

Project Info



08 / 06 / 2013



All 3 thicknesses,
Bulk Rolls



490sqm



Transverse layers



Wooloowin,
Brisbane, Australia



Queensland Rail



CC trialled as a slope
protection and weed-
suppression layer on
a section of trackside
slope.



Completed section of slope lined with CC5

In June 2013 Queensland Rail installed Concrete Canvas on a slope adjacent to a railway line in Wooloowin, Australia. CC was being trialled as a protective covering for the slope, allowing Queensland Rail to assess its suitability for permanently eliminating vegetation from high-risk locations within the rail corridor. In this case, vegetation was threatening to interfere with Overhead Line Equipment and obscure vital signalling infrastructure, something which had drawn much criticism from train drivers and engineering staff. Shotcrete was also considered for the project but would require specialist labour and a lengthy line possession with the possibility of debris and rebound affecting the railway line. There was also the issue of limited access to the site, which would cause logistical difficulties should shotcrete equipment be specified.

Prior to installation the project site was cleared of all vegetation and debris, subsurface drainage was installed and the slopes re-graded. Bulk rolls of all three thicknesses of CC were then delivered to site and dispensed using a crane truck and spreader beam. Once laid and cut to length, ground pegs were used to fix the CC to the crest and toe of the slope whilst adjacent layers were bonded together using Sikaflex Pro and fixed with steel screws. The CC was then hydrated using a water truck.

Queensland Rail described the installation as successful and stated that CC met all installation expectations. They will continue to monitor the site, with the potential for specifying CC in similar projects in the future should it fulfil its remit of completely eliminating vegetation regrowth. The material provided several advantages over using shotcrete, not least that the railway line was able to stay open during installation as there was no risk of debris or rebound. There was also no need for specialist training or equipment to complete the project which assisted in reducing project cost as well as avoiding any associated logistical difficulties with men or equipment.

A 6-man team were able to complete the 490sqm installation in 4 days, including site preparation.





CC delivered on site in bulk rolls using a spreader beam and crane



CC was unrolled and placed before being cut to length



Using CC as an alternative to shotcrete enabled work to be completed without the need for a lengthy line possession



CC fixed at crest of slope with ground peg and washer



Screws and Sikaflex Pro were used to fix adjacent layers of CC