

Tupua Horo Nuku.

Mā-Koromiko - Urban Design Plans.

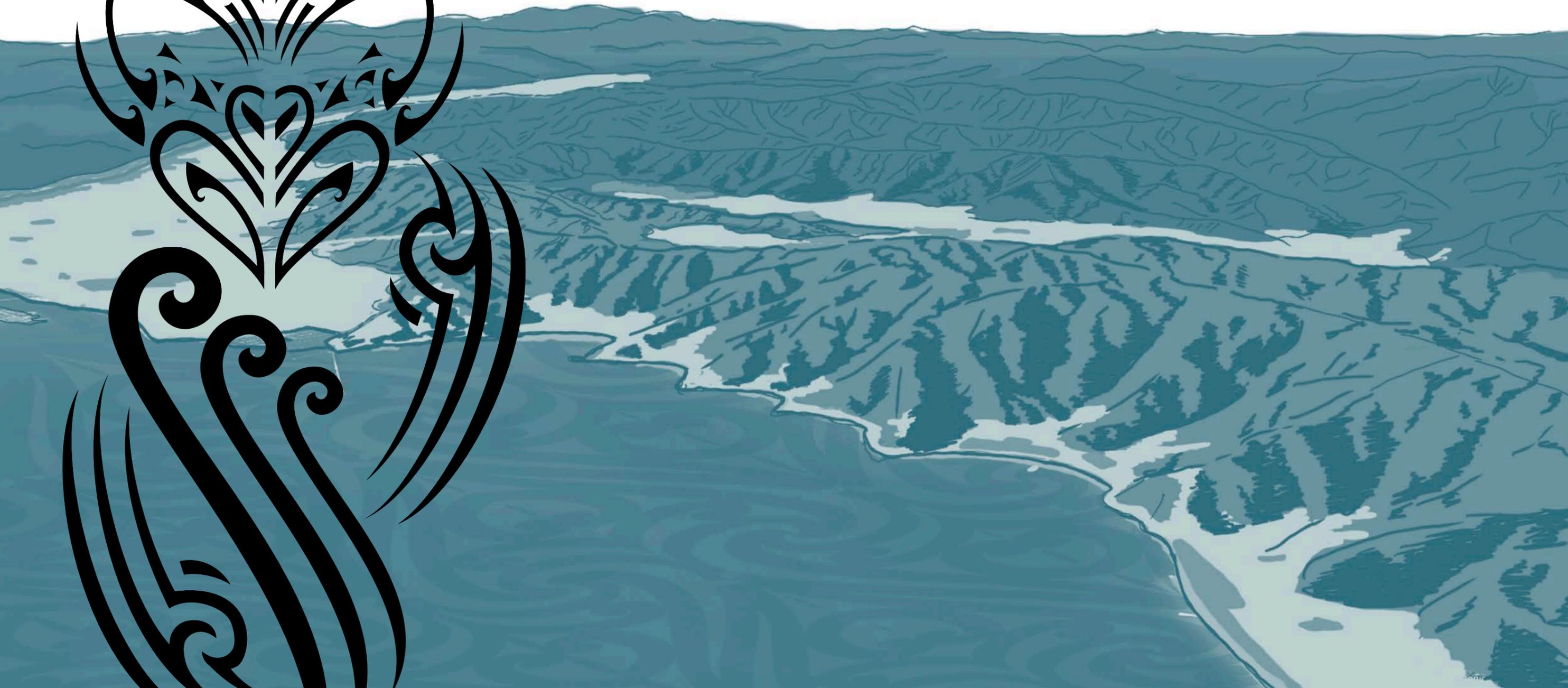
Eastern Bays Shared Path

22 July
2022



Te Ara Tupua Alliance

Shifting gear to connect past, present and future



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Tupua Horo Nuku. Eastern Bays.

The Eastern Bay area encapsulates many wahi tapu from Te kongutu o Te Awa Kairangi to Te Waha o te Ikanui. Its beginnings emanate out of the power and mana of Tupua-horo-nuku (evolving mass of solid matter), known as the tupua, Ngake.

Instructed by the mountain clan people who were summoned to the head of the fish, gathering on Pukeatua where they were gifted the appropriate incantations to prise open the mouth of the great catch of Māui-tikitiki-a-Taranga to enable it to breathe again, where they summoned from the great depths of Rua Tupua and Rua Tawhito of the fresh water lake who brought forth Tupua-horo-nuku and Tupua-horo-rangi.

Tupua-horo-nuku, Tupua-horo-rangi
Tai kukume mai takiwā ia mouri e runga
Kia horo wawe mouri e raro koi ikaroa¹

The narrative of the eastern bay speaks of and highlights “te ihi, te wehi me te mana nui o Tupua-horo-nuku.”

Te Awa Kairangi, formed out of the raging whip lashing tail of Ngake as he wound himself up into a frenzy, generating and amassing energy and power, splitting the land mass immediately behind him lacerating Papatūānuku, imbuing “te ara mouri” inland to the Tararua and Remutaka. Whilst at the same time hurling himself towards the barriers hearing the pounding and thunderous waves smashing in the distant. Smashing his way out from his land lock imprisonment to freedom unto Hinemoana and Tangaroa. In his destructive escape came forth the islands of the harbour later to be named by Kupe the pacific navigator, and as centuries passed the peopling of Te Wai-manga arrived gifting new names later to be suppressed through imperialistic and colonial methodologies which are still impacting on us since their arrival in 1769.

Tēnei te ara kei runga
Tēnei te ara o Ranginui e tū nei
Tēnei te ara o Papatūānuku e takoto nei...²

Ripiripia te ika nui
Haehaea te ika roa
Ka hora, ka hora te kai ki a Tamanuiterā
Ka hora, ka hora te kai ki a Tāwhiri-mātea...³

1 He karakia nō te kainga
2 He karakia nō te kainga
3 He karakia nō te kainga

Immediately following the severing, Hine-wai-tootaa and Hine-kōrako went about their duties caressing and gently healing Papatūānuku. Calling upon their sister Hine-wairere they asked her if she could follow the scarification marks of Papatūānuku until she was fully covered to sooth her skin to ease the pain. To this day they still nurture and care for her.

Te Awa Kairangi like many rivers began its life through the kuia Hine-wai-tota, Hine-kōrako and Hine-wairere, being the ancestress of condensation, lunar droplets and water flow gathering on the many peaks on both sides of the river. Fed by melting snow, ice and rainwater running off the land, the collective of droplets follows cracks and crevices within the landscape formed out of the raging whip lashing of the tail of Ngake (seismic activity) in his attempt to escape to freedom from his land lock lake imprisonment.

