



AMETI Stage 2A Urban Design and Landscape Plan

Prepared for Auckland Transport
Prepared by Beca Limited
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Glossary of terms

AMETI	Auckland Manukau Eastern Transport Initiative
AT	Auckland Transport
AC	Auckland Council
CPTED	Crime Prevention through Environmental Design
EB1	Eastern Busway 1
IFC	Issue for Construction
Kaitiaki	Nominated Mana Whenua Representatives (PCG - Project control group)
NoR	Notice of Requirement
ONF	Outstanding Natural Feature
Project Steering Group	Kaitiaki Forum
Project Control Group	Internal design team - Beca Design Team / AT / Native by Nature / Mana Whenua Representatives
Requiring Authority	Auckland Transport
The Project	Auckland Manukau Eastern Transport Initiative Stage 2A (AMETI 2A) Eastern Busway 1 (EB1)
TPMP	Tree Protection and Management Plan
ULDF	Urban and Landscape Design Framework
UDLP	Urban Design and Landscape Plan
Te Aranga Principles:	
Mana	rangatiratanga authority
Whakapapa	names and meaning
Taiao	the natural environment
Mauri tu	environmental health
Mahi toi	creative expression
Tohu	the wider cultural landscape
Ahi ka	the living presence

1_Introduction

1.1 Purpose

The following Urban Design and Landscape Plan (UDLP) has been prepared on behalf of Auckland Transport (AT) to satisfy conditions 49-54 of the AMETI Stage 2A ('the Project') Designation and Council decisions on the resource consent applications for the AMETI Stage 2A project.

The primary objective of the UDLP is to implement the Project's Urban and Landscape Design Framework (ULDF) and to mitigate the landscape and visual effects identified in the landscape and visual assessment prepared by Beca Ltd dated 9 December 2016 and as modified in section 9 of the evidence of Christopher Bentley dated 28 November 2017.

The project will alter how people use and interpret the area. Due to the location and prominence of the works several stakeholders have been consulted on, and have provided input into, the design and consenting process. Communications with local communities, local boards, Mana Whenua and Auckland Council Parks have taken place to achieve the best project outcome.

This UDLP has been developed in accordance with the Project's ULDF and has taken into account the views of the above stakeholders and demonstrates how the corridor-wide and sector-specific design principles identified in the project's ULDF are achieved in the AMETI Stage 2A design, and address the following;

- Wayfinding, directional signage and sense of place features throughout the project route;
- Landscape design details for the residual land at Mokoia Pa headland;
- Landscape design details for the residual land at the southern Panmure Bridge abutment;
- Location of property accessways required to service affected properties;
- Measures to achieve a safe level of transition for walking and cycling modes;
- The location and design (including height) of noise walls;
- Design features and methods for cultural expression;
- The location and design of any structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve, the new reserves and reinstated reserve areas;
- The location of landscaping, including any vegetation to be retained, areas of landscape mitigation and ecological enhancement planting;
- Measures to be implemented to enable natural rock exposures of volcanic tuff along the soil nail wall to remain permanently visible, subject to stability and safety requirements, and mitigating any significant adverse visual and landscape effects;
- Streetscape details for Williams Avenue and the Lathan-Dillimore connection;
- Measures to be undertaken for topsoil and subsoil management to rehabilitate the soil profile;
- A landscape planting methodology and plant selection process;
- A maintenance plan and establishment requirements;
- Measures to minimise clearing work to preserve soil and any indigenous vegetation;
- Measures to ensure the appropriate disposal of invasive/noxious weeds;
- Design of tree planter pits in all new planting areas; and
- Sourcing of local 'new' tree stock.

The relevant conditions of the designation and the section of this report where the matters are addressed are detailed in Section 3.

1.2 Project Description

AMETI is a package of improvements focused on promoting an integrated, multi-modal transport system to support population and economic growth in south-east Auckland.

The AMETI Stage 2A Project consists of the following sub-project elements:

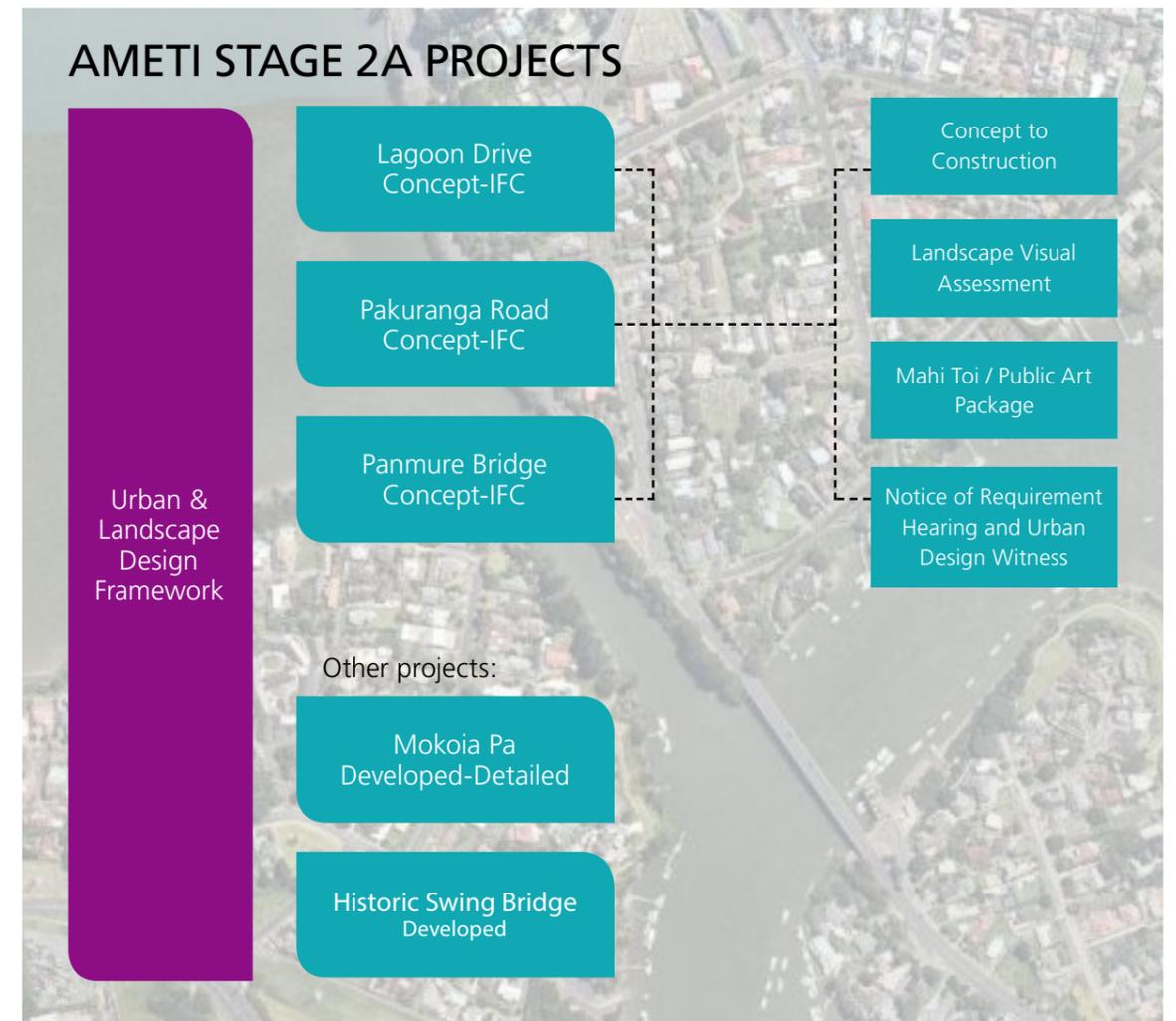


Figure 1: Project Description

1.3 UDLP Review and Updates

An addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties noted below regarding the following work packages:

Mokoia Pa & Eastern Landing

The detailed design for the residual land at Mokoia Pa and at the southern Panmure Bridge abutment (referred to as the Eastern Landing) are still progressing. An addendum to the UDLP will be issued once the detailed design has been confirmed and agreed with mana whenua and Auckland Council

Soil Nail

The visual/planting/cultural treatment of the soil nail wall is to be developed once the main cut face has been completed. The final design will be developed in consultation with the Council's Team Manager Biodiversity (in relation to ONF requirements), the Council's Parks Planning Team Leader, the Ngāti Paoa Iwi Trust, and an NZILA registered landscape architect.

Maintenance Programme

A maintenance programme will be prepared by the contractor with the Requiring Authority and in consultation Auckland Council (AC). The maintenance plan will be reviewed by a qualified Landscape Architect and or Auckland Council Parks Team.

Wayfinding and Directional Signage Design

The AT wayfinding and directional signage manual has been produced and recently published since the AMETI Stage 2A tender documentation was issued. The application of this manual to the corridor is now required to ensure an integrated package of works is delivered.

Tree Protection and Management Plan (TPMP)

A TPMP has been prepared by the contractor and submitted to Council for certification.

1.4 Project Objective

The AMETI 2A project is referred to as a regionally significant activity that will improve the efficiency of public transport in eastern Auckland and will improve connectivity to the regions south-eastern growth areas. The seven specific objectives for the AMETI Stage 2A designation are:

- To contribute to place shaping in the Panmure and Pakuranga town centres by providing better connections and accessibility between and in those centres for all transport users, including public transport users, pedestrians and cyclists;
- To provide transport infrastructure that integrates with land uses and supports a quality compact urban form in Panmure and Pakuranga;
- To provide transport infrastructure that improves linkages, relieves network constraints and improves the journey time, frequency and reliability of the transport network overall;
- To improve the efficiency and resilience of the transport network between Panmure and Pakuranga by providing a dedicated route for public transport to and from the eastern suburbs;
- To maximise the benefits of investment in transport infrastructure by extending network connections and delivering network improvements;
- To provide a multi-modal transport corridor that connects Panmure and Pakuranga to increase access to a choice of transport options; and
- To create a corridor that is safe for all road uses, including public transport passengers, cyclists and pedestrians.

The primary objective of this UDLP is to implement the Urban and Landscape Design Framework (ULDF) and to mitigate the landscape and visual effects identified in the landscape and visual assessment (LVA) prepared by Beca Ltd. dated 9 December 2016 subject to the modifications made in the evidence of Christopher Bentley on behalf of Auckland Transport dated December 2017.

The UDLP must be in accordance with the ULDF (including the concept plans, corridor-wide and sector specific design principles), and in general accordance with the approved landscape plans, and consistent with both the Historic Heritage Management Plan and the certified Conservation Plans required by these conditions.

1.5 Urban & Landscape Design Framework (ULDF)

The ULDF was developed for two main purposes

1. To be used as a supplementary document to the Assessment of Environmental Effects (AEE) to support the Notice of Requirement (NoR) for the AMETI Stage 2A Project.
 - It describes the design outcomes in relation to the AMETI Stage 2a project objectives with an urban design focus, and shows how those outcomes support them
 - It exemplifies the design interface process by which the project objectives, urban design principles, and design responses have been developed iteratively and collaborative
2. The ULDF is also a guidance document to provide designers and constructors with design guidelines and performance criteria, supporting the development of holistic project outcomes.
 - It includes the landscape concept plans, representative cross-sections, 3D sketches and drawings, to illustrate the proposed urban and landscape design
 - Following the introductory and corridor-wide chapters, each project sector has its own chapter. This is for ease of use in future stages

The design team used this ULDF to drive the design through the various design phases of the project. To demonstrate accountability, we have identified the relevance to the conditions where applicable.



Figure 2: Project corridor showing ULDF sectors

1.6 Design Direction

The Urban and Landscape Design direction for the entire corridor was reinforced by a high level vision of AMETI as 'one place' (ULDF). The overarching design vision was reinforced by providing a set of design principles to be applied across the Project, to achieve consistency in the urban and landscape design responses.

The AMETI Stage 2A projects design direction was underpinned by the following policies and principles;

- AMETI Project Objectives
- The Auckland Plan
- Pakuranga Town Centre Masterplan
- Panmure Basin Masterplan
- Te Aranga Design Principles

The design principles included both Corridor wide and Sector specific design principles that provide more detail and a greater level of certainty about desired design outcomes. Integral to all the principles was the ongoing engagement with Mana Whenua to further the urban and landscape design, in accordance with Te Aranga design principles.

Corridor-wide urban design principles were developed under four key headings that responded to the relevant project objectives: character, connectivity; sustainable land uses; and amenity. They provided a starting point for the sector urban designers, who were encouraged (by way of example) to both test and refine them by developing more detailed urban design principles specific to their own projects. The intention was to work collaboratively and iteratively with those external design teams to achieve 'bottom up' as well as 'top down' design principles that are relevant and targeted.

Lagoon Drive (& Panmure Roundabout)

The urban and landscape design approach to Lagoon Drive was to improve public amenity (including aesthetics and safety) and contribute to an overall positive road user experience (including pedestrians and cyclists). The key design aspects that support these outcomes are:

- Acknowledging key view shafts by providing visual connections and cues to key landscape features such as Mt Wellington / Maungarei, Panmure Basin Lagoon and Tamaki River.
- Avoidance of impacts on the existing coastal edge, where possible through the retention of existing trees and limited landform modification.
- An overall high quality aesthetic through the introduction of additional median, street tree and car park planting as well as design and treatment of 'hard features' like retaining walls and fences.
- An overall high quality experience for pedestrians and cyclists through the design and treatment of public open spaces located at the corner of Lagoon Drive/ Queens Road and Jellicoe Road/ Mountain Road.
- Introduction of screen planting along key residential property boundaries to reduce negative visual and general amenity impacts.
- A reduction in the visual effect of potential noise barriers through design, location, material selection and planting.

- Improving public safety through integrated CPTED principles.
- Addressing the need for universal access along the corridor

Panmure Bridge Design

The urban and landscape design approach to Panmure Bridge was to go beyond basic functional and structural requirements and address amenity, contextual and architectural considerations. How the bridge meets the ground on each side of the river is as important as its presentation as an element in the landscape. A vision statement was developed for the bridge, as the major new structure in the landscape: "a simple, elegant structure that fits unassertively within the landforms and waterway, and that suits the low level suburban context of the area".

The bridge has been designed to:

- Respect the best features of the existing Panmure Bridge but is a modern structure that is designed to outlast the 1959 road bridge which is due for replacement in 20 years' time.
- Respond to the context in terms of scale, form and materiality and minimise the visual impact and conflict with the Tamaki River environment
- Consider the landscape, cultural and heritage values at both abutments where the bridge connects to the land. The design approach is to minimise the impacts and reflect the cultural value of Mauinaina/ Mokoia Pa and the heritage turning bridge base on the Pakuranga side of the River.
- Enhance the pedestrian and cyclist experience of crossing the Tamaki River and create journey experience specific to the Pakuranga to Panmure crossing, using the opportunity to take advantage of views and vistas and areas of cultural and historical heritage
- Provide for enhanced navigation clearances on the Tamaki River.

Key aspects of the urban and landscape design in support of the vision are:

- The horizontal and vertical alignment of the bridge, north of the existing bridge and elevated above it, to minimise impacts on the coastal edge and on the Mauinaina/Mokoia Pa site. This enables:
- The creation of an open space on the Mokoia Pa headland that can be designed to express and interpret the history of the site, through landscape, a visual marker, and views across the Tamaki River
- Planting of indigenous coastal species at the north-west abutments, mirroring planting on the western side of the existing Panmure bridge to reinforce the landscape character
- Optimising pedestrian and cycle amenity on the bridge by means of an oversized shared path, viewing platforms, and clear and inviting connections to existing and proposed open spaces and the regional path network.

Pakuranga Road

The urban and landscape design approach to Pakuranga Road was to improve public amenity (including aesthetics and safety) and contribute to an overall positive road user experience (including pedestrians and cyclists).

The Pakuranga Road has taken into account the landscape, cultural and heritage values at the south abutment, where the bridge connects to the land and water while providing access to Rotary Walkway, an important coastal path connection. The design approach enabled ongoing engagement with iwi to both reflect the cultural value of the river landscape, and to seek opportunities to create spaces that can re-connect people with the river in a meaningful and ongoing way.

The key design aspects that support these outcomes are:

- Providing a separated cycle and pedestrian path along the length of the sector, connecting into the local road network
- Providing walking and cycling crossing opportunities reasonably spaced along Pakuranga Road
- Using landscape planting to visually narrow and soften the corridor, as a buffer for 'harder' elements, and to provide canopy and shade
- Creating 'breathing space' for pedestrians and cyclists in the form of pocket parks
- Reconnecting or reconfiguring local roads severed by the busway
- Creating clear and accessible connections into regional recreational walking networks.



Figure 3: View to Panmure Bridge

1.7 Landscape and Visual Assessment (LVA)

Auckland Transport engaged Christopher Bentley to provide evidence on the potential landscape and visual amenity effects of the AMETI Stage 2a project for the AMETI Stage 2a hearing.

The project has been split into 3 sectors which the original Beca LVA defined. From his findings it was concluded that Sector 1 (Lagoon Drive and Panmure Town Centre) will have positive landscape and visual effects, Sector 2 (Lagoon Drive and Panmure Basin) will result in moderate – low (no more than minor) adverse landscape, natural character and visual effects, and Sector 3 (Pakuranga Road) will generate positive landscape and visual effects.

