

Mt Messenger Bypass

Review of Landscape, Natural Character and Visual Impact documents

Review Undertaken for NPDC by Richard Bain Landscape Architect

February 2018



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To: Rachelle McBeth

RE: MOUNT MESSENGER BYPASS - LANDSCAPE MATTERS

As per my engagement by NPDC, I have received and reviewed the following documents with a view to providing comment as to the adequacy of the information pertaining to landscape matters for Resource Consent.

Documents Reviewed - October 2017

Mount Messenger Bypass

Landscape and Environment Design Framework

Prepared by Isthmus Group Ltd (Bruce McKenzie, Sarah Poff)
Rev 1 02.10.17

Mt Messenger Bypass

***Draft* Landscape, natural character and visual assessment**

Technical Report 8a
Isthmus Group
October 2017

MT MESSENGER SH3 BYPASS

APPENDIX A GRAPHIC SUPPLEMENT

Landscape and Visual Assessment
Technical Report 8a
Isthmus
October 2017

I also attended an on-site briefing on the 19th September, facilitated by Peter Roan representing the Project.

Correspondence with Bruce McKenzie (Isthmus Group)

Subsequent to my review of the above documents I emailed Bruce McKenzie of Isthmus Group seeking clarification on several matters.

My questions and his response (received 17.10.17) is attached at the end of this document.

Review of Notice of Requirement (NoR) 15th December 2017

I have reviewed the following documents from the NoR:

Volume 4A Longlist Report

*Appendix H: Te Are o Te Ata - Mt Messenger by Pass
Summary Report Multi Criteria Analysis 1 (MCA1)
30 June 2017 Landscape + Visual
Bruce McKenzie*

Volume 4B Shortlist Report

*Appendix F: Landscape Te Are o Te Ata - Mt Messenger bypass Project Multi-criteria
analysis: Landscape summary report
14 July 2017 Bruce McKenzie/Sarah Poff*

Technical Report 8a Landscape, Natural Character and Visual Assessment Landscape, natural character and visual assessment

*December 2017
Isthmus Group*

Technical Report 8a - Appendix A - Photo Simulations

*Graphic Supplement
Landscape and Visual Assessment
October 2017
Isthmus*

Technical Report 8b

*Landscape and Environment Design Framework
Rev 0 Final Issue
Isthmus Group Ltd (Bruce McKenzie, Sarah Poff)*

Volume 2- AEE:

*Section 9.9 Landscape, natural character and visual effects
Appendix D Draft designation and resource consent conditions*

Review Methodology

In reviewing the NoR documents I have used the following methodology to examine whether the Alliance's Landscape and Visual Assessment and related documents cover the following matters:

1. Key landscape issues that have been identified in the past including Regional and District Plans;
2. A description of the existing landscape character, visual and aesthetic qualities, amenity values and natural character values.
3. A description of the proposed development;
4. The viewing catchment and viewing audience;
5. Preparation of photomontages which accurately reflect the viewing audience;
6. Ranking of landscape and visual effects;
7. Identification of anticipated landscape and visual effects;
8. Conclusions about anticipated landscape and visual effects. Do the conclusions of the assessment identify the areas of public concern, issues arising out of the statutory documents, and does the overall conclusion reflect the findings of the assessment?
9. Are the proposed consent conditions appropriate for the matters identified in the assessment?

A summary under each of these items is provided at the end of this report.

Route Selection - Landscape Matters

Volume 4A Longlist Report

Appendix H: Te Are o Te Ata - Mt Messenger By-Pass

Summary Report Multi Criteria Analysis 1 (MCA1)

30 June 2017 Landscape + Visual

Bruce McKenzie

This documents sets out the key landscape matters for the route options.

This is undertaken by;

- describing in general terms the landscape character of the project area.
- highlighting landscape matters relevant to considering for each option.
- identifying further measures that might be taken to refine the options and to mitigate potential adverse effects.
- providing an indicative 'landscape' score for each route option.