The many small tributaries joining together growing larger forming the collective mass of Te Awakairangi, flowing every second of the day. The following whakatauaaki encapsulates who the people of Te Ātiawa are and our responsibility for the water and the whenua.

**Te Ātiawa tupua rau, he auripo i te manga iti, he auripo i te manga nui
rānei, he kaitiaki ki te whenua ⁴**

Te Ātiawa of many phenomena's, where there is a ripple in a small tributary or great river, there is a guardian and protector on the land.

Over time the continuous flow of Te Awa Kairangi has shaped the landscape moving and wearing away rock, carving out a network of valleys eventually reaching the lower grounds, widening and reaching the point where the fresh water meets the salt water.

Whakapakarukaru puare te waha o te ika roa Te hononga o ngā wai e rua...⁵

The Eastern Bay commences at the meeting of the waters.

4 Nā Kura Moeahu whakahī
5 He karakia nō te kainga



Figure 1.1 Tupua-Horo-Nuku artwork.
Len Hetet, 2021

Tupua Horo Nuku. The Pathway.

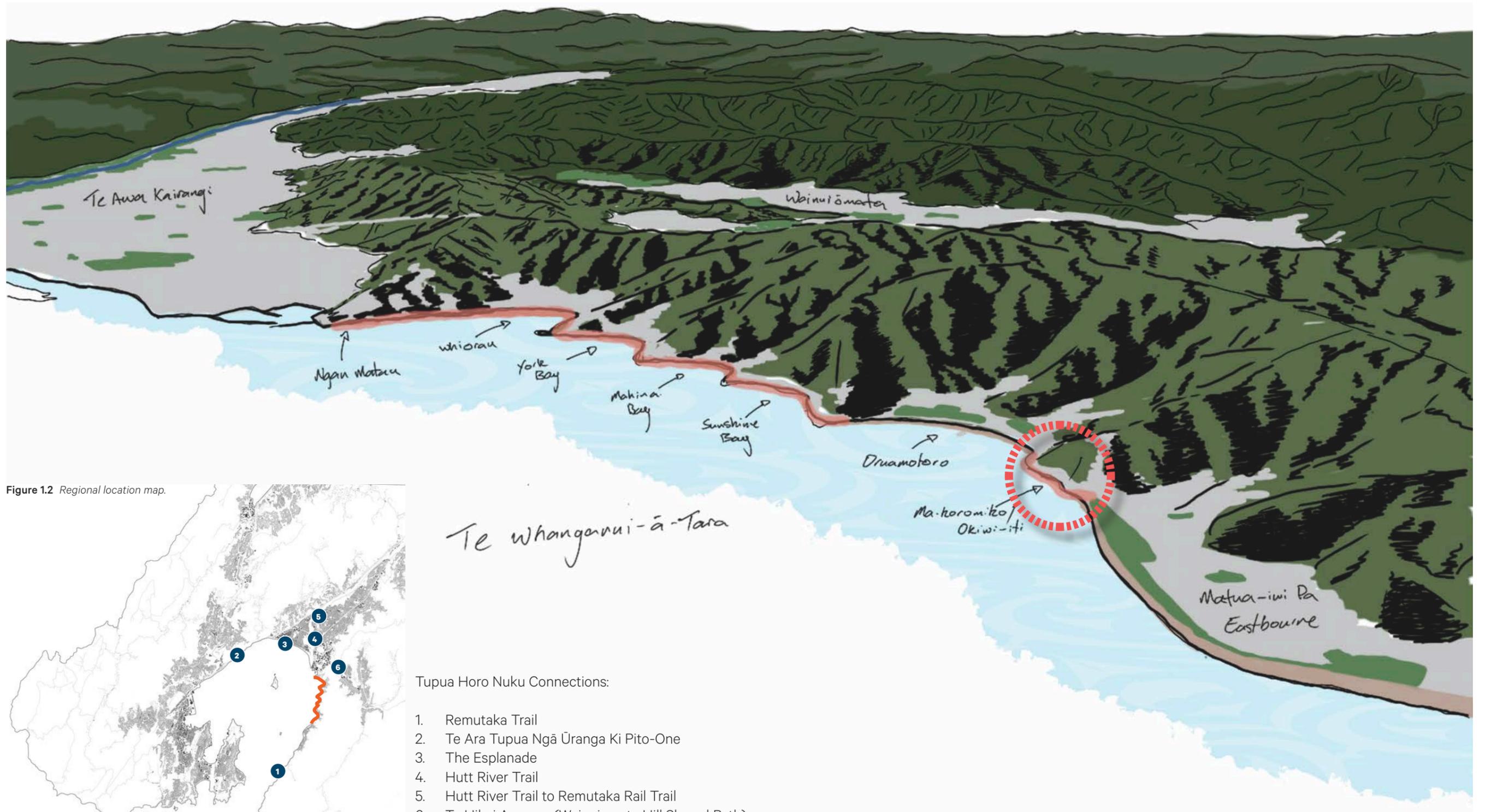


Figure 1.2 Regional location map.

Tupua Horo Nuku Connections:

1. Remutaka Trail
2. Te Ara Tupua Ngā Ūranga Ki Pito-One
3. The Esplanade
4. Hutt River Trail
5. Hutt River Trail to Remutaka Rail Trail
6. Te Hikoi Ararewa (Wainuiomata Hill Shared Path)

Figure 1.3 Tupua Horo Nuku context.

Introduction.

Purpose & Objectives

The purpose of the Bay Specific Urban Design Plan (BSUDP) is to provide bay specific detailed design for the project responding to local landscape character, identity and land use, in the broader context of the Landscape and Urban Design Plan (LUDP).

Consent conditions for the Eastern Bays Shared Path (Tupua Horo Nuku) guide the content of the BSUDP and the preceding LUDP. The conditions outline the purpose of the management plans, the contents of the plans, expert inputs, stakeholders to be consulted, the approval and certification process and how to manage disputes. Consent conditions are listed on page 9.

Condition LV.6 requires the BSUDP to be submitted in two stages.

Stage 1 is a draft design protocol. Building on the overall design approach and narrative set out in the LUDP. The bay specific design protocol describes the special landscape and natural character of each bay and outlines the aesthetic principles to be applied. Community comment on the Ma-Koromiko (Windy Point) was sought on the draft design protocol.

