



CONSTRUCTING EXCEPTIONAL COMMUNITIES  
THROUGH ENGINEERING EXCELLENCE







Light/Heavy Rail



Energy



Aviation



Metro Rail



Renewables



**Management • Commercial • Engineering** (MCE) provides professional and advisory services to clients delivering major transport, energy and social infrastructure projects across Asia Pacific.

Established in 2014, MCE employs qualified and highly experienced industry leading professionals, who are passionate about enhancing the quality of people's lives.

MCE is an independent business; agile and responsive to our Client's needs, delivering independent and objective cost effective advice and leadership enabling efficient delivery of accessible and resilient infrastructure.

[www.mce-aus.com](http://www.mce-aus.com)  



Schools



Healthcare



Roads



Water



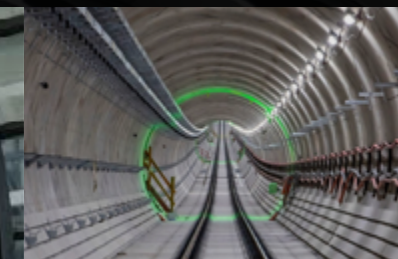
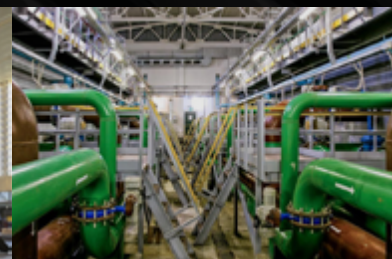
Justice

### Our Management Services

- Portfolio, program and project management to global industry standards
- Tender compilation, analysis, evaluation and negotiation
- Project scheduling, reporting and analysis; project planning and financial control
- Risk management at enterprise, portfolio, program and project level
- Contract management and administration
- Interface management agreements drafting and negotiation
- Stakeholder strategy and engagement
- System and safety assurance strategies
- Full life cycle asset ownership

### Our Engineering Services

- Engineering leadership and design management for multi-disciplinary programs
- Constructability input and complex engineering interface management
- Systems engineering and safety assurance including requirements management
- Lead the delivery of multi-disciplinary scope documentation and technical specifications
- Environmental and sustainability assessment and reporting
- Engineering tender compilation, analysis, evaluation and negotiation
- Development, specification and management of complex rail and power management systems
- Site management, leadership, monitoring, surveillance and commissioning
- Independent verification and certification



### Our Advisory Services

- Project scope definition and business case compilation
- Strategic procurement advice for value optimization of supply chains
- Governance and multi-disciplinary Due Diligence reviews across programs and projects. Independent multidisciplinary due diligence services
- Change management, performance improvement experienced in establishing new PMO's
- Experienced Executive Board operatives specialising in Infrastructure, business strategy and risk
- Preparing and Reviewing Government Gateway Reviews for Australian States and Territories
- Business/Program Strategy, Planning & Business case production
- Performance reviews to maximise value from existing operations

### Our Commercial Services

- Strategic procurement and contract packaging advice based on current market conditions
- Risk and contingency planning and modelling
- Project cost planning and whole of life estimating
- Commercial tender compilation, analysis, evaluation and negotiation
- Project and funding due diligence
- Contract document preparation, including contract terms and risk profile analysis
- Contract management and administration
- Commercial dispute strategy, negotiation and resolution
- Final account preparation and agreement



MCE Team: Key Expertise & Projects



Matthew Colton  
BEng (Hons) CEng FICE CPPM MAIPM MAICD NER RPEQ  
Director

Matthew is an internationally experienced Board Director, Chartered Civil Engineer and a Fellow of the Institution of Civil Engineers (ICE & EA) and founded MCE. Matthew is an experienced Delivery and Engineering Director with extensive international experience from developing business cases, through design to construction and commissioning of a wide variety of engineering schemes including power, transport, tunneling and complex multimodal infrastructure schemes in the UK and Australia. Matthew has excellent contract strategy, development and administration experience on a variety of contract forms and is an effective commercial negotiator and experienced in resolving disputes.

Key Projects  
SME Engineering, Sydney Metro | Parramatta Light Rail, TfNSW |  
Sydney Metro West | Trackwork Services Alliance

MCE Team: Key Expertise & Projects



Mark Greener  
Regional Director, Queensland

Mark is a senior executive with over 30 years' international experience within the rail, power and general infrastructure sectors developing, tendering and delivering multi-billion-dollar engineering, procurement and construction infrastructure projects across Australia, Africa and Asia. Mark has an outstanding track record of achieving business growth targets through developing and delivering portfolios of strategic infrastructure projects.

Key Projects  
Geelong Fast Rail Program| Melbourne Metro Tunnel Project | Sydney Metro |  
Thermal Power Systems Business ANZ



Stephen Pascall  
BEng (Hons) CEng FICE FIEAust NER RPEQ GAICD  
Director

Stephen is an infrastructure executive, with extensive experience across public and private sectors. He is known for leading multi-disciplinary teams to effectively deliver billion-dollar transport programs and the development and growth of construction sectors in large multi-national engineering businesses. With over 25 years of experience gained from working on infrastructure in Australia and internationally, Stephen has been instrumental in leading and contributing to the strategy and direction of the businesses he has operated in, especially in the areas of organisation and talent. He has operated successfully in complex matrix organisational structures, where trust and relationships are paramount to achieving organisational wide goals.