It was identified through this LVA report the concern for the natural rock exposures of volcanic tuff as it has been scheduled as an Outstanding Natural Feature (ONF). This has been addressed in Condition 51(j) of this UDLP

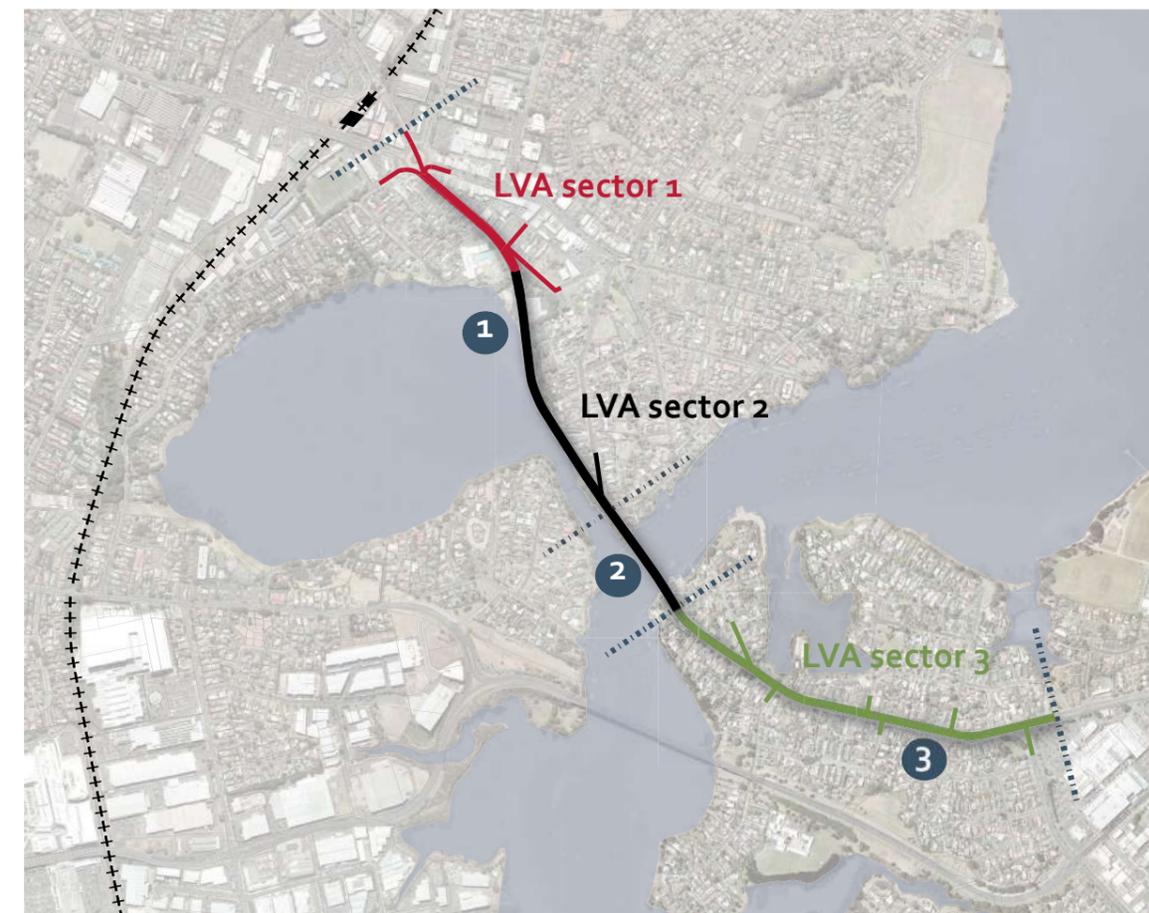


Figure 4: Project corridor showing LVA sectors

2_Urban Design and Landscape Principles

2.1 Te Aranga Design Principles

The Te Aranga principles (or Maori design principles) replaced Auckland Council's urban design principles in October 2013. The principles were developed by Auckland Council in collaboration with Mana Whenua and constitute a Te Aranga Framework (Table 1). The Te Aranga Framework ensures Mana Whenua an opportunity to articulate their history and association of and to cultural landscapes, giving visibility and strength to their history.

Given the significant Mana Whenua cultural values that exist through the Panmure Pakuranga area, it is appropriate that preliminary and detailed design give regard to the Te Aranga design principles, to further enhance the social, cultural, economic and environmental wellbeing of both Maori and non-Maori. The principles informed the ULDF's corridor wide principles and were drawn upon by the sector urban designers as part of the suite of principles guiding the updated detailed design for the entire AMETI Stage 2A project.

Of particular importance going forward is the need to work with iwi around design that touches the culturally sensitive Mōkoia Pa site.

Mana whenua, that expressed that the project footprint is within their rohe (area of interest) and continue to engage with Auckland Transport on this project include:

- Ngāi Tai ki Tāmaki Tribal Trust
- Ngāti Maru Runanga
- Ngāti Pāoa Trust Board
- Ngāti Tamaoho Trust
- Ngāti Te Ata Waiohua
- Ngāti Whanaunga Inc Soc
- Ngāti Whātua Ōrākei
- Te Ākitai Waiohua

The Te Aranga Framework therefore ensures Mana whenua an opportunity to articulate their history and association of and to cultural landscapes, giving visibility and strength to their history. The reaffirmation and at times 'making correct' earlier stories shared over time and use of appropriate pepeha and whakatauki, for example:



Figure 5: Example of Mahi Toi, a Te Aranga principle being use in the project corridor

NGA HUA / outcome	AHUATANGA / attributes	HE TAUIRA / application
MANA – Rangatiratanga authority		
The status of iwi and hapū as mana whenua is recognised and respected	Recognise Te Tiriti o Waitangi / The Treaty of Waitangi and the Wai Ko Aotearoa Tēnei framework for Treaty Partnerships in 21st Century Aotearoa New Zealand as the basis for all relationships pertaining development	<ul style="list-style-type: none"> • The development of high level Treaty based relationships with mana whenua is essential prior to finalising design approaches and will maximise the opportunities for design outcomes • Important to identify any primary mana whenua groups as well as wider mana whenua interests in any given development
	Provide a platform for working relationships where manawhenua values, world views, tikanga, cultural narratives and visual identity can be appropriately expressed in the design environment	
	High quality Treaty-based relationships are fundamental to the application of the other Te Aranga principles	
WHAKAPAPA – Names and naming		
Maori names are celebrated	Recognise and celebrate the significance of mana whenua ancestral names	<ul style="list-style-type: none"> • Mana whenua consultation and research on the use of correct ancestral names, including macrons • Recognition of traditional place names through signage and wayfinding • Use of appropriate names to inform design processes
	Recognise ancestral names as entry points for exploring and honouring tūpuna, historical narratives and customary practices associated with development sites and their ability to enhance sense of place connections	
TAIAO – The natural environment		
The natural environment is protected, restored and/or enhanced	Sustain and enhance the natural environment	<ul style="list-style-type: none"> • Re-establishment of local biodiversity • Creating and connecting ecological corridors • Planting of appropriate indigenous flora in public places, strategies to encourage native planting in private spaces • Selection of plant and tree species as seasonal markers and attractors of native bird life • Establishment and management of traditional food and cultural resource areas allowing for active kaiiakitanga
	Local flora and fauna which are familiar and significant to mana whenua are key natural landscape elements within urban and / or modified areas	
	Natural environments are protected, restored or enhanced to levels where sustainable mana whenua harvesting is possible	
MAURI TU – Environmental health		
Environmental health is protected, maintained and/or enhanced	The wider development area and all elements and developments within the site are considered on the basis of protecting, maintaining or enhancing mauri	<ul style="list-style-type: none"> • Daylighting, restoration and planting of waterways • Contaminated areas of soil are remediated • Rainwater collection systems, grey-water recycling systems and passive solar design opportunities are explored in the design process • Hard landscape and building materials which are locally sourced and of high cultural value to mana whenua are explored in the design process
	The quality of wai, whenua, ngāhere and air are actively monitored	
	Water, energy and material resources are conserved	
	Community wellbeing is enhanced	
MAHI TOI – Creative expression		
Iwi / hapū narratives are captured and expressed creatively and appropriately	Ancestral names, local tohu and iwi narratives are creatively reinscribed into the design environment including: landscape; architecture; interior design and public art	<ul style="list-style-type: none"> • Mana whenua assist in establishing design consortia which are equipped to translate iwi/hapū cultural narratives into the design environment • Civic / shared landscapes are created to reflect local iwi/hapu identity and contribute to sense of place • Iwi/hapū narratives are reinscribed in the environment through public art and design
	Iwi / hapu mandated design professionals and artists are appropriately engaged in such processes	
TOHU – The wider cultural landscape		
Mana whenua significant sites and cultural landmarks are acknowledged	Acknowledge a Māori world view of the wider significance of tohu / landmarks and their ability to inform the design of specific development sites	<ul style="list-style-type: none"> • Recognition of tohu, including wāhi tapu, maunga, awa, puna, mahinga kai and ancestral kainga • Allows visual connection to significant sites to be created, preserved and enhanced • Wider cultural landmarks and associated narratives able to inform building / spatial orientation and general design responses • Heritage trails, markers and interpretation boards
	Support a process whereby significant sites can be identified, managed, protected and enhanced	
	Celebrate local and wider unique cultural heritage and community characteristics that reinforce sense of place and identity	
AHI KĀ – The living presence		
Iwi / hapū have a living and enduring presence and are secure and valued within their rohe	Mana whenua live, work and play within their own rohe	<ul style="list-style-type: none"> • Access to natural resources (weaving species, mahinga kai, waterways, etc) facilitates, maintains and /or enhances mana whenua ahi kā and kaiiakitanga • Civic/iwi joint venture developments ensure ahi kā and sense of place relationships are enhanced • Iwi/private sector joint venture developments enhance employment and ahi kā relationships
	Acknowledge the post Treaty of Waitangi settlement environment where iwi living presences can include customary, cultural and commercial dimensions	
	Living iwi/hapu presences and associated kaiiaki roles are resumed within urban areas	

Table 1: Te Aranga Design Principles

2_Urban Design and Landscape Principles

2.2 Corridor-wide Urban Design Principles

The corridor-wide urban design principles were developed under four key headings that responded to the relevant project objectives: character, connectivity; sustainable land uses; and amenity.

The principles provided a starting point for the sector urban designer, who were encouraged (by way of example) to both test and refine them by developing more detailed urban design principles specific to their own projects. The intention was to work collaboratively and iteratively with those external design teams to achieve 'bottom up' as well as 'top down' design principles that are relevant and targeted. This was achieved through receiving comments and amending the principles as appropriate. As part of that process, both high level and more detailed design principles were developed for the Panmure Bridge, making 'bridge design' the fifth key heading.

Urban design principles were developed in Phase 1 of the project for the Lagoon Drive sector. These were reviewed and assessed against the current policy context, including the AMETI Stage 2a project objectives, AT urban design principles and the Te Aranga design principles that post-date the earlier urban design work. The corridor-wide principles have been developed to be consistent with, and to support those key documents.

Character

- CH1 Design public spaces, new buildings and structures to acknowledge and celebrate the historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga
- CH2 Create a 'whole of journey' experience that combines consistent design of common elements along the corridor with variety in the treatment of special spaces along the route
- CH3 Create, maintain and enhance views and vistas to landmarks and significant sites, including from public spaces, at bus stops, and at waiting areas and exits to bus station(s)
- CH4 Enable any public art to be 'designed in' either as standalone work within public spaces, or integrated with the form and finish of structures that spatially define them
- CH5 'Green' the transport corridor and local streets created through the project/s to reinforce the well-established planted character, soften the interface with adjoining uses, reduce the apparent width of the corridor, and define and focus views towards landmarks and key nodes
- CH6 Design the landscape and select plant species to contribute to biodiversity, help restore the natural environment, and enhance environmental health
- CH7 Encourage ongoing use of the public transport corridor and provide an attractive setting for the environs and future development by creating a positive relationship between built form, open space, the transport corridor and the local networks that connect to it.

Connectivity

- CO1 Maintain and enhance legible, accessible and safe connections between residential neighbourhoods, town centres, recreational areas and transit stops for pedestrians, cyclists and local road users.
- CO2 Locate and design the approaches and entries to bus station(s) to be visible and easily accessed from existing and proposed pedestrian routes; and bus stops at or close to through connections and / or activity nodes
- CO3 Design for wayfinding by drawing on visual cues in the natural and built environment particularly at decision points for drivers and active modes
- CO4 Minimise the potential for conflicts between pedestrians and cyclists on shared paths and crossings of footpaths and separated cycle paths, and between cyclists and vehicles at intersections
- CO5 Design the road to be the minimum width and have the minimum number of lanes practicable, particularly at intersections, to reduce the visual and physical severance impacts of the corridor
- CO6 Make pedestrian and cycle routes, particularly through large complex intersections, as simple and direct as possible to reflect desire lines
- CO7 Integrate the location of new structures with the existing and proposed road and pedestrian / cycle network to support connectivity and enable wayfinding.

Bridge design

- BR1 Design the form of the bridge in relation to the surrounding and wider context, including the cultural environment
- BR2 Locate and detail services so they are integrated into the design of the bridge and are consistent with surrounding services details
- BR3 Achieve a slender bridge form and balance of structural elements
- BR4 Design the bridge to capture opportunities to create new views to and from structures
- BR5 Consider the experience of travelling across the bridge.

Sustainable land uses

- SU1 Enable the ongoing functionality and future viability of Pakuranga, Panmure and Botany town centres through the design of a supporting road layout
- SU2 Design bus stations and large structures associated with the public transport corridor to provide and / or enable active frontages to public spaces and a variety of uses in those spaces
- SU3 Support Auckland Council's vision for sustainable growth through corridor design that optimises the potential for future development of residual land that is well connected to existing neighbourhoods through pedestrian, cycle, laneway and local road networks
- SU4 Reconfigure local street connections compromised or severed by the corridor to EITHER maintain current egress / access OR create a new secondary local network
- SU5 Minimise ongoing maintenance requirements for structures, landscaping and street furniture through selecting robust materials, finishes and plant species
- SU6 Provide for secure bicycle parking or storage at bus interchanges to encourage use of the public transport corridor
- SU7 Sleeve any new car parking buildings with active uses at ground level to activate the public domain, and design them as 'long life loose fit' buildings that can support future change in use
- SU8 Enable land and on-water activities associated with the Tamaki River

Amenity

- AM1 Contribute to a well patronised public transport corridor through providing a high quality, high amenity pedestrian and cycle network that feels safe, comfortable and inviting to use
- AM2 Optimise the width of pedestrian and cycle paths for safe passing
- AM3 Create a positive relationship between built form, open space and the transport corridor through providing a clear, direct, overlooked, well connected edge that serves the needs of multiple users and adjacent land uses
- AM4 Provide information and directional signage at decision points, public spaces, bus stops and stations including real-time bus arrival information [and walking distances and approximate timings to key destinations]
- AM5 Prioritise pedestrian and cycle movements at intersections with local and arterial roads and at road crossings adjacent to bus stops
- AM6 Provide weather shelter at bus stops, entries to bus stations, and any information points along the corridor
- AM7 Use street tree planting for shade as well as to soften the edges of the transport corridor, creating a pleasant walking and waiting environment
- AM8 Design the edges and undersides of structures visible at close range to be visually interesting, contribute to a safe walking environment and assist (rather than obscure) wayfinding

2_Urban Design and Landscape Principles

2.3 Sector Specific Principles

In accordance with designation condition 51, the issues and opportunities for each sector are linked to place-specific urban design principles. The sector specific principles are more specific outcome related design responses applied to the design issues of each sector, and are linked to the Te Aranga Design Principles.

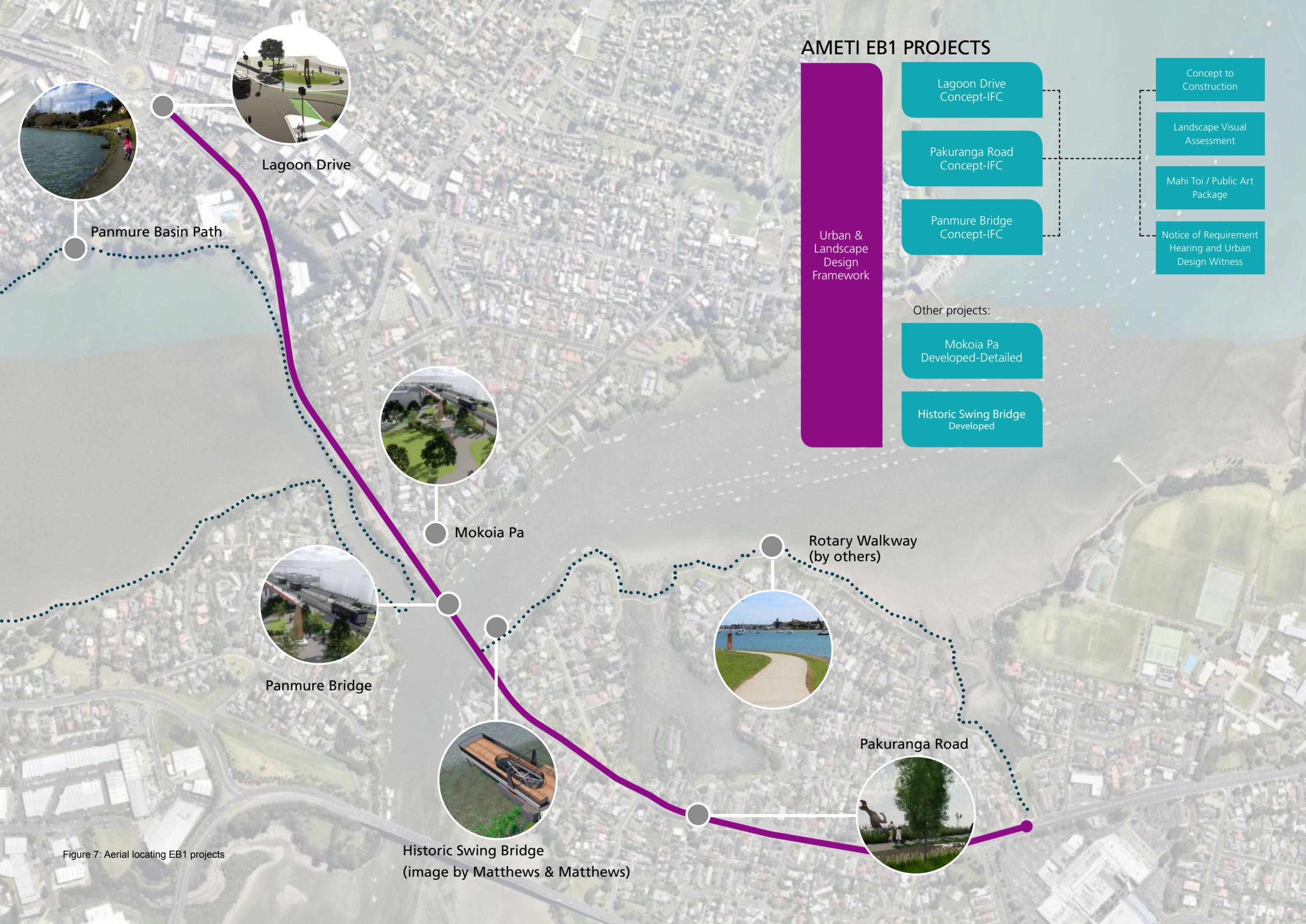
Using the sector tables within the ULDF, the detailed design was continuously tested against the sector-specific principles to ensure the evolving design responded to the identified issues, opportunities and project effects, and contributes to desired outcomes for each sector and, collectively, to the overall corridor. The design teams reviewed the detailed design against the performance criteria and design principles at detailed design gateways of 30%, 60% and 90% completion.