The report highlights the importance of the continuum from the inland hill country of Mt Messenger forest through to the coast (the Waipingao catchment), stating that this catchment possesses unique ecological, cultural and landscape values, including a regionally significant landscape.

Through analysis of landscape character, the report leads to the conclusion that route options that traverse the Waipingao catchment as well as land to the west and east, create greater effects on landscape than routes that follow lowland valleys. The report uses terms such as 'working with' the landscape (lowland valleys). Of particular concern to the report's author are options that run close to the coast, which amongst other things, includes an extensive area of Regional Landscape Significance.

The report favours more easterly options as they avoid both sensitive and higher quality landscapes, notwithstanding that such routes are likely to create significant modifications to landform.

Options that are located within the existing route's corridor are assessed as creating the least landscape effects as they work within the existing roadway environment. The report also notes that for all options, bridges and tunnels are preferred over 'earthwork' options, noting that cutting and filling of physical landforms are likely to create the most pronounced (adverse) effect.

In establishing these conclusions, the report examines the greater Parininihi landscape and the project's context within it, noting matters such as ecological connectivity, Ngāti Tama landholding, and management programmes combine to create associative

landscape values. Landform, landcover, ownership, hydrology and cultural significance are mapped to inform consideration of the landscape attributes and appropriateness for modification.

For further evaluation, ten landscape character sub-units are categorised in order to demonstrate the capacity of areas to accommodate landscape change - a so called 'highway absorption capability'. As such, landscape quality is assessed by way of mapping, ranking (1-10) and narrative. Further, reference is made to the NPDC 1995 District Landscape Assessment (LA4), as well as the NPDC Regionally Significant Landscapes in the Operative District Plan.

The report follows a logical progression from identification of landscape quality and values, to criteria for route selection. These criteria are mapped and described, leading to a clear set of design considerations. Such criteria include effects on landscape quality, effects on perceptual landscape attributes, effects on shared and recognised values, and effects on landscape capacity. These are in turn scored and rated. Of the routes assessed, ten were considered to be 'fatally flawed'. The methodology used is logical and presented in a clear and understandable manner. Notwithstanding this reductive process, professional judgement is considered highly relevant in the final analysis. Given this, the route with the most favourable scores were C1 and E1.

(Location and alignment of 'longlisted' corridors are shown on *page 11, Figure 4.1: Alignment of Longlisted corridors, Volume 4 Longlist Report - December 2017*)

Volume 4B Shortlist Report

Appendix F: Landscape Te Are o Te Ata - Mt Messenger bypass Project Multi-criteria analysis: Landscape summary report

14 July 2017 Bruce Mckenzie/Sarah Poff

This report forms part of an overall assessment of route options for the project, subsequent to the 'longlist report'.

This landscape summary report sets out key landscape matters for five route options as part of the multi-criteria analysis to find a preferred route option.

This is undertaken by;

- highlighting landscape matters relevant to considering for each option.
- identifying further measures that might be taken to refine the options and to mitigate potential adverse effects.
- providing an indicative 'landscape' score for each route option.

The report acknowledges that the project presents significant landscape challenges in terms of mitigating adverse landscape effects when working in hill country.

The report states that three options (A,F and P) traverse the Waipingao catchment and present the greatest challenges in terms of landscape effects. This is consistent with the analysis undertaken in the 'longlist' report.

Route options E and Z are the two most favourable routes as they are set 'low' in the landscape, avoiding ridge-lines and are therefore more favourable. Nonetheless, these options still present significant landscape issues.

In assessing mitigation, the report references *NZTA Landscape Design Guidelines* and *NZTA P39* specification, both of which are relevant to this project. The report clearly acknowledges that significant work will have to be undertaken to create positive landscape outcomes.