Key Projects  
Sydney Metro City and Southwest| Sydney Light Rail, TfNSW |  
Sydney Airport Corporation | TfNSW Northern Beaches Bus Line



Thomas Lee  
BEng (Hons) MSc CEng FICE CPEng (EA) NER RPEQ  
Director

Thomas is an Engineering Director, Senior Project Manager and a Chartered Professional Engineer with 20+years' experience. He specialises in the management of highly complex engineering, design and construction projects with multidisciplinary interfaces and stakeholders. Thomas ensures clients understand project needs and delivers projects that are fit for purpose. His experience includes all aspects of project delivery from business case and scope development, design and engineering management, complex constructability and staging and all aspects of system engineering management from cradle to decommissioning. Thomas' career has involved managing a number of large multi-disciplined teams of internal staff in across multiple offices and countries.

Key Projects  
Sydney Metro City and Southwest| Sydney Metro Central Station |  
Sunrise Project Shanghai | Multiple International Projects

MCE Team: Key Expertise & Projects



Patrick Man  
BE Civil  
Director



Patrick brings circa 25 years transport infrastructure construction industry experience working in various rail environments including brownfield, greenfield, regional and major international projects. Over the last 7 years he has been overseeing a program of works for Tier 1 organisations and leading engineering and delivery teams for government organisations. He is known for leading teams in multi-disciplined rail system works for leading Tier 1 private organisations with a long-term strategy and focus on customer outcomes and supporting infrastructure clients to deliver projects for the government.

Key Projects  
Western Sydney Airport, Sydney Metro |  
Sydney Metro City and Southwest | MTMS | TfNSW (various)



Jonathan Richardson  
MEng, CEng, MICE NER RPEQ  
Director



Jonathan has 20 years of experience in the construction, design and engineering industries split between the UK and Australia. He has delivered major programs of transport, education, research, defence and commercial infrastructure for private, institutional, federal and state government clients. Jonathan is a chartered civil engineer with both Engineers Australia and the UK Institution of Civil Engineers. He holds a Graduate Diploma focused in Executive Leadership from The University of Queensland and Masters in Civil Engineering from University of Sheffield.

Key Projects  
Western Sydney Airport, Sydney Metro | Sydney Metro West |  
University of Sydney Eng. Precinct Transformation & Health Precinct Projects |  
Stadium Australia (ANZ)





Project Case Studies



Sydney Metro City and Southwest

Client / Location: Sydney Metro, Sydney, NSW

Sector: Rail, Metro, Tunnels, Stabling, Stations

Project Value: Circa \$18bn

Roles: 2018 to 2024

Project Phase: All phases from definition design to construction / testing and commissioning

MCE's Role and Service Provided

- MCE provided various services including:
- Project Leadership / Project Management
  - Interface Management including coordination with key stakeholders
  - Risk and Opportunity Management, Risk identification, classification, controls and mitigation across the program of works
  - Construction management in brownfields environment
  - Engineering
  - Business Case and optioneering
  - Engineering and Design Director and management. Full project
  - Assurance and requirements management

- Completions management
- Commercial
- Procurement and packaging optioneering and strategy
- Tendering and precurement.

Project Description

Sydney metro City and Southwest will run in newly constructed tunnels under Sydney Harbour, through new underground stations in the central business district (CBD) and beyond to the southwest. Sydney Metro services from Chatswood to Bankstown are expected to start in 2024.

The Sydney Metro City & Southwest includes the following two components:

Chatswood to Sydenham: new 15.5 kilometre twin tunnels under Sydney Harbour through the Sydney CBD to Sydenham.

Sydenham to Bankstown: upgrading and converting the T3 Bankstown Line to metro standards between Sydenham and Bankstown

Project Highlights and Achievements

MCE led the technical team through a successful business case, design and construction in highly complex and brownfield environments.



Project Case Studies



Sydney Light Rail

Client / Location: TfNSW, Sydney, NSW

Sector: Light Rail, Roads, Urban

Project Value: Circa \$3bn

Roles: 2018 to 2019

Project Phase: Construction to O&M

MCE's Role and Service Provided

- MCE was requested to provide a Project Director and Testing and Commissioning resources in June 2018 to transition into the existing project team to deliver the phase from civil completion, into the rail systems delivery phase and operational testing and commissioning. Services also included:
- Management
  - Client side Project leadership
  - Governance and Stakeholder Management
  - Design Management
  - Interface Management
  - Systems integration
  - Operation Readiness
  - Testing and commissioning
  - Commercial Leadership and Management.

Project Description

The CBD and South East Light Rail is a new light rail network for Sydney completed in 2019. The 12km route extends from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.

The 12-kilometre route from Circular Quay to Randwick and Kingsford features:

- 19 conveniently-located stops
- 60 air-conditioned electric carriages operating in 30 coupled sets.

