



## WILLOWBURN YARD TURNOUT RENEWAL PROGRAM



# PROJECT PROFILE

April 2016

### Detailed Scope Overview

RMC Rail was engaged by Aurizon to conduct a major Turnout Renewal Program at Willowburn Yard (Toowoomba, QLD):

- Replacement of 2 x 41Kg 1 in 9 Narrow Gauge Timber Turnouts with New 60kg 1 in 10 Turnouts Pivot Heel Concrete Turnouts supplied by VAE.
- Renewal of 550m of existing Timber sleeper track in order to upgrade to Low Profile Concrete Sleepers and replace existing rail with recovered 41KG Rail (Full Joint Elimination)
- Off Track refurbishment and install of 3 x existing Part Worn 41Kg 1 in 8 Turnouts with New Bearers and Pandrol Strap Plates
- Installation of New National Switch stands, replacing existing spring levers
- Install of Level Crossings and Walkways

### Project Challenges

With the turnouts critical for access to all roads in Willowburn Yard, Work was required to be completed in a 72 hour SCAS closure over the Easter Long Weekend.

Due to the significant time pressures, early enabling works were completed to allow the removal of 2 Turnouts for refurbishment a week prior to the closure.

Other key challenges included:

- Obtainment of required QR approval for the completion of works to replace 2 x QR Connections as part of the scope.
- Inclement weather (60mm in 3 hours) resulted in the loss of an entire shift. RMC rail was able to work with Yard Operators to adapt the handover plan ensuring all critical assets were returned on time.
- Lack of room for Materials, Pre Construction saw the need for innovation to facilitate construction of turnouts some 600m away from the install site.



### Innovative Delivery

RMC Rail worked collaboratively with Aurizon to facilitate off site construction of Turnouts some 600m away from the install site. Flat top wagons and Shunt Loco supplied by the client were used to transfer the constructed turnouts adjacent to the worksite to allow them to be lifted into place. This had never been previously undertaken using concrete turnout panels

This innovation and collaborative working arrangement allowed the scope to be completed within a single 72 Hour SCAS meaning major re-alignment works could be undertaken without the need for costly staging works.



### Value Adding

RMC Rail in conjunction with Aurizon were able to facilitate the removal of bespoke (Contra-Flexure) turnouts through significant re-alignment works making for a more reliable and lower maintenance asset

### FAST FACTS

**\$1.75m**

Project Value

**5 Turnouts**  
**550m Track Renewal**

Scope Achieved

**\$0.32M Under Budget**

Collaborative Delivery and Schedule of Rates Execution facilitated substantial cost saving

**0 Train Cancellations**

Despite delays with inclement weather, critical assets were handed back on time to minimize impact

**0 Incidents**

### CLIENT REFERENCE

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