



# Western Springs Native Bush Restoration Stage 1 - Statement of Attributes

20 January 2021

*The following text is an extract from the preferred tenderers submission.  
The final agreed methodology will be subject to review as per CoC*

## Overview

Our methodology has considered all supplied plans including Geotechnical, Erosion and sediment, University of Cambridge Harvesting Options, Noise plans, Arboricultural assessments and coupled the key points of these with the consent conditions. We have then taken an approach of developing a plan with minimal impact to the community which influences project optics and track placement.

## Methodology

We have given consideration to the University of Canterbury Harvesting System Options as there are many valid points in this and as a harvesting/extraction-based plan it has a lot of merit. We have taken note of the key considerations from this in developing our methodology and believe we can deliver a less invasive methodology based on the latest extraction requirements.

We agree with the points around track reduction and reduced sediment controls as the processing areas would reduce correspondingly with the material to be extracted. The track alignment is close to our proposal but appears to be based more on minimising cut/fill quantities rather than our primary goal of placing the track in a location that minimises the construction of processing areas (these would use adjacent gentle contoured land rather than formed pads) and visibility from the Zoo and Western Springs Park. There is some flexibility in this and whilst it will be fully reinstated, minimising the visual impact to public during operations is a priority to us.

Similarly, the proposed machinery movement from their plan would see mobile plant operated over a greater proportion of the site than we believe is necessary and the type of plant suggested (self-levelling specialist grapple excavator) is by default very heavy at 40 plus tons. Under a full extraction model this is prudent advice but given the extraction being limited to the heads and material under 600mm we believe we can achieve the desired outcome with lighter machinery (25 ton and under) with the majority of the operation being performed from the main access track. There will be a few gentle slopes where we can access both above and below the track as required but this will first be assessed against damage to undergrowth.

The other deviation is around the phasing, we propose to commence with track installation (post survey and sign off) as this will form the operational area for the project and increase safe access to trees and the wider site. Tree felling will then occur as per agreed daily plan (with project manager, ecologist and council officer) and the docking of heads and stem material performed regularly. This is far safer as it allows each tree to be stabilised once felled and allows the subsequent inspection of all stems and maintains a safe working environment for the faller.



The project will commence with stakeholder meetings to advise neighbours of the project phasing and impact relative to the individual situations including noise, risk of tree strike to boundary, traffic and any requirements to vacate areas to allow safe tree felling (two tree lengths). This will be undertaken in collaboration with the appointed project manager.

Security fences will be set out at both the West View Road and Western Springs Park entrances as well as form the stadium compound where the access track enters the site. These fences will be a min 1.8m high and prevent pedestrian access to site and form a backstop for project signage and safety notice boards. The fences will be erected prior to any physical works and remain in place until track is reinstated and works concluded. They will be checked daily before works commence for integrity. It is envisaged that with the degree of community consultation that the project will not require security guards (could be inflammatory) and as such have not allowed for active security to be present. This can be provided if necessary but will attract an additional cost.

A site evacuation point and main meeting point will be set up with handwashing facilities, sign in book and toilet at the track entrance location. This meeting point will be used for daily prestart meeting with both crews and monitoring personnel.

The grassed area adjacent to the entrance wall is enough room for equipment storage intended for Treescapes methodology.

Once the site is set up and ready to commence operationally, excavators will be delivered via Stadium Rd to commence formation of the track. This will involve forming a level track no more than 3.5m wide (corners slightly wider) and metalling the initial grade from the compound to the main track contour. Given the time of year it is likely that the site will experience some inclement weather and the metalled access will allow continuity of work and clean vehicle tires regardless of weather whilst also providing stabilisation (cut/cover) on the main slope to reduce water flow and reduce run off.

