

4415
11 November 2024



Selwyn District Council
PO Box 90
Rolleston

Attention: Jon Trewin

Dear Jon,

**RE: Rolleston Access Improvements,
Notice of Requirement Geotechnical Report
Geotechnical Peer Review**

1 Introduction

Selwyn District Council has requested comment on the geotechnical reports submitted with the Notice of Requirement for the upgrade of access between SH1 and Rolleston town. The improvements are outlined in two packages for two areas of work about 3 km apart on SH1, and a geotechnical report has been prepared for each package:

- *Memorandum – SH1 Rolleston Access Improvements – Geotechnical Technical Assessment, Dunns Road Crossing Roundabout and associated works.* Beca (Richard Young to Kate Graham) 26 August 2024)
- *Memorandum – Package 2 - SH1 Rolleston Access Improvements – Geotechnical Technical Assessment, Overpass and balance of works.* Beca (Richard Young to Kate Graham) 10 October 2024)

2 Outline of Memorandums

The Memorandums are very similar in format and content, in summarizing environmental effects, risks and mitigations in relation to the Notice of Requirements. The proposed work is related to road construction with earthworks, pavement construction, stormwater management and services relocation. Package 2 also includes the construction of an overpass with earthfill ramp and bridge construction.

The ground conditions are outlined as consistent alluvial geology with competent gravels from a shallow depth, flat topography, groundwater at about 8m depth and low potential for ground rupture and liquefaction. As a result, the geotechnical aspects of the works are straightforward and the related risks are low.

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Environmental effects, risks and mitigation are outlined in a table in each report. They do not constitute anything significant, lie within typical construction and project management procedures, and can be adequately mitigated.

3 *Comments*

The memorandums are very much an overview consistent with preliminary planning. They give conclusions with respect to soil conditions, risks etc but no data is provided or referenced to as to their basis. No site testing has been carried out to verify the assumed conditions. However, the ground conditions at Rolleston are well known to be as outlined, and consistent over a wide area. It is very difficult to conceive of any unforeseen ground conditions that would significantly impact on the feasibility of the proposed work or result in significant environmental effects. Similarly, the consistency of the ground conditions across the area makes the risk of geotechnical aspects requiring any increase in land area or adjustment to the proposed boundaries very low.

It is anticipated that there will be a full geotechnical report prepared prior to design, including site testing and other geotechnical information, such that the ground conditions, environmental effects and risks can be confirmed and mitigation measures adapted to suit.

4 *Conclusion*

Despite the brevity of the memorandums and the lack of supporting evidence, I consider that they are acceptable given the type of work envisaged, publicly available knowledge of the site conditions at Rolleston and lack of geotechnical issues. I suggest that the applicant confirm that a detailed geotechnical report will be prepared at the design stage.

Yours faithfully

Geotech Consulting Limited



Ian McCahon