficiency across a range of underground equipment gained early in his career, including air bidders, hand-held rockdrills and trackless jumbo drills, and hands-on supervisory experience with small and large teams. **This continues to give Gavin the ability to offer realistic solutions to problems because he understands the true capabilities of a set of available resources**
- Member of team that achieved long-standing world record (only recently broken 2019) for single machine mechanised underground trackless advance at Mount Pleasant gold mine (WA) in 1989; 1 No. 3 boom Tamrock jumbo drill, 493 lineal metres in 28 days on multiple headings; average 7.7 lineal metres (2.75 rounds) per 8-hour shift. **If you need project intervention & something turned around 180 degrees, or pushed along quickly & safely, Gavin has the track record, strategies, and energy to do it.**

Contact Details

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Other Relevant Skills, Memberships & Accreditations

Clayton-Utz Training, Brisbane: Intensive Negotiation Skills, 15-16 October 2012

Singapore Construction Safety Course for Project Managers, April 2014

Clayton-Utz Training, Brisbane: Breakthrough Negotiation Techniques, 29-30 June 2015

Volunteer work: undergraduate 3rd & 4th year civil engineering mentor and Honours Research

Project supervisor for Women in Science & Engineering (WiSE), Western Sydney University 2016 - 2019

NSW Tunnels Air Quality Working Group 2017-2019