WAKA KOTAHI
NZ TRANSPORT AGENCY

Te Ahu a Turanga
Manawatū Tararua Highway

Te Whare Tūāpapa Raranga o Papatūānuku me ōna Ahurea.

Cultural & Environmental Design Framework. Consents and Approval Version.

03 November 2020.

“ Te Āpiti (Manawatū Gorge) is the jewel of the Central North Island, a dramatic place where earth, river and sky form a powerhouse of spirit, beauty, enjoyment, wonder and energy. It is cherished and respected by those who act as guardians.”
Draft Te Āpiti Masterplan.

Te Whare Tūāpapa Raranga o Papatūānuku me ōna Ahurea
the weaving house of Mother Earth and her cultures

The Manawatū River and Te Āpiti / Manawatū Gorge from Parahaki Island.

Document Number TAT-0-UD-05010-DD-RP-0001

Document History and Status.

Revision	Date issued	Author	Reviewed by	Approved By	Design Gate
D		Bruce McKenzie			
	role	CEDF Team Lead			
	signature				

Revision Details.
Provide a brief statement on what the updates are for each revision.

Revision	Details
	CEDF Proponent Update — 14.05.2019
	CEDF Preferred Tenderer NZTA Feedback Update — 22.07.2019
B	CEDF 50% Working Draft — 30.04.2020
C	CEDF 85% Draft — 21.09.2020
D	CEDF 85% Draft — 15.10.2020
E	CEDF 85% Issue — 03.11.2020

Purpose of Issue.
Co-ordination of developed and detailed design to embed cultural and environmental design across the project.

Revision	Details
Draft	Consents and Approvals Version

Karakia.

Tūtawa mai I raro
Tūtawa mai I roto
Tūtawa mai I waho
Kia tau ai te mauri tū,
Te mauri ora ki te katoa
Hāumi e, hui e, tāiki e

I summon from above
I summon from below
I summon from within
And the surrounding environment
The universal vitality and energy to infuse
And enrich all present
Unified, connected and blessed

It is said that the now extinct native bird 'the Huia' was last seen in The Manawatū Gorge... This species is of special significance to the area and representation of Rangitiratanga.

The Huia - a sacred taonga

The now extinct Huia Heteralocha acutirostris is represented in this document as highly significant culturally symbolic presence.

"*In pre-European times huia ranged over the whole of the North Island, as evidenced by subfossil remains that have been found from North Cape to Wellington. By the 19th century, however, they were largely confined to wilder mountain areas in the southern half of the North Island: the Ruahine, Tararua, Huiarau and Kaimanawa Ranges. The Manawatū Gorge was one of the last know areas where this sacred bird was seen.*" *

Ever present throughout this document the spirit of the Huia represents the deeply held values of the project iwi-crown partners and is a reminder of the importance and significance of partnership. Now lost to us the Huia is also a reminder of misunderstanding of Maori, clashes of culture, past wrongs, and environmental impact.

The loss of the Huia is symbolic of the cultural loss to Māori in the late 19th century which is the cultural context within with this project is undertaken.

"*In the late 19th century, news of this strange antipodean bird with beautiful tail feathers, orange wattles, and a long curved beak spread around the British Empire. To Māori, it was a tapu bird—a sacred treasure. And its song was about to be silenced forever.*

Of all Tane's children, the huia was the most sacred to Māori. Other birds, such as the kōtuku (white heron) and amokura (red-tailed tropic bird) were also prized for their plumes, but huia was pre-eminent. In pre-European times, only chiefs of high rank and their whānau wore the distinguished tail feathers in their hair.... " in this way the Huia reminds us of the importance of our shared values for the project especially the importance of Tino Rangitiratanga and respect and trust as the foundation of a strong partnership. This include early inter-actions between Māori and The Crown – symbolic of our partnership today...

"*Like jewels plucked from a royal crown, huia feathers were given as tokens of friendship and respect*"...

"*Non one could have realised the implications of presenting the elegant black-and-white feather to the Duke of York, then heir to the British throne, during his visit to New Zealand in 1901.*
Not the high-ranking Māori woman who took the quill from her own hair and placed it in the Duke's hatband; if she had, she would have chosen a different gift that day in Whakarewarewa. Nor the Duke, who, by wearing it, inadvertently set up a chain of events that sealed the extinction of New Zealand's most majestic forest bird, the huia." *

Nineteenth century biologists prized the huia for reasons other than mana and sacredness. For them, it was the beak that set the bird apart, ranking it, along with the moa and kiwi, as one of the world's most remarkable birds.

Specifically, Heteralocha acutirostris was the only known bird in the world in which male and female differed radically in the size and shape of the bill.

"*The function of these spectacular beaks seems to have been to enable co-operative feeding. A pair of huia would forage together, the male vigorously pecking a decaying tree in search of insects like huhu grubs and weta, while the female used her scimitar-shaped bill to seek out insects more deeply embedded or exposed by the male's percussive chiselling. Recent anatomical studies show that the male was also capable of "gaping"—inserting the beak into decaying wood and forcing its two halves open to split the wood.*" *

In this way the Huia is representative of the importance of working together in order to survive as a successful partnership this too is representative of the Project Partnership for this project.
The Huia is also representative of the Sacred and Wairuatanga the foundation of the project Alliance Values

"*The placing of the single feather on the Duke's head was significant in itself, because the head is tapu for Māori. Indeed, huia derive their tapu status from this association. As William Phillips explains in his definitive The Book of the Huia, "Tapu is catching; so the tapu of the individual became the tapu of the feathers and ultimately the bird*". *

By association the presence of the Huia throughout this document represents the significance of the context held within these pages and of the Mahi that has been undertaken to realise it.

Importantly the huia stands as a sentinel for the project reminding us of the mistakes of the past and the importance of working together to collectively represent this unique place and the lessons we can learn from each other.

"*A particularly tragic part in the huia's downfall was played by the naturalists of the day. Having identified the bird as an avian wonder of the world, they set about harvesting them in large numbers for overseas museums and collectors. Where the men of science led, unscrupulous traders followed. Pairs were stuffed and sold as drawing room curios, and Pākehā men soon copied Māori custom by wearing huia feathers in their hatbands, even before the Duke of York's visit. Huia plumes were reduced from sacred treasure to fashion accessory.*
Here is Buller, describing a typical expedition in which a Māori guide has whistled to attract the birds: "In a few seconds, without sound or warning of any kind, a huia came bounding along, almost tumbling, through the close foliage of the pukapuka, and presented himself to view at such close range that it was impossible to fire. This gave me an opportunity of watching this beautiful bird and marking his noble bearing, if I may so express it, before I shot him."

"*The huia's extinction marked a turning point in European attitudes to native species. It was not long before early conservation groups such as the Forestry League and the Royal Forest and Bird Protection Society were set up, and these have now been supplemented by others as New Zealanders seek to express their growing environmental awareness. Never again would rampantly imperialist views such as Buller's go unchallenged*".*

"***E hoa ma, puritia mai taku huia.***"
("*Friends, take care of my huia, my treasure.*").

*WRITTEN BY MICHAEL SZABO
New Zealand Geographic
ISSUE 020
OCT - DEC 1993
Women's suffrage
Chatham Islands

Mihi.

This document represents the ongoing development of a Mātauranga Māori, values led design process. The importance of recognising Māori cultural values was acknowledged in the early stages of the project as recognition of previous lessons learned by Waka Kotahi The New Zealand Transport Agency. Waka Kotahi, means "one vessel" and is intended to convey the concept of "travelling together as one". The project team would like to acknowledge all those who have contributed to this wider understanding within The Agency including those communities from across the country that assisted in this learning process on other projects. This approach has been championed by Mr Lonnie Dalzell in his role as Owner Interface Manager for the project and his drive for continuous improvement regarding the recognition of Māori values in the design, development, implementation and legacy of the project.

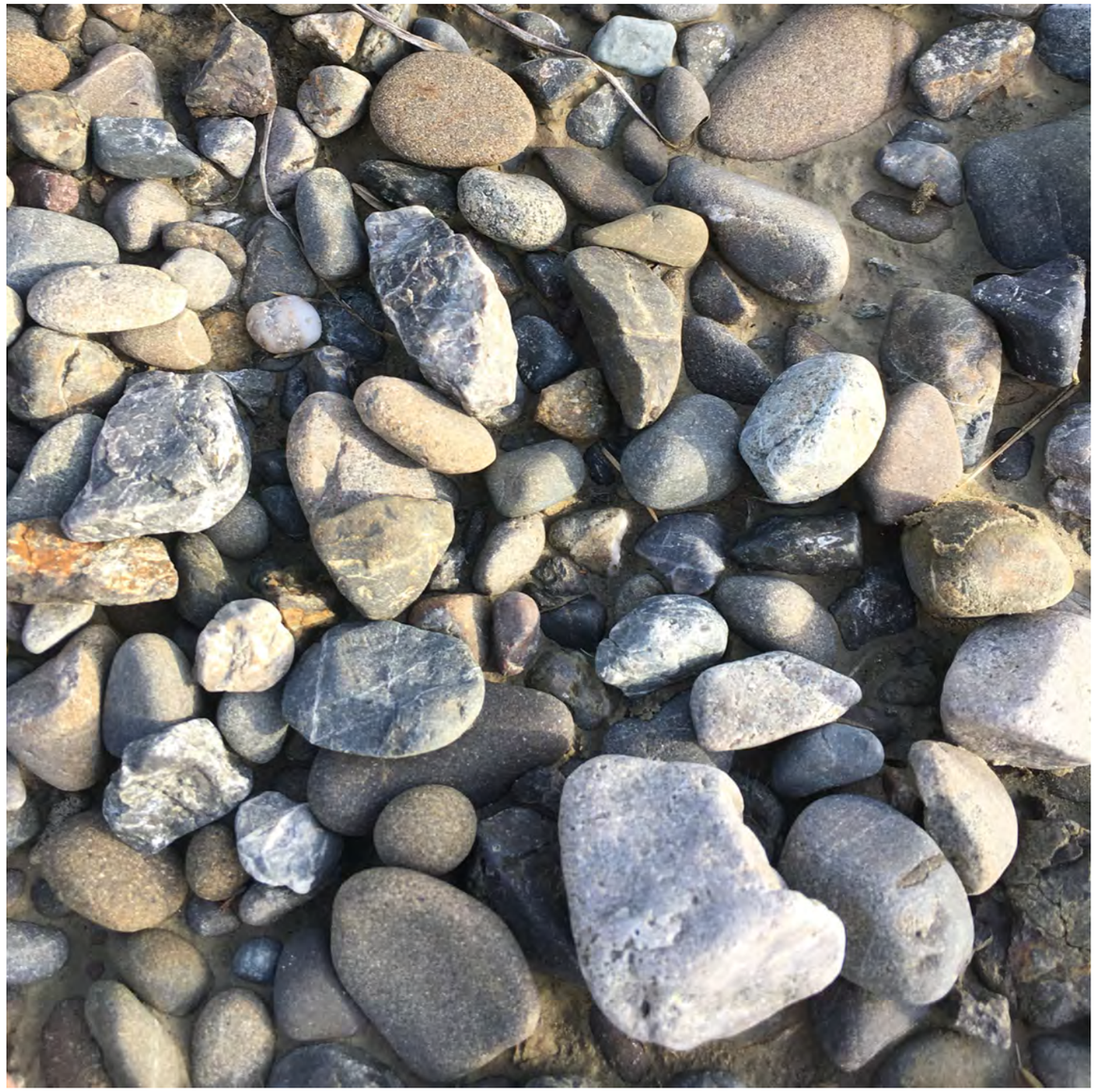
The Team would also like to acknowledge Mr Mahara Okeroa for his tireless work and support of the project from inception and the early stages of wider consultation as well as his support and facilitation through the team selection process. The Team also acknowledges the additional support in the above from Mr Michael Dreaver as well as his critical support throughout the ongoing consultation process. In addition, the team acknowledges the work of the previous Notice of Requirement Team and the development of the Updated Preliminary Cultural and Environmental Design Framework (April 2019). This work has been invaluable as the stepping stone for the further development and evolution of the CEDF as a “Living Document”.

Nga mihi nui too to all those who have welcomed the project team and openly contributed to the development of the project from Te Āpiti Ahu Whenua Trust, Rangitāne o Manawatū, Rangitāne o Tamaki nui-ā-Rua, Ngāti Kahungunu ki Tāmaki nui-a-Rua and Ngāti Raukawa ki te Tonga /Ngāti Kauwhata. Special thanks to those members of the project Working Group and in particular the project Kaimahi representatives including Alice Jonathan, Wayne Kiriana, Justin Tamihana, Hineirirangi Carberry, Jo Heperi and Siobhan Lynch-Karaitiana.

Special thanks too to Manahi Paewai, Oriana Paewai, Danielle Harris, Terri Hape, Chris Whaiapu, Lindsay Poutama, Morry Black, Stacey Hape, James Kendrick, and Hayden Hape as well as Sandy Duggan.

Thank you for your time, advice, insights, inputs and understanding.

Te Ahu a Turanga Project Team.



Manawatū River gravels

How this document is structured.

Te Whare Tūāpapa Raranga o Papatūānuku me ōna Ahurea.

This document is structured based on the concept of **Te Whare Tūāpapa Raranga o Papatūānuku me ōna Ahurea**. This translates to 'the weaving house of Mother Earth and her cultures. In this way this document is seen as a metaphorical foundation of the development of a cultural and environmental framework for the project.

Whare Structure[1].

When a whare is named after an ancestor, the building is designed to personify this ancestor.

The **tekoteko** (carved figure) on the roof top in front represents this watching over and protecting the marae.

The **maihi** (carved pieces from the tekoteko extending towards the ground) represents the arms of this ancestor, held out in welcome to visitors.

The **amo** (carved pieces connecting the maihi to the ground) represents the legs of this ancestor connecting them to the earth, standing strong.

Tahuhu (ridge pole)
The Tahuhu represents the backbone of the ancestor, it runs down the center of the whare from front to back. This holds the ancient aspects of maoridom as well as the knowledge Tane and Tawhaki brought down from the heavens.

Pou Kaiaawha / **Pou mataaho** (outside pillar)
The significance of Pou mataaho is to connect the spiritual realm to the physical. It is the upright centre pole on the verandah that supports the Tahuhu[2]. Once you have passed the pou mataaho you have left the realm of Tumatauenga – the god of war (physical) and have entered the realm of Rongomataane – the god of peace (spiritual).

Pou tokomanawa (inside centre pillar)
The pou tokomanawa is at the heart of the whare tipuna (ancestral house). It is the first post to be put up when building. It represents the connection between Ranginui (Sky Father) and Papatūānuku (Earth Mother). The act of entering the house is interpreted symbolically as entering the bosom of the ancestor[3]. (like an embrace, a hug)
Whare tupuna may also have a carved representation of an ancestral leader at the bottom of the pou tokomanawa whose role is to welcome guests into the wharenui.

Pou tuaarongo (back wall post)
The pou tuarongo is the connection between cultures and languages. This is the area where the deceased lay at a tangi (funeral), the pou enabling our farewells to be sent and understood by the deceased no matter what language they understood in life.

Nga heke (rafters)
Heke reach out from the tahuhu to the poupou (carved figures) around the walls, representing the ribs of the ancestor. The ribs on a person protect the inner organs, the heke on a whare protects the people.
Kowhaiwhai (painted rafters) – Kowhaiwhai are painted on the heke. They adorn the whare with symbolic stories and values for the people.

Nga poupou (carved figures)
Poupou represent the connections to other Iwi. They are the carved figures placed on the walls around the whare representing other tupuna who are connected to the whare.

Document Structure.

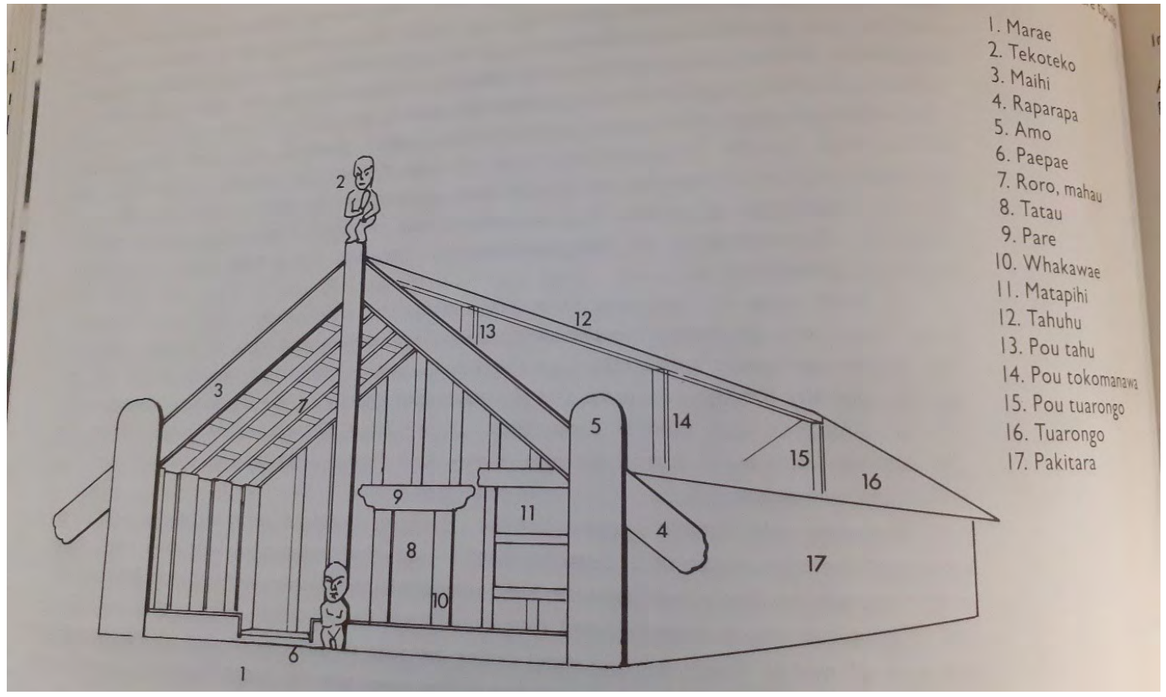
I. Background – "**Te Tahuhu o te whare**" holds the knowledge from the beginning of time. This encompasses the project details as well as the values of the Alliance.

II. Context – "**Te Pou tokomanawa o te whare**" is the heart. The connecting to Ranginui and Papatūānuku is aligned with the reconnections outlined in this document to other iwi.

III. Design Narrative – "**Nga heke o te whare**" protect the people. The Design Narrative in this document protects the Culture and Environment of the area.
IV. Design Response – "**Nga kowhaiwhai o te whare**" is an extension of the design narrative, like in the whare, adorning the design with information for the people.

V. Drawings and Design Review – "**Te Pou tuaarongo o te whare**" connects the intellectual to the physical. A visual understanding of the project.

VI. Appendices – "**Nga poupou o te whare**" connect to the main document. On a whare they are the connections to other iwi.



1 Robert Martin.
2 John T Rua Dip. Hons QSM, *Carving*, https://johnrua.co.nz/carving/
3 Hiwi and Pat Tauroa, *Te Marae; A Guide to Customs & Protocol* (Auckland; Reed Books, 1986), page 72.

Contents.

Introduction.

Cultural and Environmental Design.

The Cultural and Environmental Design Masterplan on the page opposite sets out the design response for Te Ahu a Turanga project. This response carries forward the work that has been done previously by the Transport Agency with Iwi Partners as well as wider stakeholders and agencies from previous versions of this Framework document.

This design is firmly grounded in the place. It reflects a connected landscape journey that recognises the unique qualities and characteristics of the Plains, the Ranges the River and its people; past, present and future.

This cultural and environmental design is built on a design philosophy of a **whole-of-landscape approach** and the idea of **Landscape Gateways**.

Three broad design focus areas have been identified across the project: The Eastern Gateway; Upland Experience and the Western Gateway. The Cultural and Environmental Masterplan opposite sets out the key design moves of the project, the detail of which is discussed and illustrated in the following pages of this document. This work has been developed based on the design principles and cultural values identified in the **Updated Preliminary Cultural and Environmental Design Framework 'NoR CEDF'** (April 2019) , developed during the Notice of Requirement phase (2018-2019) and through the ongoing Project Partnership with Iwi.

Cultural and Environmental Masterplan.

Legend.

	Public Open Space / Significant Native Bush
	Ecological Mitigation and Offset Planting Options
	Pest Control
	Stream planting and Retirement/ Wetland Enhancement
	Shared Use Path
	New Recreational Links
	Existing Recreational Links
	Recreational Links (by others)
	Existing DoC Tracks
	Existing Mountain B
	Viewing Area
	Safe Stopping Place

Delivered by the Project.

Future Opportunities Delivered by Others.

Western Gateway.
1. SH3 Ashhurst Bridge Project (by others).
2. Western Roundabout.
3. Gateway Park Access.
4. Gateway Park.
5. Landmark River Crossing – Manawatū River Bridge and Viewing Platform.
6. Wetland Experience.
7. Recreational tracks.
8. Western Safe Stopping Place Track Connection.
9. Western Safe Stopping Place and Viewing Area.

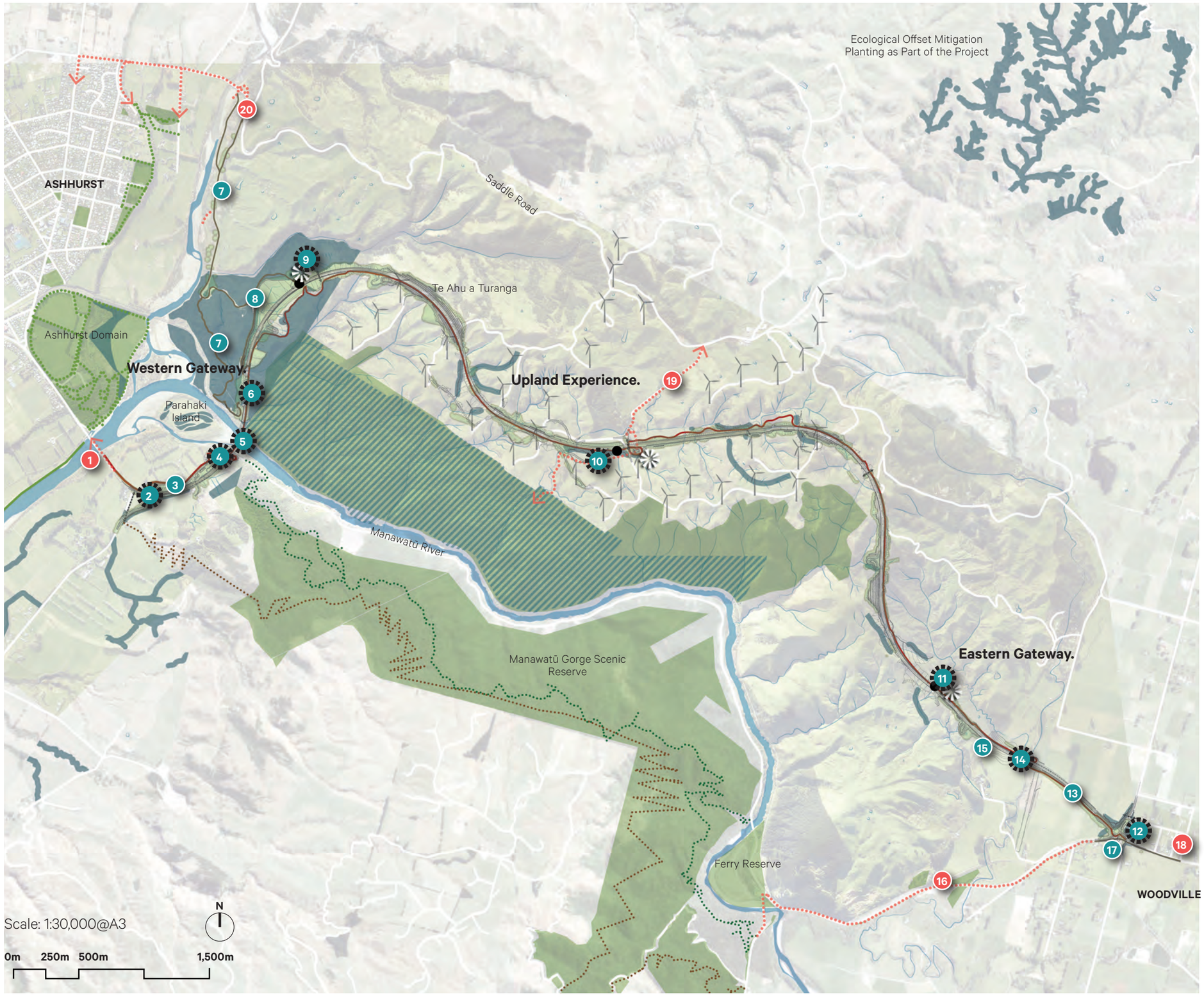
Upland Experience.
10. Windfarm Safe Stopping Area and Viewing Area.

Eastern Gateway.
11. Eastern Safe Stopping Area and Viewing Area.
12. Eastern Roundabout.
13. Rural Avenue Planting.
14. SUP Ramp under road bridge.
15. Naturalised Eastern Ramp Landform.
16. Connection to The Gorge (Lindauer Art Trail)
17. Safe walking and cycling access south of roundabout.
18. Vogel Street footpath extension to Hampson Street.

Future Recreational Path Links (by others)
19. Cook Rd Link.
20. Saddle Rd Carpark and Link.

Cultural Expression
(see Cultural Expression Section for detail)

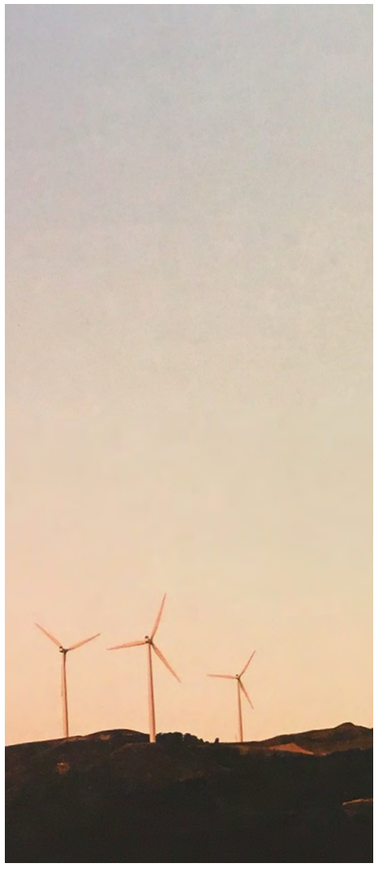
Location of Design Elements.





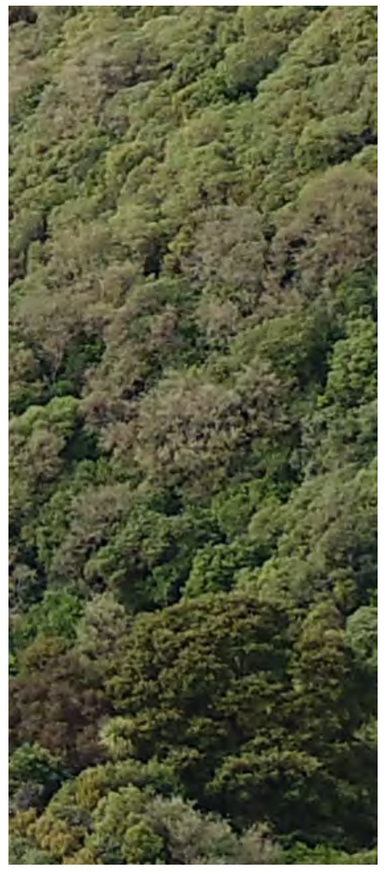


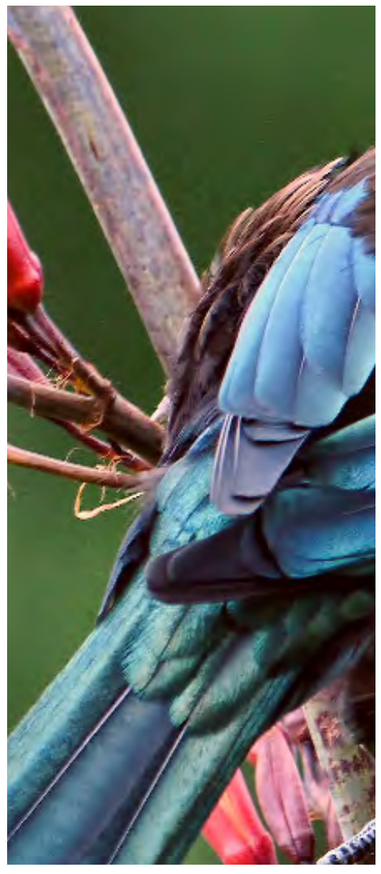

10. **Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.**



I. Te Tahuhu o te whare. Background.

The following section sets out the project background and the purpose of this framework document as a "living document".
The Alliance vision for the project is also described and the project partnership that developed the vision.
This section also sets out the Alliance values that have informed the wider cultural and environmental direction of the project.





I.1 Project Background.

The purpose of Te Ahu a Turanga project is to provide a new resilient, safe and efficient connection between the western and eastern sides of the Ruahine and Tararua ranges to serve not only the Plains communities of Palmerston North, Ashhurst and Woodville, but also the wider inter-regional transport network of SH3 and SH57.

Project Delivery.

The Transport Agency is seeking to:

- To deliver the Project in **partnership** with tangata whenua;
- To deliver the Project through **active engagement with key stakeholders and the community**;
- To create a **legacy** in terms of
  - **net environmental benefits**,
  - improved **social outcomes** and;
  - **positive impact on the local economy** that enhances the reputation of the Transport Agency and the Alliance Participants.

How the Cultural and Environmental Design Process supports the Project Delivery.

- Actively supporting key conversations and partnerships and to facilitate improved understanding of Place (**legacy social, environmental, cultural expression outcomes**)
- Establishing good working relationships with key stakeholders through the development of key design concepts and outcomes (**partnership**).
- Understanding landscape context to ensure we design with the land and waterways (resilient, efficient)
- Understanding how the site functions at the landscape scale to ensure we design with, and can enhance the natural environment (**environmental benefits**).
- Contribute to creative, innovative and integrated design problem solving that will enable positive social legacy outcomes (**All**).

Relationship to the NOR CEDF.

The following corridorwide design principles were developed in the NOR version of the CEDF, they were developed to guide the design and development of the Project. The environmental and tangata whenua principles are to be used as a primary means of checking that the design development is addressing the key cultural and environmental issues of the Project.

- 2.2.1 Connectivity: Reconnecting People And Places
- 2.2.2 Human Landmarks: Respecting The Cultural Landscape
- 2.2.3 Landscape and Natural Features: Integrating Infrastructure
- 2.2.4 Environmental Health: Design With Nature
- 2.2.5 Amenity: Memorable Experience

The project in the context of the wider landscape and transport network.

Key Aspects to Project Delivery.

- **Safety.**
- **Resilience.**
- **Efficiency.**
- **Iwi Partnership.**
- **Active Community Engagement.**
- **Net Environmental Benefits.**
- **Positive Impacts.**

Relationship.

- **NZTA & Alliance Reputation.**

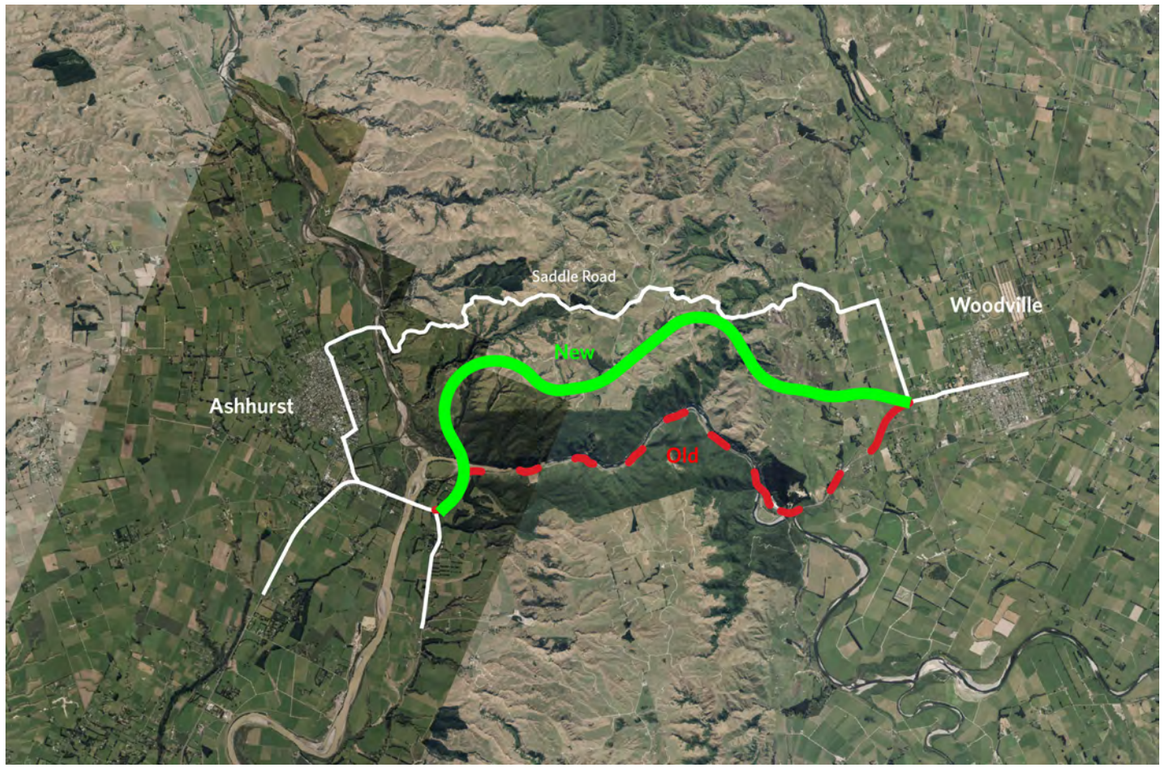
Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.

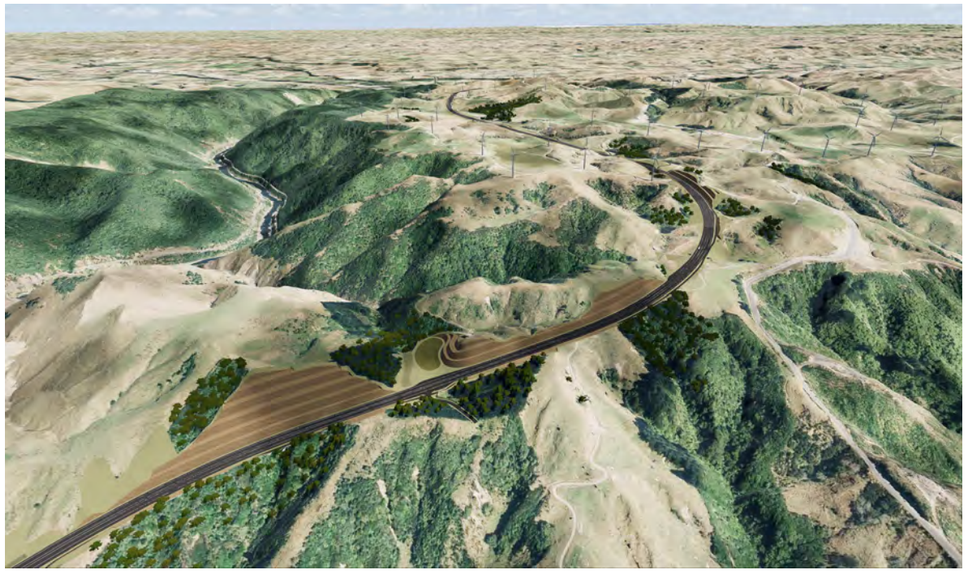
I.1.1 Project Scope.

Te Ahu a Turanga: Manawatū Tararua Highway aims at providing an alternative route to the currently closed Manawatū Gorge SH3 which connected Ashhurst to Woodville. The project site comprises approximately 11.5km of two lanes (in each direction), median divided, access-controlled highway, with crawler lanes over the majority of the length in each direction, connecting SH3 at Ashhurst with SH3 at Woodville via a route over the Ruahine Range to the north of the Manawatū Gorge.

The general scope of Te Ahu a Turanga Manawatū Tararua Highway project comprises:

- A roundabout at each end of the project
- A Shared Use Path along the whole route
- Bridge(s) to carry four lanes of highway traffic across the Manawatū River
- Elevated structure(s) to carry four lanes of highway traffic over the ecologically sensitive area north of the Manawatū River
- Bridge(s) to carry four lanes of highway traffic across the Mangamanaia Stream
- Reconnecting properties to the local road network and providing access to property that would otherwise be severed by the project:
  - Shannon property
  - Te Āpiti Windfarm
  - AgResearch property
  - A & D Bolton property
- Grade separated crossing of the Palmerston North – Gisborne rail line
- Earthworks to form the 4 lane highway
  - Bench cuts
  - Cut between Bridge 02 and 03
  - Spoil sites
- Drainage
  - Network
  - Stream diversion
  - Swales and wetlands
- Planting
  - Amenity
  - Ecological
- Gateway Park and Eastern carpark reinstatement
- Stopping places
- Recreational track network





Project Scope.

I.2 Document Purpose.

The Purpose of the Cultural and Environmental Design Framework (CEDF) is to guide the developed, detailed design, RMA outline plan processes and construction of the project. It aims to document the contextual landscape, cultural and environmental matters that are specific to Te Ahu a Turanga project area and to ensure that the design principles that are applied in the development of the project appropriately reflect the qualities, characteristics and identity of "people and place".

This CEDF is the Consents and Approvals Version and is dated September 2020. It is part of a document development process which began with the Notice of Requirement Preliminary CEDF. The ongoing development of the CEDF is set out in the project minimum requirements as follow:

A9.1.1.2 *The Alliance shall ensure that the Project gives effect to the Project's Urban and Landscape Design Framework/ ULDF (Preliminary ECDF Designation Version) in developing their own Draft ULDF (Draft ECDF Consents and Approvals version), and Final detailed ULDF and Landscape Design Management Plan/LMP (Final ECDF).*
The Alliance ULDF and UDLMP (ECDF and LMP documents) shall give effect to both the Transport Agency's urban design principles and landscape principles.

The whakapapa of the CEDF process links to the Waka Kotahi / The New Zealand Transport Agency's Urban and Landscape Design Framework Guideline (Bridging the Gap NZTA Urban Design Guidelines, Appendix 2). For Te Ahu a Turanga, the design frameworks have been titled Cultural and Environmental Design Frameworks (not urban and landscape design frameworks - ULDF) to reflect the specific cultural and environmental characteristics of the project area.

As such this framework document represents a step towards a Mātauranga Māori, values-based Design approach informed by 11 core Alliance values identified by the iwi- crown partnership and Te Ahu a Turanga Iwi Working Group.

The Manawatū River and Te Āpiti / Manawatū Gorge from Parahaki Island.

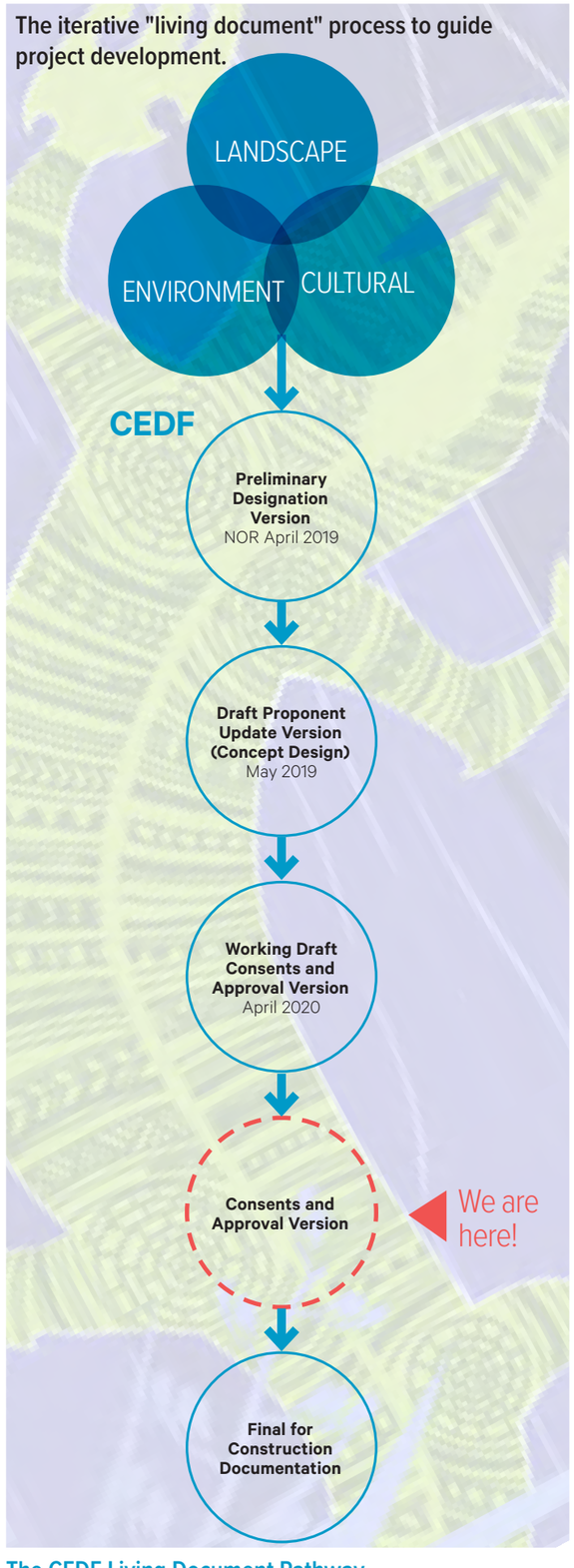
A Living Document.

The CEDF development process is iterative and the CEDF document itself is described as a "living document". This means that the framework documents associated with the project will continue to evolve, reflecting the design development process and the ongoing design led discussions between Iwi-Crown Partners and other stakeholders.

From a cultural perspective the idea of a "Living Document" and is likened to the movement of a taniwha through the water. As such the CEDF represents fluidity and adaptability - ever evolving, growing, morphing into something never quite seen before. This process captures the design development process as it evolves overtime.

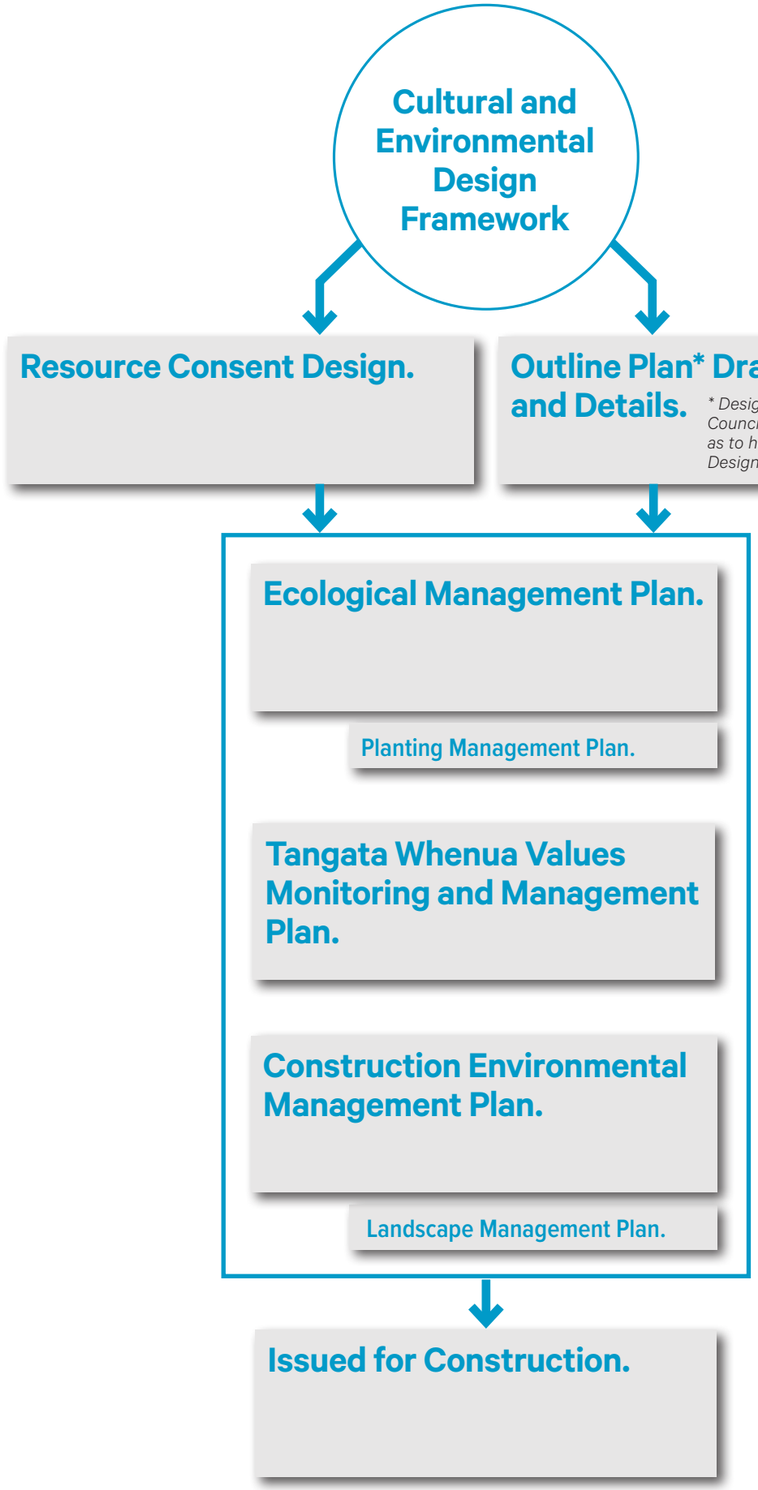
One such taniwha that associates with the project area is Whāngaimokopuna. The original home of Whāngaimokopuna was at the mouth of the Manawatū River. He was a pet of the people at Motuiti. Likewise, when the CEDF first was initiated, it sat with a specific group, and as a project could be characterized as a 'pet'. After a tragic accident where he seized one of the boys and swallowed him, he fled inland, passing through the Manawatū Gorge and on to Dannevirke. He continued upstream until he reached the Mangapuaka Stream, which he followed to its source in the hills now known as the Whāngai Range named after him. The journey of Whāngaimokopuna can be depicted in the CEDF as the process guiding the project development.

The taniwha still lives in those hills and whenever Rangitāne people from the lower Manawatū visit the Dannevirke area, a mist descends on Raekatia mountain. It is Whāngaimokopuna weeping for his old friends. This illustrates the connection of iwi/hapū along the Manawatū River.



The CEDF Living Document Pathway

The CEDF and Resource Consents Process



Cultural mitigation items.

Details of particular design requirements and how construction occurs. Design and implementation, monitoring and management of mitigation, offsetting and compensation measures.

The relationship between the CEDF and the RMA resource consenting process.

The diagram opposite shows how the CEDF Document fits into the RMA resource consenting process document Framework. The preliminary CEDF was prepared to support the Notice of Requirement designation process by providing broad design principles that would be adhered to and used to guide the ongoing process of designing Te Ahu a Turanga Project. The design principles relate to design outcomes but also the methods for undertaking construction in a manner that responds to the cultural and environmental context of the Project. The document has thus informed the development of key management plans, notably the Construction Environmental Management Plan, the Ecology Management Plan and the Landscape Management Plan, and has driven the Outline Plan, including its supporting drawings. Their CEDF informs and is informed by the Tangata Whenua Values Monitoring and Management Plan which identifies specific actions that are required to address cultural effects of the Project, and includes design outcomes, such as for example the requirement to relocate two Te Kouka trees.

To ensure that the design principles and outcomes of the CEDF are met, designation condition 16(b) (see below) requires management plans to subject to a design review template. Designation condition 16(c) and (d) allow for the ongoing development of the CEDF, so that it can guide and record the development and evolution of the design Te Ahu a Turanga

Designation Conditions.
Landscape, Visual Amenity and Natural Character.

16. Cultural and Environmental Design Framework.

- **a.** The detailed design of the Project must achieve the corridor design principles and emerging design outcomes contained in the Cultural and Environmental Design Framework.
- **b.** Any management plan required by conditions of this designation, or outline plan prepared and submitted in accordance with section 176A of the RMA, must demonstrate compliance with (a) through the completion of the 'design review template' (attached as Appendix B to the Cultural and Environmental Design Framework).
- **c.** Subject to (d) below, the Cultural and Environmental Design Framework may be amended to take into account the outcomes of consultation with Project Iwi Partners, the Department of Conservation, the Councils, the Manawatu-Whanganui Regional Council, the QEII National Trust, Te Āpiti Manawatu Gorge Governance Group, the Community Liaison Group, affected network utility providers, Meridian, and AgResearch.
- **d.** Sections 1.5 'Iwi Crown Partnership and Treaty of Waitangi Settlements'; 2.1 'Tangata Whenua Principles'; Appendix A.2 'Cultural Values and Narratives'; and Appendix A.3 'Sites of Significance to Tangata Whenua' of the Cultural and Environmental Design Framework may be amended, including to incorporate outcomes of cultural management and monitoring activities undertaken in accordance with Tangata Whenua Values Monitoring and Management Plan required by Condition 30, if the amendment:
  - i) is an agreed outcome of consultation with Project Iwi Partners; and
  - ii) does not delete content of the Cultural and Environmental Design Framework.
- **e.** In the event that agreement to amend the Cultural and Environmental Design Framework as provided in (d) (i) above is not obtained with the Project Iwi Partner(s) then the April 2019 version of the Cultural and Environmental Design Framework applies.
- **f.** If the Cultural and Environmental Design Framework is amended in accordance with (c) or (d) above, a copy of the amended Cultural and Environmental Design Framework must be provided to the Responsible Officer of each Council.
- **g.** If an amendment to the Cultural and Environmental Design Framework requires a consequential amendment to a certified Ecological Management Plan, then an amended Ecological Management Plan must either:
  - i) be submitted for certification in accordance with Condition 4; or
  - ii) be made in accordance with the process set out in Condition 9(d).
- **h.** If an amendment to the Cultural and Environmental Design Framework would materially affect the content of an outline plan, then an amended outline plan must be submitted to the relevant Council in accordance with Condition 9.

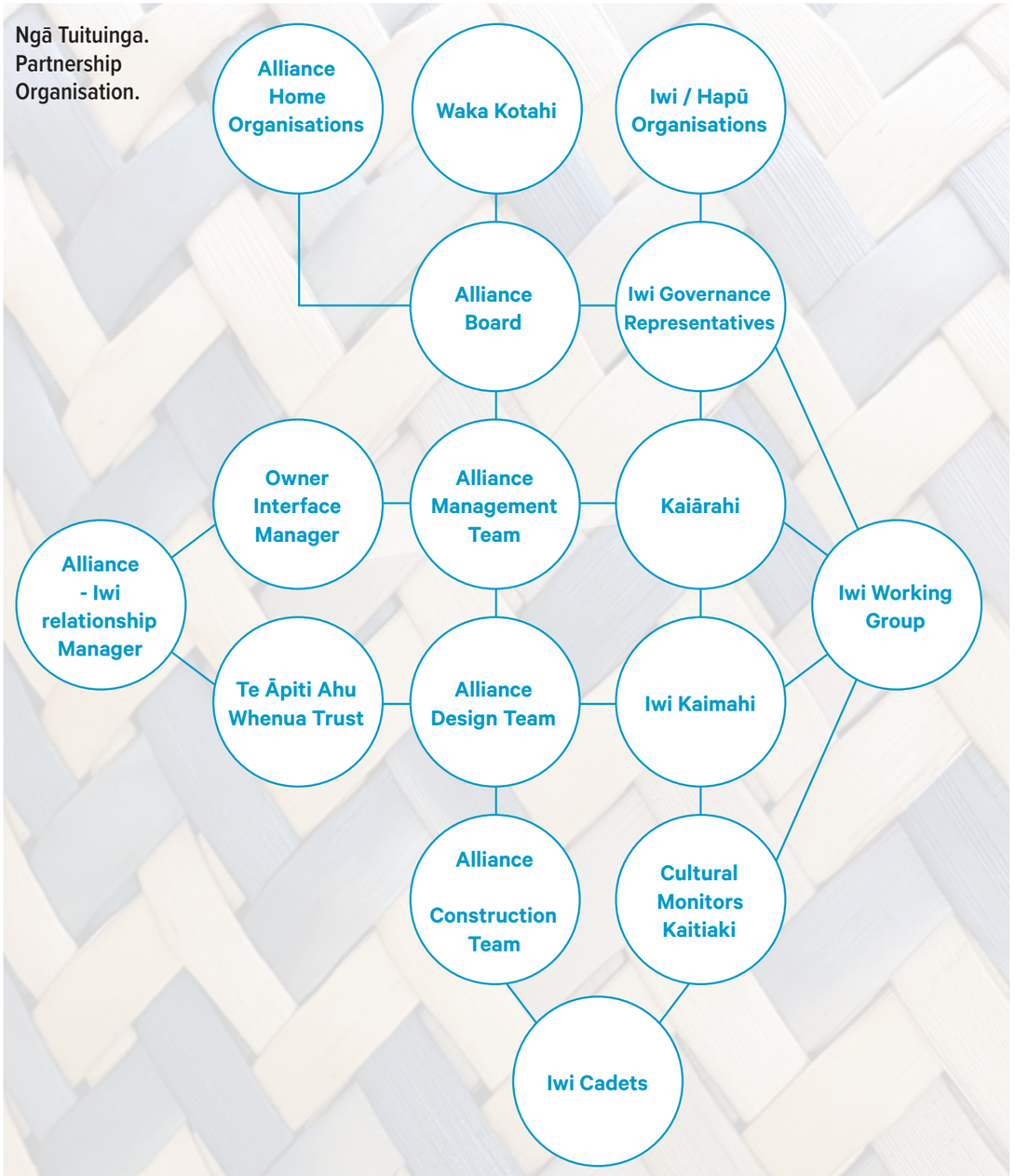
I.2.1 The Project Partnership.

The CEDF document is part of a suite of other documents, processes and plans that collectively reflect the intent of the Partnership. This includes not only the design development of the project itself but also the monitoring and management of Tangata Whenua Values as part of the wider environmental management of the project. The relationship of the CEDF to these processes and plans is shown in the diagram opposite.

The Iwi Partners for Te Ahu a Turanga Project are listed below in line with the flow of the Manawatū River:
- Ngāti Kahungunu ki Tāmaki nui-a-Rua
- Rangitāne o Tamaki nui-ā-Rua
- Rangitāne o Manawatū
- Ngāti Raukawa ki te Tonga including all Iwi and hapū

The Alliance is also in active engagement with Te Āpiti Ahu Whenua Trust as Mana Whenua for Parahaki Island as an affected party and legal landowner. Te Āpiti Ahu Whenua Trust is also referred to in Condition PN1 which directs the Alliance to consult with The Trust for the purpose of upholding the mana of Parahaki island by:

- minimising, as far as practicable, any impact of the enabling or construction works activities or Manawatū River bridge piers on Parahaki Island;
- identifying opportunities to recognise the historical and cultural significance of Parahaki Island in the design of Manawatū River bridge and approaches to the bridge;
- identifying opportunities for landscape or ecological mitigation planting required by Designation Conditions 17, 18, 24 and b4 on Parahaki Island.



Partnership Plan.

Iwi and other stakeholders are actively engaged in the wider project including the development of the design outcomes. This engagement is set out in the project Partnership Plan which covers all aspects of the partnership for the project.

Partnership Plan Headings:
- Vision
- Purpose
- Outcomes
- Partners
- Deliverable

Success factors used to assess the tender.

10% — Program.
- The highway opens in 2024
- Programme milestones are set and met

20% — Health, Safety and Wellbeing Step Change.
- We have a consistent, performing workforce
- Our people are engaged and motivated
- The sector acknowledges the new approach

30% — Legacy.
- The community and stakeholders are engaged
- Our environmental impact is positive
- The social outcome programme prioritises local and Māori input

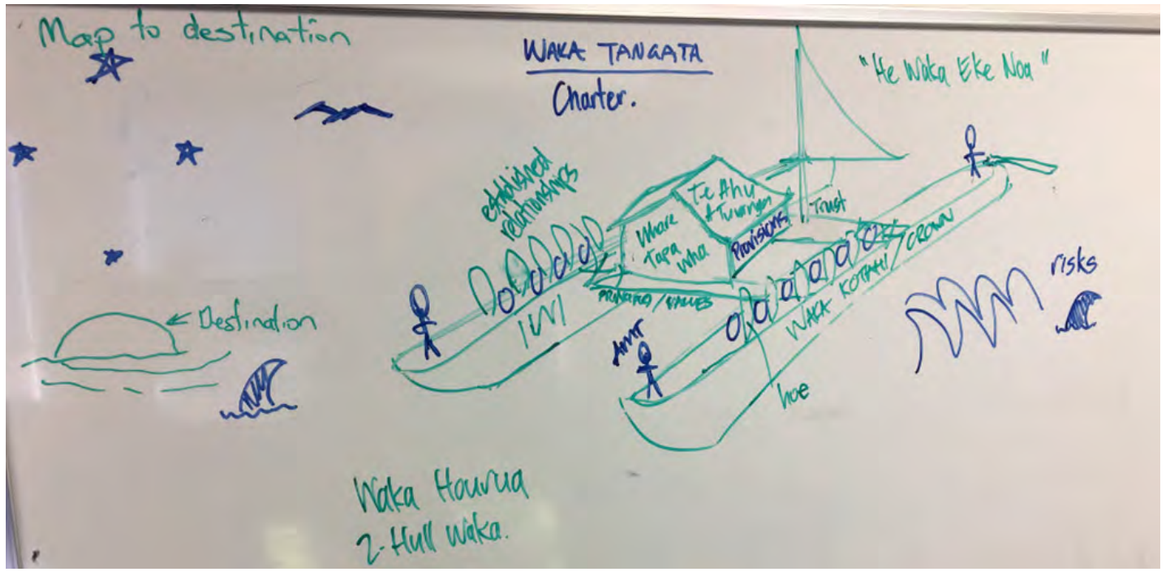
30% — Partnership.
- There is a positive and equal **partnership**
- There is a **participating** Māori perspective/worldview included in our decisions
- Māori culture is promoted/**protected** and embedded in our ways of working
- Tangata whenua contributions are prioritised

10% — Value for Money.
- The product is delivered within WOL cost
- We have a learning culture
- Excellence in risk, commercial, cost systems

To be updated.

Waka Tangata Concept: Values, Partnership and Purpose.

The Alliance Partnership is symbolised by the concept of Waka Tangata which is represented in the Waka Tangata diagram below. This concept underscores the intent of the Alliance Partnership and the whakataukī **"He waka eke noa"** – or "we are all in this together". This drawing also shows the importance of shared values which bind together the Alliance Partnership. In this concept the CEDF document is represented by Te Whare Papa Wha of the "cornerstones" of the project or alternatively Te Whare Tūāpapa Raranga o Papatūānuku me ōna Ahurea as described above.



He waka eke noa
A canoe which we are all in with no exception.

I.2.2 Stakeholder and Community Engagement.

Public Collaboration in Design.

The **Community Liaison Group** will be supported by a wider community collaboration framework that will be established early in the IPPA phase of the project in order to "*bring the community along the design journey*" in order to best leverage local knowledge and understanding and thus avoid potential delay.

This is based on an understanding that **People are at the heart of our design process – and listening, observing and collaborating are the foundations of our approach to building inclusive, healthy and resilient communities.** Through co-creation and place interventions the opportunity exists to catalyse new social connections that help to achieve community aspirations.

This in turn allows for a design process that can help unlock the local knowledge and potential that lies in every community, allowing people to thrive and take ownership of their public spaces after the project is completed.

To allow for this we anticipate a collaborative design led process to feed into the CEDF review as part of the wider Community Liaison Group process. This will include a process where, together, opportunities are observed or identified, ideas are imagined, potential solutions are created, refined and tested; these are then documented and reflected on as part of a wider iterative design process.

The Community Liaison Group has been set up early and started meeting in October 2019. Terms of Reference for the group give it a wide mandate to participate in all aspects of design, particularly publicly accessible areas. The Group meets more regularly than required under the Designation Conditions, being bi-monthly, and includes a diverse range of interest groups and a geographic spread from both side of the ranges. It chose to stay as a single group rather than split geographically and rotates meetings around the local townships to encourage participation.

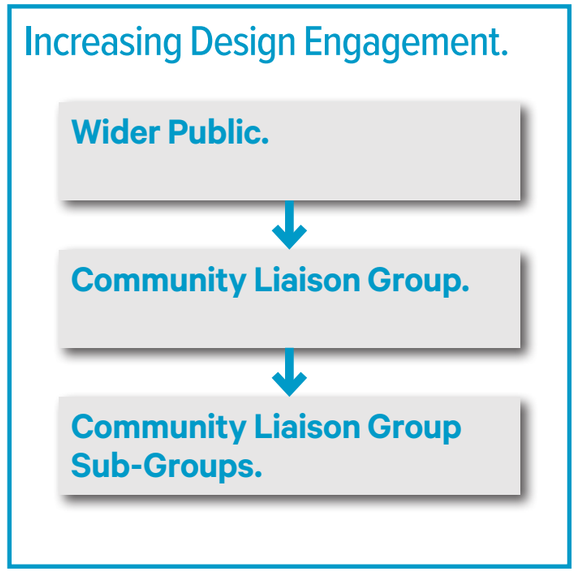
In addition, special interest sub-groups of the CLG have been formed to engage closely on specific aspects of the design. For instance, a sub-group formed for the Shared Path engaged a range of path user community representatives, initially meeting every week late in 2019. This CLG sub-group met with Alliance designers, Council and national subject matter experts from Transport Agency, starting with effectively a blank sheet of paper on which constraints and opportunities from all prospective community users were collated. At the second meeting, path route options were presented and worked on collaboratively. Further detail relating to surfacing and grades were developed in subsequent meetings, leading to a community-led recommendation for a shared path solution.

The success of this process, from a design perspective, and a community engagement perspective (many of the community collaborators were submitters to the Notice of Requirement), has led to further CLG sub-groups to be established to focus on and work up other elements of the design, such as the Gateways.

As well as the sub-groups, a further spin-off of the CLG is a road-user stakeholder grouping. This group, comprising local representation from national transportation advocacy groups and emergency services, meets with Alliance designers in workshops where the design is presented and feedback sought and formally responded to. The early concept of merges to a single lane each way across the flat upper plateau, was amended to the current 4-lane solution as a result of the collaborative process with the road user groups.

At each point, the activities and outcomes of the special interest groups is fed back into the oversight of the wider CLG and iwi partners governance structures. And at all stages, the general public is kept informed of the work of their CLG representatives, via newsletters, media reports and public open days – that occur every few months over two weeks and across all the local communities.

In terms of proposed conditions, the Cultural and Environmental Design Framework may be amended to take into account the outcomes of consultation with Project Iwi Partners, the Department of Conservation, the Councils, the Manawatū-Whanganui Regional Council, the QEII National Trust, Te Āpiti Manawatū Gorge Governance Group, the Community Liaison Group, affected network utility providers, Meridian, and AgResearch.



I.2.3 The Alliance Charter.

The Alliance Charter also sets out the purpose and outcomes intended for the project and these too underpin a wider CEDF philosophy based on concepts of "People" and "Place". This overarching philosophy comes from the Alliance Board that includes representation from each of the four project Iwi partners. The Alliance Charter includes a Project Vision, Purpose and Principles. These are set out below.

Project Vision:
Re-connecting People and Places Past, Present, Future

Our Purpose:
Re-open SH3 as a resilient, Safe, efficient Highway to improve affected communities

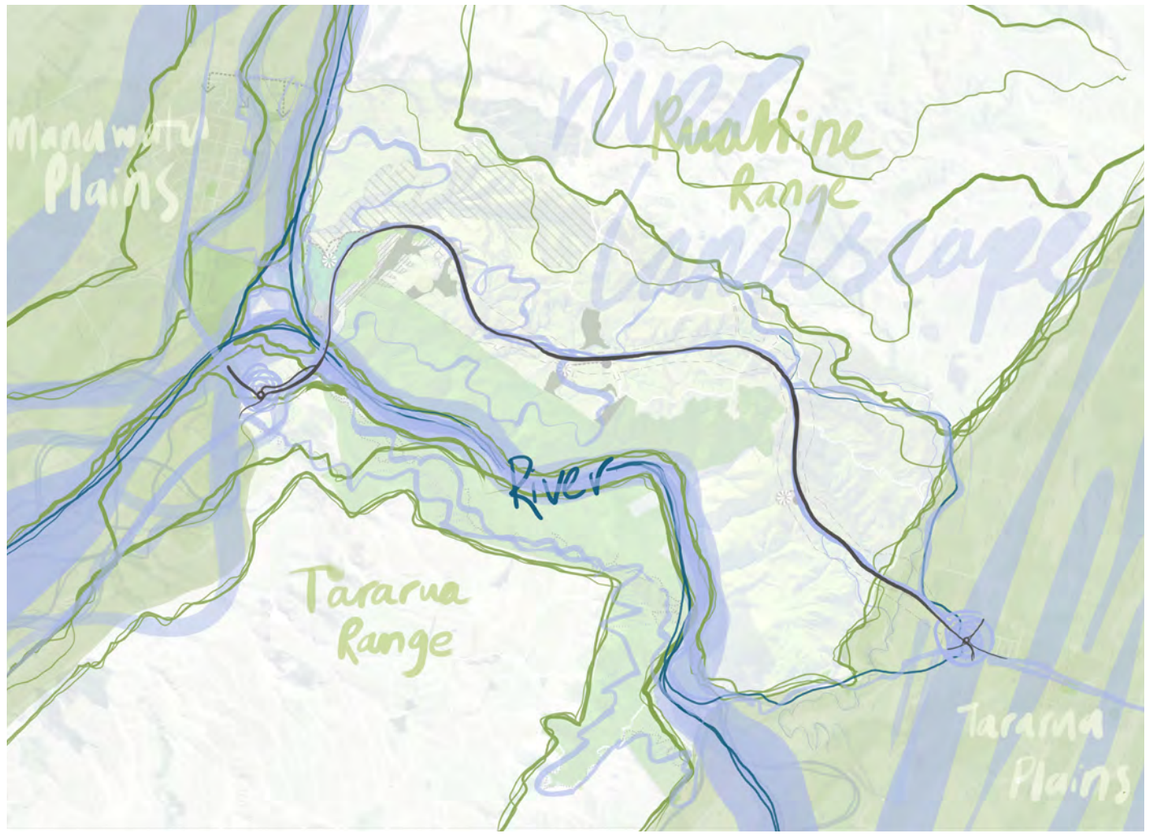
Project Outcome Principles

There are two outcome principles of the project which relate to the wider project purpose and vision and the unique environmental, social and cultural context of the project. These outcome principles have been developed through the Project Charter Process as described above. They are:

— "**Tread Lightly**"– Careful consideration of the environmental footprint of the project.
— "**Enduring Community Outcomes**" – Consideration of the lasting community outcomes that can be realised from the project.

These Outcomes sit within the wider set of wider principles that also include:

— **Culture of care**: Which refers to wider Alliance behaviours
— **Best for project**: Which maintains a focus on the project purpose.
— **Reflect the Treaty through genuine Iwi partnerships**: The underpinning of the Project Partnership.



"A connected landscape journey that recognises the unique qualities and characteristics of:
— the Plains,
— the Ranges,
— the River and;
— its people: past present and future"

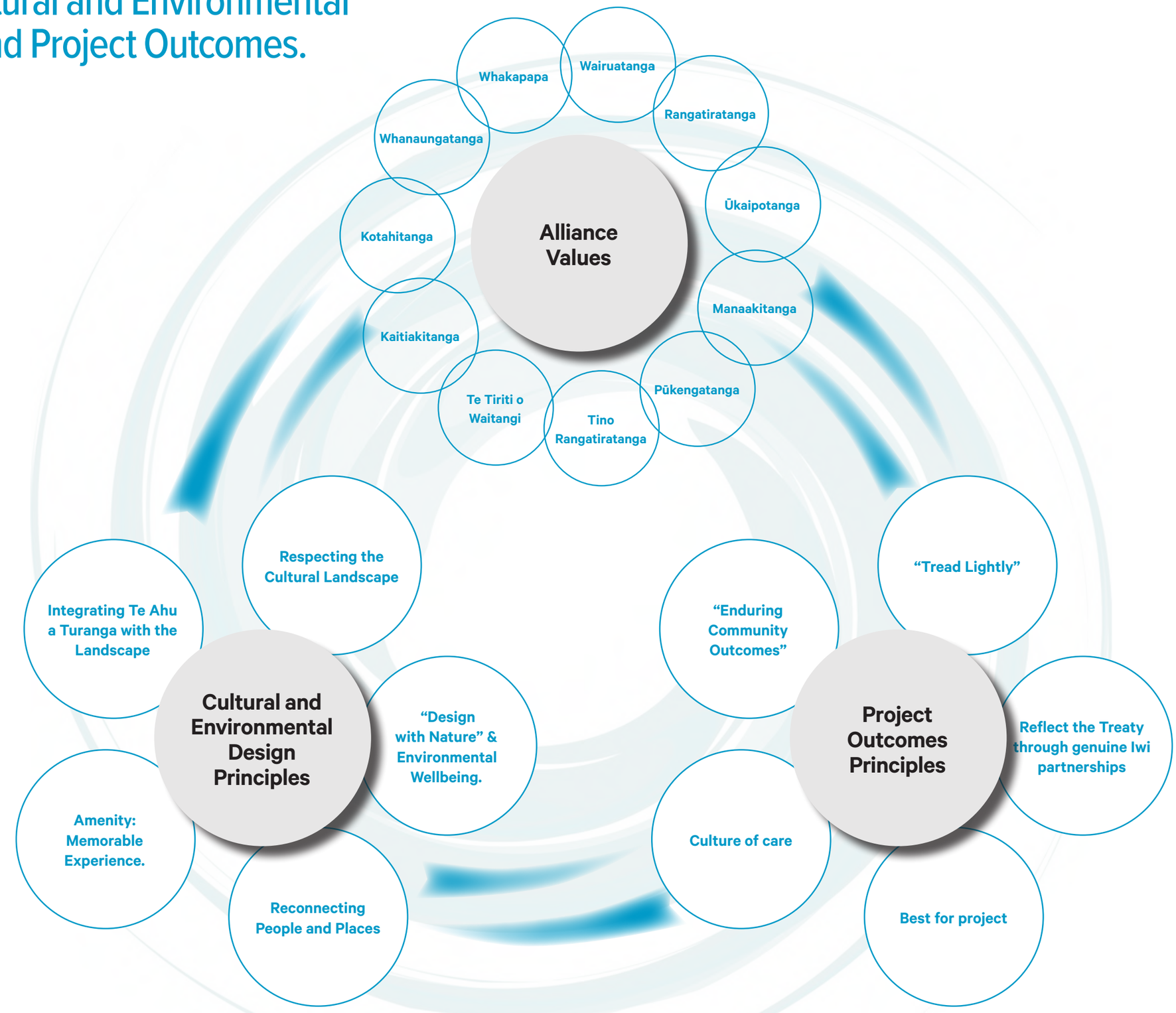
I.3 Alliance Values, Cultural and Environmental Design Principles and Project Outcomes.

The Cultural and Environmental Design for the Project aims to give effect to Te Ahu a Turanga Alliance Values and the outcomes that set out in the Alliance Charter. Design decision making to deliver these outcomes will be guided by the Cultural and Environmental Design Principles that have been set out in the Notice of Requirement Preliminary CEDF.
The hierarchy of values, design principles and outcomes for Te Ahu a Turanga is set out as follows:

1. **Alliance Values** are derived from Mātauranga Māori. These are the foundation of Alliance behaviours and decisions and therefore actions.
2. **Project Outcome Principles** are the results of the design and the design process. Outcome Principles are intended to deliver the Project Vision.
3. **Cultural and Environmental Design Principles** – are the basic ideas or concepts that guide and inform design decision making. Design Principles give effect to values to deliver outcomes.

