**Project 2. Sustainable Outcomes - Road Rail Separation**

**Project Brief**

The Level Crossing Removal Project (LXRP) was established by the Victorian Government to oversee the largest rail infrastructure project in the state's history - the removal of 75 dangerous level crossings across metropolitan Melbourne by 2025. Work is well underway, with 29 level crossings removed to date, 27 additional or upgraded train stations completed, many kilometres of new track laid, and numerous associated rail improvements made.

To best deliver on these projects LXRP have used a ‘Program Alliance’ model to mobilise the state’s construction industry. Each Alliance, which brings together a contractor, designer(s), LXRP and network operators MTM and/or V/Line, are responsible for the design and delivery of multiple projects.

One such program alliance is the Western Program Alliance (WPA) comprising LXRP, McConnell Dowell (MCD), Mott MacDonald, Arup, Metro Trains Melbourne (MTM), and V/line.

Each Alliance has a series of key performance indicators, with the potential for the allocation of additional projects based on their performance. One of these Key Performance Indicators is the sustainability performance of a project. LXRP require that all projects obtain a minimum ‘Excellent’ rating of 65 as assessed by the Infrastructure Sustainability Council of Australia (ISCA) rating system.

Western Program Alliance are targeting a 30% reduction in both energy and materials associated with construction of the infrastructure assets. Projects completed by the Western Program Alliance include the Koroit Creek Road (KCR) and Abbotts Road (ABR) Level Crossing Removal Projects, that were awarded an ‘excellent’ IS design rating v1.2, as rating score of 71, an energy reduction of 11.8% and a materials energy reduction of 14.8%.

Currently the WPA are now working on the Aviation Road as well as the Wyndham Vale Stabling projects. WPA is developing both technology and non-technology approaches to improving productivity, efficiency and sustainability outcomes.

Reduction of GHG emissions through the use of alternative materials and efficient alternative construction processes in the removal of level crossings is required to achieve the sustainability targets.

**References Attached**

1. McDonnel Dowell, Grade Separation – Rail Crossing Removal, 2016
2. NORTH WESTERN PROGRAM ALLIANCE, Annual Sustainability Report, MAY 2020
3. Prioritising Road-Rail Level Crossings for Grade Separation Using a Multi-Criteria Approach JONATHAN TAYLOR – Sinclair Knight Merz and RUSSELL CRAWFORD – Victorian Department of Transport