In selecting the best routes, the landscape report uses sub criteria for evaluation. These are similar to those in the 'longlist' report. Similarly, a scoring system ranging from F (fatally flawed) to 4 (very significant positive effects) is applied. Each option is then evaluated, rating each route.

Using clear and understandable narrative, as well as images/geometric models, the landscape issues are evaluated and explored. This approach is useful and convincing, particularly with regard to the inappropriateness of the options that cross the Waipingao

catchment. Cuts to prominent ridge-lines, as well as a 620 metre long bridge are illustrated, with their adverse landscape effects described.

Option E attains the highest score (therefore is the most favourable), in large part due to its avoidance of the Regionally Significant Landscape. This so called 'valley to valley' option minimises landform disturbance and could potentially become a scenic landscape route within the Mangapepeke Valley.

Option Z is described as having conditions similar to the character of the roadway to the north but introduces a number of structures and cuts faces. The tunnel is assessed favourably both in terms of driver experience and landscape integration.

The *Volume 4B Shortlist Report* in which the landscape report forms part, concludes that Options E, P and Z should all be considered as preferred options. Overall, Option Z is assessed as the *"best performing MCA outcome when taking overall scores into account."*

Options E and Z, as preferred overall preferred options, is consistent with the landscape evaluation of these routes. Option P was considered within the landscape report as having adverse landscape effects because it crossed the upper Waipingao in close proximity to Paraninihi / Mt Messenger.

(Alignment of short listed corridors are shown on *page 7, Figure 2.3: Map of shortlisted options considered at MCA2, Volume 4B Shortlist Report - December 2017*)

In my view, the route selection process and recommended finalists as described within the overall shortlist report, have taken appropriate cognisance of landscape values. The landscape report, which forms part of the selection process, is thorough and clearly expressed. This is reflected in the narrowing of route options and the descriptions of their relative merits.

Technical Report 8a Landscape, Natural Character and Visual Assessment

Landscape, natural character and visual assessment

December 2017

Isthmus Group

Technical Report 8a - Appendix A - Photo Simulations

Graphic Supplement

Landscape and Visual Assessment

October 2017

Isthmus

This landscape, natural character and visual assessment (LVA) is based on the same four overarching landscape design principles as the framework document (*Report 8b ,Landscape and Environment Design Framework*). These are given effect by a Project design that:

- *Retains a key ridgeline by using a tunnel, minimising effects on landform and bush;*
- *Minimises stream and valley crossings by keeping to the sides of the valleys;*
- *Develops cut faces that echo natural slope angles;*
- *Promotes natural succession re-vegetation;*
- *Integrates landscape and ecological rehabilitation;*
- *Provides an opportunity for cultural expression and recognition;*
- *Promotes a scenic journey experience.*

The LVA follows a typical landscape and visual assessment methodology and layout. That is, a description of the existing landscape, assessment of landscape and visual effects, and recommended mitigation. The report separates out natural character from landscape.

The report identifies two principal catchments, the Mangapepeke Valley and the Mimi Valley. Each are described and their landscape and natural character rated, backed up with narrative as to the extent that the areas are sensitive to modification.

The adverse landscape effects are listed (including vegetation clearance, earthworks, stream diversions) and assessed as being **moderate**. Positive effects such as scenic qualities are also described.

Natural character effects are listed, noting that they are closely aligned with landscape effects. The two main measures in avoiding adverse natural character effects are avoiding the kahikatea swamp, and minimising stream and valley crossings. The report states that the Project will have a **moderate** effect on the natural character of the lower Mangapepeke stream system and a **moderate-high** effect for the upper Mangapepeke stream system.

It is also noted that there are considerable opportunities for enhancement of natural character values - primarily through vegetative restoration.

For the Mimi Valley natural character effects are considered **moderate-low** given avoidance of the Mimi kahikatea wetland.

Mitigation - Landscape Measures

A bulleted list of 13 mitigation items are listed. I have included them here as they are critical to reducing landscape effects on this Project and relate to my comments at the end of the document about consent conditions.