NOR CEDF principles:

- 2.2.1 Connectivity: Reconnecting People And Places
- 2.2.2 Human Landmarks: Respecting The Cultural Landscape
- 2.2.3 Landscape and Natural Features: Integrating Infrastructure
- 2.2.4 Environmental Health: Design With Nature
- 2.2.5 Amenity: Memorable Experience



Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.

I.3.1 Alliance Values.

"Cultural Values are the foundation on which tikanga Māori is based and from where Mātauranga Māori emerges. Cultural Values define the framework for behaviour actions and interaction with the natural world" (NoR CEDF, p.29).

Embedding cultural values throughout the project is the foundation of the Alliance and Project Partnership. To reflect this key cultural value have been identified and developed in partnership with Tangata Whenua through the Project Iwi Working Group. These values are embedded in the Alliance Charter and intended to underpin the ongoing cultural, environmental and wider design, management and implementation aspects of the project as well as the behaviours and outcomes of the Alliance overall.

Eleven core values have been identified by the Iwi Working Group and endorsed by the Project Alliance Board. These Values have been adopted as the underpinning of the Cultural and Environmental design for the project. The CEDF is intended to provide outcomes that embody the Alliance Charter and the cultural values that it promotes.

The following values are set out as the underpinning of the CEDF:

- **Wairuatanga** - Recognizing that the spiritual is critical to personal and collective wellbeing and respecting the diverse cultures and beliefs.
- **Kotahitanga** - Developing and maintaining a unity of purpose and direction towards a shared vision for Te Ahu a Turanga Highway Project
- **Te Tiriti o Waitangi** – as the foundation of the Project Partnership for the project
  Key Shared Behaviours including
  - **Rangatitiratanga** – Professionalism
  - **Ūkaipotanga** – Looking after each other
  - **Pukengatanga** – Respecting others
- **Manaakitanga** - Acknowledging each other's mana, different perspectives and ways of working
- **Tino Rangatiratanga** – respecting obligations and accountabilities outside of the immediate project
- **Kaitiakitanga** - Placing the environment and sustainability at the heart of our work, and recognising our role as stewards for future generations
- **Whanaungatanga** – belonging and connection and a relationship through shared experiences and working together which provides people with a sense of belonging
- **Whakapapa** – connection of all things not only people for example the Whakapapa or relationships of the Manawatū River and the many streams and groundwater systems that contribute to it.

In addition to the above values several further associated cultural awareness considerations have also been identified through working with Iwi over the course of the project so far. These considerations are based in wider accepted Mātauranga Māori concepts that are relevant for the application of the Alliance Values.

Whatonga sculpture installed on the highest point of Te Āpiti - Manawatū Gorge track

Our Alliance Behaviours that support these values are:

- **We are kind**
- **We are inclusive**
- **We Row Together**

NoR values:

- Rangatiratanga
- Kaitiakitanga
- Manaakitanga
- Wairuatanga
- Whanaungatanga
- Mātauranga

I.3.2 Values and Project Wide Design Philosophy.

As discussed above there are 11 core values that have been recognised for the project. There are also a number of additional cultural concepts which have also been raised though discussions with the Iwi-Crown partners and are generally recognised as key components of Te Ao Māori, or the Māori world view.

Table 1 opposite sets out the 11 core values as well as suggested key matters to consider through design. Table 2 following, sets out the other considerations that inform the wider cultural awareness of the project including design considerations.

Table 1 Alliance Values and Design Philosophy.

Value	Description	Project wide design philosophy
Wairuatanga	The spiritual dimension that is the basis for tikanga Māori belief systems; Wairuatanga finds expression through ritual and karakia, where it acknowledges the priority setting from the divine, down through the Atua, to the physical world and then to the tangata whenua. **Recognizing that the spiritual is critical to personal and collective wellbeing and respecting the diverse cultures and beliefs.**	**Seek to understand design implications beyond physical effects**
Kotahitanga	Developing and maintaining a unity of purpose and direction towards a shared vision for Te Ahu a Turanga Highway Project. **Unity, cohesion and collaboration.** Māori practice collective decision–making at all levels of their society. A consensus (kotahitanga) is reached following robust discussion among individuals, families and communities, with the debate often including social, cultural, spiritual, economic and political dimensions to the environmental issue under discussion.	**If you create winners and losers, you lose the spirit of kotahitanga - Take others with you on the Design Journey**
Whakapapa	Acknowledgment and respect for the relationships, hierarchy and connectivity within the spiritual realm, human existence, and the natural world. Whakapapa defines both who we are and how we relate to each other, and our relationships with Papatūānuku and the whenua. This includes landscape features and freshwater ecosystems. **Whakapapa – of all things not only people for example the Whakapapa or relationships of the Manawatū River and the many streams and groundwater systems that contribute to it. Respect the relationships, hierarchy and connectivity within the spiritual realm, human existence, and the natural world.**	**Take a wholistic systems approach to design.**
Te Tiriti o Waitangi	The foundation of the Project Partnership for the project. Acknowledgement of Mana.	**Good design depends on a strong and respectful working relationship with Iwi-Crown partners and Te Āpiti Ahu Whenua Trust**

Value	Description	Project wide design philosophy
Tino Rangatiratanga	The right for hapū and iwi to self-determination within their own rohe in accordance with their traditional beliefs and practices. This is acknowledged within Te Tiriti o Waitangi and resource management constructs; Rangatiratanga should not be used as a weapon to exclude others, the emphasis should be on duties and obligations involved in the concept. Underpinning rangatiratanga are values such as whanaungatanga, manaakitanga and kaitiakitanga which raise the importance of reciprocity, stewardship and cohesiveness' **Tino Rangatiratanga – respecting obligations and accountabilities outside of the immediate project.**	Understand and Respect the obligations of others.
Whanaungatanga	**Whanaungatanga – belonging and connection and a relationship through shared experiences and working together which provides people with a sense of belonging.** Familial connections between Whānau and hapū that helps to strengthen the Māori social fabric; **Whakawhanaungatanga (process)** is a value that retains its relevance through the generations, and a process we use for cultural value assessments as it enables views to be expressed from tangata whenua of different age groups, and the sharing and validation of knowledge will often trigger memory of past events during group discussions. Conversations with our kaumatua help them to recall past experiences and they often retain fragments of traditional knowledge from their parents and grandparents. Good design depends on good inclusive and respectful relationships - forming of relationships is just as important as the relationship itself. Relationships are **"The Glue" of good design. Spend time together / Consult / discuss. Share the Design Experience. Try not to work in "silos.**	**Can Iwi and the Community See Themselves in the Design? Design for a Sense of Place inclusive of customary and cultural dimensions.**

Value	Description	Project wide design philosophy
Kaitiakitanga	The role of guardianship over natural resources or 'taonga tuku iho' (God-given gifts). **This includes the upholding of Mauri** – the spiritual energy or life-force derived from the Atua; Kaitiakitanga gives first priority to the resource itself, and what it requires to stay healthy in terms of habitat, and then progresses to species health and abundance. This acknowledges the need to care for mahinga kai, mahinga mataitai, and the food resources and other taonga they provide. **Kaitiakitanga - Placing the environment and sustainability at the heart of our work, and recognising our role as stewards for future generations. Environmental and cultural guardianship.**	**Treat the Land, Waters and all that which they sustain like you would treat a person. Protect and enhance environmental health.**
Manaakitanga	This is the act of nurturing, of benevolence, of giving, caring and hospitality. It is derived from "Mana-a-ki", emanating from the position of Mana, from power and prestige, and flowing outwards towards others or things. **The concept of Manaakitanga refers to the acknowledgement of each other's mana, different perspectives and ways of working.**	**The work we do should be mana enhancing and supportive.**
Rangitiratanga	**Rantitiratanga – Professionalism.** Expressing the attributes of a rangatira, including: humility, leading by example, generosity, altruism, diplomacy, professionalism, honouring our commitments and taking responsibility for our own decisions and actions.	**Act responsibly, professionally and with Integrity. Exercise a duty of Care.**
Ūkaipotanga	**Ūkaipotanga – Looking after each other.** Recognising that we all have a place to belong, and sustaining, nurturing, protecting and looking after one another.	**Take care of each other through the design process.**
Pukengatanga	**Pukengatanga – Respecting others**. Acknowledging that everyone brings skills and knowledge that should be respected and will contribute to the outcomes we are seeking.	**Respect the opinions of Others Seek to resolve and balance outcomes through the design process.**

I.3.3 Other Matters of Cultural Awareness and Design Considerations.

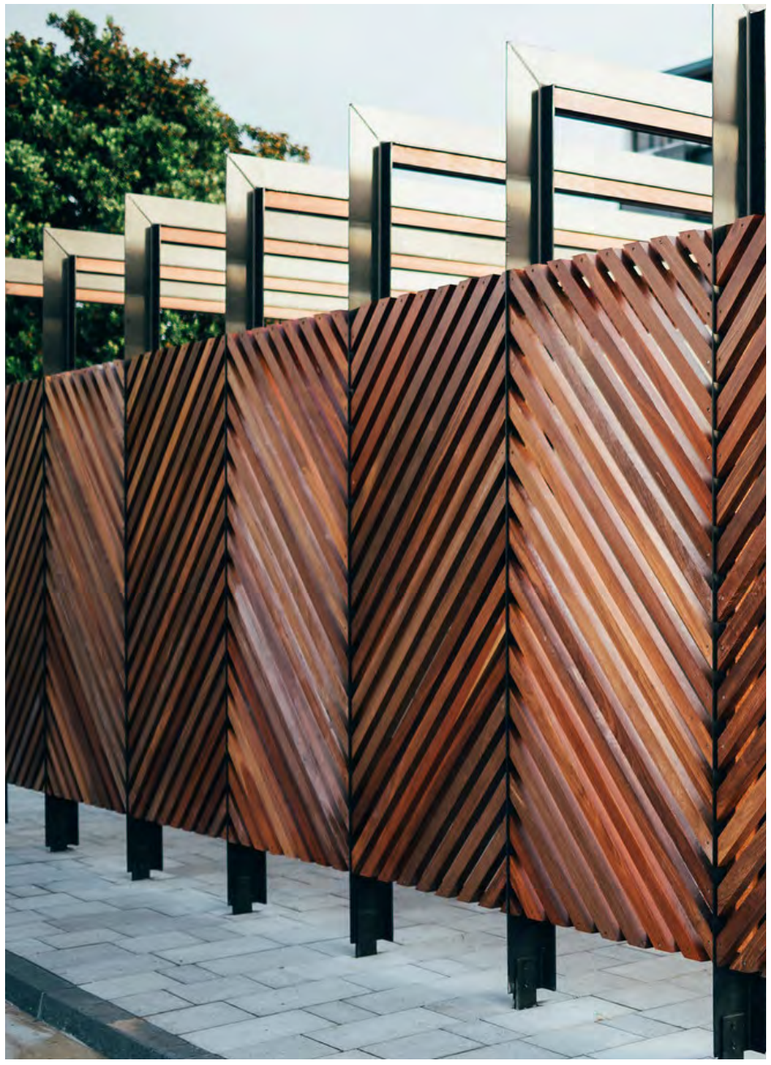
As discussed above there are several further cultural awareness concepts and considerations that have been identified that provide a further cultural and environmental reference for design decision making. These are also set out in the table below.

Note: The below list of identified matters is not intended to be definitive and it is expected as part of the kaupapa of the CEDF as a living document that these matters may be amended and / or added to.

Table 2: Other Cultural Awareness Matters and Design Considerations

Key Concept	Description	Project wide design considerations
Te Ao Māori	Acknowledgement of a different world view.	**Express Identity through Design and Design Processes. Celebrate Difference.**
Ki Uta Ki Tai	Acknowledgment of the 'mountains to the sea' approach when managing water and related land use issues within catchments/sub-catchments, as this acknowledges the 'whole of catchment'.	**Ridge to River design Principle Design with Nature.**
Wāhi Taonga	A wāhi taonga are places that are highly valued. They collectively comprise all those places that are culturally, spiritually, physically and historically significant. Areas or sights that contain cultural resources of value to tangata whenua are regarded as wāhi taonga. These areas typically contain a broad category of resources used in cultural practices and activities of tangata whenua. These resources are infused into the whakapapa of the natural world, and the whakapapa of the people themselves. Wāhi taonga can hold both tangible and intangible values – values that transcend the generations and are passed on to future generations.	**Acknowledge and respect Sites of Significance**
Atuatanga	**Part of Wairuatanga**. It is the value that manifests in the relationship between tangata whenua and the Atua and the children of the Atua. It prescribes power and energy towards specific Atua, that each have responsibility for different realms in the physical world. Within the marine and freshwater domains Tangaroa plays a significant role, along with Tawhirimatea [Atua for weather, wind and storms]. The relationship between these two creates the environmental conditions under which specific weather patterns prevail, where flora and fauna evolve with the collaboration of Tane-Mahuta [Trees, forests and birds]. Other Atua to consider are Rongo-ma-Tane and Haumia-tiketike who holds domain over wild plants and resources that are used for food and/or medicine. Often, where there has been a clearing of indigenous bush, the first plants that regenerate are the healing plants, as Papatūānuku requires them to repair the landscape and provide shelter for larger species that follow. Seeds can remain dormant in the whenua for several years, awaiting the right conditions to regenerate.	**Recognise Spiritual relationships and different realms in the Physical World**

Key Concept	Description	Project wide design considerations
	Comes from the realm of the creator. It is a spiritual value that expresses itself within the natural world in a particular manner. In the Māori world-view, all-natural things have Mauri, both animate and inanimate. Human activity can diminish or destroy Mauri, or assist in its regeneration and enhancement. Tangata whenua sometimes separate Mauri into different types depending on context, or the action it performs.	**Environmental health is protected, maintained and / or enhanced**
Mauri	Within marine and freshwater environments, the manifestation of Mauri is seen in healthy habitats including the water and all associated natural resources, healthy and abundant taonga species. Mauri is transmitted as an energy flow, either towards or away from something as part of a natural cycle or process.	**The quality of wai, whenua, ngāhere and air are actively monitored**
	Mauri can also be considered within a construct of layers. For example, if the Mauri of a specific plant is looked after, then the individual plant will contribute to the well-being of the adjacent plant community. Over time it provides habitat and sustenance for insects and birds, which feed on it or distribute its seeds over a wider area, thus spreading the Mauri from the healthy plant into adjacent locations.	**Community Well-being is enhanced What is good for the People is Good for the Project**
Mahi Toi	Iwi/hapū narratives are captured and expressed creatively and appropriately.	**Celebration of People and Place and Identity**
Mātauranga Māori	Mātauranga Māori can be defined as 'the knowledge, comprehension, or understanding of everything visible and invisible existing in the universe', and is often used synonymously with wisdom. In the contemporary world, the definition is usually extended to include present–day, historic, local, and traditional knowledge; systems of knowledge transfer and storage; and the goals, aspirations and issues from an indigenous perspective.	**Use Traditional knowledge to inform Design & the Design Process**
Mana o Te Reo Māori	Actively promote Te Reo Māori	**Weave Te Reo through the Design wherever possible**
Tikanga Māori	Correct Procedure and Process - the customary system of values and practices that have developed over time and are deeply embedded in the social context	**Consult with Kaiārahi / CEDF Team / Kaimahi often - if in doubt ask!!!**



I.3.4 Cultural and Environmental Design Principles

It is intended that the values from the Alliance Charter flow into the design and implementation of the Project (outcomes) including the construction period and post construction management and maintenance.

To achieve this the following Cultural and Environmental Design Principles have been applied across the corridor to:

1. Give effect to the Alliance Values
2. Deliver the Project Outcome Principles

The CEDF has rationalised the integration of the natural and cultural landscape, including the working rural environment, local community and recreational connectivity:

— Integration 1: Working with the Natural Environment.
— Integration 2: Landscape and Natural Character.
— Integration 3: The Working Rural Landscape (rural zones of the project area).
— Integration 4: Urban Integration and Community Liveability (urban zones adjoining the project area).
— Integration 5: Open Space, Walking & Cycling.

The Cultural and Environmental (C&E) design principles for the project have been developed from the NoR CEDF. These are set out in the project specific principles listed in section 2.2 of the April 2019 Preliminarily CEDF document version. These principles have been adapted in the context of ongoing iwi consultation, and the further development of the Alliance Charter as discussed above. They are then the basis for the design of the elements and features that are described in subsequent sections of this framework.

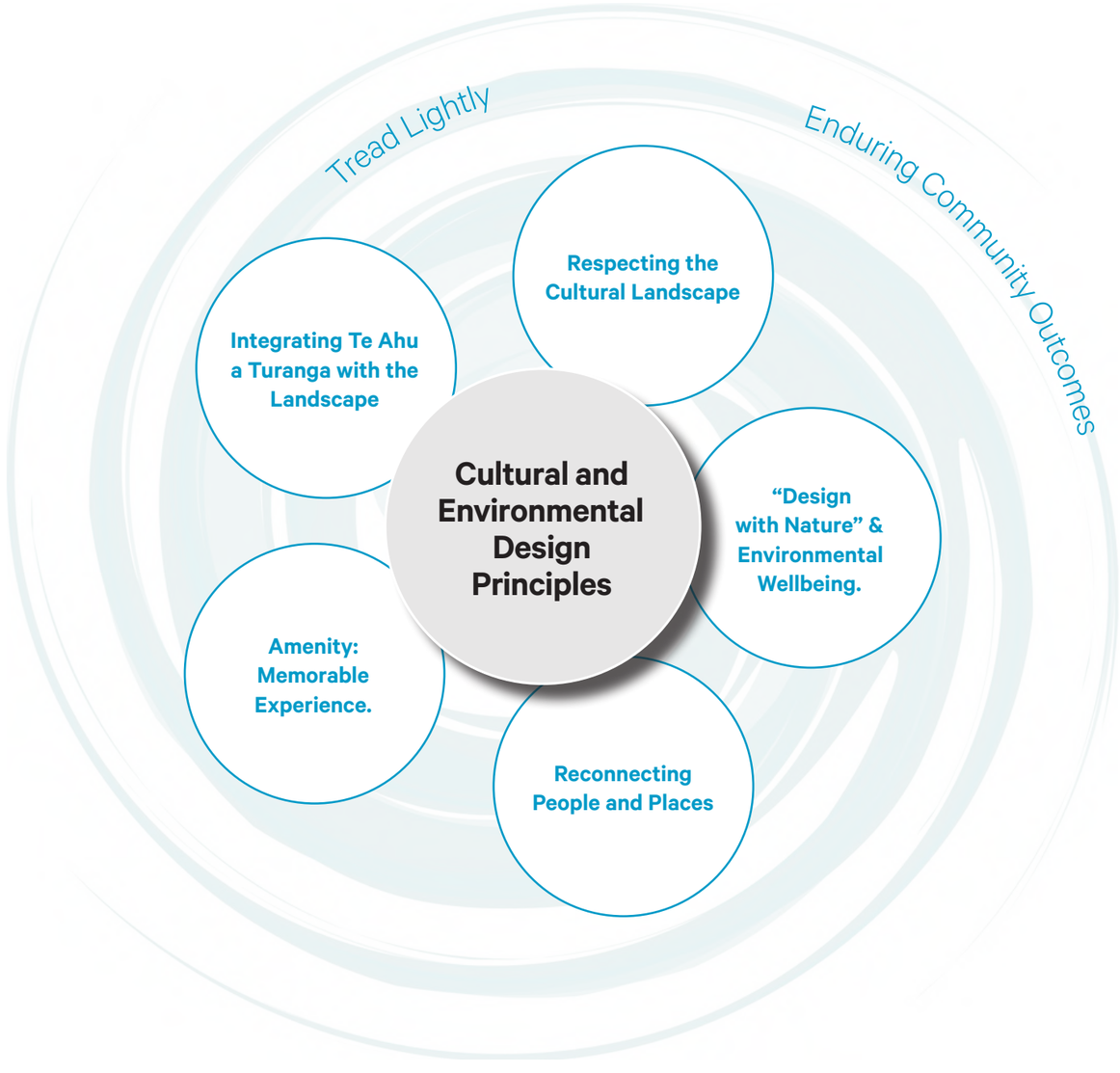
The NoR design principles have been carried over to the Alliance CEDF in all cases except one. The principle *2.2.3 Landscape and Natural Features: Integrating Infrastructure - N9: Use monoslopes in preference to benched cuts,* has been removed due to the requirement of bench cuts for the project being unavoidable, the geotechnical material in these cut faces has been also left exposed in response to design principle *5.h Defining key cut earthwork design elements of the project with strong design responses that include exposing cuts into geology as a design feature.*

Additional principles have been developed to respond to specific project issues that have emerged as the design has progressed, such as the integration of spoil site material generated from the project and in response to the shared user path connectivity.

In addition to design response additions further strengthening of the reconnection with place principles with regards to language and narrative and also respecting cultural and environmental values such as traditional resources, knowledge, and environmental indicators. These have been added in collaboration with our Iwi partners and as a response to Iwi's values and principles.

Further enhancement of amenity principles have been included around the legibility of natural patterns, balancing opportunities to celebrate and connect with Te Āpiti, responding to the shared user path and strengthening the concept of gateway experiences.

The Cultural and Environmental Design Principles of the project are set out on the following tables including the relationship to the NoR version references; the additional principles being highlighted.



Cultural and Environmental Design Principle 1. (NoR CEDF 2.2.1 C)

Reconnecting People and Places

A primary purpose of the Project is to reconnect people and communities, as well as connecting people to the environment, heritage and the richness of the wider cultural landscape from a variety of perspectives.

This includes:

- **1.a** Reconnecting local communities that were disconnected when the Manawatū Gorge was closed.
- **1.b** Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapes.
- **1.c** Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- **1.d** Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors.
- * **1.e** Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming.
- * **1.f** Connecting the Shared Use Path to the recreational network.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Whakapapa Whanaungatanga Kaitiakitanga Manaakitanga Ki Uta Ki Tai Wāhi Taonga
Outcome Principles	Enduring Community Outcomes

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 2. (NoR CEDF 2.2.3 N)

Integrating Te Ahu a Turanga with the Landscape

The project landscape and natural features such as existing areas of indigenous vegetation and landform enhance the road user experience as well as ensuring the wider landscape character of the area is maintained as far as practically possible. Where appropriate and practicable, the highway and associated features will weave in with the existing landscape to highlight adjoining landscape elements. This design integration includes:

- **2.a** Minimising bridge piers in the Manawatū River (one only).
- **2.b** Minimise construction footprints where they impact on indigenous forest and streams.
- **2.c** Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible.
- **2.d** Restore planted buffers where practicable to address edge effects of fragmented or distributed bush areas.
- **2.e** Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character.
- **2.f** Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.
- **2.g** Provide a consistent suite of highway furniture and a visually “uncluttered” roadway.
- **2.h** Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.
- **2.i** Shotcrete is a least preferred architectural finish.
- **2.j** Use monoslopes in preference to benched cuts.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Mauri Kaitiakitanga Mātauranga Māori Tikanga Māori Wairuatanga
Outcome Principles	Tread Lightly Enduring Community Outcomes Genuine Partnership

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 3. (NoR CEDF 2.2.4 E)

"Design with Nature" & Environmental Wellbeing.

The role of guardianship over natural resources or 'taonga tuku iho' (God-given gifts), is a key foundation of the project and a fundamental corridor design principle. This includes the upholding of Mauri – the spiritual energy or life-force derived from nga Atua; Kaitiakitanga gives first priority to the resource itself, and what it requires to stay healthy in terms of habitat, and then progresses to species health and abundance.

This acknowledges the need to care for mahinga kai, mahinga mataitai, and the food resources and other taonga they provide. Designing with Nature and recognising our responsibilities including Kaitiakitanga is about placing the environment and sustainability at the heart of our work and recognising our role as stewards for future generations. This includes concepts of environmental and cultural guardianship.

This also acknowledges that the wellbeing of the project and the wellbeing of the people are linked. This corridor and project wide principle includes:

- 3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical
- * 3.b Recognise traditional relationships with the land and resources.
- * 3.c Provide opportunities for traditional use of plant materials and other resource gathering where possible
- * 3.d Provide for Cultural Indicators of environmental health including Mauri Tu indicator species and cultural indicators of water quality
- * 3.e Understand and engage with iwi on key environmental matters identified by them.
- * 3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible
- 3.g Treat storm-water with an understanding of a whole of catchment approach.
- 3.h Strengthen natural vegetation patterns when replanting areas and integrate with wider ecological mitigation strategies.
- 3.i Mitigation measures should support the development of resilient ecosystems.
- 3.j Mitigation planting should provide for weed and pest plant and animal management as part of the wider ecological management of the project.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Kaitiakitanga Mauri Atuatanga Mātauranga Māori Tikanga Māori Wairuatanga Whakapapa Kotahitanga Ki Uta Ki Tai Wāhi Taonga
Outcome Principles	Tread Lightly Culture of Care Best for Project Enduring Community Outcomes

Cultural and Environmental Design Principle 4. (NoR CEDF 2.2.2 H)

Respecting the Cultural Landscape

Working with four Iwi-Crown Partners and Te Āpiti Ahu Whenua trust the project is a unique opportunity to recognise, and appropriately design for, the wider cultural context and cultural landscape. This includes:

- 4.a Giving effect to Māori Values through the design and construction process wherever possible.
- * 4.b Providing balanced design outcomes across the project for all Iwi and stakeholders
- 4.c Being aware of and respecting sites of significance to tangata whenua such as:
  - Te Ahu a Turanga
  - The historic Manawatū Gorge and Awa.
  - Historic and cultural significance of Parahaki Island.
  - Natural Areas and systems including waterways and remnant indigenous forests.
- 4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- 4.e Facilitate community engagement across the corridor and in association with developing township gateways.
- 4.f Being aware of and respecting other landmarks of interest and rural character such as Manawatū River, rural landscapes, Manawatū Gorge Scenic Reserve and remnant indigenous forests.

Combined into 4.a, 4.c and 4.d:

- H1: Sites of significance to tangata whenua.
- H5: Celebrate tangata whenua values through Te Aranga Principles.
- H6: Māori values shall guide the design and construction process.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Te Tiriti o Waitangi Mātauranga Māori Tikanga Māori Wairuatanga Tino Rangatiratanga Kotahitanga Whakapapa Mahi Toi Whanaungatanga Rangitiratanga Ūkaipotanga Pukengatanga
Outcome Principles	Best for Project Reflect the Treaty through Genuine Iwi Partnerships, Enduring Community Outcomes

* New design principles in addition to those contained in the NoR CEDF.

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 5. (NoR CEDF 2.2.5 A)

Amenity: Memorable Experience.

Amenity values relate to natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

The wider project area is a dramatic and varied landscape that includes a number of high value statutory planning landscape notations including Outstanding Natural Landscapes. The Project area also relates to access to The Manawatū Gorge Scenic Reserve and the locally iconic Manawatū River. The Project itself is the replacement for The Gorge road which has been a defining characteristic of the local and regional communities with a strong historic and cultural heritage. In this context the new highway represents an opportunity to maintain a presence and contact with the Manawatū Gorge while at the same time creating new experiences for motorists and shared path users alike that reinforce landscape character, the cultural landscape and a sense of place and local identity.

This Corridor Principle includes:

- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape
- 5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.
- * 5.c Enhancing legibility of natural patterns by enhancing exiting areas of indigenous vegetation
- * 5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti
- * 5.e Balancing cultural expression of the Manawatū River Bridge, with natural character and amenity of the Manawatū Gorge and River.
- * 5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.
- * 5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design.
- 5.h Defining key cut earthwork design elements of the project with strong design responses that include exposing cuts into geology as a design feature, and integrating batters with the adjacent landform.
- 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.
- 5.j Traffic noise attenuation should be designed to mitigate effects on rural character where applicable with careful attention that noise attenuation should have the minimum visual impacts on the landscape.

* New design principles in addition to those contained in the NoR CEDF.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Whakapapa Wairuatanga Wāhi Taonga Mahi Toi Kotahitanga Whanaungatanga
Outcome Principles	Best for Project Enduring Community Outcomes

Applying Cultural and Environmental Design Principles across the Project.

	Community - Open Space.		Community - Connections.					Cultural Expression.		Drainage.			Earthworks.						Planting.						Roading.				Structures.					
	Gateway Park	Wetland Experience	Shared Use Path	Western Tracks and Trails	Woodville Footpath Connection	Lindauer Arts Trail Connection	Lookouts	Parahaki Island	Expression & Mahi Toi	Wetland Treatment Systems	Road Drainage	Stream Diversions and Culvert Crossings	Western Cut	Bench Cuts - General	Road Fill Embankments	Eastern Rise Embankment	Disposal Areas	Planting Design	Drainage Planting	Integration with Ecological Mitigation and Offset Planting	Retention of Existing Vegetation	Cultural Harvesting	Procurement and Maintenance	Alignment and Grades	Ashhurst Roundabout	Safe Stopping Places	Woodville Roundabout	The Manawatū River Crossing	Eco-Viaduct	Meridian Underpass (BR05)	Mangamania Stream Crossing	Retaining Walls	Landowner Access
Design Principle 1: Reconnecting People and places.																																		
1.a Reconnecting local communities.								●																●				●						
1.b Connecting people to the landscape.	●			●	●	●	●																		●	●		●	●					
1.c Connecting people to the existing open space.	●	●	●	●	●	●																			●		●	●	●					
1.d Ecological connectivity & enhancement.		●						●										●	●	●	●						●							
1.e Re-connecting people and place through language and cultural expression.	●	●	●	●		●	●	●	●																●		●							
1.f Connecting the Shared Use Path to the recreational network.			●	●																				●	●		●			●				
Design Principle 2: Landscape Integration.																																		
2.a Minimising bridge piers in the Manawatū River.								●																				●						
2.b Minimise construction footprints where they impact on indigenous forest and streams.												●	●	●	●	●	●												●			●		
2.c Avoid change to drainage patterns where they affect indigenous ecosystems.										●	●	●												●										
2.d Restore planted buffers where practicable.																		●																
2.e Cohesive integration of landscape & ecological planting.								●										●	●	●	●													
2.f Architectural features for enhanced experience.									●																●		●	●	●		●	●		
2.g A visually "uncluttered" roadway.													●	●																				
2.h Integrate spoil, fill and cuts with surrounding landforms.			●	●									●	●	●	●	●	●						●										
2.i Shotcrete is a least preferred architectural finish.													●	●	●																			
2.j Use monoslopes in preference to benched cuts.														●	●																			
Design Principle 3: Design with Nature & Environmental Wellbeing																																		
3.a Maintain and enhance natural processes where possible.			●	●						●	●	●	●	●	●	●	●	●		●				●					●			●		
3.b Recognise traditional relationships with the land.	●							●					●	●	●	●	●		●			●							●					
3.c Opportunities for traditional resource use.		●	●	●														●				●							●					
3.d Provide for Cultural Indicators of environmental health.										●	●	●							●	●														

		Community - Open Space.		Community - Connections.					Cultural Expression.		Drainage.			Earthworks.						Planting.						Roading.				Structures.					
		Gateway Park	Wetland Experience	Shared Use Path	Western Tracks and Trails	Woodville Footpath Connection	Lindauer Arts Trail Connection	Lookouts	Parahaki Island	Expression & Mahi Toi	Wetland Treatment Systems	Road Drainage	Stream Diversions and Culvert Crossings	Western Cut	Bench Cuts - General	Road Fill Embankments	Eastern Rise Embankment	Disposal Areas	Planting Design	Drainage Planting	Integration with Ecological Mitigation and Offset Planting	Retention of Existing Vegetation	Cultural Harvesting	Procurement and Maintenance	Alignment and Grades	Ashhurst Roundabout	Safe Stopping Places	Woodville Roundabout	The Manawatū River Crossing	Eco-Viaduct	Meridian Underpass (BR05)	Mangamania Stream Crossing	Retaining Walls	Landowner Access
3.e	Engage with iwi on key environmental matters identified by them.								○		○	○	○	○	○	○	○	○	○		○													
3.f	Involve Iwi & local knowledge in planting design.		○								○	○	○								○			○										
3.g	Treat storm-water with an understanding of a whole of catchment approach.	○		○	○						○	○	○							○													
Design Principle 4: Respecting Cultural Landscape.																																		
4.a	Giving effect to Māori Values through design and construction.			○	○				○	○	○	○	○	○	○	○	○	○		○			○	○					○	○				
4.b	Balanced design outcomes across the project.	○																						○										○
4.c	Respecting sites of significance.	○		○	○				○	○	○	○	○	○	○	○	○	○		○		○			○				○					
4.d	Design collaboration that responds to cultural values, aspirations and celebrates stories of place			○	○		○	○		○				○	○		○	○							○		○	○	○					
4.e	Community engagement in developing township gateways.									○																○		○						
4.f	Respecting other landmarks of interest and rural character.						○	○											○			○												
Design Principle 5: Memorable Experience.																																		
5.a	Maintaining and enhancing the amenity values of the wider landscape	○		○	○									○		○	○	○	○								○		○	○				
5.b	Providing for a range of user experiences.																		○						○						○			
5.c	Enhancing legibility of natural patterns.																				○											○		
5.d	Providing opportunities to celebrate and connect with the Manawatū River and Te Āpiti.	○		○	○																					○	○	○			○			
5.e	Balancing cultural expression of the Manawatū River Bridge, with natural character.																												○					
5.f	Integrated open space opportunities for project users and local communities.	○		○	○																				○	○	○	○			○	○		
5.g	Developing "Gateway" experiences.																																	
5.h	Cuts as Geological features.													○			○																	
5.i	Integrate tangata whenua narratives to reinforce the sense of place and identity.			○	○																								○	○		○		
5.j	Unobtrusive Traffic noise attenuation.																								○									

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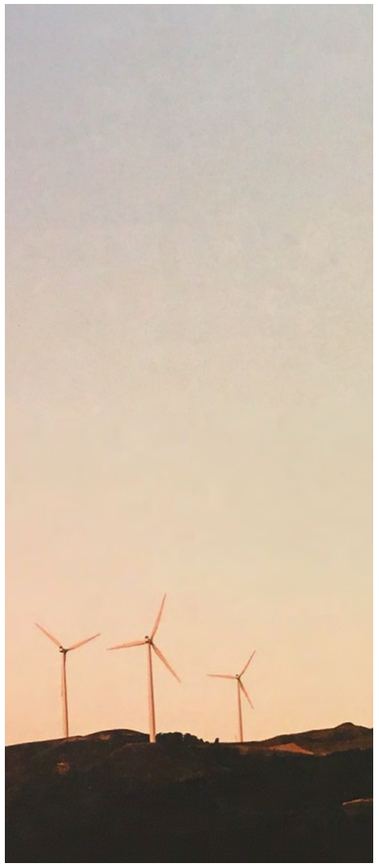
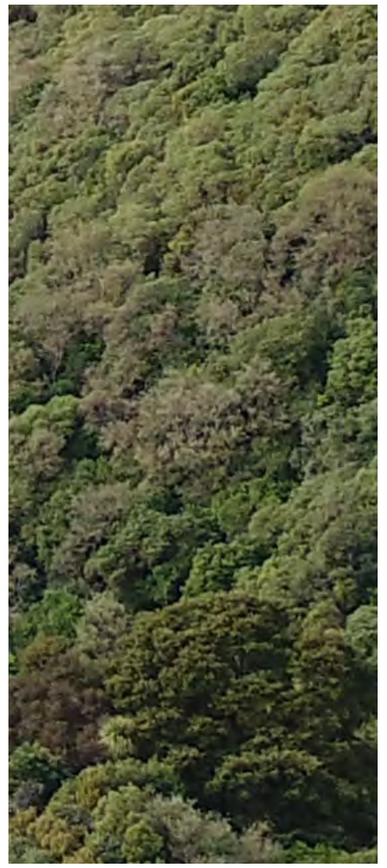
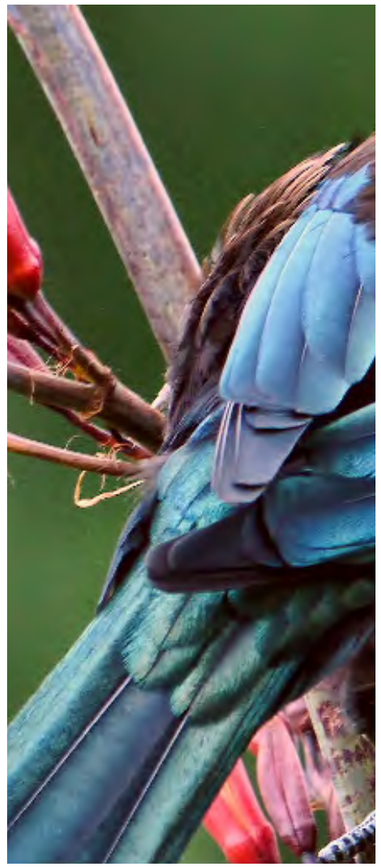


II. Te Pou tokomanawa o te whare. Context.

The journey to understanding People and Place.





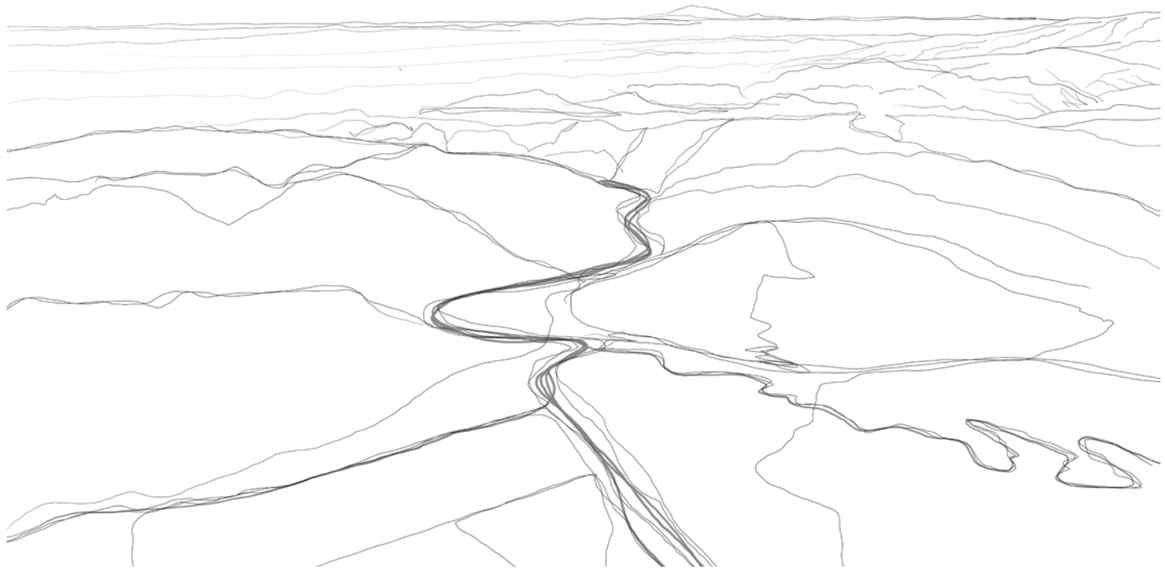
II.1 Re-connecting the Land and its People.

Te Ahu a Turanga: Manawatū Tararua Highway project represents a unique challenge to deliver a safe, resilient and efficient highway across a complex landscape. This challenge is also an opportunity to deliver a highway that re-connects local communities between the Tararua and Manawatū plains as well as the wider inter-regional transport network.

Importantly the Project also represents additional opportunities to connect beyond functional transport requirements. This includes opportunities to connect:

- **people and places;**
- **cultural narratives**
- **working landscapes**
- **river and natural landscapes and environments**
- **areas of ecological restoration and functioning ecosystems**
- **integrated recreational and amenity outcomes**

The following section outlines a broader landscape contextual consideration that have contributed to the development of our Cultural and Environmental Design response.



Illustrative sketch of the start of the Manawatū Gorge from the East aligned with the flow of the Manawatū River.

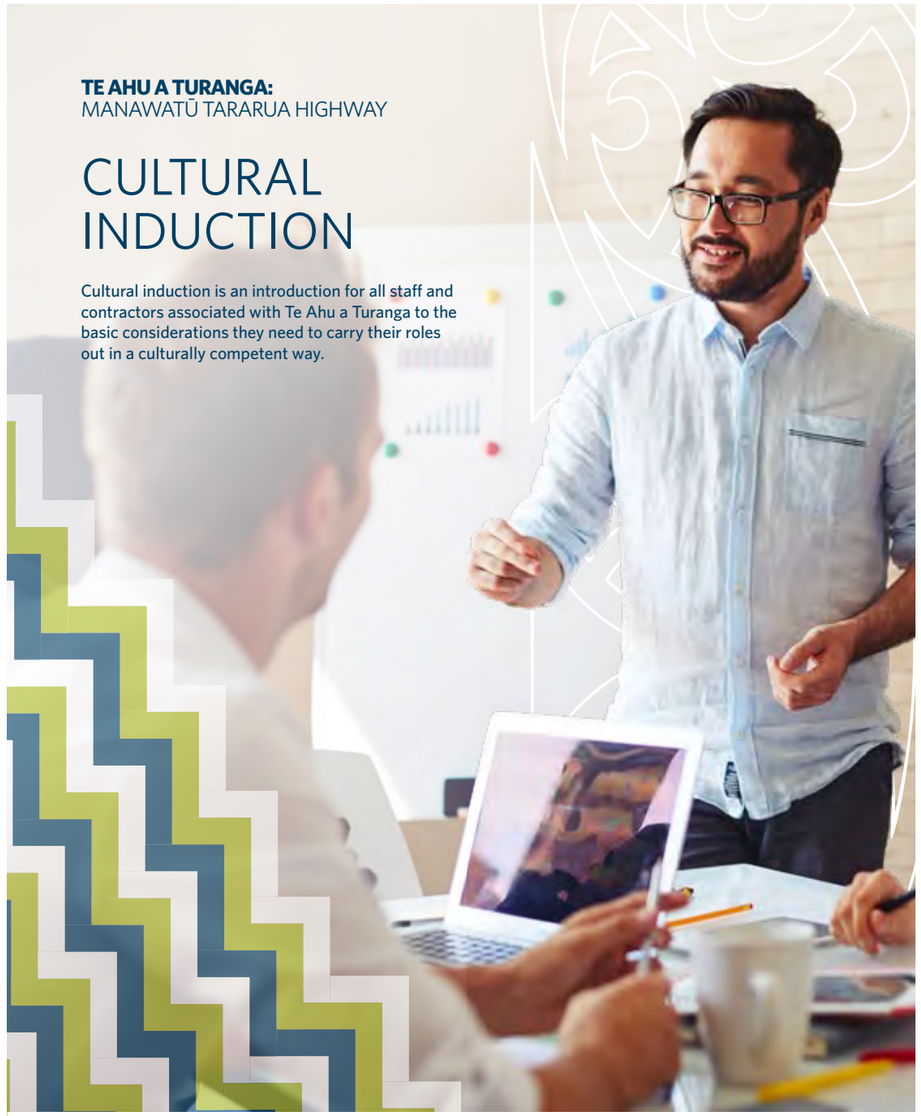
Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.

Cultural Context.

The following section sets out the cultural context of the project from a number of Iwi and landowner perspectives. This reflects the Alliance Values of **Manaakitanga** - Acknowledging each other's mana, different perspectives and ways of working and **Tino Rangatiratanga** where Iwi and hapu have their own specific whakamarama or explanations.

The following information is provided in regard to the above and is presented in the format of the projects cultural induction process. This replication of this information has been the recommended method for the wider communication of these matters.

For further information on the cultural narratives, stories and histories of each Iwi, refer to the Cultural Impact Assessments avaliable online at: https://www.nzta.govt.nz/projects/sh3-manawatu/rma-consenting/.



E HARURU ANA, TE AHU A TURANGA!
THE LEGACY RESOUNDS, TE AHU A TURANGA!

OUR STORY

Whakarongo! Tihei mauriora!	*Listen! There is life!*
Ko wai tēnei e haruru nei?	*Who is it that resonates?*
Ko Te Ahu a Turanga!	*'Tis Te Ahu a Turanga*
Rukuhia te moana	*Lunging unto the waters*
Waiho ko te huka o te tai	*Leaving foam in its wake*
Papatu ana ngā mana	*The forces rumble*
Ruruku te moana	*Unto the deluge, exemplifying*
Kia mau, kia toa!	*Steadfastness and drive*
Kia mau, kia toa	*And so we strive to the same*
E piki ki runga	*To rise above, empowered*
E haruru ana	*By the legacy*
Te Ahu a Turanga	*Of Te Ahu a Turanga*

This waiata, composed by revered Ngāti Kahungunu leader and haka exponent, the late Piri Sciascia, captures one of the many stories behind the name Te Ahu a Turanga.

The story refers to the rock, Te Ahu a Turanga, otherwise known as Hine-pōtae centred in the part of the Manawatū river which runs through Te Āpiti, or the Manawatū Gorge. In high flood waters, Te Ahu a Turanga is said to never submerge, instead remaining above the surface, as a symbol of steadfastness, drive and resilience.

Te Ahu a Turanga is also more popularly known as the name of the peak above Te Āpiti, and the rock which stands there, where the body of Turanga-i-mua from Aotea canoe, and members of his war party were 'heaped' and laid to rest. Hence the name Te Ahu a Turanga, the 'heaped' mound of Turanga.

WHAKARONGO! TIHEI MAURIORA!
LISTEN! THERE IS LIFE!

WORKING TOGETHER WITH MĀORI

The Transport Agency recognises and respects Te Tiriti o Waitangi (the Treaty of Waitangi) and will work with Māori as partners to build strong, meaningful and enduring relationships to achieve mutually beneficial outcomes.

The Transport Agency is responsible for delivering an integrated transport system. We have an important role to play in finding opportunities to better respond to Māori aspirations while delivering transport solutions. We can contribute by working with Māori and other government agencies to support Māori to achieve their aspirations.

Guiding this approach is the agency's Māori strategy, Te Ara Kotahi, the vision of which is:

KO KOE KI TĒNĀ, KO AU KI TĒNEI KĪWAI O TE KETE

THE TRANSPORT AGENCY AND MĀORI WORKING TOGETHER TO SUCCEED FOR A BETTER NEW ZEALAND.

Accordingly, there are four iwi that sit on the Governance Board for Te Ahu a Turanga. These iwi are:

- Rangitāne o Manawatū
- Rangitāne o Tāmaki-nui-a-Rua
- Ngāti Kahungunu ki Tāmaki-nui-a-Rua
- Ngāti Raukawa ki Te Tonga

Te Ahu a Turanga is also managed in collaboration with the people of Ngāti Kauwhata, and the Te Apiti Ahu Whenua Trust, who is the legal entity representing the whānau, owners and beneficiaries of Parahaki Island located towards the western end of the highway.

The level of involvement of iwi and Māori in Te Ahu a Turanga is unprecedented, and presents enormous opportunity for both the sector and Māori to grow stronger, together. It also necessitates a focus on incorporating te ao Māori (Māori worldview) and iwi perspectives throughout the project, with the support of both iwi and our Māori staff.

For more information about Māori staff and the iwi involved in Te Ahu a Turanga, please see below.

PAPATU ANA NGĀ MANA!
THE FORCES RUMBLE!

OUR IWI, OUR PEOPLE

As mentioned earlier, there are several iwi and Māori stakeholders involved in the leadership and management of Te Ahu a Turanga.

Rangitāne o Manawatū

Ko Kurahaupō te Waka
Ko Tararua me Ruahine ōku maunga
Ko Manawatū te Awa
Ko Rangitāne te iwi

"Tini Whetu ki te Rangi ko nga Uri o Rangitāne ki te Whenua"

Rangitāne o Manawatū in this project is represented by Tanenuiarangi Manawatū Incorporated (TMI) one of the representatives bodies of Rangitāne o Manawatū and Whakapai Hauora Environmental Centre Te Ao Turoa. We also acknowledge the involvement of Ngati Hineaute Hapu Authority and Rangitāne o Manawatū Settlement Trust.Rangitāne association with Te Apiti goes back over six hundred centuries and we are committed to the protection and ongoing development of Rangitāne o Manawatū.

Rangitāne o Tamaki nui-ā-Rua ("RoTnaR")

Ko Kurahaupō te Waka
Ko Ruahine te Maunga
Ko Manawatū te Awa
Ko Te Rangiwhaka-ewa te Tangata
Ko Rangitāne te Iwi

Rangitāne o Tamaki nui a Rua Inc.

Rangitāne o Tamaki Nui-ā-Rua Incorporated is the legal and mandated entity representing the Iwi members of Rangitāne o Tamaki Nui ā Rua. The rohe (tribal territory or area of interest) of Rangitāne o Tamaki Nui-ā-Rua has a similar demarcation to the modern day Tararua District.

Ngāti Raukawa ki te Tonga

Ko Tainui te waka
Ko Hoturoa te tangata
Tēnā anō rā kei ngā tamariki toa nā Rakamamao
Kei te rangi e haere ana nā Mōtai-tangata-rau.
There go the children of Rakamamao
Across the skies, [the progeny] of the multitudes of Mōtai.

te rūnanga o RAUKAWA

Ngāti Raukawa ki te Tonga (including Ngāti Kauwhata) is represented for the Project by Te Runanga o Raukawa Incorporated.

Ngāti Kahungunu ki Tāmaki nui-a-Rua

Ko Tamatea-arikinui te tangata
Ko Tākitimu te waka tapu
Ko Ruahine te taupae e whiti ana
ko Manawatū te awa e tōrino ana, mai te Tai Rāwhiti ki te Tai Hauāuru
Kahungunu matangi rau
Kahungunu reo rangatira
Mai Paritū ki Turakirae
Tihei Ngāti Kahungunu e!

Ngāti Kahungunu ki Tāmaki nui-a-Rua is a mandated iwi organisation with the authority to represent the people of Ngāti Kahungunu ki Tāmaki nui-a-Rua, it is also the Governing body for all aspects of Iwi development. Ngāti Kahungunu ki Tāmaki nui-a-Rua is one of six taiwhenua that form the whole of the Ngāti Kahungunu collective. Ngāti Kahungunu has the third largest Iwi population and geographically the second largest tribal rohe in Aotearoa.

Ngāti Kauwhata

Ngāti Kauwhata has whakapapa (genealogical) linkages to the Tainui canoe, and originally settled in the Kawhia area in Waikato before migrating inland to the area around Te Awamutu.

During the 1600s the tribe moved further inland to around Maungatautari, to the southwest of the Waikato River. There, its people developed strong kinship ties with other inhabitants of the area, including their close kinfolk Ngati Tukorehe and Ngāti Raukawa. In the early 1800s, growing intertribal conflict, both with the tribes that already lived in the region as well as tribes invading from the north, led the people of Ngāti Kauwhata to join Ngāti Raukawa in exploring new lands in the south in which to settle.

Along with Ngati Raukawa, Te Atiawa (Taranaki) and others, they followed renowned Chief Te Rauparaha of Ngati Toarangatira in several hekenga (migrations) southwards and came into the Manawatu region via the Rangitikei River onto the banks of the Oroua River at Awahuri Forest, Feilding about 1826

Since that period, led initially by Tapa Te Whata, and through accepted rituals of *moenga rangatira* (marriages of chiefly lines) and *kia hohou te rongo* (peace treaties), Ngati Kauwhata representing 5000 + descendants today, maintains their status of *mana ake* through close collaborations and co-existence with neighbouring hapu and Iwi.

Mana Taiao represents their Iwi approach to cultural health monitoring and improvements.

Te Apiti Ahu Whenua Trust

The Te Apiti Ahu Whenua Trust is the legal entity representing the whānau, owners and beneficiaries of Parahaki Island. It is the Trust's responsibility to administer and manage Parahaki Island and to protect its wahi tapu, cultural sites, and associated cultural values.

KIA MAU, KIA TOA
STEADFASTNESS, AND DRIVE

PROJECT ALLIANCE BOARD

Andy Thackwray
NZ Transport Agency

Peter Spies
NZ Transport Agency

Danielle Harris
Iwi Governance Board Member for Rangitāne o Manawatū

Oriana Paewai
Iwi Governance Board Member for Rangitāne o Tāmaki nui – ā – Rua

Keni Barrett
Iwi Governance Board Member for Ngāti Kahungunu ki Tāmaki nui – ā – Rua

Ian Sloane
Chair Aurecon

Lindsay Poutama
Iwi Governance Board Member for Ngāti Raukawa – Ngāti Kauwhata Iwi

Derrick Adams
HEB Construction

Mike Howat
Fulton Hogan

Jetesh Bhula
NZ Transport Agency

Keryn Kliskey
WSP OPUS

OUR STAFF

Kingi Kiriona
Kaiārahi

Born and raised in Dannevirke, Kingi has returned to Manawatū after 20 years away in both Auckland and Hamilton, to take up the role of Kaiārahi. This is a senior management role, responsible for leading our approach with Māori and iwi.

Anahera Aramakutu
Kaihāpai, Project Support Co-ordinator

With links to the people of Te Arawa in Rotorua, and local iwi Ngāti Kauwhata, Anahera's role as the Kaihāpai is to provide administrative support to the Kaiārahi, Kaimahi, Kaitiaki, and iwi involved with Te Ahu a Turanga. Anahera is also responsible for assisting with cultural training and induction, and providing support for social outcomes.

Sandy Adsett, MNZM
Mātanga, Mahi Toi

Sandy is a renowned Māori visual artist and cultural leader of Ngāti Pahauwera and Ngāti Kahungunu descent, who exhibits his work both nationally and internatonally. As Mātanga, Mahi Toi, Sandy's role is to co-lead the design and implementation Māori visual art and cultural expression for the new Te Ahu a Turanga highway. In addition, Sandy is also currently the Adjunct Professor at Toimairangi, The Contemporary Māori Arts School of Te Wānanga o Aotearoa in Hastings.

Warren Warbrick
Mātanga, Mahi Toi

With over 40 years experience in creating works with iwi, toka, and rākau (bone, stone, and wood), Warren is the key Rangitāne cultural consultant/artist on large public space projects for Palmerston North City Council. These include the two pouwhenua for Te Marae o Hine / The Square in Palmerston North. He has also exhibited a number of works both across Aotearoa and overseas. As Mātanga, Mahi Toi, Warren's role is to co-lead the design and implementation of Māori visual art and cultural expression for the new highway.

KAIMAHI

Siobhan Karaitiana
Rangitāne o Manawatū

Siobhan Karaitiana is the Taiao Planner for Rangitāne o Manawatū. She grew up in Palmerston North and is married into the iwi with four children of Rangitāne decent. Siobhan holds an Honours degree in Ecology and is committed to uplifting Māori rights in environmental management.

Jo Heperi
Rangitāne o Tamakinui a Rua

Tēnā koutou katoa. I hail from Tamatea – born and raised in Takapau – te pito o te Ao!
My whakapapa is Ngāti Kahungunu, Rangitāne and Rongowhakaata. I have three children and six mokopuna, all living around me in Tamatea.
It is an honour and a privilege to represent Rangitāne o Tamaki nui a rua on this Project in operations. As a part of the 'Alliance', I acknowledge the importance of this role and strongly endorse the principles of this partnership. For me it is the ongoing legacy that we leave for future generations that is uppermost in all decisions we make.

Wayne Kiriona
Ngati Raukawa

Ko Ngati Raukawa te Iwi, Ko Ngati Huia te hapu,
Ko Matau te Marae,
Tena koutou katoa.
As an employee for Te Runanga O Raukawa my role is to facilitate iwi participation at an operative level within the Te Ahu a Turanga Partnership. It is exciting to be within a project that strives to deliver Environmental, Social, Economic and Employment outcomes for Maori.

Terry Hapi
Rangitāne o Manawatū

Tena koutou katoa. I am a proud father of six tamariki, eight mokopuna and have tribal affiliations with Ngati Kahungunu ki Heretaunga, Ngati Raukawa, Ngati Apa ki Te Ra To, Ngai Tahu, Ngati Kuia and Rangitaane o Manawatu. I am passionate about Community, Whanau, Hapu and Iwi development and involved at all levels. Currently, I am employed by Tanenuiarangi Manawatu Inc/ Te Ao Turoa Environmental Centre as a Cultural Monitor and Advisor.
It's an honour and privilege to be involved with the Te Ahu a Turanga Project and working alongside some amazing, dedicated and driven people.
"Ko tou rourou, ko taku rourou ka ora ai te iwi"

Justin Tamihana
Ngati Raukawa

Tena koutou, I am a local lad raised in the Manawatu/Horowhenua area with links to Ngāti Raukawa, Ngāti Kahungunu and Rangitane Iwi.
I am employed with Te Runanga o Raukawa that represents both Ngāti Raukawa ki te Tonga and Ngāti Kauwhata.
Currently I manage a team of kaitiaki/ Cultural monitors for Ngāti Raukawa on many Projects across our rohe and am really excited and humbled to be part of the Te Ahu a Turanga Project.

Alice Jonathan
Ngati Kahungunu ki Tāmaki nui a Rua

Born and raised in Dannevirke and of Kahungunu descent I am proud to be currently working for Ngāti Kahungunu ki Tāmaki nui-a-Rua in the role of iwi communications for the Te Ahu a Turanga Project.

E PIKI KI RUNGA!
RISE ABOVE, EMPOWERED!

OUR CHARTER – WAKA TANGATA

Waka tangata is the People's Canoe. For Te Ahu a Turanga, it is our means by which to move forward, work together, and remain connected. He Waka Eke Noa – everyone in the canoe, with no exception.

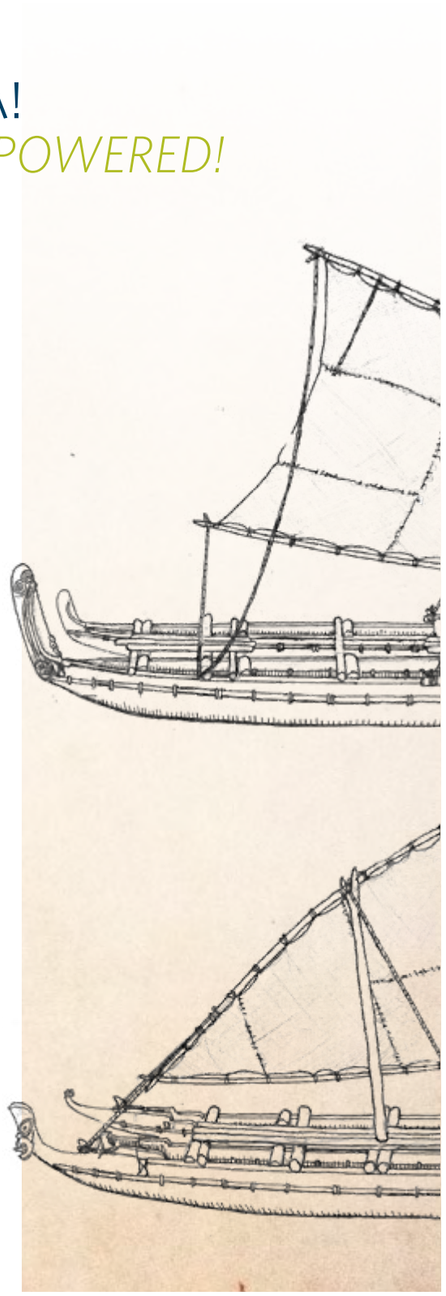
Waka tangata is used to reflect and represent the Alliance charter in a way that all of our people can feel aligned to the story and feel part of the holistic relationship that is inherent between each of our outcomes, principles, values, and behaviours.

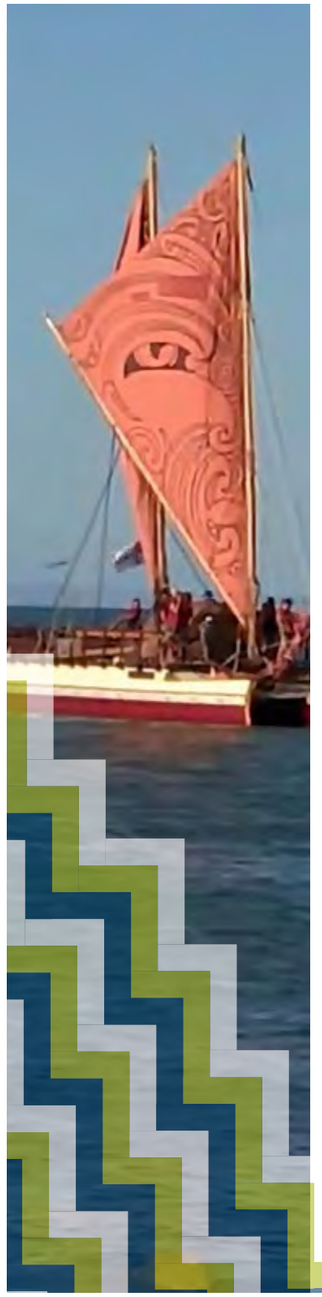
The **vision** for our project is the direction in which our leaders are positioning the waka to head. This can be interpreted through the stars (milestones) and the maramataka (energy calendar) can influence our effort at certain times (summer being more productive, for example).

The destination (a completed highway) is the **purpose** of our project and is what we consistently strategize in order to get there as efficiently and safely as possible.

The two-hulled waka was chosen to represent the **partnership principle** between iwi and the crown, as well as the relationship between all of our Alliance partners. Alliancing is very much about utilising the skills and strengths of a broader range of organisations and individuals, to achieve broader, sustainable, and more socially productive outcomes.

The two waka represent stability and that two side-by-side objects or entities are more resilient to external factors (waves), internal factors (tides), and market or sector factors (wind).





The cross beams (Amo) that hold the waka together, represent the **behaviours** we demonstrate as people of the project. When pressure comes on (time, budget, programme), we reply on the continued demonstration of how we treat others – with kindness, rowing together, and inclusivity.

The beams are tightly lashed together with rope, and that represents our **values**. Again, when pressure comes on, we reply on the strength of our values to hold the waka together and ensure that out stability remains. The more we demonstrate and act with our values, the stronger we will stay together in the good, and the challenging times.

Sitting atop the beams between the waka, is a whare (house) where we have provisions for every worker. This represents our **culture of care principle** where the alignment to te whare tapa whā is evident as we look after the physical, mental, emotional and whānau of our people.

Behind the whāre, sits a sail. This represents our **tread lightly principle** and encourages us to work smarter, not harder. When a tail wind blows, we will reduce our physical emitions and be thrust by factors such as efficiency, good fiscals' decisions, and a positive working culture.

Steering us from the rear (Kaiurungi) is the project director who will make decisions, in consultation with the AMT/ALG/PAB/IWG who are at the front of the waka navigating the best route, in alignment to our **best for project principle** and get us to the destination safely, on time, and on budget.

And then come ngā tāngata (our people) who are in various positions within the waka – some will have their heads down rowing as strongly as they can and some will be calling the timing of the row for unity and efficiency. All of our people will have specific and unique support provided to them, no matter how long they have been with the project, what position they are in, or how experienced they are. This aligns with our **enduring social outcomes principle** as our people will have enhanced capacity and capability that will stay with them for life.

OUR VALUES

Kaitiakitanga

Guardianship and protection, a way of looking after the environment, based on the Māori World view. Placing the environment and sustainability at the heart of our work, and recognising our role as stewards for future generations.

Rangatiratanga

The expression of the attributes of a rangatira (weaving the people together), including humility, leadership by example, generosity, altruism, diplomacy, and giving of knowledge which is of benefit to the people. As a people, rangatiratanga is reflected in the promotion of self-determination for Māori, and is an expression of their rights.

Manaakitanga

Manaakitanga means to "care for a person's mana" (well-being, in a holistic sense). Acknowledging each other's mana, different perspectives and ways of working. On a marae, it is often claimed that it is not what is said that matters but how people are looked after. This is the essence of manaakitanga.

Aroha

Aroha is an extension of manaakitanga, is respect, concern, hospitality, and the process of giving. Aroha is reflected in the way that tangata whenua volunteer to provide hospitality, in the way that manuhiri become part of the tangata whenua and share in the duties of the day and, more importantly, in the way that people relate to one another.

Te Tiriti o Waitangi

As the foundation of the Project Partnership for the project Key Shared Behaviours including

Tino Rangatiratanga

Respecting obligations and accountabilities outside of the immediate project

Wairuatanga

Recognizing that the spiritual is critical to personal and collective wellbeing and respecting the diverse cultures and beliefs. The spiritual dimension, a spiritual energy and dimension as a concept for Māori well-being. Our spiritual existence alongside the physical. It is expressed through the intimate connection of the people to their maunga, awa/moana/roto and marae, and tūpuna (ancestors) and atua.

Pūkengatanga

Teaching, preserving and passing on expert skills and knowledge.

Ūkaipōtanga

Speaks of knowing where your roots are and being loyal to them. Recognising who you are and where you belong.

Whanaungatanga

Connecting as one people. Whanaungatanga underpins the social organisation of whānau, hapū and iwi. Belonging, connection, and a relationship through shared experiences and working together which provides people with a sense of belonging. It includes rights and reciprocal obligations consistent with being part of a collective.

Kotahitanga

Developing and maintaining a unity of purpose and direction towards a shared vision for the Te Ahu a Turanga Highway Project

Whakapapa

Connection of all things not only people for example the Whakapapa or relationships of the Manawatū River and the many streams and groundwater systems that contribute to it.

OUR HISTORIES AND SITES OF SIGNIFICANCE

Okatia – The Giant Totara Tree.

'Away upon the slopes of the Puketoi Ranges there grew in the days of old a giant totara tree, into which the spirit of a god called Okatia suddenly entered, and endowed it with the power of motion, whereupon it gradually wormed its way over the land, gouging out a deep bed as it went, until it came to the mountain chain which separates the East from the West coast. Then it clove a course for itself through this huge barrier, which the mighty Okatia split asunder as easily as a child would break a twig, and on passed the inspired tree, ploughing its irresistible way with many serpentine wanderings towards the sea, leaving the turbulent waters and still reaches of the Manawatu River flowing in its wake.' *From Old Manawatu by T.L. Buick, page 2.*

Te Āpiti/Manawatū Gorge Cultural Landscape

mahinga kai, māra kai, rawa taiao, wāhi tapu, wāhi tohu, wāhi tupuna, tōanga waka

The landscape encompassing the Manawatū River running along the narrow pass between the Tararua and Ruahine ranges, the north and south ridgelines, and the confluence between the Manawatū and Pohangina Awa with Parahaki Island. The landscape is ancestral and gives context and meaning to the cultural sites and resources within.

Karaka Grove

mahinga kai, kāinga

A sacred grove at the western end of the gorge associated with nearby kāinga. Karaka played important roles in customs and berries were harvested seasonally.

Manawatū River/Te Au rere a te tonga

mahinga kai, rawa taio, wāhi tapu, wāhi tohu, tōanga waka, wai Māori

The river is a living entity with its own mauri, wairua and mana. It sustains flora, fauna, and human spiritual and physical wellbeing within the area. Te-Au-rere a-te-tonga (the river flows south) was the name given to the river as it flowed through the narrows and rapids of the gorge. Te-Au-nui-a-te-tonga (the great south current) was a specific reference to the waterfall in the gorge which proved such an obstacle to early travellers trying to make their way to the interior.

Settlements: Otangaki

pā, kāinga, rohenga/māka, wāhi tapu, wāhi tupuna

Historic kāinga and pā site the function of which was to observe and control access to the interior. The name Otangaki means to "clear away the weeds".

Raukawa historic kāinga and pā

pā, kāinga, rohenga/māka, wāhi tapu, wāhi tupuna

A Rangitāne historic pā on the southside of the river near the entrance of the gorge (reported to have eroded into the river near Raukawa Road termination) and guarded the upper Manawatū against attacking forces coming through the gorge.

Parahaki/Motutere

mahinga kai, māra kai, rawa taio, wāhi tapu, wāhi tohu, wāhi tupuna, wāhi taonga, kāinga

The Island is of high cultural importance to whānau, hapū and iwi and as Māori freehold land, as the location of an historic kāinga, gardens, mahinga kai processing site, and burials.

RUKUHIA TE MOANA
LUNGING UNTO THE WATERS; DIVING DEEPER

TE AO MĀORI – THE MĀORI WORLDVIEW

At the heart of Māori culture lies the Māori World view – greatly influencing every aspect of culture interaction. The World view of any culture is the fundamental organization of their beliefs of existence, from which stems their value system.

Ancient Māori created a framework of ideas and beliefs from their interpretations of the world around them. It provided an explanation of the origin of life, the nature of human beings, the forces of the natural world and the design of the cosmos. This holistic view of the world became the central belief system of Māori.

The Three Phases of Creation: Te Kore, Te Pō, Te Ao Marama

Te Kore is the first of what is known as the three phases of creation: "Whakapapa originates from the three phases of the creation of the world; Te Kore: energy, potential, the void, nothingness; Te Po: form, the dark, the night; Te Ao Marama: emergence, light and reality, dwelling place of humans.

At the beginning of time was Te Kore - the void, but within that void was the realm of potential for being. Te Kore – the being and non being.

After a period of aeons, Te Pō rose from Te Kore. Te Pō is the second phase, where darkness prevailed, but within this darkness was form and creativity. The first male and female entities, Ranginui (Sky Father) and Papatūānuku (Earth Mother), were formed within Te Pō.

Ranginui and Papatūānuku

In the beginning Ranginui and Papatūānuku were joined together, and their children were born between them in darkness. Locked in eternal union with each-other, Ranginui and Papatūānuku produced many children: Tāne-mahuta, Tangaroa, Tāwhiri-mātea, Haumia-tiketike, Rongo-mā-Tāne and Tūmātauenga, are the most renowned of the Atua, but there are many more, male and female.

But the children were trapped in the darkness of their tight embrace. Seeking to escape this suffocating darkness, the six sons of Rangi and Papa debated whether to kill their parents, but in the end, settled on separating the two. After all of his brothers tried unsuccessfully to pry the two apart, Tāne took his turn. Laying on his back and pushing with his feet, he succeeded in breaking their embrace. He pushed Rangi up above, where he became the Sky Father, and Papa stayed below, where she became the Earth Mother.

Te Ao Mārama

The World of Light came into being. The dwelling place for human beings.

The tamariki of Rangi and Papa populated the world with all manner of beings and became the Atua.

Ngā Atua

The six major Atua are known as the leading Atua kaitiaki, guardians over the elements of nature. They have supernatural power and divine authority over particular domains in life and human affairs.

- Tāne-mahuta - Atua of forests, birds and man;
- Tūmātauenga - Atua of war and man;
- Rongo-mā-Tāne – Atua of the kumara, peace, agriculture and cultivated crops;
- Tangaroa – Atua of the sea and all the mammals and marine life that dwell within the oceans and waterways;
- Tāwhiri- mātea - Atua of winds, storms and all things pertaining to the weather;
- Haumia-tiketike - Atua of aruhe (fernroot) and uncultivated foods.

Interconnectedness

Understanding the Māori world view gives an informed insight into the interconnected world of Māori; - the interrelationships between people, their tūrangawaewae, the whenua and all things living and non living.

Whakapapa

Whakapapa is a central principle of the Māori world view. The literal translation of whakapapa is laying one thing upon another, the genealogical descent of all living things. Whakapapa between the supernatural realm and the natural world are both part of a unified whole.

The idea of whakapapa-ranga extends the layers and connections to the inter-generational lineage (vertical linkage) of all life in particular. The world through Māori eyes has always been wholly connected or interrelated. In the Māori world view we are all aligned, the rivers and the oceans, the land, animals, plants, are our tuakana (elder siblings), we are the teina (younger siblings). Māori are related to everything - the gods, people, land, mountains, rivers, sea, water, sky, plants, birds, reptiles, fish, vertebrates, eco-systems, animate and inanimate life forms. Our stories – pūrākau - tell us this, and as such we have a duty of care to our natural environment.

Whakapapa establishes the inter-connections between people and their whenua and they are inter-dependent on each other for their survival and sustainability.