Stage 2: The final BSUDPs are to be certified either on their own (in accordance with Condition GC.5) or, if included in the initial LUDP, when the LUDP is certified under Condition LV.1. Community aspirations, engineering constraints with urban design and landscape layers are applied to achieve a unique bay specific design, integrated with the Eastern Bays Shared Pathway.

Structure

In satisfying Conditions LV.5 - LV.7 of the Resource Consent the Draft Design Protocol process informing the BSUDPs is:

- Illustrate bay locations and describe the landscape context.
- Ascertain draft priorities for each bay. Priorities include issues involving: safety, access and mobility; engineering; ecology; natural character; landscape; urban design; and recreational and amenity elements.

- Show visual representations of best practice through precedent examples of comparable shared path projects.
- Outline landscape and urban design approaches and principles for each bay to set the scene for design plans and details.
- Develop an illustrative schematic plan for each bay.

Consultation.

Summary of Consultation Process

The consultation on the bay-specific design was carried out in accordance with the conditions of the resource consent for the project, specifically condition LV.6 which describes a two-stage approach for developing the Bay-Specific Urban Design Plans for each bay.

The condition requires that the draft design protocol is provided to: “the relevant Resident Association (if any) for the affected bay, the East Harbour Environmental Association, and the Eastbourne Community Board within 15 working days of receipt”.

The draft design protocols were issued on Monday 14 March to:

- Residents representatives of Sunshine Bay and Mā-Koromiko (neither bay has a formally established Resident Association, but named individuals have previously acted as bay representatives)
- The Eastbourne Community Board
- East Harbour Environmental Association

Each was requested to provide comments, if any, by Sunday 3 April (15 working days following issue).

Comments were made by:

- Residents from Mā-Koromiko on the Mā-Koromiko design protocol
- The Eastbourne Community Board
- East Harbour Environmental Association

No comments were made by residents from Sunshine Bay on the Sunshine Bay design protocol.

Condition LV.6(a) requires that the comments and the consent holder’s responses including whether the comment is accepted and reasons if the comment is not accepted be provided, within 20 working days. Following the receipt of comments, the project team has considered all comments raised and created a response. We have outlined below whether the key points of each comment are accepted or not accepted. The final Bay Specific Urban Design Plans will be developed in line with the direction explained below.

Summary Table.

<i>Comment Title</i>	<i>Raised by</i>	<i>Description</i>	<i>Project Team Response</i>
Mā-Koromiko Balustrades	Residents	<p>Comments from several Mā-Koromiko residents indicated their opposition to the use of balustrades in the bay as a safety measure against falling from heights.</p> <p>Reasons for this included preventing access to the coastline, belief that a barrier is unnecessary, comparison with the existing situation which has no protection from falling, and the history of past consultation where the same position was expressed.</p>	<p>Not Accepted Hutt City Council and its partners in Te Ara Tupua Alliance have carefully considered the use of balustrades, noting strong feedback from residents at previous stages, and during this consultation process.</p> <p>It is a legal requirement to include features that prevent people from falling from heights of 1m or more, where serious injury could result - particularly to children or other vulnerable people.</p> <p>In some places this can be achieved by using a wider 'step' or ledge in the double-curve seawall design. This takes up space and the footprint over which the shared path can be built is limited.</p> <p>The New Zealand Building Code required that any new structure with a potential fall from height of greater than 1 metre have fall prevention measures (generally balustrades). In the situation where balustrades have been specified on this project, there is insufficient space to allow for the wide fall mitigation platforms (as used elsewhere) to be used without considerable encroachment into the coastal marine area (CMA).</p> <p>More information on this will be provided directly to neighbouring residents.</p>
Mā-Koromiko Stairs Location	Residents	Comments expressed a desire to retain the location of the steps near to their current location opposite 729/731 Marine Drive.	<p>Accepted The steps will be relocated to be near the existing location, approximately opposite 729 and 731 Marine Drive.</p>
Windy Point Bay Name	Residents and Community Board	Comments expressed a request that the name of the bay be resolved preferably with use of one of the Māori names. Some comments suggested Okiwi-Iti, while another comment preferred Mā-Koromiko.	<p>Accepted The Mana Whenua Steering Group and its advisers have agreed that Mā-Koromiko is the appropriate Te Reo Māori name for the Windy Point area within the project. The name refers to the Koromiko, a native shrub, and its white to lilac coloured flowers. This will be used going forward within the project.</p>
Car Parking	Community Board	Comment that there needs to be separation to prevent doors swinging open into shared path and that the design protocol did not provide this detail.	<p>Accepted There will be a 90cm wide buffer between the line marking of the car park and the edge of the shared path, providing space to minimise door swing and risk to cyclists. This was already accommodated in the design.</p>
Way-Finding Signage	Community Board	Question about the design of way-finding signage and comment requesting that this be clear with high-contrast and high visibility.	<p>Accepted There will be directional signage in line with Waka Kotahi MOTSAM standards and cycle network guidance. This is an addition to 'architectural' features such as the Mouri Markers.</p>
Placement of Street Furniture	Community Board	Question about the specific locations of signs, bins, bike stands, and seats and comment that these need to be placed to avoid impacting shared path function.	<p>Accepted Placement of all street furniture is already planned to avoid obstruction to the shared path. Please note that the design has been developed to have a low-profile coastal aesthetic and avoid 'clutter'. As a result, these features are relatively few in number and placed selectively. For example, rubbish bins are minimised to encourage people to take rubbish away with them and to avoid rubbish being blown out of bins.</p>
Use of 'Landing' for Walking	Community Board	Question about whether the landing can be used as space for walking, and comment that beach access steps should provide access for walking on the landing.	<p>Not Accepted The landing in the seawall profile is not designed for walking. The beach access steps are designed to discourage access onto the landings. However, access will not be prevented and it is acknowledged some people will use the landing for walking or sitting.</p>

Consultation.

Summary Table.