For each of the Lagoon Drive, Panmure Bridge, and Pakuranga Road urban design sectors, the designers identified both global (corridor wide) and local (sector specific) elements including bridges, public art, retaining walls, fences, interchanges, earthworks, shared paths, noise barriers, landscape planting and road furniture.

Tables in section 4,5 and 6 of this report demonstrates how the NOR conditions align with the corridor wide and sector specific design principles and importantly how they have been incorporated into the detailed design and provide sufficient detail to address all matters in the designation condition 51.



Figure 6: Aerial view of project corridor



AMETI EB1 PROJECTS

Urban & Landscape Design Framework

Lagoon Drive Concept-IFC

Pakuranga Road Concept-IFC

Panmure Bridge Concept-IFC

Other projects:
Mokoia Pa Developed-Detailed

Historic Swing Bridge Developed

Concept to Construction

Landscape Visual Assessment

Mahi Toi / Public Art Package

Notice of Requirement Hearing and Urban Design Witness

Lagoon Drive

Panmure Basin Path

Mokoia Pa

Panmure Bridge

Historic Swing Bridge
(image by Matthews & Matthews)

Rotary Walkway
(by others)

Pakuranga Road

Figure 7: Aerial locating EB1 projects

3_Relevant Designation Conditions

Condition number	Condition	ULDF Corridor Wide and Sector Specific Design Principles	Sector relevance
12	The role of the kaitiaki forum may include (but is not limited to) the following: b. Input into preparation of the following plans required by these conditions: iii. Urban Design and Landscape Plan	All	1, 2, 3
	f. Providing input into the urban design and landscape design associated with the project, including but not limited to: i. appropriate use of Te Aranga principles; ii. treatment of residual open spaces; iii. the selection and supply of plant species and planting designs; iv. the potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tamaki River and the Panmure Basin; v. opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project including at the new Panmure intersection, on retaining walls, the soil nail walls, fencing, cycleways and walkways, the new Tamaki Bridge (including its abutments, piers and railings), street furniture, signage, landscaping and at the Mokoia Pā site. Cultural recognition elements may include Maori carvings and/or art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of Mana Whenua with the land directly affected by the project; and vi. visual cues and pedestrian connections between the Church Crescent/Lagoon Drive intersection and Mokoia Pā (subject to safety and transport considerations) and between the Mokoia Pā and the Jubilee Bridge	All	1, 2, 3
45	As a minimum the following must be included in the HHMP: c. Methods for documentation and potential reuse of items of movable historic heritage, as part of the final UDLP;		1, 2
49	The Requiring Authority is to submit an Urban Design and Landscape Plan prepared by an appropriately qualified urban designer and landscape architect to the Team Leader, Southern Monitoring, in consultation with the Council's Parks Planning Team Leader (where appropriate), for certification for any stage of the project. The primary objective of the UDLP(s) is to implement the Urban and Landscape Design Framework and to mitigate the landscape and visual effects identified in the landscape and visual assessment prepared by Beca Ltd dated 9 December 2016 and as modified in section 9 of the evidence of Christopher Bentley dated 28 November 2017.	All	1, 2, 3
50	The UDLP(s) must be in accordance with the project's Urban and Landscape Design Framework (including the concept plans, corridor-wide and sector specific design principles), and in general accordance with the approved landscape plans, and consistent with both the Historic Heritage Management Plan and the certified Conservation Plans required by these conditions.	All	1, 2, 3
51	The UDLP is to demonstrate how the corridor-wide and sector-specific design principles are achieved in the AMETI Stage 2A design, and must address the following;		
51	a. Wayfinding, directional signage and sense of place features throughout the project route, including links between the Mokoia Pā, Te Kai a Hiku / Panmure Basin, the Jubilee Bridge and the Rotary Walkway;	Connectivity (C03), Amenity (AM4), Bridge Design (BR5), Character (C02)	1, 2, 3

Condition number	Condition	ULDF Corridor Wide and Sector Design Principles	Sector relevance
51	b. Landscape design details for the residual land at the Mokoia Pā headland in consultation with Ngāti Paoa, consistent with the relevant and certified Conservation Plan for the Mokoia Pā site;	Character (CH1)	2
51	c. Landscape design details for the residual land at the southern Panmure Bridge abutment in consultation with the kaitiaki forum and the Council's lead heritage specialist, with a particular focus on the remnant swivel structure of the old Panmure Bridge, consistent with the certified Conservation Plan for that structure	Character (CH1)	2
51	d. The location of property accessways required to service affected properties and where those properties are located in the project footprint;	Connectivity (C01)	3
51	e. Measures to achieve a safe level of transition for cycling and walking modes, including providing advanced warning and signage to cyclists and pedestrians, and safe and convenient cycling transitions at the ends of the project;	Connectivity (C01) (C03) (C04), Amenity (AM3)	1, 2, 3
51	f. The location and design (including height) of noise walls must be designed to enable land to be integrated into the urban area, including minimising intrusion on adjoining residents and reserves, maintaining and contributing to the amenity of residents and road users, and visually integrating with the surrounding residential character. The noise walls are to be designed in accordance with the Urban and Landscape Design Framework;	Character (CH1)	1, 3
51	g. Design features and methods for cultural expression and in order to reflect outcomes agreed through mana whenua engagement;	Character (CH1)	1, 2, 3
51	h. The location and design of any structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve, the new reserves and reinstated reserve areas (and to consider the inclusion of a pedestrian access between Lagoon Drive and Sunset View Road across the Sunset Road Reserve);	Character (CH1), Amenity (AM3) (AM8)	1, 2, 3
51	i. The location of landscaping, including any vegetation to be retained, areas of landscape mitigation and ecological enhancement planting in such a way that enables land to be reintegrated into the surrounding urban context. This is to include a schedule of species to be planted including the botanical names, locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity (which are to be used unless there is a specific need for exotic species as determined by the landscape architect in her/his sole discretion), grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings;	Character (CH5) (CH6), Amenity (AM7)	1, 2, 3
51	j. In respect of the Outstanding Natural Feature ("ONF") on the north-eastern side of Lagoon Drive (including the Sunset Reserve) the measures to be implemented to enable natural rock exposures of volcanic tuff along the soil nail wall to remain permanently visible, subject to stability and safety requirements, and mitigating any significant adverse visual and landscape effects. Once the main cut for each soil nail wall is complete, the final design of the soil nail wall visual/planting/cultural treatment is to be developed in consultation with the Council's Team Manager Biodiversity (in relation to ONF requirements), the Council's Parks Planning Team Leader (in relation to planting mitigation and maintenance associated with the Sunset Reserve), the Ngāti Paoa Iwi Trust, and an NZILA registered landscape architect. For those areas where the natural rock is not proposed to be left exposed, methods are to be implemented to incorporate continuous vegetative screening of the soil nail wall structures with appropriate native plants and/or appropriate cultural design features;	Character (CH1)	1
51	k. Streetscape details for Williams Avenue and the Latham - Dillimore connection, including amenity tree planting and any associated footpath re-location;	Amenity (AM1) (AM7), Sustainable Land Uses (SU4)	3
51	l. Measures to be undertaken for topsoil and subsoil management to rehabilitate the soil profile in order to provide a viable growing medium for the areas to be planted and for use on the berms. Consideration is to be given to the use of engineered tree pits, utilising a combination of structural soils, soil vaults, or structural soil cells where necessary to provide sufficient rooting environment for large growing trees in restricted areas;	Character (CH6)	1, 2, 3

Condition number	Condition	ULDF Corridor Wide and Sector Specific Design Principles	Sector relevance
51	m. A landscape planting methodology and plant selection process must be developed with the Council's arboricultural and horticultural specialists. The planting methodology is to include details of the maintenance programme to be implemented once the landscape planting works are completed;	Character (CH6)	1, 2, 3
51	n. A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting and reinstatement of road verges, and including: i. Vegetation maintenance policies for the proposed planting, in particular details of maintenance methodology and dates / frequencies; ii. Details of watering, weeding, trimming, cultivation, pest and disease control, checking stakes and ties, pruning and other accepted horticultural operations to ensure normal and healthy plant establishment and growth; iii. Details of a maintenance programme for any other green asset and/ or parks infrastructure including vandalism eradication policies; and iv. An agreed reporting mechanism for annual inspections of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	Sustainable Land Use (SU5)	1, 2, 3
51	o. Measures to minimise clearing work to preserve soil and any indigenous vegetation;	Sustainable Land Use (SU5)	1, 2, 3
51	p. Measures to ensure the appropriate disposal of any clearance of invasive/noxious weeds;	Sustainable Land Use (SU5)	1, 2, 3
51	q. Where feasible, design of tree planter pits in all new planting areas with a minimum soil volume of 10 cubic metres;	Sustainable Land Use (SU5)	1, 2, 3
51	r. Local sourcing of 'new' tree stock (Auckland region), and consultation with the Council's arborist regarding the size, form and quality of the tree stock prior to any planting commencing, with all tree stock ordered at least 12 months prior to use.	Character (CH6)	1, 2, 3
52	The Requiring Authority's representative must arrange for annual inspections, accompanied by the Team Leader - Southern Monitoring, of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	Sustainable Land Use (SU5)	1, 2, 3
53	At least 1 month prior to the final handover to the Council for future care and maintenance of the landscaping, the Requiring Authority's representative is to arrange a site walkover with the Team Leader Southern Monitoring to inspect the new planting areas, and to document any areas of plant health and maintenance that need to be rectified prior to handover.	Sustainable Land Use (SU5)	1, 2, 3
54	The UDLP planting requirements must be implemented during the first planting season following the project being operational. If the weather in that planting season is unsuitable for planting, as determined by the Team Leader Southern Monitoring (in consultation with the Council's Parks Department), the landscaping must instead be implemented at the first practicable opportunity thereafter. The next practicable opportunity must be agreed to by the Council's Team Leader Southern Monitoring.	Sustainable Land Use (SU5)	1, 2, 3

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4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Note: Pages to be read as a double spread

Condition number	Sector 1 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
12	The role of the kaitiaki forum may include (but is not limited to) the following: b. Input into preparation of the following plans required by these conditions: iii. Urban Design and Landscape Plan	All	Support and empower Mana Whenua to input to the design process on their sites of significance
12	f. Providing input into the urban design and landscape design associated with the project, including but not limited to: i. appropriate use of Te Aranga principles; ii. treatment of residual open spaces; iii. the selection and supply of plant species and planting designs; iv. the potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tamaki River and the Panmure Basin; v. opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project including at the new Panmure intersection, on retaining walls, the soil nail walls, fencing, cycleways and walkways, the new Tamaki Bridge (including its abutments, piers and railings), street furniture, signage, landscaping and at the Mokoia Pā site. Cultural recognition elements may include Maori carvings and/or art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of Mana Whenua with the land directly affected by the project; and vi. visual cues and pedestrian connections between the Church Crescent/Lagoon Drive intersection and Mokoia Pā (subject to safety and transport considerations) and between the Mokoia Pā and the Jubilee Bridge	AM1 AM7 CH5 CH6	Engage with Mana Whenua in species selection through the kaitiaki forum, in support of restoring and enhancing the mauri of the natural environment Enable and provide for Mana Whenua kaitiaki engagement by identifying planting opportunities and working with the community to encourage community ownership and cohesion. Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into retaining walls associated with the project Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project Provide new viewing platforms within the open spaces to enhance and focus views and vistas to significant cultural landmarks Enable cultural expression to be integrated with the form and finish of structures in the open spaces
45	As a minimum the following must be included in the HHMP: c. Methods for documentation and potential reuse of items of movable historic heritage, as part of the final UDLP;	CH1 CH3	Recognise the importance of the Panmure Roundabout in creating a sense of identity, and of the historic sign as an important landmark within the urban fabric
49	The Requiring Authority is to submit an Urban Design and Landscape Plan prepared by an appropriately qualified urban designer and landscape architect to the Team Leader, Southern Monitoring, in consultation with the Council's Parks Planning Team Leader (where appropriate), for certification for any stage of the project. The primary objective of the UDLP(s) is to implement the Urban and Landscape Design Framework and to mitigate the landscape and visual effects identified in the landscape and visual assessment prepared by Beca Ltd dated 9 December 2016 and as modified in section 9 of the evidence of Christopher Bentley dated 28 November 2017.	All	Not applicable
50	The UDLP(s) must be in accordance with the project's Urban and Landscape Design Framework (including the concept plans, corridor-wide and sector specific design principles), and in general accordance with the approved landscape plans, and consistent with both the Historic Heritage Management Plan and the certified Conservation Plans required by these conditions.	All	Not applicable
51	The UDLP is to demonstrate how the corridor-wide and sector-specific design principles are achieved in the AMET1 Stage 2A design, and must address the following;	All	Not applicable

Te Aranga Principles	Detailed Design Sector Response
Ahi Kai Mauri Tu Taiao	The Kaitiaki Forum have been involved (through Monthly AT hui and workshops) throughout the development of the detailed design process and have reviewed the supporting design responses required to meet the planning consent conditions identified in this UDLP.
Mahi Toi Tohu Taiao Mauri Tu Ahi Ka	<p>The Kaitiaki Forum have been actively engaged and functioned as a Project Control Group inputting regularly throughout the planning and design process of the project. The monthly AT Hui were an opportunity for the Kaitiaki Forum to meet regularly for presentations from the project designers. It was also an opportunity for the design teams to seek design input and feedback, not only at key milestones but as the design developed. At the request of the Kaitiaki Forum, smaller workshop groups were also formed to give special focus or scrutiny to particular workstreams of the project, including but not limited to the Te Aranga stormwater, planting design and cultural expression / public artwork.</p> <p>The Kaitiaki Forum were involved in the selection of opportunities for cultural expression through the application of the Te Aranga Principles throughout the corridor. These opportunities were developed through the design process and relate to all aspects of the project to celebrate the historic, environmental and cultural narratives of the area. This creates an overarching cultural thematic approach that is consistent along the entire corridor. The Te Aranga design principle of mahi toi (artwork) are located along the corridor and close to pedestrian access. Mahi Toi have been designed by Mana Whenua nominated artists in collaboration with the project design team. They include both free standing sculptures and relief pattern along terracing and retaining walls.</p> <p>The Kaitiaki Forum reviewed all planting selections and requested that exotic tree species were avoided where possible. Groundcover planting including stormwater treatment planting were to be eco sourced species.</p> <p>The design of public spaces 'pocket parks' and structures 'viewing platforms' of the project, acknowledge and celebrate the historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. These narratives have been translated in partnership with the Kaitiaki Forum and their nominated artists.</p> <p>The design of public spaces and artwork in sector 1 are illustrated in Figures 8 - 11 of this UDLP and were designed with Mana Whenua through concept to detailed design process. The mahi toi sculptures have involved 3 iwi artists. Refer to Appendix D for detailed drawings 3311120-AR-1401, 1500, 1800.</p> <p>Notable trees and habitat such as the existing line of mature Pohutukawa trees along Lagoon Drive identified as habitat for the Kawau (Black Shag), have been retained and protected. Stormwater run off will be treated through a range of stormwater treatment devices including but not limited to swales and raingardens, improving stormwater quality and outfalls into the receiving environment including the Tamaki River.</p>
Mahi Toi	<p>The ULDF proposed to retain and relocate the Panmure entrance sign to an open space area at the intersection of the corner of Queens Road and Lagoon Drive. Objections of this proposal were received by the local board. Until a decision is made the sign will be removed and stored at a safe storage facility.</p> <p>If affected by the proposed works, the basalt kerb stones at Sunset View Reserve will be recorded in accordance with the provisions set out in the HHMP. Where feasible they will be reused as part of the landscaping design of Eastern Landing.</p> <p>Other moveable heritage items, not covered by other statutory authority, for example are known to include the commemorative plaques along the project footprint.</p>
Not applicable	Not applicable
Not applicable	Not applicable
Not applicable	Not applicable

4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Note: Pages to be read as a double spread

Condition number	Sector 1 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	a. Wayfinding, directional signage and sense of place features throughout the project route, including links between the Mokoia Pā, Te Kai a Hiku / Panmure Basin, the Jubilee Bridge and the Rotary Walkway;	CO1 CO2 CO5	Maintain and enhance connections for active modes to and between community recreational facilities: the Lagoon Stadium and Panmure Squash Rackets Club on the north side and the Lagoon Pool & Leisure Centre on the south side of Lagoon Drive, Panmure Basin recreational loop, and the potential future Tamaki River Greenway (which connects Otara to Point England using the left bank of the Tamaki Estuary)
51	e. Measures to achieve a safe level of transition for cycling and walking modes, including providing advanced warning and signage to cyclists and pedestrians, and safe and convenient cycling transitions at the ends of the project;	C01 C05 C04 C06	Reduce crossing lengths and minimise potential conflict between pedestrians / cyclists and vehicles at intersections Create a clearer road hierarchy and improved connections for all modes Create a clear roading hierarchy through the Panmure intersection with improved pedestrian / cyclist / vehicle connections that are safe, legible and simple.
51	f. The location and design (including height) of noise walls must be designed to enable land to be integrated into the urban area, including minimising intrusion on adjoining residents and reserves, maintaining and contributing to the amenity of residents and road users, and visually integrating with the surrounding residential character. The noise walls are to be designed in accordance with the Urban and Landscape Design Framework;	CH3 AM3	Retain significant views to the Panmure Basin. Balance noise mitigation requirements (as identified in the acoustic report) against residential amenity and the amenity and desired character of the public realm Adopt a design that integrates with the design principles of the Panmure Basin Masterplan, Mt Wellington War Memorial Park Concept Plan, and Jubilee Bridge renewal
51	g. Design features and methods for cultural expression and in order to reflect outcomes agreed through mana whenua engagement;	CH1 AM3 AM1 AM7	Engage with Mana Whenua in species selection through the kaitiaki forum, in support of restoring and enhancing the mauri of the natural environment Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into retaining walls associated with the project Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project Enable cultural expression to be integrated with the form and finish of structures in the open spaces