RELEVANT MĀORI CONCEPTS AND PRACTICES

Karakia

Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia mākinakina i uta
Kia mātaratara ki tai
E hī ake ana te ataakura
He tio, he huka, he hau hū
Tihei mauri ora!

Cease the winds from the west
Cease the winds from the south
Let the breeze blow over the land
Let the breeze blow over the ocean
Let the red-tipped dawn come with a sharpen air
A touch of frost, a promise of glorious day.

Tukuna te wairua kia rere ki ngā taumata
Hai ārai i ā tātou mahi
Me tā tātou whai ingā tikanga a rātou mā
Kia mau kia ita
Kia kore ai e ngaro
Kia pupuri kia whakamaua
Kia tina! TINA! Hui e! TĀIKI E!

Allow one's spirit to exercise its potential
To guide us in our works as well
as in our pursuit of our ancestral traditions
Take hold and preserve
Ensure it is never lost
Hold fast. Secure it.
Draw together! Affirm!

Recitation of karakia involved a series of rituals and incantations to seek influence or appeasement to the Atua, to procure benefits or to avert disaster. Karakia was necessary for any ritual act and were recited by the Tohunga who were the mediums for the gods.

There were a vast number of incantations each relatively specific to meet all possible contingencies in human life. Often the karakia was accompanied by an offering or the 'first fruits' of any activity: "the first kumara dug up, the first fish or bird taken, the first piece of weaving, the first person slain in battle" (Metge, 1976:23).

On a marae, a karakia (prayer service) is conducted each morning and evening. During these services, prayers are said for guidance, care, and protection. Karakia on a marae are shared and inclusive, and any person who wishes to can conduct the service.

In the modern day context karakia are used to open and close hui, wananga, any occasion where people are gathered together. It is becoming increasingly common for karakia to be included with other organisations in Aotearoa.

Mihimihi

At the beginning of any hui, following the pōwhiri (formal welcome) or the mihi whakatau (a welcome), a round of introductions and speeches – or mihimihi – usually occurs. During this time, people ordinarily stand to share a little bit about where they come from and who they are (i.e. share their pepeha, or tribal aphorism); many share significant parts of their whakapapa (genealogy). This is a brief personal speech used to introduce oneself in a way that goes beyond one's name. It offers the opportunity to express one's heritage (or whakapapa), one's links to this land, one's spiritual home and one's sense of purpose. It establishes the personal and social relationships of the individual. This includes discussion about the reason why we are meeting.

Tikanga & Kawa

Kawa is the policy and tikanga are the procedures on how the policy is realised. To put it simply, kawa is what we do, tikanga is how we do it, and the right way to do it. Tikanga and kawa can vary between iwi.

Wāhi tapu & Wāhi taonga

Historically wāhi tapu sites, urupā, wāhi taonga and other areas of cultural significance for iwi have continued to be highly tapu. This is regardless of whether land was ceded to the Crown or sold to settlers. Māori most likely expected that the Crown and the settlers would respect their wāhi tapu and, and did not anticipate their relationship with these sites would be limited or severed.

Rāhui

A rāhui is a form of tapu restricting access to, or use of, an area or resource by the iwi of the area. It was originally designed to prohibit the exploitation, depletion or degeneration of a resource and the pollution of the environment, and allow the environment to heal.

Nowadays it is common to see it implemented when a person has died in a part of a river, stream or ocean.

Mātauranga Māori

This is indigenous knowledge, comprehension, and understanding of everything visible and invisible existing in the universe, and is often used synonymously with wisdom.

Mātauranga Māori recognizes the inter-relatedness and inter-generation lineage of all living things that are imbued with an infinite life force - mauri. Mātauranga Māori is the unique Māori way of viewing the world, encompassing both traditional knowledge and culture.

It also provides a contextual framework for articulating the spiritual principles and values in a Māori corpus of knowledge which gives emphasis to localized tribal knowledge and interpretation of their oral histories, traditions and events. Mātauranga Māori expressed through te reo Māori me ōna tikanga, gives full expression to the depths of meanings of the traditional knowledge and associated lore's and customs.

Mātauranga Māori is concerned with the foundation and source of all life and knowledge. This requires a sense of the 'creation' narratives, to understand the coming into being and existence of the universe and the extent to which changes have occurred in the way that Māori now view the world, from the way of their ancestors.

In a contemporary context, mātauranga Māori is used to analyse and consider aspects of our modern world in order that certain issues and matters are addressed.

Maramataka

The maramataka, which literally means 'the moon turning,' is the Māori lunar calendar, and is the traditional Māori way by which time was marked. Instead of following the movement of the sun throughout the year, iwi communities in history noted the movements of the moon over a typical month and year.

Each phase of the moon was named and each typical year was marked by the passage of 12 or 13 lunar months (depending on the location throughout the country).

The maramataka was brought to New Zealand by the first voyagers from Hawaiki, and was then adapted by the Māori to accommodate the southern hemisphere's sky, seasons, and climate. The original maramataka was an oral tradition which was later documented by early ethnographers.

Historically, the maramataka was consulted for almost any activity taking place in a Māori community. Some days (nights) of the maramataka were better to do certain activities than other days. For example, planting and harvesting food supplies was conducted almost always through consulting the maramataka. Similarly, before fishing or convening an important hui or conducting rituals, such as baptisms, the maramataka was consulted. The maramataka also marked significant annual events such as celebrations in the time of Matariki and other seasonal activities.

Within the cycles of the maramataka there are excellent examples of how Māori were highly attuned to the elements of nature. Some examples of how the various cycles of the moon influenced various activities were;

Tamatea-kai-ariki – a day for planting food, west winds prevail, that only rain will quell.

Tamatea-angana – eels are voracious feeders this night, a good day for planting food and for fishing but beware of the fog and the foaming sea.

Tamatea-āio – Eel, fish and kumara are abundant but small, a productive day for collecting shell fish but fisherman beware.

Tamatea Whakapau – a favourable day for planning food from morning to midday but not a day for the fisherman.

Mauri

There is a distinctive unifying, infinite life force inherent within all living things connecting everything within each other, the universe and creation. This infinite life force is commonly referred to as the mauri, manifests in the natural world with its source from the supernatural, spiritual realm.

Mauri is an essential element that sustains all forms of life. Mauri provides the life and energy to all living things, and is the binding force that links the physical to the spiritual worlds - wairua. It denotes a health and spirit that permeates all living and non-living things.

Plants, animals, water, and soil, all possess mauri.

Ki uta ki tai

This is a whole of landscape approach, understanding and managing interconnected resources and ecosystems from the mountains to the sea, the Māori concept of integrated catchment management.

TAIAO

Importance of whenua

The nature of the inter-relationships between people and Papatūānuku or earth mother is reflected in the following whakataukī or proverb, 'Ko te whenua, te wai-ū nō ngā uri whakatipu' - meaning mother earth, through her placenta provides nourishment and sustenance for her offspring being all of humankind, future generations.

The Māori view is holistic seeking to ensure Papatūānuku, the ancestral mother earth and human activities are managed in harmony and balance acknowledging a natural world that is dynamic, fragile and finite.

Papatūānuku is viewed as a living organism with her own biological systems and functions, infrastructural support networks – all sustaining the vibrant unifying life forces, mauri or life sustaining capacity of all living things through the nourishment of the whenua.

The word whenua refers to the land, but also to the birthing placenta and to burying the whenua within ancestral land, strengthening the connections and intrinsic relationship between tangata whenua and the rest of the natural world. Likewise, the common use of the word iwi meaning bones, which are also inferred within Papatūānuku, representing the tribal unit and the word hapū meaning both pregnant and sub-tribe, or clan.

Importance of wai

Wai is a precious resource, a taonga (treasure, highly prized) that underpins Māori well-being and economy. Water is the basis of life without which nothing would exist. From a Māori perspective, waterways are the life-blood of the whenua and therefore, of themselves. There is a spiritual and cultural connection to all waterways and to fresh water in general.

Traditionally, each body of water was considered to have its own source of life, its own mauri. If the mauri of one body of water came into contact with another, both were placed at risk and the ecosystem equilibrium was disturbed. The mixing of water or the separation or division of natural systems can markedly affect and decrease the mauri in many places.

Rivers or streams flowing into one another, into a lake, or into a harbour or estuary, are often assessed with different mauri. That mauri is assigned either to specific parts of a river, stream, or lake, or applied to the whole ecosystem. Māori environmental concepts therefore focus on keeping specific parts of the natural environment pure, unpolluted, and connected.

These concepts recognise that mauri can be sustained and enhanced to some extent through the actions of kaitiakitanga. This holistic approach is used to identify where a problem originates and to assist Māori to determine what is or is not achievable, in practical terms to restore and improve the mauri health state.

TAONGA SPECIES

Māori have a relationship with all living species, and particularly those indigenous to our land. Species of particular significance in the Project area are listed below.

Species	Comment: where found, why important, what used for...
Tuna – Longfin eel (*Anguilla* sp)	Manawatū Awa & tributaries. Endemic, longfin eels hold whakapapa to the area, are cultural indicators, contribute to the local ecology. A cultural resource for kai.
Kōura (Paranephrops planifrons)	Manawatū Awa & tributaries. Endemic, kōura hold whakapapa to the area, are cultural indicators, contribute to the local ecology. A cultural resource for kai.
Kākahi - Freshwater mussel	Kākahi hold whakapapa to the area, are cultural indicators, and contribute to the local ecology, and are a cultural resource for kai.
Giant kōkopu (Galaxias argenteus)	Manawatū Awa and tributaries. Endemic, largest of all galaxiids. They hold whakapapa to the area, are cultural indicators, contribute to the local ecology. A cultural resource for kai.
Northern Rata (Metrosideros robusta)	Manawatū Gorge. Medicinal – rongoā; kai; domestic implements; weapons; tools; eel weirs.
Tōtara (Podocarpus tōtara)	Rongoā; kai – the fruit; waka; housing; bridges; fences
Raupō (Typha orientalis)	Rongoā; kai; construction of whare, waka, sails, fishing floats; making of poi
Hīnau (Elaeocarpus dentatus)	Rongoā –skin disease; kai –berries; dye –bark; tokotoko;
Karaka (Corynocarpus laevigatus)	Rongoā –healing wounds; kai
Ngā Manu	Ngā Pae maunga o Ruahine me Tararua. Native birds are significant spiritual tohu, hold whakapapa to the area, are cultural indicators, and contribute to the local ecology.
Kererū (Hemiphaga novaeseelandiae)	Endemic to NZ. They are significant spiritual tohu, hold whakapapa to the area, are cultural indicators, and contribute to the local ecology. Kai; rongoā; feathers - kākahu
Pūriri (Vitex lucens)	Rongoā –ulcers; kai –berries; domestic –kō, paddles, bowls, hoto

ACKNOWLEDGEMENT OF THE 'HUIA'

Huia (Heteralocha acutirostris) – Endemic. Extinct.

A striking creature unique to New Zealand, the huia sported bright orange-red wattles at the base of its beak, and glossy black plumage with a green iridescence. The huia was endemic to New Zealand and lived in forested mountain ranges of the central and lower North Island. Its tail feathers, with a distinctive band of white across the tip, were highly prized by Maori. Their importantance demonstrated by the widespread use of huia feathers worn in the hair to signify high social status. Only people of high rank were permitted to wear the tail feathers of the revered bird and, when not in use, the treasured feathers were stored in ornately carved boxes known as waka huia.

By the late 1880s, the decline in huia numbers became evident to both Māori and European settlers. In efforts to save the huia, Māori chiefs in the Manawatū and Wairarapa put a tapu on the bird, and in 1892 a law was passed making it illegal to take huia. These efforts however proved in vain and the last confirmed sighting of a live huia was in the Tararua Ranges in 1907.

CULTURAL MONITORING

Cultural monitoring is undertaken to:

- Ensure appropriate protocols are carried out during works;
- Help identify any significant matters that may be uncovered in the course of those works;
- Provide cultural support to the workers, including in the event of incident on site;
- Monitor and record the impact of the works on matters of significance to iwi (also known as cultural health monitoring)
- Ensure Cultural and Resource Consent conditions are adhered too.

WHAT ACTIVITIES NEED TO BE MONITORED AND WHY?

All excavation works in new sites, including major earthworks in areas recognised as culturally significant, all stripping works, forming of new access/roading tracks.

Any works relating to waterways/tributaries, stream diversions and culverting/piping that effects the Mauri o te wai.

Any fishing/fish relocation, seed collection/ planting, plus ensuring Resource Consent conditions are adhered too, eg sediment and erosion controls, restoration of areas (pre/post), Drilling and Geotech sites and works, plus many others.

HOW IS CULTURAL MONITORING MANAGED IN TE AHU A TURANGA?

A Cultural Health Monitoring Framework has been designed to ensure that all work undertaken on whenua (land) and in our waterways is undertaken in a culturally appropriate way.

A summary of The Cultural Health Monitoring Framework for Te Ahu a Turanga is as follows:

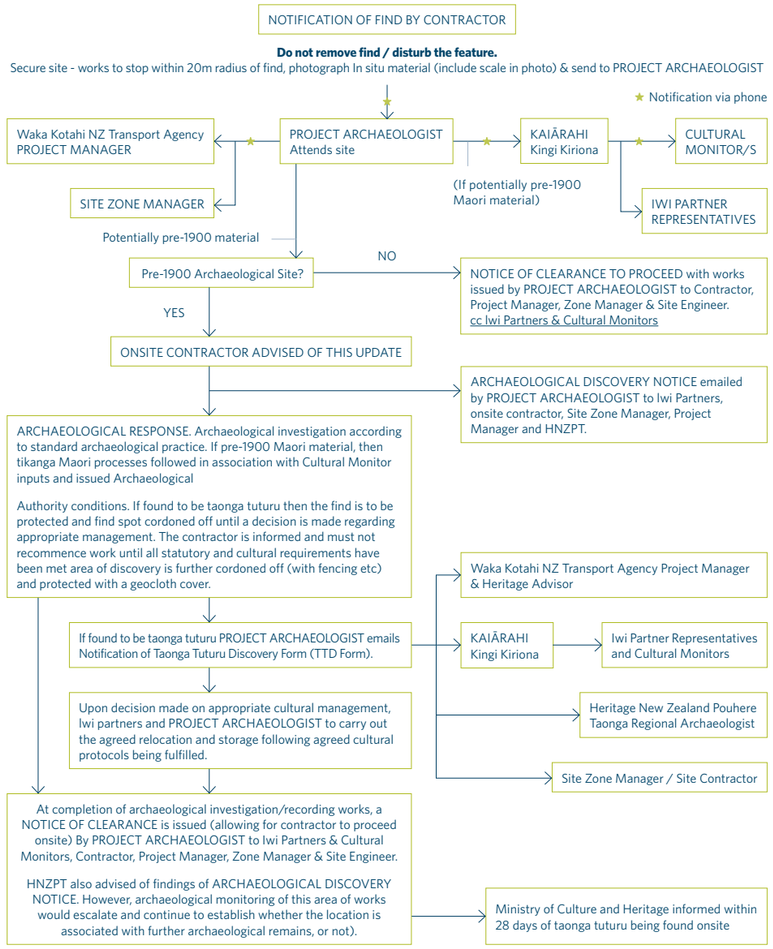
This report proposed the Iwi Working Group endorse a framework for Cultural Health Monitoring (CHM) over the entire Project Area and the Manawatū Awa from source to sea.

The framework has the following attributes and elements:

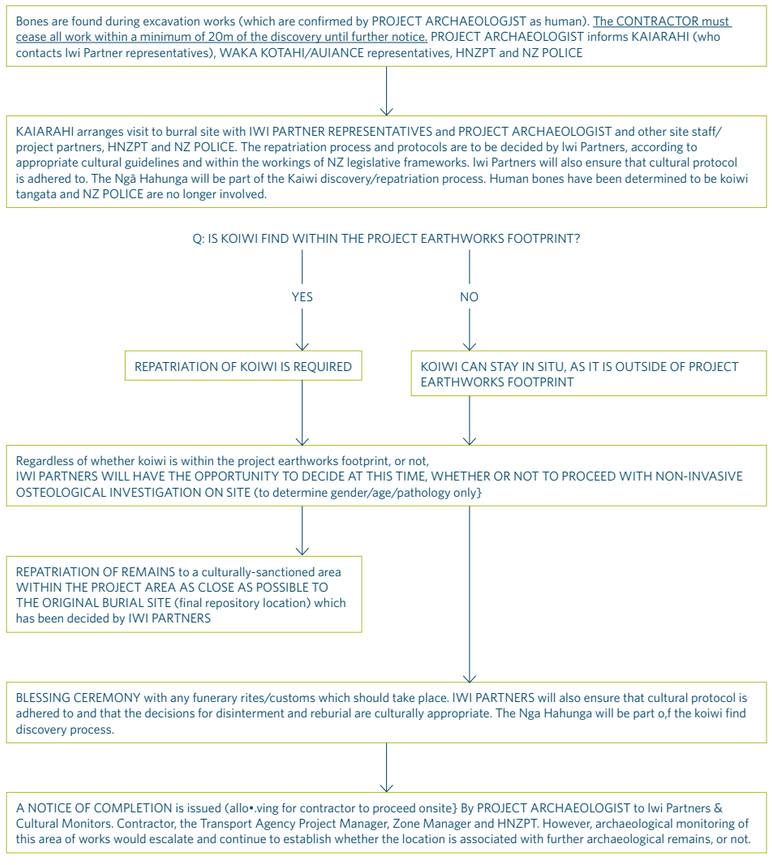
- Iwi will have input into the development of baselines and the conduct of general ecological monitoring.
- Locations for CHM will be determined by each iwi.
- Baselines at each location will be developed and measured before construction starts.
- An annual record will be taken from each location.
- There may be ad hoc CHM records taken if there are major events that are considered likely to have a impact on cultural health.
- There will be a further assessment at each location at one and then three years after the conclusion of Project.
- CHM will be undertaken by each partner iwi in areas they have a particular interest.
- A range of cultural indicators will be recorded at each site.
- An App will be developed to record and collate the results.
- There will be annual reporting to IWG and PAB on the results of the CHM.
- A Training Programme for iwi cutural health monitors will be established
- Training will cover a range of skills including some of the technical ecology skills available to Alliance.
- The intial training cohort will be around 20.
- A five to six week training programme for cultural health monitors will be developed, co-ordinating with existing providers and agencies like WINZ.
- The Alliance will meet cost of establishing and operating the CHM programme, although some of the costs of training may be met by other providers.

ARCHAEOLOGICAL DISCOVERY PROTOCOL

Flow chart diagram of the Find Discovery Protocol relating to the discovery of a potential archaeological site/material (including Taonga tuturu) during Enabling Works.



Flow chart diagram of the protocol for the discovery of bone I potential Koiwi Tangata (human remains) during Enabling Works.



KUPUTAKA
GLOSSARY

Atua	deity, supernatural being
Awa	river, stream, creek, gully
Hapū	tribe
Hekenga	migration
Hoto	traditional spade
Hui	meeting, to gather or assemble
Iwi	extended kinship group, nation
Kai	food
Kāinga	home, village, settlement
Karakia	incantations
Kia hohou te rongo	peace treaties
Kō	digging stick
Mahinga kai	garden, cultivation
Mana	prestige, authority, power, influence, status, spiritual power
Mana ake	self determination
Mana taiao	environmental authority
Māka	to mark, marking
Marae	open area in front of wharenui, where discussions take place
Māra kai	vege garden
Maramataka	Māori Lunar calendar
Matariki	an open cluster of stars. Pleiades
Maunga	mountain, peak
Mauri	life principle, life force, vital essence
Moana	sea, ocean, large lake
Mihimihi	introductory speeches
Mihi whakatau	official welcoming
Moenga rangatira	marriages of chiefly lines
Pā	fortified village
Papatūānuku	earth mother
Pepeha	tribal saying, motto
Pōwhiri	welcome ceremony on a marae

Pūrākau	legendary tribal stories
Rākau	tree or stick
Ranginui	sky father
Rawa taiao	natural resources
Rohenga	boundary
Rongoa	remedy, medicine
Roto	lake
Taiwhenua	district
Taonga	prized objects, treasured effects/possessions
Tapu	sacred, prohibited, restricted, forbidden, under atua protection
Toānga waka	portage – place where canoes are dragged over
Toka	rock, large stone, boulder. rock, large stone, boulder
Tūpuna	ancestors
Tūrangawaewae	place where one has the rights of residence and belonging through kinship and whakapapa.
Wāhi tohu	markers on the landscape
Wāhi tūpuna	ancestral significance of places
Wai	water, stream, river
Wai Māori	fresh water, mineral water
Wānanga	to meet and discuss, conference, forum
Wairua	spirit
Whakapapa	genealogy, lineage, descent
Whānau	family
Whenua	land
Whare	house, building, dwelling

II.2 Re-connecting to Place.

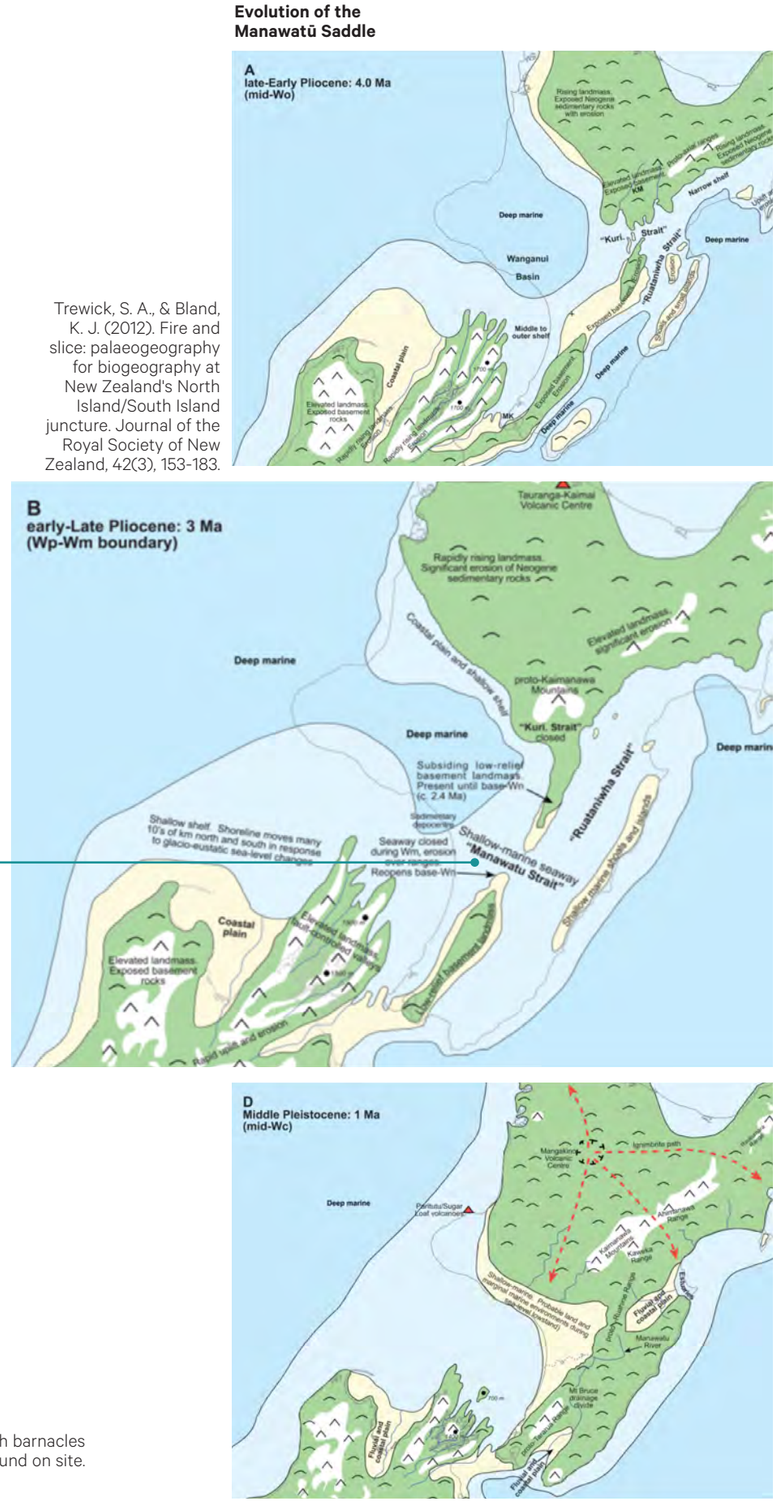
II.2.1 Understanding the geological origin of the Ranges.

Understanding the geological origin of the ranges, the Manawatū saddle and "The Gorge" helps to understand and locate the communities on either side of the project in the east and in the west. In particular the idea that the axial ranges and the journey between these two sides is embedded in the wider associations with the landscape. The Gorge itself has a lively geological history with the area being part of the sea floor around 3 million years ago when it was a narrow marine seaway referred to as the Manawatū Strait.

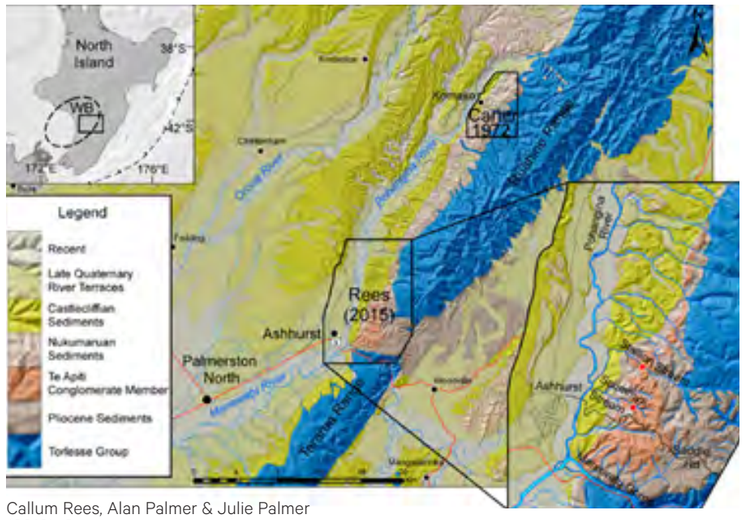
Evidence of this is still found today with sea shells routinely found within the surrounding hill cuts. The Manawatū Saddle is identified predominantly by the underlying geology of Te Āpiti conglomerate and Pliocene sediments.

This narrow seaway is still evident in the Manawatū Saddle which is a topographical "low" separating the axial ranges of the lower North Island. This area of lower terrain bookended to the north by the Ruahine Ranges and to the south by the Tararua Ranges is also home to the Manawatū Gorge and the Manawatū River.

Evolution of the Manawatū Saddle



Trewick, S. A., & Bland, K. J. (2012). Fire and slice: palaeogeography for biogeography at New Zealand's North Island/South Island juncture. Journal of the Royal Society of New Zealand, 42(3), 153-183.



Callum Rees, Alan Palmer & Julie Palmer (2018): Quaternary sedimentology and tephrostratigraphy of the lower Pohangina Valley
New Zealand Journal of Geology and Geophysics.

The Manawatū Saddle and Gorge on approach form the north by Air into Palmerston North airport.

Seashells (Alcithoe sp. approximately 2.4 million years old) found during site investigations in the western part of the site.

Rock with barnacles found on site.

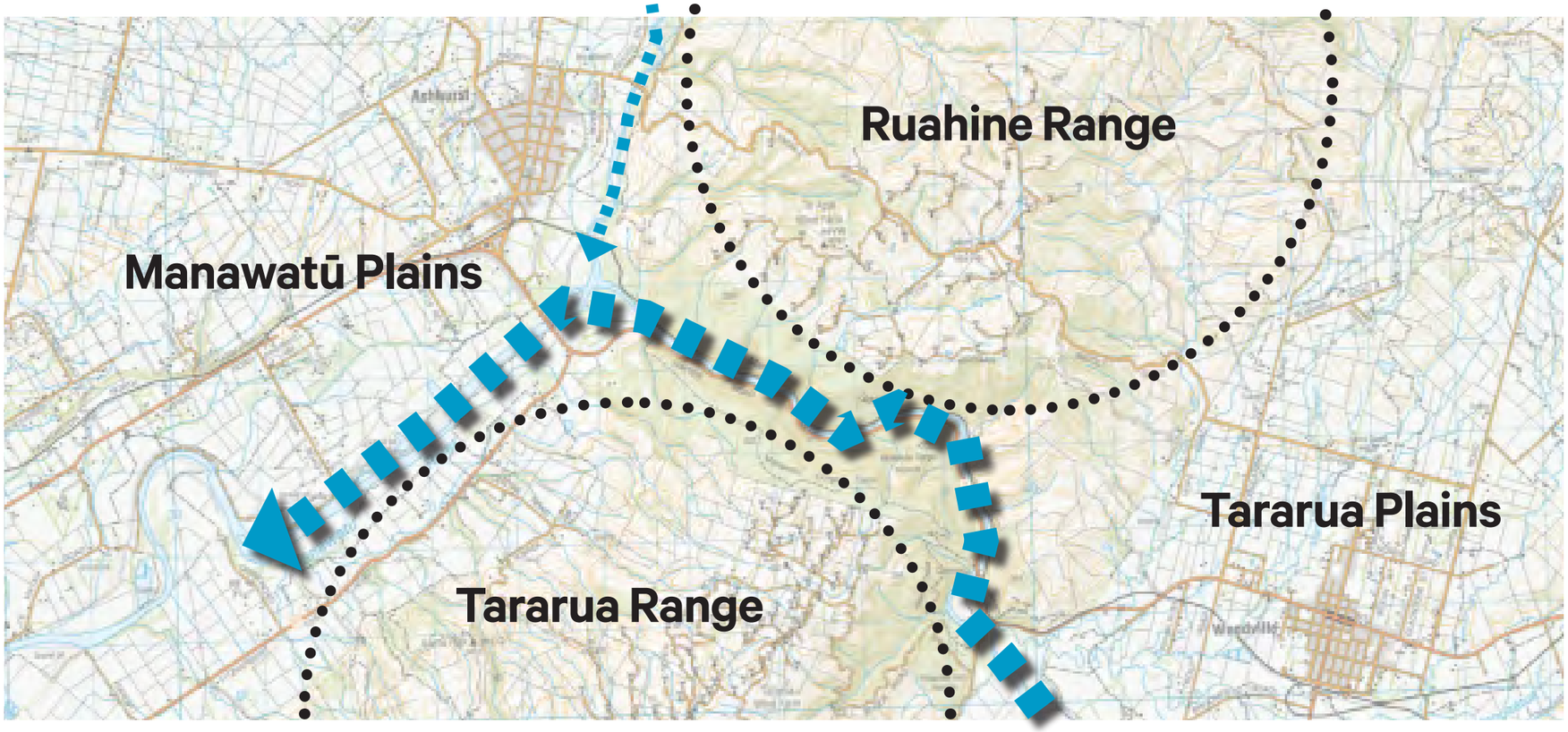
II.2.2 Re-Connecting East and West & Re-Connecting Regions

Movement between the east and the west across the ranges therefore has a long association with the saddle area as a natural crossing point. The Gorge itself further defined the nature and character of the east west traverse with strong cultural and modern day associations of journeying through "The Gorge" between the plains on either side and beyond.

The section of State Highway 3 (SH3) traversing through the Manawatū Gorge was classified as a national route under the One Network Road Classification. The section of road provides a key link between the Manawatū Region, Wairarapa and Hawkes Bay regions as one of the few connections between the western and eastern sides of the Tararua and Ruahine Ranges.

Te Ahu a Turanga therefore provides a new major road connection between the Manawatū and Hawkes Bay, and by extension part of the wider connection between Wellington and Hawkes Bay.

The project in the context of the wider landscape and transport network.



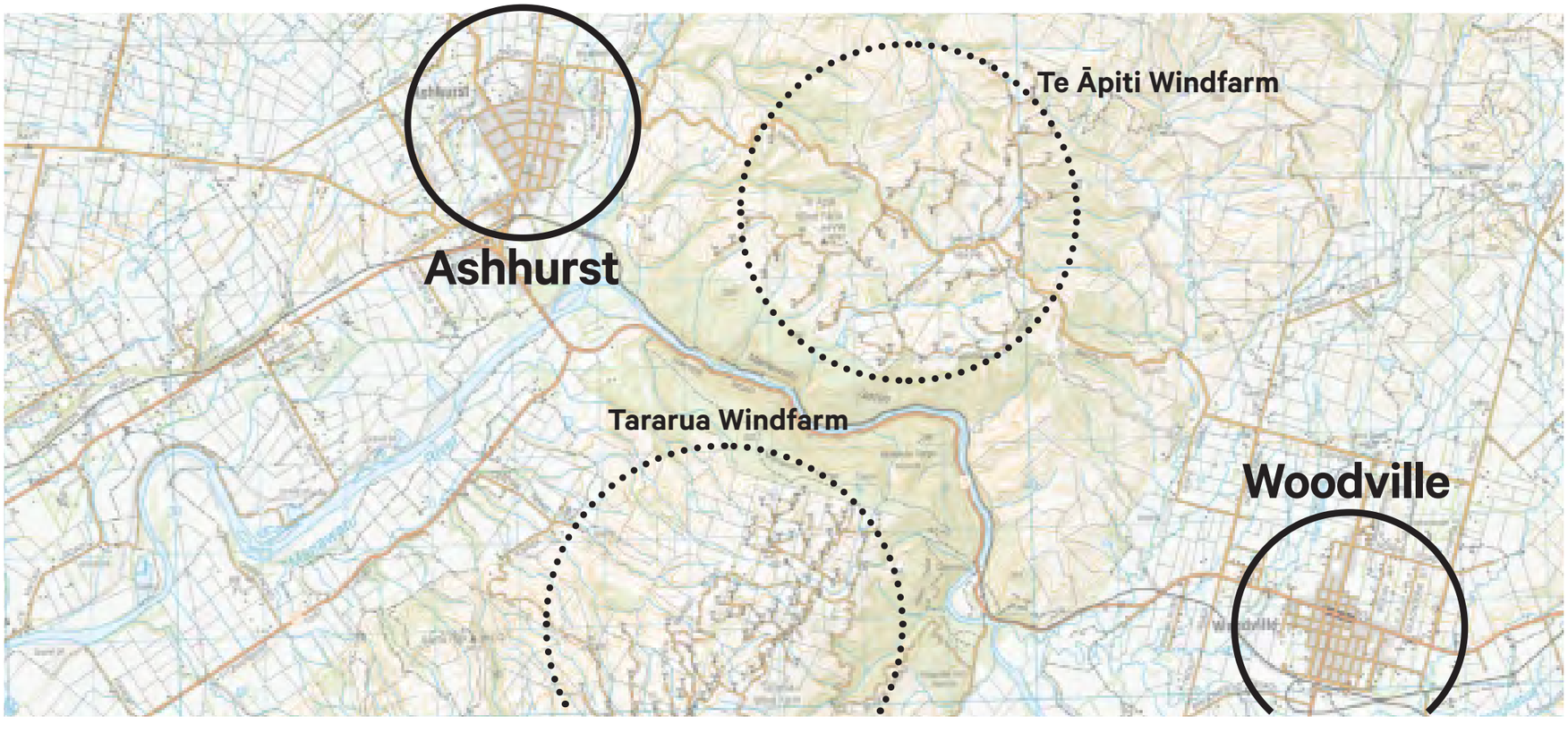
Key Topographical and Natural Drainage Patterns of the Environment.

II.2.3 Re-connecting Rural and Urban Areas.

The project also sits between the rural plains city (and townships) of Palmerston North and Ashhurst in the west and Woodville in the east. This heritage context and pattern of this settlement is linked to the Manawatū River, the Saddle and The Gorge. This is mentioned in Appendix A of Updated Preliminary Cultural & Environmental Design Framework section "Transport Along The Gorge" p. 28.

The project represents a new route, a new connection, and a new landscape experience while at the same time reflecting on the significance of the previous Gorge route.

The significance of The Gorge and the connection between the west and the east and the peoples of the Manawatū and Tararua Plains is a key part of the wider story of the district. It is also an opportunity to explore further with those communities to ensure that the connection between the people and the land is appropriately recognised in the outcomes of the project. Today the Manawatū River in particular plays a significant role in defining the character of the communities of Palmerston North, Ashhurst and Woodville as well as the wider region. This is demonstrated in the work of Te Āpiti Masterplan, The Manawatū River Framework, the PNCC Creative and Liveability Strategy as well as the ongoing community investments in the Ashhurst Domain in the west and Woodville Domain and Ferry Reserve in the east.



Key Patterns of the Built Environment.

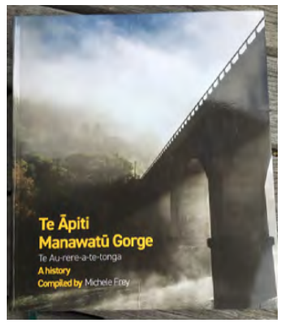
II.2.4 Re-connecting to Heritage.

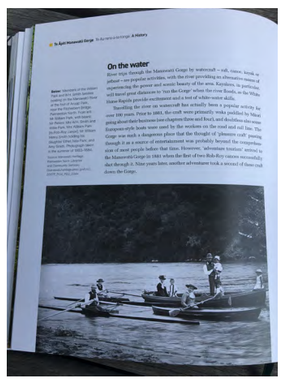
The project intersects a rich heritage of human occupation. As suggested above this heritage is linked to the wider, and dynamic, river and ranges landscape. At the heart of this landscape is the Manawatū Gorge as a key natural, cultural, and transport and communication link.

It is important to recognise the very strong rural and urban community connections that are associated with The Gorge and the memory of that particular route as one which characterises not only The Gorge but the people who travelled through it. The Gorge journey is ingrained in the collective memory of the plains communities to the west and to the east including Iwi Partners.

For further background on the wider heritage of the Manawatū Gorge and surrounds see *Te Āpiti Manawatū Gorge, Te Au-rere-a-te-tonga*. A history compiled by Michele Frey, Te Āpiti Governance Group, 2019:

"Te Āpiti Manawatū Gorge, Te Au-rere-a-te-tonga is a celebration of the natural, physical and spiritual elements if one of New Zealand's special places.... [the book] explores all dimensions of Te Āpiti, from the way it formed naturally to its occupants- past and present, including non-human organisms and humans alike – to how it has been modified over time for the benefit of people and the region and wider New Zealand...."





Te Āpiti Manawatū Gorge, Te Au-rere-a-te-tonga.
A history compiled by Michele Frey, Te Āpiti Governance Group, 2019

Walking through the Manawatū Gorge.
Postcard painting of two people walking through the Manawatū Gorge. The artist of the original, Laurence William Wilson, was an English landscape painter. He was involved in the opening of the "Otago Art Academy" with other painters and is believed to have returned to England in his later years.1870-1880.
Manawatū Heritage.

This postcard is thought to be a view of the Manawatū Gorge. The Manawatū Gorge (in Maori Te Āpiti, meaning 'The Narrow Passage') runs between the Ruahine and Tararua Ranges of the North Island of New Zealand, linking the Manawatū and Hawke's Bay regions. It lies to the northeast of Palmerston North - its western end is near the small town of Ashhurst, its eastern end is close to the town of Woodville. The Manawatū Gorge is significant because, unlike most gorges, the Manawatū River is a water gap, that is it runs directly through the surrounding ranges from one side to the other. This was caused by the ranges moving upwards at the same time as The Gorge was eroded by the river, instead of the more usual erosion of an already existing range. 2014P_IMCA-DigitalMaster_008509
Manawatū Heritage.

Walking through the Manawatū Gorge in the late 1800s.
Manawatūheritage.pncc.govt.nz
2007N_Go1_EPN_0267

Either side of the Manawatū River can be seen the road (to right), constructed from 1871-1872, and railway line (left), opened in 1891, that run through the Manawatū Gorge. 2011N_Go15_004695 Manawatū Heritage.

Upper Gorge Bridge, Manawatū Gorge(1909)
The 'Upper Gorge' bridge was completed at the Woodville end of The Gorge in 1875, with a toll gate to collect revenue for the maintenance of the road. The wooden bridge, built of heart totara, was replaced in 1931 allowing for two-way traffic. To the left of the picture can be seen the Toll Keeper's house. 2011P_Go34_005054 Manawatū Heritage

The project presents the opportunity to celebrate this sense of place particularly where the NoR and alignment crosses the Manawatū River at the western gateway to the Manawatū Gorge. This echoes the wider heritage of the journey from east to west where navigating the natural landscape and features was the defining characteristic of The Gorge journey.

Road leading to the Manawatū Gorge from Woodville
The road from Woodville enters The Gorge just after the Balance Bridge over the Manawatū River, shown on the left. The steam train departs a tunnel on the railway track through to Napier, opened in 1891. Manawatū Heritage 2011N_Go60_004714

Ian Porritt Photographer.

Broken Down in the Manawatū Gorge
The original caption reads "'Lizzie' in trouble in the Manawatū Gorge". These two men adopt an amusing pose for the photographer. A closer view reveals the front right wheel has broken off. Manawatū Heritage. 2015P_Go87_011275

II.3 Key Environmental Design Integrations.

This section sets out a framework for the key integrations where the project will add value through active engagement with key stakeholders and the community; and through creative ways that embed a legacy in terms of net environmental benefits, improved social outcomes and a positive impact on the local economy.

The project vision relates to the idea of a connected landscape as part of a wider journey. This idea is as much about a collaborative design process and the social and wider environmental outcomes that may come from it, as it is about physical works. The following integrations are key to realising those outcomes.

II.3.1 Integration 1: Working with the Natural Environment.

Cultural Indicators of Environmental Health.

- Catchment Land Use
- Vegetation-banks & Margins (100m either side)
- Land use of the river banks & margins (100m either side)
- Changes to river channel
- Riverbed conditions (deposited sediment)
- Water Quality, e.g. foams, oils, slime, weeds etc.
- Water Clarity
- Water flow/awa
- A variety of habitats
- Invertebrate Communities
- Average width
- Average depth

Recognising ONFLs, Natural Character and Ecological Value.

The *Alliance* Team supports a "Whole-of-Landscape" approach in order to appropriately integrate the project within it's immediate landscape setting (recognising that the designation process is a separate workstream and that the approximate NOR designation alignment is assumed).

The project intersects with areas that have been identified as Outstanding Natural Landscapes as well as High Natural Character Areas. The project area also includes a number of identified Queen Elizabeth The Second (QEII) National Trust open space covenants. These include a number of upper catchment gully areas particularly in the west.

These areas are identified in the NoR CEDF and are shown in Map A.7 Protected Areas, they include:

- the axial range ridgeline,
- the wider Gorge, River, Parahaki Island and the Manawatū Gorge Scenic Reserve
- the margins of the Pohangina River (east)
- streams that are part of the wider Pohangina and Manawatū river systems.

from NoR Preliminary ECDF, October 2018, p37

56. **Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.**

Planting & Ecological Integration.

(Also See Te Ahu a Tūranga: Manawatū Tararua Highway Project Ecological Management Plan TAT-0-EV-06030-CO-RP-0011)

The projects general ecological principles are aligned with the wider concept of Kaitiakitanga, placing the environment and sustainability at the heart of our work, and recognising our role as stewards for future generations, as well as the interconnection of all things, which means the well-being of any part of the environment will have a direct impact on the well-being of people.
Planting for the project falls into two main categories – Landscape Planting and Planting for Ecological Purposes. The pattern of the planting follows the general principal of using ecological planting to enhance existing natural patterns and processes and using landscape planting to support the ecological planting (and thereby existing natural patterns and processes).

Kaitiaki Design Inputs.

The Transport Agency has consulted, and worked collaboratively, with its Project iwi partners through the process of developing the Project and this EMP. The Project iwi partners are:
- Rangitāne o Manawatū;
- Rangitāne o Tamaki nui-ā-Rua;
- Ngāti Kahungunu ki Tāmaki nui-a-Rua; and
- Ngāti Raukawa/ Ngāti Kauwhata.

Ongoing engagement with the Project Iwi partners will occur as the Project progresses to enable the partners chosen kaitiaki to participate in and oversee the construction and operational phases of the Project.
For ecological matters, a qualified representative of the Project iwi partners (Rangitāne o Manawatū, Ngāti Raukawa/ Ngāti Kauwhata, Ngāti Kahungunu ki Tāmaki nui-a-Rua, Rangitāne o Tamaki nui-ā-Rua) or cultural monitoring advisor, shall be invited to attend at the time of the following tasks, with a suitably qualified ecologist, in all or selected areas of the alignment:
- Development of protocols, for example vegetation clearance and ecological restoration plans;
- Eco-sourcing and development of restoration plant species mix;
- Vegetation clearance on site, including epiphyte salvage and translocation;
- Daytime manual destructive habitat searches and salvaging;
- Nocturnal spotlight searches and salvaging;
- Fish capture and release and ensuring fish passage provision;
- Replacement and mitigation planting;
- Cultural monitoring;
- Fencing; and
- Pest and weed control.

A process for addressing and incorporating cultural advice is being developed with the Iwi partners. The process will likely involve establishment of a specific forum for Iwi partners and the Transport Agency to work collaboratively on matters concerning kaitiakitanga, this forum will progress requests and recommendations, such as those outlined below:
- Ensuring an integrated catchment approach to restoration; connecting bush remnants, headwaters and confluences of streams to the Manawatū River.
- Iwi project partners mātauranga is at the centre of terrestrial restoration planning and includes the creation of and long-term access to 20 hectares of Māori kai forest.
- The use of local taonga species in restoration and wetland creation that are eco sourced from within the Manawatū- Tararua region rather than species sourced from wider Aotearoa.
- The protection status of the LINZ block area and Māori kai forest is assessed in conjunction with iwi partners in aim of applying an appropriate land protection status that recognises cultural values as well as ecological values.
- The mauri of top soil, leaf litter and fallen trees is maintained, and is transferred to ecological restoration areas and into cultural taonga used on the project or within the wider iwi rohe.
- Weed and pest control considers the wider landscape in which it is placed, and specifically considers areas adjacent to Parahaki/Motuere Island and the confluence of the Manawatū and Pohangina Rivers.

This mātauranga will be reflected in the implementation of this EMP.

Iwi involvement in the ongoing detailed design of the planting plans and process of the project will also be developed including:
- Tikanga Māori
- Species selection
- Seed collection
- Access to planted areas for traditional and cultural purposes
- Propagation
- Management and Maintenance

Avoidance of Effects.

The nature and extent of potential adverse ecological effects associated with the of the Project on ecological values have been considerably reduced through the route selection and design refinement process.
The EMP sets out further management actions to avoid and minimise adverse effects during construction and operation including:
- Designing a planting mix adjacent to the carriageway to reduce likelihood of bird mortality through vehicle collision;
- Implementation of vegetation removal, construction and sediment management best practices to minimise effects on adjoining vegetation, habitat and fauna;
- Physical delineation (such as fencing or flagging tape) will be used to clearly mark the extent of vegetation clearance to be undertaken, along with vegetation to be protected; and
- Having Project Ecologists and Cultural Monitoring Advisors on site to advise the construction teams and recover important flora and fauna, when vegetation is being cleared.

Minimisation of effects.

Effects minimisation Mitigation of effects will be implemented within and along the margins of the Project footprint. This will occur through the application of a number of management approaches designed to reduce the severity of effects, reduce the likelihood of prolonged effects, and to neutralise effects by recreating replacement habitat quickly. These measures are detailed in section 2.5 of the Ecological Management Plan.

Offset and compensation of Residual Effects.

Following efforts to avoid or minimise effects, the Project is still expected to result in the loss of 16.79 ha of indigenous dominated forest shrublands and wetlands and associated flora and fauna. Offset and compensation for residual effects is outlined in the EMP. The design of this compensation planting is set out and a summary map is presented in the Drawing Set in Volume 3, TAT-3-DG-E-4150, TAT-3-DG-E-4161-2.

Terrestrial and Freshwater Ecology.

The Project Area also includes a number of **areas of ecological significance.** This includes (but is not limited to):

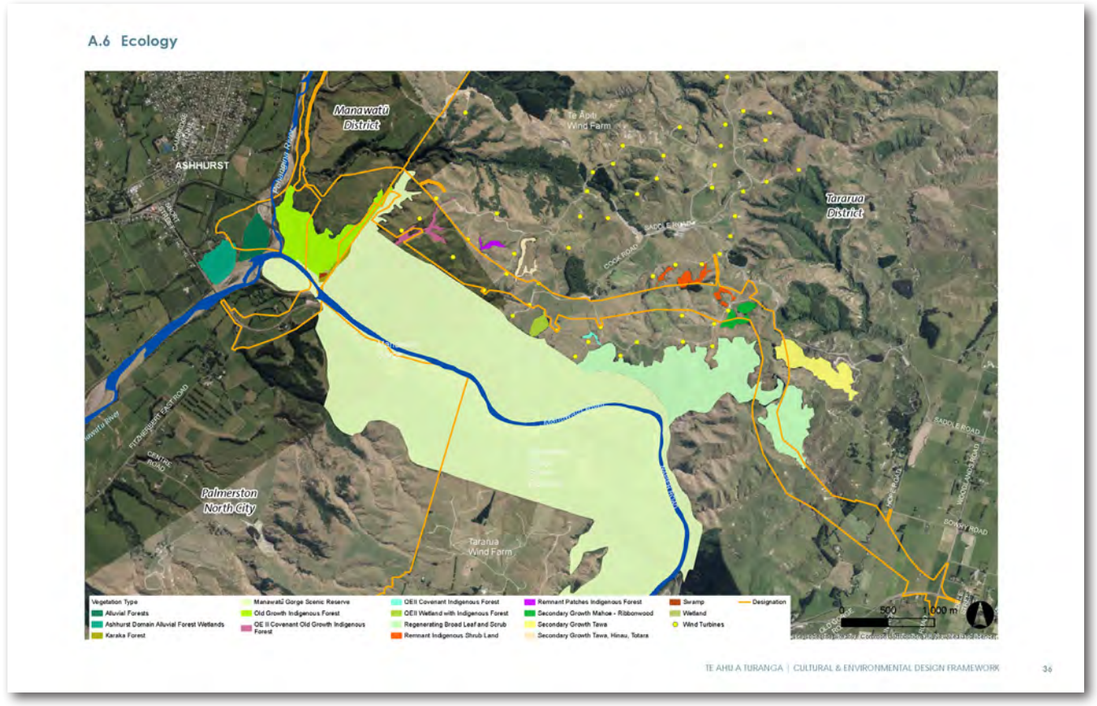
- The Conservation Estate and the Manawatū Gorge Scenic Reserve
- A number of QEII Trust protected areas (predominantly upper catchment gullies in the west with two other significant areas about the eastern ridge crest area.
- The fresh water ecological values associated the high natural character assessments including both QEII as well as wider assessment of high value streams through out the project (see s. A.5 Hydrology of NoR CEDF)
- The numerous ecological values identified for the lower western QEII catchment including areas of:
  - Seepage wetland
  - Kunzea forest
  - Alluvial Forest
  - Swamp Maire remnants
- Other isolated bush remnant areas and upland water bodies.

These areas provide the basis for wider environmental enhancement across the project which will be managed through the **Ecological Management Plan** processes including matters in relation to terrestrial ecology, freshwater ecology invertebrates, bats and avifauna. This process will include input and liaison with the Iwi Partners as well as the Department of Conservation and the QEII trust as well as the activities described in the 'Te Āpiti – Manawatū Gorge Biodiversity Management Plan' including such matters as:

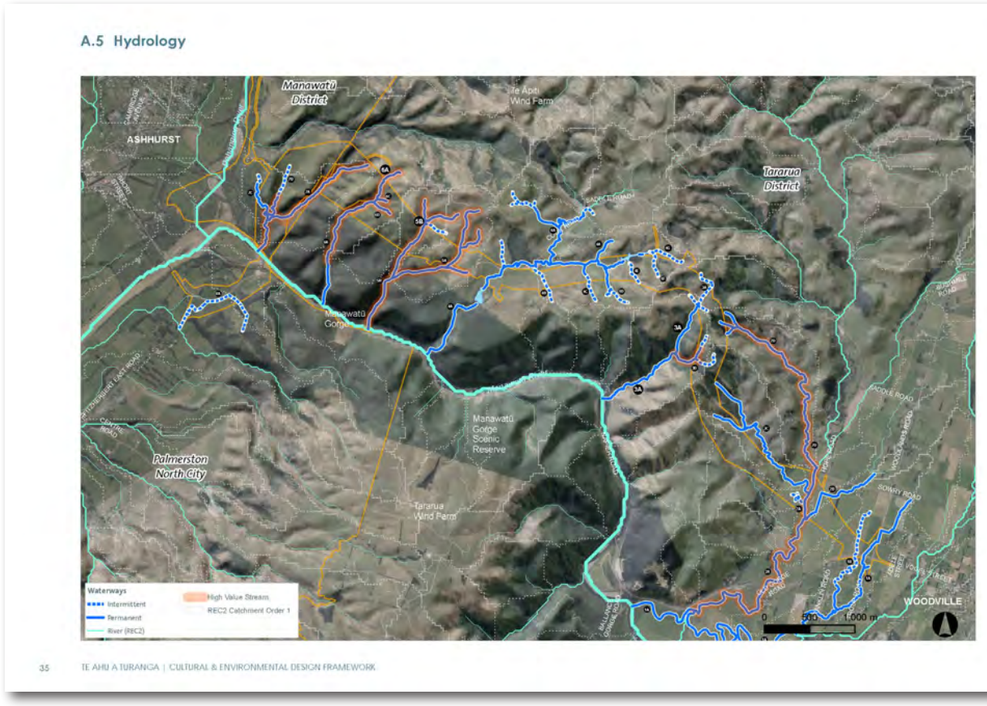
- Weed and animal pest survey and planning;
- Weed control
- Animal control
- Monitoring and reporting
- Biodiversity enhancement
- Landscape level linkages

This process aims towards connecting "landscape" and "ecology"; this includes promoting a scenic driving experience as well as promoting natural succession and

from NoR Preliminary ECDF,
October 2018, p36

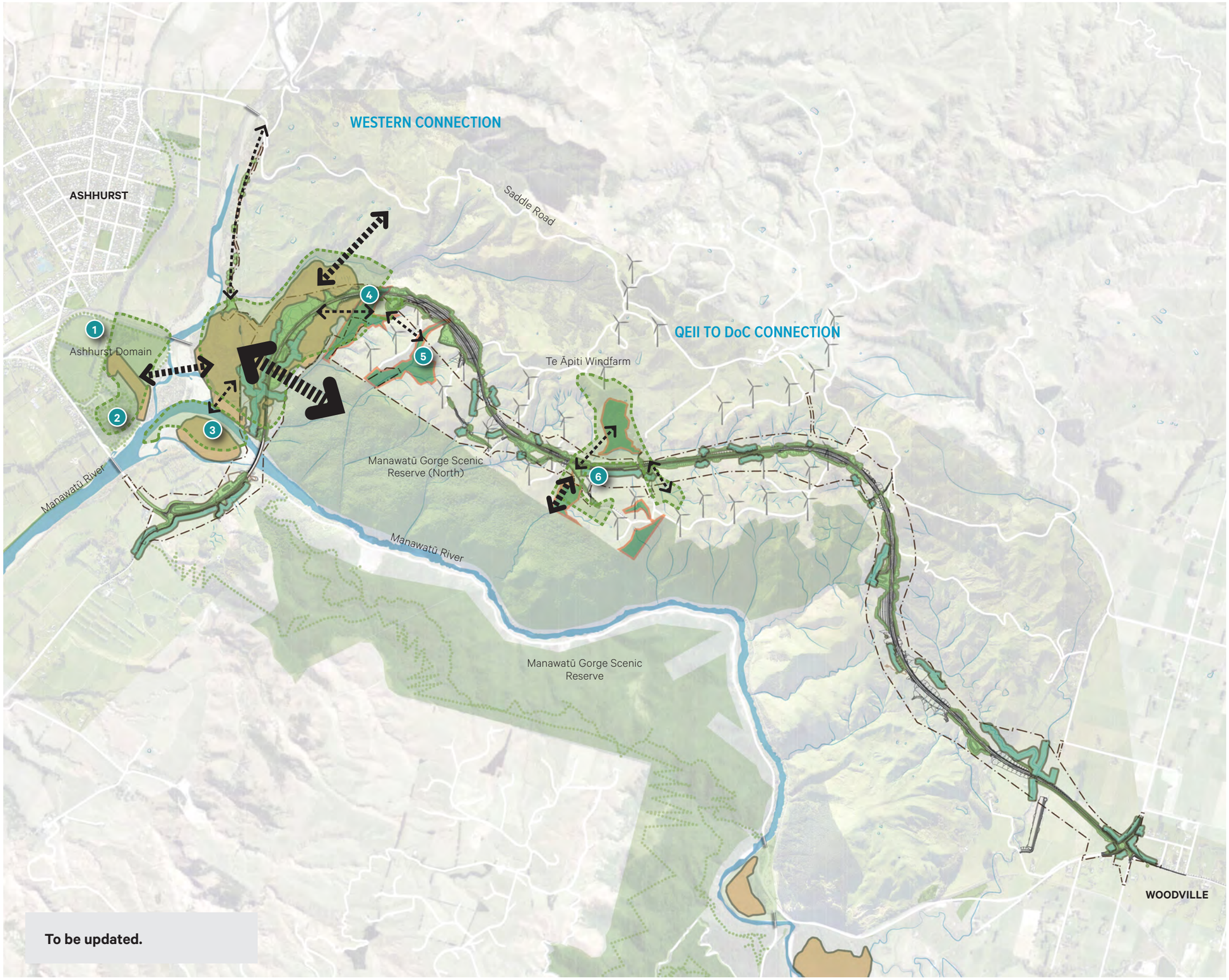


from NoR Preliminary ECDF,
October 2018, p35



58. **Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.**

The following Ecological Masterplan identifies the key ecological linkages and connections that will be implemented as part of our offer. These linkages and connections are based on the wider natural patterns discussed above.



Legend.

	Mitigation offset planting areas
	Mitigation offset planting - streams
	Landscape planting
	QEII Covenant
Ecological Linkages	
	Primary
	Secondary
	Tertiary

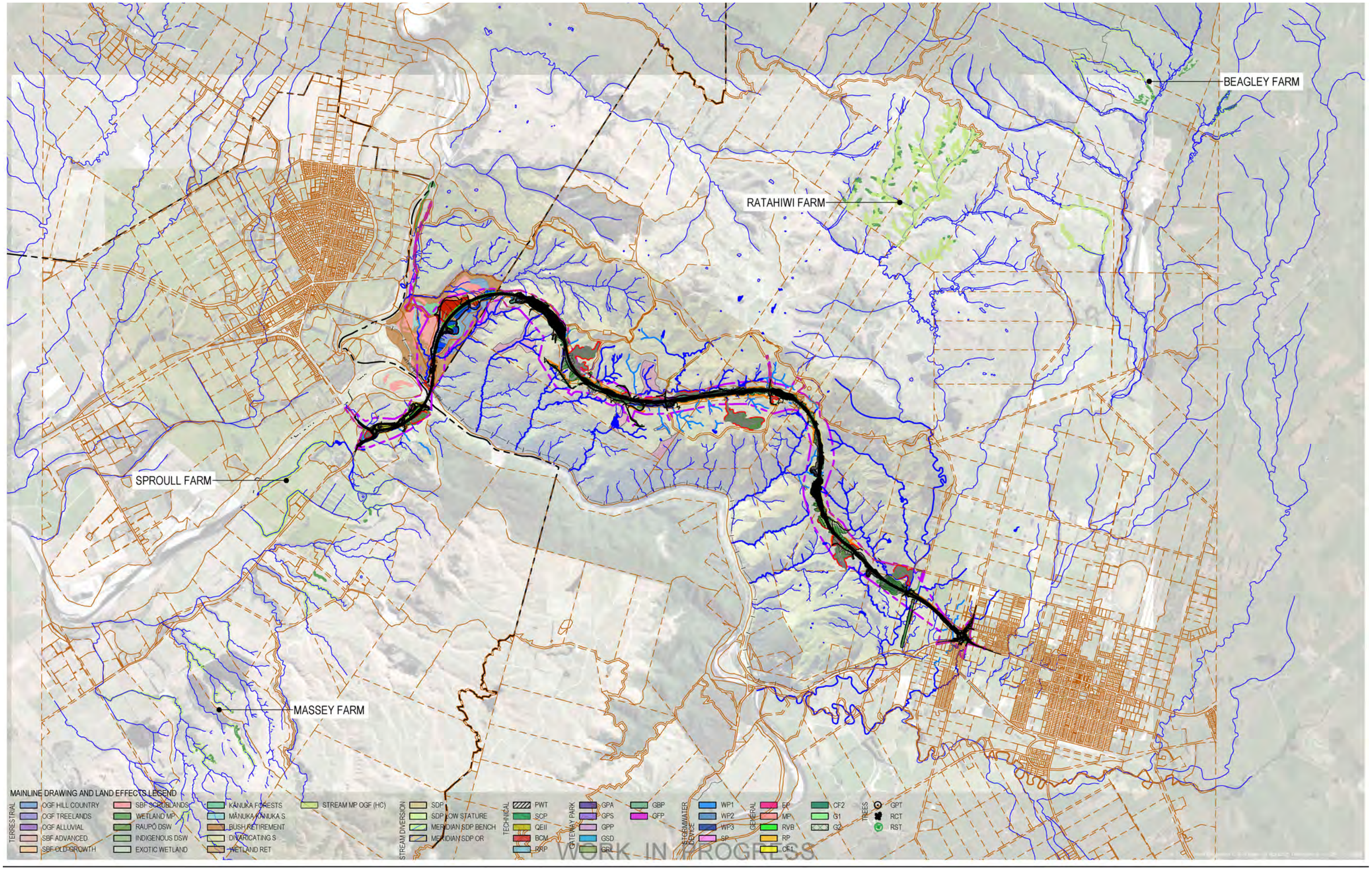
Areas identified for ecological offset mitigation planting:
1. Ashhurst Domain
2. Ashhurst Bush
3. Parahaki Island
4. QEII West
5. QEII East
6. QEII Central

Scale: 1:30,000@A3

N

0m 250m 500m 1,500m

To be updated.



Te Ahu a Turanga. Cultural & Environmental Design Framework.
November 2020.

II.3.2 Integration 2: Landscape and Natural Character.

Landscape Character.

The project traverses a diverse and complex landscape. The challenge and opportunity is to work with stakeholders and the Agency in developing a design response that "**works with the grain**" of the land and recognises the surrounding landscape including the rural and natural character attributes.
The NoR CEDF identities a number of character areas across the project (section 2.4.1) as well as key issues associated with them.
These have been updated as follows:

Manawatū River and Pohangina River Terraces.

Predominantly Characterised by:
- The natural character of the Manawatū River and margins
- The natural character and recreational attributes of the confluence of the Manawatū River and the Pohangina River
- The modified rural character of Parahaki Island and margins
- The river banks and beaches of the two rivers confluence
- The adjoining open spaces and recreational attributes of Ashhurst Domain
- The influence of the Kiwi Rail Bridge and the Ashhurst Bridge as existing river crossings
- The bush hill slopes of the western gorge and surrounds associated with The Manawatū Gorge Scenic Reserve.

Identified Issues (NoR CEDF 2.4):
- Design to minimise effects on threatened ecosystem.
- Opportunity to enhance and connect alluvial forest remnants.
- Provision of public access to be mindful of cultural and ecological sensitivities.
- Maintain the natural character and landscape values of the Manawatū Gorge.
- Cultural values of the Manawatū River and Parahaki Island.
- Ecological values of the rivers and forest.
- Bridge over Manawatū River to be a feature and yet not detract from the natural character and amenity of the Manawatū River.
- Opportunity to improve access to Manawatū River beaches.

Western Hill Country.

Predominantly Characterised by:
- The natural character of the QEII covenant areas (west and east)
- The adjoining bush Gully systems to the north
- A series of north south running spurs that visually separate the project from views from Ashhurst
- Pastured landcover
- The influence of Te Āpiti Wind Farm

Identified Issues (NoR CEDF 2.4):
- Design to minimise effects on streams, wetlands, and QEII covenanted forests.
- Opportunity to gain views down the Manawatū and Pohangina River valleys.
- Earthworks design to integrate cuts and fills into the landscape.

Ruahine Ridge Crest.

Predominantly Characterised by:

- The rolling upland terrain and pasture
- Steeply incised bush gullies
- South draining stream catchments that connect to the Scenic reserve and QEII areas
- The upland landform features and associated windfarm infrastructure
- The visual amenity and interest of the windfarm.

Identified Issues (NoR CEDF 2.4):

- Design to minimise effects on streams and indigenous vegetation.
- Earthworks design to integrate cuts and fills into the landscape.
- Opportunity for views of windfarm, rural landscape and indigenous forest.
- Opportunity for stopping/ viewing/ experiencing the wind and providing access to the Manawatū Gorge Scenic Reserve.

Eastern Hill Country.

Predominantly Characterised by:

- The steeper east facing slopes and gully systems that drain to the Tararua Plains
- Ag Research Facility as a significant landowner.
- Areas of regenerating shrubland and bush
- Steep erosion prone pastured slopes
- Existing farm infrastructure and areas of exotic vegetation.

Identified Issues (NoR CEDF 2.4):

- Design to minimise effects on streams and indigenous vegetation.
- Earthworks design to integrate cuts and fills into the landscape.
- Opportunity to gain views across the Tararua plains.
- Gateway and access to Woodville and Manawatū Gorge.

Manawatū River Valley.

Predominantly Characterised by:

- The open flat to gently undulating land of the Tararua Plains
- The peri-urban margins of Woodville and associated settlement patterns
- The surrounding existing open space linkages with the eastern mouth of the Manawatū Gorge (including Woodville Domain and Ferry Reserve)
- Existing rural and farm infrastructure and settlement

Identified Issues (NoR CEDF 2.4):

- Gateway and access to Manawatū Gorge Woodville and Tararua District.
- Access to the Manawatū River.
- Opportunity to improve access to Manawatū River beaches.

Natural Character.

Under section 6(a) of the RMA, natural character is concerned with the natural character of the coastal environment, wetlands, lakes and rivers and their margins. In the context of this Project, it is the natural character of rivers (including streams and wetlands) and their margins which is relevant.

Natural character is essentially concerned with the condition of water bodies and their margins and how they are experienced. It is a term used to describe the "naturalness" of river/stream environments. The degree or level of natural character within an environment depends on: (a) the extent to which natural elements, patterns and processes occur; and (b) the nature and extent of modifications to the ecosystems and landscape/ riverscape.

Natural elements, patterns and processes
Natural elements incorporate all key river elements, such as the water, bed and banks, as well as particular attributes occurring within the river environment, such as geological formations, indigenous vegetation and fauna. Natural patterns take the channel and the riparian edge into account, and those patterns created by humans on adjacent land, such as earthworks, shelter belts, fences, etc.
Natural processes include river/lake dynamics, flows and currents, erosion, floods, and regeneration processes of riparian vegetation and ecological health.

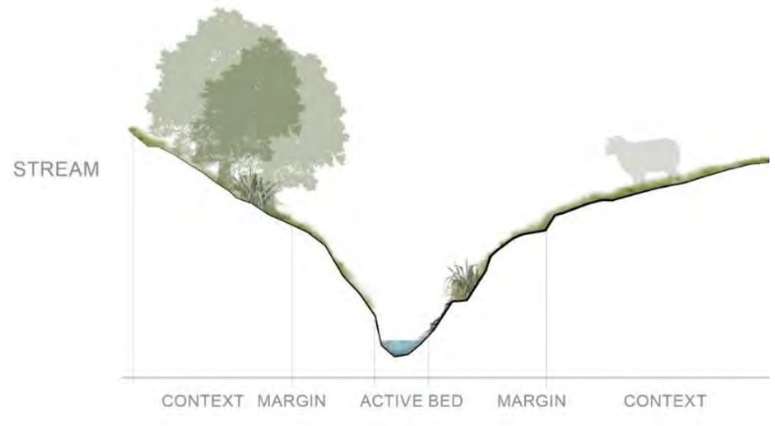
Modifications
In respect of modifications, the following factors are relevant:(a)the highest degree of natural character (greatest naturalness) occurs where there is least modification; and(b)the effect of different types of modification upon the natural character of an area varies with the context and may be perceived differently by different parts of the community.

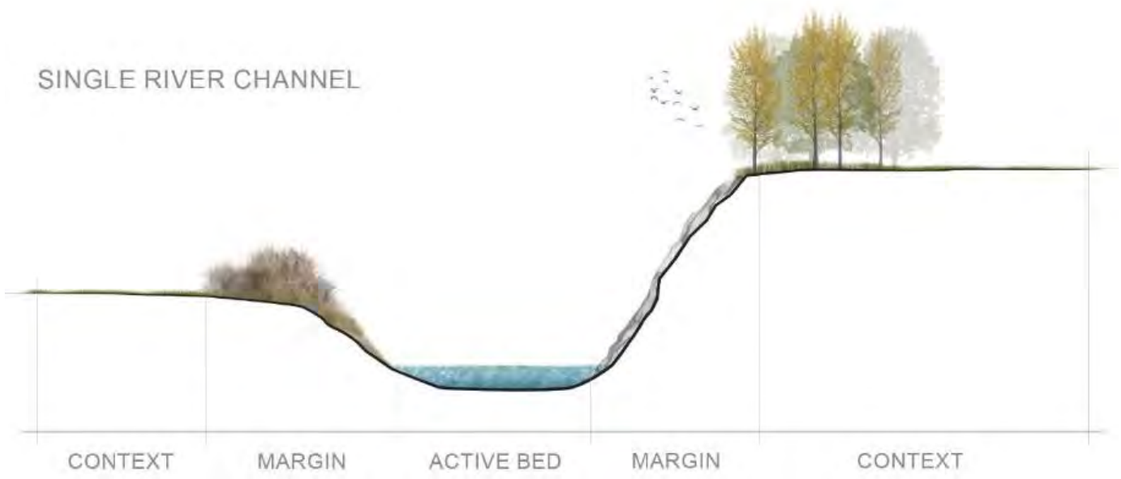
The attributes and qualities that need to be considered in order to assess the naturalness of rivers and other water bodies relate to the degree of intactness of the natural elements, patterns and processes, including the extent of any physical modifications to landforms or presence of built structures. It also includes the perceptual or experiential component of naturalness.

Components of the natural character assessment
The natural character assessment of rivers, streams and their margins are comprised of three spatial components: context, margin, and active bed. These are illustrated in Figure I.1.

Context.
Context refers to the wider landscape context of the catchment adjacent to the river/stream and considers the land use, landform and vegetation cover that contributes to the overall character of the river/stream and its margins. The quality of the wider area surrounding a river/stream corridor contributes to the overall level of natural character of the river/stream and its margins.

Margin.
Margin refers to the area between the active bed and the wider landscape context. The margin is based on physiographic features and so varies in its actual width along the length of a water body (rather than remaining a set or consistent width). River processes, patterns and influences will be evident in the margin, such as occasional flooding, former banks and channel patterns, and river gorge wind flow. From locations within a river/stream margin, the active bed should be a dominant feature. The margin is typically narrow and may incorporate terraces, banks, stop banks, abandoned

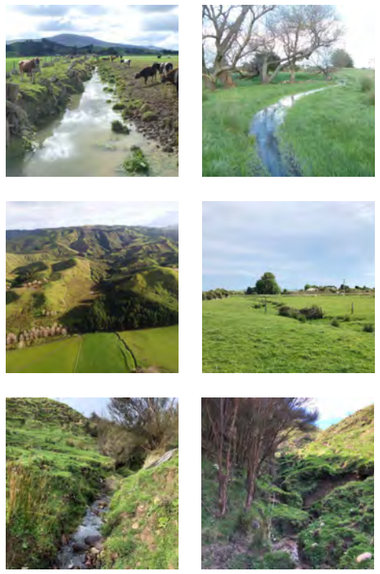




river bed, small floodplains, river and stream estuaries. Generally, topographic features define the extent of the margin such as the top of banks and the base of terraces. Vegetation boundaries can also define the margin extent such as where shrubland or forest adjoins grazed pasture. Infrastructure such as roads, tracks fences and structures are often situated on the margins.