<i>Comment Title</i>	<i>Raised by</i>	<i>Description</i>	<i>Project Team Response</i>
Water Fountains	Community Board	Question about where water fountains will be located	Not Accepted There are no water fountains proposed within the Sunshine Bay or Mā-Koromiko sections. Alternative water fountains already exist in Days Bay.
Lighting	Community Board	Question about the outcome of assessment of lighting for the shared path.	Accepted The lighting assessment has been completed. Mostly existing lighting will be used. To bring the new path up to the appropriate lighting standard some existing light fittings will be replaced, and 2 additional poles will be installed near the carparks at the southern end of Sunshine Bay. These will be located clear of the shared path and provide adequate lighting for path users.
Incorporation of Bay History	Community Board and Residents	Desire to include in design features and signboards references to Māori and European history incorporating both British and Italian settlers. E.g. names Rona, Russo etc.	Partially Accepted At this stage the project does not include this type of interpretive signage and design features are focussed on the narrative of Tupua Horo Nuku. However, there are opportunities to share this history through project communications, project site hoardings, etc.
Balustrades	EHEA	Comment that the balustrade should be used wherever there is a possibility of falling, and that the entire seawall should be built to enable retrofit of barriers at a later date.	Partially Accepted In response to wider community feedback and to minimise future maintenance costs, wherever possible safety from falling will be addressed through the use of wider landings. Where the consented footprint prevents this (or the height is too great e.g. three tiered seawalls) a balustrade is included in the design. If required, future balustrades could be added to the seawall.
Nibs/ Separators	EHEA	Comment that the cross section of the nibs should include a concave curve facing the path and that their widths should be narrowed. Questions about the material selection - Whether to be hardwood or concrete.	Not Accepted The shape has been selected to provide a standard design that balances cost, future maintenance and safety. The materials for these will be timber for the seaward side (specifically, treated pine) and concrete for the road side. Concrete is selected for the road side in order to act as a kerb, helping to exclude vehicles from the shared path.
Wheelchair Accessibility	EHEA	Comment that all parts of the shared path must be wheelchair accessible in line with Building Code D1.	Accepted The design will meet the D1 standard. There are no ramps within the two bays sections however the rest of the path will meet these guidelines.
Slip resistance and algae	EHEA	Comment that stormwater outfalls should be designed so that algae will not grow on the seawall ledges.	Not accepted Stormwater outlets will be a like-for-like extension of the existing stormwater pipes on the current vertical alignment. In some places this means that stormwater will flow across the landing. The landing is not intended as a walking area. The landings include a textured surface to promote organic marine growth and biodiversity. The potential for organic growth at the culvert locations is not specifically addressed.
Stairs accessibility	EHEA	Comment that the seawall steps should meet the Building Code D1 standard for accessible stairways, or an explanation given as to the accessibility of design of the stairs.	Accepted The handrails on stairs meet the requirements of D1 of the Building Code.

Relevant Consent Conditions

LV.5

The LUDP shall include the final BSUDPs for each bay within the Project area. The final BSUDPs shall address detailed design within the particular bay for the benefit of pedestrians, cyclists and others using the local road network as well as the specific urban design, landscape, ecology and recreational amenity matters (including those listed in Condition LV.7) as relevant to the particular bay.

The final BSUDPs may be prepared later and added to the LUDP on a staged basis if the Construction Works are staged bay by bay and individually certified under Condition LV.6.

LV.6

The BSUDPs shall be prepared by the Consent Holder in two stages for each bay:

(a) Stage 1:

A draft design protocol that sets out the priorities for the bay design in terms of engineering, safety and access and mobility requirements as well as ecology, natural character, landscape, urban design and recreational amenity elements and issues. The draft design protocol shall provide visual representations of best practice on comparable coastal shared path projects to demonstrate the level of design to be targeted. The protocol shall be provided to the relevant Resident Association for the affected bay (if any) The East Harbour Environment Association and the Eastbourne Community Board for comments (if any) within 15 working days from receipt.

Any comments received, and the Consents Holder's response and reasons if they are not accepted, are to be provided to the Manager, Environmental Regulation, and Team Leader, Resource Consents alongside the draft design protocol, within 20 working days from receipt of the comments.

(b) Stage 2:

The final BSUDPs are to be certified either on their own (in accordance with Condition GC.5) or, if included in the initial LUDP, when the LUDP is certified under Condition LV.1.

LV.7

The BSUDPs shall include specific landscape and urban design details for:

- (a) Seawall structures, including transition zones between seawall types and transitions between natural or rocky areas and seawall structures;
- (b) Beach access including steps, ramps and associated handrails where required, **so that people wishing to access the beach can do so safely;**
- (c) Safety barriers and railing and screening barriers between important habitat for Shoreline Foragers and the shared path;
- (d) The treatment of stormwater structures at the coastal interface;
- (e) Little Penguin and Shore Forager related structures including penguin passage elements, ramps, nests, boxes and wooden poles for roosting;
- (f) Planting treatment;
- (g) The treatment of existing trees and existing landscape and natural features;
- (h) The design and area of space available for recreational amenity activities;
- (i) The design and orientation of features, spaces and access points;
- ~~(j) The design of bus stops/shelters to enhance safety and minimise risk for all users of the Shared Pathway and the road;~~
- (j) ~~(k)~~ Refuge and seating opportunities, including size and arrangement of space to allow for stopping and gathering at frequent intervals distributed along the route;
- (k) ~~(l)~~ Signage ensuring their consistency along the shared path, including branding and reduction of visual clutter;
- (l) ~~(m)~~ Storyboards;
- (m) ~~(n)~~ Surface treatments; **and**
- (n) Any other relevant matter for that bay necessary to achieve the purposes of the LUDP in condition LV.2.

1. Urban Design Plan.

Mā-Koromiko - Urban Design Plan.

Mā-Koromiko Bay is characterised by:

Mā-Koromiko connects Days Bay to Eastbourne village. Marine Drive runs along the edge of a residential landscape, characterised by low density and intermittent built development. Multi-storey residential development forms a built adage to road. This creates an urban character reinforced by kerb and footpath on inland side of road. There is a steep drop between road and foreshore at southern end of bay, stretches of rock outcrop along the coastline. The large drop from road down to rock outcrops, exposed patches of gravel at low tide.

The landform is very steep and there is very little flat land between the toe of the hill and the road, so that only a single row of houses lines the road.

The bay is shallow and with minimal enclosure from the headlands, is exposed to the prevailing northwester. Consequently there is a strong contrast between the urban built streetscape with managed garden vegetation to soften and screen views from the street, the wild, coastal hill backdrop and the exposed coastal edge.

The road is narrow, confined between the hillside and coastal edge. A sealed footpath, complete with kerb and channel runs along the residential boundary for the length of Mā-Koromiko. Lighting and power poles are located on the inland side of the road. Due to the topography, houses have been sited close to the road with many built on or near the front boundary.