- *Cut and fill batters to tie into natural landforms in the area – techniques should be employed to reflect natural rock faces as appropriate and treatments should be implemented to assist in the natural re-colonisation (revegetation);*
- *Options to further reduce the use of rock drapes will be investigated in detailed design;*
- *Avoiding “engineered” landform modification and blending earthworks in with the immediate landform context including the form and contouring of permanent disposal areas;*
- *Detailed design of highway furniture, barriers, lighting (if any) and signage – with particular emphasis on simplifying such elements and minimising visual clutter;*
- *Consideration of rehabilitation and mitigation/offset planting that reflect the wider ecological conditions of the site including eco-sourcing of seed, co-ordination with the Project ecological restoration experts and participation with Ngāti Tama;*

- *Maintenance of access to the conservation estate as appropriate;*
- *A planting programme including staging, integration with construction programme and wider maintenance programme;*
- *Design and finish of co-designed cultural expressions particularly for the tunnel portals and bridge areas and any other ancillary structures as appropriate;*
- *Providing for views from the bridge, and for pedestrian and cycling access including through the tunnel;*
- *Architectural form appropriate to nearby ecologically sensitive areas and the finish of the bridge appropriate to the rural landscape context;*
- *Provision for cycling within the carriageway shoulder;*
- *Consideration of stopping places as appropriate and where practical; and*
- *Avoidance and retention of significant trees and areas of vegetation wherever possible.*

The report states that subject to such works being successfully established, the net landscape and visual adverse effects will be **moderate-low**.

Mitigation - Natural Character Measures

A bulleted list of 3 mitigation items are listed.

- *Minimising construction effects on natural stream environments in the Mimi Valley and rehabilitating with riparian planting following construction;*
- *Constructing stream diversions (where impacts are unavoidable), with naturalised elements reflecting the characteristics of the existing streams, within the Upper Mangapepeke Valley; and*
- *Ecological restoration along the Mangapepeke Stream corridor within the designation.*

The report states that subject to such works being successfully established, the net effects on the natural character of streams and their margins within the vicinity of the project will be **moderate**.

I concur with the summary (it logically follows from the assessment) that overall, the landscape and visual effects of the Project have been appropriately addressed through the mitigation measures.

Using text and graphics, the next section of the report details the Project and its impacts. The 3d graphics showing the alignment and resultant landscape effects are particularly illustrative and helpful. These are supplemented with photographs where existing landscape units are identified and described. There is also a comparative evaluation of the existing SH3 corridor.

Section 4.3.1 deals with cultural landscape associations and in particular references Ngāti Tama as mana whenua and the Parininihi Protection Area.

Section 4.3.2 references the ecological work undertaken in the ecological technical report (Technical Report 7h).

The Statutory Framework is appropriately and accurately referenced and section 4.3.3 references the district's landscape assessment undertaken in 1995, and outlines the New Plymouth District Plan's Regionally Significant Landscape.

The detailed assessment of effects is broken into two geographical catchments, the lower Mangapepeki Valley & The Mimi Valley. For each, physical landscape and landscape character effects are assessed as well as natural character and visual amenity. This assessment is detailed and precise, referring to specific features and their chainage locations.

In addition to the two catchments, other elements that occur across the Project are described and assessed. These include wire rope barriers, cut face rock drape and drainage, hydrant tanks and a tunnel control building.

Visual Amenity and Visual Effects

Five indicative viewpoints are selected and these are shown with photo-simulations in Appendix A. The report states that the wider landscape is remote with a limited number of viewers. Three rural dwellings are identified as having views. Each is located by their physical address and their viewpoint is described. The accompanying photo-simulations (Appendix A) show existing and proposed images for all five viewpoints. The images clearly illustrate the visual change that is likely to occur from these viewpoints.