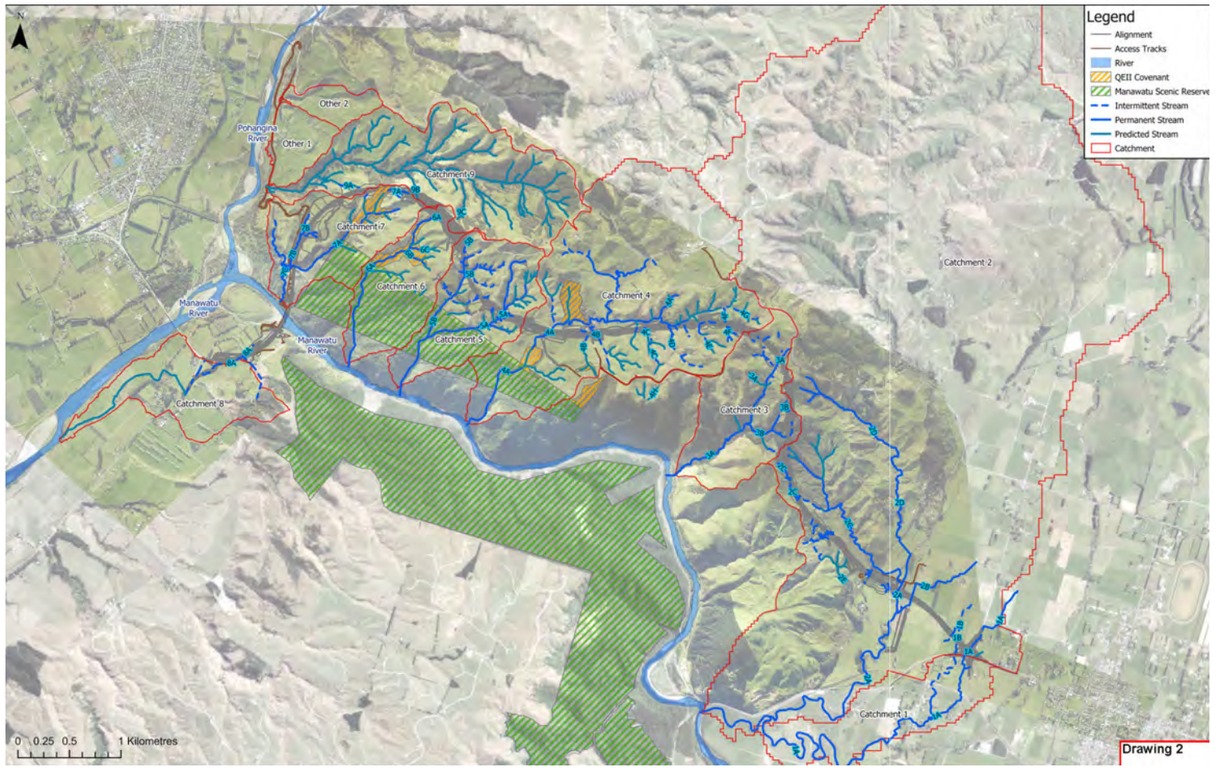
Active bed

For single stream incised rivers, the active bed comprises the actual river channel. For wider river beds and those with a braided character, the active river bed includes wetted areas/channels and may include dry margins, islands, banks, abandoned channels and bars of a braid plain that form part of the river's natural migration across the river bed, as well as flood channels and side channels

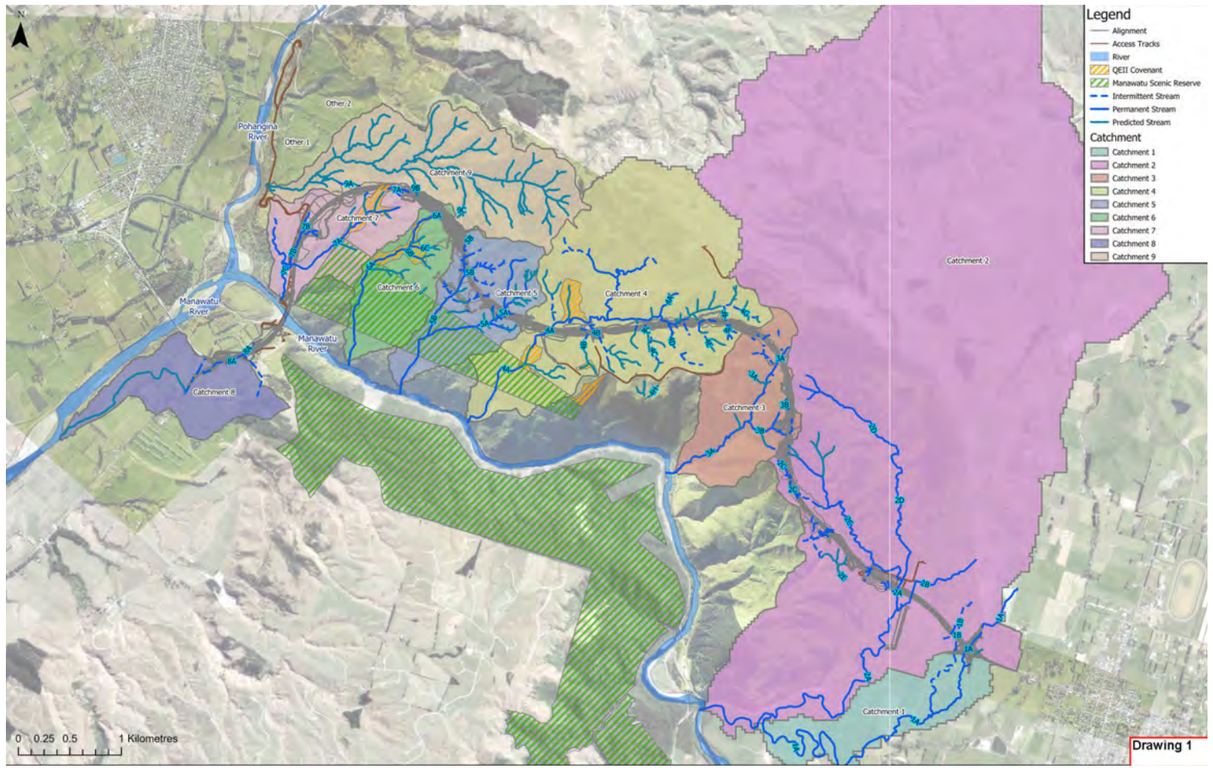


Natural Character Assessment Framework.

Attribute Group	Natural Character Attributes
Active Bed (includes streams and wetlands)	
Abiotic	**Flow Regime** – how natural/modified are the flows. **Active bed/morphology**, including, sedimentation and presence or absence of human modifications within the active bed (e.g. weir, dam, etc) **Water Quality** –level of water clarity, sedimentation, nutrient and bacterial levels
Biotic	**Indigenous taxa assemblages** – presence of species forming aquatic communities and the level in representing unmodified habitat potentials **Ecosystem functioning** – intactness of ecosystems Presence / absence of **exotic aquatic flora and fauna** (i.e. presence of exotic flora/fauna potentially diminishes natural character)
Margin (includes streams and wetlands)	
Abiotic	Presence/absence of **structures and human modifications** on the banks/edge of a waterway
Biotic	**Terrestrial ecology** – presence of expected species, communities and habitats
River/Stream Corridor (includes active bed, margin and immediate context)	
Experiential	Human perception of how natural a place appears, underpinned by the biotic and abiotic attributes (above). It includes the remote/untamed experience a place may provide and experiential attributes such as sounds, smells and transient values.



Waterways and Catchments Overview Plan. 1TAT-3-DG-E-4100



Waterways Overview Plan. 1TAT-3-DG-E-4101

II.3.3 Integration 3: The Working Rural Landscape (rural zones of the project area).

The Farming Community.

Early and ongoing engagement with landowners will ensure that the detailed design of any access tracks maximises farm connectivity and minimises disruption to farming practices. The following matters are considered relevant: having agreements in place regarding minimising disruption to farming practices, such practices might include minimising disturbance to areas of farms during critical farming operations such as shearing muster, lambing or calving times as well as minimising disturbance to farm stock movements to limit disruption to farming during construction.

A number of the properties affected by the project have **SLUI (Horizons' Sustainable Land Use Initiative)** Farm Plans prepared, where appropriate the *Alliance* team will support these being updated to best reflect the outcomes sought by the farm plans. This might include updating the farm maps to reflect any subdivision changes or landform changes bought about as a result of the project.

Deposition of fill on properties has the potential to create different landforms, the appropriate management of which would ideally be reflected in updated farm plans. This includes the incorporation of farm access, drainage, retirement and management as well as pasture management and pasture reinstatement. For example, landscape amenity, slope stabilisation and offset mitigation planting could be used to potentially implement or complement land management initiatives recommended by the farm plans including planting of retirement or riparian areas as part of wider integrated catchment management planning.

Working in with Meridian Energy.

The *Alliance* team acknowledges the significance of the project in relation to Te Āpiti Windfarm. It is acknowledged that this is a key relationship that will need to be considered carefully throughout the ongoing development to the project. These considerations may include (but not be limited to):

- Realignment of access
- Integration of disposal areas
- Planting plan restrictions
- Understanding wind modelling and earthworks
- Wider farm management planning
- Opportunities for wider recreational access as part of the integrated Te Āpiti Masterplanning Process.

These matters are expected to be addressed through the **Wind Farm Management Plan ("WFMP")** prepared in accordance with Designation Condition T1.

II.3.4 Integration 4: Urban Integration and Community Liveability (urban zones adjoining the project area).

While the immediate setting of the project is rural in character, the wider context includes significant areas of **urban settlement**. These areas are administered by a number of different territorial authorities including the Palmerston North City Council, the Tararua District Council, and the Manawatū District Council.

> Palmerston North is home to 88,700 people, Ashhurst is home to 2,700 and Woodville is home to approximately 1,500.

Palmerston North as the closest and largest urban centre to the project. PNCC has set outs its "Big City" ambition with Small City benefits in a **Creative and Liveability Strategy.** The purpose of this strategy is *"To help Palmerston North compete for people, talent and investment, as well as improving how the city is perceived by locals, visitors and potential new citizens and investors, creative city-making needs to inform Council's work on key activity areas. These include the city centre, Manawatū River, active and public transport, placemaking, the arts, events and festivals, recreation and sports facilities, cultural heritage, and Council-controlled activities."*

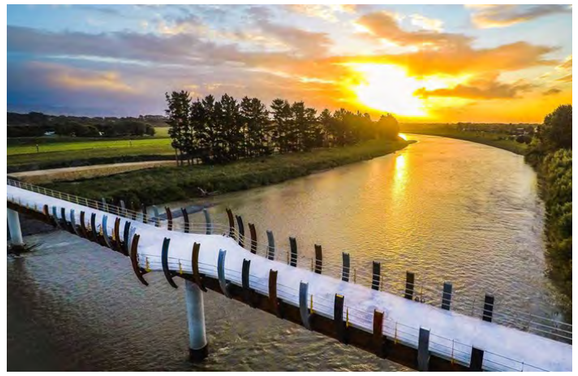
Priority 1 of this Strategy is to create a city that has great places for all People, and particularly families. This is set out in a number of Public Space project areas one of which is the Manawatū River.

In this context PNCC sometimes refers to the river as **The Manawatū River Park**.

"For many decades the city turned its back on the Manawatū River. Over the past 10 years, the city has begun to embrace the Manawatū River as a significant recreational asset that allows people to connect with the natural environment and extend their physical activity. Locals increasingly regard the river as a great place or series of great places".

In this regard the project has the opportunity to integrate with this wider urban strategy and explore opportunities of mutual and multiple benefit. A further example of these types of benefits are reflected in **Priority 5**: *have the most active community in New Zealand to promote recreation, enjoyment, fitness and health.*

Priority 5 is in turn reflected in the PNCC Active Community Plan.



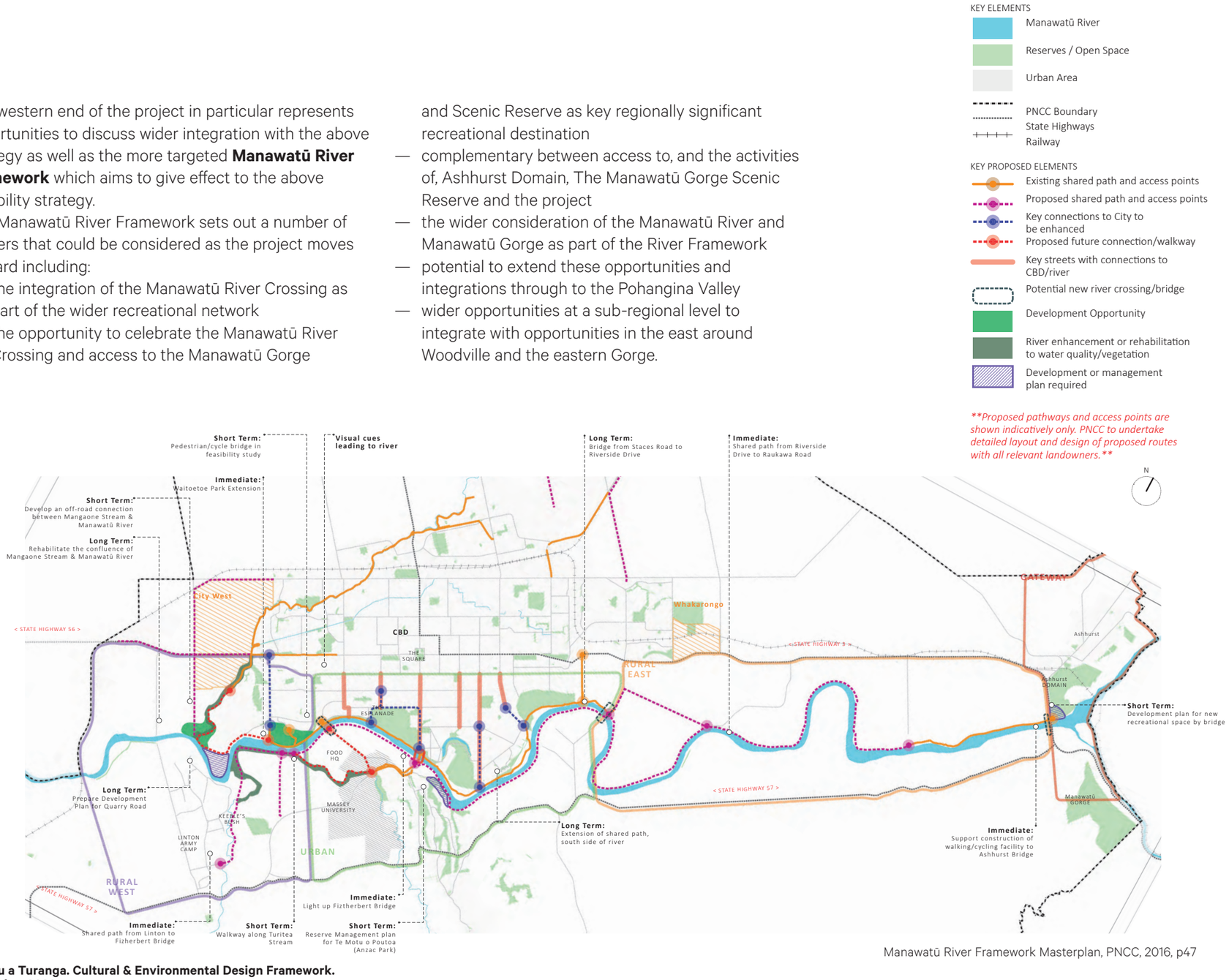
Existing and Proposed assets of the Manawatū River Framework.

Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.

The western end of the project in particular represents opportunities to discuss wider integration with the above strategy as well as the more targeted **Manawatū River Framework** which aims to give effect to the above liveability strategy.

The Manawatū River Framework sets out a number of matters that could be considered as the project moves forward including:

- the integration of the Manawatū River Crossing as part of the wider recreational network
- the opportunity to celebrate the Manawatū River Crossing and access to the Manawatū Gorge and Scenic Reserve as key regionally significant recreational destination
- complementary between access to, and the activities of, Ashhurst Domain, The Manawatū Gorge Scenic Reserve and the project
- the wider consideration of the Manawatū River and Manawatū Gorge as part of the River Framework
- potential to extend these opportunities and integrations through to the Pohangina Valley
- wider opportunities at a sub-regional level to integrate with opportunities in the east around Woodville and the eastern Gorge.



Manawatū River Framework Masterplan, PNCC, 2016, p47

Manawatū River Framework, PNCC, 2016.

Vision.

Palmerston North's Great Linear Park.
"Each year there will be more things to do and more people will spend more time at the Manawatū River Park."

Key Directions.

1. Build the network first - *Connectivity.*
2. Create a distinctive sense of place - *Uniqueness.*
3. Activate the river edge - *Destination.*
4. Express Rangitāne Māori culture - *Rangitāne identity and culture.*
5. Restore ecologies and environmental quality - *Environment.*
6. Create a sense of ownership - *Community and stakeholder engagement.*

Design Principles.

1. Ensure continuity and coherence.
2. Maintain consistently high quality.
3. Ensure context specific design.
4. Integrate and coordinate all initiatives.
5. Engage with stakeholders.
6. Prioritise.

8.4 River Environments: **Gateway**

View of Ashhurst Domain and river confluence from the project area looking West.

The Manawatū River Framework vision of Gateway is particularly relevant to the project, including aspirations for a Saddle Rd link, the SH3 Ashhurst Bridge Project and the wider integrations and open space opportunity for the immediate Ashhurst community and for connections to Palmerston North.

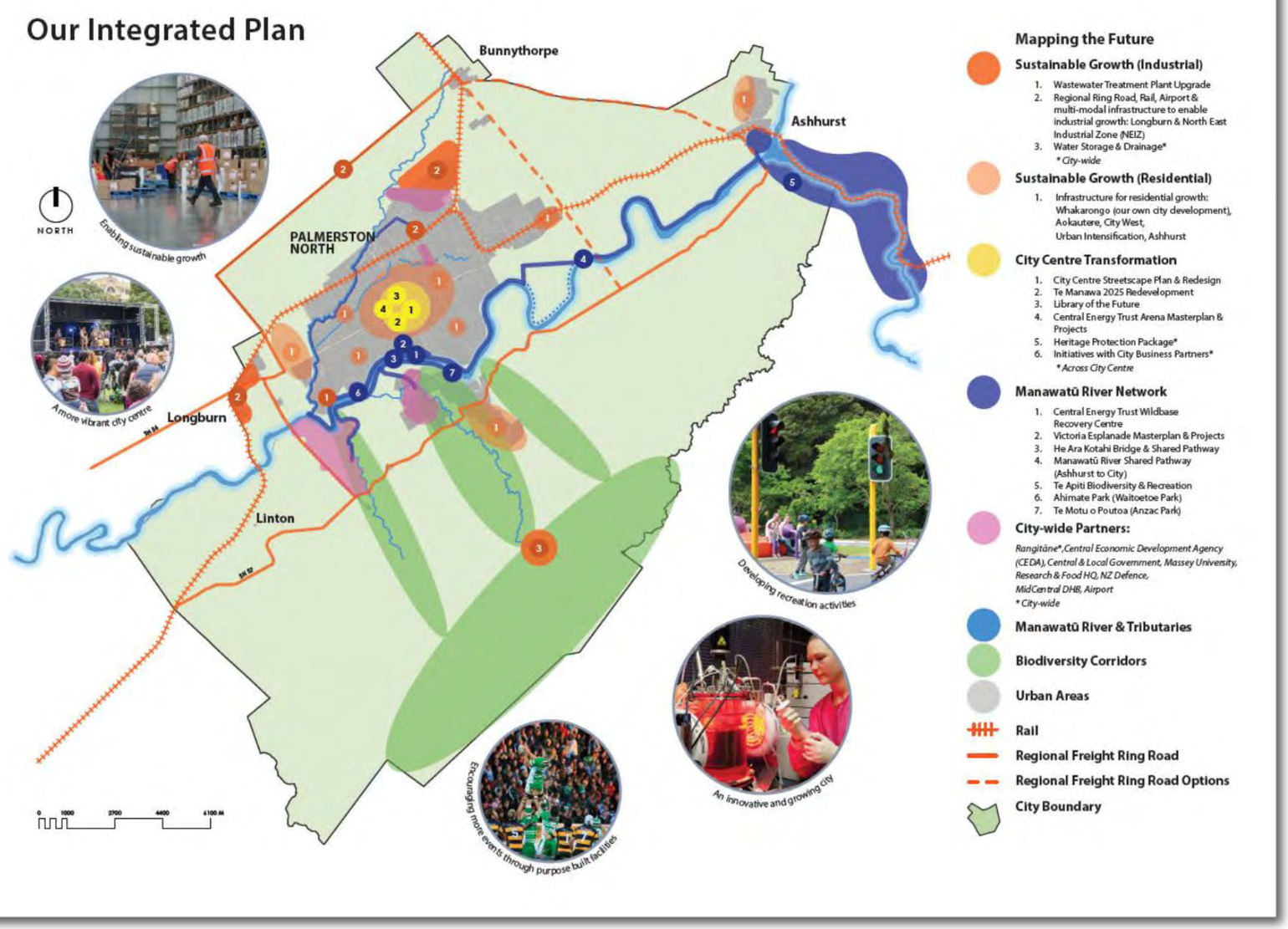
Manawatū River Framework, PNCC, 2016. p66

These wider opportunities also relate to the identification of the Manawatū River as a key spatial element in the integration of wider spatial planning for the area as identified in the **Palmerston North City Council Spatial Plan** (PNCC 2018 Long Term Plan & Spatial Plan). This plan is promoted by PNCC as "Our Integrated Plan" and includes the identification of the Manawatū River Framework.

This plan not only relates to the physical spatial arrangement and opportunities, but also to wider environmental social and potentially cultural benefits that can be derived from a more explicit connection to the River and by extension the wider River Landscape and integrated catchments that feed into it.

"If more people spend more time doing more things at the river each year, the community will develop a greater appreciation of the natural values of the river, particularly its water quality. This is likely to increase people's willingness to pay for water quality improvements in the future."

APPENDIX A: PALMERSTON NORTH CITY SPATIAL PLAN



Palmerston North City Council Spatial Plan.

II.3.5 Integration 5: Open Space, Walking & Cycling.

The project intersects with a number of locally and regionally significant open space and recreational areas. Urban integration was one of the challenges put to the project team early in the bid phase of the project. This included the identification of the broader open space and recreational context for the project including the Manawatū River Framework, The Manawatū Gorge Scenic Reserve, Ferry Reserve and a number of existing tracks and road connections. The project will continue to develop integrated design solutions consistent with the design principle of re-connecting people and place as follows:

Eastern Open Space & Connections.

Links to existing recreational resources (and areas of cultural significance) are acknowledged in the eastern sections of the project. This includes the eastern entrance to the Manawatū Gorge and Ferry Reserve. Direct design integration with these areas is not possible given the project alignment, however key linkages and connections to this area will be developed through to detailed design. This will include:

- Pedestrian footpath upgrades east of Woodville township to connect to the Shared Use Path
- Signage and wayfinding to clearly identify access to Ferry Reserve and the Manawatū Gorge from the highway
- Signage and wayfinding to clearly identify access to Ferry Reserve and the Manawatū Gorge from the shared use path

Western Open Spaces & Connections.

The immediate open space context of the project in the west includes Ashhurst Domain, the existing SH3 bridge and The Manawatū Scenic Reserve. The Gateway Park, Manawatū River Bridge and Wetland Experience will be developed in this context as part of integrated open space network. This design process will continue to be developed in collaboration with Kaimahi and the Iwi Working Group as well as Te Āpiti Governance Group and PNCC. This design development will include:

- Clear signage from the Ashhurst Roundabout to the Gateway Park and The Manawatū Gorge Scenic Reserve
- The development of the Gateway Park as a key open space “node” that appropriately reflects the character of the Manawatū River without detracting from existing and proposed open space and recreational facilities including Ashhurst Domain and adjoining rural properties.
- Provision for sufficient carparking to meet current demand as a minimum at the Gateway Park
- Safe access to the Manawatū Gorge Scenic Reserve throughout construction in accordance with Designation Condition PN2
- Provision of an appropriate level of facility including toilets and shelter at the Gateway Park
- A safe open space area on the eastern side of The Manawatū River Bridge that provides for a quality amenity experience to appreciate the visual, cultural, landscape and natural character qualities of the Manawatū Gorge and the Manawatū River.
- Development of the Wetland below the eco-viaduct bridge as a wetland “experience” as part of the wider Ki Uta Ki Tai (Ridge to River) concept this will include the ability to facilitate access between the wetland and the main western bridges and to link both the Shared Use Path and the Pohangina River Corridor.
- The re-purposing of the construction access track (Eco-Viaduct Bridge) as an unsealed walking track linking Saddle Road to the Wetland Experience and the Shared use path. This will allow for an appreciation of the wider natural, cultural and rural landscape as well as the natural character qualities of the Pohangina River Corridor.

The integration of the project within the surrounding urban context relates to wider recreational and open space opportunities as well as spatial planning ambitions of the community.

Designation Condition 38 Recreational Path Fund.
Designation Condition 38 sets out an intention to further investigate Recreational path connections as follow:

As soon as practicable, the Requiring Authority must establish and administer **a)** *Recreational Paths Fund of $1 million.*
b)*The purpose of the Fund is to enable the investigation and construction of recreational paths that potentially connect to the shared path required by Condition 36.*
c) *Activities under (b) are to be undertaken in consultation with the Project Iwi Partners, Te Āpiti Manawatū Gorge Governance Group, the Councils, and relevant landowners.*
d) *Construction activities under (b) are subject to land availability and obtaining any necessary statutory approvals.*
e) *The Fund must remain available until the opening of the new road only.*

A number of additional areas and existing community driven plans could also be considered in the context of Designation Condition 38 to further assist in the broader integration of the Project across the three District Councils as well as the Conservation Estate. These areas are listed A to E on the following pages. These opportunities will be discussed and developed as part of the ongoing refinement of the project in accordance with the proposed condition above.

A. Ashhurst Domain.

The Ashhurst Domain is a key consideration in the immediate open space activity context to the western end of the project.
Considerations include:

- Complementary active recreational opportunities with the project western carpark upgrade
- Linkages and connections for walking and cycling
- Opportunities of complementary river access and access to the Manawatū and Pohangina River confluence
- Opportunities for further off set ecological mitigation and cultural expression.

B. Ashhurst Bridge Walking & Cycling Upgrade.

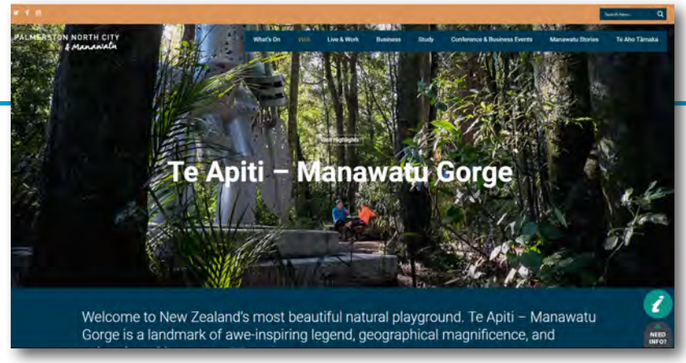
The provision of safe walking and cycling facilities on the Ashhurst Bridge has the potential to further enable access to the project area as well as the Manawatū River Crossing.
Considerations include:

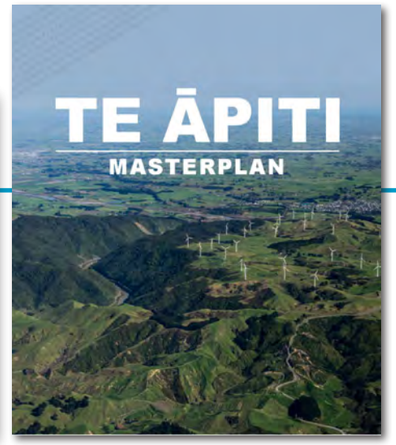
- Alignment of walking and cycling access to link the project and the upgrade
- The design and “branding” of wayfinding and signage to promote the link
- Consideration of materials and design for the Manawatū River Bridge walking and cycling access as part of an extended corridor approach.

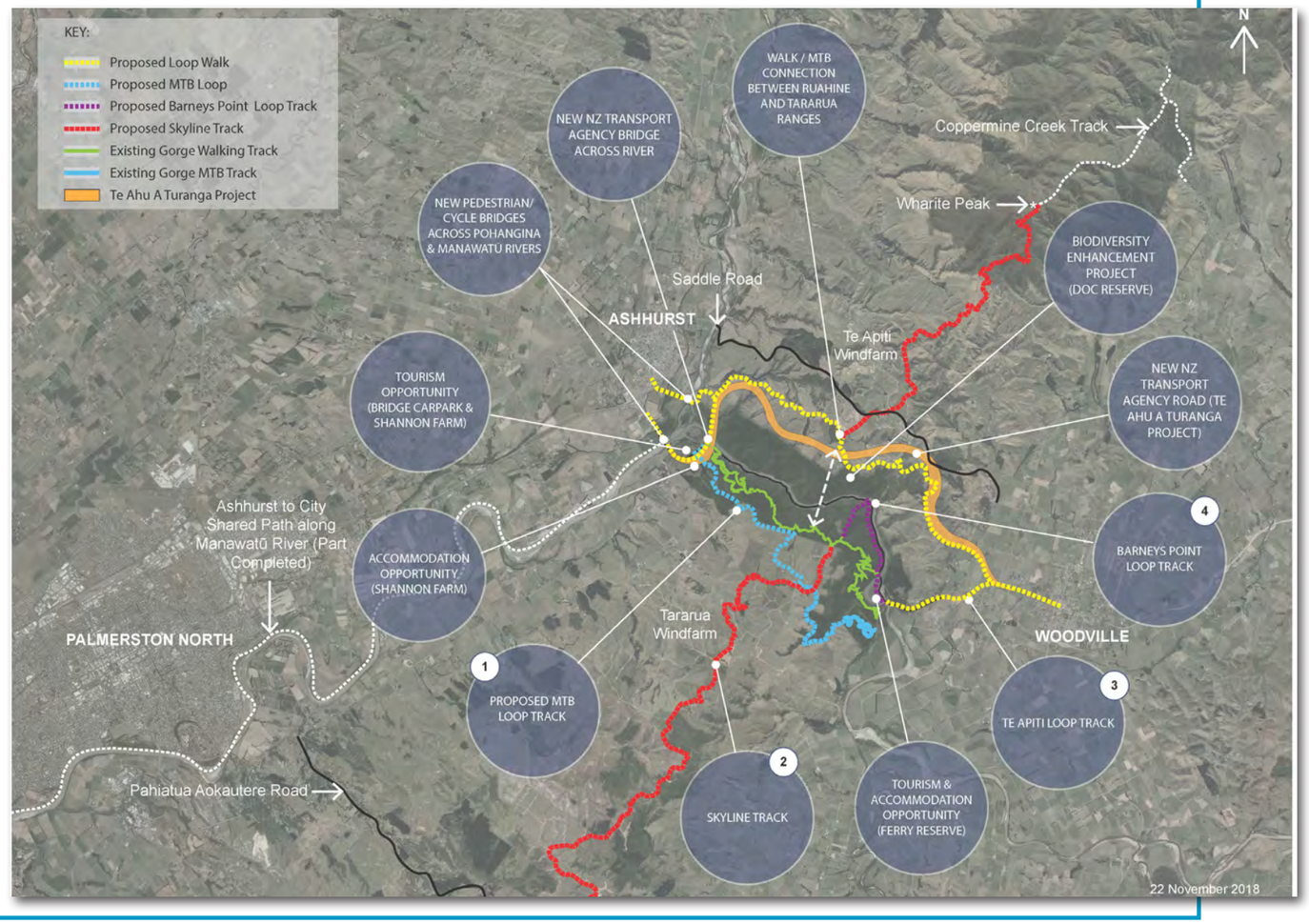
C. Te Āpiti Masterplan (Draft).

Te Āpiti Masterplan (Draft) and the work of Te Āpiti Governance Group is identified in the NoR CEDF (s.3.9 Walking and Cycling) as a key integration opportunity for the project.
Considerations include:

- Wider governance and inclusion of key partners and stakeholders
- A broader scale East / West linkages and connections plan that includes the project and potential access opportunities
- Consideration of broader ecological restoration, enhancement and education opportunities
- Consideration of the wider social, economic, tourism, accommodation and recreational opportunities that could potentially be unlocked by cross organisational integration and planning including enabling the primary objectives of the Project.







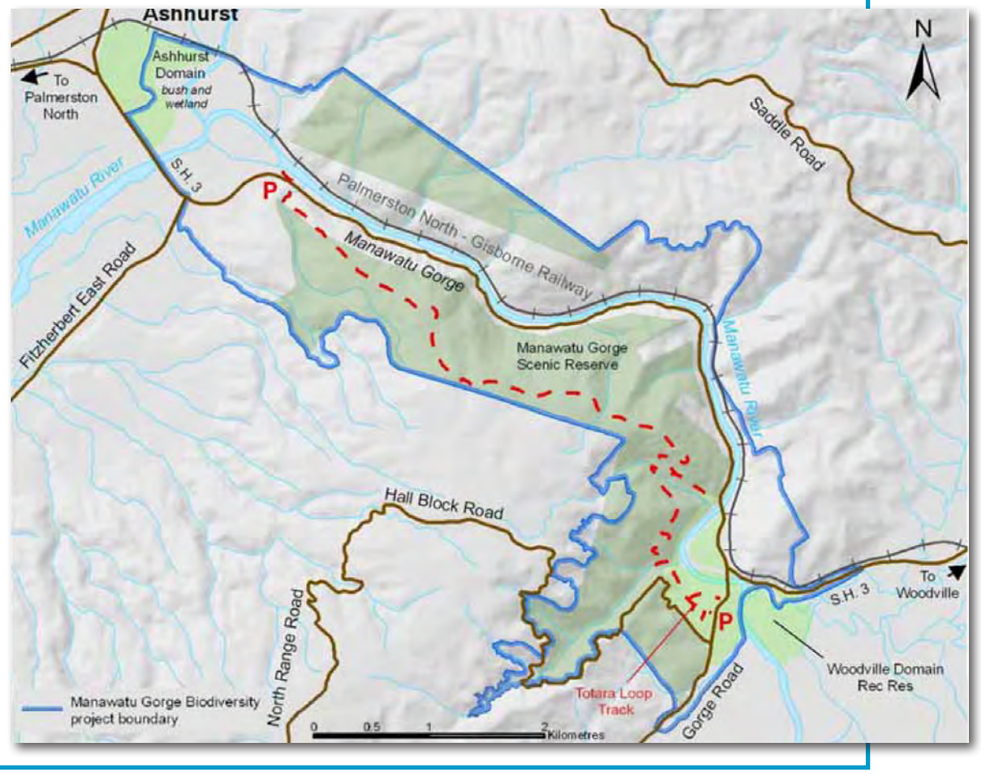
D. Manawatū Gorge Scenic Reserve (Te Āpiti & Manawatū Gorge Biodiversity Project).

The Manawatū Gorge Scenic Reserve (along with the adjoining Kiwi Rail landholdings) represents a key scenic and biodiversity hub and opportunity for the Project. The Department of Conservation plans to "*preserve, sustain and enhance the biodiversity, scenic and recreational values of this unique site*", which also attracts an increasing number of visitors. "*The walking track has been increasing in popularity in recent years – DoC figures show nearly 70,000 trips were made along part of The Gorge in the 12 months to the end of February. That included a 25 per cent increase in people doing short walks, from 47,000 to 59,000.*"

Stuff, June 29, 2016

Considerations include:

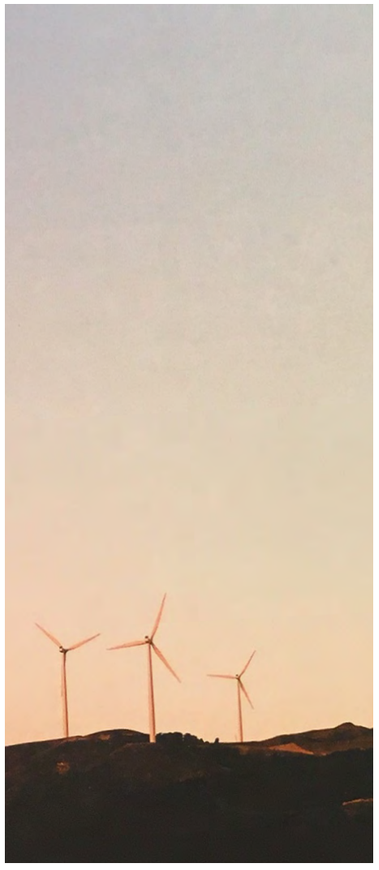
- Linkages and connections with wider DoC track network
- Access to the DoC estate to the north of the Manawatū River
- Expanded weed and pest control
- Opportunities for a wider integrated open space recreational and tourism plan that includes the conservation estate (for example track huts)
- Enhancement of off set mitigation areas of the project that help to buffer or enhance wider terrestrial and freshwater ecological values.
- Inclusion of wider access networks across the area including mountain biking and walking tracks.



E. Woodville Domain and Ferry Reserve & Lindauer Art Trail.

Woodville and the eastern portion of the project area represents similar opportunities to the west albeit serving a smaller immediate community. Nevertheless, the eastern open space areas are key to integrating wider opportunities across the entire project area. Considerations include:

- Maintaining and enhancing access from Woodville to the Old Gorge Road
- Inclusion of eastern areas and communities of interest in all wider open space planning opportunities to ensure these communities voices are heard.
- Maintenance and enhancement of key open space assets including the biodiversity, educational, recreational and river access opportunities afforded by the existing programmes and management of Ferry Reserve and the wider Woodville Domain area.
- Consideration of the Lindauer Art Trail connection.
- Economic development opportunities as indicated in Te Āpiti Masterplan.



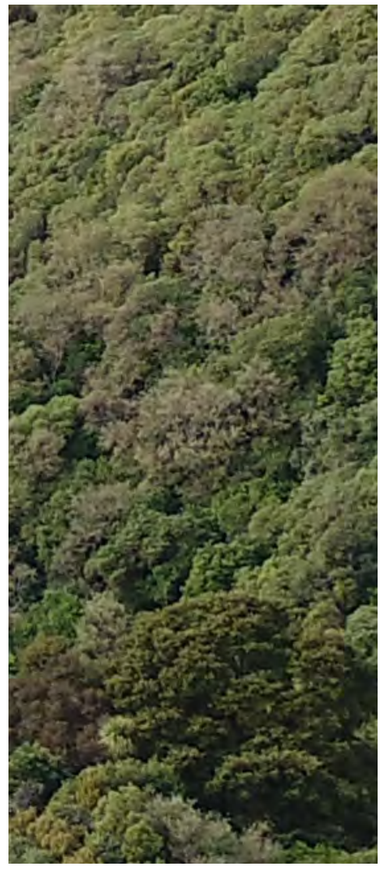
III. Nga heke o te whare.
Design Narrative.

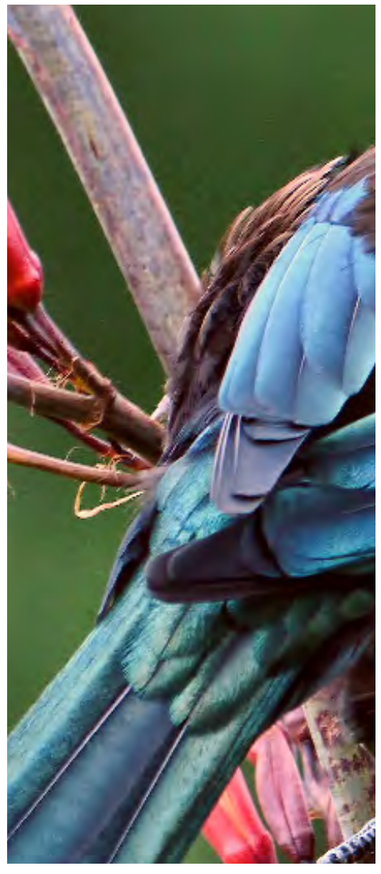
Cultural and Environmental Design Narrative.

Two key cultural and environmental design ideas emerged from the consideration of the matters discussed in the preceding pages:

- **a Whole-of-Landscape approach based on an integrated catchment management approach and;**
- **"Gateways" in the landscape.**

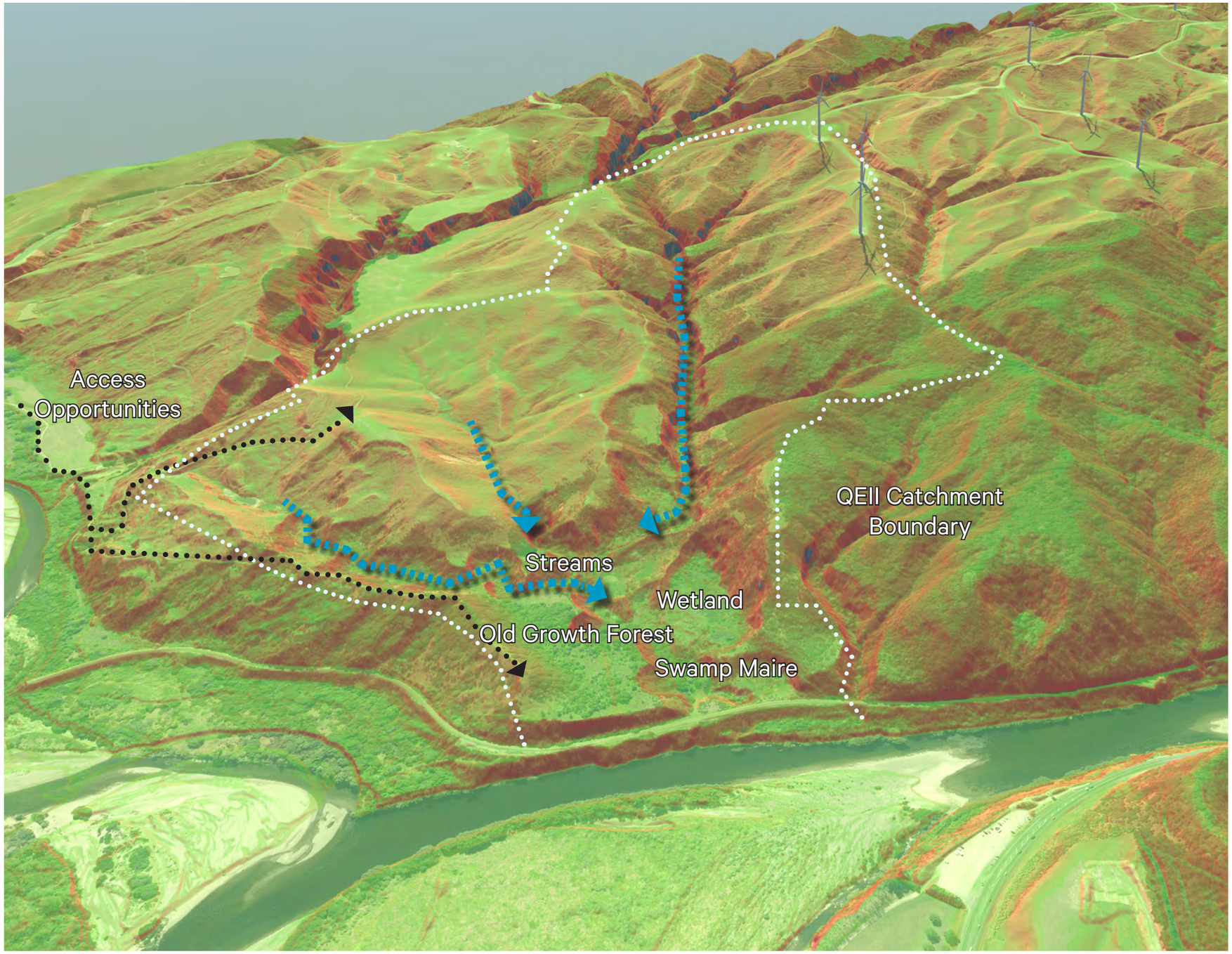
These ideas, informed and influenced by our conversations with Iwi and the Transport Agency, were instrumental in the design decision that resulted in our offer.



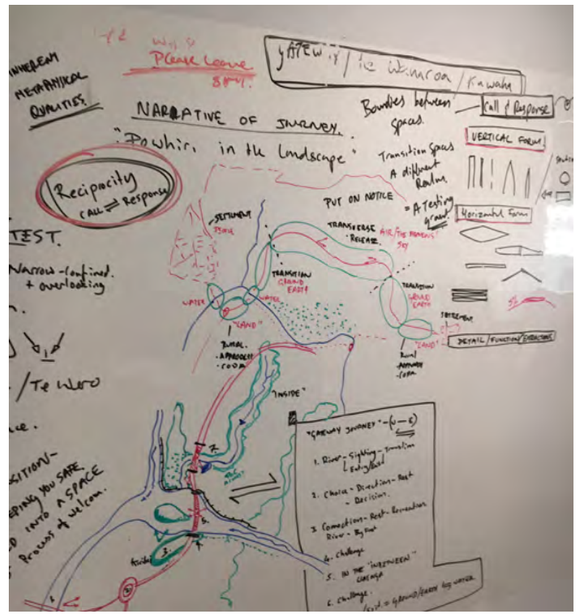


III.1 A Whole-of-Landscape and Integrated Catchment Management Approach. Ki Uta Ki Tai.

It is noted that the project intersects with the wider River Landscape strongly influenced by the Manawatū and Pohangina River Catchments. In this regard an **integrated catchment based approach** to landscape management and planning is applied as a way of providing common understating of the wider environmental focus of the project. That is a catchment based approach could be a means of further exploring the environmental, recreational and social outcomes and opportunities that the project will unlock in consultation with Iwi and other key stakeholders.
Integrated Catchment Management is thought of as a process that recognises a catchment as the appropriate organising unit for understanding and managing ecosystem processes. This includes social, economic, and other governance considerations as a means of guiding communities towards an agreed vision of a sustainable land and water resource management for their catchment.
This approach has been used as a means of further developing and exploring design and land management responses with key stakeholders and the Community. This is particularly relevant in the west of the project and the QEII gully sub-catchment, as well as across the entire project.



III.2 Landscape Gateways.



Alliance Team (bid phase) workshop session on "The Narrative"

The above sections, in combination with the material set out in the NoR CEDF leads to an appreciation of the broader and unique landscape qualities of the project area.

While a number of analytical sectors and character areas have already been identified across the project by the NoR team, these have now been put in the broader context of the future road user experience and, importantly, the associative values that emphasise place. These values have been revealed through the initial Iwi engagement via the bid process as well as through an assessment of key community driven strategies that were not included in the original CEDF.

The Alliance has considered this within the idea of Gateways as part of the overall user experience and wider open space and urban integration of the project. These Gateway Concepts are broader than the township gateway idea that is identified in the NoR CEDF which locates the concept within the two roundabouts in the west and east.

These ideas are linked to **the experience of traveling to and through the landscape.** This is derived from the form of the Manawatū Saddle as a defining landscape feature and natural pathway within the overall context of the axial ranges. The idea of **Gateways** between an upland area and the experiential journey between the western and eastern plains communities on either side has a logical resonance with a wider narrative of the project.

Conceptually a journey includes the following experiential sequence:

The Gateway Experience & Sequence.

Desire.
Recognising the need or the desire to journey from one place to another. Recognising the intention or purpose of a journey.

Sighting.
The visual wayfinding or connection to identify a pathway or route.

Approach.
The initial "first steps" of a journey and the approach to a defined threshold or sequence of features.

Transition.
Movement from one state or place to another – including "the place in-between". From – to and in-between.

Test.
The challenge of passing through a gateway or gateway area – or the journey highlights – such as a bridge crossing - that add a heightened sense of drama or visual interest.

Release.
Sense of openness and relief having passed through, practically in regard to journey highlight areas...

Coda.
The last few steps or echo of exiting a gateway area

Memory.
The memorable experience of the unique qualities of the journey

Connection.
Closer association with place having 'passed the test' emerging familiarity of journey and place

Understanding.
An enhanced understanding of place that comes from repeated journeys and an enhanced familiarity with Place.

JOURNEY

A landscape narrative is suggested that includes the following broad conceptual areas:

A Western Landmark Gateway
that recognises the unique landscapes of the traditional western gateway to The Gorge, the Manawatū River crossing and traversing the ecologically sensitive areas of the QEII covenant areas.

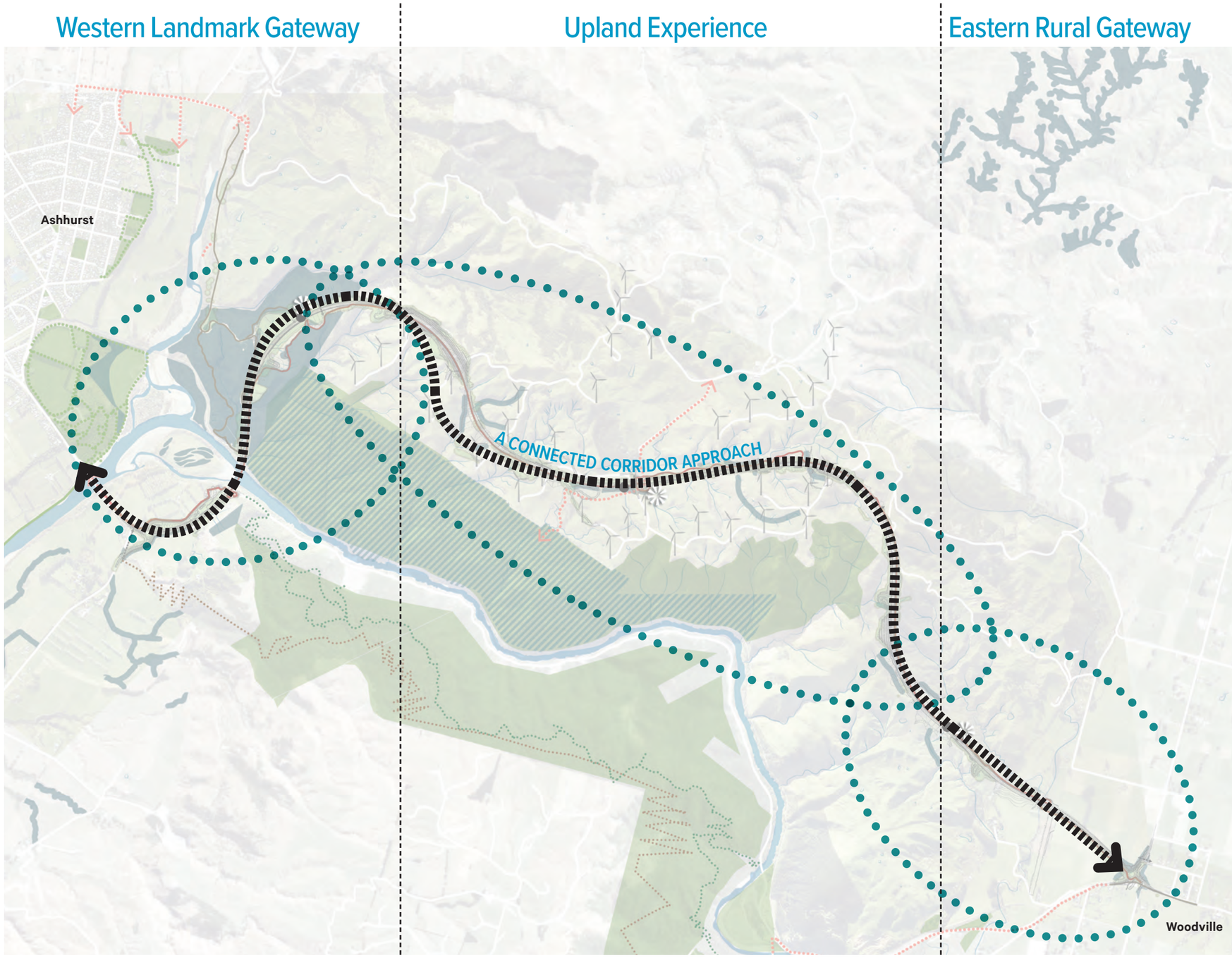
An Upland Experience
that highlights the driver experience of travelling through Te Āpiti Windfarm and the surrounding rolling upland landscape.

An Eastern Rural Gateway
that recognises and enhances rural character and the arrival to and departure from the Tararua Plains while maintaining a connection to the “old gorge”

These concepts are discussed in more detail in following sections well as the overall corridor approach that is being implemented across the project.

Places of Association.

Within the framework of gateway areas it is also recognised that there will be opportunities to further express cultural landscape associations and places of significance to stakeholders and the community. The idea of gateways therefore needs to recognise cultural landscape sensitivities particularly in regard to traditional areas of association. It is recognised that there is scope to accommodate a range of views and associations across the project area (for example naming protocols or physical cultural expressions such as Pou Whenua) and has been considered as part of the further development of the design.



III.3 A Shared Cultural Narrative for the Project.

The cultural design narrative represents the collective stories of place, cultural connections and whakapapa that seek to address the project vision of reconnection; people and place; and past, present and future.

A number of discussions have been undertaken with Kaimahi to identify the broader stories of place and Wāhi Taonga across the site to inform a deeper understanding of place. It is recognised that there are a range of perspectives, differences and commonalities across the four Iwi and stakeholders engaged in the project. A key challenge of the project therefore is the appropriate recognition of these perspectives as noted in the preceding section.

The Project Kaimahi and other cultural specialists are currently working together to discuss the over-arching narratives of place that can potentially be represented in the project as a means of informing the ongoing design development the Project. This is likely to include the engagement of a number of Mahi Toi (artistic / creative) specialists who will then work with the rest of the CEDF and wider Alliance Design Team in developing the project cultural narrative and the opportunities to express that narrative.

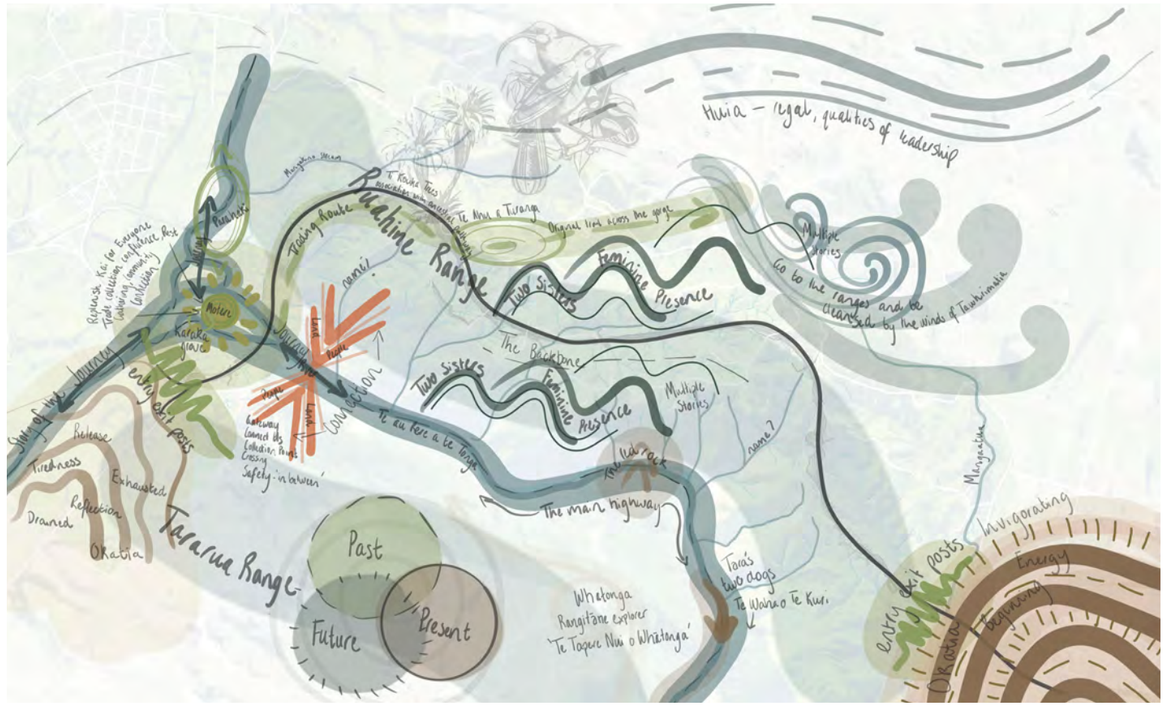
An example of this approach is the cultural landscape sketch shown below which identifies a number of aspects that could inform the wider cultural expression across the project. These aspects include:

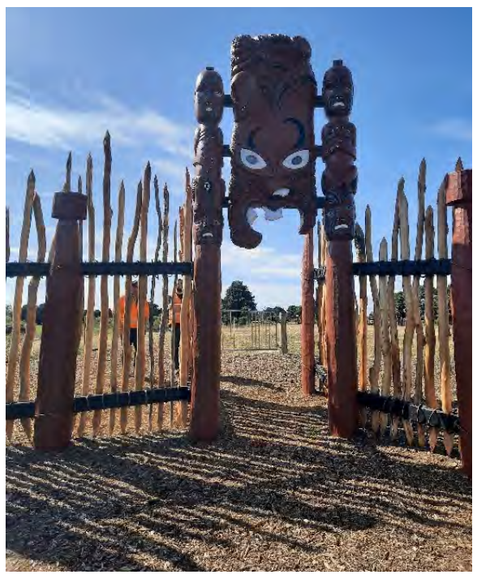
- Key landform features and feminine presence of the ranges
- Major river systems and stories of origin (energy and depletion) and the wider cultural context of Te Āpiti (the Gorge)
- Ancestral names and traditional pathways and passage
- Parahaki Island and its role as a traditional meeting point
- Atuatanga and upland experience of “cleansing winds” (Tawhirmatea)
- Stories and places of particular ancestors
- Wāhi Taonga
- Taonga species past and present.

These elements represent, in part the matters that have been identified in the Cultural Landscape Statements that have been recorded above.

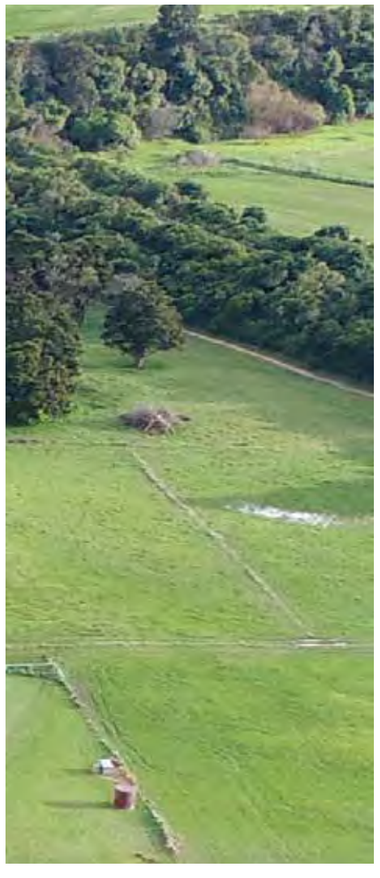
Recognising the guidance of Values, in combination with the “Stories and Connections of Place” gathered through the Cultural Landscape Sketch further informs the Cultural and Environmental Design Philosophy for the project including the representation of people and place through cultural expression.

Cultural Landscape Sketch – “Stories and Connections of Place” developed with Kaimahi.

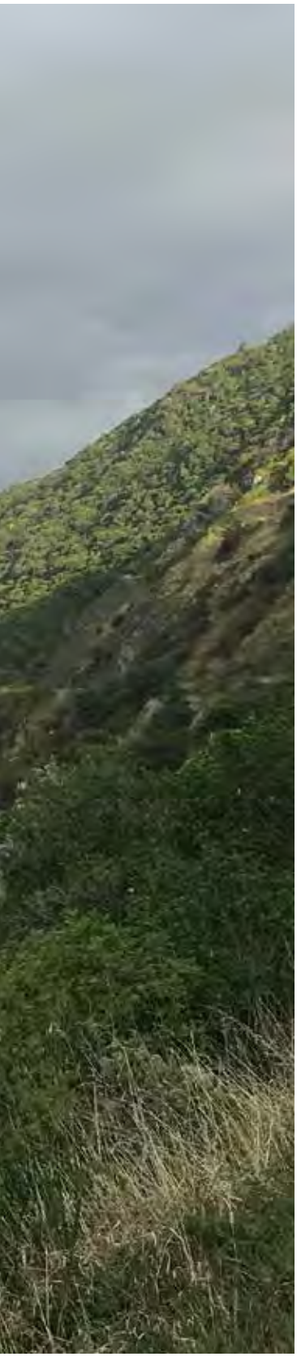




Examples of Cultural Expression for the Huntly Bypass Project.

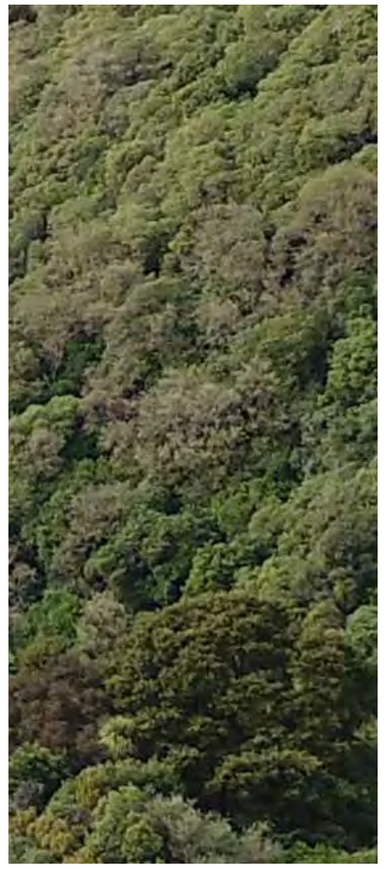




IV. Nga Kowhaiwhai o Te Whare.
Design Response.

The following section sets out the primary Cultural and Environmental Design Elements and features of the project. The design objective is to develop a cohesive and seamless corridor design approach to achieve the principles above. To achieve this these elements and features have been organised into the following interrelated categories.



IV.1 Cultural Expression Across the Project.

IV.1.1 Recognizing the Cultural Values of Parahaki Island.

Recognition of the cultural values of Parahaki Island is a requirement of the currently proposed conditions (PN1). This includes reflection of these values in the consideration of the design of the Manawatū River Bridge. Design development that will be progressed in collaboration with Te Āpiti Ahu Whenua Trust will include:

- Ecological Restoration planting on the Island
- Consideration of planting on the island in relation to flood modelling and mitigation
- Opportunities for traditional cultural harvesting of plant materials from the island
- Access to the Island for Trustees form the land
- Potential for the temporary hosting of events for trustees and guests
- Restriction of public access to private land
- Appropriate recognition of wāhi tapu areas on the island
- Views to the island from the gateway Park and appropriate information and signage to inform the public of the islands unique cultural heritage.

This work is still currently being explored with the Trust as part of their conditional involvement in the design development of the project.

The work listed above which is outside of the scope of designation condition PN1 will also fall outside of the scope of the project but may be addressed through other means.

PN1. Outline Plan - Parahaki Island

a) Where an Outline Plan(s) describes works related to the bridging of the Manawatū River, including any piers, abutments and the northern and southern approaches (and associated construction access), the Requiring Authority must:

- i) Consult with Te Āpiti Ahu Whenua Trust for the purpose of recognising the values of Parahaki Island and providing for those values including by:
  - A) Minimising, as far as practicable, any impact of the enabling or construction works activities or Manawatū River bridge piers on Parahaki Island;
  - B) Identifying opportunities to recognise the historical and cultural significance of Parahaki Island in the design of Manawatū River bridge and approaches to the bridge;
  - C) Identifying opportunities for landscape or ecological mitigation planting required by Conditions 17, 18 and 24 on Parahaki Island.
- ii) As a minimum, include the following in the Outline Plan(s):
  - A) Details of the consultation undertaken with Te Āpiti Ahu Whenua Trust, including comments made in relation to the matters listed in a) and any measures taken by the Requiring Authority to respond to these comments.

Restoration Vision for Parahaki Island

Te Ahu a Turanga.
Manawatū Tararua Highway.

Parahaki Island Restoration Preliminary Concept Plan - For Discussion.

WAKA KOTAHI NZ TRANSPORT AGENCY | Te Ahu a Turanga Manawatū Tararua Highway

Job: 4099 Date: 28.01.2020

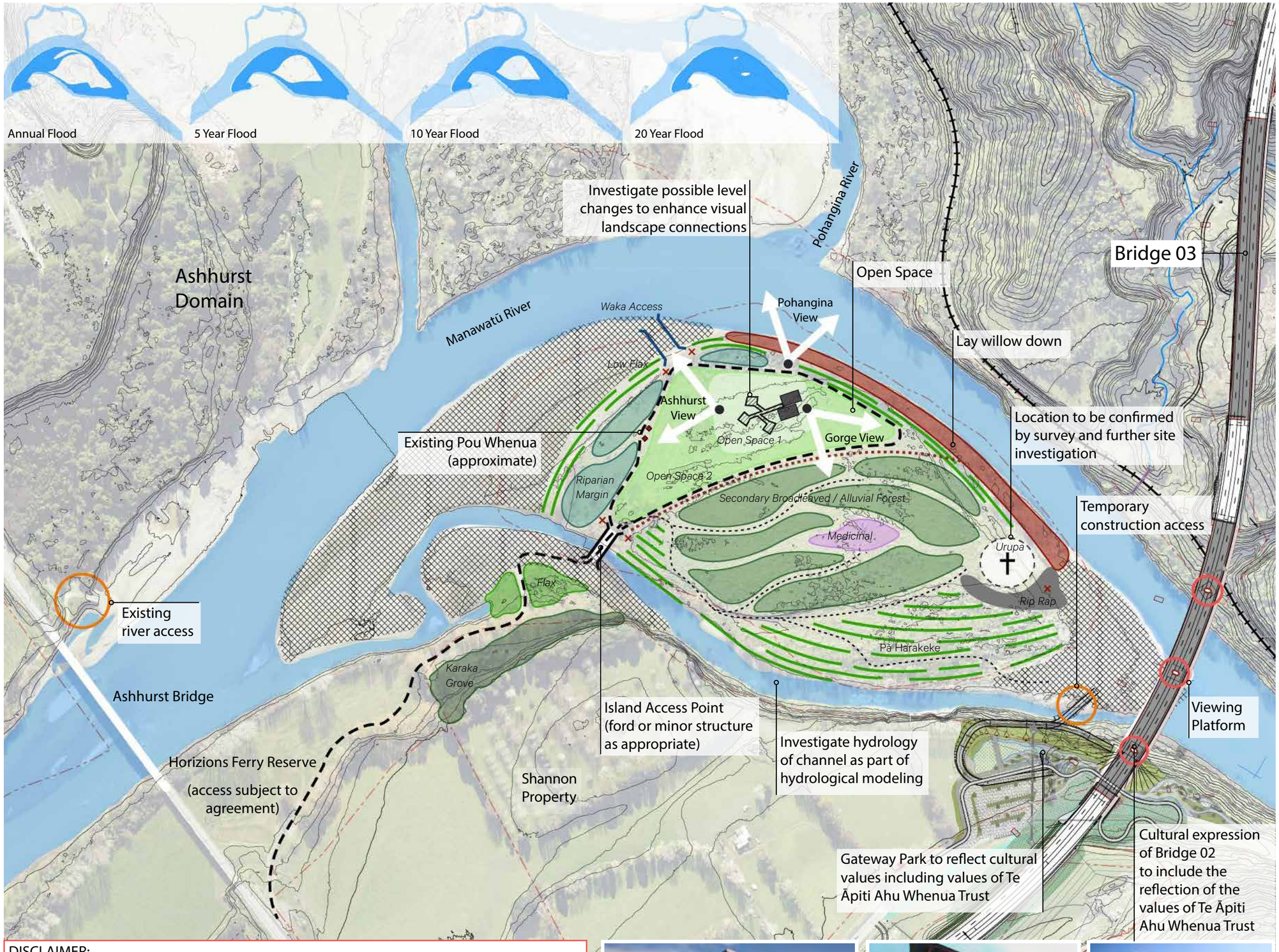
Client: NZTA

Issue: FOR INFORMATION

N 0m 50m 100m 200m

Dwg No: TAT-XXXX Scale: 1:2000 @ A1

Dwg: HC Rev: B



Legend.

General:

- Vehicle Access Track
- Walking Track
- Urupa (to be investigated)
- Existing Pou Whenua
- Proposed Pou Whenua
- Pavillion/Structure (out of 20 yr Flood Plain)
- Island Access Point (subject to hydrological modeling)
- River Access Point
- Outdoor Classrooms
- Proposed Public / Private Boundary
- Cadastral Boundary
- Gravel
- Urupa Flood Protection (rip rap) subject to hydrolic modelling
- Kiwi Rail
- Bridge Pier

Vegetation:

- Karaka/Titoki
- Secondary Broadleaved / Alluvial Forest (configured to allow for flood flows)*
- Riparian Margin *
- Medicinal Species (out of 20 yr Flood Plain)
- Lay Down Willows
- Open Space 1 - Low Grass
- Open Space 2 - Wildflower Grass
- Flaxland
- Pā Harakeke - in ordered rows for flood mitigation

* Only these planting areas will be delivered by the Alliance as part of the EMP within the project.

DISCLAIMER:
This Concept Plan is provided on a 'without prejudice basis'. Its purpose is to stimulate a design led conversation between the Te Ahu a Turanga Alliance and the Te Āpiti Ahu Whenua Trust with a focus on the recognition of the cultural values and future aspirations of Parahaki Island. This plan is for discussion purposes only subject to further technical assessment. It does not represent any commitment to physical works, or otherwise, by NZTA, or the Te Ahu a Turanga Alliance.



Pavilion Examples: Possible open structures out of 100 year flood plain

IV.1.2 Mahi Toi & Cultural Expression.

The Cultural Landscape Sketch above will be developed further as part of the ongoing iwi engagement process. This process will include the engagement of iwi artists reflecting the wider cultural awareness considerations including Mahi Toi or creativity and artistic expression. A process of co-ordinating artistic expression across the project has been developed with Iwi through the Iwi Working Group, this will include the forming of appropriate means of proving cultural artistic and creative input into the design process and wider cultural expression.
This process is set out in the Mahi Toi Process diagram on the page opposite.
Mahi Toi Integration for the project will enrich:

- Alliance organisational culture and sense of belonging / purpose
- Project Partnerships
- Documents and Presentations (graphic design)
- The Cultural Expression elements of the CEDF design
- Wider design thinking, innovation and creativity
- The wider user experience, connection and identity
- An opportunity for social outcomes (employment / commission) in the project.

Korowai between two turuturu.

Over arching cultural narrative

He Korowai Rangimārie

'He Korowai Rangimārie' or 'cloak of peace' has been selected by both Mātanga, as well as the Kaiārahi and CED team as the overarching design theme and has been endorsed by the Iwi Working Group (IWG).

The context for the proposed theme came out of an acknowledgement of the 'diverse threads' of people, histories, stories and ideas associated with the project, and therefore the need for a theme that accommodates everyone and their stories.
It was also acknowledged, that in spite of differences between some iwi, the collaboration achieved through Te Ahu a Turanga provides the opportunity for those iwi to weave a new korowai, with which to comfort, protect and embrace future generations.

Accordingly, the design theme in its entirety has been articulated as follows:
A unifying concept of He Korowai Rangimarie achieved through a focus on the future, enabling all iwi to engage their best..

The landscape the project traverses has conceptually been thought of as laying down of a Korowai (cloak) where the process of weaving a cloak has been applied to the highway itself. The traditional use of two turuturu pegs placed into the whenua between which a single strand or thread is tied, this is called the Aho tapu referred to as the sacred thread. From this thread the whenu or vertical strands of the korowai where tied. The top band of the Korowai was woven into these strands often using fine taniko weaving patterns.

Opportunities that are being explored through design.

