

Joint RTSA and IRSE Technical Meeting “Demystifying Combined Services Routes and “Axle Counters within the MTM Network”

Alex McGrath - VicTrack
Jim Warwick – Metro Trains Melbourne



September joint meeting between RTSA and IRSE

RTSA Presentation: Demystifying Combined Services Routes

A cable route is typically a straightforward rail system component, but in Victoria it is not. The Combined Services Route (CSR) is a bewildering phenomenon for engineers new to the network. It is regarded as a complex design and compliance task, high-cost high-risk scope for projects, and a trigger for much consternation between designer and review organisations. The default approach is “pit and pipe”: conduits in a deep trench with pits at regular intervals. Alternative CSR types can struggle to obtain the necessary approvals in the project timeline. A complex systems perspective can explain how interactions between organisations with different perspectives, incentives and requirements, plus slow-moving elements in the wider context can change the shape of the physical asset. Community knowledge, stories told and not told, and different interpretations and learnings from past events also subtly affect the CSR specifications and final asset.

This presentation seeks to explain CSRs in Victoria:

- What is the CSR, and what runs in it?
- What is the back-story? Why does the CSR exist in the shape that it is?
- How does the CSR impact network safety and availability? (What does the data show?)
- Digging deeper, what’s really going on? Specific pain points include:
 - Construction challenges and techniques constructors use to manage CSRs
 - Diversity & separation of services – when is it needed and what is needed?
 - High voltage (HV) routes, Telecommunications routes and electrolysis
 - The knock-on effects of the CSR asset on other assets in the rail corridor.
- Tips and tricks for collaborative engagement which can help achieve early agreement.

Until very recently, Alex McGrath was working with the Value Engineering team at the Victorian Level Crossing Removal Project (LXRP), including leading a series of initiatives over two years targeted at improving CSR construction and delivery on the 75 LXRP crossing sites. She held the role of Discipline Champion for CSRs. She has just taken up the role of Group Manager, Signals Track & Power at VicTrack.

IRSE Presentation: Signalling Trains Under Failure Conditions

With the advent of safety requirements to allow staff to work within the danger zone, as well as with restrictions in accessing the track on elevated viaducts and in cuttings, Signal Maintenance Technicians are finding it very difficult to rectify faults in a timely manner. This difficulty when attending failures is causing greater delays to the network.

With this affecting the travelling public in getting from A to B, a better solution was needed to enable trains to continually operate under failure conditions and reduce delays to the trains.

This presentation will explain how this could be achieved in certain situations, for trains to operate under signals and reduce the effect on train operations within the network.

After more than 40 years within the Victorian railway network, Jim Warwick is currently the Signalling Engineering Support Manager with MTM, providing engineering support to Infrastructure departments, as well as providing support to other engineering sections and the various projects that are occurring within the network.

TECHNICAL PRESENTATIONS

VENUE:

Level 5
121 Exhibition Street
Melbourne VIC 3000

Note: Public access is via sign in from the foyer. Please allow sufficient time so as not to be late.

DATE:

Wednesday 18th
September 2019

TIME:

4.30pm (for a 5:00pm start)

RTSA & IRSE regulars:
Please note the changed start time.

*LIGHT REFRESHMENTS
WILL BE PROVIDED.*

RTSA members and non-members welcome

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Venue: RPV
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