There is a formal parking bay just north of the parking area on the corner of Muritai Road and Marine Drive. Elsewhere the road shoulder varies.

The existing seawall structures are steeply angled/vertical concrete wall with a small apron/ledge at the base. Other built development includes concrete steps down to a rocky beach and timber bollards around the boat access and informal parking area.

Council planting around the parking area on the corner of Muritai Road and Marine Drive extends to the northern headland. Otherwise vegetation is sparse, mainly individual taupata bushes that have established between the road seal and the seawall.

There is no beach as such, with only small areas of gravel and rock exposed at low tide, and water to the seawall at high tide. Access to the rocky beach is via two sets of concrete steps at either end of the parking bay toward the northern end of Mā-Koromiko.

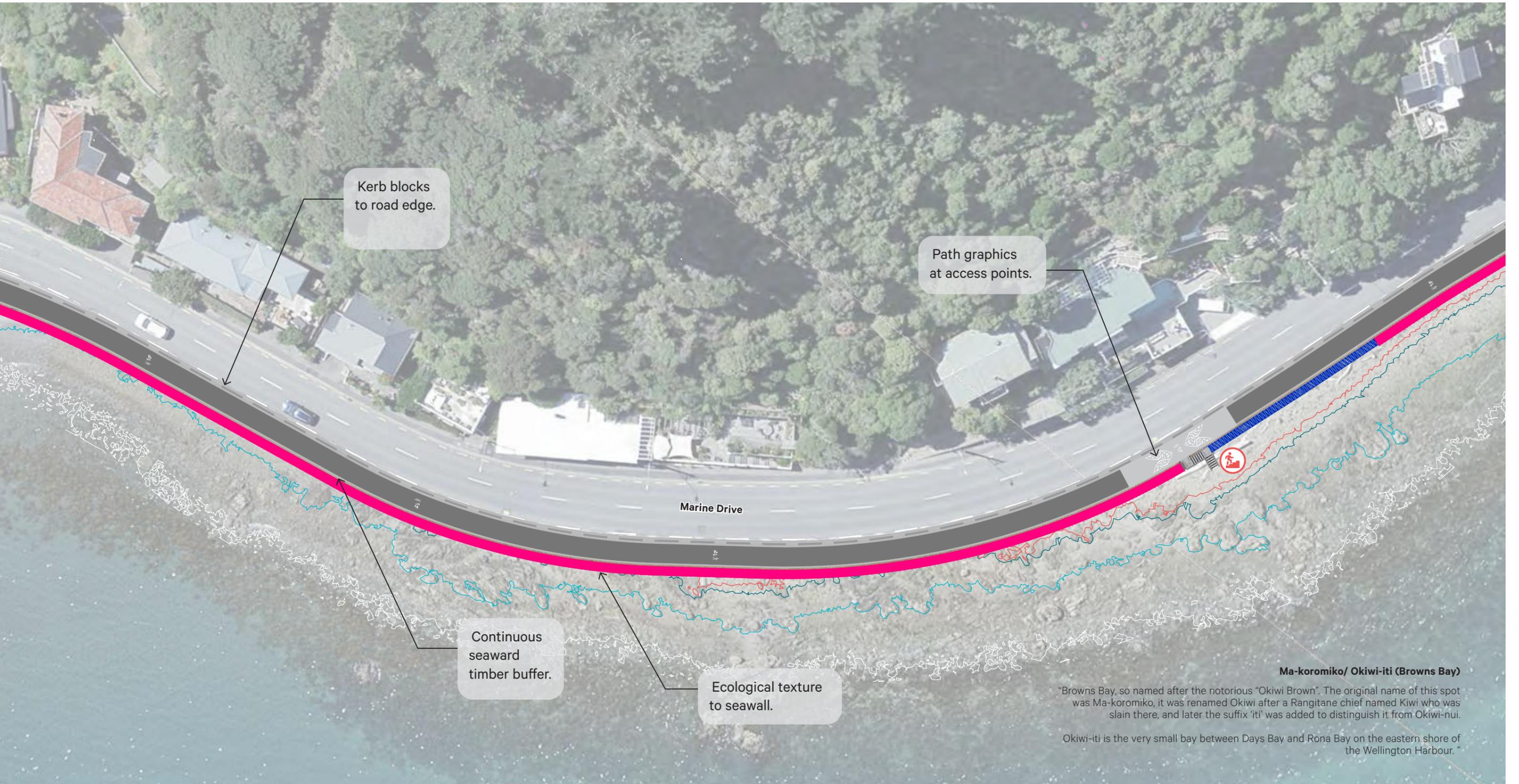
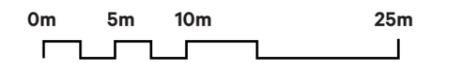
Mā-Koromiko General Arrangement Plan - North.

Legend.	
	Bus stop
	Parking
	Location of Mini steps
	Location of Standard steps
Seawalls & Path	
	Single curved seawall with bench
	Double curved seawall with bench
	Double curved seawall with Balustrade
	Triple curved seawall with Balustrade
	Shared Path
	Concrete Shared path pavement
	Fall from height barriers
Ecology and Landscape	
	Fish passage- Stream outlet
	Ecological Tiles indicative location
	Known Penguin nesting areas
	Trees retained
	Enhanced planting at headlands
Tides	
	Mean High Water Springs (MHWS)
	High Tide
	Mid Tide
	Low Tide

Wall Type Sections.	
	Single curved seawall with bench
	Double curved seawall
	Double curved seawall with Balustrade
	Triple curved seawall with Balustrade



1:500 scale bar



Kerb blocks
to road edge.

Path graphics
at access points.

Continuous
seaward
timber buffer.

Ecological texture
to seawall.

Ma-koromiko/ Okiwi-iti (Browns Bay)

"Browns Bay, so named after the notorious "Okiwi Brown". The original name of this spot was Ma-koromiko, it was renamed Okiwi after a Rangitane chief named Kiwi who was slain there, and later the suffix 'iti' was added to distinguish it from Okiwi-nui.

Okiwi-iti is the very small bay between Days Bay and Rona Bay on the eastern shore of the Wellington Harbour."