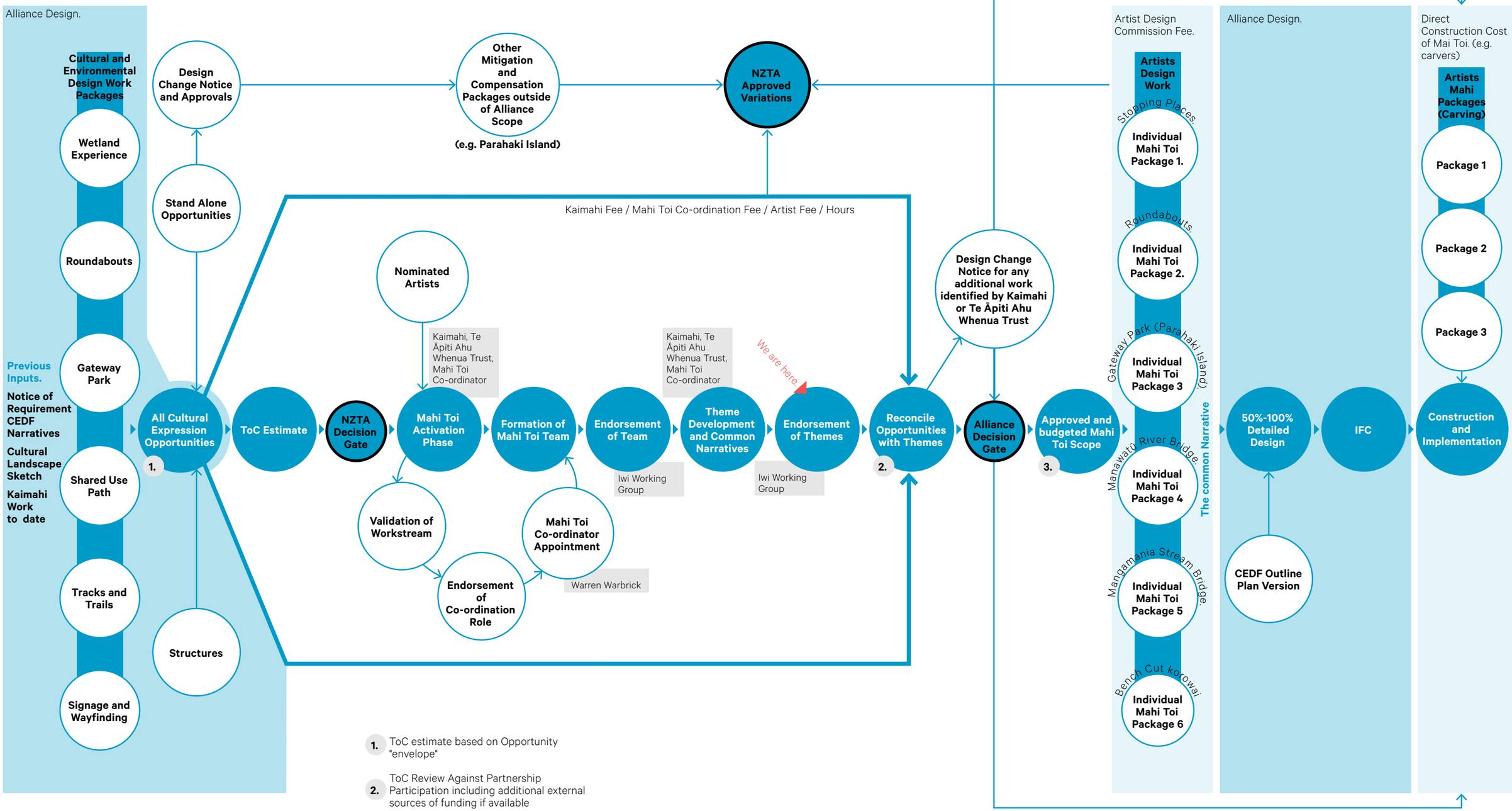
A number of sites and features of cultural significance have been identified across the project that represent opportunities for cultural recognition. A number of these places coincide with design elements of the project such as the Manawatū River Bridge and in these instances cultural expression will be incorporated into those elements. There are also sites that are independent from any structure or element and these too represent opportunities for expression. Collectively these areas and cultural expression opportunities include:

- Eastern Gateway
  - The Woodville Township Roundabout (Vertical elements such as Pou Whenua and lighting)
  - The Mangamania Stream Crossing (Bridge barriers and Pou)
- Upland Plateau
  - Pou Whenua to align with Te Ahu a Turanga
- Safe stopping areas
  - Pou whenua at viewing areas
- Western Gateway
  - Fencing detailing for the retaining wall at the head of the QEII Gully
  - The Manawatū River Bridge (abutments, viewing platform, river pier and barriers)
  - Gateway Park entrance and arrival Waharoa
  - Parahaki Island viewing platform
  - Bench cuts "Heal the wound"
  - The Ashhurst Roundabout (Pou Whenua and lighting)

These areas are being discussed with Iwi in relation to the project values and the narratives or cultural design principles that are of particular relevance to those areas. This also includes the design consideration of a number of elements collectively where they occur in relatively close proximity and will be experienced together by motorists and Shared Path users.

Turuturu weaving peg

Mahi Toi Process Diagram.



1. ToC estimate based on Opportunity "envelope"
2. ToC Review Against Partnership Participation including additional external sources of funding if available
3. Confirmed total construction budget for Mahi Toi elements.

IV.1.3 Cultural Expression – People and Place

There are a range of further design development across the project that relate to the broader expression of project values through design. This is illustrated on the following pages and is described as a preliminary *cultural expression plan*. A number of converations and discussions with Kaimahi and the Mahi toi Matanga have been captured in these plans. This process has navigated the cultural values associated both with the proposed journey accross the project, and the specific areas of cultural and spiritual importance. These conversations have been an opportunity to explore cultural expression that is either built into the highway elements, the bridges and structures and also includes stand alone works that connect to Iwi and place including the the following:

— Roundabout gateway and grounding elements,
— Bridge arrival and welcoming elements,
— Viewing locations, interpreation and connecting elements,
— Waahi tapu sites respecting and honoring elements,

There are a range of themes and ideas that relate to all the iwi partners and are being coordinated under the broader He Korowai Rangimarie, the cloak of peace narrative and the 'threads that bind'.

(Note: cultural expression in regard to key structures is addressed in the Section 3.7 Structures).

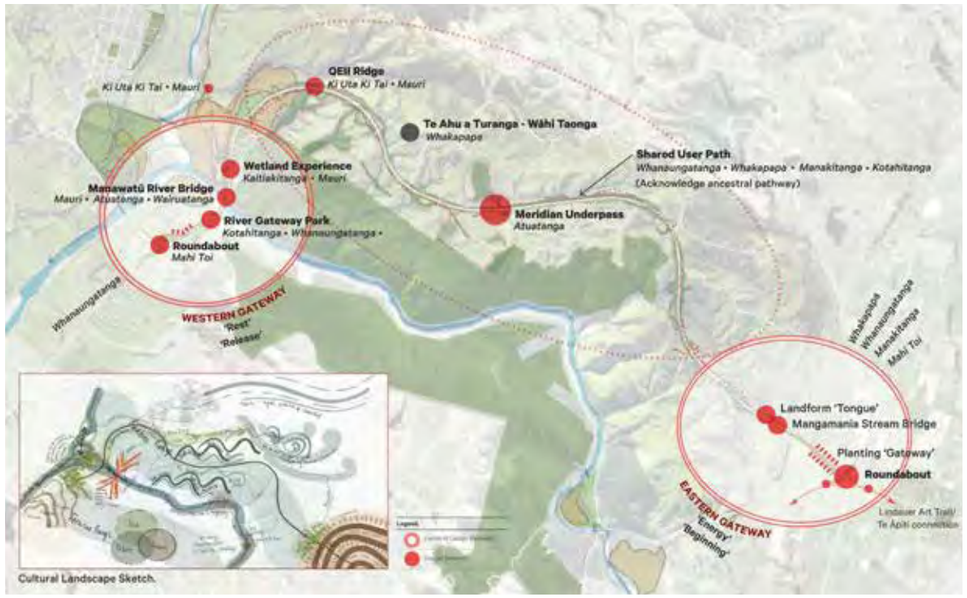
Process for Place-naming

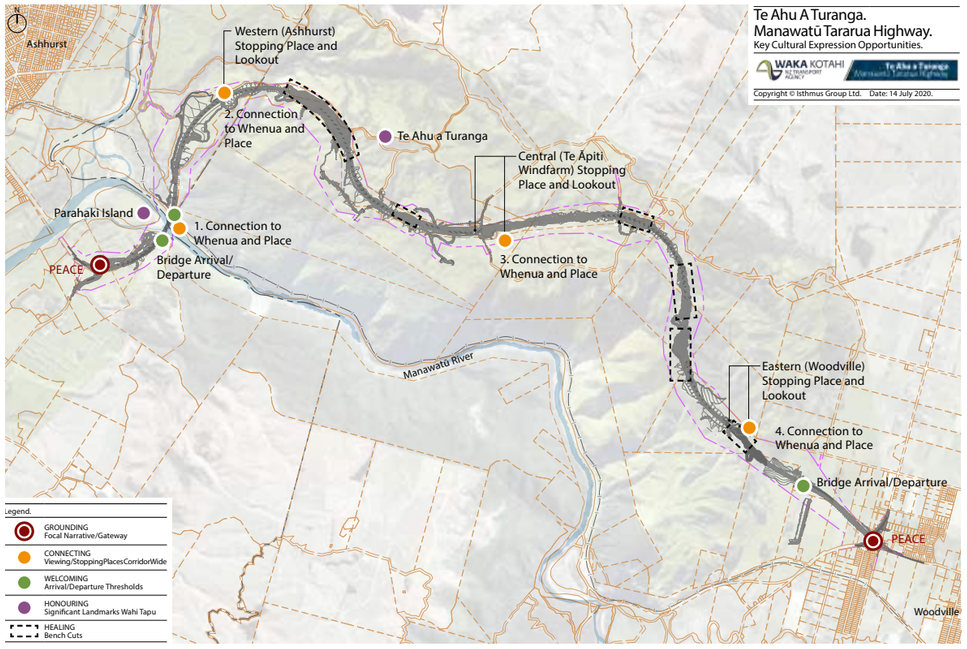
The Iwi Workling Group (IWG) in collaboration with NZTA are exploring the process by which to name key areas and/or elements of the project.

Recommendation areas for consideration include:

— The Gateway Park
— The park road that leads to the Gateway Park
— The Shared Use Path
— The Pohangina River Trail
— The Manawatu River Bridge
— The Wetland Bridge
— Meridian Access Bridge
— Mangamanaia Stream Bridge
—

Cultural Expression Plan.





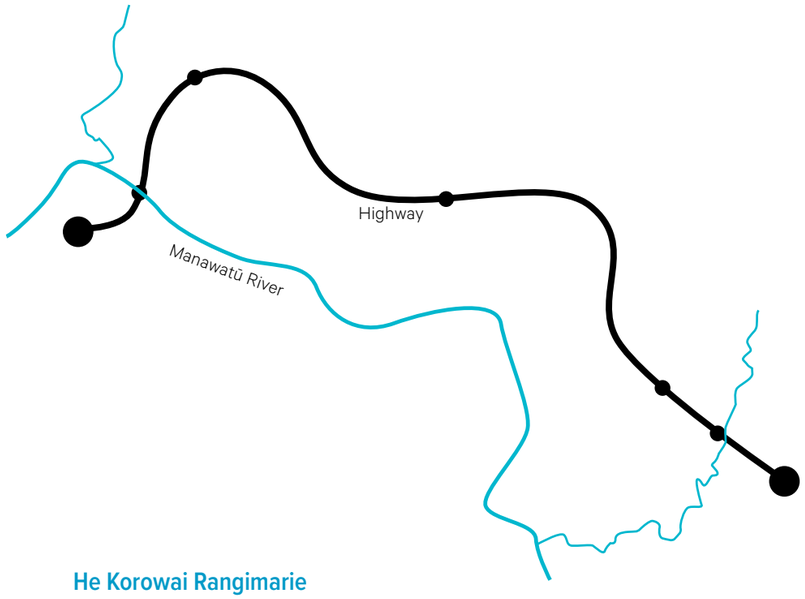
Cultural Expression Opportunities.

A process has evolved to uncover the stories of place and the cultural expression opportunities within the three main project areas, eastern gateway experience (to gather). western gateway experience (to replenish), and the upland experience. The project has sought to balance the expression across both the east and the west and also particular acknowledgment of Waahi tapus sites such as Parahaki Island and Te Ahu a Turanga.

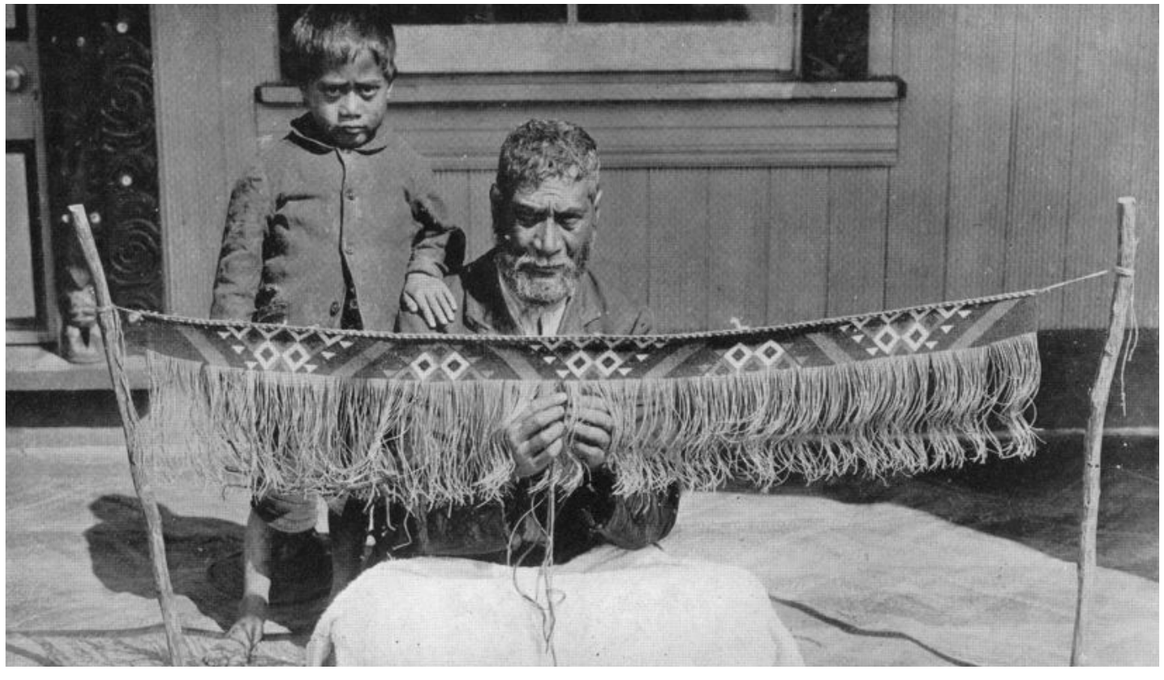
Western Gateway
- Tree Avenues
- Gateway Park Pou and Interpretive signage
- Feature roundabout
- Manawatu River bridge abutments
- Central bridge pier
- Viewing platform
- TL5 bridge barrier pattern
- Stopping Place viewing point
- Naming and Signage

Gateway Park and Parahaki Island
- Gateway Park entry Pou
- Existing Waharoa fence
- Naming and Signage

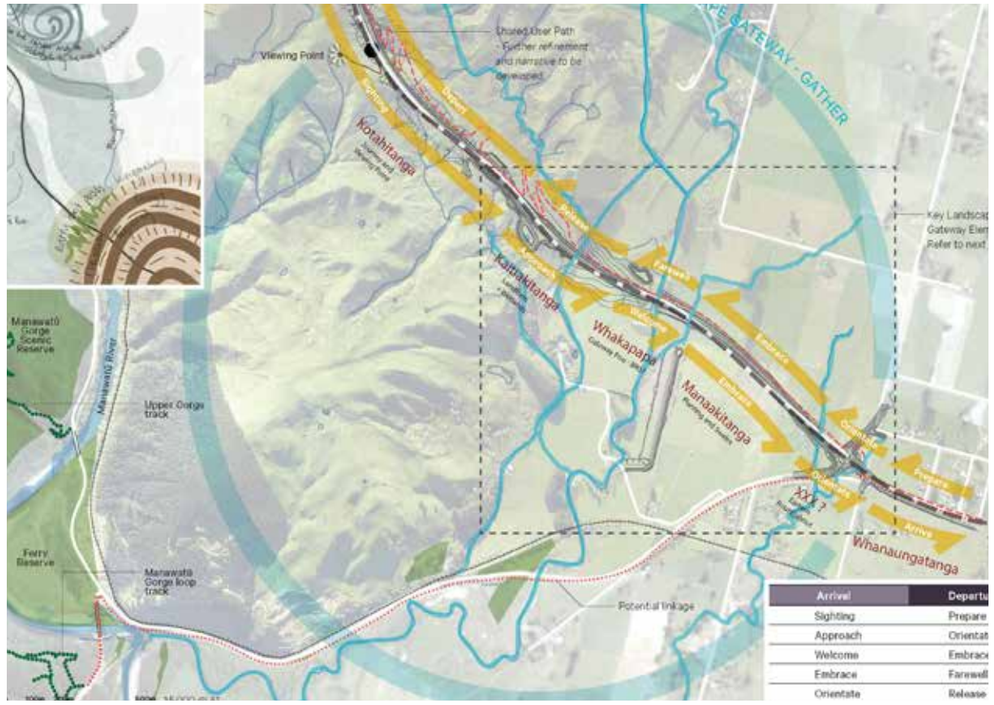
Eastern Gateway:
- Tree Avenues
- Feature roundabout
- Bridge 07 Mangamanaia Stream
- TL5 bridge barrier pattern
- Stopping Place viewing point
- Naming and Signage



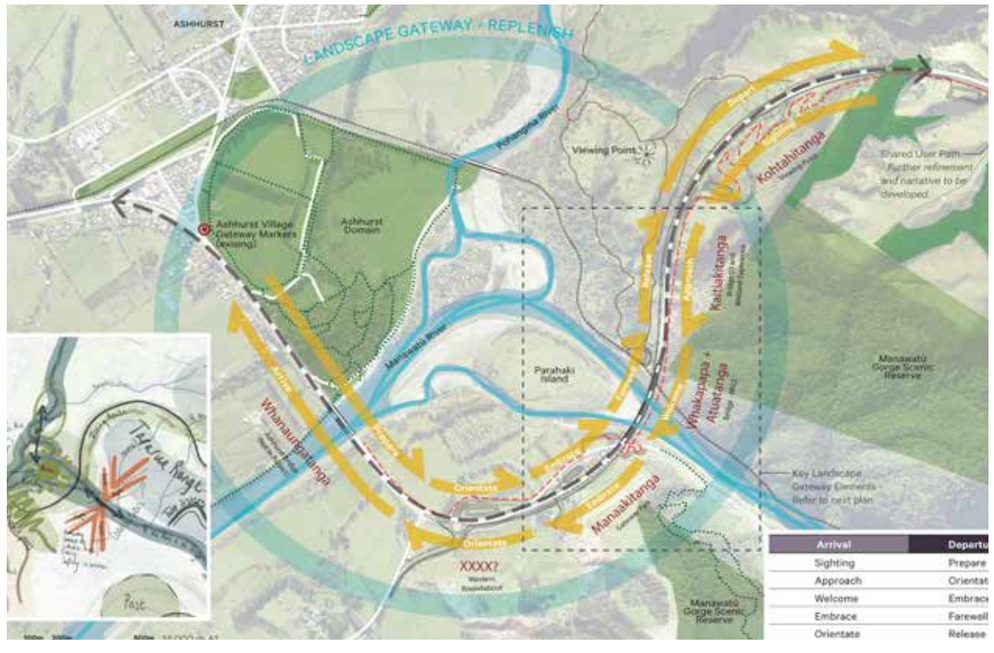
He Korowai Rangimarie



Eastern Gateway Experiential Sequence.



Western Gateway Experiential Sequence.



IV.2 The Western Landmark Gateway.

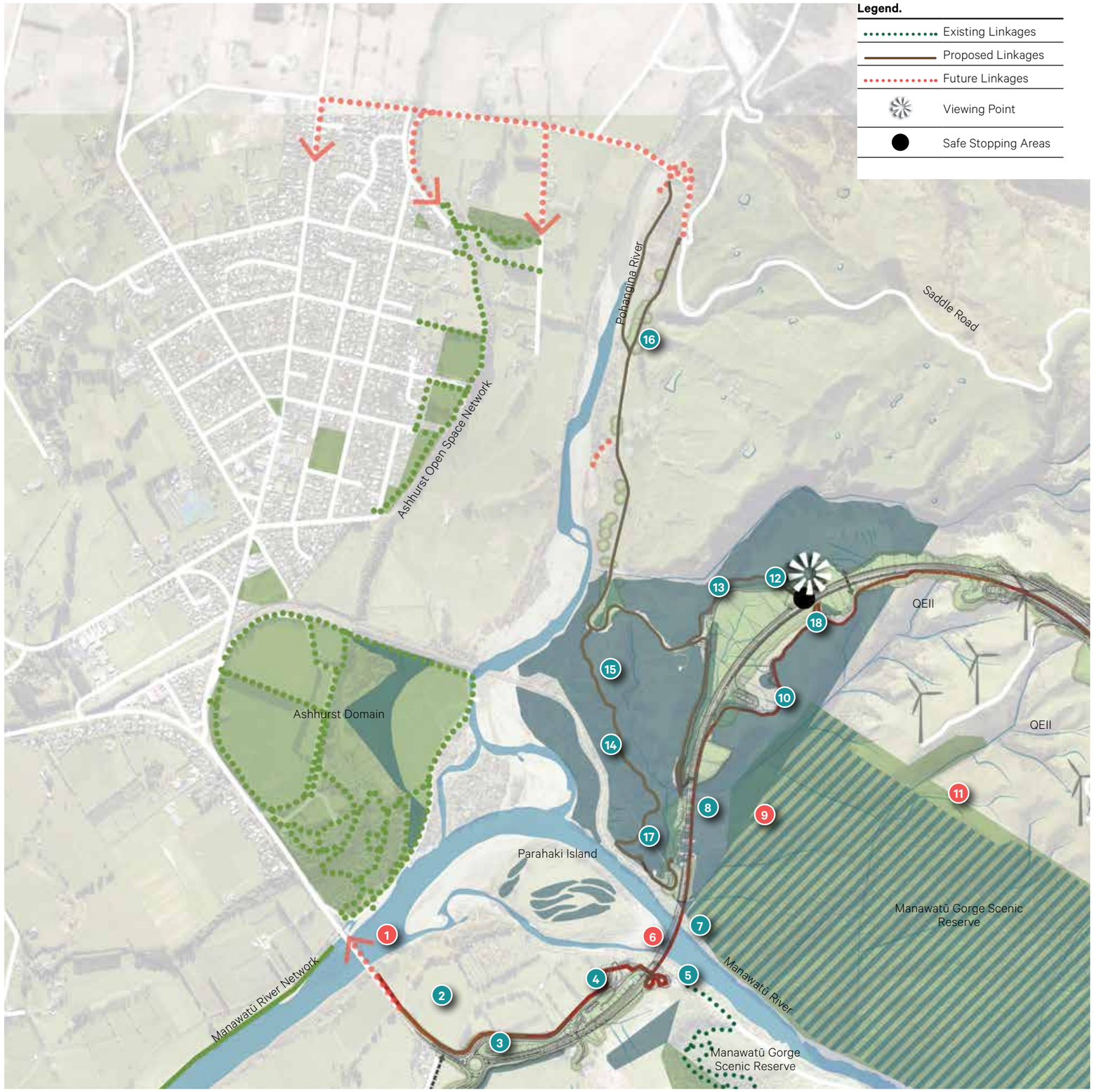
The western section of the project has been conceptualised as a **Landmark Gateway** to reflect the unique landscape of the western sections of the project. This includes the following sequence of key elements:

- **The SH3 Ashhurst Bridge Crossing** (and any walking and cycling Improvements). Currently out of scope.
- **The Ashhurst Roundabout**
- **The Manawatū Gorge Scenic Reserve Carpark** – referred to hereafter as a Gateway Park (or western carpark in the Designation Condition PN3)
- **The Manawatū River Crossing** including walking access on the eastern side
- Access and linkages to the QEII Gully system including **wetland area** and surrounding bushland to the north
- **Wider linkages to the Pohangina Valley**, including connections to a western safe stopping area, viewing point and a walking and off-road cycling linkage north to Saddle Road.

The family of elements of this concept are discussed in the following pages. These elements have been defined as part of the whole-of-landscape approach.

Family of elements.

1. SH3 Ashhurst Bridge Project.
2. Bridge to Bridge Path.
3. Western Roundabout.
4. Wetland Landscape.
5. Gateway Park.
6. Gateway Park Facility (Nutcracker Farm).
7. Landmark River Crossing.
8. "Wetland Experience"
9. Potential Access to DoC Scenic Reserve North
10. QEII West Enhancement.
11. Scenic Reserve Edge Enhancement.
12. Ashhurst Viewing Point and Safe Stopping Area.
13. Ashhurst Viewing Point Trail.
14. Alluvial Forest (LMU4)*.
15. Alluvial Forest Trail.
16. Pohangina River Trail.
17. Swamp Maire Restoration Area.
18. Revegetation Buffer



Delivered by the Project.

Delivered by Others.

Scale: 1:15,000@A3

N

0m 100m 250m 500m 750m

The Northern Alignment & the Western QEII Areas.

A key driver for conceptualising the **Western Landmark Gateway** has been a catchment driven approach where the QEII covenant areas (both west and east) have been a key organising landscape feature in the design. The wider design team has sought to avoid as far as practically possible the main impacts of the project on this area which has been able to be achieved by an alignment further to the north than the NoR design.

This QEII sensitive alignment has geometric implications that have also influenced the alignment and location of the Manawatū River Crossing (a curved horizontal alignment) as well as the configuration and location of the western roundabout (confirmed in general accordance with the NoR design location).

The principle benefits of the revised alignment are based on maintaining – as far as practicably possible – the functional landscape integrity of QEII west and QEII east on a "whole of landscape" approach.

Benefits include:

1. Avoidance of significance disturbance to the QEII covenant area west
2. Elimination of the NoR bridge - QEII west
3. Minimisation of disturbance to QEII east
4. Minimisation to mid-catchment stream culverting (eliminating fill)
5. Stepping lightly across wetland areas
6. Protection of swamp maire
7. Avoidance of alluvial forest
8. New track access provided on north edge of the ridge between Stuart Bolton and Graham Bolton properties to maintain farm viability
9. Our northern alignment removes the need for any vegetation clearance in the Ramarama Protection Area (RPA), and stream loss in the QEII covenant stream catchments is reduced by 80 %, and impacts on old growth treelands compared to the Lodged Alignment.
10. Secondary broadleaved forests and scrublands are avoided with impacts on advanced secondary broadleaved forest and mānuka / kānuka scrublands reduced by 99 % and 85 %.

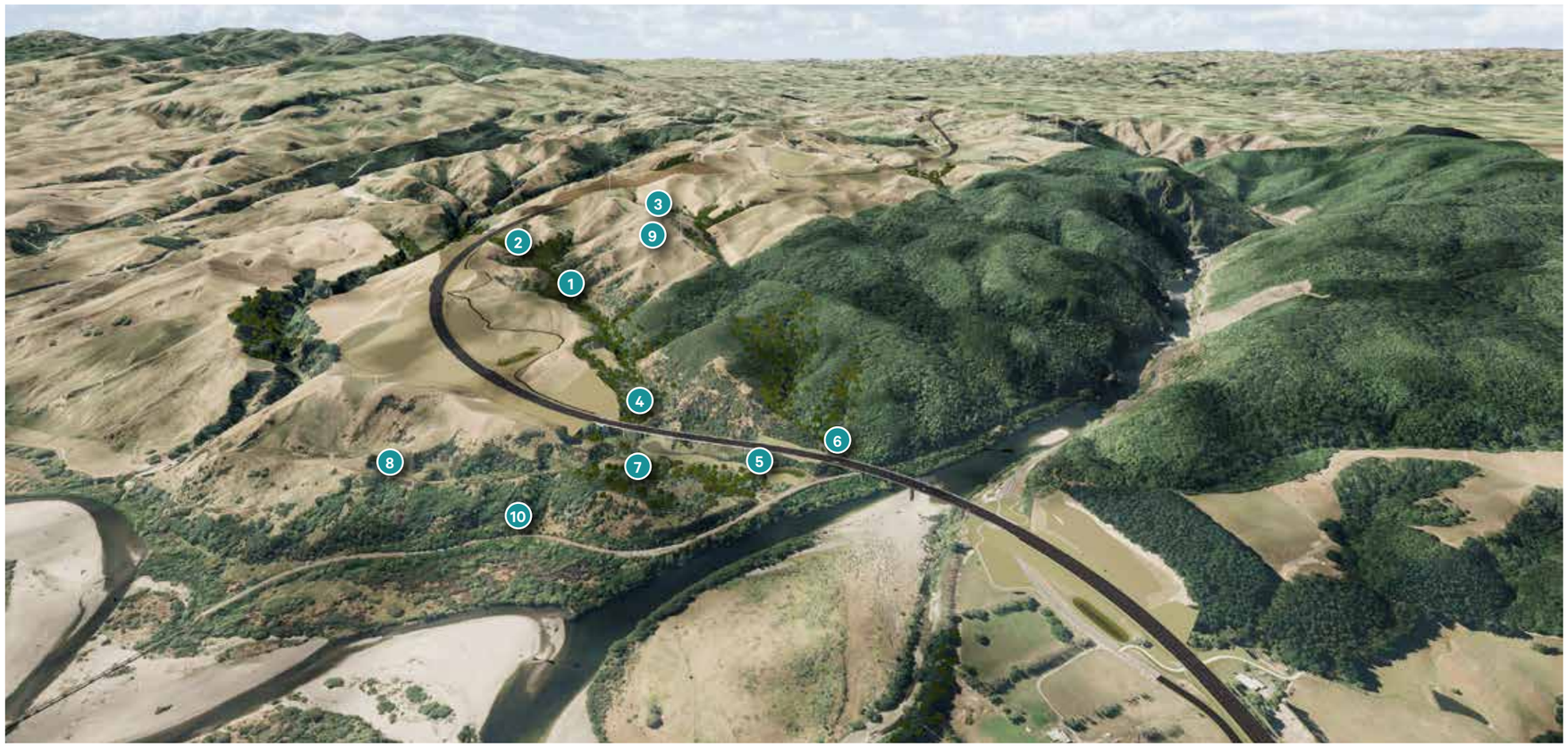


Image taken from the project design 3D model showing our alignment "treading lightly" across the landscape.

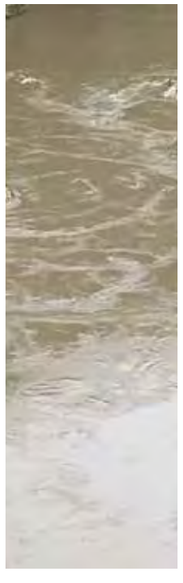
IV.2.1 The Ashhurst Roundabout.

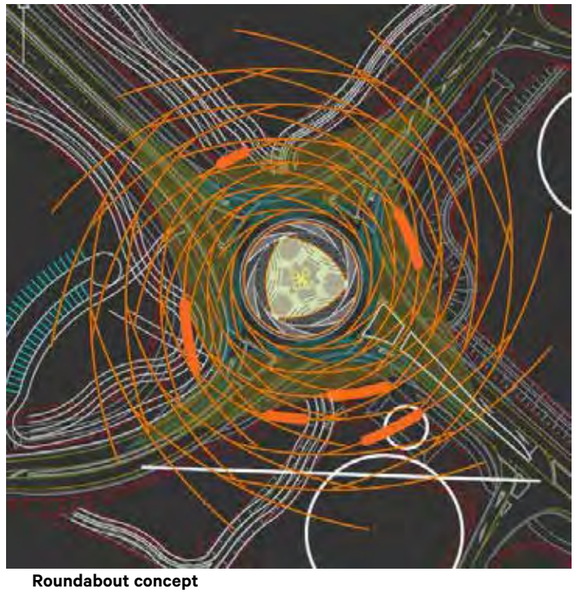
The NoR CEDF sets out the emerging concept of utilising the two roundabouts (one in the west, one in the east) as opportunities to define gateways to both Ashhurst and Woodville . As discussed above the Alliance team suggests that the idea of gateway can be extended beyond roundabouts as a built feature making it a more explicit part of a wider gateway experience.

PNCC Village Gateway Program & the SH3 Ashhurst Bridge Project.

Arguably the existing Ashhurst Bridge is perceived as the current Ashhurst Gateway being – a significant river crossing and major structure. There is the opportunity to make to make this even more explicit with the proposed safe walking and cycling project. However at present this is outside of the scope of the project. It is suggested that this is integrated with the wider walking and cycling experience of the project. PNCC has already implemented a township or village gateway opposite the Ashhurst domain and this supersedes the NoR concept of a township Gateway in the west. The roundabout is this seen as primarily an entry point to the Gateway Park.
The **Ashhurst roundabout** is however a key element in the overall idea of a Western Landmark Gateway as part of the wider sequence of design elements and features.
The design concept for the project roundabouts is derived from the wider river landscape. This has been informed, in part, by cultural landscape references to the swirling waters of the river and other associated serpentine movements that have been identified in the NoR CEDF.

The functional circular movement patterns of the roundabout lend themselves to this narrative and this has been interpreted through the concept of **whirlpool roundabouts.**
This design sets out a circular dynamic pattern that will be experienced by motorists as they approach and then travel around the roadway with the angles and levels of the feature change. The materiality of this reflects the materials of the wider riverscape and includes gravels and stones fixed into the undulating surface of the roundabout interior and echoed in the lead in median islands
Cultural expression is also being discussed with Iwi as part of the roundabout design and entry into the Gateway Park.



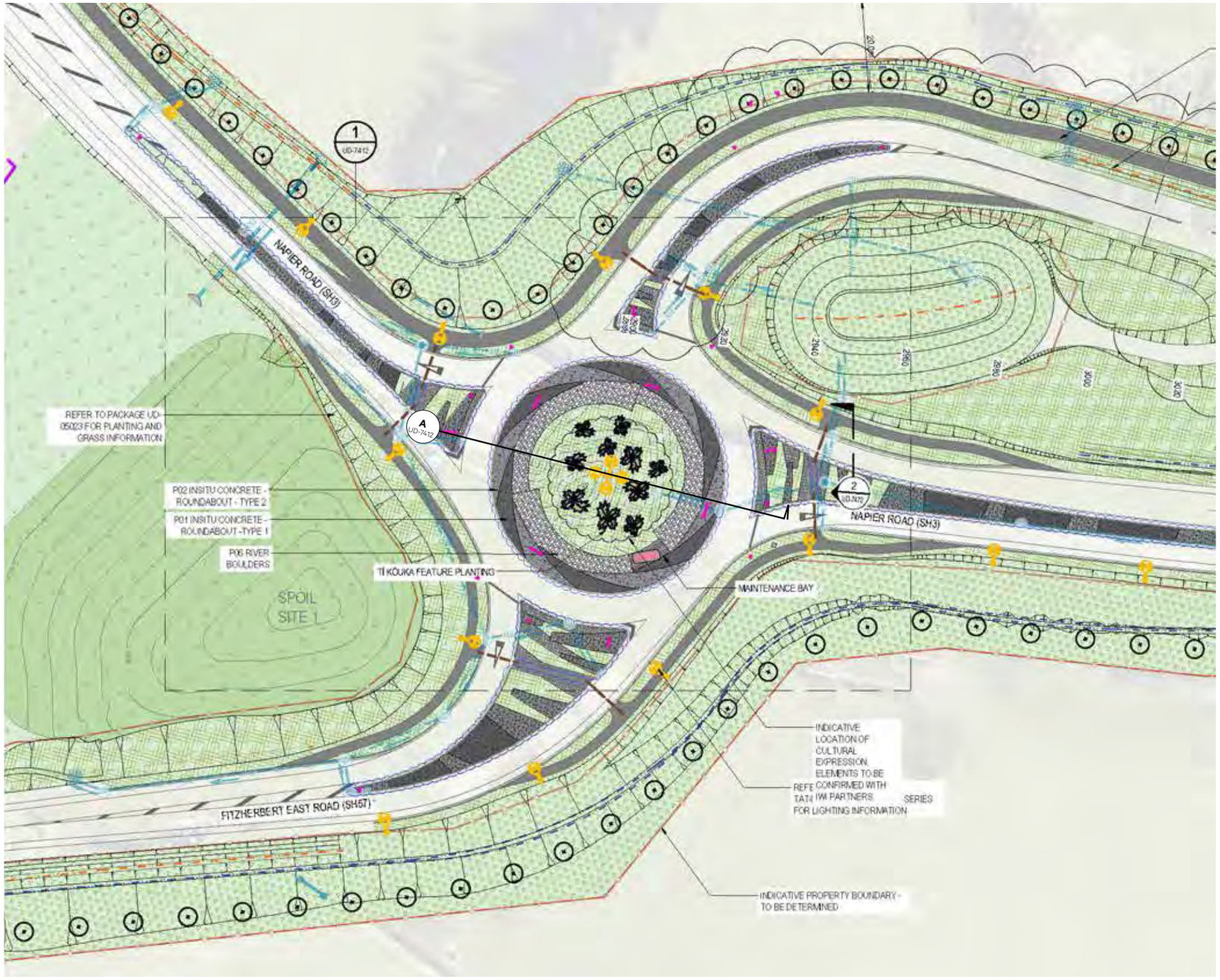


Roundabout concept

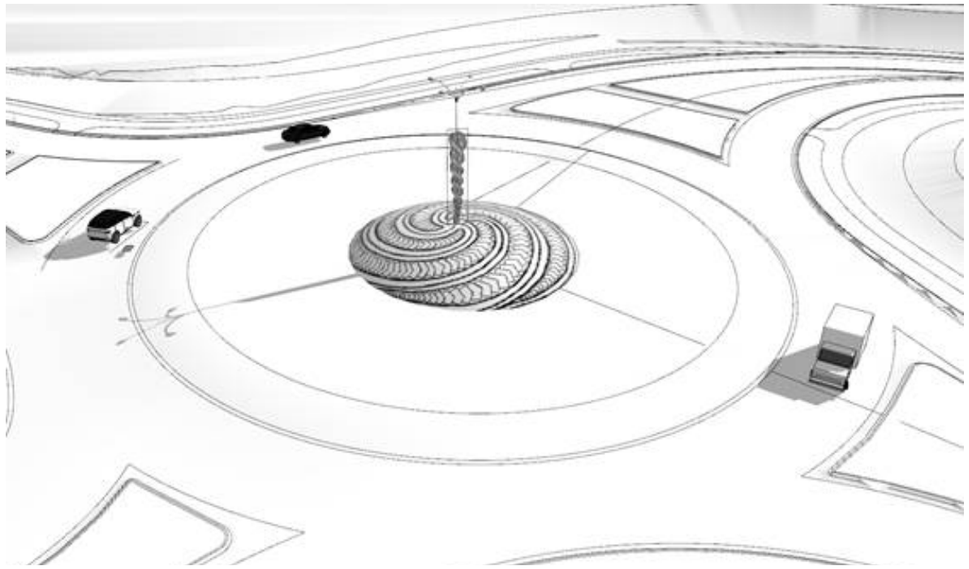
Roundabout concept: materials applied will be compliant with traffic safety requirements and will reflect the changing gravel patterns of the river landscape. Materials will include concrete, small stones and gravel

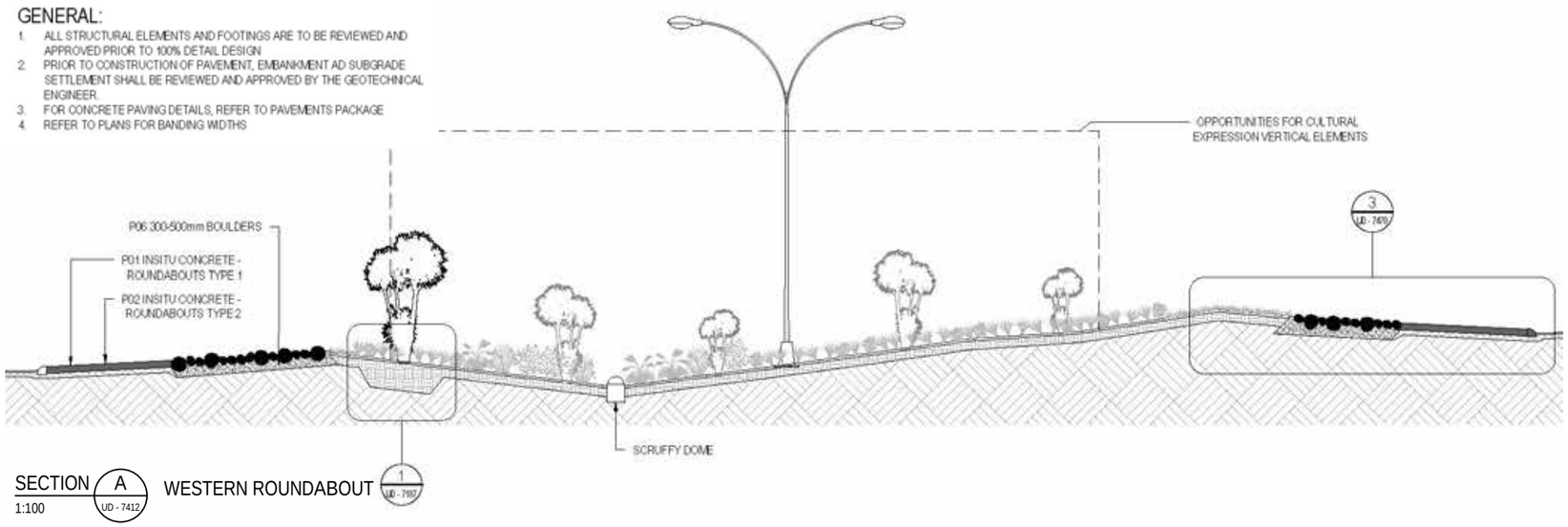
Western Roundabout General Arrangement Plan.

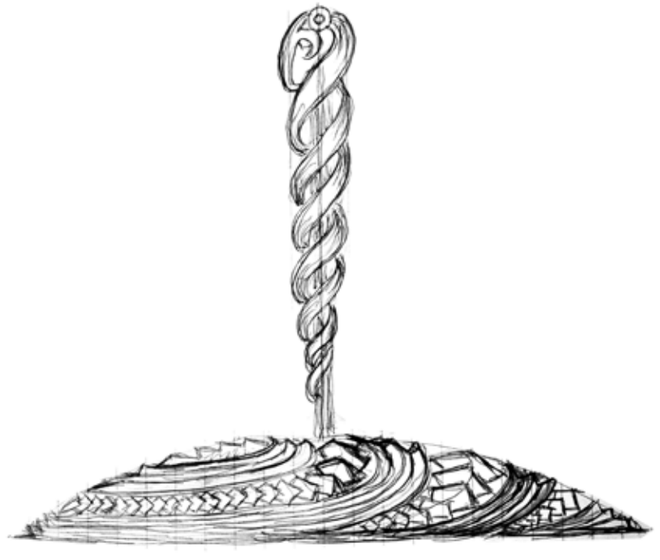
Scale: 1:1000@A3



The proposed theme for the approach to the roundabout has been based around 'Turuturu' a weaving peg. The four spiral elements in the design represent the four Iwi connected to the area. It has a 20m diameter concrete dome element on the ground in the center and a 7m tall central column around the light pole. Planting design will support the Mahi toi.







Illustrative view of Ashhurst township Gateway whirlpool roundabout and integrated family of elements within the Western Landmark Gateway area.

IV.2.2 Western Gateway Park.

The Gateway Park is part of the wider western landscape gateway of the project and relates to a number of other design features including the Manawatū River Bridge, the Wetland Experience, and the Shared Use Path. The Gateway Park itself forms a unique opportunity to reflect the immediate cultural and landscape setting that includes adjoining rural land uses, the Manawatū Gorge Scenic Reserve and the Manawatū River. Design development that have been progressed based on the western car park reinstatement requirements (condition PN3) and in collaboration with Iwi and community stakeholders include:

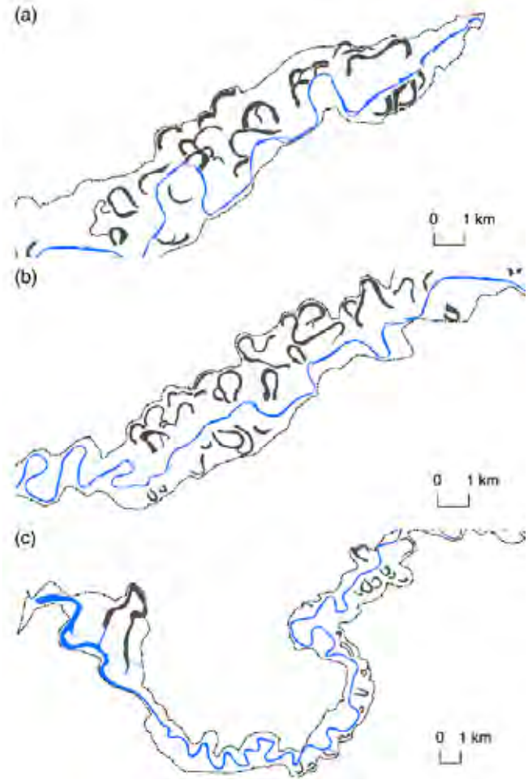
- Opportunities to view the Manawatū River
- Definition of a sense of arrival to the Manawatū Gorge
- The integration of existing cultural landscape features and expression including the existing Waharoa.
- Interpretation signage and wayfinding that reflects Mana o Te Reo Māori.
- Opportunities for cultural artistic expression that integrate with the southern abutment of the Manawatū River Bridge, Shared Path, Carpark and Scenic Reserve arrival.
- The use of traditional planting materials throughout the park design
- Consideration of cultural expression in the choice of materials and detailing of park furniture such as timber bench seating.

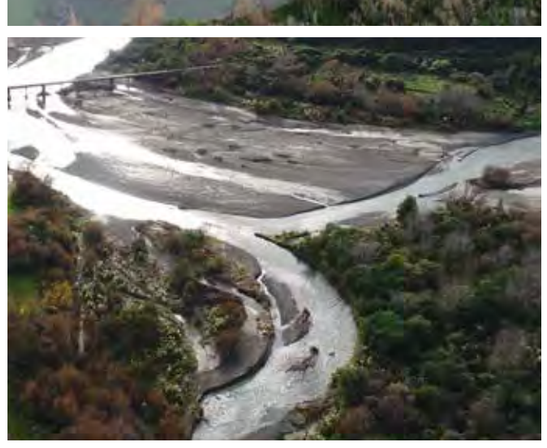
Note:
Full parking and access will be maintained to the existing DoC Scenic Reserve access to the east of the project area through out construction. This will include the complete safe separation of the public from all construction areas and the provision of an observation platform and information boards so the public can observe the construction of the Manawatū River Bridge and keep Up To Date with progress.

The design on the Gateway Park is based on the concept of the "River Landscape" The design study to the right illustrates the development of this concept

Gateway Park concept sketch showing the interpretation of the wider river landscape patterns and elements.

Design studies of the elements and patterns of the river landscape. These have influenced the preliminary conceptual design development of our gateway park offer.





Gateway Park Concept 50% Development Sketches.

Western Gateway Park Stakeholders Meeting 2 – 20.02.20
Western Gateway Park Stakeholders Meeting 3 – 26.02.20
Western Gateway Park Stakeholders Meeting 4 – 11.04.20

Minutes from these meetings and actions can be found at Appendix 2.

The Western Gateway Park design spatial arrangement has changed following the engagement process as captured in the attached minutes (Appendix 2). The key impact of the change is a reduction in carpark size, a realignment of the SUP and removal of the river access path and river terrace steps. A Parahaki Island Interpretation node will replace the river terrace steps at the top of the bank. This captures the process and agreed plan with PNCC and stakeholders to be taken forward into 50% detail design.

Park: Design and Adjoining landuses on private land.

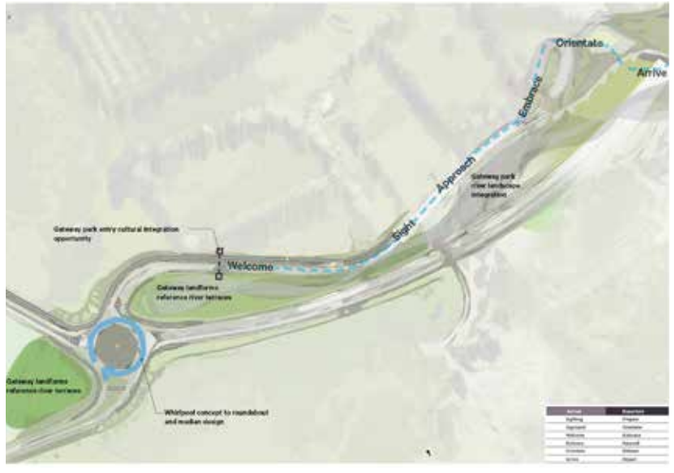
One of the principle opportunities of the Gateway Park is the chance to support stakeholders and the community to explore adjoining landuses to the Gateway Park.

The Alliance team has discussed the future landuses of Nutcraker Farm with Mr Tom Shannon and is aware of the future plans for this property. The Gateway Park access and car-parking has been designed with these future aspirations for the Farm in mind.

This opportunity can be aligned with the wider aspiration and direction of community driven processes and plans such as Te Āpiti Masterplan and the Manawatū River Framework.

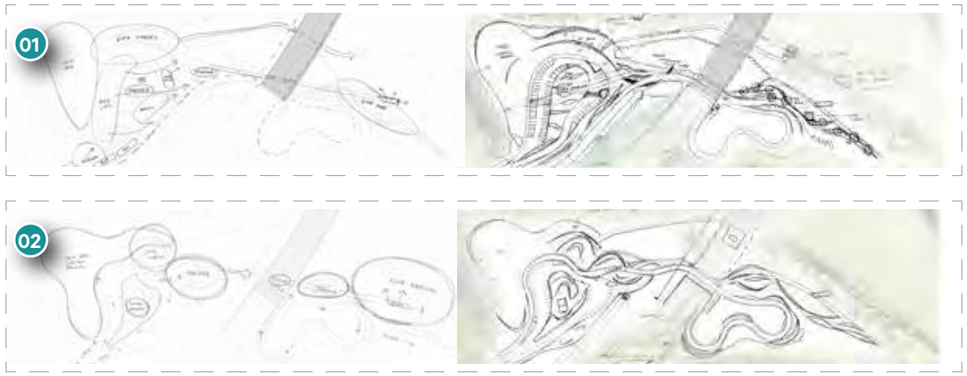
No use or activity is suggested for such facilities as it is recognised that this would be a process to be worked though with stakeholders. However possible uses could include an outdoor education centre, a café, visitor accommodation or some other agreed and appropriate service or function.

The design opportunity is to agree on a community future use and to design with this end use in mind.
The opportunity to explore such a facility is proposed to support the wider social and economic legacy outcomes of the project.



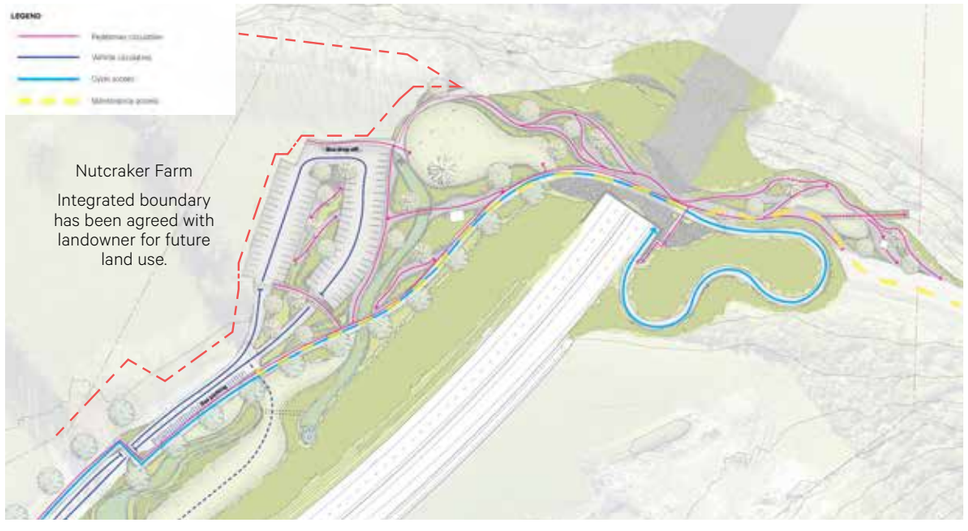
Park Drive Concept.

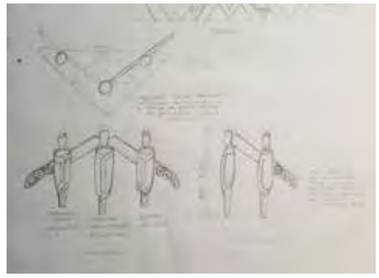
Early concept development sketches for the Gateway Park



50% Gateway Park Sketch plan

50% Gateway Park Concept Circulation





The design for the Parahaki Island viewing platform has been evolved with the island trustees and in acknowledgment of the island importance to Iwi as a Wāhi Tapu site.

The Poutama design concept has come from the Matanga artist Warren Warbrick and has been embedded into the design of the Gateway Park in balance with the arrival experience into Te Āpiti. The design will include interpretation signage and features which explain the island's importance to Iwi. The gateway park also includes three entrance pou whenua in the carpark entry island which acknowledge Tipuna (ancestors) relative to the island and the Iwi.

Devevlopment of Parahaki island lookout

LEGEND

- PROPOSED DESIGNATION BOUNDARY
- C01 - CONCRETE PAVING - DRIVEOVER
- C02 - CONCRETE PAVING - WALKOVER
- C03 - CONCRETE PAVING - DRIVEOVER
- CS1 - CHIPSEAL - SUP
- C05 - CONCRETE KERB - UPSTAND ONLY
- C06 - CONCRETE KERB - CUTAWAYS
- C07 - CONCRETE KERB - KERB AND CHANNEL
- C08 - CONCRETE KERB - CONCRETE EDGE
- T01 - TACTILE UNITS
- ST01 - PRECAST CONCRETE STEPS
- GR1 - GRAVEL DRIVEOVER - CARPARK
- GR2 - GRAVEL WALKOVER - MAINTENANCE ACCESS
- GR3 - GRAVEL WALKOVER
- RS1 - RIVER LANDSCAPE ROCK - SMALL GAUGE
- RS2 - RIVER LANDSCAPE ROCK - MEDIUM GAUGE
- RS3 - RIVER LANDSCAPE ROCK - LARGE GAUGE
- GB1 GABION BASKETS
- B01 - FEATURE BOULDER - LARGE
- RP1 - RIPRAP
- T01 - TIMBER LOOKOUT STRUCTURE
- H01 - LOOKOUT BALUSTRADE
- H03 - PARAHAKI ISLAND FENCE
- H04 - FARM FENCE
- H05 - TIMBER SCREEN
- H06 - STAIR HANDRAIL
- H07 - ACCESS GATE
- F01 - TIMBER LOG CUT - BENCH
- F02 - TIMBER LOG CUT- BENCH WITH BACKREST
- F03 - TERRACE BENCH SEATS
- F04 - BIKE RACKS
- F05 - REMOVABLE BOLLARDS
- F06 - RUBBISH BINS
- F07 - WHEELSTOPS
- F08 - PICINIC TABLE
- P01 - AMENITY PLANTING
- P02 - SWALE AND STREAM PLANTING
- P03 EMBANKMENT PLANTING - 1:2
- P04 EMBANKMENT PLANTING - 1:3
- G01 -GRASS
- TR01 - SPECIMEN TREES
- SCRUFFY DOME
- CULVERT - STREAM
- CULVERT - SWALE
- SUBSOIL

NOTE

CULTURAL EXPRESSION ELEMENTS IN THE GATEWAY PARK TO BE DEVELOPED IN CONSULTATION WITH PROJECT PARTNERS

1. Wetland - size approximate - to be confirmed
2. Stream diversion
3. Carpark
4. Bus drop off
5. Bus parks x 3
6. Relocated toilet
7. SUP safe crossing
8. Bridge over stream
9. Abutment wall - co design opportunity
10. Viewing point
11. River terrace
12. Retain Waharoa information building
13. Maintenance access to old state highway
14. Riprap under bridge
15. Overflow parking
16. Arrival moment / art piece opportunity
17. SUP access to bridge - 1:20 ramp
18. Stair access to bridge & abutment wall maintenance access
19. Wetland culverted into stream diversion
20. Island interpretive viewing point
21. Events and lawn access

0m 5m 10m 25m

Date 06/08/2020 1500@A1

View from Parahaki Island looking eastwards, up river to the Manawatū Gorge.

IV.2.3 The Manawatū River Bridge.

The Manawatū River Crossing represents a unique opportunity to re-connect with the historic and cultural significance of the Manawatū River and the Manawatū Gorge.
The western gorge is, in landscape terms, one of the more sensitive parts of the designation with natural character, cultural and outstanding natural landscape values identified.

Manawatū River Bridge

The Manawatū River Bridge will be the most prominent and significant structure of the project as it crosses the Manawatū River, a Wāhi Taonga of high cultural, landscape and natural character value.

The evolution of the design development of this structure has included the consideration of a number of bridge typologies and these have been discussed with Iwi. This process identified key values to be considered from a Mātauranga Māori perspective. These include:

- **Mauri**: How the structure affects the river, waters, land, below surface ground and characteristics, surrounding forests, and air.
- **Mana**: how the structure appropriately reflects the reputation, whakapapa, and legacy of iwi and broader community interest (past, present and future).
- **Cultural Significance / Wāhi Taonga**: How the structure reflects the cultural significance of the area and surrounds including immediate and adjoining landscape and natural character considerations.
- **Treading Lightly / Kaitiakitanga**: How the construction and physical effects of the structure relate to the particular sensitivities of the Manawatū River crossing area including Parahaki Island.

These values were considered in regard to the bridging options that mitigated adverse effects on these values primarily by avoiding a pier in the active bed of the river corridor. These open span bridge options where then priced. However these two options were outside of the pricing threshold of the project, and as a consequence were not pursued. Nevertheless avoidance of a direct effects on the Mauri of the river is considered the most appropriate design response in this location.

As this cannot be achieved (as open span alternatives are cost prohibitive), then the next design response is design mitigation in regard to the effects of those elements of the bridge that generate the most adverse effect – in this instance the pier that is in the active bed of the river corridor.

Bridge Architecture Options and Design Development.

The Alliance consider that this crossing is one of the key opportunity areas for the project with considerable design effort being devoted to exploring these opportunities. The importance of this crossing was emphasised through the Iwi bid phase engagement process and this included the express desire not to lose the physical connection with The Gorge and all that it represented as a landscape of significance. That is – **the river crossing maintains a physical connection with the traditional pathway of The Gorge; the Bridge itself being an opportunity to celebrate these traditional associative landscape and cultural values.**

The River Crossing Design Process.

The Alliance design for the river crossing has been an iterative process. This has been a deliberate design strategy to ensure the widest possible consideration of design solutions. The following images illustrate bridging options that were considered through the design process.

Urban and Landscape design discussion criteria considered as part of the Manawatū River Crossing options selection.

Distinctiveness
- Landmark qualities.
— Presence.
— Legibility.
— Memorability.

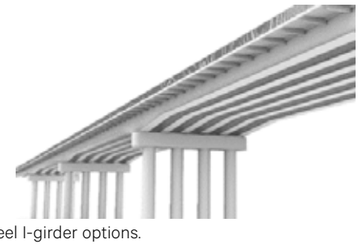
Landscape "fit".
— Coherence.
— Complementary to surrounding Gorge as a Landmark & Outstanding Natural Landscape.
— Typologies that maximise scenic reserve opportunities (non-visual landscape amenity & Recreation).

Visual Amenity.
— Deck depth.
— Vertical dominance.
— Pier number and arrangement.
— Under-croft space.
— Visibility of river open waters.
— Clutter / complexity (vs Simplicity).

Natural Character
- responding to the river.
— Piers in the River.
— Engagement with River Bank.
— Height above the River level.
— Spatial relationship with the Island.

Cultural expression (assumed)
— Opportunities for alignment with Narratives.
— Opportunities beyond the decorative that translate to form.

Short Span options.



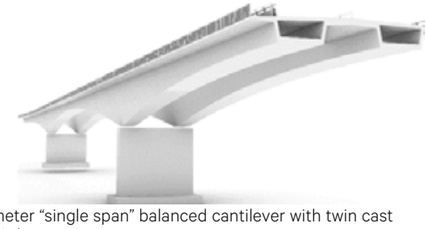
Benchmark Steel I-girder options.

Benchmark design options with Steel trough girders and multiple piers.

Refined pier options for a steel trough benchmark design.

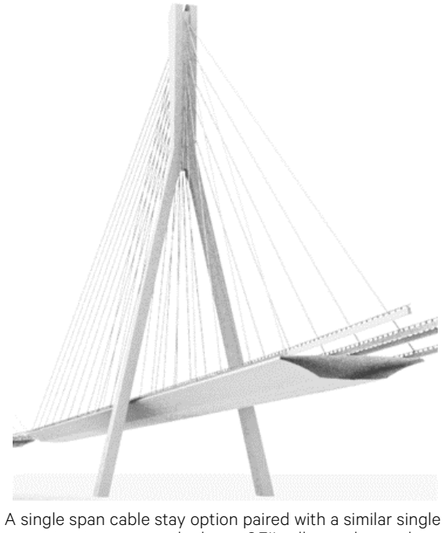
Twin cast box girder balance cantilever options.

Long Span Options.



180 meter “single span” balanced cantilever with twin cast box girders. .

Single span Steel Arch.



A single span cable stay option paired with a similar single span structure across the lower QEII valley to the north.

Manawatū River Bridge: Design Narrative & Rationale.

Given the above, the design narrative and rationale for the Manawatū River Bridge includes the following:

- **Refinement of Bridge Form**: The MRB bridge form has been the subject of a number of discussions with iwi. This has included the consideration of the wider cultural landscape narrative and the feminine influence of the narratives of the Ruahine and Tararua Ranges This aspect of the wider cultural landscape narrative aligns with the variable depth box girder design and a softer bridge superstructure aesthetic.
- **Narrative**: The on-going development of the narratives specifically associated with the Manawatū River and Te Āpiti including the origin story of Okātia and the taniwhā Whangaimokopuna. There are also additional considerations such as the bridge representing the embodiment of the project partnership between iwi and between iwi and the Crown.
- **Amenity and Connection**: The bridge provides for an enhanced landscape and cultural landscape experience that has been developed in the context of the adjoining Gateway Park area as well as the Eco-viaduct and associated wetland experience. The Shared Use Path and viewing platform is a key part of this experience and the bridge also provides for views of the Manawatū Gorge for motorists.
- **Cultural Values Redress**: Iwi have clearly expressed the adverse cultural effects of the river bridge on the Wairua and Mauri of the Manawatū River. This has been communicated in the context of Atuatanga and associated sacrifice that the project is asking of Atua including; Rūaumoko, Tangaroa, Papatūānuku and Tawhirimatea.
- **Acknowledgement of Place**: The MRB also has a requirement to acknowledge the cultural values associated with Parahaki Island via Te Āpiti Ahu Whenua Trust (see Condition PN1, section IV.1.1 above). These values are currently being discussed via a separate process with feedback from this process then feeding back to the design team. There are a range of possible options that may be considered including the acknowledgement of Parahaki Island through interpretation, signage and design reference and Mahi Toi / cultural expression.

More widely across the MRB there are additional cultural and environmental matters that will be developed including:

- cultural expression on bridge abutments, barriers and SuP balustrade.
- Design integration with the Gateway Park
- Safety in design to manage the risk of people jumping off the viewing platform
- Management of litter and debris.

Illustrative aerial view of the Manawatū River Crossing, the wetland crossing bridge to the North and the amenity of the Gateway Park.

Southbound view across the Western Landmark Gateway area, including BR03 Wetland crossing and Manawatū River Bridge, Gateway Park and Facility (potential opportunity) as part of our integrated Whole-of-Landscape cultural and environmental design solution. This view exemplifies the sweeping geometric design of the roadway that compliments the character, flows and landforms of the wider Manawatū river landscape and surrounding ranges.

Our River Crossing Solution.

Our River Crossing Design Solution is a post tensioned concrete box girder bridge. This bridge has four spans and is approximately 300m long, carrying four lanes of traffic and a 1.5m walkway on the eastern side with a single viewing platform affording views eastwards of the Manawatū River and Gorge.
This bridge maintains the integrity of the wider Western Landmark Gateway including the additional benefits of the associated urban design, landscape and recreational open space opportunities.

Visual and Natural Character.

Our Manawatū River Crossing is a simple and elegant design solution that seeks to achieve the design principles of the project. This includes an enhanced experience for the motorist that does not compete with or detract from the landscape.
The design of the Manawatū bridge respects the distinctive landscape setting at the mouth of The Gorge, and the fact that it crosses an ONL. The bridge is a simple post tensioned box girder design that has a sweeping curve which complements the natural characteristics of the wider river landscape and surrounding ranges and ridge lines as the bridge curves around the eastern shingle banks of Parahaki Island.
A single pier features on the shingle bank of Parahaki Island avoiding the main river channels. The Pier form itself is rounded to reflect the softening effects of the movements of water and wind that characterise The Gorge environment. The consistent material of the bridge as a concrete construction ties together the family of elements that represent a single visually and aesthetically cohesive architectural design response.
The enhanced public access across this bridge is part of a wider network of public open spaces that further compliments the associative landscape values that relate to the significance of the river crossing and the landscape and cultural associations of the Manawatū Gorge as the traditional pathway from east to west.

Manawatū River Crossing: Urban Design Features and family of elements.

— A curved bridge alignment that is sympathetic with the wider dynamic river landscape and respect the presence of Parahaki Island.
— A single pier in the Manawatū River corridor
— Elliptical / curved piers to represent the effect of river flow and the “rounding” effect of water and wind movement in the wider landscape
— “floating” bearings at the junction of the box girder and the pier to further lighten the visual appearance of the horizontal curved deck and girder form.
— Simple elegant box girder to reduce the overall under-croft structural mass and the appearance of a “heavy’ structure.
— Visual interest of the structurally explicit outrigger “ribs” and the opportunity to explore this pattern of elements further with Iwi as part of the wider cultural expression on the project
— Open views in either direction for the motorists to the west to Parahaki Island and to the east up River to the Manawatū gorge
— Cycling access on the roadway shoulder

A 1.5m Walking access on the eastern side of the bridge with a single viewing platform (including interpretation signage) eastwards that is connected to the wider linkages and access of the Gateway Park to the south as well as the other *Alliance* Team access enhancements to the north. It is anticipated that this access may be extended in the future as a shared use path – which will link onto the project SUP required under Designation Condition 36..

River Crossing Cultural Expression.

It is recognised that there are a number of Cultural Expression opportunities across the project. The detailed design and development of the River Crossing Bridge includes input from the Iwi Partners. This input has been discussed throughout the Iwi engagement hui, as well as being indicated in the NoR CEDF.
Cultural Expression opportunities on the River Crossing Bridge which have been included are:
— Pier form and detailing
— Walkway balustrade form and developed / detailed design
— Abutment Wall treatments
— Wayfinding and interpretation signage
— Barrier treatments
— Bridge naming protocols

It is expected that these will be discussed as part of the ongoing design development of the bridge and that these discussions will involve the Community Liaison Group including Iwi Partners.
The following illustrations show the types of opportunities that come from a consultative co-design process including design hui and workshops with Iwi nominated designers and artists. They illustrate the types of ways a Cultural Landscape narrative can be woven into the wider design process.
The proposed theme for the approach to the Manawatu River Bridge builds on the over arching narrative of ‘He Korowai Rangimarie’. This is expressed in the north and south abutment designs and the central viewing platform. The use of weathering steel to represent fine taniko weaving of the top of a cloak has been used as a consistent material to unify the bridge design and concept in these locations.
The ideas and concepts for the viewing platform and the bridge have also been shared with the Parahaki Island trustees and the project Kaimahi and were well received.

Integrated cultural designs:
Northern Corridor Improvements TL5 Barrier Designs

Manawatū River Bridge Viewing Platform.

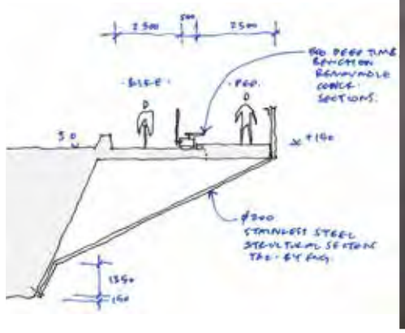
The Manawatū River Bridge also provides the opportunity to maintain the landscape connection with the Manawatū Gorge and Manawatū River. The Shared Use Path is deliberately aligned on the eastern side of the Bridge to allow for uninterrupted views to the east.

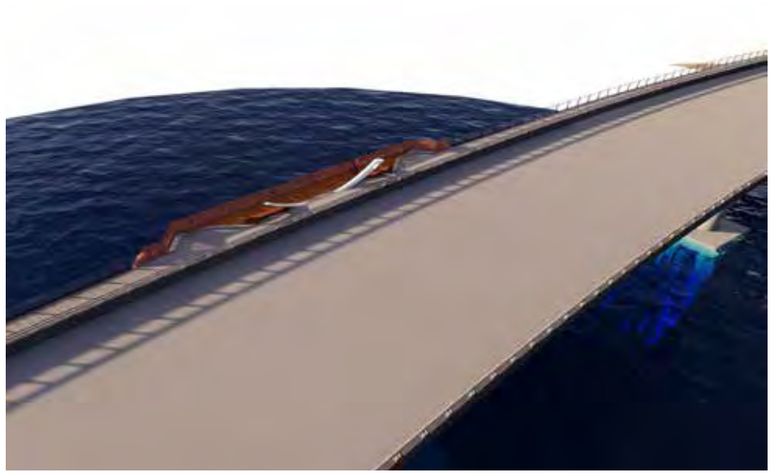
The viewing platform also aligns with the middle pier of the bridge which directly connects to the River and to Parahaki Island. In this way it is seen as a key cultural and urban design focus to celebrate place including the appropriate acknowledgment of cultural landscape values.

