



14 November 2019

s 7(2)(f)(ii)

Tauranga City Council
Private Bag 12022
Tauranga 3143

Mauao Base Track - Underslip remediation - Variation 1

Dear s 7(2)(f)(ii)

Further to your email dated Wednesday 13th November, Tauranga City Council (TCC) have officially confirmed Option 1 as the preferred remediation solution for the repair of the Mauao base track, damaged by a slip in April 2017. Option 1 comprises:

- Minor earthworks and slope stabilisation - Retreating the track landward by excavating into the modified slope between the existing track and the pohutukawa trees. The width of the track will be reduced across the top of the slip scarp;
- Installation of a hand rail barrier;
- Approx. 40m³ of material would be removed, which will be re-spread on the existing track;
- The existing pohutukawa trees are retained, however would be pruned to reduce weight (approx. 10% of existing canopy) and improve stability;
- The exposed slopes above and below the track would be stabilised with soil nails, which also secures an erosion protection mat which is filled with topsoil and hydroseeded to establish a green face and prevent erosion and sediment runoff;

The purpose of this letter is to outline the variation to our original contract, now Option 1 has been identified as the preferred solution.

Scope of Work

Our scope of work for this variation includes the following:

- Optimisation of slope stability analyses;
- Optimisation of track alignment to accommodate raising levels by approximately 400mm to allow for re-use of 'cut soil' along existing alignment;
- Design of soil nails, including grouting requirements, required corrosion protection measures, base plate fixings, erosion matting detail and subsequent planting/hydroseeding detail;
- Design of hand rail/barrier, including foundation detail - Unless told otherwise, we will look to design a timber barrier at this time;



- Combined soil nail and earthworks specification, outlining material and corrosion requirements, compaction requirements, construction methodologies and sequencing, engineer hold points and required testing regime;
- Compilation of construction drawings and schedule of quantities for issue to TCC and Waiotahi.

Programme and Outputs

Based on our current understanding, along with the scopes of work outlined above, we propose the following deliverables and programme:

- Issue construction drawings, combined specification, schedule of quantities and electronic set-out details by COB on Friday 22nd November.

Please note that we will look to issue our design report, as part of our original service offering by the COB on Friday 29th November. This document is not critical to the construction programme.

Conditions of Engagement

We propose that this variation be performed as an extension to the current terms of our existing Short Form Agreement.

Fees

Our fee proposal to undertake the above scope of works is described in the table below and is exclusive of GST.

Item Description – Based on scopes detailed above	Fee Proposal (excl GST)
Design of soil nails, hand rail (incl foundation solution), compilation of specifications for soil nails and earthworks, construction drawings and schedule of quantities	§ 7(2)(b)(ii) - Commercial Position
Total (excl GST)	

Construction monitoring period

We understand that TCC will likely undertake construction management themselves, under NZS3915, with WSP undertaking inspections and providing technical direction as required. As the construction programme is currently unknown and due to the technical complexities, particularly associated with the soil nail installation, we propose that our time during construction be charged on a time writing basis at the rates outlined below:

- Principal Geotechnical Engineer
- Intermediate Geotechnical Engineer
- Engineer/Surveyor/Planner
- Client Relationship Manager
- Disbursements



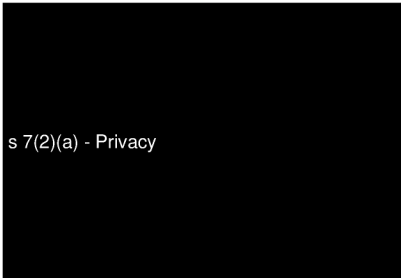
Whilst we appreciate that this provides a degree of uncertainty for TCC, for budgetary requirements, an initial allowance of § 7(2)(b)(ii) - Commercial Position should be made, based on § 7(2)(a) - Privacy



attending site 3 half days a week, for a period of 4 weeks. Once the construction programme is known, then we would be please to revise this, should TCC require.

We trust the above is acceptable although we would be pleased to discuss changes to the scope to better meet your needs, should you require. Please call me should you have any questions.

Yours sincerely



s 7(2)(a) - Privacy