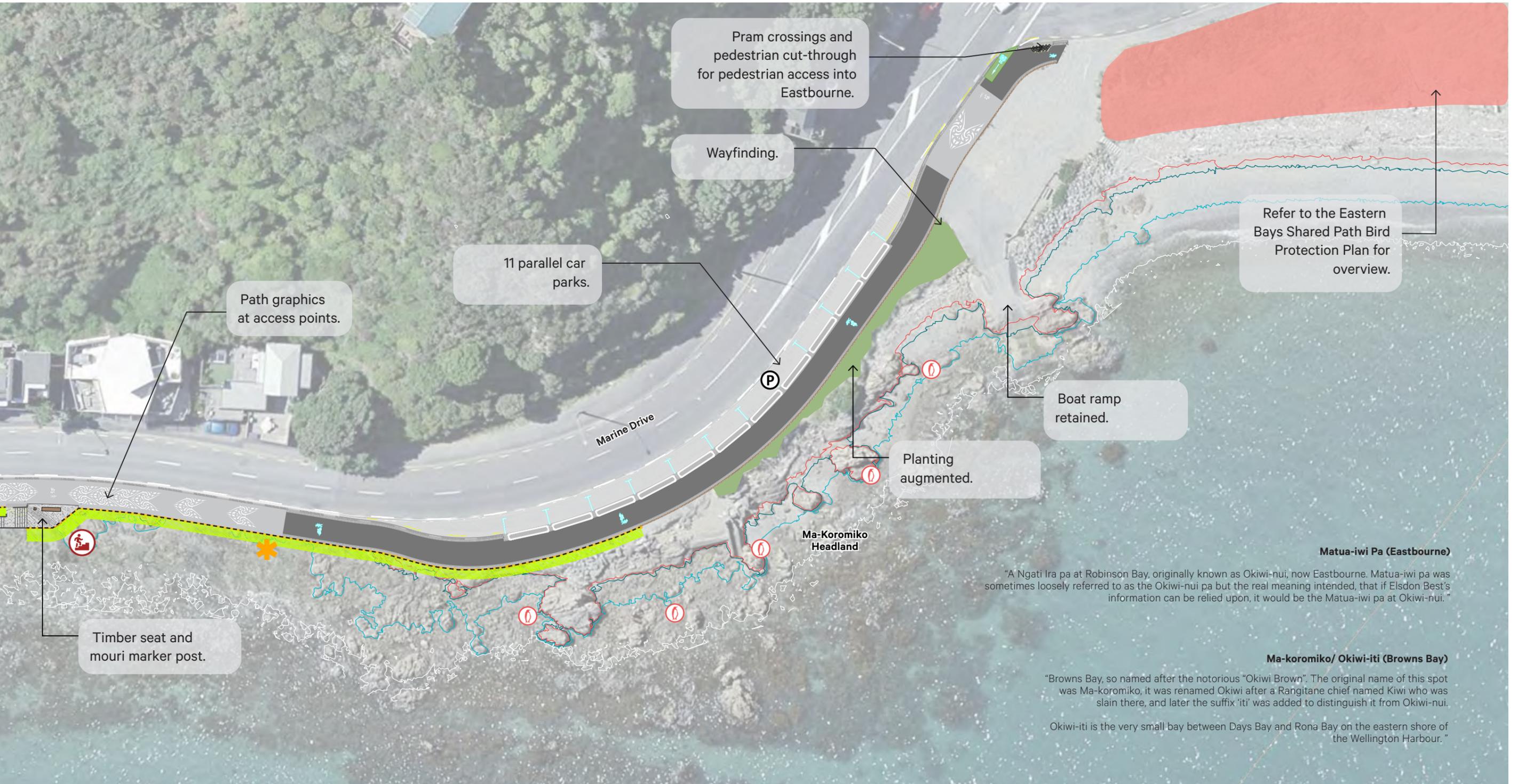
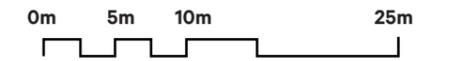
Mā-Koromiko General Arrangement Plan - South.

Legend.	
	Bus stop
	Parking
	Location of Mini steps
	Location of Standard steps
Seawalls & Path	
	Single curved seawall with bench
	Double curved seawall with bench
	Double curved seawall with Balustrade
	Triple curved seawall with Balustrade
	Shared Path
	Concrete Shared path pavement
	Fall from height barriers
Ecology and Landscape	
	Fish passage- Stream outlet
	Ecological Tiles indicative location
	Known Penguin nesting areas
	Trees retained
	Enhanced planting at headlands
Tides	
	Mean High Water Springs (MHWS)
	High Tide
	Mid Tide
	Low Tide

Wall Type Sections.	
	Single curved seawall with bench
	Double curved seawall
	Double curved seawall with Balustrade
	Triple curved seawall with Balustrade



1:500 scale bar



Refer to the Eastern Bays Shared Path Bird Protection Plan for overview.

Boat ramp retained.

Planting augmented.

11 parallel car parks.

Pram crossings and pedestrian cut-through for pedestrian access into Eastbourne.

Wayfinding.

Path graphics at access points.

Timber seat and mouri marker post.

Matua-iwi Pa (Eastbourne)
 "A Ngati Ira pa at Robinson Bay, originally known as Okiwi-nui, now Eastbourne. Matua-iwi pa was sometimes loosely referred to as the Okiwi-nui pa but the real meaning intended, that if Elsdon Best's information can be relied upon, it would be the Matua-iwi pa at Okiwi-nui."

Ma-koromiko/ Okiwi-iti (Browns Bay)
 "Browns Bay, so named after the notorious "Okiwi Brown". The original name of this spot was Ma-koromiko, it was renamed Okiwi after a Rangitane chief named Kiwi who was slain there, and later the suffix 'iti' was added to distinguish it from Okiwi-nui.
 Okiwi-iti is the very small bay between Days Bay and Rona Bay on the eastern shore of the Wellington Harbour."

Mā-Koromiko Site Photos.



Figure 1.4 Mā-Koromiko looking north towards Days Bay.



Figure 1.5 View of Bishop Park from boat launching area..