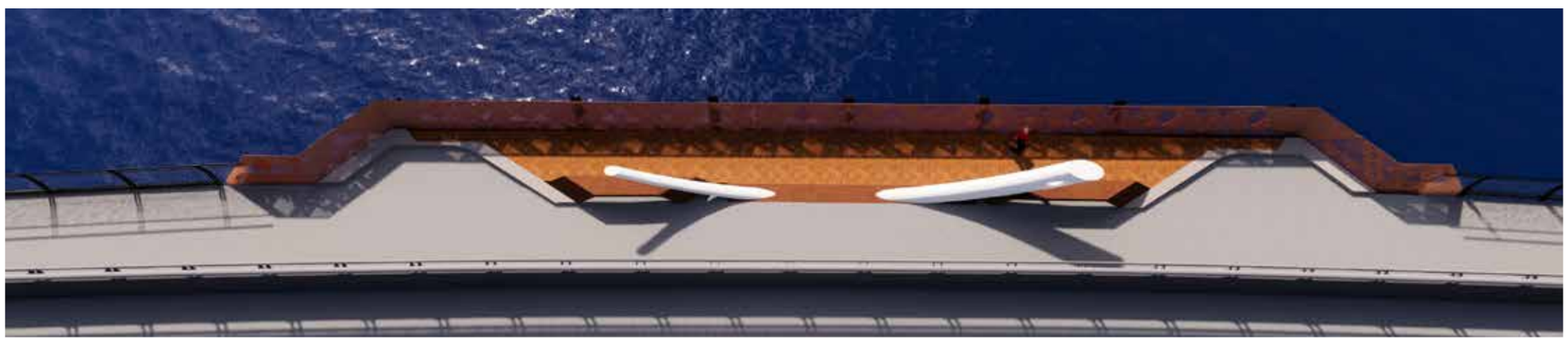
This design development includes:

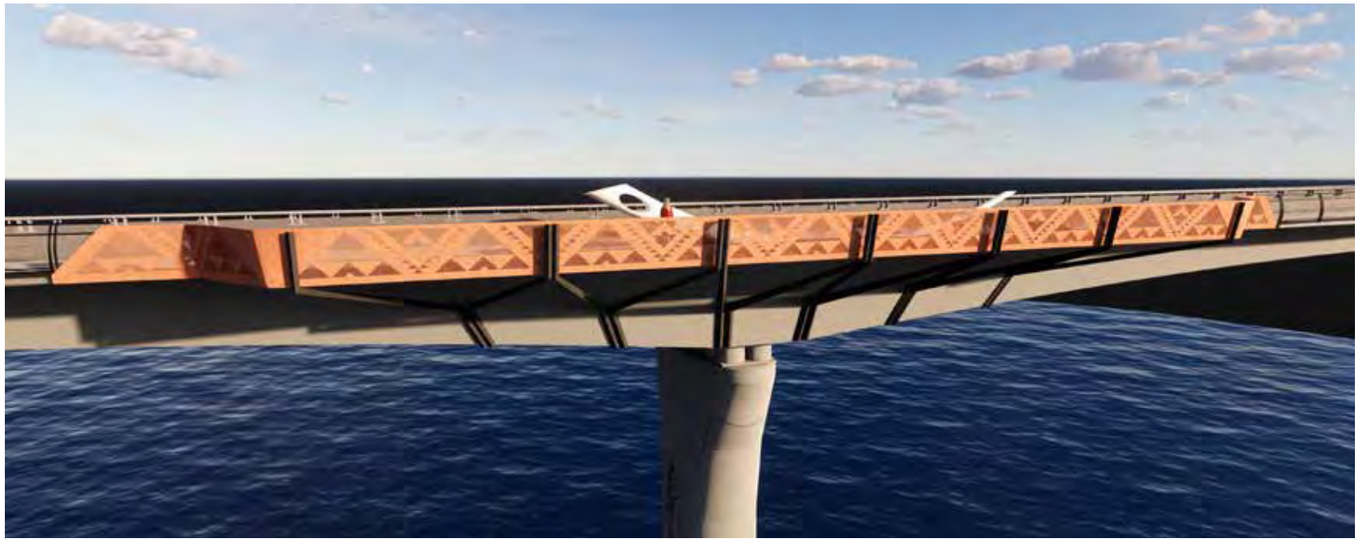
— provision of safe separation of walkers and cyclists
— accommodation of future increases in visitor numbers and capacity from the Shared Use Path
— cultural expression on the platform itself including seating and other features
— cultural expression on the main river pier that relates to the viewing platform to tie the whole composition together.

The viewing platform includes a taniko pattern in the steel balustrade design. The concept of the bridge as a point of physical connection has been expressed with an ‘Aurei’ pin or cloak pin traditionally used as a connection of the cloak and an adornment. The Aurei pins the viewing deck to the bridge with a sculptural element. The timber decking will also have a woven texture to the decking pattern.

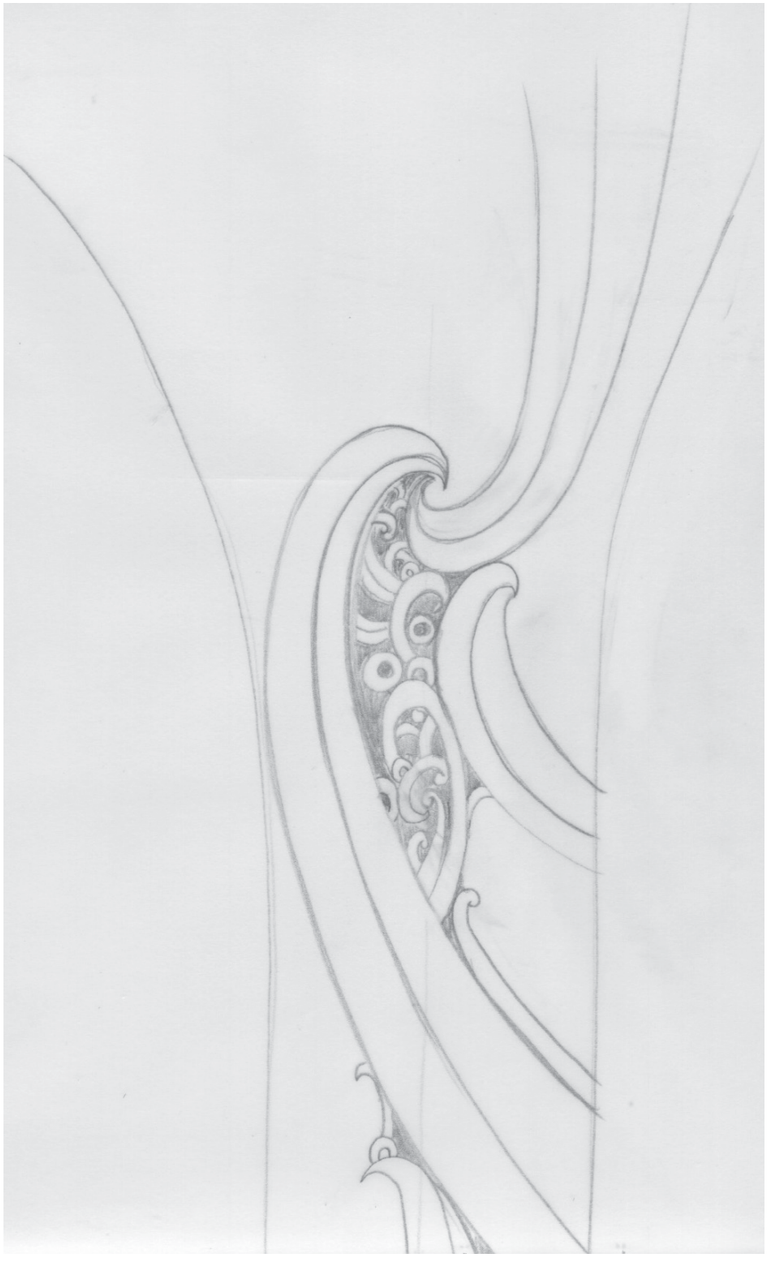


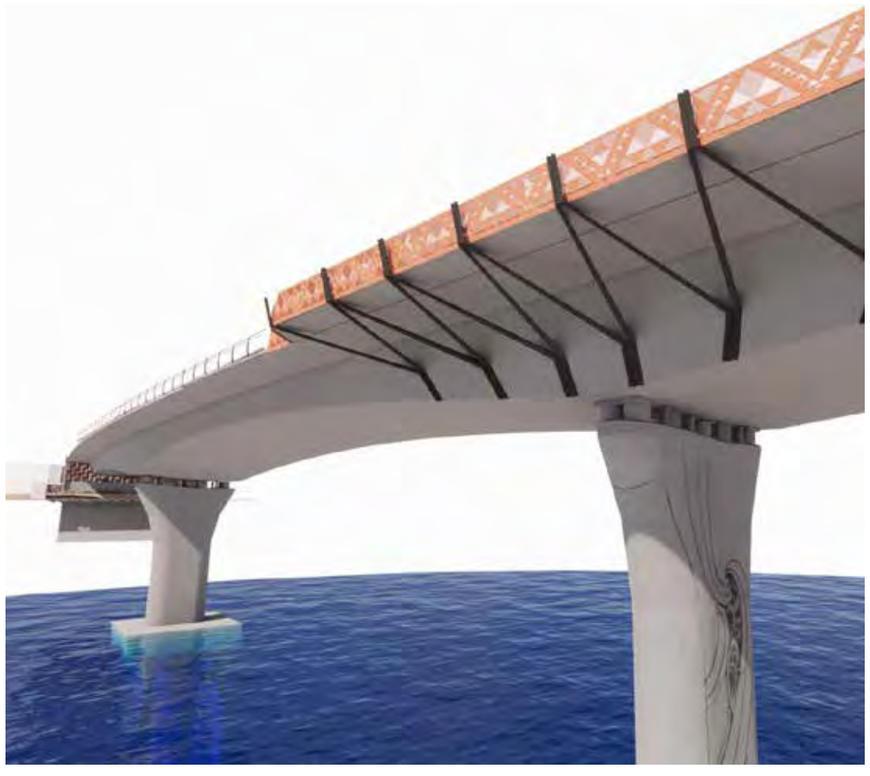




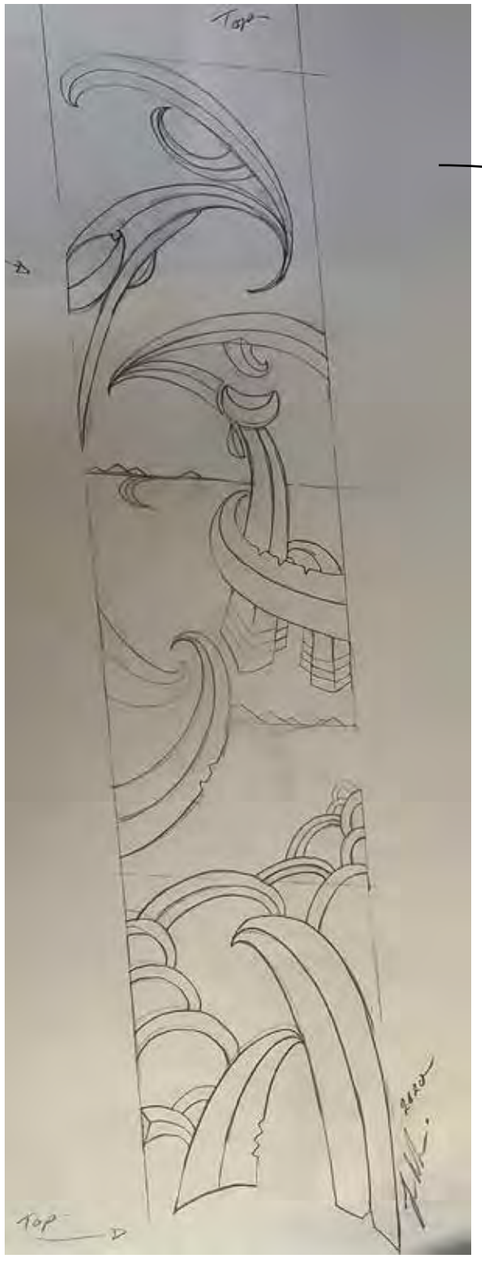


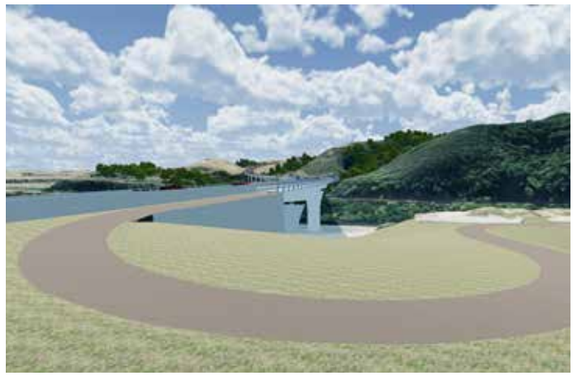
The Atua 'Okatia' the Totara that created the gorge has been considered in the cast elements into the central concrete pier and the viewing platform steel structural ' branching' design. The pier design evokes that of the swirling waters that followed behind Okatia and the forces that created the gorge.

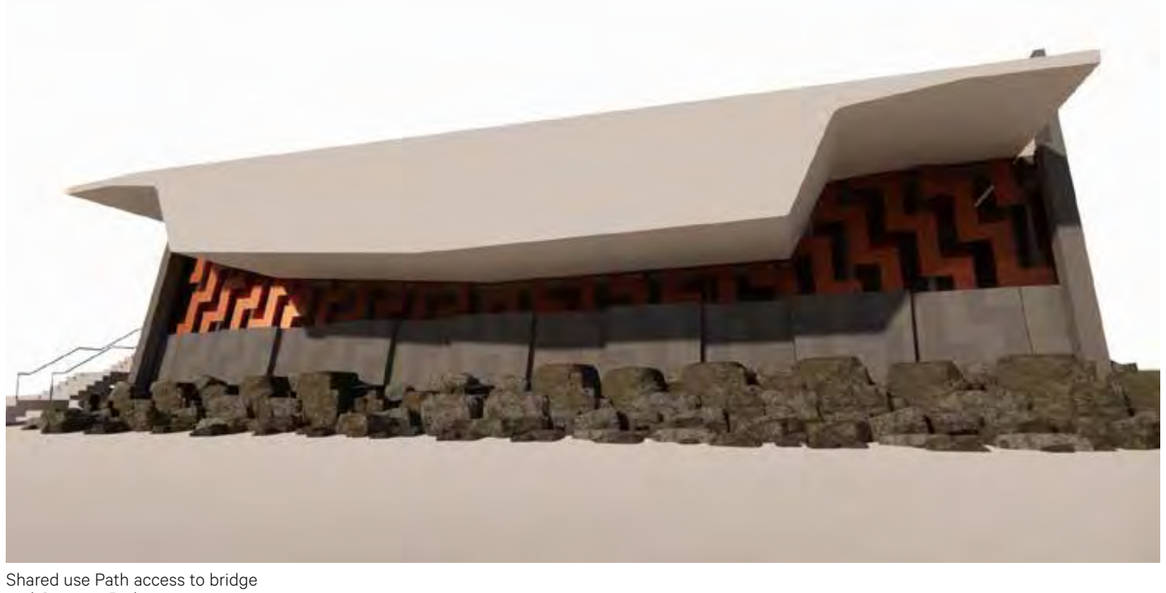




The narrative of cloak is expressed in the abutment front facing panel with steel taniko weaving pattern in the form of poutama, this connects with the design korero on the Parahaki viewing platform in the Gateway Park placing a similar taniko pattern either side of the island. The abutment also addresses the lost Huia manu in the side facing concrete panels also cast with Mahi toi.







Shared use Path access to bridge and Gateway Park

Down river westerly view from the south bank looking towards Parahaki Island.

IV.2.4 Wetland Experience & Crossing.

The Wetland Experience is described as the existing wetland area immediately below the Eco-Viaduct Bridge. This area has been developed as part of a wider open space network that includes the Gateway Park and the Manawatū River Bridge. Design development that has been progressed in collaboration with Kaimahi will include:

- The use of traditional plant materials in the restoration of the wetland areas
- Incorporation of areas of traditional material harvesting (raupo and flax)
- Interpretation signage and wayfinding that reflects cultural significance and connection
- Naming in collaboration with Iwi partners and appropriate reflection of Te Reo Māori.

One of the challenges of the project is the negotiation of the Raupo seepage wetland and surrounding area to the immediate north of the River Crossing. This area is one of the more ecologically sensitive sections of the project with a number of ecological constraints related to high value vegetation as well as freshwater and high natural character values.

The overall catchment driven approach that has been applied to the design seeks to minimise the impacts in the area. This has been achieved by the reduction of the number of piers that intrude into the seepage wetland area and the elimination of significant areas of fill (and therefore culverts and stream diversion requirements). At the same time the design minimises the impact on Swamp Maire vegetation as well as on old growth alluvial forest.

Nevertheless the effects on this area during the construction process will be significant. The construction management team has however sought to limit these effects, but this does mean that a construction access will have to be built down into the wetland area in order to construct the wetland crossing in a cost effective and safe manner.

Wetland Restoration and Enhancement.

As the wetland is a seepage wetland the wider design team has worked together to develop a wetland restoration and enhancement concept plan that seeks to use the construction access as bund and temporary staging to contain an expanded wetland area. This bund can facilitate access around the wetland and will be supplimented by boardwalk access. This will also provide inspection and maintenance access for the wetland crossing bridge.

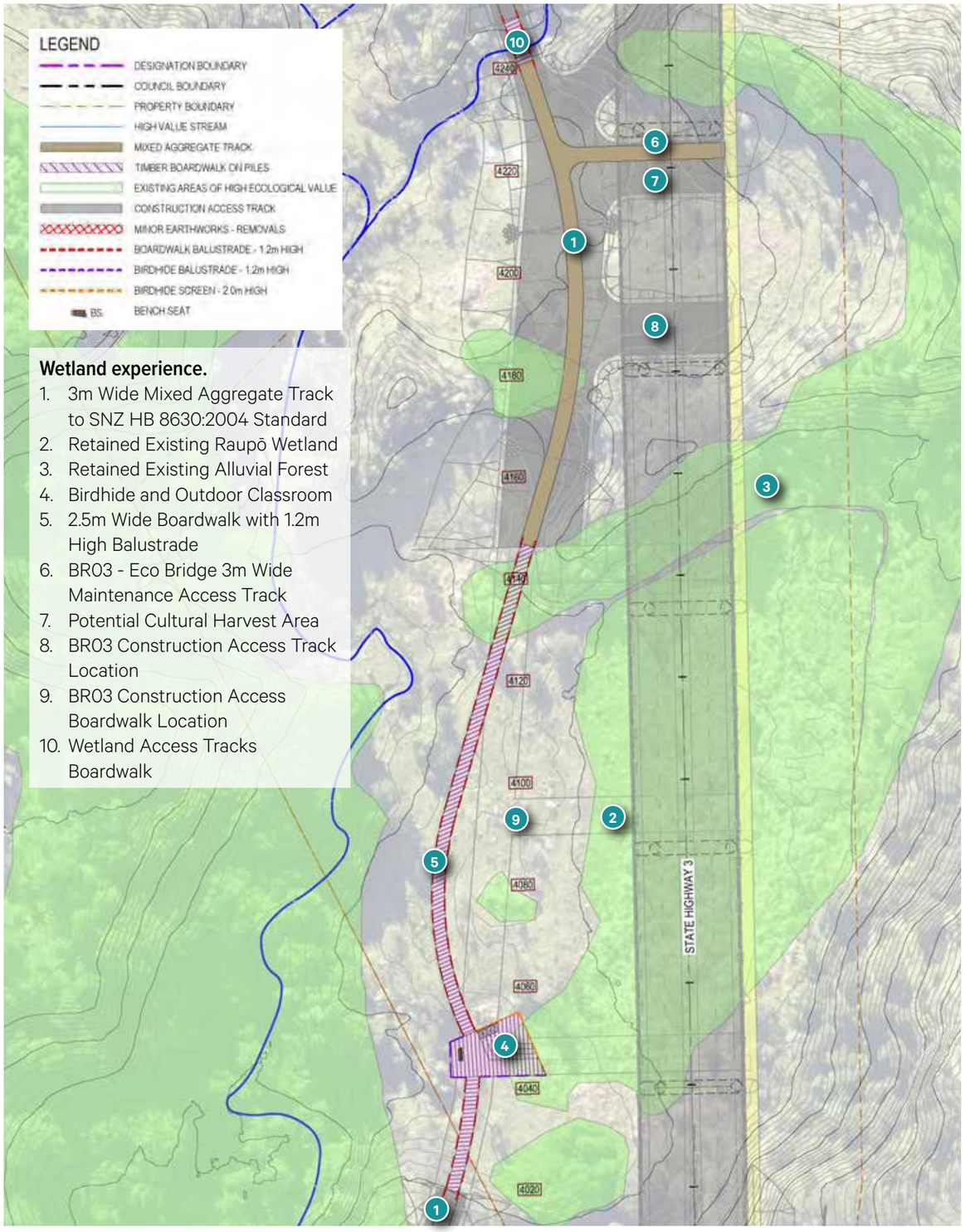
This concept also includes the opportunity to provide additional public access from the river crossing bridge as part of an expanded trackway network that will link the western alignment safe stopping area and associated viewing platform, existing farm tracks and the construction access track north to Saddle Road.

Access to an expanded wetland area will also serve as a further opportunity to align public access and education with the wider catchment approach suggested increasing public knowledge and appreciation of the relationship between the Manawatū River and the nature and management of the surrounding sub-catchments that feed into it – including the QEII Trust areas.

This also aligns with the wider intent of the **Manawatū River Framework** and other PNCC strategies that seek to link the awareness of water quality and management to the ongoing investment in water quality across the district.

This will provide for further opportunities through interpretation signage and access to a greater appreciation of the cultural landscape values of such areas as well as opportunities for cultural harvesting of traditional plant materials such as raupo and flax.

Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.



Wetland experience.

1. 3m Wide Mixed Aggregate Track to SNZ HB 8630:2004 Standard
2. Retained Existing Raupō Wetland
3. Retained Existing Alluvial Forest
4. Birdhide and Outdoor Classroom
5. 2.5m Wide Boardwalk with 1.2m High Balustrade
6. BR03 - Eco Bridge 3m Wide Maintenance Access Track
7. Potential Cultural Harvest Area
8. BR03 Construction Access Track Location
9. BR03 Construction Access Boardwalk Location
10. Wetland Access Tracks Boardwalk

Wetland and QEII Gully Crossing (bridge 03).

The design solution for the wetland and QEII Gully crossing extends the design to 305m overall, has avoided significant embankment fills and culverts through the lower section of the QEII gully. This has enabled natural watercourses and habitats to be retained and enhanced. The area below and around the bridge will be planted and incorporated into the wider Landscape Management Plan Framework. New Offset Mitigation Planting will improve terrestrial and freshwater ecology; the 14m height of the structure allows planting and existing raupo vegetation to thrive underneath this bridge.
Below and around the Eco-Bridge BR03 we have designed a boardwalk network to re-connect people and place. This delivers major amenity and ecological benefits with the use of walkways and boardwalks that connect to the Western Gateway Park south of the river, and our Pohangina River Trail to Ashhurst which will be formed from refurbishing the western construction access track, creating economic benefits from more visitors to Ashhurst.
The bridge is weathering steel girder construction on standard concrete crossheads and piers. Bridge spans have been expanded to minimise the impact of piling in the existing wetland area with only one set of pier piles directly affecting the existing wetland area.

Family of elements and Cultural Expression.

Additional opportunities for cultural expression for this structure and associated works include cultural input to information signage and wayfinding, provision of dedicated areas for cultural harvest and opportunities for cultural expression detailing on bridge concrete barriers. These cultural expression elements will relate to those applied to the River Crossing Bridge as part of our Whole-of-Landscape approach and associated cultural landscape narrative.

In addition the integrated network or family of access elements (tracks and paths) will also serve to integrate the River Crossing Bridge and Bridge 03.

Scale: 1:500@A3

0m 5m 10m 25m N

BR03 Visual and Natural Character.

The design of BR03, wetland and wider QEII gully crossing has been determined by our overall Cultural and Environmental Design narrative of a whole-of-landscape approach and Gateways in the Landscape. For BR03 in particular this has meant that the protection and enhancement of ecological and natural character values have been top of mind throughout the design process.

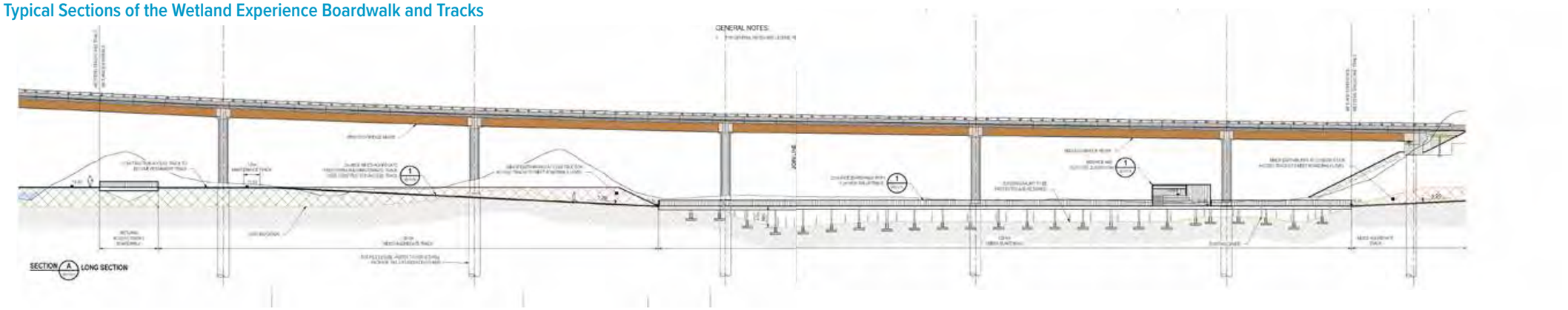
The natural character of the QEII gully has been protected through a range of key design moves across the catchment that include a more northerly alignment to avoid structures and effects in the upper catchment, the lengthening of the main eco-bridge to span greater areas of ecological sensitivity and the avoidance of more extensive areas of fill embankment such as those proposed in the NoR design thus avoiding such effects. The consequence of a longer overall structure and greater spans has also meant a relative reduction in the visual intrusion within the lower gully leaving this as visually open and unconstrained as possible.
The overall amenity of the wetland and surrounding area will be enhanced by the wider ecological restoration proposed as well as the enhanced public access and amenity offered including tracks, boardwalks, seating and information / interpretation signage.

Eco-Viaduct

The design development of the Eco-viaduct has included the following outcomes that are primarily aligned with Kaitiakitanga values and the outcomes of “tread lightly”.

- Extension of the structure overall to minimise environmental impact
- Utilisation of construction access to facilitate controlled public access via boardwalks
- Linking to wider access opportunities including the western construction access along the Pohangina river corridor.
- Planting design that incorporate traditional knowledge and cultural harvesting
- Opportunities for education and knowledge sharing through signage and wayfinding.
- Opportunities for cultural expression on bridge piers and barriers.

Typical Sections of the Wetland Experience Boardwalk and Tracks



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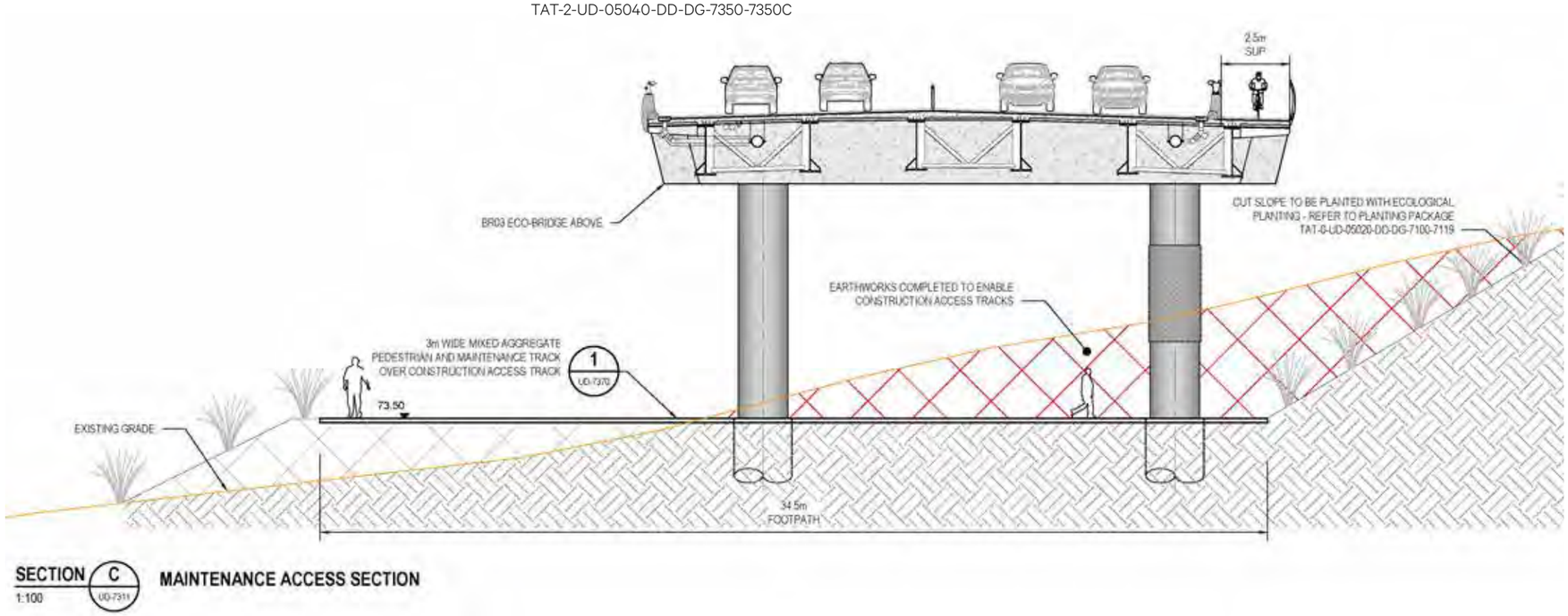

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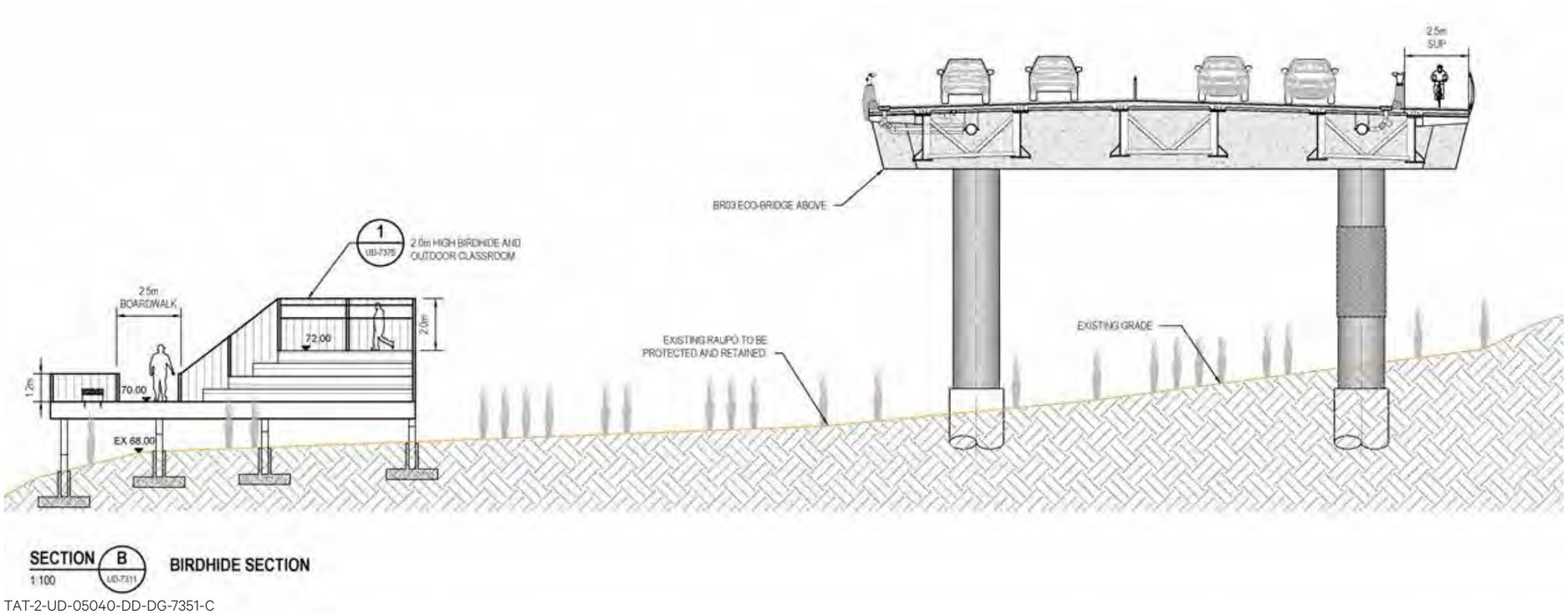
 Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.



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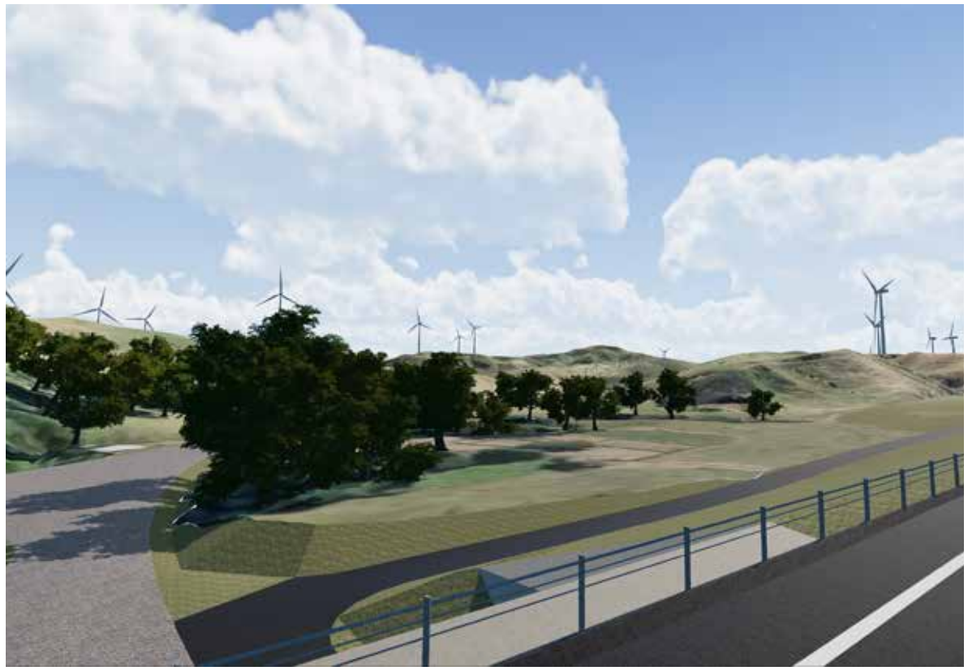
IV.3 Upland Experience.

As the alignment climbs eastwards the driver experience and corridor character transitions to the more rolling upland terrain of Te Āpiti Windfam. This transition is delineated or "bookended" by the major cut-sections in the west of the project and the main cuts in the east.
The corridor through this area will be predominantly characterised by the turbines of Te Āpiti windfarm. These elegant, dynamic structures will remain the most visually dominant pattern of elements "*across the top*" of the project.
The design includes a safe stopping area to further provide for appreciation of the unique (and locally iconic) visual amenity that the wind farm provides.
The following plan sets out the design that includes a safe stopping area as well as other potential enhancement opportunities which may be able to be discussed with Meridian Energy.

View from Te Āpiti Windfarm Viewing Point accessed from Safe Stopping Area.



Stopping Places

IV.4 Shared Use Path and Recreational Path Connections.

IV.4.1 The Shared Use Path.

(Refer to the Shared Use Path Design Philosophy Report TAT-0-RD-01050-DD-RP-0004)

The following design philosophy has been applied to the shared use path – these matters are covered in a separate Design Philosophy as referenced above – for completeness the key CED matters are listed below:

User Experience Design Principles.

The SUP shall be designed following an integrated network principle of Spine-Node-Link, with the SUP forming the 'spine'.

A key purpose of the SUP is to provide walking and cycling access across the project area and to reflect the core project CEDF design principles of:

- Design with Nature and "Tread Lightly"
- Integrating infrastructure and the landscape
- Respecting the Cultural Landscape
- Reconnecting People and Place
- A memorable experience.

Where practical the SUP should provide for the amenity of users including:

- Visual amenity by allowing for views of the Manawatū and Tararua Plains, Te Āpiti Meridian windfarm
- Opportunities to connect with the wider landscape through a range of spatial scales and experiences including mixed access to both the north and south side of the highway where this can be achieved safely and for the purposes of improved amenity outcomes
- Moving the SUP away from the main highway, where practicable, to assist in the management of traffic noise and to enhance the experience of rural character
- Manage speed and use conflict through a variety of devices and mechanisms that are safe, legible and consistent
- Providing opportunities to link to other tracks, trails and viewing areas where this can be achieved safely and economically
- Providing for safe access to the SUP from key areas of open space across the project including the western carpark area (Gateway Park)
- Provision for opportunities for cultural expression across the project including the integration of cultural expression into safety management mechanisms, wayfinding, signage and naming.

Cultural Expression - SuP

Preliminary conceptual alignments of the SUP have been explored with iwi through early design interactions. The Shared Use Path provides an opportunity to express the wider cultural narrative of the project area. This is of significance in relation to the traditional pathways across the landscape that also enabled journeying between east and west. These narratives will be further explored with iwi through design development and may include such matters as:

- Shared Use Path Naming and narrative
- Recognition of sites of significance
- Avoidance of areas that are not appropriate for wider public access
- Recognition and design responses to key landscape connections of cultural significance, for example:
- Between QEII Gully and Catchment 9
- To Te Ahu a Turanga
- To the Manawatū Gorge and Parahaki Island from BR02
- To the Manawatū and Tararua plains
- Future Access to the Manawatū Gorge Scenic Reserve

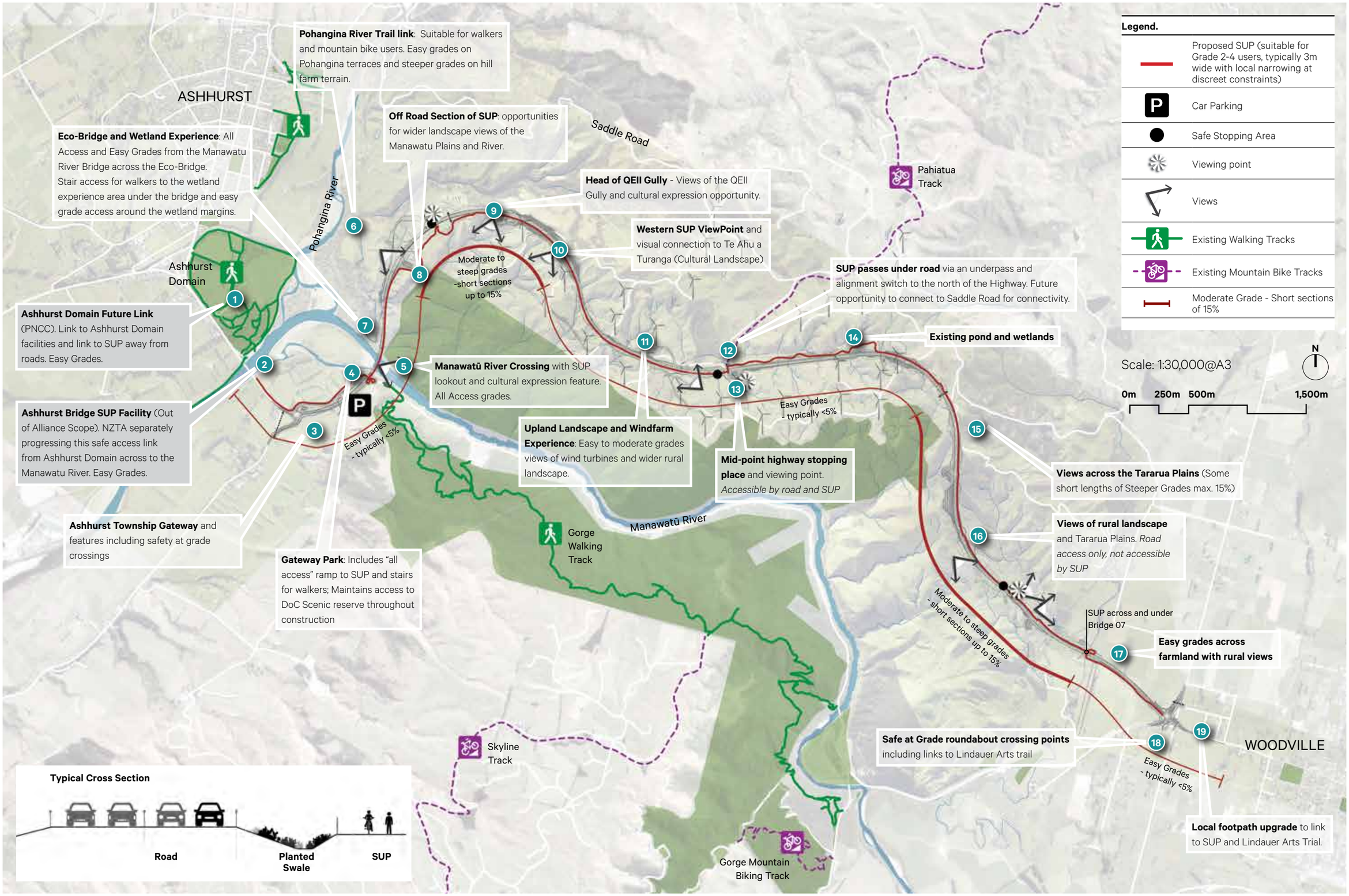
Connectivity Opportunities

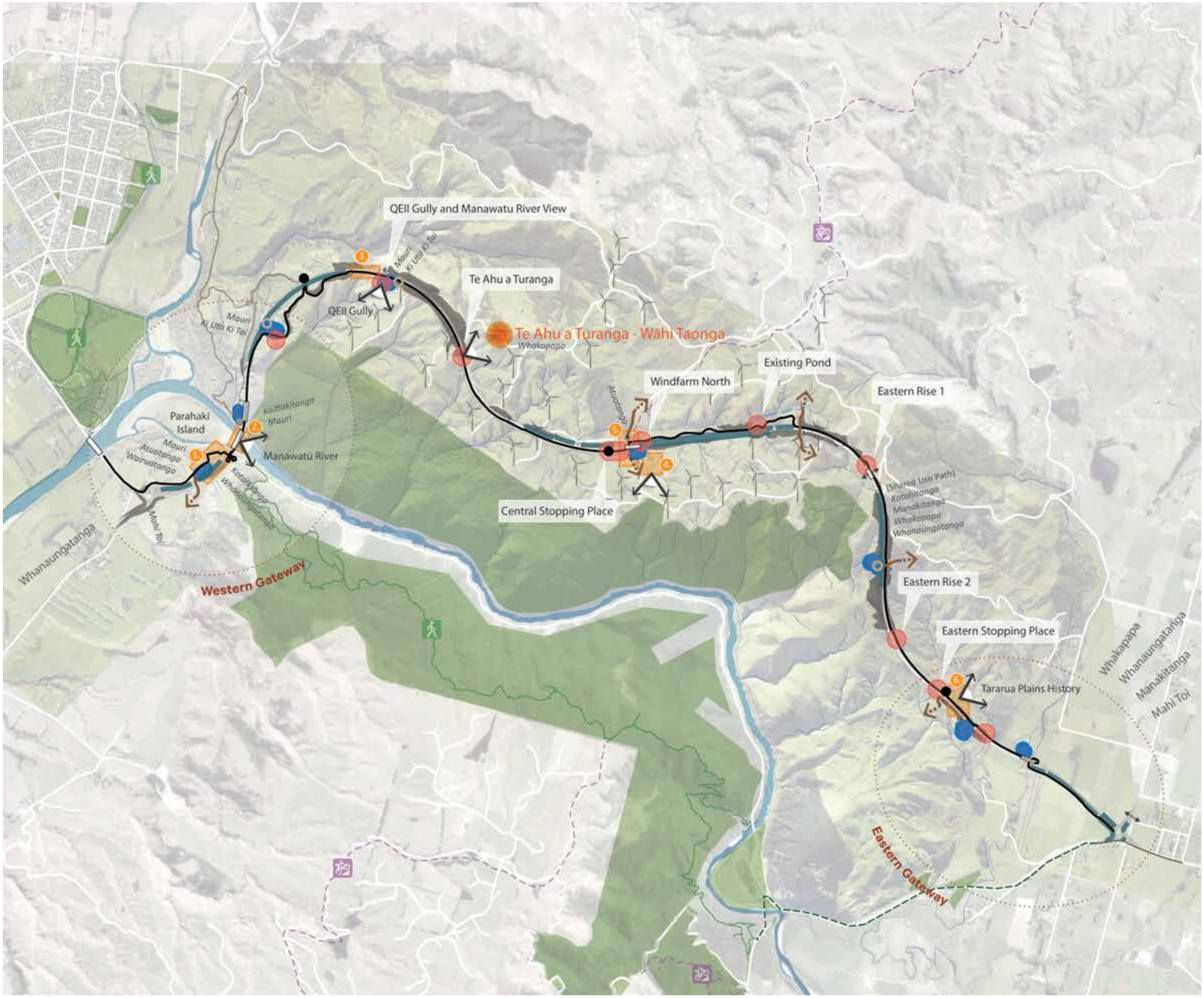
The Shared Use Path provides an opportunity to engage and connect with the wider landscape context. This includes opportunities to maximise the scenic, recreational and visual amenity provided by the path. The SUP design shall be developed, where practicable, so as not to preclude the following potential future connectivity and linkage opportunities with the SUP:

- Linking the SUP to the Ashhurst Bridge walking and cycling future opportunity
- Linking the SUP design to the development of the Western Gateway Park
- Catering for users who wish to access the SUP on the Manawatū River Bridge and the form of the River Bridge lookout
- Integration and linkage of use between the River Bridge and the "Eco-Viaduct" including the "Eco-Viaduct" lookout
- Access from the SUP to the Wetland Experience area from both BR02 and BR03
- Recognising the future links between the SUP and the wider western access track opportunities.
- Proving views and a landscape connection to the QEII Gully
- Proving opportunities for visual connections between key cultural landmarks including Te Ahu a Turanga
- Linking the path in with other associated highway features such as swales and wetlands to maintain separation between the road and the path
- Maximising landscape connections both on the south and the north of the highway alignment
- Potential for crossing under the main TeAaT alignment in the proximity to Cook Rd to facilitate future development of this access through to Saddle Road
- Linking to the Lindauer Arts trail and associated footpath upgrades in the east.
- Providing safe at grade crossing at the eastern roundabout
- Maintaining equestrian access from the Manawatū River at the western end

The anticipated amenity of the Shared Path is represented in fig 5 opposite: Shared Use Path Amenity Plan.

Shared Use Path: Amenity Map.





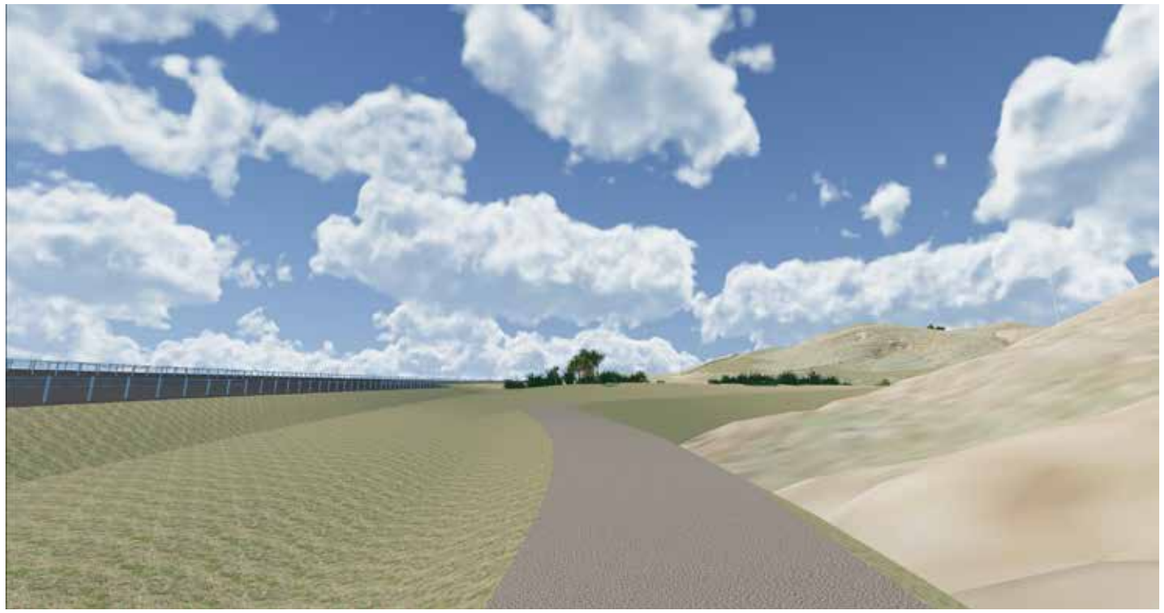
Legend.

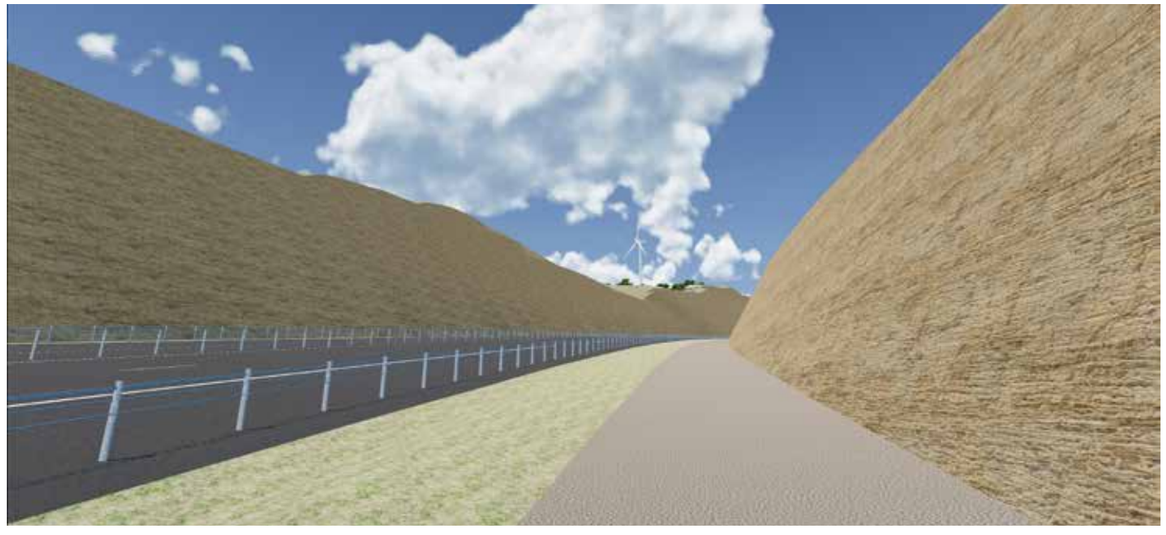
	Shared Use Path
Speed Controls/Rest Areas.	
	Primary - Separated with Views
	Secondary - Separated
	Tertiary - Inline
Highway Intersects.	
	Mainline Stopping Areas
	Lookouts
	Property Access
	Access Points (Emergency/ Maintenance)
	Existing Mountain Biking Track
	Existing Walking Track
	Lindauer Art Trail
Water.	
	Wetlands
	Swales
Structures.	
	Bridges
	Underpasses
	Stair Connections
	Large Cut Treatments
Storytelling.	
	Storytelling Signage Locations
1.	Gateway Park
2.	Manawatū River Lookout
3.	Feature Fence to Retaining Wall
4.	Central Lookout
5.	Underpass Barrier/Expression
6.	Eastern Lookout

Scale: 1:30,000@A3

N

0m 250m 500m 1,500m





IV.4.2 Pohangina Valley Link & Recreational Path Connections (West).

Also see The Western Gateway Concept Plan above.

The project will deliver an expanded public access network to the north of the River Crossing in the west of the project. A key component of this is the NoR designated access track that links southwards to the project from Saddle Road along the eastern Pohangina River terrace.

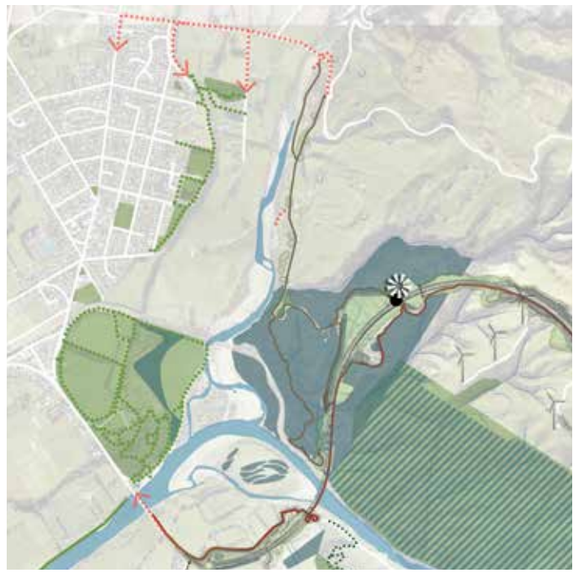
This construction access track is considered as part of the wider future public access in relation to Recreational Path Connections. This expanded local (western) track network will enable the consideration of the following additional project opportunities that can be developed by others in the future:

- A "bridge to bridge" connection between Ashhurst Bridge and Saddle Road Bridge (utilising the project River Crossing)
- Consideration of safe walking and cycling access on the Saddle Road Bridge (in keeping with the Manawatū River Framework)
- The development of a continuous public access loop through the Pohangina River Corridor
- Consideration of safe walking and cycling access across the Pohangina Rail Bridge (as indicated by Te Āpiti Masterplan) linking to Ashhurst Domain
- The potential further development of the Pohangina River Terrace as public open space aligned with the Outstanding Natural Landscape values and wider amenity landscape values
- Enhanced river access to the Pohangina River
- Additional track access through the existing old growth alluvial forest
- Linkages with the proposed western project safe stopping area and associated viewing platform to afford views westwards across the Manawatū Plains.

This concept also could enable the wider consideration of the maintenance, enhancement, protection and management of the areas to the immediate north of the river crossing and west of the Scenic Reserve. This could include:

- QEII covenanted areas,
- farmed areas (including river terraces, steep gullies and hillslopes)
- existing bush remnants and high value ecological areas
- proposed off-set mitigation areas.

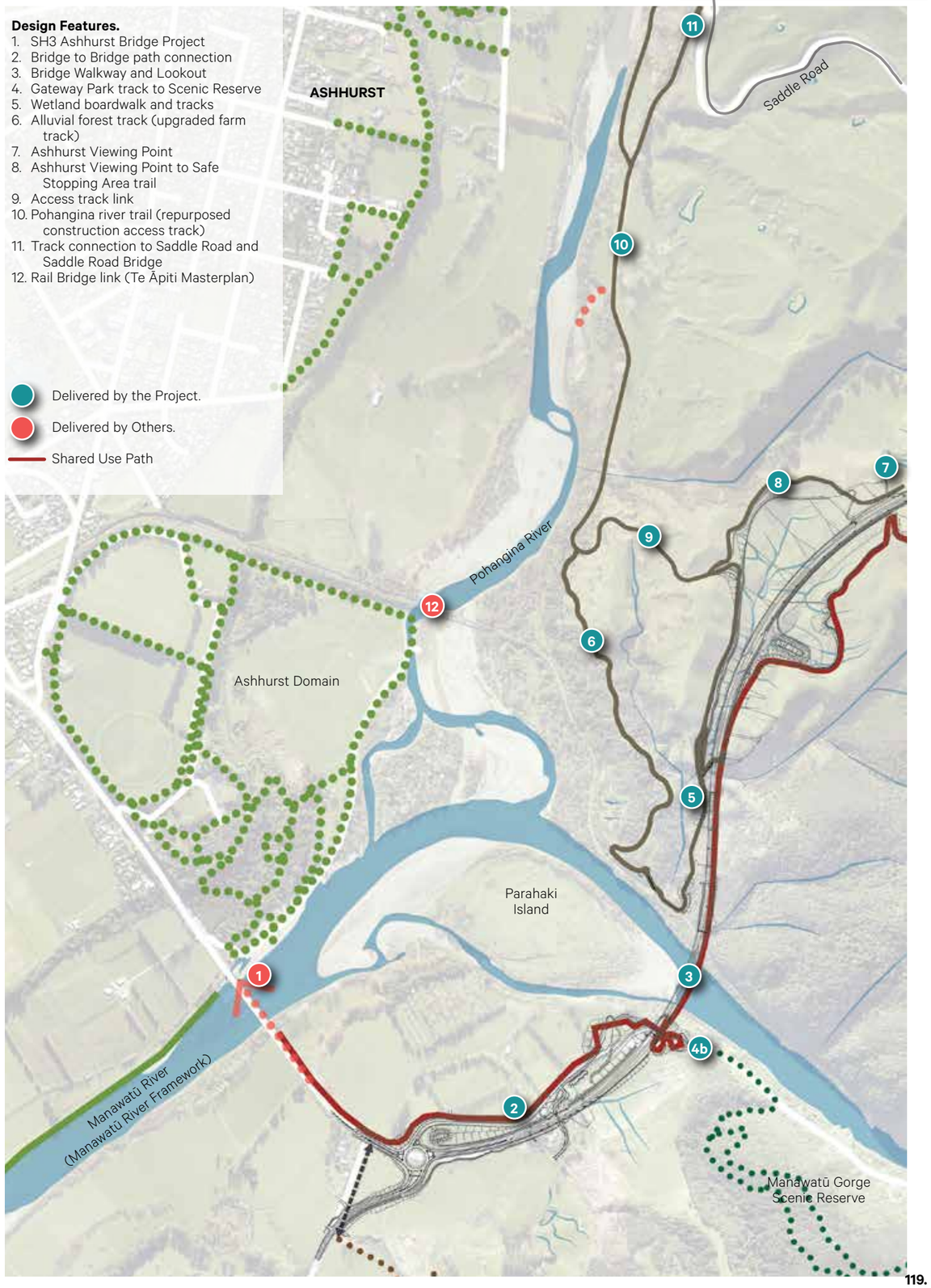
This pattern of expanded western access and associated management areas has the potential to expand the existing public scenic open space resource that is currently associated with the Manawatū River, Gorge and associated scenic reserve as a major recreational and open space resource for Palmerston North and Ashhurst as well as more widely across the region.



Integration of Shared Path and Safe Stopping Places

The project also provides for safe stopping places and viewing areas that allow for the wider visual landscape connection to the Tararua Plains in the east, The Meridian windfarm and Ruahine and Tararua Ranges and the Manawatū Plains in the west. Three safe stopping places will be implemented and will be designed with associated access to a viewing area via a walking track.

Safe Stopping places and viewing areas are part of the wider design philosophy of "Spine-node-links" for the shared path (see 3.2.3.1 above) and western tracks and will be designed as nodes including limited amenity facilities such as simple bench seating, planting and wayfinding signage.



Te Ahu a Turanga. Cultural & Environmental Design Framework. November 2020.

IV.5 Safe Stopping Areas and Viewing Points.

Three Safe Stopping Areas are provided for across the alignment. These have been designed to accommodate the prescribed type, size and number of vehicles as set out in the project minimum requirements.
The **western stopping area** (eastbound) links back to a western viewing point to afford views westwards across the Manawatū plains. This location has been selected to allow for safe site lines and traffic safety with sufficient shoulder to pull in and out of the safe stopping area. This then links to a walking track up to the intervening spurline which visually separates the alignment in the west from views to Ashhurst.
A central stopping area (west bound) provides for views of the upland windfarm landscape as well as potentially providing for future linkages and wider access to the Manawatū Gorge Scenic Reserve to the south (as part of wider recreational access investigations signalled in Designation Condition 38 that could be developed by others.
An eastern stopping area is proposed to provide access to a viewing point eastwards back across the Tararua Plains towards Woodville.
These safe stopping areas and the amenity proposed for their associated viewing areas are illustrated opposite. They have been designed with the following Key Considerations in mind:

- Safe easy access, including signage, sight lines and minimising conflict points.
- Avoidance of CPTED issues in the context of a rural highway
- Opportunities to facilitate the enjoyment of panoramic views across the project area and surrounds
- Opportunity for interpretation of the cultural landscape through the materials and detailing
- Integration of street furniture
- Integration of parking and access with the context of the immediate environment

Ashhurst Safe Stopping Area and Viewing Point.

View from Ashhurst Viewing Point accessed from Safe Stopping Area.

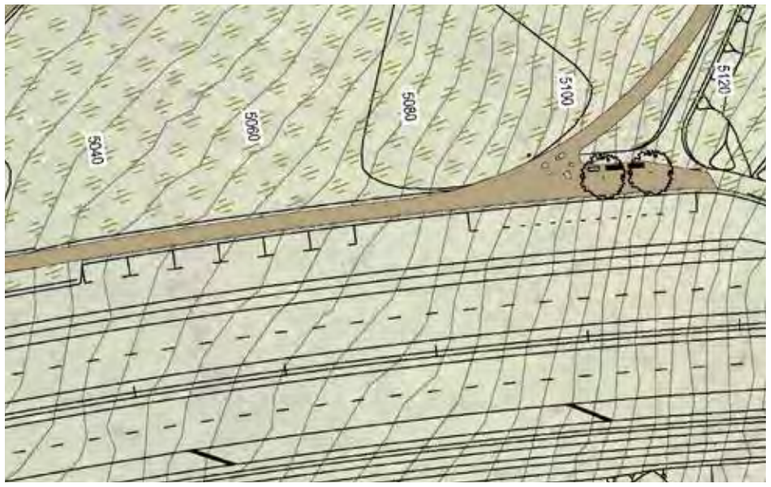
Te Āpiti Safe Stopping Area and Viewing Point.

Upland view from the western safe stopping area.

Woodville Safe Stopping Area and Viewing Point.

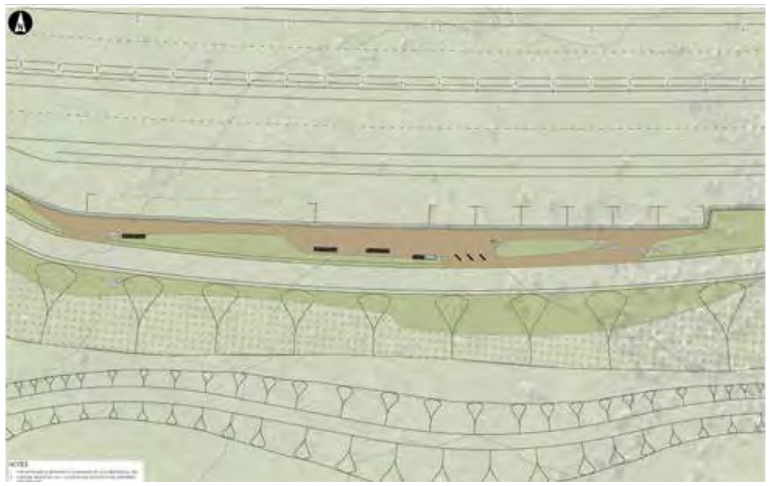
View from Woodville Viewing Point accessed from Safe Stopping Area.

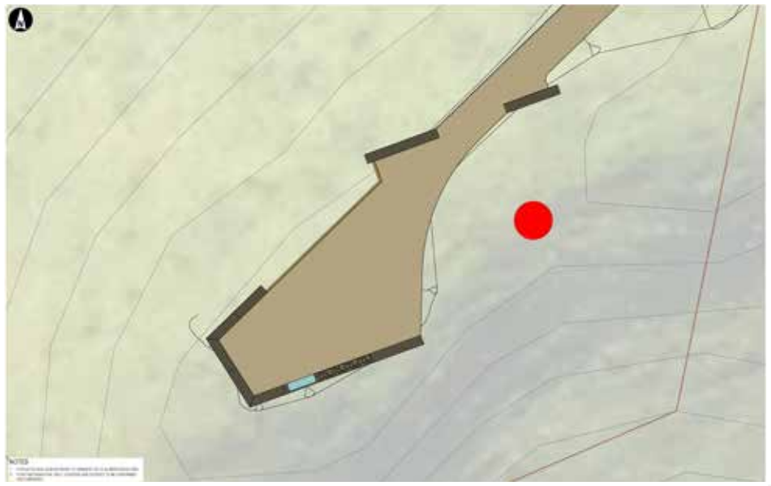
Ashhurst Safe Stopping Area and Viewing Point.

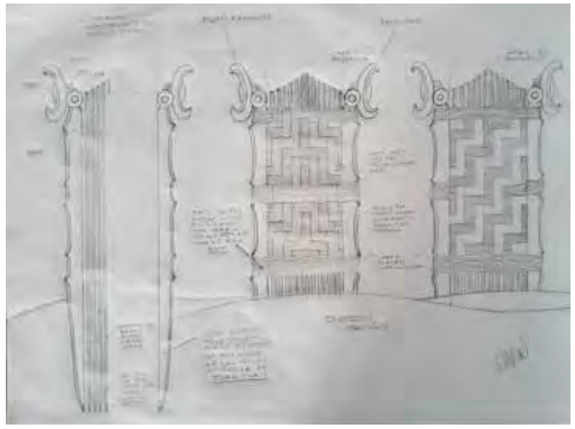


Each stopping place viewing location may have a cultural expression sculptural element, preliminary design sketches are currently being tested and developed to provide a connection to the cultural landscape allowing for engagement from the public by a short walk from the stopping places. These features will be visible from the highway and will signal and encourage people to stop and investigate. These will also provide cultural interpretation signage and regional information on the east and west stopping places and wind farm information at the central stopping place.

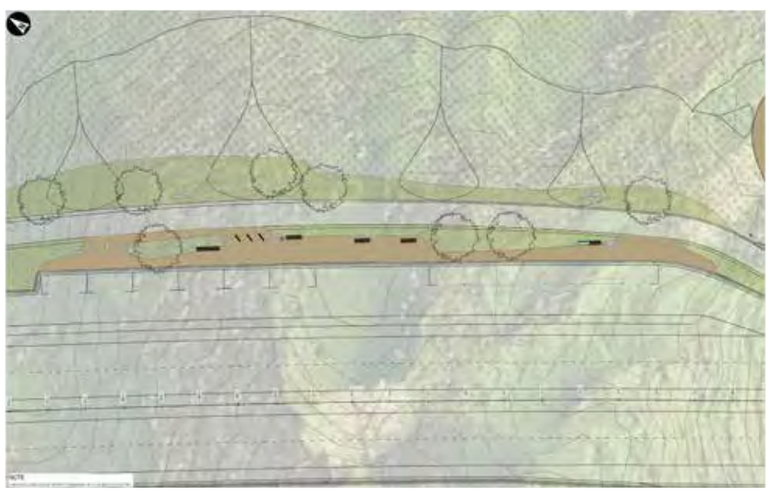
Te Āpiti Safe Stopping Area and Viewing Point.

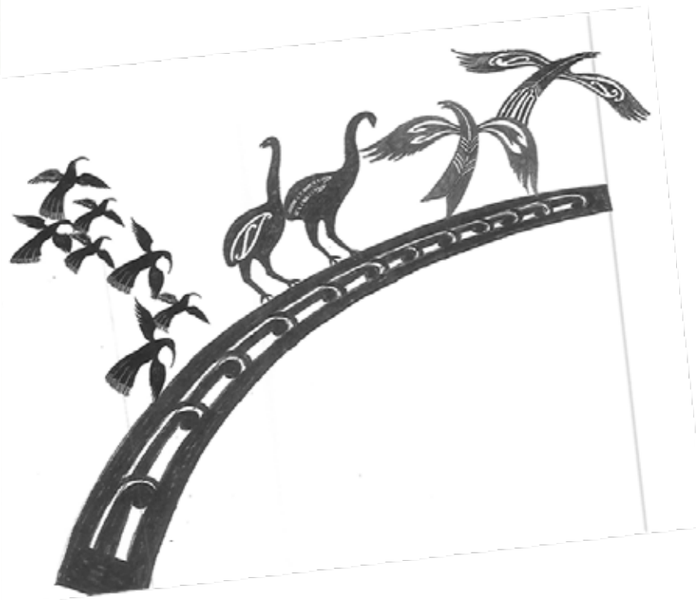






Woodville Safe Stopping Area and Viewing Point.



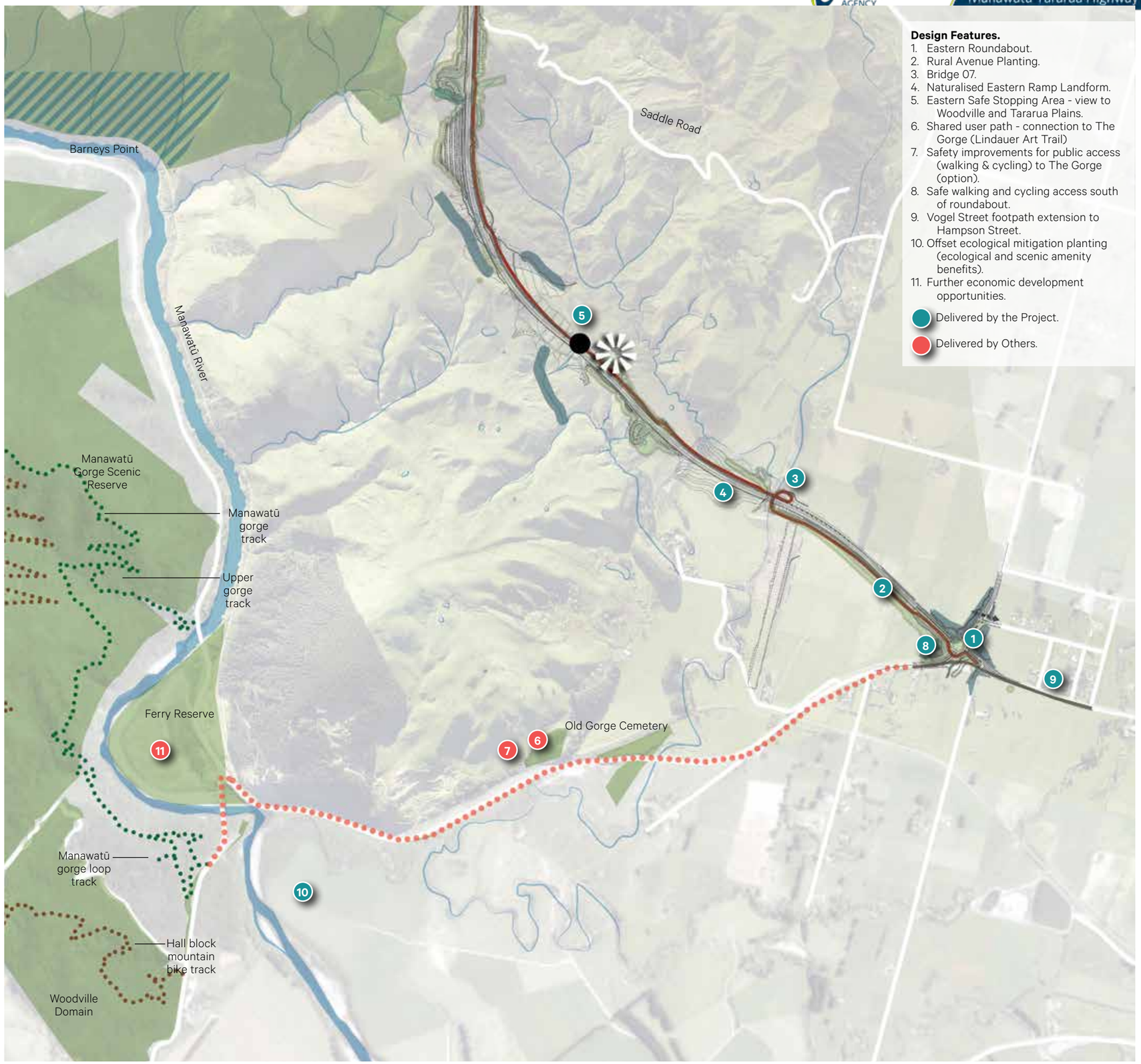


IV.6 Eastern Rural Gateway.

The west of the project is characterised by predominantly natural landscape and natural character attributes leading to its definition as a Landmark Gateway. In the east the project is predominantly defined by rural landscape characteristics including the pastured Tararua plains, the steep broken eastern hill slopes, as well as the patterns of rural landuse and production that characterise both landscape typologies. As such the eastern part of the project is framed in landscape terms as the **Eastern Rural Gateway**.

This eastern Gorge area includes a number of existing recreational, open space and amenity areas that are of relevance to both the immediate Woodville community as well as more widely at the "start" of the Manawatū Gorge. The pattern of public open space at the western end of the project characterised by Ashhurst Domain as well as access to the Scenic Reserve is paralleled in the east. A number of key design matters are relevant to the successful integration of the project in The East. These primarily relate to:

— Network Integration (particularly in relation to recreational access) and;
— Future potential enabling economic development opportunities that can be considered in the scope and context of the project.



