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SH6 Diana Falls Slip Remediation

Project Location: Haast Pass

Opus International Consultants & McNulty Engineering Management for NZ Transport Agency

Disciplines: Geotechnical Engineering, Bridge Engineering, Structural Engineering, Road Engineering, Asset Management, Project Management



The SH6 Diana Falls Slip Remediation project was managed by Opus and McNulty Engineering Management Ltd (MEM), between September 2013 and December 2014 on behalf of the NZ Transport Agency. The project cost just over \$9 million and employed the collaborative skill sets of two ACENZ member firm consultancies, four specialist contracting firms, various Transport Agency representatives and local stakeholder groups. In every way, the Diana Falls Slip was an unconventional slip clean-up and remediation. The unique and challenging geological and environmental setting had many unknowns. Stakeholder and programme pressure required innovation at every stage, from incident response to worker protection and the public using the road to communication to design and construction.

SH6 in the Haast Pass is a primary feeder route for tourism, agriculture and business economies of the south, thus maintaining traffic flow was crucial. The key aim of the project was to restore 24 hour, two lane access as soon as possible, in the most economical way.

A key innovative feature of this project was not only in the use of three high energy rockfall attenuators in a highly challenging construction environment but in their use together as a complete rock debris control system – unique in the Southern Hemisphere. The attenuators were designed and placed at strategic positions to absorb 50-70% of the rock debris energy and ‘feed’ it through in a controlled manner to continue its descent to the next attenuator. At the slide base, an impressive spider mesh drape was connected to the tail of the third attenuator for the full height of the 60m high rock bluff so that rock debris could be guided in a controlled manner to road level.

The innovation in managing this project started with transitioning the project from incident response to a formal project through reframing key objectives. This strategy led to the project manager (MEM) coordinating the three parties to a traditional EPCM contract to act as one team, developing and implementing a robust health & safety management plan including an intensively developed emergency response plan.

Another key focus area was on communicating the status of the road clearly to the public. This resulted in the Transport Agency achieving a 100% positive/balanced media feedback in a particularly trying three month construction period – a nationally unprecedented result for the Transport Agency.

Judging & Copyright Statement

This project is a Finalist entry in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be announced on Friday 2 September, 2016.

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