Figure 1.6 Mā-Koromiko looking south



Figure 1.7 Rocky beach at Mā-Koromiko

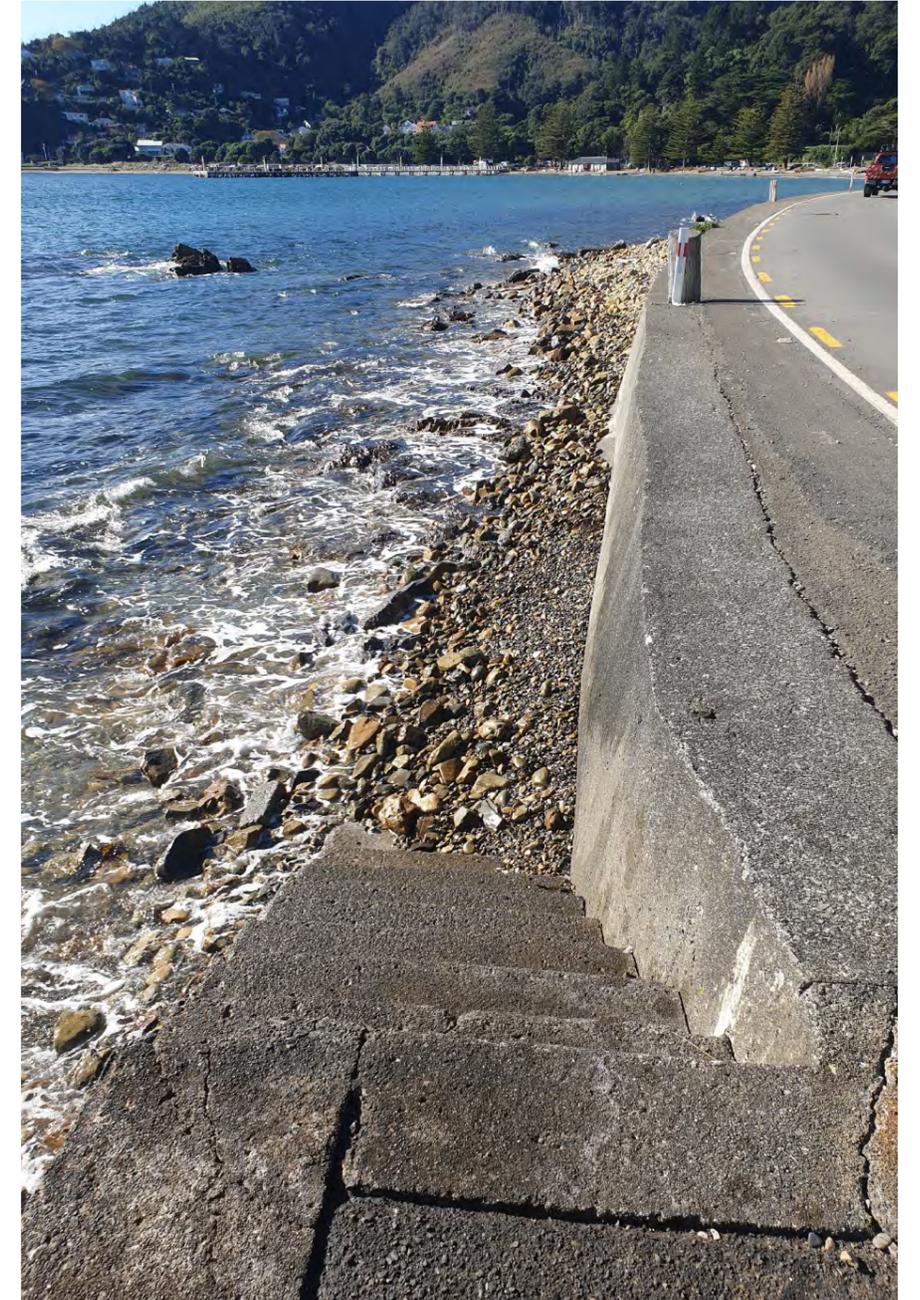


Figure 1.8 Existing stairs down to beach area at Mā-Koromiko

Approach & Principles.

Rugged Coastal Environment	<ul style="list-style-type: none"> — Reflect the wild coastal character and narrow edge through minimal disturbance and intervention at the coastal edge. — Retain any rocky outcrops. — Sympathetic transitions between sea walls and natural coastal edges. — Retain fishing access at southern end.
Less is more	<ul style="list-style-type: none"> — Features added minimise obstruction to views and beach access.
Maintain integrity of rock outcrops	<ul style="list-style-type: none"> — Rock outcrops are remnants of the existing coastal edge. — Retain the natural form of each outcrop. — Where modification is taking place integrate transition from the outcrop to the structure in a natural way. — Retain in-situ as much of the natural colonized rock as possible during sea wall construction. — In addition, reuse the natural colonized rock removed during construction at the base of the sea walls. — The asphalt extent and landscape features proposed at the stopping place just north of the Days Bay Headland sit within the existing constructed envelope, meaning no further encroachment into the existing beach. — Preserve the extent and form of the rock outcrop at the Days Bay Headland - immediately south of the project extent, meaning that the existing pumping station infrastructure, access and landscape features (planting, fencing etc.) will remain in place. — Use natural colonized rock at seawall transitions, particularly those where the concrete sea wall ties back into the natural rocky beach, to integrate the sea wall and eliminate hard concrete edges.
Retain natural coastal planting	<ul style="list-style-type: none"> — Retain two existing pohutukawa trees between north of the beach. — Retain two existing trees by Northern Point. — Retain and improve planting to headland areas
Details and elements	
Consistency	<ul style="list-style-type: none"> — Features and elements a consistent suite across the project
Simple robust forms	<ul style="list-style-type: none"> — Elements such as seating, wheel stops and steps are formed with simple block/rectangular shapes, not to detract from the wild coastal character, yet be simple and accessible to use.
Existing structures and elements	<ul style="list-style-type: none"> — Existing bus shelter to be retained an integrated into the design.