Te Aranga Principles	Detailed Design Sector Response
Not applicable	<p>The project wayfinding and directional signage, including sense of place features will be coordinated and delivered to the specifications set out in the recently published 'AT Transport Design Manual Signage'. The design team will retrospectively apply the wayfinding and directional signage design to the corridor to meet the outcomes of the UDLP. Council facilities such as the Rotary and Panmure Basin walkways, Panmure Squash Club and Leisure Centre are well connected to the proposed walking and cycling facilities of the project.</p> <p>An addendum to the UDLP will issued once the detailed design of the signage and wayfinding strategy has been finalised.</p> <p>Specific Mana Whenua signage has also been developed by Auckland Transport to interpret culturally significant sites along the corridor in a consistent manner. This will be applied to the project once the detailed design of the wayfinding and signage has been completed. The content of the signage will be determined by the Kaitiaki Forum in collaboration with their nominated artists.</p>
Not applicable	<p>A clear road hierarchy and connections for all modes has been created throughout the corridor. The signalised intersections prioritise strategic pedestrian routes and includes pedestrian and cycle activated signalised crossings. These crossings are staggered with mid-way refuges across Lagoon Drive. There are safe pedestrian zones for waiting at intersections and safe pedestrian crossing facilities across cycle lanes and bus lanes to access bus stops. Optimal and prioritised crossing opportunities have been included in the design to link desire lines and local network destinations between them while maintaining good sightline distances.</p> <p>Transitions have been reinforced by AT approved walking and cycling signage and surface treatments for each mode. Where there is a transition from shared path to separated cycleway this will be gradual and generous, supported by advanced warning signs and surface treatments. Transport planners have prepared detailed road safety signage plans and the pavement finishes have been captured in the landscape drawings (Refer to Appendix I for Signage drawings and Appendix D for detailed drawings 3311120-AR-1001 -1013 & Appendix F for 3233073-LA-0201 - 0211)</p> <p>A large section of Sector 1 is constrained by cliffs and protected pohutukawa trees that line either side of the corridor. Steeper sections of shared path have been physically separated to manage conflicts between cycling and walking modes, otherwise a shared path connects Panmure Bridge with Panmure Station. The urban designers reviewed the reconfiguration of the Panmure roundabout to maintain appropriate crossing distances and to create a stronger connection to the Panmure main street that reflects desire lines, and at the same time enables more and better pedestrian crossing points by way of signalised crossings</p> <p>Council facilities such as the Rotary and Panmure Basin walkways, Panmure Squash Club and Leisure Centre are well connected to the proposed walking and cycling facilities of the project. Safe crossing connections are provided through signalised crossing points.</p>
Mahi Toi Tohu	<p>The location and design of the noise walls have been designed in accordance with the Project ULDF (Urban and Landscape Design Framework). The detailed design documentation has not departed from the locations proposed in the ULDF. The requirement for noise walls was determined by Marshall Day Consultants and is limited to one location in Sector 1. The noise fence is 280 metres in length and is located above the Soil Nail Wall above Lagoon Drive. The location above the soil nail wall and the proposed planting mean it is unlikely that the fence will be seen by the general public. (Refer Appendix D Sheet 3311120-AR-1012 and 3311120-AR-130 for more detailed extents).</p> <p>Noise walls for the project have been designed as residential fences in both scale (1.8m high) and materiality (timber) to minimise intrusion on adjoining residents and reserves. The design and finishes are consistent across all sectors (See Figures 25 & 26). The location of noise fences have been set back from footpaths to avoid CPTED issues or incorporated into planting areas. The design of the noise fences is consistent across the corridor and where visible will add to the character and cultural expression along the corridor. Noise fences do not screen public views to landscape features and have been designed to combine with existing residential fences.</p> <p>Iwi artists provided designs for the noise fences that referenced local cultural narratives. See Figures 24,25 & 26 for the engagement images or Appendix D for Sheet 3311120-AR-1106 for the detailed drawings issued for construction.</p>
Mana Whakapapa Mahi Toi Tohu	<p>The Kaitiaki Forum of Mana Whenua representatives were engaged at monthly hui to input and review the design regularly as it progressed throughout the detailed design phase.</p> <p>Focused opportunities for Mana Whenua input were identified through the application of the Te Aranga principles, identified in the ULDF. The Te Aranga Principles identified opportunities in each sector. These were reviewed and approved by Mana Whenua. A local Pepeha (endorsed by the Kaitiaki forum) guided the landscape and urban design responses that would acknowledge and celebrate the wider historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. Mana Whenua input focused on plant species selection, pocket parks and stormwater treatments and in particular.</p> <p>Mana Whenua had direct input into the design of public spaces and led the design of two standalone Mahi Toi installations in this sector and various global elements including for e.g. Noise Walls, Pedestrian Barriers, Signage and Retaining Walls. The Mahi Toi sculptures were a collaboration of 3 artists nominated by the Iwi representatives. Refer to Appendix D drawings 3311120-AR-1401, 1500, 1800 for more details.</p>

4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Note: Pages to be read as a double spread

Condition number	Sector 1 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	h. The location and design of any structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve, the new reserves and reinstated reserve areas (and to consider the inclusion of a pedestrian access between Lagoon Drive and Sunset View Road across the Sunset Road Reserve);	CH1 AM3 AM8	<p>Design retaining wall structures to make a positive contribution to the corridor, treating them as landscape elements and/or a canvas for public art</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>Provide new viewing platforms within the open spaces to enhance and focus views and vistas to significant cultural landmarks</p> <p>Create simple and direct pedestrian routes reflective of underlying desire lines across Lagoon Drive</p>
51	i. The location of landscaping, including any vegetation to be retained, areas of landscape mitigation and ecological enhancement planting in such a way that enables land to be reintegrated into the surrounding urban context. This is to include a schedule of species to be planted including the botanical names, locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity (which are to be used unless there is a specific need for exotic species as determined by the landscape architect in her/his sole discretion), grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings;	CH5 CH6 AM7	<p>Preserve the mana of the Kawau as a culturally significant taonga, by protecting and reinforcing the coastal edge alongside Panmure Basin, and supplementing the well-established planted character with eco-sourced native species that contribute to biodiversity and enhance the quality of the natural environment</p> <p>Use a planting palette that draws on the natural and cultural history of Panmure, reflects a sense of place and provides continuity across the project footprint</p> <p>Select robust, low-maintenance native species that are also local to the area and eco-sourced</p>
51	j. In respect of the Outstanding Natural Feature (“ONF”) on the north-eastern side of Lagoon Drive (including the Sunset Reserve) the measures to be implemented to enable natural rock exposures of volcanic tuff along the soil nail wall to remain permanently visible, subject to stability and safety requirements, and mitigating any significant adverse visual and landscape effects. Once the main cut for each soil nail wall is complete, the final design of the soil nail wall visual/planting/cultural treatment is to be developed in consultation with the Council’s Team Manager Biodiversity (in relation to ONF requirements), the Council’s Parks Planning Team Leader (in relation to planting mitigation and maintenance associated with the Sunset Reserve), the Ngāti Paoa Iwi Trust, and an NZILA registered landscape architect. For those areas where the natural rock is not proposed to be left exposed, methods are to be implemented to incorporate continuous vegetative screening of the soil nail wall structures with appropriate native plants and/or appropriate cultural design features;	CH2 CH3 CH4 CH5	<p>Design retaining wall structures to make a positive contribution to the corridor, treating them as landscape elements and/or a canvas for public art</p> <p>Soften the interface between the corridor and structures</p> <p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into retaining walls associated with the project</p>

Te Aranga Principles	Detailed Design Sector Response
<p>Mana Whakapapa Mahi Toi Tohu</p>	<p>In accordance with condition 51(h), options for the pedestrian access was considered by Beca. The only possible option was a staircase. The effects of this option were significant on the outstanding natural feature.</p> <p>The design of the public realm (structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve) have been designed in accordance with the Urban and Landscape Design Framework. Spaces to enjoy the views and narratives are provided along the cycling and walking infrastructure around the Panmure River and Tamaki Basin areas. The following green assets / open space areas are located in Sector 1 include;</p> <ul style="list-style-type: none"> • At the intersection of Lagoon Drive (Former Panmure Roundabout) • Terraced open space between Queens Road and Lagoon Drive • Intersection of Basin View and Lagoon Drive • Terraced open space between Lagoon Drive and Church Crescent <p>Acknowledgement and integration of Mana Whenua opportunities were identified and developed through the application of the Te Aranga Principles throughout the corridor. These opportunities were developed through the design process and relate to the various open space areas which celebrate the historic and cultural narratives of the area. This creates an overarching cultural thematic approach that is consistent along the entire corridor. The mahi toi (artwork) are located with pedestrian access and have been developed in consultation and through Mana Whenua. They include both free standing sculptures and relief pattern along terracing and retaining walls. Refer Figure 8 - 11.</p>
<p>Taiao Mauri Tu Tohu</p>	<p>A selection of the planting species approved by the Kaitiaki forum are listed in Figure 12 of the UDLP. These were translated into the detailed planting schedules.</p> <p>The location of landscaping, including vegetation to be retained, areas of landscape mitigation and ecological enhancement planting was identified in the LVA and ULDF process and informed the detailed design documentation. (Refer to Appendix D for Sheets 3311120-AR-1101 to 1104, Appendix A and Appendix C).</p> <p>Areas of significant vegetation including the line of Pohutukawa along Panmure Basin have been protected. There have been no significant departures during the detailed design process in relation to protected vegetation or areas proposed for revegetation. As identified in the ULDF process, a number of trees are being removed to accommodate the busway and associated cycleway and footpath. The project has maintained a like for like replacement tree planting to offset the trees removed.</p> <p>Areas of planting identified to reintegrate the project into surrounding urban context include the steep sections around Sunset View Road and the soil nail wall between Sunset View Road and Church Crescent.</p> <p>A schedule of species to be planted including the botanical names of locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity. The schedule include grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings. (Refer to Appendix D for Sheets 3311120-AR-1101 to 1104 and Appendix G for Landscape Specification)</p>
<p>Mahi Toi Tohu</p>	<p>The ULDF (Appendix A) and LVA (Appendix B) differed in the final solution for the Outstanding Natural Feature (“ONF”) on the north-eastern side of Lagoon Drive.</p> <p>Once the main cut for each soil nail wall is complete, the final design of the soil nail wall visual/planting/cultural treatment is to be developed in consultation with the Council’s Team Manager Biodiversity (in relation to ONF requirements), the Council’s Parks Planning Team Leader (in relation to planting mitigation and maintenance associated with the Sunset Reserve), the Ngāti Paoa Iwi Trust, and an NZILA registered landscape architect.</p> <p>An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above. Planting treatments specified above will need to be reviewed following the installation of the soil nails on each of the cut faces. If the natural rock exposures and soil nails are considered appropriate, then the proposed planting treatments will no longer be required.</p> <p>The current solution taken forward is to plant the steep cut face/soil nail wall. Refer to Appendix H Opus Plans ‘Lagoon Drive Western Section Soil Nail Wall Landscaping and Planting Sheet 172 -177’.</p>

4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Note: Pages to be read as a double spread

Condition number	Sector 1 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	l. Measures to be undertaken for topsoil and subsoil management to rehabilitate the soil profile in order to provide a viable growing medium for the areas to be planted and for use on the berms. Consideration is to be given to the use of engineered tree pits, utilising a combination of structural soils, soil vaults, or structural soil cells where necessary to provide sufficient rooting environment for large growing trees in restricted areas;	AM7	Not applicable
51	m. A landscape planting methodology and plant selection process must be developed with the Council's arboricultural and horticultural specialists. The planting methodology is to include details of the maintenance programme to be implemented once the landscape planting works are completed;	CH5 CH6	Use a planting palette that draws on the natural and cultural history of Panmure, reflects a sense of place and provides continuity across the project footprint Select robust, low-maintenance native species that are also local to the area and eco-sourced
51	n. A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting and reinstatement of road verges, and including: i. Vegetation maintenance policies for the proposed planting, in particular details of maintenance methodology and dates / frequencies; ii. Details of watering, weeding, trimming, cultivation, pest and disease control, checking stakes and ties, pruning and other accepted horticultural operations to ensure normal and healthy plant establishment and growth; iii. Details of a maintenance programme for any other green asset and/ or parks infrastructure including vandalism eradication policies; and iv. An agreed reporting mechanism for annual inspections of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	SU5	Not applicable
51	o. Measures to minimise clearing work to preserve soil and any indigenous vegetation;	CH5 CH6 CH7	Preserve the mana of the Kawau as a culturally significant taonga, by protecting and reinforcing the coastal edge alongside Panmure Basin, and supplementing the well-established planted character with eco-sourced native species that contribute to biodiversity and enhance the quality of the natural environment
51	p. Measures to ensure the appropriate disposal of any clearance of invasive/noxious weeds;	Not applicable	Not applicable
51	q. Where feasible, design of tree planter pits in all new planting areas with a minimum soil volume of 10 cubic metres;	AM7	Not applicable

Te Aranga Principles	Detailed Design Sector Response
Not applicable	<p>Changes to the tree planting areas along the Lagoon Drive were made during the detailed design phase to accommodate longer soil trenches to support the requested soil volumes. Larger feature trees within pavements have been specified with tree cells to ensure sufficient soil volumes and watering are achieved and compaction is minimised. Measures are set out in the Landscape Specifications around the supply, use and preparation of top soil.</p> <p>Refer Appendix D for Sheets 3311120-AR-1101 to 1104 and Appendix G for section 2.6 Top Soil Supply, 2.7 Topsoil Spreading to Planting Areas 3.2.5 Preparation of Planting Holes of the Landscape Specification.</p>
Taiao Mauri Tu Ahi ka	<p>The landscape planting methodology and plant selection process which was developed by the design team in consultation with the Requiring Authority, Auckland Council (AC) and Mana Whenua include details of the maintenance requirements in the Landscape Specifications.</p> <p>Refer to Appendix D for Sheets 3311120-AR-1101 to 1104 and refer to Appendix G, Section 4.0 for Maintenance of Soft Landscaping in the Landscape Specification. Section 3.7 sets out the performance criteria required of the Contractor.</p> <p>A maintenance programme will be prepared by the contractor in consultation with the Requiring Authority and Auckland Council (AC). The maintenance plan will be reviewed by a qualified Landscape Architect. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above.</p>
Not applicable	<p>A maintenance plan will be prepared by the contractor in consultation with the Requiring Authority. The maintenance plan will be reviewed by AC Parks team and or a qualified Landscape Architect. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above</p> <p>The Landscape Specification (Appendix G) requires the contractor to maintain <i>'all new plantings of specimen trees shall have a minimum maintenance period of at least 36 months and will include the requirement to provide quarterly maintenance reports to council. Should any plantings die or not be in an acceptable standard during the 36-month maintenance period the requiring authority shall be responsible for remediation and where directed by council replacement of dead, dying or poorly maintained.'</i></p> <p>A maintenance schedule is to be agreed with AC Parks.</p>
Taiao Mauri Tu Whakapapa	<p>No significant areas or notable indigenous vegetation identified in the ULDF to be retained or protected was removed through the detailed design process.</p> <p>Footpath widths, retaining walls and some cut and fill slopes were redesigned during the detailed design phase to minimise the impact of the development on indigenous vegetation in particular a grouping of 12 Pohutukawa Trees at the intersection of Domain Road and Lagoon Road.</p> <p>For Kauri Dieback and other disease protocols relating to soil disturbance, including soil conditions refer to the Kauri Dieback Information sheets in Appendix 6-7 of the Arboriculture Assessment Report.</p> <p>The detailed design drawings require the contractor to work with care around indigenous or protected vegetation to the AS4970 Tree Protection Standards. This requirement will superseded by the Tree Protection and Management Plan to be prepared and certified by Council. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above</p>
Not applicable	<p>This will be addressed as part of the Tree Protection and Management Plan to be prepared and certified by Council. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above</p>
Not applicable	<p>Changes to the tree planting areas along the Lagoon Drive were made during the detailed design phase to accommodate longer soil trenches to support the requested soil volumes. Tree cell systems for feature trees around the Panmure Intersection were added to the design to alleviate soil compaction and increase soil volumes for trees in hard pavements</p> <p>The Contractor is required to ensure all new tree planting areas will have a minimum soil volume of 10m³ per Tree. Large standalone feature trees will have a minimum soil volume of 15m³ per tree. (Refer to Appendix D for Sheets 3311120-AR-1102-1104 & Appendix F 3233073-LA-0110 General Notes)</p>

Note: Pages to be read as a double spread

Condition number	Sector 1 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	<p>r. Local sourcing of 'new' tree stock (Auckland region), and consultation with the Council's arborist regarding the size, form and quality of the tree stock prior to any planting commencing, with all tree stock ordered at least 12 months prior to use.</p>	<p>CH5 CH6 CH7</p>	<p>Preserve the mana of the Kawau as a culturally significant taonga, by protecting and reinforcing the coastal edge alongside Panmure Basin, and supplementing the well-established planted character with eco-sourced native species that contribute to biodiversity and enhance the quality of the natural environment</p> <p>Select robust, low-maintenance native species that are also local to the area and eco-sourced</p>
52	<p>The Requiring Authority's representative must arrange for annual inspections, accompanied by the Team Leader - Southern Monitoring, of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.</p>	<p>SU5</p>	<p>Not applicable</p>
53	<p>At least 1 month prior to the final handover to the Council for future care and maintenance of the landscaping, the Requiring Authority's representative is to arrange a site walkover with the Team Leader Southern Monitoring to inspect the new planting areas, and to document any areas of plant health and maintenance that need to be rectified prior to handover.</p>	<p>SU5</p>	<p>Not applicable</p>
54	<p>The UDLP planting requirements must be implemented during the first planting season following the project being operational. If the weather in that planting season is unsuitable for planting, as determined by the Team Leader Southern Monitoring (in consultation with the Council's Parks Department), the landscaping must instead be implemented at the first practicable opportunity thereafter. The next practicable opportunity must be agreed to by the Council's Team Leader Southern Monitoring.</p>	<p>SU5</p>	<p>Not applicable</p>