Network Integration.

The open space resources associated with Woodville and the eastern Gorge area include the following:
- the Manawatū Gorge Scenic Reserve
- Woodville Domain
- Ferry Reserve / Balance Domain

These areas relate to access and:
- the link between Woodville and the above areas
- the Balance Bridge
- the Old Balance Bridge
- DoC Tracks and Mountain Bike Tracks
- the Manawatū River

In addition to these existing facilities **Condition 34** sets out:

Network Integration Plan.

a) *Prior to the commencement of construction, the Requiring Authority must prepare a Network Integration Plan.*

b) *The objective of the Network Integration Plan is to demonstrate how the Project integrates with the existing local road network including pedestrian and cycling facilities and with future, planned, improvements to the network (including the shared path that will be provided in accordance with Condition 36).*

c) *The Network Integration Plan must be prepared in consultation with the relevant road controlling authority and include:*

i) *Details of proposed works at the interface between the State Highway and the local road network, including road surfacing, road markings and signs;*

ii) *The outcomes of any consultation with the Community Liaison Group established by Condition 12;*

iii) *Confirmation that the Project design does not preclude the future development of the balance of the Lindauer Arts Trail (Woodville to Manawatū Gorge walkway);*

iv) *Specification of how the following requirements will be met:*

A) *prior to the opening of the new road, the improvement of the intersections of State Highway 3 with York Street and Cambridge Avenue to redirect traffic onto the new road;*

B) *the extension of the existing walkway from Hampson Street, Woodville to west of the eastern roundabout;*

C) *the provision of a shared path along the northern side of SH3 from the intersection of Cambridge Avenue to the Western Car Park; and*

D) *the upgrading of the Ashhurst Bridge required by Condition 35.*

Our design addresses this opportunity by:
- implementing the Vogel Street pathway extension
- including access south of the main roundabout to link Woodville and the Gorge Road link
- providing a space at the roundabout for an appropriate sculpture (or signage) to indicate the Lindauer Art Trail.

Economic Development Opportunities (by others).

It is acknowledged that the recreational resources at the beginning of the Manawatū Gorge in the East represents an opportunity for further economic development, potentially with Iwi Partners. This could be comparable to the Gateway Park Facility opportunity that is identified at the western end of The Gorge. Both of these opportunities can be discussed during the "working together" phase of the project and as part of the wider recreational tourism and economic development opportunities that are afforded by this project and others (Te Āpiti Masterplan). Potential funding for such development includes territorial authorities, New Zealand Lotteries Commission and other Government Agencies.

Gottdfried Lindauer, 1839-1926.

Landscape Management Unit Plan (NTS).

Ferry Reserve.

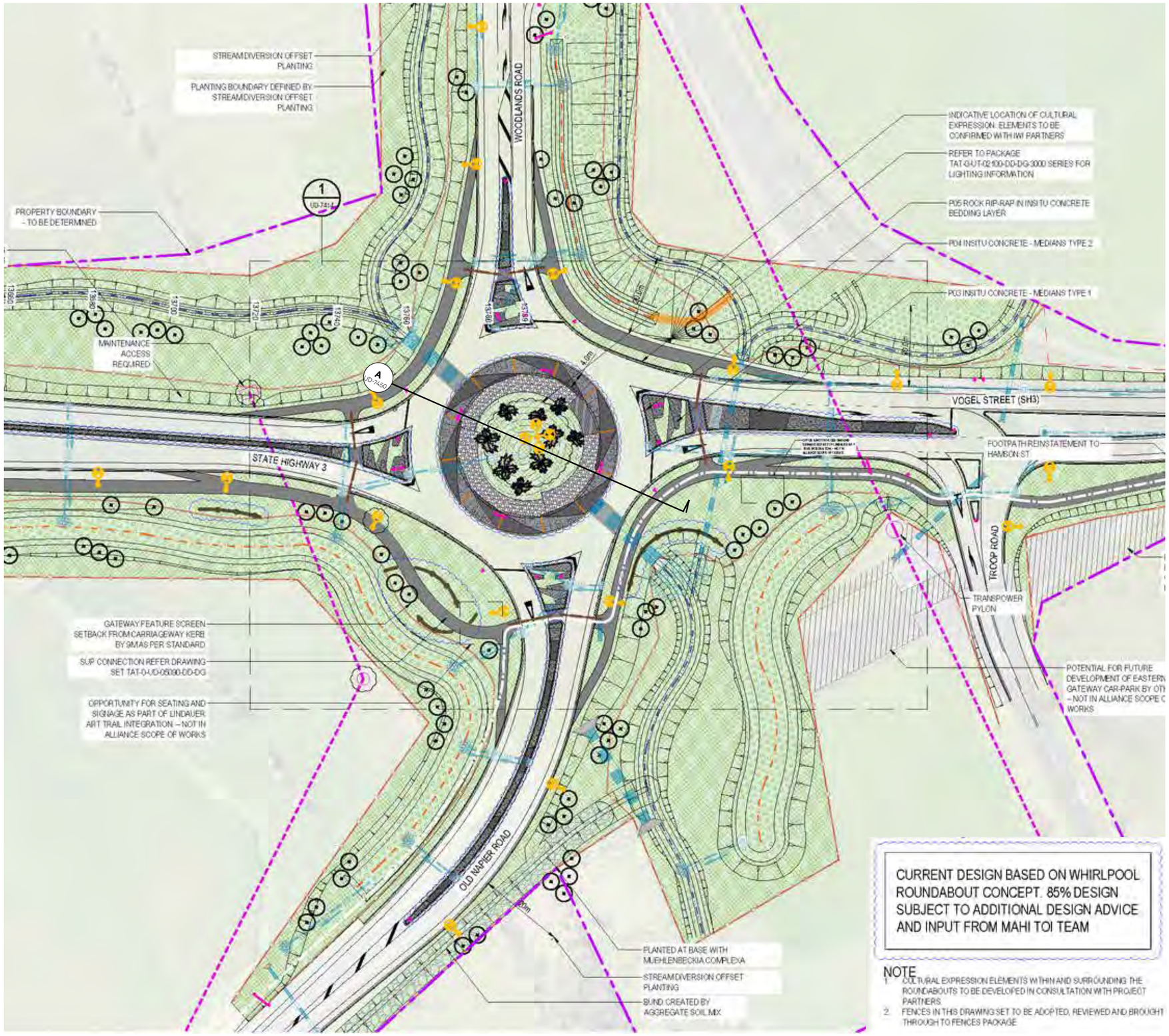
The Eastern Rural Landscape.

The Eastern Landmark Gateway has been considered in a whole of landscape experience as you come off the upland landscape and sight the Tararua plains, or conversely as you depart from Woodville and define your journey and safe passage over the Ruahine Ranges. The design recognises and enhances rural character and the arrival to and departure from the Tararua Plains while maintaining a connection to the “old gorge”. The wider design team has sought to address the main impact of the transition of the highway up into the foothills and minimise the impact on the mangamania stream. The principle benefits of the earthworks, bridges and SUP connections are based on maintaining – as far as practicably possible – the functional landscape integrity of the east. Benefits include:

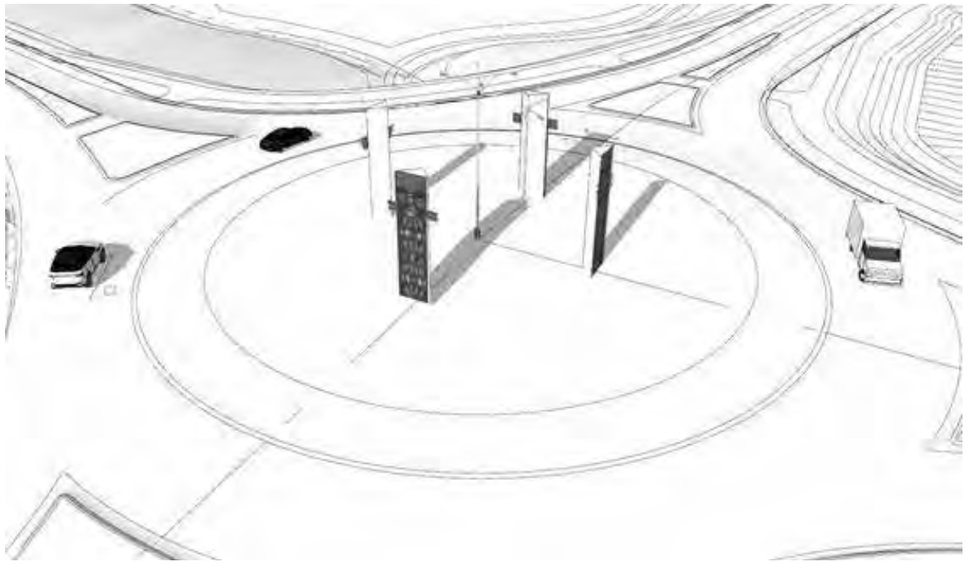
1. Agg Research connection under the highway at bridge 10.
2. Relocated the Safe Stopping Place to the northern side of the highway east bound to capture the arrival view and associated welcoming experience to the Tararua region.
3. Earthworks along the foothill transition with contoured fill areas to visually mitigate the highway fill batters across the floodplain.
4. Created an SUP connection under the Mangamania Stream Bridge to avoid a highway crossing point into Woodville.
5. New stock access provided under the Mangamania Stream bridge between Andrew Boltons property to maintain farm viability.
6. Avenue tree planting along the approach to the Roundabout Gateway to reinforce a rural character and promote a slower driving speed.
7. Integration with the Lindauer Art Trail connection opportunity and Te Āpiti recreational area with the SUP connection along the southern side of the highway.
8. Roundabout Gateway feature and cultural expression.

Eastern Roundabout. Woodville Township Gateway.

This roundabout is the eastern equivalent to the Ashhurst Roundabout and is also conceptualised as a "whirlpool" roundabout, drawing on the same river landscape context and materiality. This concept also includes the opportunity for a feature screen structure which may also be used for Woodville Township Gateway signage.
The design provides for pedestrian access to the south of the Woodville roundabout avoiding the need to send pedestrians and cyclists directly through the roundabout. This also provides for the opportunity to develop a small area of feature planting south of the roundabout as part of the wider amenity of an extended and improved connection from Woodville Township to the Manawatū Gorge. This area may also be an opportunity to provide a space for the Lindauer Arts Trail to explore a suitable recognition of Gottfried Lindauer (1839-1926), who along with C.F. Goldie (1870-1947), was the most prolific and best-known painter of Māori subjects, in particular portraits, in the late nineteenth-early twentieth centuries (Auckland Art Gallery).

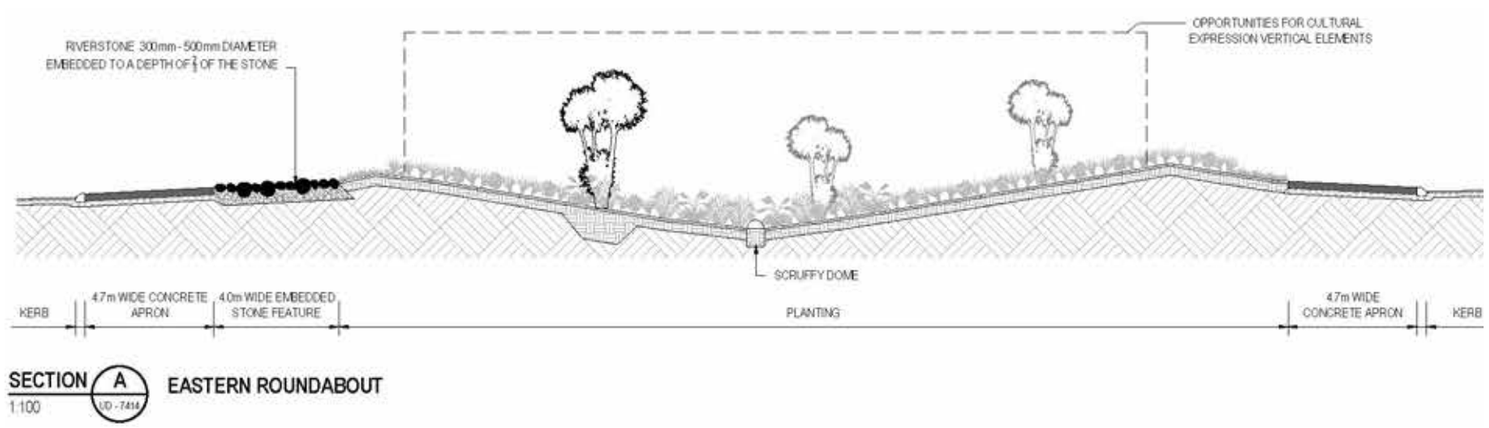


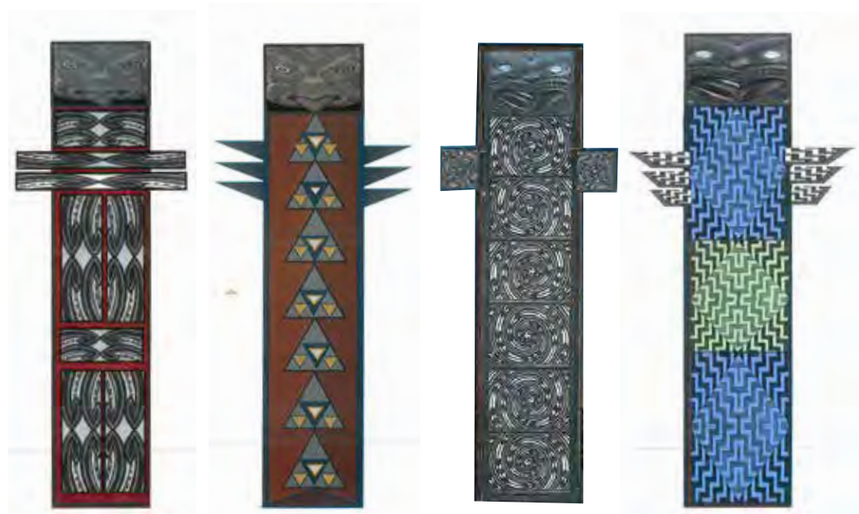
Illustrative view of the Eastern Roundabout which is conceptualised as the Woodville Township Gateway as part of a set of townships gateways across the project. This view shows the overall concept which draws on the wider rive landscape, avenue planting that reflects the surrounding rural character and pedestrian and cycling access to the recreational areas of the Ferry Reserve and Woodville Domain.



Nihoniho
Mangokoru
Poutama Rua

The roundabout central island has been identified as an important location for Cultural expression and a Mahi toi is proposed. The artwork will reference cultural interpretation associated with Nga Hau e Wha, the four winds. It has four 8m high x 2m wide elements, one facing each direction of approach to the roundabout. The vertical elements will have a combination of timber carved elements at the top and steel patterns in layers below. (four unique designs, one on each feature). Planting design will support the Mahi toi.





IV.7 Alignment Refinement — Key Benefits.

Geometrics.

(Refer to Geometrics DPR - TAT-0-RD-01010-DD-RP-0001)

The principle CED geometrics design moves regarding the outcomes of the project (in particular “Tread Lightly”) have been achieved through primarily the consideration of the wider earthworks, landscape and ecological effects of the main alignment. These considerations have resulted in an alignment that:

- Avoids and limits the ecological effects of the project on sensitive ecological areas
- Seeks to reduce the overall volume of earthworks of the project through vertical and horizontal alignment efficiencies
- Provides for the implementation of Gateway or Township roundabout features at either end of the project
- Provides for an integrated drainage solution that takes a whole of catchment approach.
- Recognises the need of wider design co-ordination across other design disciplines (s. 8 TAT-0-RD-01010-DD-RP-0001, p.23) including landscape and urban design to develop a clean uncluttered highway environment is sought. This includes careful consideration of the choice of barrier system across the alignment and transitions between barrier systems as dictated by safety considerations (including deflection) as well as barrier transitions and the co-location / rationalisation of other roadside furniture and signage.

The the northern alignment of the entire corridor is one of the single most significant environmental and cultural landscape benefits that the refined project design has delivered. This geometric shift which is enabled by a 10% gradient allows for the avoidance of the majority of impacts on sensitive wetland and gully catchments of high cultural, ecological and natural character value.

IV.8 Earthworks.

(See Te Ahu a Tūranga: Manawatū Tararua Highway Design Philosophy Report – Geotechnical TAT-0-GE-04025-DD-RP-0001)

The project is characterised by significant areas and volumes of earthworks representative of a major infrastructure project traversing an upland range. The following are key considerations from a cultural and environmental design perspective.

IV.8.1 "Heal the Wound".

The embedding of Mātauranga Māori and values encourages a wholistic consideration of earthworks. The values of Kaitiakitanga support this understanding and encourage design thinking of treating the land, waters and all that which they sustain like one would treat a person in order to protect and enhance environmental health.
The major cuts on the project are seen as an opportunity to directly address the adverse cultural effects of this significant landscape change and the associated effects on the Mauri of the land and the direct effects in terms of Atuatanga (Papatūānuku).

This work is expected to be on-going and to evolve as part of the development of cultural expression of the project. This will include design development of:

— Pou Whenua or other means of acknowledging cultural effects
— Fencing and fencing treatments where appropriate as part of the detailed design of the SuP as it passes major cuts
— Incorporation of cultural expression through the detailed design of SuP speed and safety controls
— Wayfinding and signage as part of the SuP detailed esign.

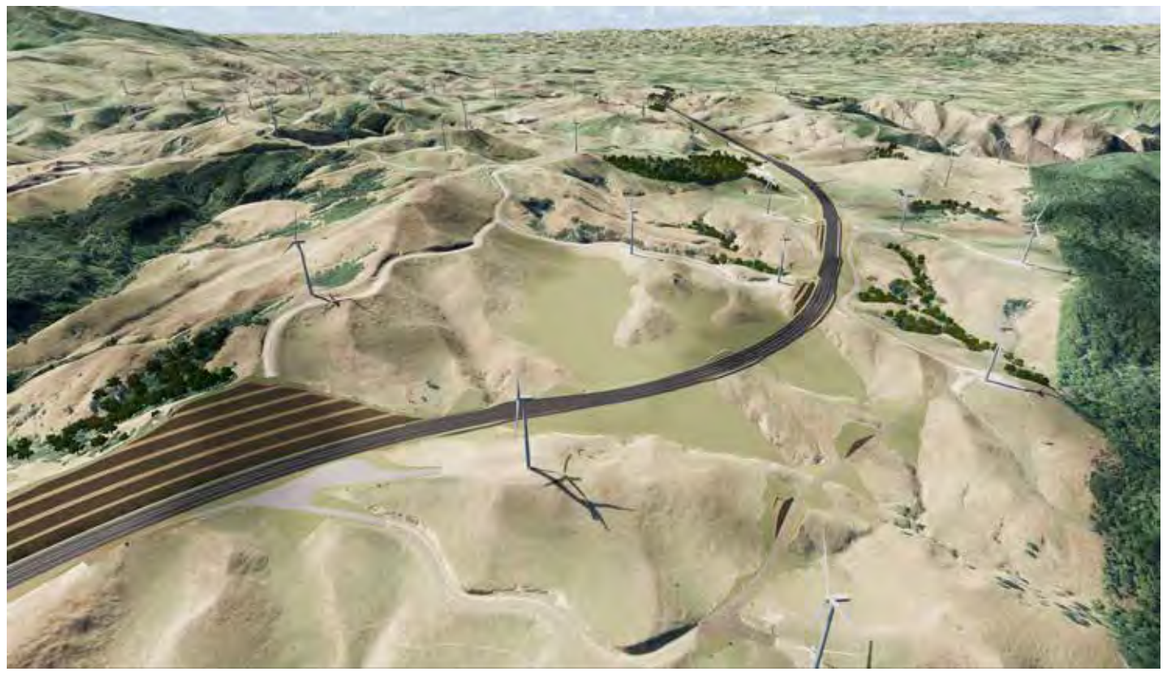
Bench cuts.

The following principles have been employed to assist in the integration of cuts across the project with the surrounding rural landscape including approaches to detailed design to manage the appearance of engineered landforms. These include:

— 2m edge radius for all roadway facing edges;
— The elimination of hanging valleys and visible drainage flumes by alignment changes
— Rounding and integrating terminal bench end returns back into the natural landform;
— Avoiding fencing on benches and visible points of maintenance access wherever practicable.
— Slope stabilisation planting at the top of cuts at the rock / soil interface.
— Rationalization of benching across the Alignment wherever possible including the relaxing of cuts where practical alternatives can be found.

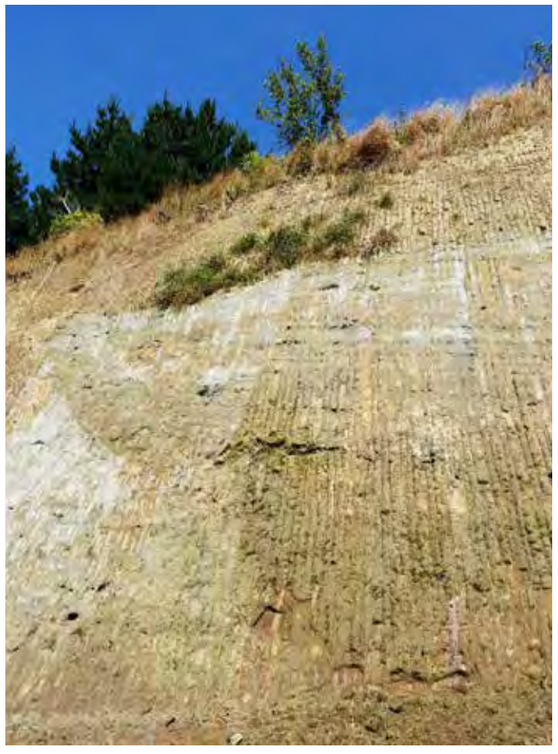
The bench cuts are being explored with the Mahi toi cultural expression design team for opportunities to provide an element that addresses the significant scar in Papatuanuku from a cultural value perspective. The intention is to provide an acknowledgment at the larger bench cut face on both the western and eastern sections and further strengthen the gateway sequence of experiences and amenity features.

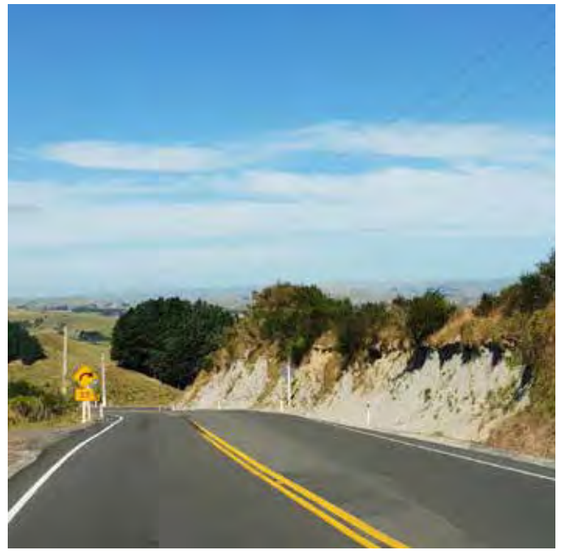
View of bench cut areas from the roadway showing the series of benches that will over time become naturalised, similar to other geological exposures around the site. See examples of existing natural cuts and indicative render on the following pages.



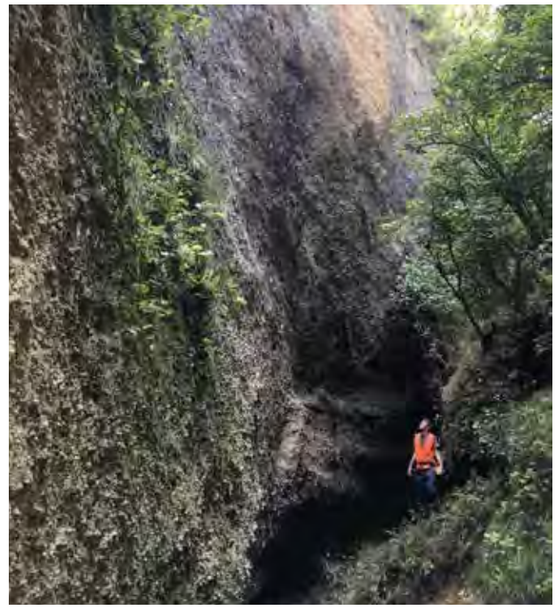
The two basic types of underlying geology across the main western and eastern bench cut areas of the project.

Siltstone Cuts (East).





Conglomerate (West).



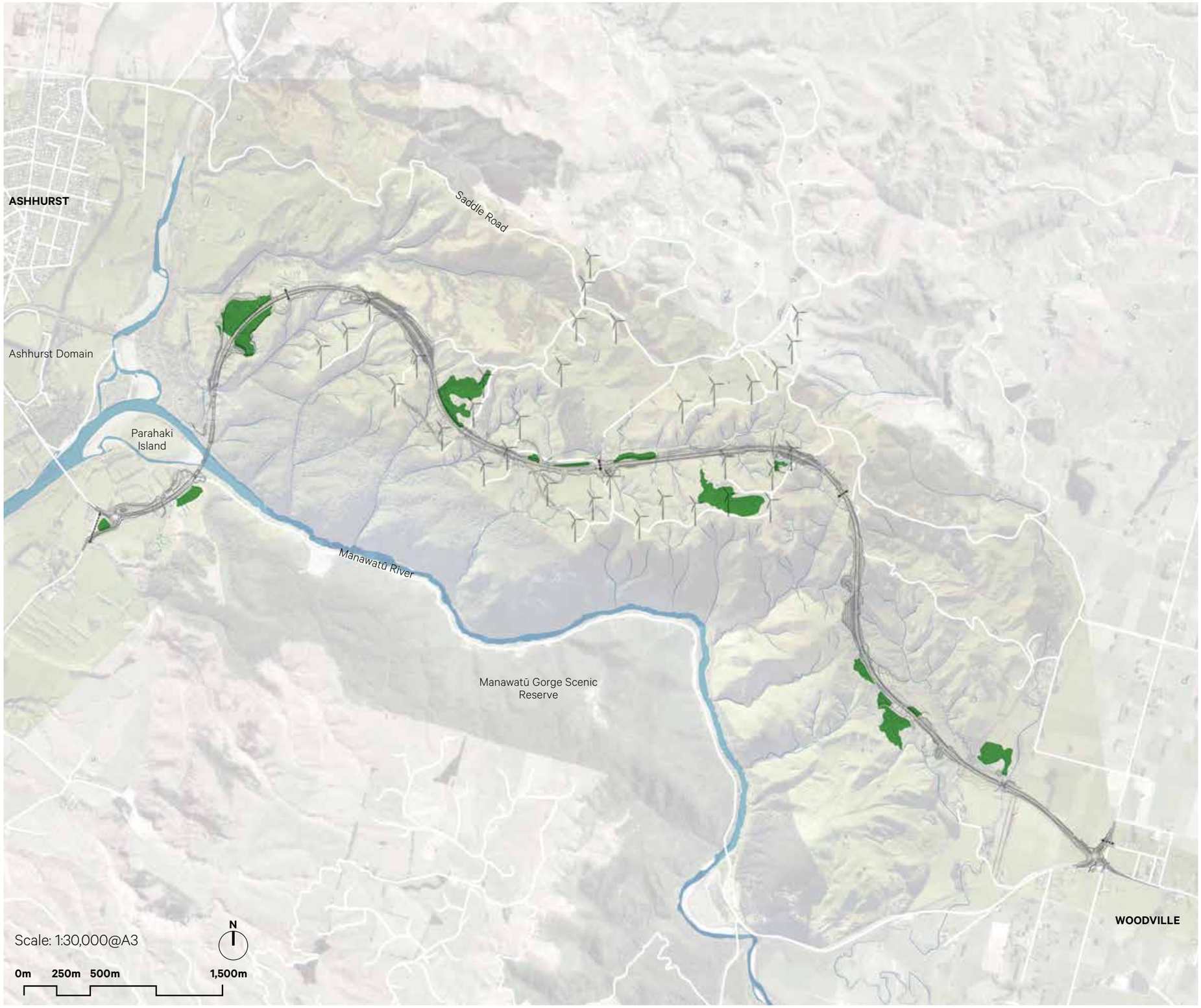
Rendered view of the bench cuts modelled on the preceding page illustrating their expected appearance. This view is based on the images supplied of conglomerate geology shown on the page opposite.

IV.8.2 Spoil Disposal Areas & Landscape Fill.

A long list of approximately 31 spoil disposal sites were assessed across the project. These areas have been selected based on a range of geotechnical, ecological, landscape and operational criteria. These sites were reduced based on an MCA process that included consultation with Iwi partners and the optimised outcomes across all criteria.

The principle landscape design criteria for these areas included the extent, nature and degree of effects of fill on natural character and landscape qualities. The integration of landform modification with the surrounding natural landscape is a key outcome of the project set out in MRs and the NoR CEDF. Given that the majority of these areas are in relatively topographically recessive areas, and are limited to a maximum slope of 1V:6H it is important to maintain close design co-ordination between constructors, iwi and the design team in order to maintain as natural a final landform as possible, that is cut and fill batters should be feathered into the natural landform and geometric profiles avoided unless it is a deliberate design feature. Earthworks and slope stabilisation should, where appropriate, rely on vegetation for reinforcement and visual integration.

Location of spoil sites across the alignment.

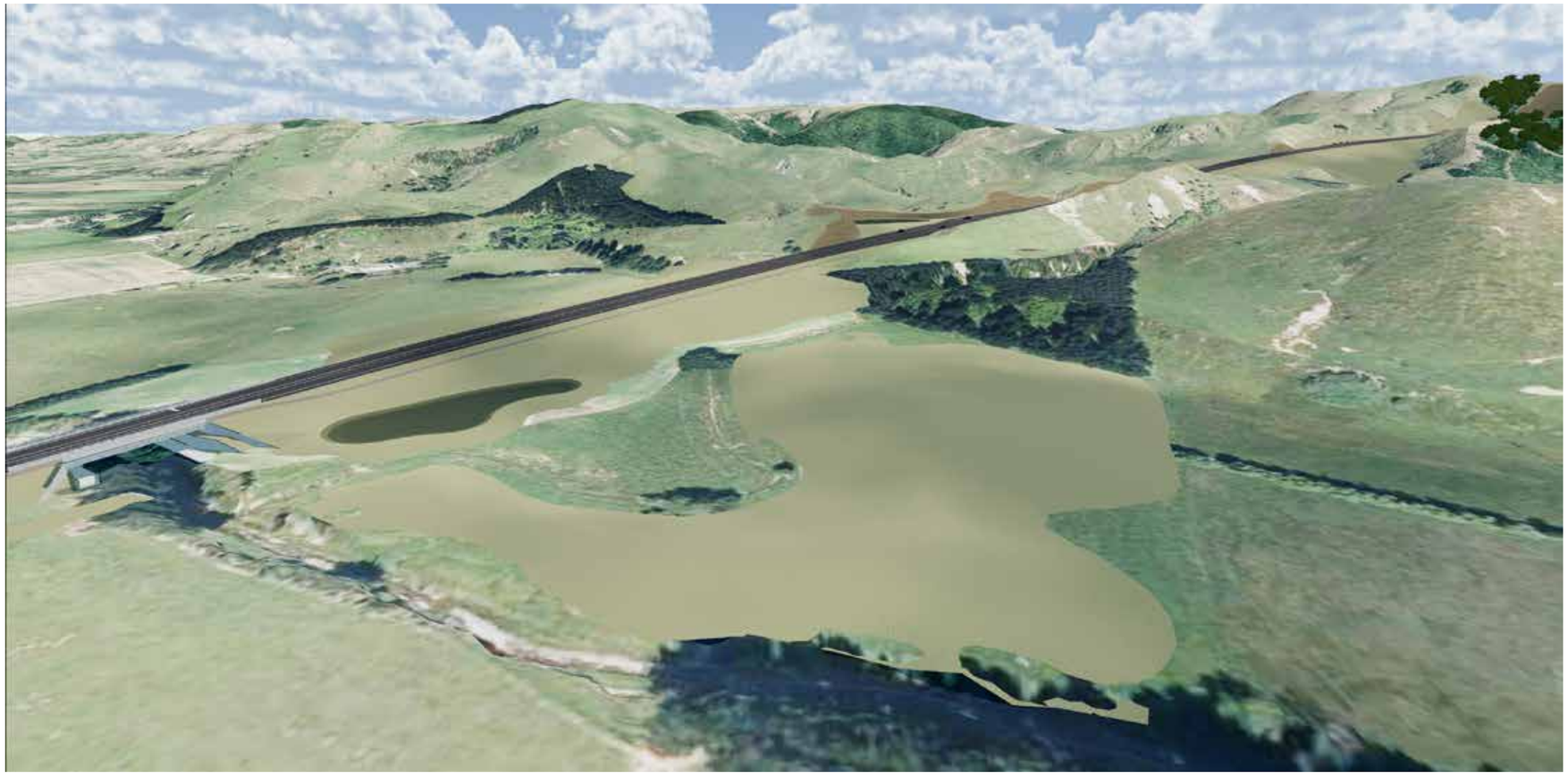


The “Eastern Ramp” Landscape Fill.

A specific consideration identified in the project minimum requirements is the integration of the ‘eastern ramp’ landform and landscape environment.

The elevation change from the Tararua Plains to the eastern foothills is on a fault and is a steep topographical transition. In order to negotiate the vertical geometry of this transition an area of elevated fill has been designed to fit as closely as possible with the natural terrain.

This area of fill will be integrated with the surrounding landform to match the surrounding terrain as much as practically possible. These hill slopes will be to a maximum of 3:1 so that they are still able to be grazed. This will be in general keeping with the wider rural character of the surrounding toe slope areas, particularly to the north near Saddle Road.



Sketch contour and plan to inform the landform integration of the eastern hills that will be applied through our developed design.

IV.9 Water Sensitive Design.

The drainage team has designed a variety of stormwater treatment facilities, including constructed wetlands, longitudinal wetland swales and planted treatment swales in accordance with the NZTA Treatment Guidelines and the HRC One Plan to provide 100% treatment of all runoff from new and existing pavement surfaces. The team has also provided dedicated sediment collection / retention basins to capture sediment discharge from cut faces to prevent sediment laden water from cut slopes entering the sensitive, downstream receiving environment.

The water sensitive design approach is a key focus area for our drive to provide exceptional environmental outcomes for the project through minimal impact on the pristine surrounding natural environment, and exceed our stretch GreenRoads target of 60+ credits. The form and functionality of our proposed stormwater system is aligned with our wider whole-of-landscape approach as well as integrated catchment management philosophy. This is delivered through our approach to blend the stormwater management solutions into the surrounding rural and future urban landscape, whereby the stormwater system design utilises, and is complementary to, the existing landforms and terrain, and retains flow paths and catchment discharges across the project for environmental neutrality.

All swales and roadside drains will be planted to eliminate mowing / maintenance activities during operation, and improve filtration and transpiration. In all cases, appropriate topsoil horizons and biodegradable erosion control materials will be applied to assist early establishment and sustained growth of plants.

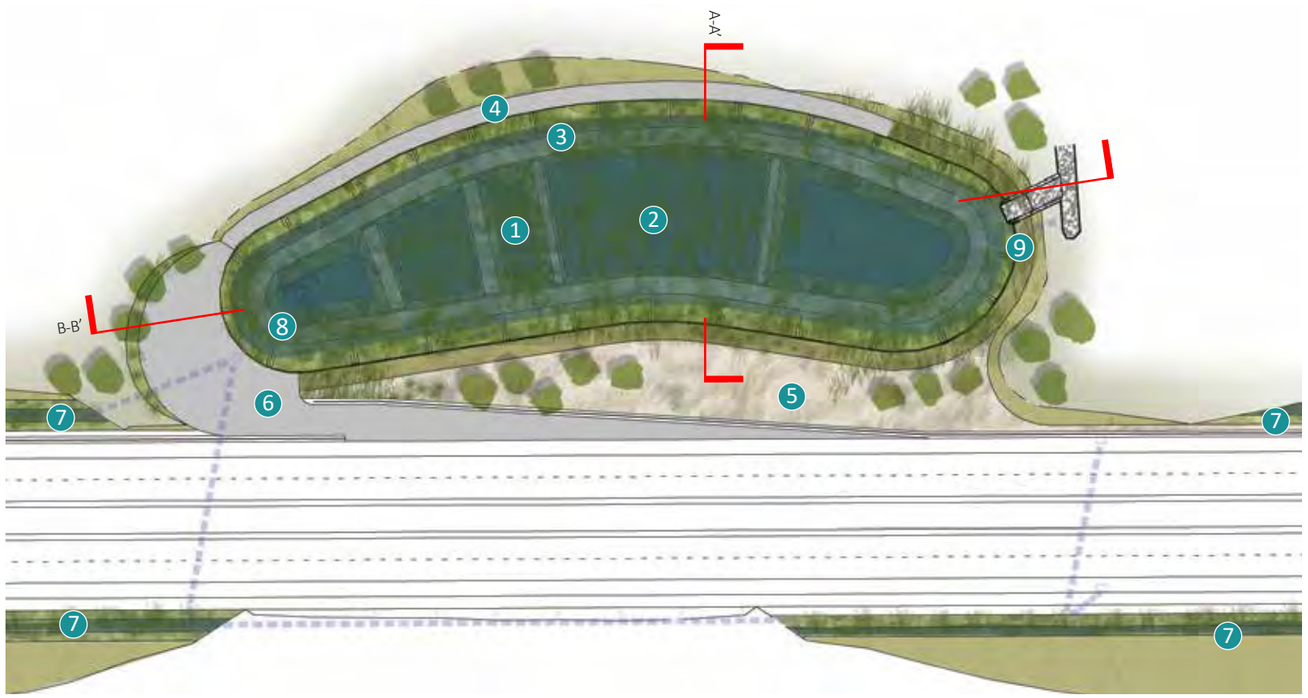
Where swales enter wetlands or are generally part of a wider open space area, these swales shall be widened in keeping with landform and proposed planting schemes to integrate the swales into the broader vegetated landscape, slow flows and enhance treatment.

Swale widths and paths will be further optimised at the detailed design stage to integrate WSD planting with other planting groups where the width of the planting area allows.

Stormwater management devices have been designed and developed to appear like natural landscape features in the wider peat lake landscape. Planting plans for these areas will complement the wider rural character and provide ecological habitat benefits.

Stormwater design will be further developed at the detailed design stage of the project to integrate with other restoration opportunities. Stormwater design will also take into consideration such matters as geology and materials, topography, existing farm drainage and future urban systems.

The following pages illustrate an indicative planting outcome for a typical stormwater treatment wetland.

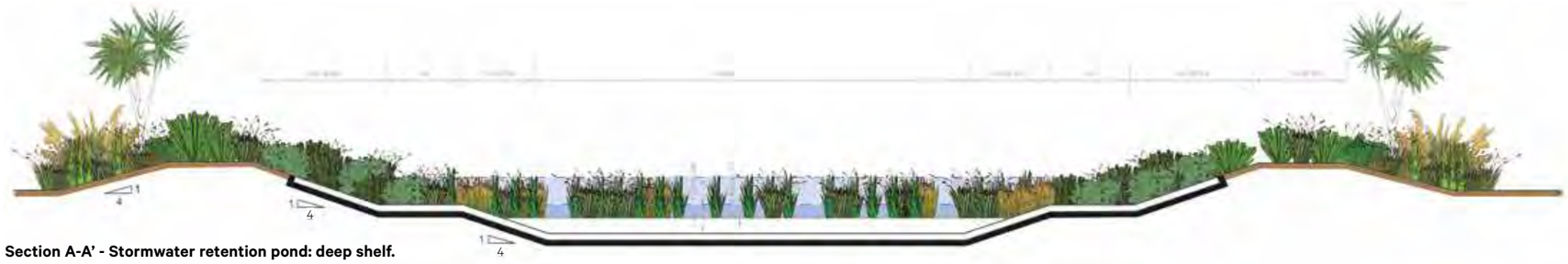


1. Wetland Planting - shallow shelf
2. Wetland planting - deep shelf
3. Wetland edge planting
4. Taller screening planting to blend into existing vegetation
5. General low planting - grasses & groundcover
6. Maintenance access
7. Planted swales
8. Pond inlet with rip-rap forebay protection
9. Pond outlet with rip-rap outfall protection

Scale: 1:2,000@A3

0m 20m 40m 100m

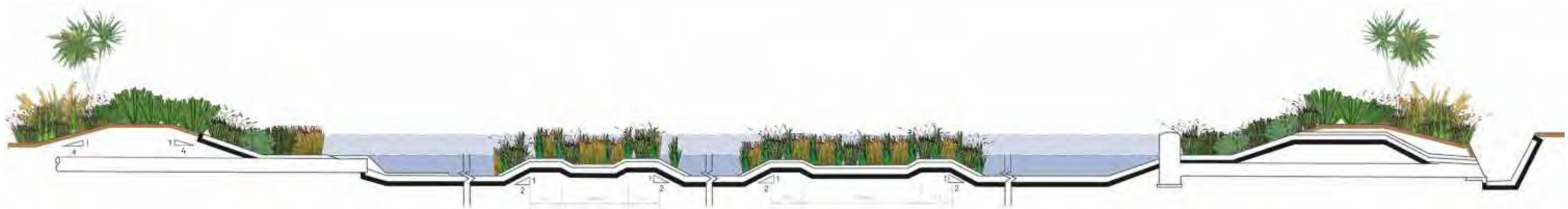
Typical Wetland Planting Plan.



Section A-A' - Stormwater retention pond: deep shelf.

Scale: 1:400@A3

0m 2.5m 5m 10m



Section B-B' - Stormwater retention pond: shallow shelf with pond inlet and outlet.

Scale: 1:400@A3

0m 2.5m 5m 10m

Drainage.

(Refer to Drainage DPR - TAT-0-RD-01010-DD-RP-0002)

The significance of water / wai is recognised as fundamental to Te Ao Māori and Mātauranga Māori. Incorporating Cultural Values into the Stormwater Design Water is of high importance to Māori and is a key amenity and aesthetic element of the design. It is considered a precious resource, a treasured taonga, the essence of all life, the life giver of all things, and part of Māori whakapapa (genealogy). For Māori the health of the waterway is connected to the health of the people. Water that has mauri can sustain ecosystems, it's drinkable and swimmable. Recognising, respecting and intertwining Māori tikanga and values, as well as the relationship/ connection Māori have to water, into the project will enhance the cultural wellbeing and identity of the community.

Design workshops have been held with iwi throughout the IPAA phase. Project principles have been developed for the Project and a number of Te Ao Māori values identified to underpin the Project this includes water sensitive design.

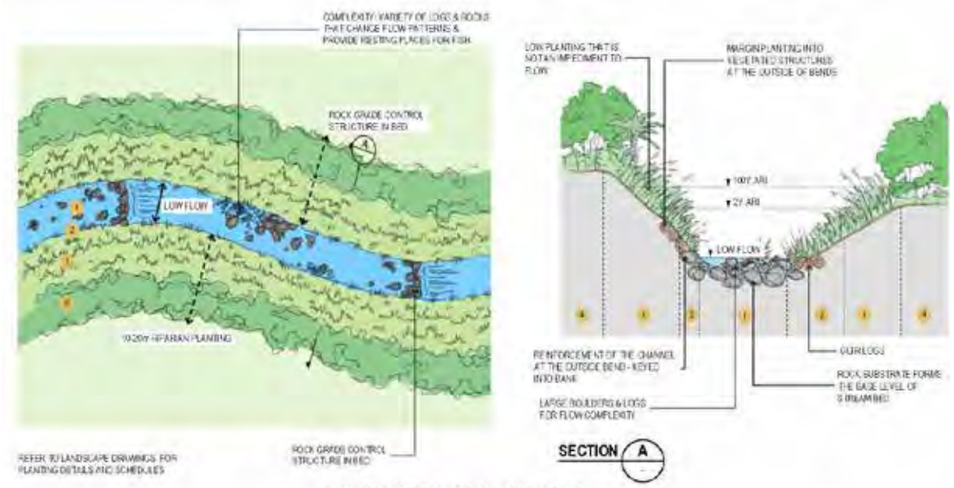
Key values that have influenced the stormwater design are:

- **Kaitiakitanga** –placing the environment and sustainability at the heart of our work and recognising our role as stewards for future generations (including Ki Uta Ki Tai).
- **Pukengatanga** – acknowledging that everyone brings skills and knowledge that should be respected and will contribute to the outcomes we are seeking.

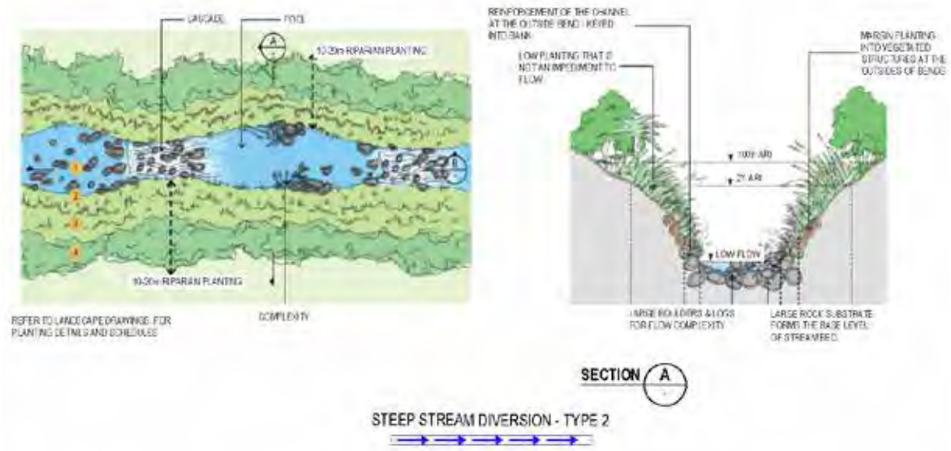
The stormwater design has incorporated Māori values and principles via:

- Enhancement of mauri via natural treatment of waikino (road runoff) in wetlands and wetland swales before discharging to streams.
- Smaller wetlands and wetland swales located at regular intervals along the project to maintain natural discharge locations.
- Configure stormwater wetlands to a natural appearance
- Design of open channels instead of pipes where possible to convey network drainage, allowing waikino to run overland.
- No mixing (separate systems) of clean (waiora) and dirty water (waikino).
- Protection of highly valued streams and wetland areas, e.g. stream 7 and 9 and the eco wetland.
- Maintaining existing streams and existing flow regimes where possible through the placement of the 39 culverts.
- Designing culverts offline where possible to minimise construction disturbance.
- Mimicking nature with the design of the permanent stream diversions, with natural lined channels, meanders, pools and riffles, native planting etc.
- Minimising culvert lengths and providing fish passage in all new culverts with upstream habitat as well as providing fish passage for the existing KiwiRail culvert under the railway to promote and not limit fish migration for stream 7a.
- Native planting for all wetlands, wetland swales and stream channels; and the species selection has been developed in consultation with iwi.

Stream Diversion.



LOWLAND STREAM DIVERSION - TYPE 1



STEEP STREAM DIVERSION - TYPE 2

IV.10 Planting Design.

In addition to the general landscape guidelines set out in the NoR CEDF, the wider NZTA guidance documents and minimum requirements the following matters are of relevance to the landscape planting plans.

High level Planting Design Principles.

The general design principle for landscape planting is “Grass to grass” and “Bush to Bush”. This means that in areas that are predominantly characterised by pasture the alignment margins will be planted in grass to match and handed back to pasture to reduce maintenance obligations. Similarly, in areas where bush is a defining characteristic the highway margins will be planted to further enhance this existing landscape pattern. This approach reflects that discussed in the NZTA landscape guidelines in relation to recognising the borrowed landscape, the rural landscape vernacular and planting in rural areas (p.54-55)

This general design principle is also influenced by areas of off-set mitigation planting, particularly in the west where significant areas of mitigation planting is proposed.

The **ecological offset mitigation principles** can be summarised in term so wider landscape ecology principles as designing to support “the best of the best” that is locating off-set mitigation planting to extend existing areas of high ecological value. This includes focusing ecosystem off set planting to connect areas of DoC forest; to QEII catchment areas; to the Pohangina River Catchment; subject to landowner agreement and the wider propose methods of landscape management. The ecological mitigation package also includes enhancement of fish passage throughout the project and wider imperatives to address and manage water quality. This also relates to erosion and sediment control as well as fencing and stock exclusion from waterways where practicable.

In addition to the above, key areas of offset mitigation have been considered against proposed conditions of consent. In this regard **Parahaki Island** has been identified as a potential area for off-set mitigation to reflect condition PN1. Further areas of off-set mitigation have also been identified within the **Ashhurst Domain**.

Cultural Planting and Harvesting.

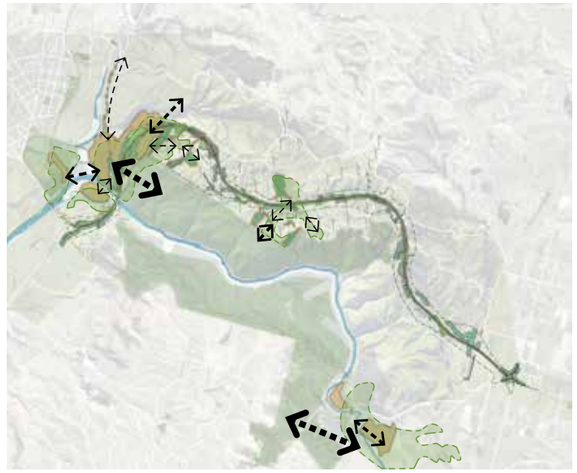
Plant species selection have been undertaken with Iwi Partners to provide for their input of specialist traditional knowledge. This will enable the inclusion of species specific selection to reflect particular cultural landscape values (for example plants that have particular associations , traditional medicinal values) as well as opportunities or cultural harvest; for example providing for cultural harvest of Raupo or flax within the enhanced northern wetland area.

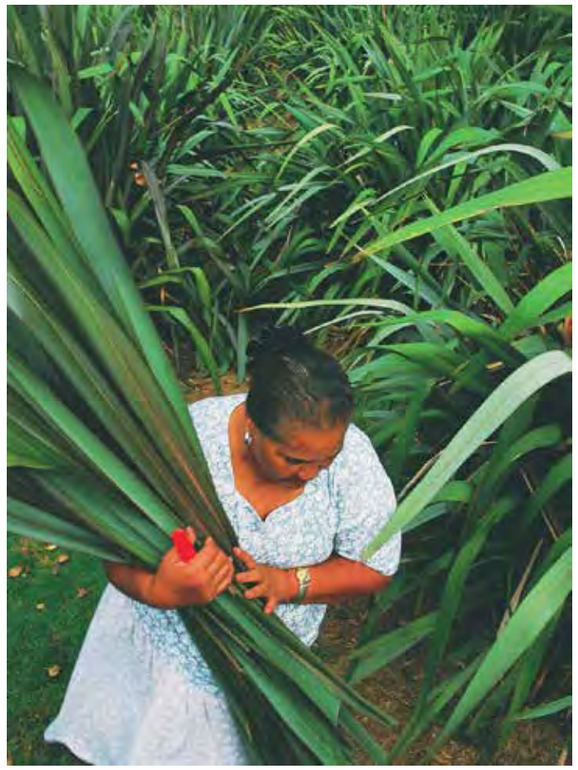
The purpose of this is to contribute to cultural management and kaitiakitanga aligned with the wider intent of a holistic approach reflecting traditional and contemporary management needs.

Slope Stabilisation planting – Bench Cuts at the Rock / Soil interface.

Through discussions with the Geotechnical team the key matter of slope stabilisation at the rock / soil interface was discussed. This area has been identified as the one most likely to require management in the initial period immediately after implementing cut slopes. More detailed investigation will be undertaken to identify the most appropriate species mix for these areas to assist in the rapid stabilisation of these areas.

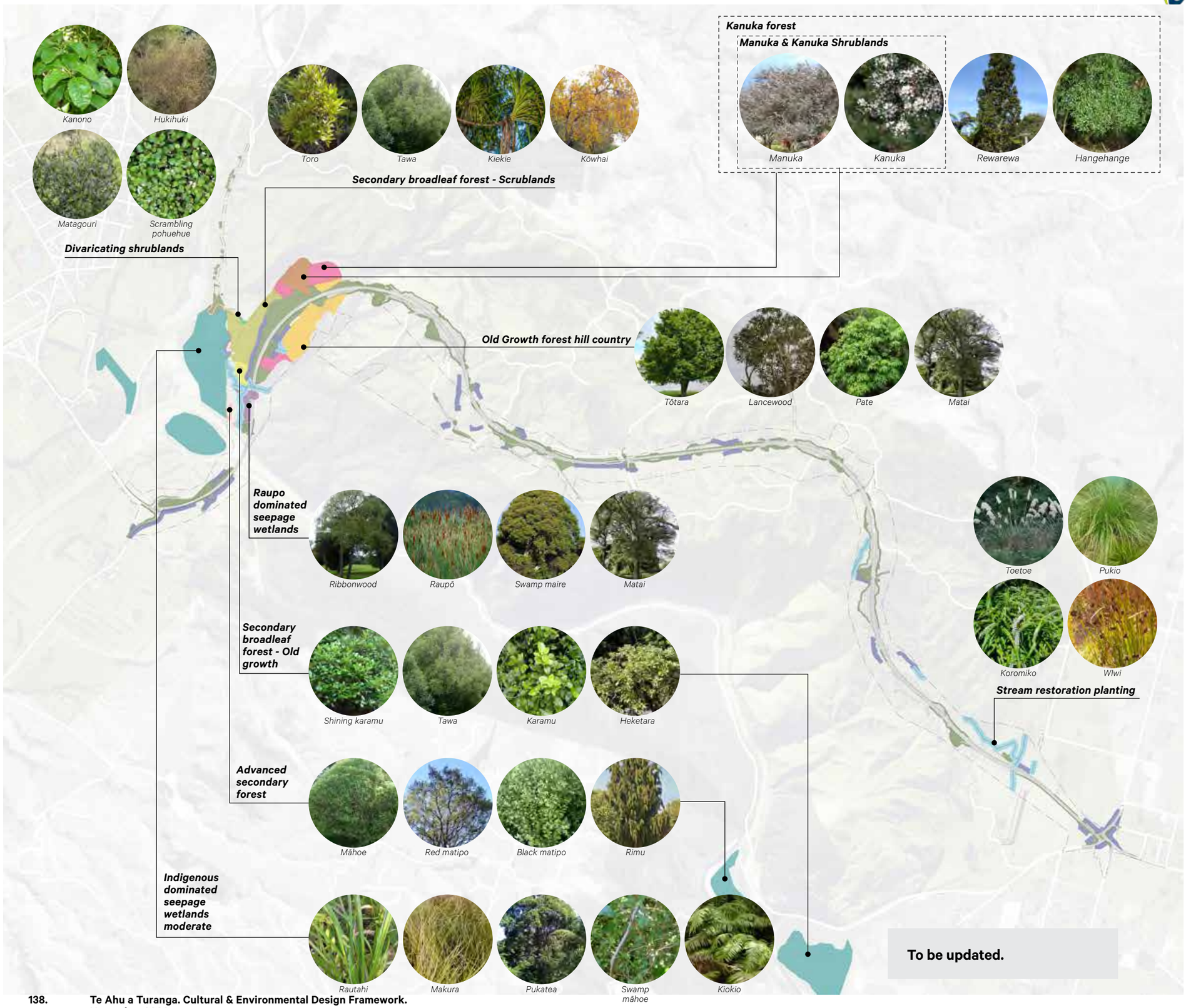
Ecological linkages





Source: New Zealand Geographic.

Source: New Zealand Geographic.



Planting legend

- Old growth forest hill country
- Secondary broadleaf forest - Scrublands
- Secondary broadleaf forest - Old growth
- Kanuka forest
- Manuka Kanuka Shrublands
- Divaricating shrublands
- Indigenous dominated seepage wetlands moderate
- Advanced secondary forest
- Raupo dominated seepage wetlands
- Stream restoration planting
- Stream diversion planting
- Offsite ecosystem restoration
- Landscape planting

NOTES:

— Species listed are a sample of plants included. Refer to the planting schedule in the submission drawing set for an exhaustive list on all plants & zones.
— Through the next phase of design the landscape planting species will be further defined with Iwi Partners and in relation to adjacent offset ecological mitigation planting species.

Scale: 1:30,000@A3

0m 250m 500m 1,500m

N

Amenity planting, rural character and township gateway roundabouts.

Roadside planting will reflect the adjoining rural character particularly in the west and east about the two township gateway roundabouts.

At these two locations avenue planting of a rural character (for example exotic sp. e.g Poplar sp. Underplanted with flax) will be used. This will assist in the wider road / traffic safety through **enhanced speed awareness**, **providing advanced warning** and visual queuing of intersections and transitions and the **optical framing of curves**. Trees and shrubs within amenity areas are sought where they can grow without obstructing the road and impacting on safety through vegetative material dropping on the road or obstructing visibility for highway users.

This roundabout planting will also include low/mid sized plants set in an ordered and controlled manner. This planting will require a minimum of periodic maintenance and upkeep as the majority of the roundabouts relate to the river landscape vernacular and the use of gravel and stone.

NZTA landscape Guidelines, p66-67

Illustrative view of Ashhurst township Gateway whirlpool roundabout and integrated family of elements within the Western Landmark Gateway area.

Exotic specimen tree species *(poplar Sp.)* To provide speed awareness, advance warning and optical framing

Pasture reinstatement.

A significant proposition of the project runs through the working rural landscape. Areas of existing pasture land within the designation will be re-instated as pasture and handed back to productive use wherever practically possible. This may involve additional consultation with landowners and integration with wider farm management planning as outlines in Integration 3 the working rural landscape. Key considerations include:

— desired stocking rates and stock types
— farm drainage management
— location of stock water supply and irrigation infrastructure
— location of farm access points
— farm fencing requirements
— pasture performance and nutrient management regimes
— underlying soil chemistry
— rainfall, aspect and soil moisture retention.

Rural Residential Amenity. (Noise & Visual)

A number of Designation Conditions relate to the management of amenity effects of the project including the management of noise and visual effects from the new highway.

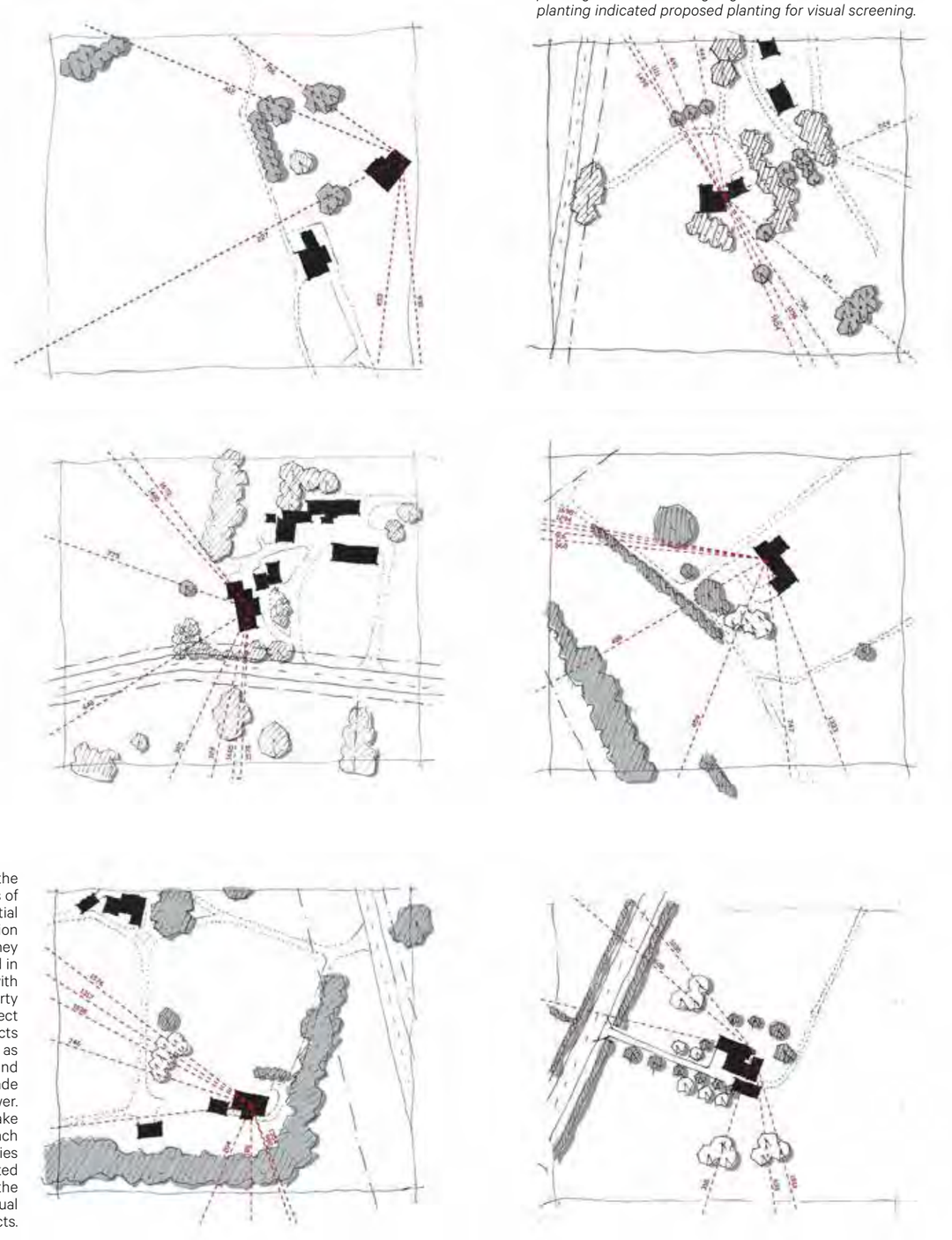
For visual effects it is proposed to directly engage with identified property owners and work with them to identify the specific details of the viewpoints and views that may require management. This will be resolved through a combination of detailed landscape plans within individual properties and the amenity planting of the proposal (including township gateway roundabout rural avenue planting). This will be subject to landowner agreement.

The effects of noise are proposed to be managed through the use of a low noise “asphaltic surface” – SMA 10 which has been specified by NZTAs pavement designer.

The following properties will be considered which reflect Designation Condition requirements:

— 75 Hope Road.

Dashed red lines indicate sight lines to pylons, hatched planting indicates existing vegetation with non hatched planting indicated proposed planting for visual screening.



The images to the right are examples of individual rural residential property visual mitigation planting plans. They were developed in close consultation with individual property owners. Isthmus Project Landscape Architects developed these plans as part of the North Island 400Kv grid upgrade project for Transpower. We will undertake a similar approach for those properties that have indicated concerns regarding the management of visual effects.

IV.11 Secondary Structures.

Te Ahu a Turanga is characterised by several secondary structures that characterize the rural highway. These structures and key design considerations are as follows:

Meridian Access Bridge

The Meridian Access Bridge – at a midway point on the project represents the opportunity to integrate with the SuP and associated safe stopping places and viewing area. This structure also provides for an underpass that will accommodate the Shared Use Path. In this regard CPTED matters as well as an opportunity to engage in the wider windfarm landscape are being developed in association with the developed design of the Shared Use Path.

Mangamania Stream Bridge

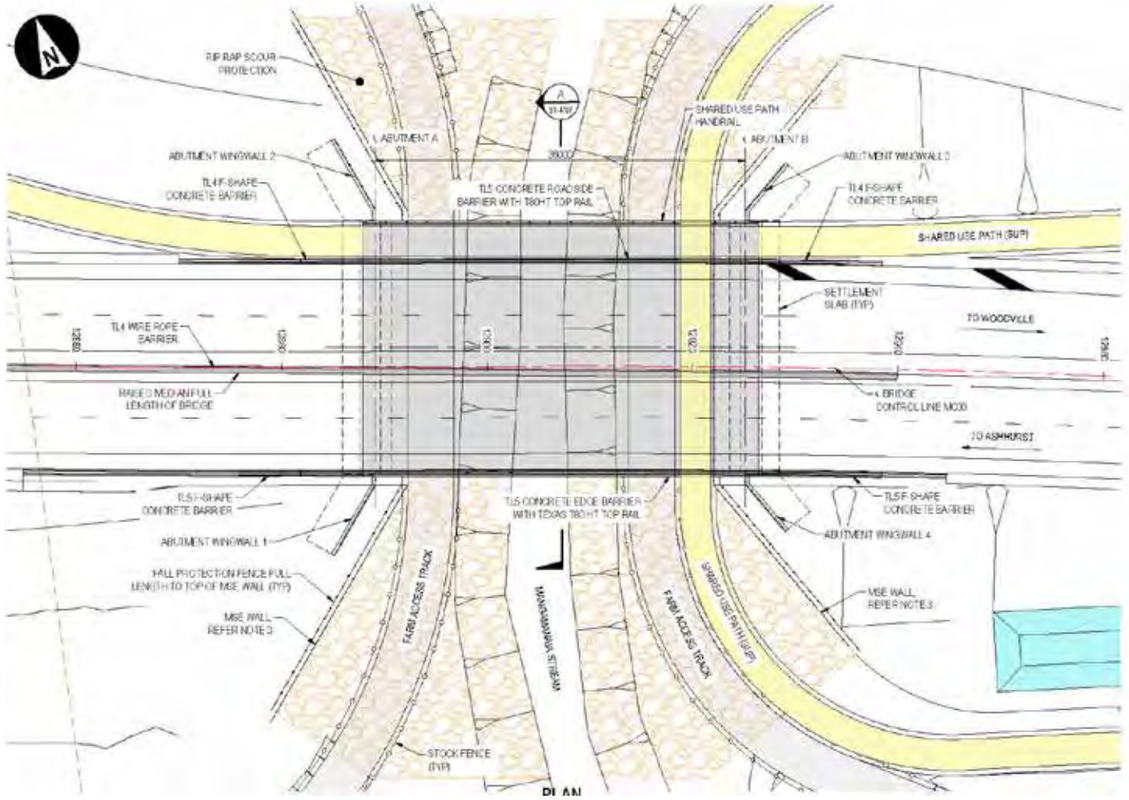
"The manaia is an entity from within Te Ao Māori, is held in the highest esteem and belongs to the world between the spiritual and physical realms. It is shown in various forms depending on tribal affiliation, and often depicted as having a beak-like mouth, a sinuous body and fish-like tail. Manaia symbolise collective knowledge and wisdom from the air, the earth and the water. They are sometimes recognised as kaitiaki or caregivers that patrolled waterways. Like Taniwha, Manaia would prescribe how people should behave in certain places, and require the utmost respect begiven to the Mauri or the life-force of places and things."

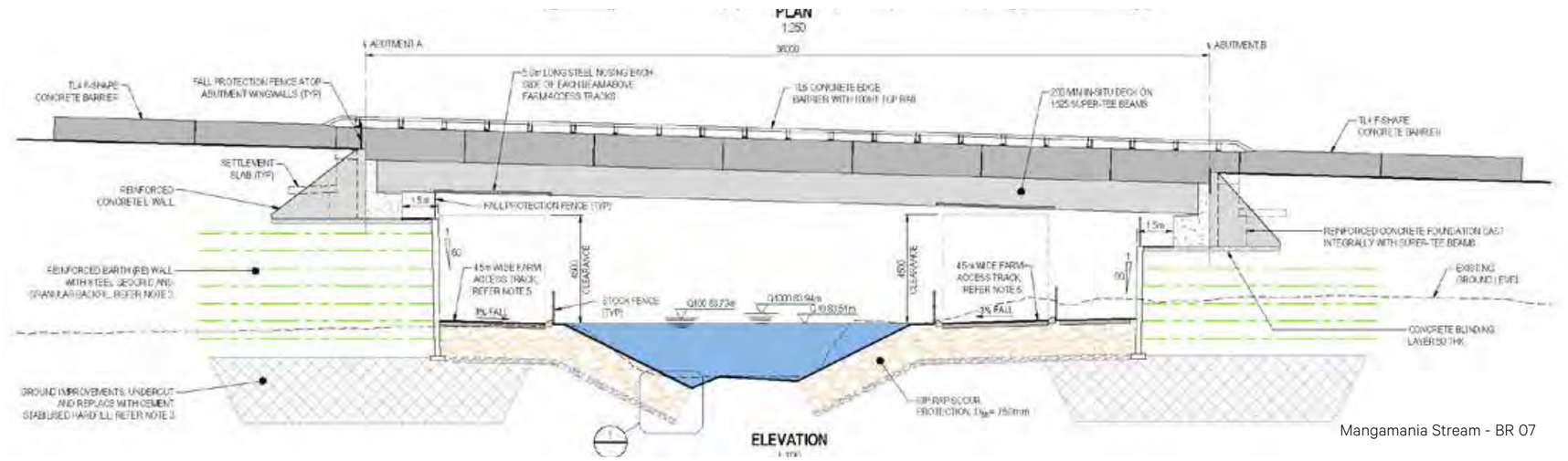
Ngāti Kahungunu ki Tamāki nui-a-Rua: Cultural Impact Assessment December 2019.

The Mangamania Stream bridge represents an opportunity to support a wider Eastern Gateway design concept that is being developed with Iwi. These concepts will include bridge barrier detailing and other elements such as Pou Whenua to tie back to the Eastern Woodville roundabout as well as recognising the whakapapa of the associated streams to the Manawatū River itself.

An SUP connection is proposed for under bridge 07 to avoid the crossing of the highway at the roundabout. The SUP connection to Woodville is now made by crossing the local road.

Currently, cultural expression opportunities are being discussed and developed for the Mangamania Stream with our Mahi toi design team. The opportunities include the SUP balustrade and the TL5 barrier. These opportunities further strengthen the rural gateway experience and arrival and departure from the east and provide a cultural connection to place.





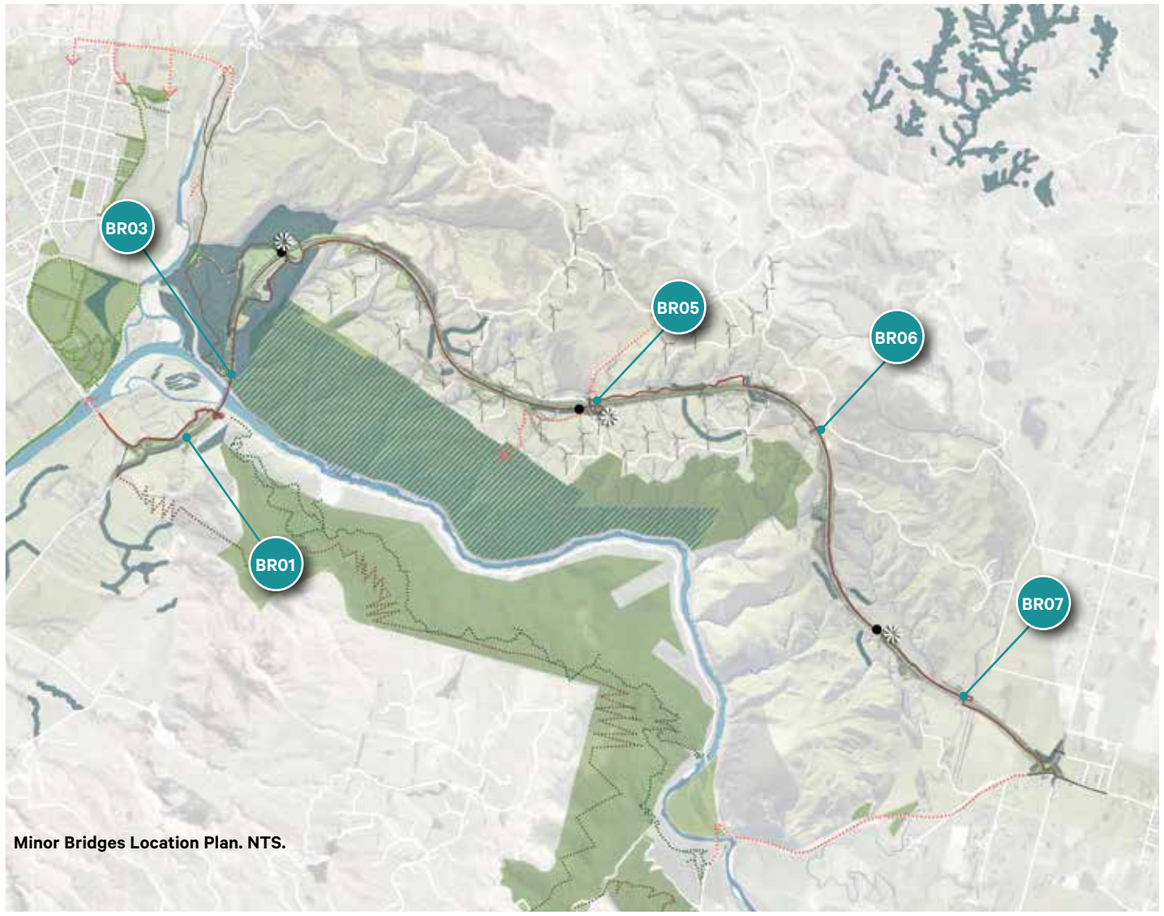
Mangamania Stream - BR 07

Property Access Structures
A number of minor structures including property access underpasses, culverts, and minor stream crossings are also included across the project. These structures are functional and utilitarian in their design and appearance and will not be visible from the road corridor.