Mitigation

This section outlines design principles, strategies, and outcomes. These are described and summarised in section 6.4. They are split into earthworks, natural character, landscape and visual amenity. The conclusion states that the measures are considered best practice. I agree with this and agree that the landscape, visual and natural character effects of the Project are appropriately addressed through the mitigation measures.

Technical Report 8b

Landscape and Environment Design Framework

Rev 0 Final Issue

Isthmus Group Ltd (Bruce McKenzie, Sarah Poff)

This report is a framework document, the purpose of which sets out landscape and environmental design principles for the Project, and will inform detailed design and construction methodology. The overarching purpose of the report to ensure that the Project's works are integrated into the surrounding landscape and topography, having regard for local landscape character and context.

The report supports the AEE and has been prepared in collaboration with the other Project disciplines.

This framework documents contains four landscape principles.

- *“Keeping low in the landscape” – thereby minimising physical landscape impacts;*
- *“Letting the landscape speak” - a clean uncluttered highway where the surrounding landscape provides the scenic amenity;*
- *Recognising culture – which means appropriately recognising human relationship to the land, including continuing the partnership with Ngāti Tama through the detail design process to express their mana whenua and kaitiakitanga;*
- *Connecting ‘Landscape’ and ‘Ecology’ – responding to and reflecting natural elements, patterns and processes through design.*

This is a lengthy document that includes a review of the Project, assessment of landscape context, design objectives and principles, design approaches and landscape concept plans. Reference is also made to NZTA strategies, guidelines and environmental frameworks, as well as planning policy documents such as the RMA, Regional Policy Statement, New Plymouth District Plan and the New Plymouth District's 1995 Landscape Assessment.

The report thoroughly describes the Project, paying particular regard to the road alignment and landscape response. Maps and diagrams are used to show the alignment and its context. 3D models are included to show effects on landforms from various locations of elements such as cut and fill areas. Landscape context and character as well

as ecological composition is described and then broken into sub-units for further description.

Chapter 3.2 deals with cultural values placing emphasis on the need for ongoing engagement with those who are involved with the Paraninihi Protection Project, an important and longstanding project important to the preservation of the largest piece of lowland coastal forest in the North Island.

Chapter 4 deals with the design approach that is summarised in the phrase 'let the landscape speak'. The design principles and strategies are described in detail, including cultural values, simplicity of design, aesthetics, and natural ecological processes. Expected design outcomes are listed, which set a high bar for Project implementation, as it ranges from responding to regional landscape context to the transplanting of specific plants.

Chapter 5 deals with landscape design and treatment and attends to important matters such as cutting and filling of slopes. Photos and sections are used to good effect to illustrate how cut and fill batters will be treated in various circumstances. These are important as they are likely to be the most visible effects, and have the potential to be the most difficult to mitigate.

Structures including a bridge, tunnel, tunnel portals, tunnel control building, hydrant tanks, culverts and safety barriers are listed as important structures requiring integrated design consideration.

Streams wetlands and swales are described in terms of their location and remediation where streams are diverted. There are a number of these and indicative cross sections and concepts plans are used to illustrate their treatment.

An extensive vegetation strategy including the process for rehabilitation and mitigation is described with an emphasis on rehabilitation where native vegetation is removed. Natural as well as planted interventions are suggested as being appropriate depending on specific location. A 'before and after' photograph showing natural succession around the existing tunnel is a helpful, useful, and convincing image to describe one of the processes advocated.

Chapter 6 consists of Landscape Concept Plans, which are a series of high level (1:2000 at A3) annotated drawings that show where major landscape elements are located. These plans are consistent with the matters described in the document and are useful in understanding the relationship between the Project's elements and its context.

Of the documents produced for the proposal, in my opinion this framework is the most important and useful for describing and understanding how the Project can potentially integrate with its environment. The principles described are extensive, best practice and realistic, albeit likely difficult to achieve in some instances. This report provides important reassurance that landscape effects are considered holistically and comprehensively by the Project. While the report does not offer precise resolved detail, it nonetheless sets the parameters for good landscape outcomes.