Te Aranga Principles	Detailed Design Sector Response
Taiao Mauri Tu Whakapapa	<p>All new tree stock will be sourced by the contractor to the Landscape Specifications and inspected by a registered landscape architect or Council Arborist prior to planting.</p> <p>This is addressed in section 3.1 Supply of materials (see below) and in 4.12 Replacement Planting of the Landscape Specification. (Refer Appendix G)</p> <p><i>'All native planting shall be locally sourced eco-seed from nurseries within the appropriate regional district with similar climate and environment to the site.</i></p> <p><i>Where several specimens of the same species are to be selected, evenness of shape and size is required within the size range specified.</i></p> <p><i>All plants may be inspected by the Engineer prior to planting, for variety, health, size and match to specification. Engineer reserves the right to reject any that fail to satisfy the above conditions. Approval from this inspection shall not preclude rejection of plants for defects which may appear later during the progress of the work'.</i></p>
Not applicable	Not applicable
Not applicable	Not applicable
Not applicable	Not applicable

4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Mahi Toi Artwork Images



Figure 8 - Mahi Toi artwork render

**Waharoa - Ranginui / Kuwaha - Papatuanuku
Panmure Intersection**

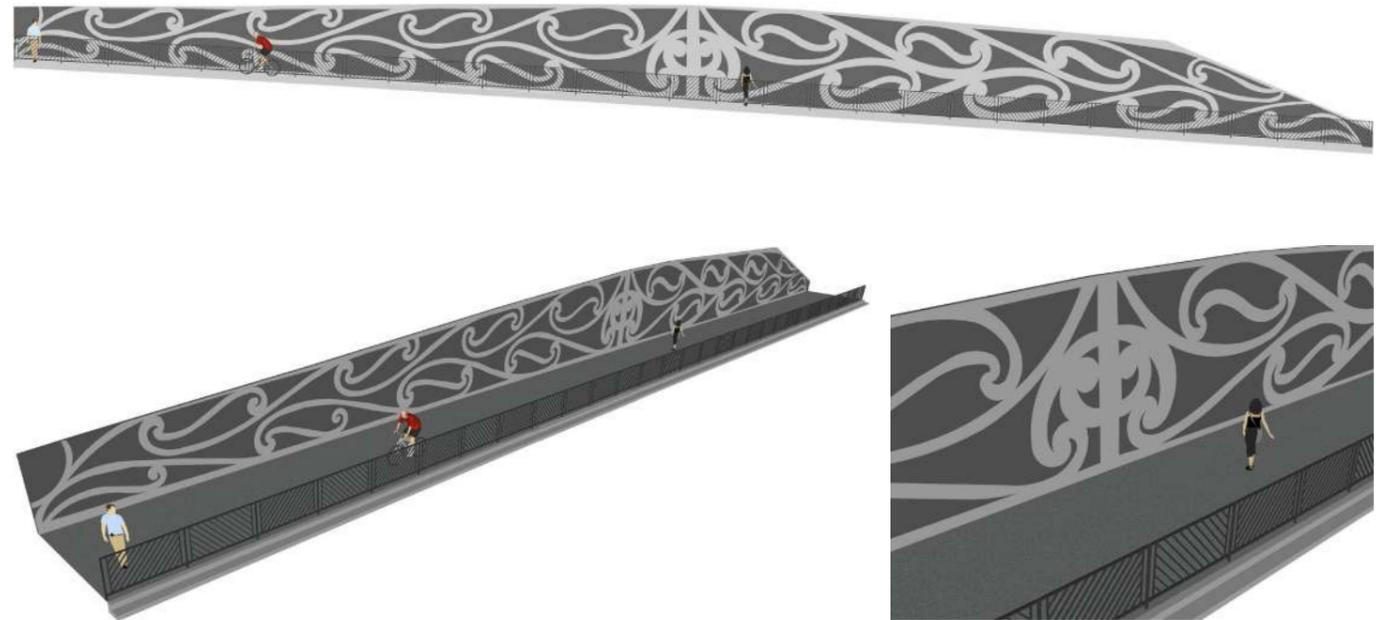


Figure 9 - Mahi Toi artwork render

Note: Basic wall design shown, does not include intricate detailing to be confirmed by artist

**Queens Road Retaining Wall - Puhoro
Panmure Intersection**



Figure 10: Mahi toi artwork render

Pataka - Basin View Lane



Figure 11: Mahi toi artwork render

Church Crescent Retaining Walls - Raukumara pattern on front walls

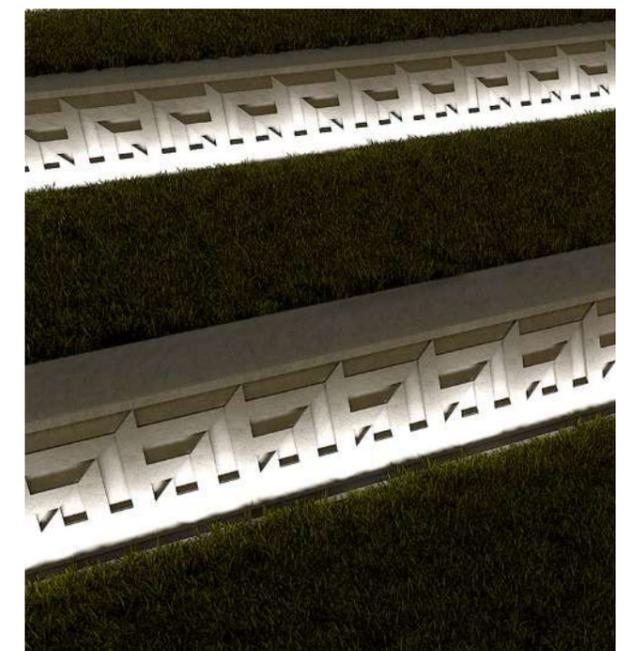


Figure 12: Mahi toi artwork render

4_Sector 1: Panmure Roundabout and Lagoon Drive Design

Panmure Roundabout and Lagoon Drive Plant Selections



Figure 13: Lagoon Drive Planting Palette

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5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
12	<p>The role of the kaitiaki forum may include (but is not limited to) the following:</p> <ul style="list-style-type: none"> b. Input into preparation of the following plans required by these conditions: iii. Urban Design and Landscape Plan 	ALL	<p>Embed a partnership approach between Auckland Transport and Ngāti Paoa into the design process, that fosters strong working relationships and accommodates the integration of Ngāti Paoa tikanga and mātauranga into the design of the built environment and open space</p> <p>Support and empower Mana Whenua to input to the design process on their sites of significance</p>
12	<ul style="list-style-type: none"> f. Providing input into the urban design and landscape design associated with the project, including but not limited to: <ul style="list-style-type: none"> i. appropriate use of Te Aranga principles; ii. treatment of residual open spaces; iii. the selection and supply of plant species and planting designs; iv. the potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tamaki River and the Panmure Basin; v. opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project including at the new Panmure intersection, on retaining walls, the soil nail walls, fencing, cycleways and walkways, the new Tamaki Bridge (including its abutments, piers and railings), street furniture, signage, landscaping and at the Mokoia Pā site. Cultural recognition elements may include Maori carvings and art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of Mana Whenua with the land directly affected by the project; and vi. visual cues and pedestrian connections between the Church Crescent/Lagoon Drive intersection and Mokoia Pā (subject to safety and transport considerations) and between the Mokoia Pā and the Jubilee Bridge 	CH3 CH6 BR4 BR5 SU5 CH1 CH6	<p>Creatively re-inscribe iwi narratives into the design environment, for example through artistic and interpretive material that reflects the ancestral connections and associations of Ngāti Paoa and celebrates the significance of Mauinaina/Mokoia Pa</p> <p>Develop the bridge design in consultation with Mana Whenua to include cultural interpretation via artwork and narratives wherever possible. This could include gateway features or references to this significant ancestral waka portage route</p> <p>Afford Mana Whenua the opportunity to provide an appropriate name for the Busway Bridge and for public spaces at its abutments</p> <p>Develop the bridge design in consultation with Mana Whenua to incorporate cultural recognition elements and appropriate environmental standards for water catchment and treatment</p> <p>Seek to integrate poles and lighting with visual elements and, in consultation with Mana Whenua, any cultural recognition markers</p> <p>Enable and provide for the kaitiaki role of Mana Whenua in restoring and enhancing the mauri of the natural environment, for example in species selection</p> <p>Select low-maintenance plants that are robust and endemic to the coastal environment, and familiar and significant to Mana Whenua; and engage with Mana Whenua in species selection through the kaitiaki forum</p> <p>Pursue public art opportunities at exposed retaining walls and other structures, including stories and themes that are meaningful to iwi</p> <p>Afford Mana Whenua the opportunity to provide an appropriate name for the open space</p> <p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into the public face of noise fences associated with the project where appropriate.</p>

Te Aranga Principles	Detailed Design Sector Response
Ahi Kai Mauri Tu Taiao	The Kaitiaki Forum have been involved (through Monthly AT hui and workshops) throughout the development of the planning process and have reviewed the supporting design responses required to meet the planning consent conditions identified in this UDLP.
Ahi Kai Mauri Tu Taiao	<p>The Kaitiaki Forum have been actively engaged and functioned as a Project Control Group inputting regularly throughout the planning and design process of the project. The monthly AT Hui were an opportunity for the Kaitiaki Forum to meet regularly for presentations from the project designers. It was also an opportunity for the design teams to seek design input and feedback, not only at key milestones but as the design developed. At the request of the Kaitiaki Forum, smaller workshop groups were also formed to give special focus or scrutiny to particular workstreams of the project, including but not limited to the Te Aranga stormwater, planting design and cultural expression / public artwork.</p> <p>The Kaitiaki Forum were involved in the selection of opportunities for cultural expression through the application of the Te Aranga Principles throughout the corridor. These opportunities were developed through the design process and relate to all aspects of the project to celebrate the historic, environmental and cultural narratives of the area. This creates an overarching cultural thematic approach that is consistent along the entire corridor. The Te Aranga design principle of mahi toi (artwork) are located along the corridor and close to pedestrian access. Mahi Toi have been designed by Mana Whenua nominated artists in collaboration with the project design team. They include both free standing sculptures and relief pattern along terracing and retaining walls.</p> <p>The Kaitiaki Forum reviewed all planting selections and requested that exotic tree species were avoided where possible. Groundcover planting including stormwater treatment planting were to be eco sourced species.</p> <p>The design of public spaces 'pocket parks' and structures 'viewing platforms' of the project, acknowledge and celebrate the historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. These narratives have been translated in partnership with the Kaitiaki Forum and their nominated artists.</p> <p>The design of public spaces and artwork of Sector 2 are illustrated in Figures 13 and 14 of this UDLP and were designed with Mana Whenua through concept to detailed design process. The three mahi toi sculptures have involved 3 iwi artists.</p>

5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
45	As a minimum the following must be included in the HHMP: c. Methods for documentation and potential reuse of items of movable historic heritage, as part of the final UDLP;	CH1 CH2 CH4 AM3	In particular, design the Mokoia Pa headland park to reinscribe and redefine the 'Mokoia Pa' and 'Tamaki Bridge' whether re-using the current memorial plaques or by new element/s such as a fully carved pou/waka maumahara Retain excavation material on the site where possible and agree with Mana Whenua the new location of any material that is removed
49	The Requiring Authority is to submit an Urban Design and Landscape Plan prepared by an appropriately qualified urban designer and landscape architect to the Team Leader, Southern Monitoring, in consultation with the Council's Parks Planning Team Leader (where appropriate), for certification for any stage of the project. The primary objective of the UDLP(s) is to implement the Urban and Landscape Design Framework and to mitigate the landscape and visual effects identified in the landscape and visual assessment prepared by Beca Ltd dated 9 December 2016 and as modified in section 9 of the evidence of Christopher Bentley dated 28 November 2017.	All	Not Applicable
50	The UDLP(s) must be in accordance with the project's Urban and Landscape Design Framework (including the concept plans, corridor-wide and sector specific design principles), and in general accordance with the approved landscape plans, and consistent with both the Historic Heritage Management Plan and the certified Conservation Plans required by these conditions.	All	Not Applicable
51	The UDLP is to demonstrate how the corridor-wide and sector-specific design principles are achieved in the AMETI Stage 2A design, and must address the following;	Not applicable	Not applicable
51	a. Wayfinding, directional signage and sense of place features throughout the project route, including links between the Mokoia Pā, Te Kai a Hiku / Panmure Basin, the Jubilee Bridge and the Rotary Walkway;	C02 C06	Promote wayfinding through careful siting and design of signage and engineering devices Create a public space at the Mokoia Pa headland to allow the history of the area to be expressed through landscape design.

Te Aranga Principles	Detailed Design Sector Response
Ahi Kai Mauri Tu Taiao	<p>A new mahi toi sculpture is to be included in the Mokoia Park design. This has been designed alongside Mana Whenua engagement.</p> <p>Moveable heritage items, not covered by other statutory authority, are known to include memorial plaques commemorating historic events or structures which were identified along the corridor. These include a plaque at the following locations:</p> <ul style="list-style-type: none"> - Mokoia Pa (Bridge Street); - Heritage Swing Bridge (Eastern Landing) <p>Items such as these will be recorded in accordance with the provisions of the HHMP. They will be removed to safe storage during construction works. Following construction, they will be reused and form part of the landscaping design for Mokoia Pā and the Eastern Landing.</p> <p>If affected by the proposed works, the old basalt kerb stones at Mokoia Headland Pā will be recorded in accordance with the provisions set out in the HHMP. Where feasible they will be reused as part of the landscaping design of Eastern Landing.</p>
Not applicable	Not applicable
Not applicable	Not applicable
Not applicable	Not applicable
Mahi toi	<p>The Panmure Bridge sector provides the public the best access to the Tamaki River and is therefore an important wayfinding node and junction.</p> <p>The project wayfinding and directional signage, including sense of place features will be coordinated and delivered to the specifications set out in the recently published 'AT Transport Design Manual - Signage'. The design team will retrospectively apply the wayfinding and directional signage design to the corridor to meet the outcomes of the UDLP.</p> <p>An addendum to the UDLP will be issued once the detailed design of the signage and wayfinding strategy has been finalised.</p> <p>Specific Mana Whenua signage has also been developed by Auckland Transport to interpret culturally significant sites along the corridor in a consistent manner. This will be applied to the project once the detailed design of the wayfinding and signage has been completed. The content of the signage will be determined by the Kaitiaki Forum in collaboration with their nominated artists.</p> <p>A new shared path connection has been created from Panmure Bridge to the Eastern landing Precinct, (Heritage Swing Bridge, Tamaki River and Rotary Walkway). This shared path connection is supported by Mahi Toi artwork and signage and wayfinding proposals.</p> <p>There is a safe, accessible and convenient link between the Rotary Walkway and the separated cycle facility on the north side of the south-eastern bridge abutment.</p> <p>Mokoia Pā, Te Kai a Hiku / Panmure Basin, the Jubilee Bridge and the Rotary Walkway.</p>

5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	b. Landscape design details for the residual land at the Mokoia Pā headland in consultation with Ngāti Paoa, consistent with the relevant and certified Conservation Plan for the Mokoia Pā site;	CH1 CH2 CH4 AM3	<p>In particular, design the Mokoia Pa headland park to reinscribe and redefine the 'Mokoia Pa' and 'Tamaki Bridge' whether re-using the current memorial plaques or by new element/s such as a fully carved pou/waka maumahara</p> <p>Create a public space at the Mokoia Pa headland to allow the history of the area to be expressed through landscape design</p> <p>Creatively re-inscribe iwi narratives into the design environment, for example through artistic and interpretive material that reflects the ancestral connections and associations of Ngāti Paoa and celebrates the significance of Mauinaina/Mokoia Pa</p> <p>Reduce the extent of retaining walls and earthworks within the Mauinaina/Mokoia Pa site as far as possible, to "tread lightly on the whenua".</p>
51	c. Landscape design details for the residual land at the southern Panmure Bridge abutment in consultation with the kaitiaki forum and the Council's lead heritage specialist, with a particular focus on the remnant swivel structure of the old Panmure Bridge, consistent with the certified Conservation Plan for that structure	CH1 CH3 BR4 AM2 AM3 AM4	<p>Enhance access to and appreciation of the heritage swivel span for users of the Rotary Walkway and associated foreshore path network</p> <p>Support a process whereby significant sites and cultural landscape features are recognised and reflected in the detailed design of the bridge structure</p> <p>Enable pedestrians and cyclists to pause and admire views from the bridge towards cultural landmarks</p> <ul style="list-style-type: none"> • out over the water to connect strongly to the Tamaki River • obliquely (and looking down) towards the heritage swivel span and the Mauinaina / Mokoia Pa site
51	e. Measures to achieve a safe level of transition for cycling and walking modes, including providing advanced warning and signage to cyclists and pedestrians, and safe and convenient cycling transitions at the ends of the project;	CO3 CH1 CO2 CO6 CO5 BR4 BR5	<p>Provide for safe, wide multi-directional connections for pedestrians and cyclists across the waterway</p> <p>Create safe and clear connections from the Bridge shared path to existing and proposed pedestrian and cycle routes</p> <p>Provide a high quality walking and cycling environment to link the Rotary Walkway to surrounding town centre, community and residential uses</p>

Te Aranga Principles	Detailed Design Sector Response
Mahi Toi Tohu	The landscape design details for the residual land at Mokoia Pā and the residual land (Eastern Landing) at the southern Panmure Bridge abutment are still progressing. An addendum to the UDLP will be issued once the detailed design has been confirmed and agreed with Mana Whenua.
Tohu Mana Mahi Toi	<p>The landscape design details for the residual land at the southern Panmure Bridge abutment (referred to as the Eastern Landing) are still progressing. An addendum to the UDLP will be issued once the detailed design has been confirmed and agreed with mana whenua and Auckland Council.</p> <p>The current design creates a new shared path connection from the Panmure Bridge / Pakuranga Road dedicated cycleway and footpath to the Swing Bridge Precinct, Tamaki River and Rotary Walkway via a new dedicated shared path. This shared path connection is supported by Mahi Toi artwork and signage and wayfinding proposals.</p>
Not applicable	<p>The Busway Bridge incorporates a dedicated cycleway and footpath connection that are physically separated by a grade change. The slightly elevated footpath is to be timber and connects to four viewing platforms or rest areas. The adjacent dedicated two way cycleway is concrete and separated from the footpath by a kerb. The shared path on the western approach or abutment transitions gradually from a shared path next to Mokoia Pa to a separated cycleway over the bridge and then continues in that format along Pakuranga Road. Barriers have been designed to optimise views between modes and out into the Tamaki River environment.</p> <p>The shared path at the north abutment connects to a new open space (Mokoia Pa) and links through to Bridge Street for improved pedestrian connectivity.</p> <p>There is a safe, accessible and convenient link between the Rotary Walkway.</p>