As such the treatments and appearance of these are anticipated to be part of the expected roadside environment of the rural highway rather than design features in, and of, themselves.

Family of Elements (rural zone)
As these structures are not visually part of the main highway experience their design and construction is uniform with the use of concrete box culverts and associated wing walls being the consistent design element across the corridor.

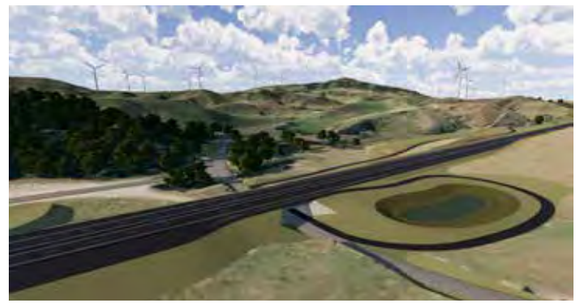
The exception to this is Bridge 07 which has been designed to accommodate the Mangamanaia Stream and farm access.



Minor Bridges Location Plan. NTS.

BR01.
BR01 Shannon Access Bridge crosses perpendicularly under the highway at Chainage 3271 to provide stock and vehicle access from one side of the highway to the other. The bridge is essentially a short cut and cover tunnel and will be constructed as a reinforced concrete box with minimum internal dimensions of 6.0m wide by 4.9m high.

BR05.
BR05 Meridian Access Bridge crosses perpendicularly under the highway around Chainage 8200 to provide vehicle access for Meridian from one side of the highway to the other. The bridge is essentially a short cut and cover tunnel and will be constructed as a reinforced concrete box with minimum internal dimensions of 6.0m wide by 4.9m high.



BR06.
The AgResearch Access Bridge crosses under the highway at Chainage 10,200. The bridge crosses the highway at right-angles, this shortens the length of the bridge relative to the NoR design and does not increase the footprint on AgResearch land to any greater extent than the NoR design. The bridge is essentially a short cut and cover tunnel and will be constructed as a reinforced concrete box with minimum internal dimensions of 6.0m wide by 4.9m high.

BR07.
BR07 Andrew Bolton Stream Crossing Bridge spans across the Mangamanaia Stream at around Chainage 12900. Our preferred option is a 36m long single span Super-Tee structure, carrying 4No. traffic lanes, median and shoulders. Our detailed hydrology modelling at this site has allowed our solution to be significantly more cost-effective than the 3-span structure in the NOR design.

Retaining walls.

The use of soil nailed slopes and retaining systems has been designed for the area to the north of the River Crossing- these soil nailed and reinforced earth retaining systems will be treated in a combination of “Punga facing” or in the case of reinforced earth systems – planted as a “living wall”.

These "living walls" will be plated with an appropriate seed and species mix which will be determined in consultation with the Iwi Project Partners. This may include a fern and moss species mix.

The 6 images to the right show the progression and implementation of a punga log treatment for an existing soil nail (and shotcrete) system. This wall is on SH3 at Mokau, North Taranaki and was implemented by RST Environmental Limited. We will apply a similar system to the soil nail walls on the Southern Abutment of Bridge 03.


Punga fencing Soil nail walls - SH3 1


Reinforced Earthwall - planted (refer to plan) 2

IV.12 User Experience, Safety & Crime Prevention through Environmental Design.

More generally across the project CPTED will be a key consideration through the design of public areas. This will be undertaken following a similar CPTED Auditing process. This also reflects the following MR's.

A9.1.3.1 Crime Prevention through Environmental Design (CPTED), road safety, and human health (e.g. noise exposure and accessibility including universal design principles) shall be integrated in the selection and development of design solutions. The project shall contribute to a transport network that is safe with reduced opportunities for crime (including vandalism and graffiti) and the fear of crime.

A9.1.3.2 Fencing and gates shall be integrated into the landscape design and highway design to ensure public safety and security. This audit or assessment process will take into consideration NZTA guidance from "Bridging the Gap" and The Ministry of Justice's National Guidelines for Crime Prevention through Environmental Design in New Zealand [www.justice.govt.nz] that identifies seven qualities of safer places. These qualities are:

- **Access**: Safe movement and connections
- **Surveillance and sightlines**: See and be seen
- **Layout**: Clear and logical orientation
- **Activity mix**: Eyes on the public realm Places where the level of human activity is appropriate to the location and creates a reduced risk of crime and a sense of safety at all times by promoting a compatible mix of uses and increased use of public spaces.
- **Sense of ownership**: Showing a space is cared for - Places that promote a sense of ownership, respect, territorial responsibility and community.
- **Quality environments**: Well designed, managed and maintained environments.

These matters will be further designed for in relation to the following considerations as appropriate:

- **Lighting**.
  - How good is the lighting?
  - Does it evenly illuminate the area or create shadows?
  - Are any lights broken and are there any signs indicating who to report this to?
  - Do trees or bushes obscure lighting?
  - How well are pedestrian walkways illuminated?
  - Are you able to identify a face 25 metres away?
  - Does lighting illuminate directional signs or maps?
- **Signage**.
  - Are there directional signs nearby?
  - Are there signs to show you where to seek emergency assistance?
  - What signs should be added?
- **Sightlines**.
  - Can you see clearly what's ahead, if not, why?
  - Are there hiding places?
  - Does landscaping block sightlines?
  - What would make it easier to see? (angled corners, mirrors, trimmed bushes etc)
- **Isolation**.
  - Does the area feel isolated?
  - Is it easy to predict when people will be around?
  - Do you feel safe waiting for public transport here?
  - How far away is the nearest person to call for help?
  - Is the area patrolled or monitored with surveillance equipment?
  - Is the area designed to facilitate natural surveillance? (e.g. windows on the street vs. blank walls)
- **Movement Predictors.**
  - How easy is it to predict a pedestrians route?
  - Is there an alternative well-lit route?
  - Can you see what is at the end of this route?
- **Entrapment sites.**
  - Are there recessed areas that could be locked?
  - Are there small confined areas where someone could hide? (between garbage bins,doorways, construction sites)
- **Escape Routes.**
  - How easy would it be for an offender to disappear?
  - Is there more than one exit?
- **Activity uses.**
  - How much activity is there in the area, during the day or at night?
  - Do the activity levels provide for passive surveillance of the area?
  - Are activity uses compatible with each other?
- **Maintenance**.
  - Is there evidence of graffiti or vandalism?
  - Is there litter lying around?
  - Do you know who to report maintenance to?
  - Does the place feel cared for?
  - Are there other materials/ textures/colours/ features that would make the place feel safer?
- **Territorial Definition**.
  - Is the site clearly defined?
  - Are transitional zones defined?
  - Is there conflicting use of space?
  - Is there a clear definition between public and private space?

Key CEPTED Matters that will need to consider the above are:

- The management of, and access to, the Gateway Park from the Ashhurst roundabout including the use of locked bollards and CCCTV (already being discussed with the Agency, Council and Local Landowners)
- Utility and observability of the Manawatū River Bridge under-croft area
- The design of the Manawatū River Bridge viewing platform and the prevention of suicide risk which has been discussed with Iwi.
- Accessibility, observability and safety for the SUP on the MRB and Eco-Viaduct as well as associated Wetland Experience areas.

A CPTED report has been completed by peer reviewer at 50% detail design, this will be updated at 85% design. The 50% comments have been closed out with the peer reviewer and is currently being incorporated into the 85% design as it progresses.

Public safety is a top priority for the Transport Agency as well as for all participant organisations within the *Alliance Team*. This is particularly relevant during the construction phases of the project to ensure safe public access to the Manawatū Gorge Scenic Reserve during construction, as well as more widely across the project.

Public Safety During Construction (Western Gateway Park).

Proposed condition for the Western Car Park Construction Management Plan sets out a requirement for a CPTED Assessment:

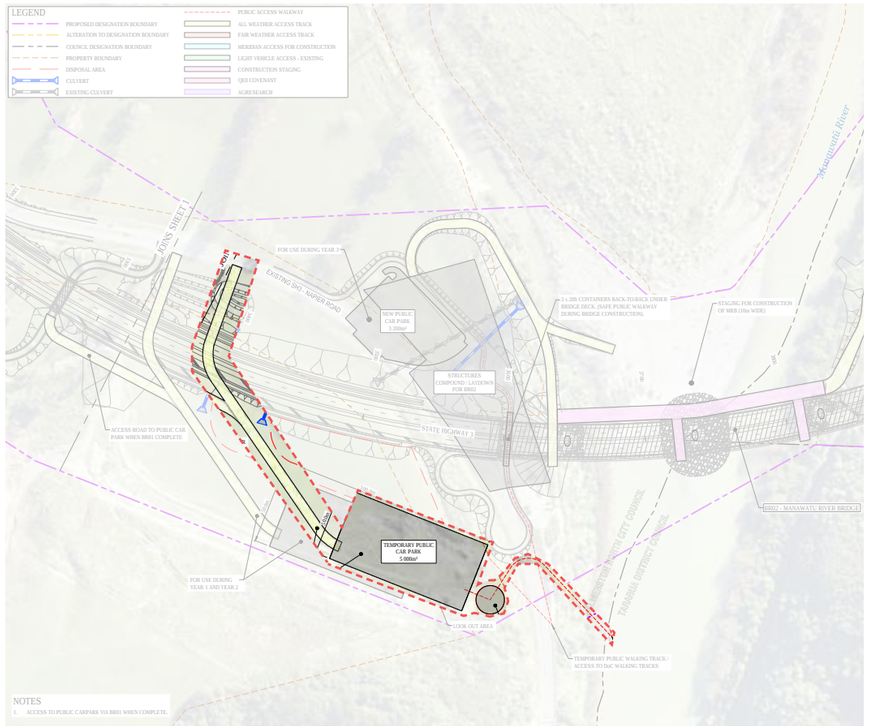
"PN2 c) iv) a Crime Protection Through Environmental Design (CPTED) Safety Site Assessment"

The *Alliance* Team will also develop a specific Health and Safety Plan to accompany this assessment to ensure that public safety is prioritised, managed and monitored.

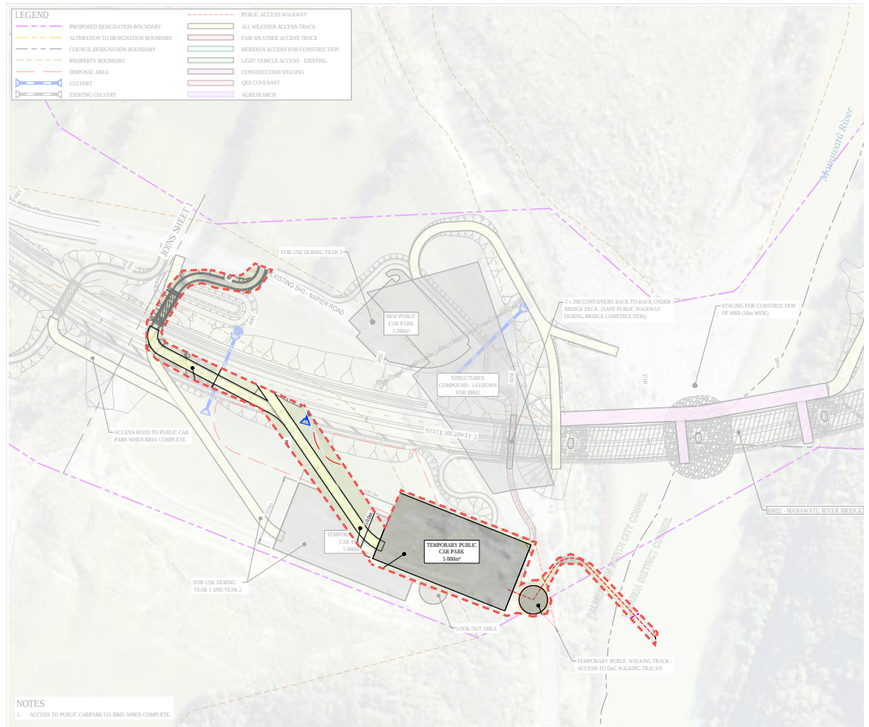
The starting point for this plan is the overall design principle of complete separation of public access and construction activities in the location and design of temporary access to the Scenic Reserve during construction.

This Health and Safety Plan will address such matters as

- Security fencing to prevent public access to the construction areas
- Hazard identification notification and procedures
- Warning signs and information boards
- Emergency vehicle access provision
- Site evacuation plan and procedures including arranged practise sessions/exercises with local emergency services to test access and evacuation procedures
- Clearly delineated and safe walking paths and access
- Specific traffic management plans to facilitate safe access to the temporary carpark facility from the live road environment
- Consideration of security features (such as access limitation) to avoid un-lawful or nuisance motor vehicle use within the temporary carpark
- Consideration of CCTV monitoring
- Discussions with local Police to help inform the development of the plan.

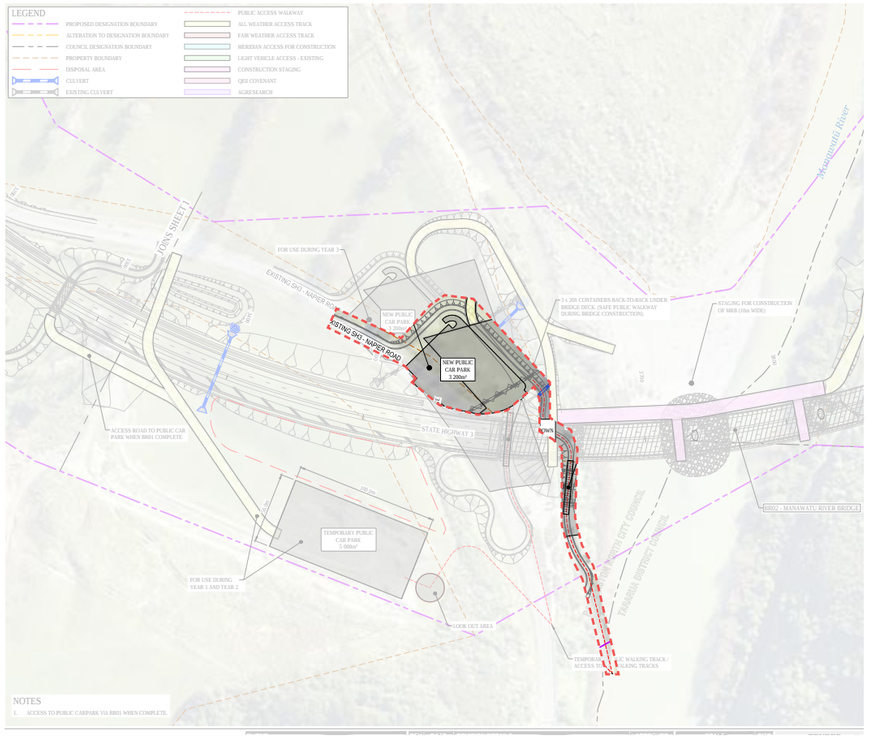


STAGE 01



STAGE 02

The site accommodation drawings to the left indicate the location of temporary public car parking and access. Public access to the temporary carpark will be maintained separate from the construction traffic in 3 stages. Stage 1 access will be to the North of Bridge 01; Stage 2 access will be via Bridge 01; Stage 3 access will be via Bridge 02 southern abutment area.



STAGE 03

Accomodation Works - Sheet 2
TAT 9000 DG C 3602 T0

IV.13 Signage, Wayfinding and Cultural Interpretation Signage.

Multi-modal use, future Recreational use, as well as passive public open space are key parts of the Project. A key consideration to ensure the successful integration of these components as part of a wider **Network Integration Plan** approach is the inclusion of methods of wayfinding and signage.

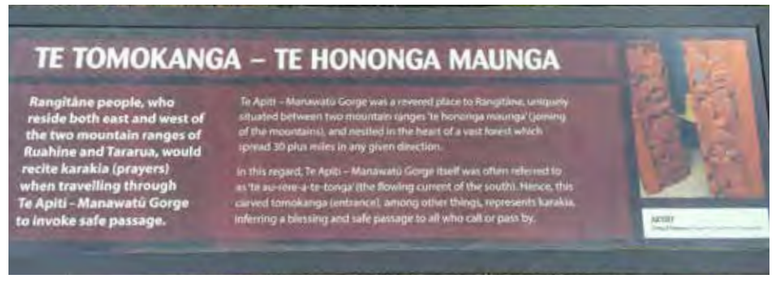
Effective wayfinding and signage will assist in the safe and enjoyable use of proposed and future facilities as well as providing a means of education regarding various aspects of the project. This work is anticipated to include liaison with wider stakeholders as part of the community Liaison Group as well as other agencies and relevant standards. The following matters are suggested as considerations to be discussed at the IPAA phase of the project:

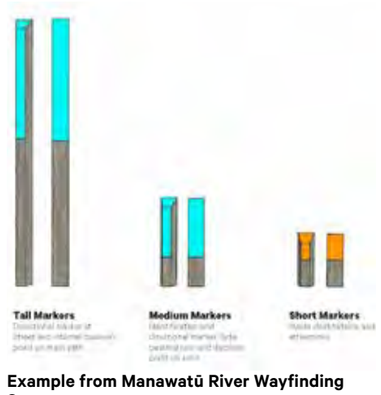
- Temporary wayfinding signage and an information plan to ensure the maintenance of safe access to the Manawatū Gorge Scenic Reserve including the provision of an observation area where construction progress on the River Crossing can be observed as well as project updates or closures information can be provided.
- Cultural Narrative wayfinding network: A network of information and signage points that identify specific aspects of various cultural stories of place – this network could accommodate a range of cultural narratives from differing Iwi perspectives.
- Track network and access signage that integrates with the existing PNCC wayfinding strategy, DoC track Network Signage and Tararua Council signage in the east.
- Appropriate signage and pavement marking for walking access across the Manawatū River Bridge consistent with A9.6.2.1 g)
- Any signage and wayfinding integrations required as part of the Lindauer Arts Trial project
- Township gateways feature wall signage as part of the Western and Eastern gateway roundabout designs and concepts.
- The use of text as a design motif on key structures and elements such as the River Crossing Bridge and throughout the wetland experience

Habitat Markers, Hobsonville Point

Te Reo Māori and Cultural Interpretation.

Mana o Te Reo Māori and the active promotion of Te Reo Māori is one of the wider cultural awareness opportunities to weave Te Reo Māori through to design delivery. This will be developed in collaboration with Kaimahi and the Iwi Working group. This follows on from the naming of the project – Te Ahu a Turanga. This work will include the naming of key structural elements of the project as well as wayfinding and signage for the Gateway Park, Wetland Experience and Shared Use Path.





Example from Manawatū River Wayfinding Strategy.

IV.14 Materials Palette.

The following groups of images illustrate the overall character or “look and feel” of the materials and treatments that will be drawn on to detail the design. This includes robust and course grained materials that reflect the wider River Landscape, surrounding rugged natural environment and wider rural and farming context. These examples also show the types of materials, textures and detailed design references that can be developed as part of the cultural expression for the project. The final choice of these materials and treatments will be developed in consultation with the Iwi Partners and as part of the wider Community Liaison Group process.

Seating + Furniture.



Landscape Features.




Cultural Elements.




Viewing Platforms.



Fencing + Balustrades.




Pathways / Edge Treatments.



Surface Finishes.




Wayfinding / Signage.




IV.15 Lighting.

There are minimal lighting requirements for the project. These relate to the following minimum requirements: *A9.6.2.1*. The following design principles shall apply to all pedestrian and cycle facilities on the southwest side of the river, including paths connecting to the Manawatū River "*Lighting shall be provided at appropriate ingress and egress points and intersections to ensure a safe environment*".

These lighting requirements will be addressed during the next phases of the project but are likely to include a relatively low level of lighting sufficient to meet public safety and security standards while preserving the overall rural character of the highway. This will include lighting requirements at the two roundabouts, lighting of the River Crossing under croft and lighting of access on the eastern walkway of the River Bridge itself.

Architectural lighting of the Manawatū River Bridge is not included in the current design.

IV.16 Highway Furniture.

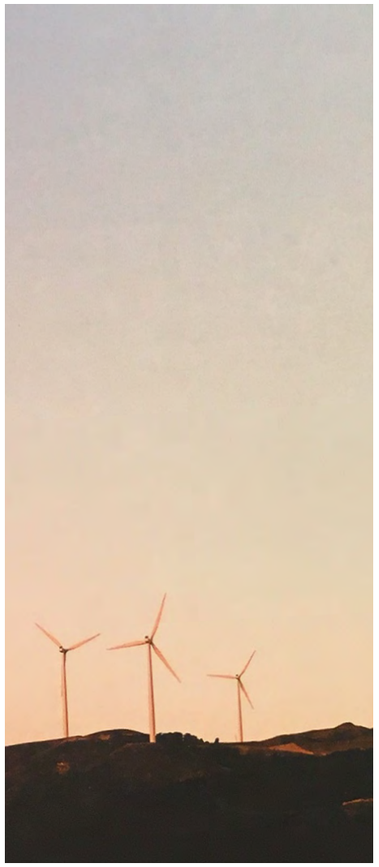
As a rural highway the roadside furniture proposed is limited. A consideration worth noting however is the implementation of safety barriers in particular the use of wire rope barriers and barrier transitions.

As a general principle an uncluttered highway environment is sought. This includes careful consideration of the choice of barrier system across the alignment and transitions between barrier systems as dictated by safety considerations (including deflection).

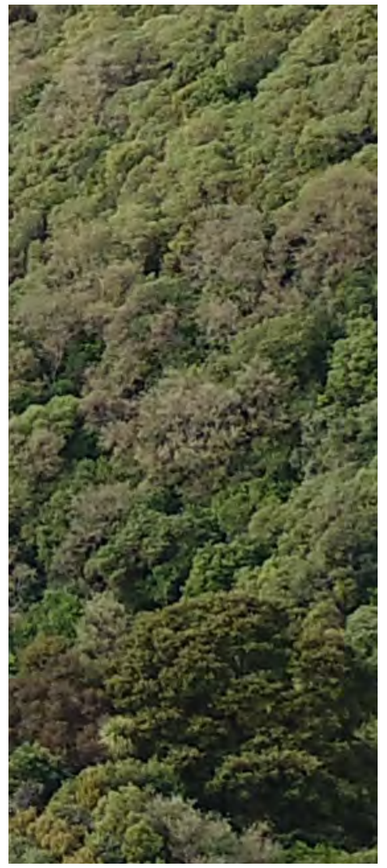
Wire rope barrier systems in particular have the potential to be significant visual elements of the highway environment, especially if a white standard is used. The visual prominence of this pattern of elements (the "lining up" of standards on a curve for example) is increased if there is a median WRB as well as one on either side of the highway.

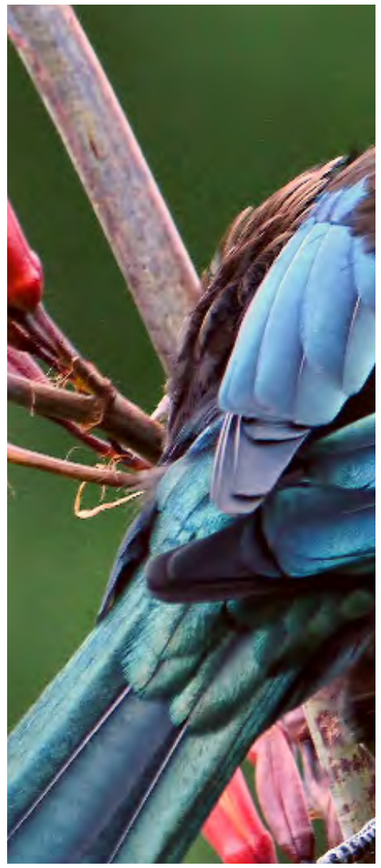




V. Nga poupou o te whare.
Appendices.





Appendix 1 – Design Review.

Cultural and Environmental Design Principle 1. (NoR CEDF 2.2.1 C)

Reconnecting People and Places

A primary purpose of the Project is to reconnect people and communities, as well as connecting people to the environment, heritage and the richness of the wider cultural landscape from a variety of perspectives.

This includes:

- 1.a Reconnecting local communities that were disconnected when the Manawatū Gorge was closed.
- 1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapesincluding the Manawatū Gorge and
- 1.c River, Ranges and Plains landscapes.
- — Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic
- 1.d Reserve and the Manawatū River Framework.
- — Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance
- *1.e habitat and ecological corridors.
- — Re-connecting people and place through language, narrative, cultural expression, wayfinding,
- *1.f signage and naming.
- — Connecting the Shared Use Path to the recreational network.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Whakapapa Whanaungatanga Kaitiakitanga Manaakitanga Ki Uta Ki Tai Wāhi Taonga
Outcome Principles	Enduring Community Outcomes

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 2. (NoR CEDF 2.2.3 N)

Integrating Te Ahu a Turanga with the Landscape

The project landscape and natural features such as existing areas of indigenous vegetation and landform enhance the road user experience as well as ensuring the wider landscape character of the area is maintained as far as practically possible. Where appropriate and practicable, the highway and associated features will weave in with the existing landscape to highlight adjoining landscape elements. This design integration includes:

- 2.a Minimising bridge piers in the Manawatū River (one only).
- 2.b Minimise construction footprints where they impact on indigenous forest and streams.
- 2.c Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible.
- 2.d Restore planted buffers where practicable to address edge effects of fragmented or distributed bush areas.
- 2.e Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character.
- 2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.
- 2.g Provide a consistent suite of highway furniture and a visually “uncluttered” roadway.
- 2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.
- 2.i Shotcrete is a least preferred architectural finish.
- 2.j Use monoslopes in preference to benched cuts.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Mauri Kaitiakitanga Mātauranga Māori Tikanga Māori Wairuatanga
Outcome Principles	Tread Lightly Enduring Community Outcomes Genuine Partnership

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 3. (NoR CEDF 2.2.4 E)

"Design with Nature" & Environmental Wellbeing.

The role of guardianship over natural resources or 'taonga tuku iho' (God-given gifts), is a key foundation of the project and a fundamental corridor design principle. This includes the upholding of Mauri – the spiritual energy or life-force derived from nga Atua; Kaitiakitanga gives first priority to the resource itself, and what it requires to stay healthy in terms of habitat, and then progresses to species health and abundance.

This acknowledges the need to care for mahinga kai, mahinga mataitai, and the food resources and other taonga they provide. Designing with Nature and recognising our responsibilities including Kaitiakitanga is about placing the environment and sustainability at the heart of our work and recognising our role as stewards for future generations. This includes concepts of environmental and cultural guardianship.

This also acknowledges that the wellbeing of the project and the wellbeing of the people are linked. This corridor and project wide principle includes:

- 3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.
- * 3.b Opportunities for traditional resource use gathering where possible.
- * 3.c Opportunities for traditional resource use gathering where possible.
- * 3.d Provide for Cultural Indicators of environmental health including Mauri Tu indicator species and cultural indicators of water quality
- * 3.e Understand and engage with iwi on key environmental matters identified by them.
- * 3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible
- 3.g Treat storm-water with an understanding of a whole of catchment approach.
- 3.h Strengthen natural vegetation patterns when replanting areas and integrate with wider ecological mitigation strategies.
- 3.i Mitigation measures should support the development of resilient ecosystems.
- 3.j Mitigation planting should provide for weed and pest plant and animal management as part of the wider ecological management of the project.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Kaitiakitanga Mauri Atuatanga Mātauranga Māori Tikanga Māori Wairuatanga Whakapapa Kotahitanga Ki Uta Ki Tai Wāhi Taonga
Outcome Principles	Tread Lightly Culture of Care Best for Project Enduring Community Outcomes

Cultural and Environmental Design Principle 4. (NoR CEDF 2.2.2 H)

Respecting the Cultural Landscape

Working with four Iwi-Crown Partners and Te Āpiti Ahu Whenua trust the project is a unique opportunity to recognise, and appropriately design for, the wider cultural context and cultural landscape. This includes:

- 4.a Giving effect to Māori Values through the design and construction process wherever possible.
- * 4.b Providing balanced design outcomes across the project for all Iwi and stakeholders
- 4.c Being aware of and respecting sites of significance to tangata whenua such as:
  - Te Ahu a Turanga
  - The historic Manawatū Gorge and Awa.
  - Historic and cultural significance of Parahaki Island.
  - Natural Areas and systems including waterways and remnant indigenous forests.
- 4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- 4.e Facilitate community engagement across the corridor and in association with developing township gateways.
- 4.f Being aware of and respecting other landmarks of interest and rural character such as Manawatū River, rural landscapes, Manawatū Gorge Scenic Reserve and remnant indigenous forests.

Combined into 4.a, 4.c and 4.d:

- H1: Sites of significance to tangata whenua.
- H5: Celebrate tangata whenua values through Te Aranga Principles.
- H6: Māori values shall guide the design and construction process.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Te Tiriti o Waitangi Mātauranga Māori Tikanga Māori Wairuatanga Tino Rangatiratanga Kotahitanga Whakapapa Mahi Toi Whanaungatanga Rangitiratanga Ūkaipotanga Pukengatanga
Outcome Principles	Best for Project Reflect the Treaty through Genuine Iwi Partnerships, Enduring Community Outcomes

* New design principles in addition to those contained in the NoR CEDF.

* New design principles in addition to those contained in the NoR CEDF.

Cultural and Environmental Design Principle 5. (NoR CEDF 2.2.5 A)

Amenity: Memorable Experience.

Amenity values relate to natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

The wider project area is a dramatic and varied landscape that includes a number of high value statutory planning landscape notations including Outstanding Natural Landscapes. The Project area also relates to access to The Manawatū Gorge Scenic Reserve and the locally iconic Manawatū River. The Project itself is the replacement for The Gorge road which has been a defining characteristic of the local and regional communities with a strong historic and cultural heritage. In this context the new highway represents an opportunity to maintain a presence and contact with the Manawatū Gorge while at the same time creating new experiences for motorists and shared path users alike that reinforce landscape character, the cultural landscape and a sense of place and local identity.

This Corridor Principle includes:

- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape
- 5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.
- * 5.c Enhancing legibility of natural patterns by enhancing exiting areas of indigenous vegetation
- * 5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti
- * 5.e Balancing cultural expression of the Manawatū River Bridge, with natural character and amenity of the Manawatū Gorge and River.
- * 5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.
- * 5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design.
- 5.h Defining key cut earthwork design elements of the project with strong design responses that include exposing cuts into geology as a design feature, and integrating batters with the adjacent landform.
- 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.
- 5.j Traffic noise attenuation should be designed to mitigate effects on rural character where applicable with careful attention that noise attenuation should have the minimum visual impacts on the landscape.

* New design principles in addition to those contained in the NoR CEDF.

This Design Principle relates to:

Project Vision	Re-connecting People and Places Past, Present, Future
Key Values & Considerations:	Whakapapa Wairuatanga Wāhi Taonga Mahi Toi Kotahitanga Whanaungatanga
Outcome Principles	Best for Project Enduring Community Outcomes

Appendix 1A – Cultural and Environmental Design. Community Connections.

Design Review.

Discipline: Community - Connections.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 1: The Shared Use Path

- **1.c** Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- **2.h** Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms
- **3.a** Natural processes, landform, water courses, vegetative cover and land-uses where practical
- **3.c** Opportunities for traditional resource use gathering where possible
- **3.g** Treat storm-water with an understanding of a whole of catchment approach
- **1.e** Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming
- **1.f** Connecting the Shared Use Path to the recreational network.
- **4.a** Giving effect to Māori Values through the design and construction process wherever possible.
- **4.c** Being aware of and respecting sites of significance to tangata whenua such as: — Te Ahu a Turanga — The historic Manawatū Gorge and Awa. — Historic and cultural significance of Parahaki Island. — Natural Areas and systems including waterways and remnant indigenous forests.
- **4.d** Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- **5.a** Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape
- **5.d** Providing opportunities to celebrate and connect with the Manawatu River and Te Apiti
- **5.f** Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.
- **5.i** Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity

Discipline: Community - Connections.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 2: Western Tracks and Trails.

- 2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.
- 3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.
- 3.c Opportunities for traditional resource use gathering where possible.
- 3.g Treat storm-water with an understanding of a whole of catchment approach.
- 1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapesincluding the Manawatū Gorge and River, Ranges and Plains landscapes.
- 1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- 1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming.
- 1.f Connecting the Shared Use Path to the recreational network.
- 4.a Giving effect to Māori Values through the design and construction process wherever possible
- 4.c Respecting sites of significance.
- 4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.
- 5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti
- 5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.
- 5.i Integrate tangata whenua narratives to reinforce the sense of place and identity.

Discipline: Community - Connections.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience

Design Element 3: Woodville Footpath Connection.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapesincluding the Manawatū Gorge and River, Ranges and Plains landscapes.

1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.

Design Element 4: Lindauer Arts Trail Connection.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapes including the Manawatū Gorge and River, Ranges and Plains landscapes.

1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.

1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming

Design Element 5: Lookouts and connections.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapesincluding the Manawatū Gorge and River, Ranges and Plains landscapes.

1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming

Appendix 1B – Cultural and Environmental Design. Open Space.

Design Review.

Discipline: Open Space.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 1: Gateway Park.

- 3.b Opportunities for traditional resource use gathering where possible.
- 3.g Treat storm-water with an understanding of a whole of catchment approach.
- 1.b Connecting people to the landscape
- 1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- 1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming
- 4.b Providing balanced design outcomes across the project for all Iwi and stakeholders.
- 4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.
- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.
- 5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti
- 5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.

Design Element 2: Wetland Experience.

- 3.c Opportunities for traditional resource use gathering where possible.
- 3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible
- 1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- 1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors.
- 1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming

Appendix 1C – Cultural and Environmental Design. Cultural Expression through Design.

Design Review.

Discipline: Cultural Expression through Design.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 1: Parahaki Island and Te Āpiti Gateway Park

- **2.e** Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character.
- **3.b** Opportunities for traditional resource use gathering where possible.
- **3.e** Engage with iwi on key environmental matters identified by them.
- **1.a** Reconnecting local communities that were disconnected when the Manawatū Gorge was closed.
- **1.d** Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors.
- **1.e** Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming
- **4.a** Giving effect to Māori Values through the design and construction process wherever possible
- **4.c** Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.
- **5.i** Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Discipline: Cultural Expression through Design.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience

Design Element 2: Western Roundabout

3.f Involve Iwi & local knowledge in planting design.	1.e Re-connecting people and place through language and cultural expression 2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience. 4.a Giving effect to Maori Values through design 5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design. 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Design Element 3: Shared Use Path

3.c Opportunities for traditional resource use 3.f Involve Iwi & local knowledge in planting design	1.c Connecting people to the existing open space 1.d Ecological connectivity & enhancement 1.e Re-connecting people and place through language and cultural expression 4.a Giving effect to Maori Values through design 4.c Respecting sites of significance 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Discipline: Cultural Expression through Design.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 4: Manawatū River Bridge

- 2.a Minimising bridge piers in the Manawatu River
- 3.c Opportunities for traditional resource use
- 3.f Involve Iwi & local knowledge in planting design
- 1.e Re-connecting people and place through language and cultural expression
- 2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.
- 4.a Giving effect to Maori Values through design
- 4.c Respecting sites of significance
- 5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti
- 5.e Balancing cultural expression of the Manawatū River Bridge, with natural character and amenity of the Manawatū Gorge and River.
- 5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design.
- 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Design Element 5: Eco-Viaduct & Wetland Experience

- 3.c Opportunities for traditional resource use
- 3.f Involve Iwi & local knowledge in planting design
- 1.c Connecting people to the existing open space
- 1.d Ecological connectivity & enhancement
- 1.e Re-connecting people and place through language and cultural expression
- 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Discipline: Cultural Expression through Design.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience
Design Element 6: East, Central and Western Stopping Places				
			3.c Opportunities for traditional resource use 3.f Involve Iwi & local knowledge in planting design	1.c Connecting people to the existing open space 1.e Re-connecting people and place through language and cultural expression 4.a Giving effect to Maori Values through design 4.c Respecting sites of significance 5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.
Design Element 7: Mangamania River Bridge				
			3.c Opportunities for traditional resource use 3.f Involve Iwi & local knowledge in planting design	1.c Connecting people to the existing open space 1.d Ecological connectivity & enhancement 1.e Re-connecting people and place through language and cultural expression 2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience. 4.a Giving effect to Maori Values through design 5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design. 5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Discipline: Cultural Expression through Design.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience

Design Element 8: Eastern Roundabout

3.c Opportunities for traditional resource use	1.e Re-connecting people and place through language and cultural expression
3.f Involve Iwi & local knowledge in planting design	2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.
	4.a Giving effect to Maori Values through design
	5.g Accommodating concepts of Gateway experiences as part of the overall CEDF design.
	5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity.

Appendix 1D – Cultural and Environmental Design. Drainage.

Design Review.

Discipline: Drainage.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 1: Wetland Treatment Systems (Ponds and Swales).

2.c Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.d Provide for Cultural Indicators of environmental health.

3.e Engage with iwi on key environmental matters identified by them.

3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible.

3.g Treat storm-water with an understanding of a whole of catchment approach.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests..

Discipline: Drainage.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 2: Road Drainage.

2.c Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.d Provide for Cultural Indicators of environmental health.

3.e Engage with iwi on key environmental matters identified by them.

3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible.

3.g Treat storm-water with an understanding of a whole of catchment approach.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests..

Design Element 3: Stream Diversions and Culvert Crossings.

2.b Minimise construction footprints where they impact on streams

2.c Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.d Provide for Cultural Indicators of environmental health.

3.e Engage with iwi on key environmental matters identified by them.

3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible

3.g Treat storm-water with an understanding of a whole of catchment approach.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.

Appendix 1E – Cultural and Environmental Design. Earthworks.

Design Review.

Discipline: Earthworks.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 1: Western Cut.

2.b Minimise construction footprints where they impact on indigenous forest and streams.

2.h ntegrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.

2.i Shotcrete is a least preferred architectural finish.

2.j Use monoslopes in preference to benched cuts.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.b Opportunities for traditional resource use gathering where possible.

3.e Engage with iwi on key environmental matters identified by them.

2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests..

4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.

5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape

5.h Defining key cut earthwork design elements of the project with strong design responses that include exposing cuts into geology as a design feature, and integrating batters with the adjacent landform.

Discipline: Earthworks.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 2: Bench Cuts - General.

2.b Minimise construction footprints where they impact on indigenous forest and streams.

2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.

2.i Shotcrete is a least preferred architectural finish

2.j Use monoslopes in preference to benched cuts.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.b Opportunities for traditional resource use gathering where possible.

3.e Engage with iwi on key environmental matters identified by them.

2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.

4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.

Discipline: Earthworks.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 3: Road Fill Embankments.

- 2.b Minimise construction footprints where they impact on indigenous forest and streams.
- 2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.
- 2.i Shotcrete is a least preferred architectural finish.
- 2.j Use monoslopes in preference to benched cuts
- 3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.
- 3.b Opportunities for traditional resource use gathering where possible.
- 3.e Engage with iwi on key environmental matters identified by them.
- 4.a Giving effect to Māori Values through the design and construction process wherever possible
- 4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.
- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape

Design Element 4: Eastern Rise Embankment.

- 2.b Minimise construction footprints where they impact on indigenous forest and streams.
- 2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.
- 3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.
- 3.b Opportunities for traditional resource use gathering where possible.
- 3.e Engage with iwi on key environmental matters identified by them.
- 5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape
- 4.a Giving effect to Māori Values through the design and construction process wherever possible
- 4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests..
- 4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- 5.h Defining key cut earthwork design elements of the project with strong design responses that include exposing cuts into geology as a design feature, and integrating batters with the adjacent landform.

Discipline: Earthworks.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 5: Disposal Areas.

2.b Minimise construction footprints where they impact on indigenous forest and streams.

2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.b Opportunities for traditional resource use gathering where possible.

3.e Engage with iwi on key environmental matters identified by them.

4.a Giving effect to Māori Values through the design and construction process wherever possible

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests..

4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.

5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape

Appendix 1F – Cultural and Environmental Design. Planting.

Design Review.

Discipline: Planting.

Key Design Issues.

Alliance Values Considered & Kaimahi Engagement undertaken.

Design Philosophy Response.

How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 1: Planting Design.

1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors

2.d Restore planted buffers where practicable to address edge effects of fragmented or distributed bush areas

2.e Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character

2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.c Opportunities for traditional resource use gathering where possible.

3.e Engage with iwi on key environmental matters identified by them.

4.f Being aware of and respecting other landmarks of interest and rural character such as Manawatū River, rural landscapes, Manawatū Gorge Scenic Reserve and remnant indigenous forests

5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.

5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.

Discipline: Planting.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 2: Drainage Planting.

- 1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors
- 2.e Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors
- 3.g Adopt a whole of catchment approach to drainage management
- 3.b Recognise traditional relationships with the land and resources
- 3.d Provide for Cultural Indicators of environmental health including Mauri Tu indicator species and cultural indicators of water quality
- 3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible
- 4.a Giving effect to Māori Values through design
- 4.c Being aware of and respecting sites of significance to tangata whenua such as: -Te Ahu a Turanga - The historic Manawatū Gorge and Awa. - Historic and cultural significance of Parahaki Island. - Natural Areas and systems including waterways and remnant indigenous forests.

Design Element 3: Integration with Ecological Mitigation and Offset Planting.

- 1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors.
- 2.e Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character.
- 3.a Maintain and enhance natural processes, landform, water courses, vegetative
- 3.d Provide for Cultural Indicators of environmental health including Mauri Tu indicator species and cultural indicators of water quality.
- 3.e Understand and engage with iwi on key environmental matters identified by them.
- 3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible
- 5.c Enhancing legibility of natural patterns by enhancing existing areas of indigenous vegetation

Discipline: Planting.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience

Design Element 4: Retention of Existing Vegetation.

1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors.	4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.
2.e Landscape and ecological mitigation planting will be a cohesive and integrated package of activities and outcomes to maximise the environmental benefits, including hydrology, habitat and ecological connectivity and rural character.	4.f Being aware of and respecting other landmarks of interest and rural character such as Manawatū River, rural landscapes, Manawatū Gorge Scenic Reserve and remnant indigenous forests.

Design Element 5: Cultural Harvesting.

3.b Recognise traditional relationships with the land and resources.	4.a Giving effect to Māori Values through the design and construction process wherever possible
3.c Opportunities for traditional resource use gathering where possible.	

Design Element 6: Procurement and Maintenance.

3.f Involve iwi and local customary knowledge as well as local industry knowledge on planting design and other key environmental inputs where possible	4.a Giving effect to Māori Values through the design and construction process wherever possible
	4.b Providing balanced design outcomes across the project for all Iwi and stakeholders

Appendix 1G – Cultural and Environmental Design. Roading.

Design Review.

Discipline: Roading.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 1: Alignment and Grades.

1.a Reconnecting local communities that were disconnected when the Manawatū Gorge was closed.

1.f Connecting the Shared Use Path to the recreational network.

2.c Avoid change to drainage patterns where they affect indigenous ecosystems as far as practically possible.

2.h Integrate spoil disposal fill sites and cut and fill batter slopes to fit in with surrounding landforms.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

4.c Being aware of and respecting sites of significance to tangata whenua such as: Te Ahu a Turanga ; The historic Manawatū Gorge and Awa; Historic and cultural significance of Parahaki Island; Natural Areas and systems including waterways and remnant indigenous forests.

5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.

5.j Traffic noise attenuation should be designed to mitigate effects on the rural character where applicable with careful attention should have a minimum visual impacts on the landscape.

Design Element 2: Ashhurst Roundabout.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapes including the Manawatū Gorge and River, Ranges and Plains landscapes.

1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.

5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.

1.e Re-connecting people and place through language and cultural expression.

1.f Connecting the SuP to the recreational network.

2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and SuP enhancing the wider landscape experience.

4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.

4.e Facilitate community engagement across the corridor and in association with developing township gateways.

5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti

Discipline: Roading.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- Design with Nature
- Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- Respect the Cultural Landscape
- Re-connect People and Place
- Memorable Experience

Design Element 3: Safe Stopping Places.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapesincluding the Manawatū Gorge and River, Ranges and Plains landscapes.

5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.

5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti

5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.

Design Element 5: Woodville Roundabout.

1.b Connecting people to the landscape including the Manawatū Gorge and River, Ranges and Plains landscapes including the Manawatū Gorge and River, Ranges and Plains landscapes.

1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.

1.d Landscape and ecological mitigation should also retain and connect patches of indigenous vegetation and stream vegetation to enhance habitat and ecological corridors

5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.

1.e Re-connecting people and place through language, narrative, cultural expression, wayfinding, signage and naming

1.f Connecting the Shared Use Path to the recreational network.

2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.

4.d Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.

4.e Facilitate community engagement across the corridor and in association with developing township gateways.

5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti

Design Element 6: Highway Furniture.

2.g Provide a consistent suite of highway furniture and a visually “uncluttered” roadway.

1.e Re-connecting people and place through language and cultural expression.

4.e Facilitate community engagement across the corridor and in association with developing township gateways

Appendix 1H – Cultural and Environmental Design. Structures.

Design Review.

Discipline: Structures.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 1: The Manawatū River Bridge (BR02).

- **1.c** Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.
- **2.a** Minimising bridge piers in the Manawatū River (one only).
- **5.a** Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.
- **1.a** Reconnecting local communities that were disconnected when the Manawatū Gorge was closed
- **2.f** Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.
- **4.a** Giving effect to Māori Values through the design and construction process wherever possible
- **4.c** Being aware of and respecting sites of significance to tangata whenua such as: — Te Ahu a Turanga — The historic Manawatū Gorge and Awa. — Historic and cultural significance of Parahaki Island. — Natural Areas and systems including waterways and remnant indigenous forests.
- **4.d** Working in a meaningful way with Iwi and other parties to develop a collaborative design that responds to cultural values, aspirations and celebrates stories of place.
- **5.e** Balancing cultural expression of the Manawatū River Bridge, with natural character and amenity of the Manawatū Gorge and River.
- **5.i** Integrate tangata whenua narratives to reinforce the sense of place and identity.

Discipline: Structures.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.

Treading Lightly
- — Design with Nature
- — Integrating Infrastructure and the Landscape

Enduring Community Outcomes
- — Respect the Cultural Landscape
- — Re-connect People and Place
- — Memorable Experience

Design Element 2: Eco-Viaduct.(BR03)

1.c Connecting people to the existing open space resources of the project area including the Lindauer Arts Trail, The Manawatū Gorge Scenic Reserve and the Manawatū River Framework.

2.b Minimise construction footprints where they impact on indigenous forest and streams.

5.a Maintaining and enhancing the amenity values of the wider landscape including supporting access to the wider recreational attributes of the area and visual appreciation of the rural landscape.

2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.

3.a Maintain and enhance natural processes, landform, water courses, vegetative cover and land-uses where practical.

3.c Opportunities for traditional resource use gathering where possible.

4.a Giving effect to Māori Values through the design and construction process wherever possible

5.i Integrate tangata whenua narratives to reinforce the sense of place and identity

Design Element 3: Te Āpiti Windfarm Underpass (BR05).

5.b Providing for a range of user experiences across the project recognising the different landscape characteristics of the eastern, upper and western areas.

1.f Connecting the Shared Use Path to the recreational network.

5.d Providing opportunities to celebrate and connect with the unique landscape, natural character and amenity values of the Manawatū River and Te Āpiti

5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages.

Discipline: Structures.

Key Design Issues.	Alliance Values Considered & Kaimahi Engagement undertaken.	Design Philosophy Response.	How the design response reflects Outcome Principles and C&E Design Principles.	
			Treading Lightly — Design with Nature — Integrating Infrastructure and the Landscape	**Enduring Community Outcomes** — Respect the Cultural Landscape — Re-connect People and Place — Memorable Experience

Design Element 4: Mangamania Stream Bridge (BR07).

5.c Enhancing legibility of natural patterns by enhancing exiting areas of indigenous vegetation	2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience
	5.f Providing for and accommodating access to a network of integrated open space opportunities across the project that provide for local and project wide experiences for motorists and shared use path users including safe stopping places, and other open spaces and linkages .
	5.i Integrate tangata whenua narratives into the design of structures to reinforce the sense of place and identity

Design Element 5: Retaining Walls.

2.b Minimise construction footprints where they impact on indigenous forest and streams	2.f Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience
3.a Architectural features of the Project such as bridges, large cut and fill batters and roundabouts should be designed to enhance the experience of the motorist, and Shared Path User enhancing the wider landscape experience.	

Summary of Cultural and Environmental Design Principles across the Project.

WAKA KOTAHI NZ TRANSPORT AGENCY

Te Ahu a Turanga Manawatū Tararua Highway

		Community - Open Space.		Community - Connections.					Cultural Expression.		Drainage.			Earthworks.						Planting.						Roading.				Structures.					
		Gateway Park	Wetland Experience	Shared Use Path	Western Tracks and Trails	Woodville Footpath Connection	Lindauer Arts Trail Connection	Lookouts	Parahaki Island	Expression & Mahi Toi	Wetland Treatment Systems	Road Drainage	Stream Diversions and Culvert Crossings	Western Cut	Bench Cuts - General	Road Fill Embankments	Eastern Rise Embankment	Disposal Areas	Planting Design	Drainage Planting	Integration with Ecological Mitigation and Offset Planting	Retention of Existing Vegetation	Cultural Harvesting	Procurement and Maintenance	Alignment and Grades	Ashhurst Roundabout	Safe Stopping Places	Woodville Roundabout	The Manawatū River Crossing	Eco-Viaduct	Meridian Underpass (BR05)	Mangamania Stream Crossing	Retaining Walls	Landowner Access
Design Principle 1: Reconnecting People and places.																																		
1.a	Reconnecting local communities.								○																○				○					
1.b	Connecting people to the landscape.	○			○	○	○	○																		○	○	○	○					
1.c	Connecting people to the existing open space.	○	○	○	○	○	○																			○		○	○	○				
1.d	Ecological connectivity & enhancement.		○						○										○	○	○	○						○						
1.e	Re-connecting people and place through language and cultural expression.	○	○	○	○		○	○	○	○																○		○						
1.f	Connecting the Shared Use Path to the recreational network.			○	○																				○	○		○			○			
Design Principle 2: Landscape Integration.																																		
2.a	Minimising bridge piers in the Manawatū River.								○																				○					
2.b	Minimise construction footprints where they impact on indigenous forest and streams.												○	○	○	○	○	○												○			○	
2.c	Avoid change to drainage patterns where they affect indigenous ecosystems.										○	○	○												○									
2.d	Restore planted buffers where practicable.																		○															
2.e	Cohesive integration of landscape & ecological planting.								○										○	○	○	○												
2.f	Architectural features for enhanced experience.									○																○		○	○	○		○	○		
2.g	A visually “uncluttered” roadway.													○	○																			
2.h	Integrate spoil, fill and cuts with surrounding landforms.			○	○									○	○	○	○	○	○						○									
2.i	Shotcrete is a least preferred architectural finish.													○	○	○																		
2.j	Use monoslopes in preference to benched cuts.														○	○																		
Design Principle 3: Design with Nature & Environmental Wellbeing																																		
3.a	Maintain and enhance natural processes where possible.			○	○						○	○	○	○	○	○	○	○	○		○				○					○			○	
3.b	Recognise traditional relationships with the land.	○							○					○	○	○	○	○		○			○							○				
3.c	Opportunities for traditional resource use.		○	○	○														○				○							○				
3.d	Provide for Cultural Indicators of environmental health.										○	○	○							○	○													

		Community - Open Space.		Community - Connections.					Cultural Expression.		Drainage.			Earthworks.					Planting.						Roading.				Structures.					
		Gateway Park	Wetland Experience	Shared Use Path	Western Tracks and Trails	Woodville Footpath Connection	Lindauer Arts Trail Connection	Lookouts	Parahaki Island	Expression & Mahi Toi	Wetland Treatment Systems	Road Drainage	Stream Diversions and Culvert Crossings	Western Cut	Bench Cuts - General	Road Fill Embankments	Eastern Rise Embankment	Disposal Areas	Planting Design	Drainage Planting	Integration with Ecological Mitigation and Offset Planting	Retention of Existing Vegetation	Cultural Harvesting	Procurement and Maintenance	Alignment and Grades	Ashhurst Roundabout	Safe Stopping Places	Woodville Roundabout	The Manawatū River Crossing	Eco-Viaduct	Meridian Underpass (BR05)	Mangamania Stream Crossing	Retaining Walls	Landowner Access
3.e	Engage with iwi on key environmental matters identified by them.								○		○	○	○	○	○	○	○	○	○		○													
3.f	Involve Iwi & local knowledge in planting design.		○								○	○	○								○			○										
3.g	Treat storm-water with an understanding of a whole of catchment approach.	○		○	○						○	○	○							○													
Design Principle 4: Respecting Cultural Landscape.																																		
4.a	Giving effect to Māori Values through design and construction.			○	○				○	○	○	○	○	○	○	○	○	○		○			○	○					○	○				
4.b	Balanced design outcomes across the project.	○																						○										○
4.c	Respecting sites of significance.	○		○	○				○	○	○	○	○	○	○	○	○	○		○		○			○				○					
4.d	Design collaboration that responds to cultural values, aspirations and celebrates stories of place			○	○		○	○		○				○	○		○	○							○		○	○						
4.e	Community engagement in developing township gateways.									○															○		○							
4.f	Respecting other landmarks of interest and rural character.						○	○											○			○												
Design Principle 5: Memorable Experience.																																		
5.a	Maintaining and enhancing the amenity values of the wider landscape	○		○	○									○		○	○	○	○							○		○	○					
5.b	Providing for a range of user experiences.																		○						○					○				
5.c	Enhancing legibility of natural patterns.																				○										○			
5.d	Providing opportunities to celebrate and connect with the Manawatū River and Te Āpiti.	○		○	○																					○	○	○			○			
5.e	Balancing cultural expression of the Manawatū River Bridge, with natural character.																												○					
5.f	Integrated open space opportunities for project users and local communities.	○		○	○																				○	○	○	○			○	○		
5.g	Developing "Gateway" experiences.																																	
5.h	Cuts as Geological features.													○			○																	
5.i	Integrate tangata whenua narratives to reinforce the sense of place and identity.			○	○																								○	○		○		
5.j	Unobtrusive Traffic noise attenuation.																								○									

Appendix 2 – Gateway Park Stakeholders Meeting Minutes.

Contract Name	Te Ahu A Turanga: Manawatū Tararua Highway	Contract No.	NZTA 2018576

MINUTES

Meeting:	Western Gateway Park Stakeholder meeting No. two				
Location:	Palmerston North Project Office	Start Time: Finish Time:	9:30 12:00	Date:	20/1/20
Present:	Attendees Tom Shannon (TS _Neighbouring land owner) Jeff Baker (JB_PNCC) Brian Way (BW_PNCC) Dave Charnley (DC_PNCC) Alliance. Lonnie Dalzell (LD) Tim Watson (TW) Don Mackintosh (DM) Bruce McKenzie (BM) Morgan Emeny (ME) Grant Bailey (GB)				
Apologies:					
Objective:	Discussion on Western Gateway Park spatial arrangement design				

Purpose:
This was the second meeting (previous introductory meeting December 2019) to discuss an integrated design to the Western Gateway Park intent of the meeting was to gain alignment on the following:
1. Ownership and asset management of the park and the elements of the park including co-management.
2. The scope of the features to be delivered within the gateway Park
3. Confirmation of the elements to be delivered by the alliance and any future focus elements to be enabled (That may be delivered by other parties in the future)
4. Ensuring an integrated design process is achieved.

Minutes:

General introduction by BM outlining the process thus far, the various interested parties and the intent of the meeting. All invited to comment on key issues and outcomes sought.

TS

- Wants to see the commercial value of the site protected.
- Wants to see the park delivered well.
- Concerned about security after hours and security of his site.
- Concern around the scale of the car parking that it's appropriate and not too large.
- The road cut through his property and divided into three
- Has engaged in landscape architect Hannah Maisie to prepare a master plan which will be draft by the end of next week completed in March
- The vision for the development includes the Nut Grove area as a setting for an event and wedding venue to accommodate 100 to 200 people.
- Will also include various accommodations adjacent to the Grove and also up in the bush will have his own car parking and a potential microbrewery adjacent to the car park.

BW

- The council see the site as a secondary space to Ashurst domain being the primary open-space as a destination picnic reserve
- Would like the site to be secure and safe it's often used for burnouts by boy races
- Would like to see the capacity for growth current car park at times is full to capacity with walkers
- Maintenance is an important consideration given the site is remote it needs to be easy to manage.
- Access is currently managed by bollards TS also interested in bollards and the site been secured after hours.

JB

- Outlined the council process and noted the political decision-making outside the council offices' opinion.
- Will be discussing at the table to governance meeting on the 26th of fab Lonnie attends some of these would be good if he was able to attend to represent NZTA
- Looking for a concise direction on the look and feel and the positioning of Gateway in the context of the wider open space network and city /regional arrival.
- Interested to understand what's in it for council in terms of the reserve
- Reinforce the Ashurst domain as the primary and a special destination reserve.
- Car park is dusty so the improved investment is welcomed.
- We will need to test council offices' opinions versus politicians around ownership.

TW

- Need to acknowledge where we are in the process and program that we are not starting from zero.
- 3 key things to align:

1. Scope and get alignment between the three parties alliance NZTA and PNCC.
2. The coordinated process to deliver integrated design
3. Who owns and maintains the asset(s).

LD

- Min. requirement is the carpark and maintaining the carpark through construction.
- The value add presented in the tender needs to be achieved, retained and delivered.
- How that is achieved is through an integrated design process.
- What elements make up the value add are part of that process.
- In addition, the Parahaki Island Trust needs to be considered and involved.
- Regarding the ownership discussion that's for NNTA & PNCC to resolve however local assets are not typically managed by NZTA.
- Surplus land will be disposed of.
- The local Rd will most likely go to PNCC for example.
- Cedar economic development once aspect but also social and Iwi partnerships to consider.
- NZTA and PNCC to agree and confirm ownership and management agreements - design process continues without this holding up the process - once the design is resolved the final agreements can be made.

ME

- Efficient use of construction layout for carpark location (or not) as it will impact construction methods for laydown areas.
- Constructors plan to repurpose some portions of laydown for carpark.
- Confirm the spatial arrangement as soon as possible.

General Design Spatial Arrangement Discussion Points:

- The intent is to land a spatial arrangement plan that provides a like for like to the Alliance tender value with future-proofing for future features or functions that may be delivered by others such as PNCC or Iwi etc..The plan needs to respond positively to TS masterplan and vision.
- The agreement for the vision that the gateway park will serve is a key outcome sought between all parties.
- Iwi interests need to be represented in the process.
- (JB/GB) Whaharoa relocation (or not) to be confirmed by Iwi, new arrival point?
- (TM) Prefer shelter than lookout point, shelter more value.
- (DC) Take a botanical approach to the arrival, carpark at the entry and encourage people out of their cars to experience the River and wider landscape recreational opportunities. Prefers options 1 & 3.
- Access to the river is important but maybe not for Kayaks, certainly to gain uninterrupted experience of the Gorge up river and from the Awa up to Maunga.
- (DC) The river terrace and access is supported.
- Consideration over the visibility of the carpark from the arrival from the east over the bridge as a place to stop.
- The existing carpark was used as a stopping/meeting place for exchange from east to west.
- Consideration of the CPTED visibility of the carpark and the potential for TS development to provide passive surveillance. Planting heights also to be considered from the road with regards, screening V CPTED passive observation.
- Arrival viewing up the local road should not terminate on the carpark, option 3 is better in this regard.
- Option 1 nestles the carpark up against the bridge embankment which helps mitigate it presence from the Highway and provides shelter from east, however more visible from the local road arrival.
- Option 3 has a cycle / traffic conflict.
- Options 4/5 & 6 less supported, need clear distinction between arrival and parking.
- Overflow parking could be part of TS development or a shared agreement between TS and PNCC on shared parking.
- TS has a preference for land to remain in his ownership in terms of where the final boundary is established.

Actions:
JB to discuss the vision and management at a high level with the Te Apiti Governance Group on the 26th Feb.

PNCC to provide comment via email prior to next meeting on key design issues and outcome sought.

Next meeting.
Meet again next Wednesday 26th Feb to advance a preferred option with development of option 1 & 3.
Alliance design team to advance preferred spatial arrangement design for the next meeting.

Contract Name	Te Ahu A Turanga: Manawatū Tararua Highway	Contract No.	NZTA 2018576

MINUTES

Meeting:	Western Gateway Park Stakeholder meeting No. Three				
Location:	Palmerston North Project Office	Start Time: Finish Time:	1:30 4:00	Date:	26/2/20
Present:	Attendees Tom Shannon (TS _Neighbouring land owner) Jeff Baker (JB_PNCC) Brian Way (BW_PNCC) Dave Charnley (DC_PNCC) Alliance. Don Mackintosh (DM) Bruce McKenzie (BM) Grant Bailey (GB) Jo Heperi (JH) Justin Tamihana (JM)				
Apologies:					
Objective:	Discussion on Western Gateway Park spatial arrangement design				

Purpose:
This was the third meeting to discuss an integrated design to the Western Gateway Park intent of the meeting was to gain alignment on the following preferred option design development:
1. Gain feedback on the developed design sketch plan options – 1 to 4
2. Confirm the scope of the features to be delivered within the Gateway Park by the Alliance.
3. Review of the options pro's and con's and agree a preferred option.
4. Ensuring an integrated design process is achieved including our Iwi partners.

Minutes:

General (intro):
General update of where we are at in process following our last workshop and for our Kaimahi's benefit (not present at last meeting) and what we are seeking out of the workshop- an agreed preferred plan of the large components of the spatial arrangement.
The Arrival experience including the cultural whare korero (whaharoa), the carpark, SUP and relationships to neighbours - TS property and Pukeriki Island.

Whatonga have developed the whare along the Manawatu river as a collective of the river hapu. They should advise if/where it might be relocated.

General discussion around the site constraints, the bridge construction access track and the wetland and stream diversion (wai/water) and the opportunity to pull the threads together. Wetland may become a swale but remains an opportunity for bringing water into arrival experience. Catchment is likely to be ephemeral.

Discussion around the existing white crosses associated with loss of life along the old highway and what to do.
The spirt (wairua) of the souls and the broader relationship to this place and the impact the gorge road (from original construction) has had on loss of life. How is this acknowledged and respected within the project?

Opportunities discussed under the bridge with regards the living whanaungatanga? landscape, the feeling of the place and environment and it's Mauri. Possible wind and audible experience that responds to wind coming down the gorge funnelling under the bridge.

Spatial Plans:
Discussion around the sketch options tabled (4).

All options.
Security of access, barrier gate at roundabout / CCTV in the carpark.

Possible future Council/ Te Apiti Govt group to develop steps back up from River terraces to Gorge Road link to Gorge walk.

Future proof open space for events.
Overflow parking.
Bike storage areas.
Power and services- not provided by Alliance.

1. Development of Spatial Arrangement 03.

Benefits:
stronger landscape arrival corridor from wetland to the bridge/ river.
Closer relationships to river edge and island.
Better outcome for TS to develop edge of carpark

Concerns:
cycle / vehicle conflict but perception of cycle priority over cars supported.
limited visibility on exit from carpark of cycleway

2. Development of Spatial Arrangement 01.(teardrop form)

Benefits:
Visually reduces the carpark by tucking in under the abutment.
Requires less land for Council.
Provides good alignment of SUP on river side.
No conflict between vehicle's and cycling.

Concerns:
Not as flexible or future proofed for Council.
Not as connected to TS edge.
Arrival not as strong.

3. Development of Spatial Arrangement 01. (formal)

Benefits:
no SUP
Concerns:
Arrive directly into carpark

4. Development of hybrid Spatial Arrangement 03 & 01.

Benefits:

Concerns:

Other comments made:
Shannon underpass grade and connection for stock and maintenance including over SUP.
Narrow the entrance road and ensure speed control, speed humps, median planting, SUP edge swale etc..ensure safe speed environment.

Opportunity for commercial cafe on TS land and the servicing/ parking requirements required. TS keen to hold the river edge.
Discussion of intentions of the tender reuse of site office repurposed as a cafe visitor experience. Agreement this is an opportunity worth pursuing in spatial layout and final boundary agreement.

Preferred Option:
All in agreement of 1. Development of Spatial Arrangement 03. as the preferred option to take forward.

Next steps:
TS to discuss with his landscape architect this week on Friday and provide feedback.
Alliance to develop plan and coordinate civil design.
Meet again in two weeks time.

Actions:
Alliance to issue 1. and 4 (for comparison) to the group.
Further comments via email welcome.

Contract Name	Te Ahu A Turanga: Manawatū Tararua Highway	Contract No.	NZTA 2018576

MINUTES

Meeting:	Western Gateway Park Stakeholder meeting No. Four				
Location:	Palmerston North Project Office	Start Time: Finish Time:	9:30 12:30	Date:	11/03/20
Present:	Attendees Tom Shannon (TS _Neighbouring land owner) Jeff Baker (JB_PNCC) Brian Way (BW_PNCC) Alliance. Tim Watterson (TW) Bruce McKenzie (BM) Grant Bailey (GB) Jo Heperi (JH) Siobhan Lynch-Karaitiana (SL) Willi ? Pukeriki Island Trust. Jean Te Huia (JT)				
Apologies:	Dave Charnley (DC)				
Objective:	Discussion on Western Gateway Park spatial arrangement design				

Purpose:
This was the fourth meeting to discuss an integrated design to the Western Gateway Park intent of the meeting was discuss the detail of the developed design preferred option:
1. Gain feedback from Pukeriki Island Trust with respect to the access to the river and the island.
2. Review the developed design plan for final comments prior to 50% detail design progression.
3. Confirmation of the elements to be delivered by the alliance including their detail design parameters/ criteria and any future focus elements to be enabled (That may be delivered by other parties in the future).
4. Ensuring an integrated design process is achieved with an agreed develop design plan to proceed to detail design.

Minutes:

River Access:

River edge and access discussed. From the Parehaki Island Trust perspective no access should be provided to the river to ensure no 'temptation' to reach the island.
All agreed to pull back from the river and limit access to the island and the river from the top of bank and make access restricted include additional signage on the importance of the island and possibly fencing.

Maintenance access to bridge 02 will be provided by other areas possibly around the island edge or in a temporary way when required - clearing debris from pier, every 6 years or after a major event.

The temporary access track to the river will be reinstated and a restoration plan including possible weed management is the preferred approach for the river bank post construction.

Explore the opportunity for an observation platform with interpretation which could potentially be interactive with apps or soundscapes to reinforce the importance of the island. Replace the river terrace steps with this opportunity. JT would like Iwi to input into this and possible artwork / Po opportunities.

Include Multiple messaging so include that info whole points and in the wetlands experience and again on the bridge viewing platform to reinforce the islands importance multiple messaging so include that info whole points and in the wetlands experience and again on the bridge viewing platform to reinforce the islands importance to encourage public to stay away.

General:

General overview of the circulation and drainage design:
Circulation plan tabled showing maintenance access, vehicles, SUP uses and pedestrians. (primary and secondary pedestrian circulation not drawn but discussed)
The main entry to the carpark has had to alter to meet the turning radius of busses.
The drainage wetland will become a hybrid planted biofiltration swale as capacity requirement have reduced.
There is less SW pipe in general and more swale.
The carpark will drain to the centre and keep clean and treated water separate.

Landscape character:
The landscape setting provides the 'grounding' of the Manawatu River Bridge and the abutment.
Riverscape with gravels and logs. Native planting. Informal.
Interpretative areas to both sides of the bridge.
Agreed to leave the existing Whaharoa 'whare korero' in its current location.
Agreed Totara for the avenue species along the SUP.
No fruiting species close to road.

TS asked ' what is the story' the design narrative of the park?
JT – that's for iwi to decide and respond to, a big part of this is the response to the island.

Maintenance:
Maintenance vehicle allowance ensure that the SUP concrete strength is enough to meet the requirements for future maintenance along the Gorge Road. Check MR and load design requirements for heavy vehicle.
Allowance made for vehicles at end on carpark onto lawn for mowing and event set-up.
Ensure toilets can be maintained.

Safety:
CCTV?
Entry road speed to be discussed and agreed.

Seating:
Use of existing river logs, PNCC have a source currently used for parks.

Signage:
Use PNCC river system but adapt to suit the ranges.

Access:
Investigate motorbike access controls what's good for motorbikes may not be good for wheelchairs.
Bollards to the overflow parking, in and out.
Review future demand on path network up to future café from SUP for cyclists and pedestrians along carpark edge.

Drainage:
SUP drainage to be checked, is it formal or informal, sub-soil will be placed along the inside edge along bottom of highway batter.

Fencing:
Fencing along Tom Shannon's boundary seven or eight wire fence which will be updated at the time of Tom's development.

Toilets:
The toilets include tanks underground, possibly up to 3 and that these may need to be relocated twice, once for the temporary car park and again for the permanent, confirmed the location needs to be closer to the car

park and the requirement to service these tanks and empty them from the car park.

Rubbish Bins:
Use existing. PNCC to confirm.

Pets:
No pets, need signage.

TS update on his plans:
Not ready to share just yet, but happy with the progress of Gateway Park.

Comments from Justin Tamihana- pre meeting.
Wetland area or possible water feature for families for picnics.
This might be better near the main picnic area than the SW wetland adjacent the swale. Both areas will have minimal permanent water in them.

Comments from Dave Charnley post meeting.

Overall, as with myself and Brian he is happy with the spatial arrangement.

Main two things:

- ***Carpark Position** – As per annotation, concern that its still largely in the terminal view – can it be concealed further as shown by rotating it? I recall you mentioned it was a geometric issue for coaches turning – could that not be achieved by tweaking the radius into the carpark, theres heaps of space?*
- ***Speed** – still seems a quick approach/departure at the end of the road as it straight and wide – just wanting to go on record that we will expect to see techniques (narrowing being an obvious one) to mitigate that at detailed design, especially that interface bit with the ped/cycle crossover*

Preferred Option:
All in agreement of removal of river access from the plan.

The remainder of the plan has the following items to be adjusted going forward in the design detail of the preferred option to take forward.

- Relocate toilet closer to the carpark, allow for future area adjacent to provide more toilet capacity.
- Replace the river access steps with an Pukeriki Island interpretive area at the top of the bank facing towards the Island.
- Amend the carpark to bridge circulation adjacent the picnic/event lawn following removal of the river access

Next steps:
Alliance to develop plan and coordinate civil design and move into 50% detail design development.
Review DC comments above and email options on carpark entry and road treatments.

Actions:
Alliance to issue Developed Plan tabled in the meeting with minutes to the group.