Project Highlights and Achievements

The MCE Project Director entered the project when the project was approximately four years into delivery, moving from civils completion into systems fit-out, commencing a commercial facilitation process, transitioning into a new internal governance structure and in a period of negative media focussed towards the project.

The scope of the assignment was to support TfNSW in driving the project forward, safely, to achieve its objectives of a world class light rail system.

The Project was successfully delivered and commissioned to operations.



**Western Sydney Airport Metrorail link (Stations)**

Client / Location: Richard Crookes Constructions, Sydney, NSW  
Sector: Rail, Metro, Station, Design, Delivery, Commercial Management, Risk Management  
Project Value: > \$700 million  
Roles: 2023 – 2024  
Project Phase: Design Management and Assurance, Commercial Management, Risk Management

**MCE's Role and Service Provided**

**Key Challenges**

These included late design completion, designs for design-and-construct rather than construct-only approaches.

MCE provided several expert professionals to work in-bedded in the Richard Crookes Construction team performing a variety of roles and tasks including:

- Design and Assurance Management, dealing with design challenges, reviewing designs for constructability and appropriateness, technical proposals, and preparing for successful construction.
- Commercial Management under an unconventional construction contract, preparing proposals, commercial correspondence, preparing claims and general commercial management.
- Risk Management, including

the preparation and population of the Risk and Opportunity Register, calculating risk costing prior and after risk mitigation and treatment. Also after considering value for money of such treatment measures, calculating risk costing of specific sub-components of the project as included in specific commercial proposals.

**Project Description**

Richard Crookes Constructions was appointed by Webuild (Parklife Consortium) to construct Aerotropolis, Orchard Hills and Luddenham Stations on the new St Mary's – Western Sydney Airport metro line. It came with only Stage 1 designs, while detailed design was ongoing. RCC has a proud success history in a family business. This was their first in railway construction. The Sydney Metro experience of the MCE Team contributed towards a more informed understanding of rail challenges and risk management

and how to implement complex rail infrastructure construction successfully.

**Project Highlights and Achievements**

- MCE brought Sydney Metro design requirements and specification experience to the Design.
- Implemented a structured process to efficiently, yet comprehensively, manage design and interface reviews. Assisted with TAO certification management.
- Prepared Stage 2 Commercial proposals. Completed Risk and Opportunity Register.
- Assisted allocation of risk owners and developed suitable treatments. Reviewed the project hazard logs and implemented a complimentary Safety in Design process.
- Obtained and reviewed SESA information.



**Metro West**

Client / Location: TfNSW, Sydney, NSW  
Sector: Metro, Stations, tunnels, rolling stock  
Project Value: Circa \$20b  
Roles: 2021- 2030  
Project Phase: Design, Procurement and Construction

**MCE's Role and Service Provided**

MCE was appointed by Sydney Metro to lead a design and engineering management team of in-house engineers that establish and integrate the requirements for the new railway and interrogate the engineering to ensure performance, reliability, sustainability and safety requirements are achieved.

MCE manages the technical advisory team of consultants to ensure that their outputs through the scoping and definition design stages support the Final Business Case submission to Government and that it is aligned with the strategic objectives established for the project by Sydney Metro and the NSW government.

Outputs include the provision of comprehensive and innovative solutions to manage technical, constructability and program

risks and respond to the safety, community, budget and regeneration objectives of the metro scheme.

MCE is responsible for the delivery of all aspects of design and engineering including scoping, definition and detailed design from rolling stock to station architecture.

**Project Description**

Metro West will connect Greater Parramatta and the Sydney CBD, supporting a growing city and delivering world-class metro services.

It comprises a new 24-kilometre metro line with 9 new stations confirmed and a stabling and maintenance facility at the Clyde and Rosehill industrial estate.

**Project Highlights and Achievements**

**Key Highlights and Achievements**

The MCE Project Director These included design completion, optioneering, cost, constructability, program





## MCE's bespoke offer

MCE recognise that the needs of every client and their projects are unique, to which we offer a truly bespoke service, tailored specifically to our client's requirements.

We are agile and responsive to our client's needs, with the ability to work independently or to be embedded in our client's teams.

MCE is a wholly owned independent business; accordingly, we provide independent and objective advice to our clients.



### Our Corporate And Social Responsibility

Consistent with our business philosophy, we are committed to deliver economic, environmental and social value above and beyond the value of goods and services offered to our Clients.



MCE's team are proud to recognise and corporately sponsor a series of charities that do wonderful work in the community.

### ISO Standard Accreditation

MCE is proud to be an independently verified ISO 9001 (Quality), ISO 45001 (Health and Safety) and ISO 14001 (Environmental) business demonstrating our commitment to safety and quality to our team, clients and society.



### Professional Affiliations

Our licence to operate is demonstrated through our commitment to professional affiliations for our team members, which includes:

- National Association of Women in Construction | NAWIC
- Engineers Australia | EA
- Institution of Civil Engineers | ICE
- Australian Institute of Project Management | AIPM
- Board of Professional Engineers Queensland | BPEQ
- Australian Institute of Company Directors | AICD
- Permanent Way Institution | PWI
- Registered Office Government Commerce Gateway Reviewers



### Contact Us

For advice and solutions please contact:

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