5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	<p>g. Design features and methods for cultural expression and in order to reflect outcomes agreed through mana whenua engagement;</p>	<p>CH1 CH3</p>	<p>Develop the bridge design in consultation with Mana Whenua to include cultural interpretation via artwork and narratives wherever possible. This could include gateway features or references to this significant ancestral waka portage route</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>In particular, design the Mokoia Pa headland park to reinscribe and redefine the 'Mokoia Pa' and 'Tamaki Bridge' whether re-using the current memorial plaques or by new element/s such as a fully carved pou/waka maumahara</p> <p>Afford Mana Whenua the opportunity to provide an appropriate name for the Busway Bridge and for public spaces at its abutments</p> <p>Develop the bridge design in consultation with Mana Whenua to incorporate cultural recognition elements and appropriate environmental standards for water catchment and treatment</p>
51	<p>h. The location and design of any structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve, the new reserves and reinstated reserve areas (and to consider the inclusion of a pedestrian access between Lagoon Drive and Sunset View Road across the Sunset Road Reserve);</p>	<p>CH1 AM3 AM8 CH2 CH4 AM3 CH3 CH5 CH6</p>	<p>Create an identifiable 'family' of pocket parks that also allows for variety in the treatment of particular elements</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>In particular, design the Mokoia Pa headland park to reinscribe and redefine the 'Mokoia Pa' and 'Tamaki Bridge' whether re-using the current memorial plaques or by new element/s such as a fully carved pou/waka maumahara</p> <p>Create a public space at the Mokoia Pa headland to allow the history of the area to be expressed through landscape design</p>

Te Aranga Principles	Detailed Design Sector Response
<p>Mana Mahi Toi</p>	<p>The Kaitiaki Forum of Mana Whenua representatives were engaged at monthly hui to input and review the design regularly as it progressed throughout the detailed design phase. The design of public spaces and structures of the project, acknowledge and celebrate the historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. These narratives have been translated in partnership with Mana Whenua.</p> <p>Focused opportunities for Mana Whenua input were identified through the application of the Te Aranga principles, identified in the ULDF. The Te Aranga Principles identified opportunities in each sector. These were reviewed and approved by Mana Whenua. A local Pepeha (endorsed by the Kaitiaki forum) guided the landscape and urban design responses that would acknowledge and celebrate the wider historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. Mana Whenua input focused on plant species selection, pocket parks and stormwater treatments and in particular.</p> <p>The new bridge include several Mahi Toi finishes that express the cultural narrative significant to the area. The finishes are expressed in the timber finishes of the footpath and the viewing platforms. The Arawhata (bridge or ladder) features in the design of the pavement finishes. Signage boards will provide Maori and English interpretation of the landscape and local site of significance. Refer to Figures 16- 19.</p>
<p>Mahi toi Tohu Ahi ka</p>	<p>The design of the public realm (structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve) have been designed in accordance with the Urban and Landscape Design Framework.</p> <p>The spaces resulting from road closures create opportunities for nodes of amenity such as small pocket parks that will make a positive contribution to the area's character and public amenity. These areas strengthen recognition and connections of focal points on the cultural landscape.</p> <p>Spaces to enjoy the views and narratives are provided along the cycling and walking infrastructure from the 4x Panmure Bridge viewing platforms, from the elevated Mokoia Pa Park or the riverside Historic Swing Bridge site at Eastern Landing. Regenerating native vegetation is used to frame the carriageway and emphasis the arrival into Pakuranga.</p> <p>The following open space areas are located along the Panmure Bridge sector. These are;</p> <ul style="list-style-type: none"> • Mokoia Pa • The Eastern Landing <p>Acknowledgement and integration of Mana Whenua opportunities were identified and developed through the application of the Te Aranga Principles throughout the corridor. These opportunities were developed through the design process and relate to the various open space areas which celebrate the historic and cultural narratives of the area. This creates an overarching cultural thematic approach that is consistent along the entire corridor. The mahi toi (artwork) are located with pedestrian access and have been developed in consultation and through Mana Whenua. They include both free standing sculptures and relief pattern along terracing and retaining walls.</p>

5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	i. The location of landscaping, including any vegetation to be retained, areas of landscape mitigation and ecological enhancement planting in such a way that enables land to be reintegrated into the surrounding urban context. This is to include a schedule of species to be planted including the botanical names, locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity (which are to be used unless there is a specific need for exotic species as determined by the landscape architect in her/his sole discretion), grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings;	CH3 CH6 SU5 CH1 BR4 BR5	Enable and provide for the kaitiaki role of Mana Whenua in restoring and enhancing the mauri of the natural environment, for example in species selection Select low-maintenance plants that are robust and endemic to the coastal environment, and familiar and significant to Mana Whenua; and engage with Mana Whenua in species selection through the kaitiaki forum
51	l. Measures to be undertaken for topsoil and subsoil management to rehabilitate the soil profile in order to provide a viable growing medium for the areas to be planted and for use on the berms. Consideration is to be given to the use of engineered tree pits, utilising a combination of structural soils, soil vaults, or structural soil cells where necessary to provide sufficient rooting environment for large growing trees in restricted areas;	AM7	Not Applicable
51	m. A landscape planting methodology and plant selection process must be developed with the Council's arboricultural and horticultural specialists. The planting methodology is to include details of the maintenance programme to be implemented once the landscape planting works are completed;	SU5 CH1 CH6	Select low maintenance plants that are robust and endemic to the coastal environment, and familiar and significant to Mana Whenua; and engage with Mana Whenua in species selection through the kaitiaki forum Enable and provide for the kaitiaki role of Mana Whenua in restoring and enhancing the mauri of the natural environment, for example in species selection.
51	n. A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting and reinstatement of road verges, and including: i. Vegetation maintenance policies for the proposed planting, in particular details of maintenance methodology and dates / frequencies; ii. Details of watering, weeding, trimming, cultivation, pest and disease control, checking stakes and ties, pruning and other accepted horticultural operations to ensure normal and healthy plant establishment and growth; iii. Details of a maintenance programme for any other green asset and/ or parks infrastructure including vandalism eradication policies; and iv. An agreed reporting mechanism for annual inspections of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	SU5 CH1 CH6	Select low maintenance plants that are robust and endemic to the coastal environment, and familiar and significant to Mana Whenua; and engage with Mana Whenua in species selection through the kaitiaki forum
51	o. Measures to minimise clearing work to preserve soil and any indigenous vegetation;	Not applicable	Not Applicable

Te Aranga Principles	Detailed Design Sector Response
Ahi ka Mauri tu Taiao Ahikaa	<p>Landscaping is proposed throughout the project length to provide a higher degree of public amenity and character as defined in the ULDF. These treatments include planted medians, swales and raingardens, terraced pocket parks, linear parkland areas within the Lagoon Drive section and amenity trees, stormwater swales, rain gardens, linear parks, buffer planting and revegetation near the river on the Pakuranga side of the bridge.</p> <p>The vegetation treatment of the corridor restores the character lost by greening the corridor in a way that reflects the transition from a predominantly 'native' environment near the river to the urban parkland of the areas around the Pakuranga Town Centre. This will also help to reduce the visual width of the corridor and focus views towards landmarks and key nodes. The planting will be introduced as a screen to various residential properties to reduce negative and visual amenity impacts.</p> <p>The plants have been specified as eco sourced species found in coastal forest environments within the Auckland region. This will enhance the ecological and cultural values while also mitigating areas of the corridor. The planting of indigenous flora in public spaces will provide a strategy to encourage native planting in private spaces. The selected plant species will contribute to biodiversity, enhancing the environmental health of the area. The mature Pohutukawa along the corridor are to be preserved.</p> <p>Refer Plant Schedules 3311120-AR-0003 - 0006 and 3233073-LA-0601 – 0608</p>
Not applicable	<p>Measures are set out in the Landscape Specifications around the supply, use and preparation of top soil.</p> <p>Larger feature trees within pavements have been specified with tree cells to ensure sufficient soil volumes and watering are achieved and compaction is minimised.</p> <p>Refer Appendix D for Sheets 3311120-AR-1101 to 1104 and Appendix G for section 2.6 Top Soil Supply, 2.7 Topsoil Spreading to Planting Areas 3.2.5 Preparation of Planting Holes of the Landscape Specification.</p>
Taiao Mauri Tu Ahikaa	<p>The landscape planting methodology and plant selection process which was developed by the design team in consultation with the Requiring Authority, Auckland Council (AC) and Mana Whenua include details of the maintenance requirements in the Landscape Specifications.</p> <p>Refer to Appendix D for Sheets 3311120-AR-1101 to 1104 and refer to Appendix G, Section 4.0 for Maintenance of Soft Landscaping in the Landscape Specification. Section 3.7 sets out the performance criteria required of the Contractor.</p> <p>A maintenance programme will be prepared by the contractor in consultation with the Requiring Authority and Auckland Council (AC). The maintenance plan will be reviewed by a qualified Landscape Architect. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above.</p>
Taiao Mauri Tu Ahikaa	<p>A maintenance plan will be prepared by the contractor in consultation with the Requiring Authority. The maintenance plan will be reviewed by AC Parks team and or a qualified Landscape Architect. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above</p> <p>The Landscape Specification (Appendix G) requires the contractor to maintain <i>'all new plantings of specimen trees shall have a minimum maintenance period of at least 36 months and will include the requirement to provide quarterly maintenance reports to council. Should any plantings die or not be in an acceptable standard during the 36-month maintenance period the requiring authority shall be responsible for remediation and where directed by council replacement of dead, dying or poorly maintained.'</i></p> <p><i>A maintenance schedule is to be agreed with AC Parks'</i></p>
Not applicable	<p>No significant areas or notable indigenous vegetation identified in the ULDF to be retained or protected was removed through the detailed design process.</p> <p>For Kauri Dieback and other disease protocols relating to soil disturbance, including soil conditions refer to the Kauri Dieback Information sheets in Appendix 6-7 of the Arboriculture Assessment Report.</p> <p>The detailed design drawings require the contractor to work with care around indigenous or protected vegetation to the AS4970 Tree Protection Standards. This requirement will superseded by the Tree Protection and Management Plan to be prepared and certified by Council. An Addendum to the UDLP will be issued once the detailed design has been finalised and agreed with all interested parties listed above.</p>

5_Sector 2. Panmure Bridge Design

Note: Pages to be read as a double spread

Condition number	Sector 2 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	p. Measures to ensure the appropriate disposal of any clearance of invasive/noxious weeds;	Not applicable	Not Applicable
51	q. Where feasible, design of tree planter pits in all new planting areas with a minimum soil volume of 10 cubic metres;	AM7	Not Applicable
51	r. Local sourcing of 'new' tree stock (Auckland region), and consultation with the Council's arborist regarding the size, form and quality of the tree stock prior to any planting commencing, with all tree stock ordered at least 12 months prior to use.	CH6	Not Applicable
52	The Requiring Authority's representative must arrange for annual inspections, accompanied by the Team Leader - Southern Monitoring, of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	SU5	Not Applicable
53	At least 1 month prior to the final handover to the Council for future care and maintenance of the landscaping, the Requiring Authority's representative is to arrange a site walkover with the Team Leader Southern Monitoring to inspect the new planting areas, and to document any areas of plant health and maintenance that need to be rectified prior to handover.	SU5	Not Applicable
54	The UDLP planting requirements must be implemented during the first planting season following the project being operational. If the weather in that planting season is unsuitable for planting, as determined by the Team Leader Southern Monitoring (in consultation with the Council's Parks Department), the landscaping must instead be implemented at the first practicable opportunity thereafter. The next practicable opportunity must be agreed to by the Council's Team Leader Southern Monitoring.	Not applicable	Not Applicable

Te Aranga Principles	Detailed Design Sector Response
Not applicable	This will be addressed as part of the Tree Protection and Management Plan to be prepared and certified by Council.
Not applicable	<p>Changes to the tree planting areas along the Lagoon Drive were made during the detailed design phase to accommodate longer soil trenches to support the requested soil volumes. Tree cell systems for feature trees around the Panmure Intersection were added to the design to alleviate soil compaction and increase soil volumes for trees in hard pavements</p> <p>The Contractor is required to ensure all new tree planting areas will have a minimum soil volume of 10m³ per Tree. Large standalone feature trees will have a minimum soil volume of 15m³ per tree. (Refer to Appendix D for Sheets 3311120-AR-1102-1104 & Appendix F for Sheets 3233073-LA-0110 General Notes)</p>
Not applicable	<p>All new tree stock will be sourced by the contractor to the Landscape Specifications and inspected by a registered landscape architect or Council Arborist prior to planting. This is addressed in section 3.1 Supply of materials (see below) and in 4.12 Replacement Planting of the Landscape Specification. (Refer Appendix G)</p> <p><i>'All native planting shall be locally sourced eco-seed from nurseries within the appropriate regional district with similar climate and environment to the site. Where several specimens of the same species are to be selected, evenness of shape and size is required within the size range specified. All plants may be inspected by the Engineer prior to planting, for variety, health, size and match to specification. Engineer reserves the right to reject any that fail to satisfy the above conditions. Approval from this inspection shall not preclude rejection of plants for defects which may appear later during the progress of the work.'</i></p>
Not applicable	Not applicable
Not applicable	Not applicable
Not applicable	Not applicable

5_Sector 2. Panmure Bridge Design

Mokoia Pa



Figure 14: Mahi toi artwork render



Figure 15: Mahi toi artwork render

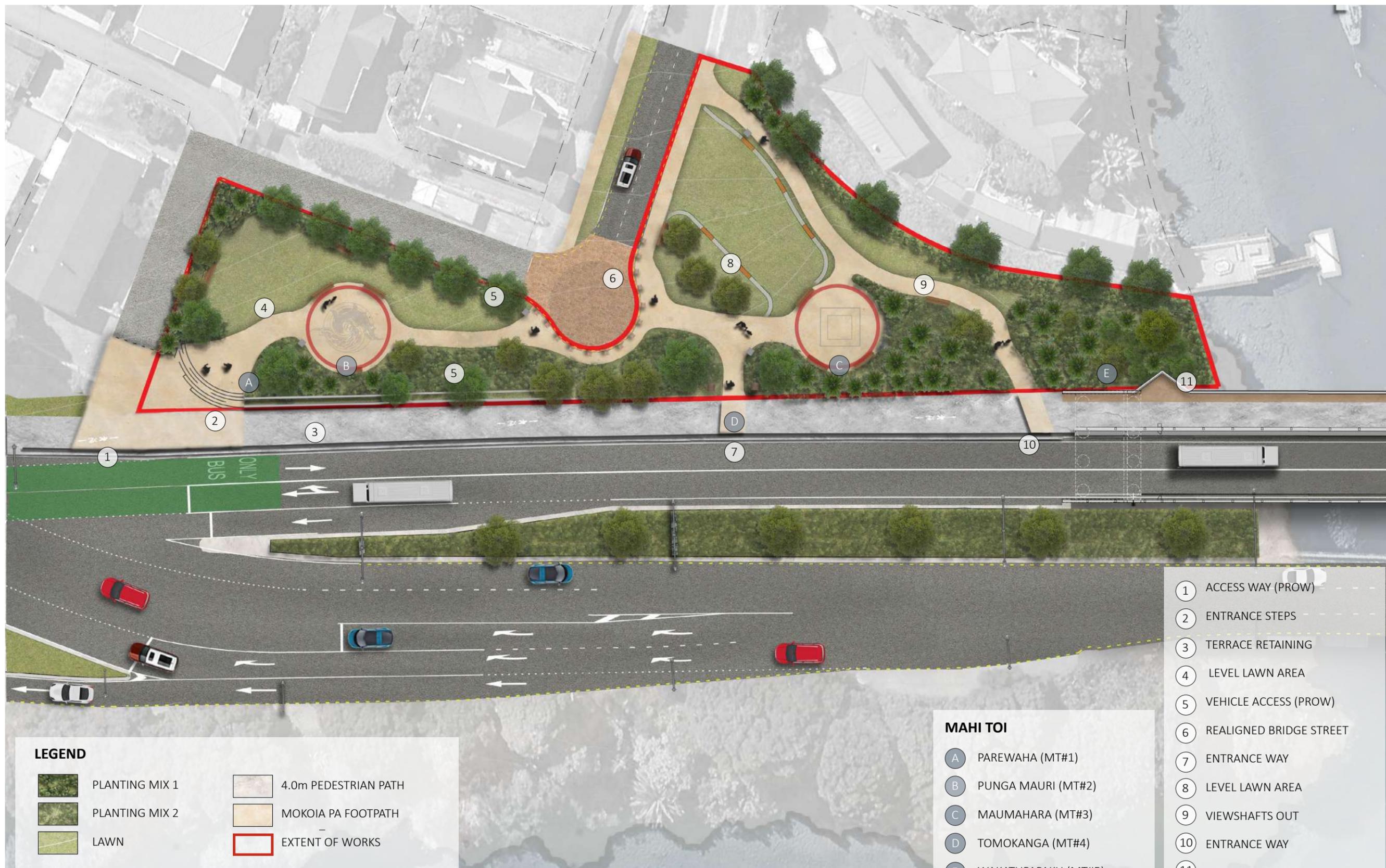


Figure 16: Mokoia Park Draft Landscape Concept Plan

Note: The detailed design for the residual land at Mokoia Pa and at the southern Panmure Bridge abutment (referred to as the Eastern Landing) are still progressing. An addendum to the UDLP will be issued once the detailed design has been confirmed and agreed with mana whenua and Auckland Council