Volume 1- AEE:

Section 9.9 Landscape, natural character and visual effects

Appendix D Draft designation and resource consent conditions

Section 9.9 of the AEE deals with Landscape, natural character and visual effects. It describes the landscape and environmental design approach, and contains an assessment of landscape, natural character and visual effects that is consistent with *Technical reports 8a, and 8b*.

Draft Consent Conditions

There appears to be little overt reference to landscape. I can only find once reference to any kind of landscape plan - *Item 6c Ecology and Landscape Management Plan (ELMP)*

The elements for the ELMP are listed in items 23 to 27. Most of these pertain to ecology. The inference being that landscape and ecology are synonymous.

Item 25 (i) Landscaping design and treatments (landform and planting), including rehabilitation of all areas used for temporary works and construction works, does imply some kind of holistic 'landscape plan' but its contents and requirements are not specified and are therefore unclear.

Please also refer to the response from Bruce McKenzie attached to this report, where he responds to my question regarding consent conditions

As they stand, in my view, it is not clear that the mitigation measures are reflected in the draft conditions.

Summary of Document Review

Having reviewed the landscape and visual effects documents within the NoR, I offer the following summary based on my review methodology outlined in on page 4.

1. Key landscape issues identified with Regional and District Plans.

Key landscape issues identified within Regional and District Plans have been appropriately addressed in the NoR documents. Particularly relevant for this Project is the Regionally Significant Landscape (Paraninihi and the Waipingao Valley). Potential adverse effects on this landscape are identified throughout the documents, and were pivotal to the final route recommendations and selection.

2. A description of the existing landscape character, visual and aesthetic qualities, amenity values and natural character values.

Existing landscape character is described in considerable detail within the *Technical Report 8a Landscape, Natural Character and Visual Assessment*, and *Report 8b Landscape and Environment Design Framework (LEDF)*. Particular emphasis is given to natural character values, as is appropriate for this environment. Separate and discrete landscape units are defined and described, covering character as well as visual and aesthetic qualities. Mention is also made of the experiential journey that the proposal will create and is represented as a sequential experience in the Landscape Concept Plans within the LEDF.

The level of detail, both illustrative and descriptive, of existing landscape values is thorough and logically presented. Descriptions and findings are also consistent through the landscape documents.

3. A description of the proposed development.

The project description is extensively covered in all the documents, from 'longlist' route selection to the concept drawing set for the selected route. There is consistency throughout the documents as to the what the Project will include over and above its roadway alignment. Structural elements such as a bridge and tunnel are described and illustrated, and the extent of cutting and filling is illustrated in plans, sections and images.

The Project is large and complex but is well covered in the documents. There appears to be a high degree of certainty as to the landscape elements.

4. The viewing catchment and viewing audience.

The view catchment and audience are covered in the *Report 8a Landscape, Natural Character and Visual Assessment*. The viewing audience matches my own assessment of the extent of the audience based on my visit to the site. It is largely self evident that this is a remote area with a limited audience.

5. Preparation of photomontages which accurately reflect the viewing audience.

Photo-simulations are presented in the appendices to *Report 8a* as a graphic supplement. The images follow best practice guidelines with regard to field of view, size of image, and details regarding location, position and orientation. Five viewpoints are illustrated with existing photographs of each followed by a proposed photo simulation. A photo-simulation methodology is also included.

I consider that the montages are appropriate and fit for purpose. That is, they indicatively illustrate the visual effects of the proposal from the selected viewpoints. I consider that for this Project photo-simulations while useful for indicatively identifying visual effects for a specific audience, are less important in terms of identifying potentially adverse landscape effects than the landscape matters described and illustrated in the LEDF document which deals with landscape treatments throughout the Project.

