



# Railway Signalling Services - Victoria

## Projects

MTIA Signalling Strategy Taskforce (SST)

Signalling Engineers Secondment to RPV

Melbourne Airport Rail (MAR)

## Client

Major Transport Infrastructure Authority (MTIA) and Rail Projects Victoria (RPV)

## Location

Melbourne, Australia

## Dates & Duration

2021 - Ongoing

## Services Provided

- ▶ Signalling Design Services;
- ▶ Digital Systems Advisory;
- ▶ CBTC Advisory;
- ▶ Coordination of Multiple Interacting Workstreams; and
- ▶ Technical services supporting Victorian Rail Sector Legacy and Modern Equipment.

## Background

With the State's population expected to reach 10 million by 2051, Victoria's Big Build project is undertaking significant capital investment to deliver rail projects that meet the expected growth and ensure sustainable transport solutions to accommodate its future needs. The Major Transport Infrastructure Authority (MTIA) works with Victoria's Department of Transport to plan, deliver and construct major transport projects.

The Network Rail Consulting (NRC) team are working closely with MTIA and RPV to assist and deliver substantial parcels of signalling work and provide a comprehensive insight into the key challenges that will need to be met to ensure these existing and future projects are successfully delivered.

We offer realistic advice on modern signalling techniques and efficient practices without compromising on safety.

## Scope of Works

Key areas of our work to date have included:

- ▶ Advisory support in relation to the operational requirements for Communications Based Train Control (CBTC) for the systems integration requirements on the Melbourne Airport Rail Link;
- ▶ Support to the MTIA on elements of the Signalling Strategy Taskforce;
- ▶ Supporting the "User Centred Design" and the associated Operational Concept for the Metro Tunnel project;
- ▶ Supply of signalling senior designers directly to Rail Projects Victoria (RPV) working on the Metro Tunnel Project;
- ▶ Involvement in the Level Crossing Removal Program; and
- ▶ Our works associated with the Project Management Services Panel.

## Our Roles and Their Approach

Network Rail Consulting is providing rail signalling services with local and available capacity in the UK through its reach-back capability. Over the past 12 months, NRC have made major contributions in supporting services and resources on significant Victorian projects.

### MTIA Signalling Strategy Taskforce (SST)

- ▶ NRC are providing advice and input to the development of its Workload Planning and Resourcing workstream. Support is being provided in the development, application and adaptation of the Victorian Signalling Equivalent Unit (VSEU) tool, based on the UK SEU approach, to inform the planning and estimation of Victorian signalling project delivery times, resource requirements and cost.

### Provision of Signalling Designers to Rail Projects Victoria

- ▶ We have mobilised senior signalling designers to Melbourne under a secondment agreement to support with the design overload across Melbourne Rail projects. The agreement provides flexibility for RPV to move these key resources to where they are specifically needed based on project priorities; and
- ▶ Our team is currently integrated within the Metro Tunnel Project. They are producing a range of design solutions, from supporting the test and commissioning team in protecting their worksite and facilitating dynamic testing to designing interfaces with the new object controller system which will be used to control the new line.

### Melbourne Airport Railway (MAR)

- ▶ NRC's engagement supports the Integrated Program and Systems (IPAS) Team. We have assisted IPAS in reviewing the PS&TR requirements associated with the CBTC system and its application to the MAR project through its interdependencies on the Metro Tunnel project; and
- ▶ Our role includes reviewing the governance and operation models, planning for transitioning into delivery through procurement, as well as advising on lessons learnt from overseas in the development of similar programs. Our specific deliverables relate to program management, assurance, operations and maintenance integration, systems architecture and interface management.

Network Rail Consulting have built a credible signalling capability within Australia that is based on the fundamentals of the signalling and train control systems from Europe. Our skilled professionals offer world's-best-practice knowledge learned from similar projects abroad, that is applied to the Victorian network. Our growing capability is helping to deliver substantial improvements in signalling on multiple projects in the Melbourne area.