5_Sector 2. Panmure Bridge Design

Bridge Mahi Toi

TYPE - CENTRAL PIER 1 AND 2

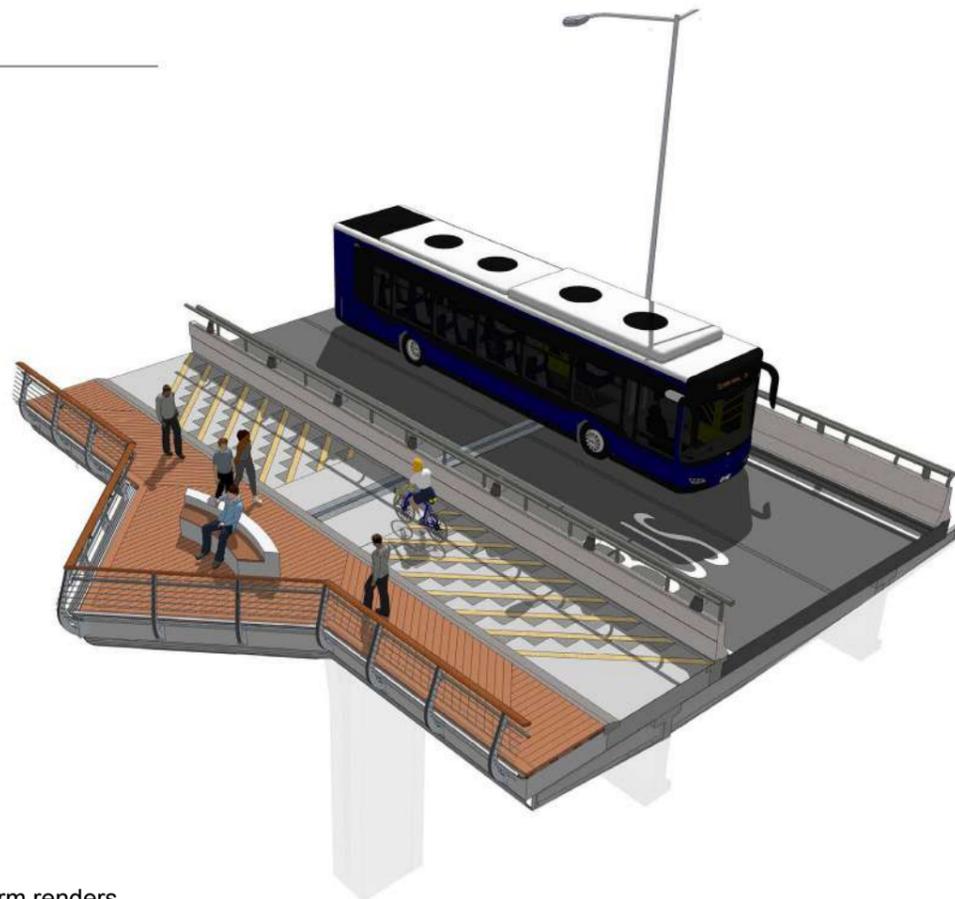


Figure 17: Mahi toi viewing platform renders

TYPE - CENTRAL PIER 1 AND 2



Figure 18: Mahi toi viewing platform renders

TYPE - EASTERN AND WESTERN ABUTMENT



Figure 19: Mahi toi viewing platform renders

TYPE - EASTERN AND WESTERN ABUTMENT

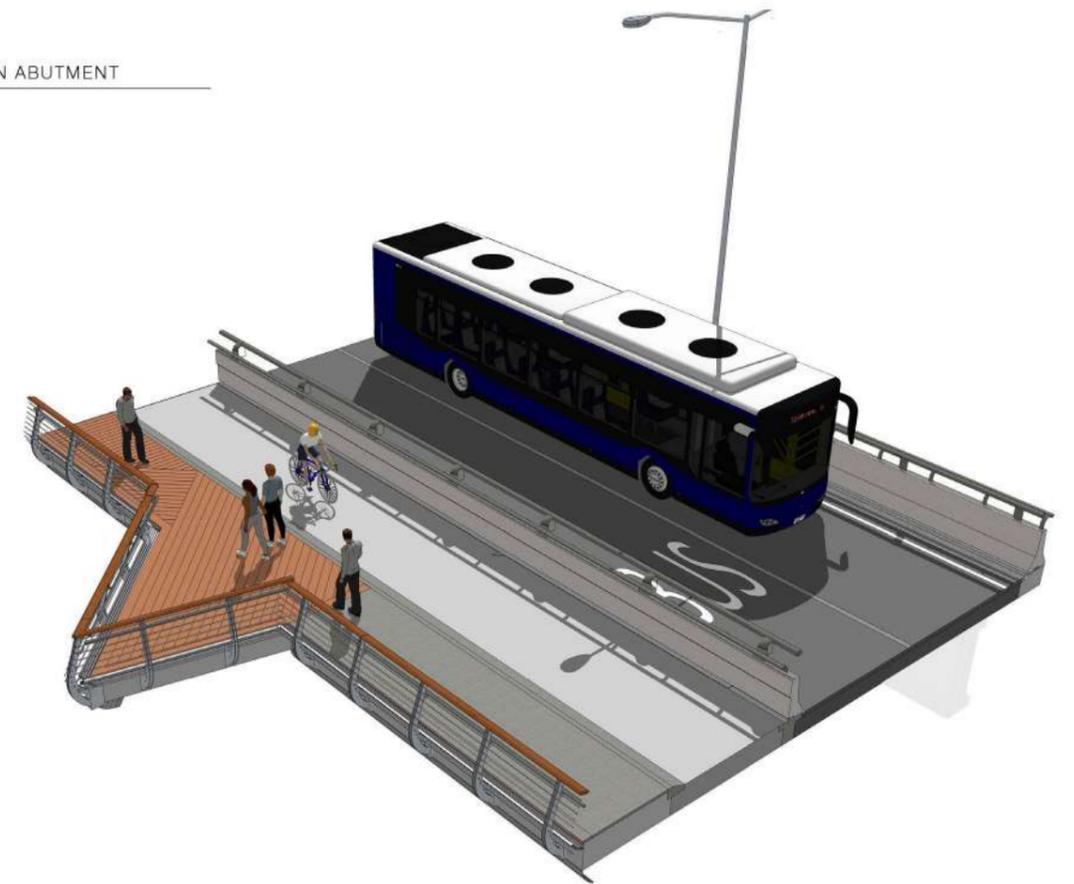


Figure 20: Mahi toi viewing platform renders

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
12	<p>The role of the kaitiaki forum may include (but is not limited to) the following:</p> <p>b. Input into preparation of the following plans required by these conditions:</p> <p>iii. Urban Design and Landscape Plan</p>	All	Not Applicable
12	<p>f. Providing input into the urban design and landscape design associated with the project, including but not limited to:</p> <p>i. appropriate use of Te Aranga principles;</p> <p>ii. treatment of residual open spaces;</p> <p>iii. the selection and supply of plant species and planting designs;</p> <p>iv. the potential for enhancement of habitat associated with the kawau (black shag) and other identified areas of customary importance such as the Tamaki River and the Panmure Basin;</p> <p>v. opportunities to enhance cultural values and sites by incorporating cultural recognition elements into features of the project including at the new Panmure intersection, on retaining walls, the soil nail walls, fencing, cycleways and walkways, the new Tamaki Bridge (including its abutments, piers and railings), street furniture, signage, landscaping and at the Mokoia Pā site. Cultural recognition elements may include Maori carvings and/or art, pou and/or other cultural features and/or markers to recognise and provide for the cultural relationship of Mana Whenua with the land directly affected by the project; and</p> <p>vi. visual cues and pedestrian connections between the Church Crescent/Lagoon Drive intersection and Mokoia Pā (subject to safety and transport considerations) and between the Mokoia Pā and the Jubilee Bridge</p>	<p>CH3</p> <p>CH5</p> <p>CH4</p> <p>CH6</p> <p>CH1</p> <p>CH7</p> <p>CH2</p> <p>AM3</p>	<p>Pursue public art opportunities at exposed retaining walls and other structures, including stories and themes that are meaningful to iwi</p> <p>Afford Mana Whenua the opportunity to provide an appropriate name for the open space</p> <p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into the public face of noise fences associated with the project where appropriate</p> <p>Enhance Mauri through the reintroduction of natural landscape elements into the urban streetscape (for example native flora), promoting bird and insect life to create meaningful urban ecosystems which connect with former habitats, food gathering areas and living sites</p> <p>Enable cultural art opportunities at bus stops and other nodes to reflect the character and significance of the area</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>Seek Mana Whenua input into integrated stormwater and landscape design solutions</p>
45	<p>As a minimum the following must be included in the HHMP:</p> <p>c. Methods for documentation and potential reuse of items of movable historic heritage, as part of the final UDLP;</p>	<p>CH1</p> <p>CH3</p>	Not Applicable
49	<p>The Requiring Authority is to submit an Urban Design and Landscape Plan prepared by an appropriately qualified urban designer and landscape architect to the Team Leader, Southern Monitoring, in consultation with the Council's Parks Planning Team Leader (where appropriate), for certification for any stage of the project. The primary objective of the UDLP(s) is to implement the Urban and Landscape Design Framework and to mitigate the landscape and visual effects identified in the landscape and visual assessment prepared by Beca Ltd dated 9 December 2016 and as modified in section 9 of the evidence of Christopher Bentley dated 28 November 2017.</p>	All	Not Applicable
50	<p>The UDLP(s) must be in accordance with the project's Urban and Landscape Design Framework (including the concept plans, corridor-wide and sector specific design principles), and in general accordance with the approved landscape plans, and consistent with both the Historic Heritage Management Plan and the certified Conservation Plans required by these conditions.</p>	All	Not Applicable

Te Aranga Principles	Detailed Design Sector Response
Tohu Taiao Mauri Tu Whakapapa Mahi Toi	The Kaitiaki Forum have been involved (through Monthly AT hui and workshops) throughout the development of the planning process and have reviewed the supporting design responses required to meet the planning consent conditions identified in this UDLP.
Mahi Toi Tohu Taiao Mauri Tu Ahi Ka	<p>The Kaitiaki Forum have been actively engaged and functioned as a Project Control Group inputting regularly throughout the planning and design process of the project. The monthly AT Hui were an opportunity for the Kaitiaki Forum to meet regularly for presentations from the project designers. It was also an opportunity for the design teams to seek design input and feedback, not only at key milestones but as the design developed. At the request of the Kaitiaki Forum, smaller workshop groups were also formed to give special focus or scrutiny to particular workstreams of the project, including but not limited to the stormwater treatment, planting selection and cultural expression / public artwork.</p> <p>The Kaitiaki Forum were involved in the selection of opportunities for cultural expression through the application of the Te Aranga Principles for the entire corridor. These opportunities were developed through the design process and relate to all aspects of the project to celebrate the historic, environmental and cultural narratives of the area. This approach created an overarching cultural narrative that is consistent along the entire corridor.</p> <p>Mahi toi (artwork) are located along the corridor and close to pedestrian access. Mahi Toi have been designed by Mana Whenua nominated artists in collaboration with the project design team. They include both free standing sculptures and relief pattern along terracing and retaining walls.</p> <p>The design of public spaces and artwork in sector 3 are illustrated in Figures 20 - 22 of this UDLP and were designed by Mana Whenua through concept to detailed design process. The mahi toi sculptures have involved 3 iwi nominated artists. Refer to Appendix D for detailed drawings 3311120-AR-1401, 1500, 1800.</p>
Not Applicable	<p>Moveable heritage items such as the commemorative plaque at the Pakuranga end of Kerswill Place, will be retained, reused and relocated within the project footprint.</p> <p>Additional interpretative signage regarding the historic concrete road will be developed for the Project and will include reference to the WWII tank barrier on Queens Road.</p> <p>Any basalt kerb stones of heritage value affected by the proposed works will be recorded in accordance with the provisions set out in the HHMP. Where feasible they will be reused and integrated as part of the landscaping design of Eastern Landing..</p>
Not applicable	Not applicable
Not applicable	Not applicable

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	The UDLP is to demonstrate how the corridor-wide and sector-specific design principles are achieved in the AMETI Stage 2A design, and must address the following;	Not applicable	Not applicable
51	a. Wayfinding, directional signage and sense of place features throughout the project route, including links between the Mokoia Pā, Te Kai a Hiku / Panmure Basin, the Jubilee Bridge and the Rotary Walkway;	CH1 CH2	Capitalise on placemaking opportunities at severed local roads to make a positive contribution to the area character and public amenity, and to strengthen recognition and connection points of focal points on the cultural landscape Pursue public art opportunities at exposed retaining walls and other structures, including stories and themes that are meaningful to iwi Enable cultural art opportunities at bus stops and other nodes to reflect the character and significance of the area
51	d. The location of property accessways required to service affected properties and where those properties are located in the project footprint;	C01 CO1 CO5	Capitalise on placemaking opportunities at severed local roads to make a positive contribution to the area character and public amenity, and to strengthen recognition and connection points of focal points on the cultural landscape Provide new local road connections to ensure access is maintained to residential communities and existing transport networks
51	e. Measures to achieve a safe level of transition for cycling and walking modes, including providing advanced warning and signage to cyclists and pedestrians, and safe and convenient cycling transitions at the ends of the project;	C01 C03 AM3	Provide a high quality walking and cycling environment with optimal and prioritised crossing opportunities to link desire lines and local network destinations Provide a minimum of 3 crossing opportunities, reasonably spaced along the road corridor, to facilitate walking and cycling Create a safe transition of cycle facilities to avoid potential conflicts with pedestrians, particularly from separated to shared path infrastructure at the bridge interface

Te Aranga Principles	Detailed Design Sector Response
Not applicable	Not applicable
Tohu Mahi toi Whakapapa	<p>The provision of general cycling and road safety signage is included in the detailed design documentation.</p> <p>The project wayfinding and directional signage, including sense of place features will be coordinated and delivered to the specifications set out in the recently published 'AT Transport Design Manual - Signage'. The design team will retrospectively apply the wayfinding and directional signage design to the corridor to meet the outcomes of the UDLP.</p> <p>An addendum to the UDLP will issued once the detailed design of the signage and wayfinding strategy has been finalised.</p> <p>Specific Mana Whenua signage has also been developed by Auckland Transport to interpret culturally significant sites along the corridor in a consistent manner. This will be applied to the project once the detailed design of the wayfinding and signage has been completed. The content of the signage will be determined by the Kaitiaki Forum in collaboration with their nominated artists.</p> <p>There is a safe, accessible and convenient link between the Rotary Walkway and the separated cycle facility on the north side of the south-eastern bridge abutment and another pedestrian connection near the eastern project extent, through the openspace reserve near the Pakuranga Town Centre.</p>
Tohu Mahi toi	<p>Property access across the new busway will be prevented for safety and efficiency. As a result, the properties between Kerswill Place and Millen Avenue will have new access roads with pedestrian and cycle connections maintained at Tamaki Bay Drive, Latham Avenue and under the bridge to the former Marine Building site. These closures have been mitigated through opportunities for nodes of amenity such as, for e.g. improved pedestrian facilities including crossing points and small areas of native planting and artwork, that will make a positive contribution to the area's character and public amenity.</p> <p>Access is maintained to affected properties by new local road connections and reconfigurations linking Dillimore Avenue and Latham Avenue on the southern side of Pakuranga Road. Latham Avenue is required to be closed off by the proposed busway. The cul-de-sac will be landscaped and converted into a cul-de-sac at Pakuranga Road with access to Pakuranga Road via Millen Avenue. Refer Appendix F for Sheet 3233073-LA-0205 & 0211 for further information.</p> <p>Tamaki Bay Drive will also be closed from the proposed busway but will be converted into a cul-de-sac at Pakuranga Road. Access to Pakuranga Road will be via the new signalised intersection at Williams Avenue. Refer Appendix F for Sheet 3233073-LA-0206 for further information.</p>
Not applicable	<p>A clear road hierarchy and connection for all modes has been created throughout the corridor. The signalised intersections prioritise strategic pedestrian routes and includes pedestrian and cycle activated signalised crossings. These crossings are staggered with mid-way refuges across Pakuranga Road. There are safe pedestrian zones for waiting at intersections and safe pedestrian crossing facilities across cycle lanes and bus lanes to access bus stops. Optimal and prioritised crossing opportunities have been included in the design to link desire lines and local network destinations between them. There are signalised crossings at Millen Avenue, Williams Avenue and Ti Rakau Road along Pakuranga Road.</p> <p>Transitions have been reinforced by AT approved walking and cycling signage and surface treatments for each mode. Where there is a transition from shared path to separated cycleway there will be a gradual and generous areas for transition supported by advanced warning signs and surface treatment changes. Transport planners have prepared detailed road safety signage plans and the pavement finishes have been captured in the detailed design drawings (Refer to Appendix I for Signage drawings, Appendix D for detailed drawings 3311120-AR-1001 -1013 & Appendix F for 3233073-LA-0201 - 0211)</p> <p>Along the northern side of Pakuranga Road there is a separated 3 metre wide cycleway and a 2 metre wide footpath separated by a 0.5m wide separation between cycleway and footpath. The cycleway has a landscape berm separating it from the busway.</p> <p>To manage conflict in transition between cycling and walking modes there is proposed signage to ensure the safe and convenient transitions of both modes throughout the corridor. For e.g. warning signage and surface treatments are positioned at intersections and transitions to reduce shared path and separated cycling conflicts</p>

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	<p>f. The location and design (including height) of noise walls must be designed to enable land to be integrated into the urban area, including minimising intrusion on adjoining residents and reserves, maintaining and contributing to the amenity of residents and road users, and visually integrating with the surrounding residential character. The noise walls are to be designed in accordance with the Urban and Landscape Design Framework;</p>	<p>CH3 CH5 AM3 CH1</p>	<p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into the public face of noise fences associated with the project where appropriate</p> <p>Screen and soften the visual effects of the public / private interface</p> <p>Mitigate material increase in noise effects through a combination of carefully sited and designed noise fences and noise attenuation of individual buildings in the form of insulation and double glazing</p>
51	<p>g. Design features and methods for cultural expression and in order to reflect outcomes agreed through mana whenua engagement;</p>	<p>CH1 CH2 CH3 CH4 CH5 CH7 SU5</p>	<p>Capitalise on placemaking opportunities at severed local roads to make a positive contribution to the area character and public amenity, and to strengthen recognition and connection points of focal points on the cultural landscape</p> <p>Pursue public art opportunities at exposed retaining walls and other structures, including stories and themes that are meaningful to iwi</p> <p>Afford Mana Whenua the opportunity to provide an appropriate name for the open space</p> <p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into the public face of noise fences associated with the project where appropriate</p> <p>Enable cultural art opportunities at bus stops and other nodes to reflect the character and significance of the area</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>Seek Mana Whenua input into integrated stormwater and landscape design solutions</p>

