FUNDAMENTALS OF PBRRS: CASE STUDY ASHBURTON N3 UMPUSHINI RIVER

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ABSTRACT

We will be looking how safety was improved on the N3 near Ashburton with specific reference to high fill areas and space between bridges, by incorporating TMH24 and international best practice, we were able to implement a safer solution.

The “what we have always done” original design was considered inadequate by the professional team which lead to a re-evaluation of what was designed, leading to the question of how do we make this safer without having to redesign everything. The engineer looked at the EN1317 specification and took the decision to specify the containment level and working width as opposed to designing based on typical details. One of the primary reasons for this was to maintain the integrity of the final design but not increase the time needed to complete the works.

Being able to utilise precast concrete as opposed to cast in situ allowed for all the elements to be manufactured at the same time as the foundation, and being able to open the road to traffic faster.

To ensure that what was supplied and installed met the full performance specification, the COTO requirements for chapter 11.4.3 were enforced to the letter, which ensured that the project received a guaranteed outcome. In addition to the COTO requirements for the supply of the system, we will further talk about what was put in place with the client’s representatives and the OEM to ensure that the installation was carried out 100% correctly.

During discussion time, we will be able to address how this approach can be utilised more widely on our projects, with the goal of ultimately lowering costs for the road authorities.

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