Track placement will be designed around using contours and vegetation to screen it as best as possible from western Springs Park and the Zoo as well as utilising the gentler portion of the slope to minimise soil movement and sediment impact, this also keeps all earthworks well away from Motions Creek. The batters from will be maintained as per advice in both the UC harvest plan and Ridley Dunphy Erosion & Sediment plan. Due to the reduced extraction of material we have scaled back the landing size and now propose to use available clear areas immediately adjacent to the track as they become available and in collaboration with the ecologist and project manager, these will be identified in the morning meetings.

Crossing of the overland flow paths will still have pipes installed as per Ridley Dunphy Erosion & Sediment plan as it is likely that some rain will be encountered during works. The reduction in machinery movement and landings should enable a reduced sediment control level which would still involve the piping of crossing, cover of gradient (metal) and hay/slash used to cover scoured or recently exposed soil and chip used to cover reinstated track. The coverage of soil would be performed daily and become a monitored item in the daily meetings.

Trees will be individually assessed for felling and this will be conducted daily in conjunction with the project manager and ecologist with direction and methodology confirmed to minimise damage to the site and ensure a safe final placement for the felled stem. Consideration for the safety of neighbours and the arborist will also factor into this and controls be set out as appropriate including exclusion zone and liaison with Zoo for those trees within two tree lengths of the perimeter fence (spotter with radio comms in the Zoo).



Tree felling will consist of two crews, each with a 20-25-ton excavator with an arborist team and associated cables/chainsaws etc. There will be spotters engaged at both potential site entrances along with a senior person in the Zoo where felling has the potential to impact Zoo operations or the potential to strike perimeter fence (controls to prevent this will naturally be in place). All site personnel will use radio communication at all times. One crew will primarily be engaged in actual tree felling with the second being tasked with extraction of felled trees to track and processing/chipping. This will speed up delivery and minimise downtime from monitoring.

Protection of trees is included and will see significant stands of trees to be retained delineated with orange mesh fencing and smaller stands/individual trees being marked with danger tape or similar.

For trees that are able to strike private property or public areas we will have controls in place (machine attached to the tree via rated cables) to eliminate the risk of trees falling the wrong way. These cables will remain attached until the tree is settled safely and securely.

Once felled the agreed portion of the tree will be docked and extracted, often picked up directly by the excavator where access allows and stacked in small tidy piles to the side of the access track in preparation for chipping. The exact location of these piles will be governed by the remaining vegetation post tree felling with a preservation viewpoint. On completion of the felling these piles will be chipped into small stockpiles on the upper side of the track for spreading as track is remediated.

Track remediation will occur following sign off on all tree felling, chipping, final log placement sign-off and client satisfaction of general site. At this point track will be remediated back to original grade and chip spread over the exposed soil with hay used to cover any bare patches. Use of logs and branches spaced intermittently will reduce water flow and provide a longer-term cover to the area whilst increasing habitat.

Daily pre-start meetings with monitoring personnel will be attended by Treescape® project manager and are envisaged to last no more than 1 hour, allowing operations to commence by 8am daily. Project management time post commencement will be split between site management, liaising with council project manager and arranging resources for the next phase of the works.

Monitoring will take place during these pre-start meetings and capture information as per Treescapes Preliminary Quality Management Plan.

The wall can be reinstated post planting or immediately on conclusion of track reinstatement as directed by council. Treescape have allowed for the reinstatement of an 18mm plywood wall be installed post completion of physical works on site. This is included in the schedule of prices.

Treescape® will appoint a project manager to run the site operations and liaise with the Auckland Council appointed Project Manager on a daily basis. It is envisaged that this requirement will be for an average of 25 hours per week but can be scaled up as required with additional costs on-charged.

Pre project planning is allowed for and will include site meetings with subsequent input into final versions of project plans, meetings with project manager and neighbouring stakeholders (Zoo, MOTAT and the stadium), drawing up and submission of operational documents pertaining to tree felling and site remediation and a site induction for all staff. Survey of the access track will also occur to ensure agreed alignment is maintained.



The methodology now reduces the removal of any timber which goes further to reduce machine movement down to a small amount of firewood rings for local resident usage.

Draft methodology – subject to amendment