6. Ranking of landscape and visual effects.

Scoring of landscape, natural character and visual effects was undertaken within the 'longlisting' and shortlisting of routes using a 10 point scale and appropriate descriptors. *Within Report 8A, Landscape, Natural Character and Visual Assessment* landscape character and effect is ranked and assessed using descriptors such as 'moderate'. This is consistent with industry methodology and clearly describes the anticipated effects of landscape change likely to occur as a result of the Project.

7. Identification of anticipated landscape and visual effects.

Identification of effects is extensively canvassed throughout the landscape reports and such effects informed the route selection. The LEDF report covers the array of likely effects, most of which are landscape character effects rather than visual per se.

Reading the reports leaves little doubt as to the likely significant effects of this Project.

8. Conclusions about anticipated landscape and visual effects. Do the conclusions of the assessment identify the areas of public concern, issues arising out of the statutory documents, and does the overall conclusion reflect the findings of the assessment?

The reports follow a logical progression from route selection through to identification of landscape and visual effects of the finally selected alignment. Statutory documents inform the matters to be considered for route selection and have clearly influenced the final chosen route. Conclusions about landscape and visual effects of the proposed alignment logically follow the assessment process.

In my opinion the documents accurately identify the areas of concern with a project of this type, that is, effects on natural character from earthworks and the addition of significant structures into a remote and natural landscape. These are identified in both Reports 8a and 8b, with best practice solutions recommended by way of mitigation. While a project of this type carries significant risk in terms of the effectiveness and timeframes for landscape mitigation, the landscape documents extensively cover the full range of likely effects.

9. Are the proposed consent conditions appropriate for the matters identified in the assessment?

The landscape documents include an extensive range of mitigation recommendations. Some of these are presumed to be imbedded into the construction methodology (such as cutting of slopes) while others require remediation such as vegetative restoration. The scale of this Project is large and the landscape effects significant. The landscape reports are exemplary in their range and quality. However, I do not consider that it is clear in the consent conditions that all landscape matters are adequately addressed. There seems to be only one condition that refers explicitly to landscape, namely the requirement for an *Ecology and Landscape Management Plan* (ELMP). This plan appears to be mostly

related to ecology with the only reference to landscape being Item 25 (i) “*Landscaping design and treatments (landform and planting), including rehabilitation of all areas used for temporary works and construction works*”. In my opinion ‘Landscaping design’ is a clumsy term, its extent and meaning unclear. While some of the landscape mitigation measures may be embedded into other conditions, in my opinion there is a risk that the conditions do not adequately ensure that the Project’s potential adverse landscape effects are ameliorated.

The October response from Bruce McKenzie of Isthmus Group (see over) suggests that the LEDF is a ‘living document’ that will follow the Project’s realisation. I agree with the desirability of this but consider that this should be overtly reflected in consent conditions.

I would like to see conditions related to the LEDF and a requirement for Landscape Plans (with cross sections) similar to those that appear at the end fo the LEDF to be a provided by of consent condition.

Richard Bain

Landscape Architect



Am I correct to assume that all of the recommendations in the LEDF are integrated into the design, and will be reflected in proposed consent conditions? Are there any of your recommendations that you consider have not been followed through?

The consent conditions will refer to the LEDF with the LEDF being a principle project design guiding document. The LEDF is described as a “living document” and is expected to have submission, hearings and approvals versions issued and approved. The designs and commentary provided in the LEDF have been developed in close collaboration with the wider design team and the LEDF has been reviewed by the Design Team including other discipline leads and it is expected that the design matters addressed in the LEDF will be realized in the project. There may however be additional design matters that may arise through detailed design (for example Road Safety Audit) and they LEDF may have to respond accordingly – hence “should” in some instances rather than “will” . I expect that we will have this level of certainly developing through the process and with the ‘approved’ version of the LEDF.