Te Aranga Principles	Detailed Design Sector Response
<p>Mahi toi Taiao</p>	<p>The location and design of the noise walls have been designed in accordance with the Project ULDF (Urban and Landscape Design Framework). The detailed design documentation has not departed from the locations proposed in the ULDF. The requirement for noise walls was determined by Marshall Day Consultants and is limited to three locations in Sector 3. (See Figure 24 for general location or Appendix F, Sheet 3233073-LA-0202 0206 for more detailed extents).</p> <p>Noise walls for the project have been designed as residential fences in both scale (1.8m high) and materiality (timber) to minimise intrusion on adjoining residents and reserves. The design and finishes are consistent across all sectors (See Figures 25 & 26). The location of noise fences are generally set back from footpaths to avoid CPTED issues or incorporated into planting areas to reduce vandalism (for e.g. graffiti). The design of the noise fences is consistent across the corridor and where visible will add to the character and cultural expression along the corridor. Noise fences do not screen public views to landscape features and have been designed to combine with existing residential fences.</p> <p>Iwi artists provided designs for the noise fences that referenced local cultural narratives with the acceptance that these fences may become sacrificial when future residential development occurs along Pakuranga Road. See Figures 25 & 26 for the engagement images or Appendix D for Sheet 3311120-AR-1106 for the detailed drawings issued for construction.</p>
<p>Tohu Mahi toi Whakapapa Taiao</p>	<p>The Kaitiaki Forum of Mana Whenua representatives were engaged at monthly hui to input and review the design regularly as it progressed throughout the detailed design phase.</p> <p>Focused opportunities for Mana Whenua input were identified through the application of the Te Aranga principles, identified in the ULDF. The Te Aranga Principles identified opportunities in each sector. These were reviewed and approved by Mana Whenua. A local Pepeha (endorsed by the Kaitiaki forum) guided the landscape and urban design responses that would acknowledge and celebrate the wider historic, cultural and environmental narratives of Panmure, the Tamaki estuary and Pakuranga. Mana Whenua input focused on plant species selection, pocket parks and stormwater treatments and in particular.</p> <p>Mana Whenua had direct input into the design of public spaces and led the design of 2 standalone Mahi Toi installations in this sector and various global elements including for e.g. Noise Walls, Pedestrian Barriers, Signage and Retaining Walls. The Mahi Toi sculptures were a collaboration of 3 artists nominated by the Iwi representatives. Refer to Appendix D drawings 3311120-AR-1401, 1500, 1800 for more details.</p>

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	<p>h. The location and design of any structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve, the new reserves and reinstated reserve areas (and to consider the inclusion of a pedestrian access between Lagoon Drive and Sunset View Road across the Sunset Road Reserve);</p>	<p>CH5 CH3 CH4 CH6 AM1 AM3 SU5 SU3 SU1 CH1 CH7 CH2</p>	<p>Create a more 'human' scale by narrowing the apparent width of the corridor with strong vertical elements</p> <p>Maintain and/or enhance views and possibilities for interpretation of the natural environment</p> <p>'Green' the corridor as far as possible to reinforce the 'urban boulevard' effect by:</p> <p>Retaining trees and vegetation of merit, and integrating new street trees</p> <p>Planting residual road areas including medians</p> <p>Integrating landscape design and stormwater design</p> <p>Pursue public art opportunities at exposed retaining walls and other structures, including stories and themes that are meaningful to iwi</p> <p>Contribute to the revitalisation of cultural identity by making use of opportunities to incorporate Maori artistic measures into the public face of noise fences associated with the project where appropriate</p> <p>Enable cultural art opportunities at bus stops and other nodes to reflect the character and significance of the area</p> <p>Create an identifiable 'family' of pocket parks that also allows for variety in the treatment of particular elements</p> <p>Develop pocket parks in consultation with Mana Whenua so that an overarching cultural thematic approach is consistent across the project</p> <p>Select plants to encourage and provide for the needs of native fauna</p> <p>Seek Mana Whenua input into integrated stormwater and landscape design solutions</p> <p>Select robust, low-maintenance native species that are also local to the area</p> <p>Design new open spaces to be accessible, attractive and inviting, to encourage their use and through that to increase the level of passive surveillance and a sense of 'eyes on the street'</p> <p>Design spaces that may in the future support new development so that they can optimise access, overlooking and 'activation' of the busway</p> <p>Ensure high quality and consistent levels of lighting to ensure users feel safe</p>

Te Aranga Principles	Detailed Design Sector Response
<p>Mahi toi</p> <p>Whakapapa</p> <p>Taiao</p> <p>Mauri tu</p>	<p>The design of the public realm (structure, pathway, parks infrastructure, green asset and any other infrastructure in any road reserve) have been designed in accordance with the Urban and Landscape Design Framework.</p> <p>The spaces resulting from road closures create opportunities for nodes of amenity such as small pocket parks that will make a positive contribution to the area's character and public amenity. An open space designed as a small neighbourhood park at Kerswill Place will retain the suburban character at the gateway threshold of Pakuranga Road. Regenerating native vegetation is used to frame the carriageway and emphasis the arrival into Pakuranga.</p> <p>The following open space area is located along the Pakuranga Road Sector 3;</p> <ul style="list-style-type: none"> • At the intersection between Kerswill Place and Pakuranga Road. Refer Appendix F for Sheet 3233073-LA-0202 <p>A future Reserve at 24 Pakuranga Road will connect with the walking and cycling infrastructure of Pakuranga Road and will take advantage of views towards the mangroves of the Tamaki River.</p> <p>Acknowledgement and integration of Mana Whenua opportunities were identified and developed through the application of the Te Aranga Principles throughout the corridor. These opportunities were developed through the design process and relate to the various open space areas which celebrate the historic and cultural narratives of the area. This creates an overarching cultural thematic approach that is consistent along the entire corridor. The mahi toi (artwork) are located with pedestrian access and have been developed in consultation and through Mana Whenua. They include both free standing sculptures and relief pattern along terracing and retaining walls. Refer Figure 21 - 23.</p>

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	<p>i. The location of landscaping, including any vegetation to be retained, areas of landscape mitigation and ecological enhancement planting in such a way that enables land to be reintegrated into the surrounding urban context. This is to include a schedule of species to be planted including the botanical names, locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity (which are to be used unless there is a specific need for exotic species as determined by the landscape architect in her/his sole discretion), grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings;</p>	<p>CH5 CH6 AM7</p>	<p>Screen and soften the visual effects of public private interface, bridge abutments and retaining walls.</p> <p>'Green' the corridor as far as possible to reinforce the 'urban boulevard' effect by:</p> <ul style="list-style-type: none"> • Retaining trees and vegetation of merit, and integrating new street trees • Planting residual road areas including medians • Integrating landscape design and stormwater design <p>Enhance Mauri through the reintroduction of natural landscape elements into the urban streetscape (for example native flora), promoting bird and insect life to create meaningful urban ecosystems which connect with former habitats, food gathering areas and living sites</p>
51	<p>k. Streetscape details for Williams Avenue and the Latham - Dillimore connection, including amenity tree planting and any associated footpath re-location;</p>	<p>CO1 CH2 AM3 CO5 SU1 SU3 SU4</p>	<p>Provide a minimum of 3 crossing opportunities, reasonably spaced along the road corridor, to facilitate walking and cycling</p> <p>Create an identifiable 'family' of pocket parks that also allows for variety in the treatment of particular elements</p> <p>Capitalise on placemaking opportunities at severed local roads to make a positive contribution to the area character and public amenity, and to strengthen recognition and connection points of focal points on the cultural landscape</p> <p>Provide new local road connections to ensure access is maintained to residential communities and existing transport networks</p>
51	<p>l. Measures to be undertaken for topsoil and subsoil management to rehabilitate the soil profile in order to provide a viable growing medium for the areas to be planted and for use on the berms. Consideration is to be given to the use of engineered tree pits, utilising a combination of structural soils, soil vaults, or structural soil cells where necessary to provide sufficient rooting environment for large growing trees in restricted areas;</p>	<p>Not applicable</p>	<p>Not Applicable</p>

Te Aranga Principles	Detailed Design Sector Response
<p>Mauri tu</p> <p>Mahi toi</p> <p>Taiao</p>	<p>A selection of the planting species approved by the Kaitiaki forum are listed in Figure 23 of the UDLP. These were translated into the detailed planting schedules. The vegetation treatment of the corridor restores the character lost by greening the corridor in a way that reflects the transition from a predominantly 'native' environment near the river to the urban parkland of the areas around the Pakuranga Town Centre. This will also help to reduce the visual width of the corridor and focus views towards landmarks and key nodes. The planting will be introduced as a screen to various residential properties to reduce negative and visual amenity impacts.</p> <p>The location of landscaping, including vegetation to be retained, areas of landscape mitigation and ecological enhancement planting was identified in the LVA and ULDF (Appendix C and Appendix A) process and informed the detailed design documentation. (Refer to Appendix F for Sheets 3233073-LA-0201-0211)</p> <p>Areas of planting identified to reintegrate the project into surrounding urban context include the steep sections around the eastern landing and the coastal edge opposite the Millen Avenue intersection. Areas of significant vegetation including a Kauri have been located adjacent No.1 Kerswill Road. There have been no significant departures during the detailed design process in relation to protected vegetation or areas proposed for revegetation. As identified in the ULDF process, a number of trees are being removed to accommodate the busway and associated cycleway and footpath. The project has maintained a like for like replacement tree planting to offset the trees removed (both exotic and native species).</p> <p>A schedule of species to be planted including the botanical names of locally eco-sourced native plants that reflect appropriate taonga species and/ or indigenous biodiversity. The schedule include grade (bag size) of plants, minimum plant height at time of planting, and proposed plant spacings. (Refer to Appendix D for Sheets 3233073-LA-0601 – 0608 and Appendix G for Landscape Specification)</p>
<p>Mahi toi</p> <p>Taiao</p> <p>Tohu</p>	<p>There are signalised crossings at Millen Avenue, Williams Avenue and Ti Rakau Road.</p> <p>There are two road closures at Tamaki Bay Road and Latham Avenue. The spaces resulting from road closures are designed as small pocket parks with landscaping elements including street trees and street furniture. Refer Appendix F, drawing number 3233073-LA-0205 and 3233073-LA-0206</p> <p>New access to Latham Avenue is provided by new local road connections linking Dilimore Avenue and Latham Avenue. Refer Appendix F, drawing number 3233073-LA-0211</p> <p>The local road network is reconfigured with a new connection linking Dilimore Avenue and Latham Avenue.</p>
<p>Not applicable</p>	<p>Larger feature trees within pavements have been specified with tree cells to ensure sufficient soil volumes and watering are achieved and compaction is minimised.</p> <p>Refer Appendix D for Sheets 3311120-AR-1101 to 1104 and Appendix G for section 2.6 Top Soil Supply, 2.7 Topsoil Spreading to Planting Areas 3.2.5 Preparation of Planting Holes of the Landscape Specification.</p>

6_Sector 3. Pakuranga Road

Note: Pages to be read as a double spread

Condition number	Sector 3 Specific Conditions	Corridor Wide Principles Supported	Sector Specific Design Principles
51	m. A landscape planting methodology and plant selection process must be developed with the Council's arboricultural and horticultural specialists. The planting methodology is to include details of the maintenance programme to be implemented once the landscape planting works are completed;	CH5 CH6 SU3 SU1 SU5	Enhance Mauri through the reintroduction of natural landscape elements into the urban streetscape (for example native flora), promoting bird and insect life to create meaningful urban ecosystems which connect with former habitats, food gathering areas and living sites Select plants to encourage and provide for the needs of native fauna Select robust, low-maintenance native species that are also local to the area
51	n. A maintenance plan and establishment requirements over a three-year period for landscaping and five years for specimen trees following planting and reinstatement of road verges, and including: i. Vegetation maintenance policies for the proposed planting, in particular details of maintenance methodology and dates / frequencies; ii. Details of watering, weeding, trimming, cultivation, pest and disease control, checking stakes and ties, pruning and other accepted horticultural operations to ensure normal and healthy plant establishment and growth; iii. Details of a maintenance programme for any other green asset and/ or parks infrastructure including vandalism eradication policies; and iv. An agreed reporting mechanism for annual inspections of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	SU5	Select robust, low-maintenance native species that are also local to the area
51	o. Measures to minimise clearing work to preserve soil and any indigenous vegetation;	Not applicable	Not Applicable
51	p. Measures to ensure the appropriate disposal of any clearance of invasive/noxious weeds;	Not applicable	Not Applicable
51	q. Where feasible, design of tree planter pits in all new planting areas with a minimum soil volume of 10 cubic metres;	AM7	Not Applicable
51	r. Local sourcing of 'new' tree stock (Auckland region), and consultation with the Council's arborist regarding the size, form and quality of the tree stock prior to any planting commencing, with all tree stock ordered at least 12 months prior to use.	SU5	Select robust, low-maintenance native species that are also local to the area
52	The Requiring Authority's representative must arrange for annual inspections, accompanied by the Team Leader - Southern Monitoring, of all new plantings to ensure the plants are healthy and are being maintained to the Council's standards.	Not applicable	Not Applicable
53	At least 1 month prior to the final handover to the Council for future care and maintenance of the landscaping, the Requiring Authority's representative is to arrange a site walkover with the Team Leader Southern Monitoring to inspect the new planting areas, and to document any areas of plant health and maintenance that need to be rectified prior to handover.	Not applicable	Not Applicable
54	The UDLP planting requirements must be implemented during the first planting season following the project being operational. If the weather in that planting season is unsuitable for planting, as determined by the Team Leader Southern Monitoring (in consultation with the Council's Parks Department), the landscaping must instead be implemented at the first practicable opportunity thereafter. The next practicable opportunity must be agreed to by the Council's Team Leader Southern Monitoring.	Not applicable	Not Applicable

Te Aranga Principles	Detailed Design Sector Response
Mauri tu Mahi toi Taiao	<p>The landscape planting methodology and plant selection process which was developed in consultation with the Requiring Authority, Auckland Council (AC) and Mana Whenua include details of the maintenance requirements in the Landscape Specifications.</p> <p>This is addressed in the Landscape IFC Documentation - Sheets 3311120-AR-1101 to 1104 and Appendix G, Section 4.0 for Maintenance of Soft Landscaping in the Landscape Specification. Section 3.7 sets out the performance criteria required of the Contractor.</p>
Mauri tu Taiao	<p>A maintenance plan will need to be developed by AT to address the condition above and the vegetation maintenance policies. This will be implemented by the contractor and Council or its nominated subcontractors. The defects liability and maintenance of the Landscape Treatments is set out in section 4.0 of the Landscape Specification (issued for construction 10th December 2018). Refer to this document for further detail.</p>
Not applicable	Not applicable
Not applicable	This will be addressed as part of the Tree Protection and Management Plan to be prepared and certified by Council.
Not applicable	
Taiao Mauri tu	<p>All new tree stock will be sourced by the contractor to the Landscape Specifications and inspected by a registered landscape architect or Council Arborist prior to planting.</p> <p>This is addressed in section 3.1 Supply of materials and in 4.12 Replacement Planting of the Landscape Specification.</p>
Not applicable	Not applicable
Not applicable	Not applicable
Not applicable	Not applicable

6_Sector 3. Pakuranga Road

Mahi Toi Artwork Images



Figure 21: Mahi toi artwork render

Waka Tangata - Tauihu / Te Heru



Figure 22: Mahi toi artwork render



Figure 23: Mahi toi artwork render

Nga Manurere - Kerswill Place

6_Sector 3. Pakuranga Road

Pakuranga Road Plant Selections



Figure 24: Pakuranga Road Planting Palette

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7_Mana Whenua Engagement

Mahi Toi Cultural Expression Plan



Figure 25: Mahi Toi location plan

Mahi Toi Artwork Detailed Images



**Timber Noise Fence Detail
Pakuranga Rahihi 'Battle of the Rays'**

Figure 26: Mahi toi artwork render

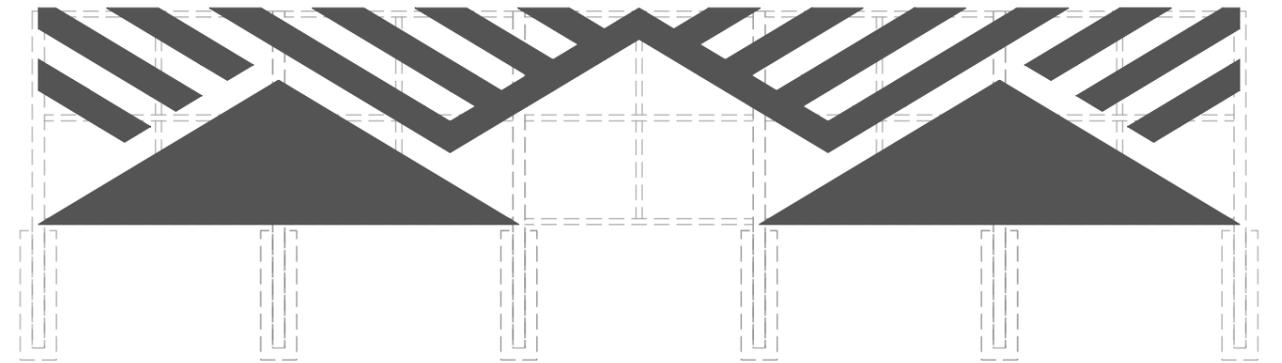


Figure 27: Mahi toi artwork render

8_Corridor Wide Illustrations

Open Space Network Plan

The open spaces shown in this plan provide pause points along the project corridor. These spaces have been developed alongside mana whenua to become an identifiable 'family' of small open space reserves.



Figure 28: Open space location plan

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