2. Some of the structures such as the tunnel control building and fire water tanks are shown only very conceptually. Has further design work be undertaken on these structures to give us a better idea of their visual impact?

We have been doing some additional design work on the TCB in particular – plans attached. The Hydrant tank option is as proposed.

3. The LEDF states that it has not yet been presented to stakeholders? When will this occur?

The document has since been handed to Ngati Tama.

4. On page 38 your refer to vertical waster channels be cut directly into slopes to mimic naturally formed channels. Am I correct in thinking that shallow horizontal channels can also be used on these types of faces to capture water and organic matter to facilitate plant regeneration?

Geotechnical advice to date has been to avoid benching because of the way the papa has formed... the comment from the Geotech eng. is that narrow horizontal benches would be likely to fail. We did have a similar conversation with them about horizontal stratification or scarifying of the cut faces to encourage the accumulation of material and therefore plant communities. Geotech advise that the faces will quickly reach an “equilibrium” post cut and that this is a natural process. Looking at the existing SH3 cuts this seems to bear out with a pretty naturalized appearance.

5. A number of side streams require works in order to go into culverts under the road. The drawings show areas where the culverts will be located and streams diverted. Do the drawings accurately show the extent of works on these streams?

There will be energy dissipation down stream and channelization (rock lined swale) upstream to manage flow direction and depth. These and other typical drawings are set out in typical drainage details drawings

Is there the likelihood that stream works will be more extensive than shown on the drawings?

This is expected to be developed through detailed design – the design to date has been conservative approach rather than underestimating the extent of work required.

I presume there will have to be significant altering of the stream bed levels in order to match into the culverts? Are there any drawings such as long sections down the stream that illustrate the extent of these works?

I'm informed that there are no long sections for streams as yet – typical sections are provided in the drawing sets.

6. The documents propose direct transfer of some vegetative material such as tree ferns, epiphytes, nikau etc. Is this aspirational? How is this work likely to be undertaken in terms of quantifying it within the final landscape contact.

Direct transfer is the ideal however this may not be practical in all cases given the confines of the site area and storage. At this stage we are looking at a suitable site to establish a nursery and to retrieve material from site and maintain in the nursery. We are continuing to work with the Ecology team as to which species are best suited to this process. Nikau are looking good at this stage for example.

7. The Landscape, Natural Character and Visual Assessment is labelled as a draft. Is this because it is considered incomplete in any way?

The *Draft* is part of the document control protocols. At this stage of the process I am informed that the team is checking for consistency and editing anomalies only and there will no material changes to the assessment conclusions or any other substantive changes are not anticipated.

Overall, the information looks very fit for purpose. My only real specific concern is the same as yours as articulated on page Page 37

"However, the cut and fill batters are arguably the most prominent element of the highway with the potential to detract from the surroundings and user experience. They therefore warrant particular attention."

I think that's right – I'm comfortable with these however given the scale of the surrounding landscape (very steep terrain in parts with strong contrasts in elevation – see additional examples below. This natural terrain and hill country environment contextualise the cuts. In detail design we'll look to eliminate or reduce the downslope cut remnants where we can as much as possible to leave the immediate downslope side tidy (i.e. not have a run of small *disconnected* 'left overs'. In general the steeper cuts angles mirror the larger spurs that they are *connected* to. The chosen alignment helps in this regard.

Richard - I've attached a couple of further Model Screen Shots for your info below.

I look forward to your reply. Once i hear back from you I will prepare a formal response to the documents and highlight any areas that council may consider necessary as part of a s92 request.

Attached:

- **TBC Drawings and plans**
- **3D Model Screen Shots**

Regards



Bruce McKenzie
Landscape Lead



First cut southbound from the northern tie in and existing SH3 intersection.



Northbound approaching first cut series in the south of the project (Mimi Valley) with existing SH3 alignment (and bench) in red.



Northbound on the bridge (ignore blue labels Tonguporutu and Ahititi).



Southbound after the bridge.