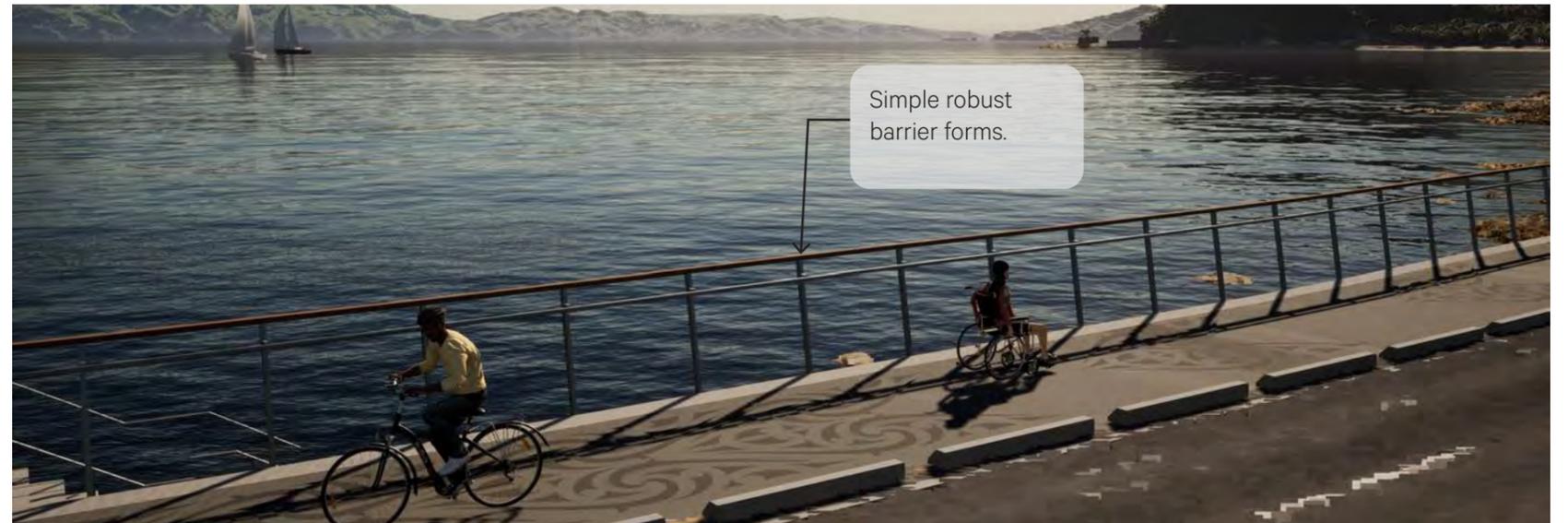
Maintenance	<ul style="list-style-type: none"> — The selected materials and patterns are durable, designed with longevity in mind, and that are able to be replicated. — Allow native plant species to self establish where conditions are appropriate. — Work with HCC to understand maintenance requirements. — Relocate electricity poles. — Remove concrete blocks and building rubble, previously used for managing coastal erosion.
Bay specific narratives	<ul style="list-style-type: none"> — To be undertaken with mana whenua advisors and artists. Cultural expression to integrated into the overall design in relevant areas.
Materials palette	<ul style="list-style-type: none"> — Hardwood timber - seating, linear barriers, wayfinding marker posts, litter bin palings where required. — Stainless steel - step hand rails, detailing into seating, cycle stands. — Textured concrete - seawall, ecological tiles, tidepools, mini steps. — Asphalt - shared path, and stopping place north of the Day Bay Headland. — Natural colonized rock - sea wall transition points and base of seawall. — Gravel around trees retained
Plant communities	<ul style="list-style-type: none"> — Enhancement planting to headland areas

Priorities for Mā-Koromiko.

Priority 1 - Engineering and Safety

The Design Features Report (Stantec, 2019) sets out engineering requirements for the project. The main points can be summarised as:

- The seawall design allows for adaptive pathways to address sea level rise, such as protection to be added on top of the wall in future as required.
- Achieve consistency in the seawall profile throughout the corridor.
- The seawall is to be constructed from reinforced precast concrete units. Construction methodology of the seawall will be determined by site conditions.
- Resilience of the road and underground services was considered in the design
- Replacement and extensions to stormwater pipes through the wall are to be like for like, and finish flush with the face of the seawall.
- Seawall transitions to be integrated to avoid abrupt ends/divisions. Transitions between seawall types, e.g. between single and double will be managed between access points (steps and ramps). Transitions between wall edges and the existing coastal edge, e.g. at headlands, will be softened/integrated with natural rock.
- The width of the shared path is to range between 2.5 – 3.5m generally, as per the consented design.
- The path surface is to be mixed asphalt and concrete with a 300mm wide concrete strip on the 'sea side' to define the coastal edge.
- The work is to be an improvement on existing conditions throughout the corridor.
- Fall from height safety will be addressed by either a 1.2m landing, where there is room, or a balustrade where there is not.



Simple robust barrier forms.

Figure 1.10 1.4m Balustrade indicative artistic impression.



Simple clean design forms.

Figure 1.9 Seawall indicative artistic impression.

Priority 2 - Access and Mobility

- Provide a safe walking and cycling facility to connect communities and networks, including CPTED (Safety standards in the National Guidelines for Crime Prevention through Environmental Design in New Zealand) Universal Design Goals shall be used as a basis for decision making.
- Sight lines shall be maintained and unobscured as per CPTED guidelines.
- Fall heights and barriers must comply with NZ Building Code D1 (Access Routes) and F4 (Safety from Falling).
- Provision for safe crossing places and desire lines shall be met as per the Pedestrian Planning and Design Guide (and the Pedestrian Network Guidance (Waka Kotahi, 2021) forthcoming).
- Consideration for the safety for sea birds and animals shall be informed by designed elements and interventions.
- Where stainless steel is used, some minor staining (tea bagging) is likely to occur.
- Continuous timber buffer to seaside (B)
- Continuous Kerb blocks to road edge (A)



Figure 1.11 Low timber edge to sea side, indicative artistic impression.

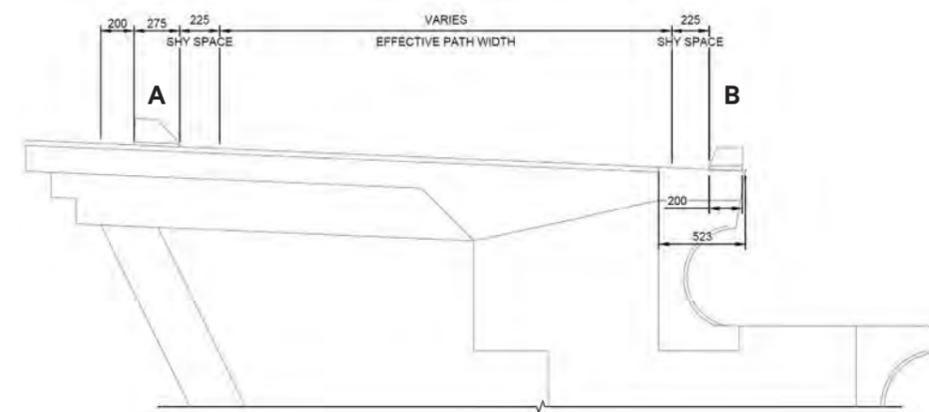


Figure 1.13 Typical shared path dimensioning

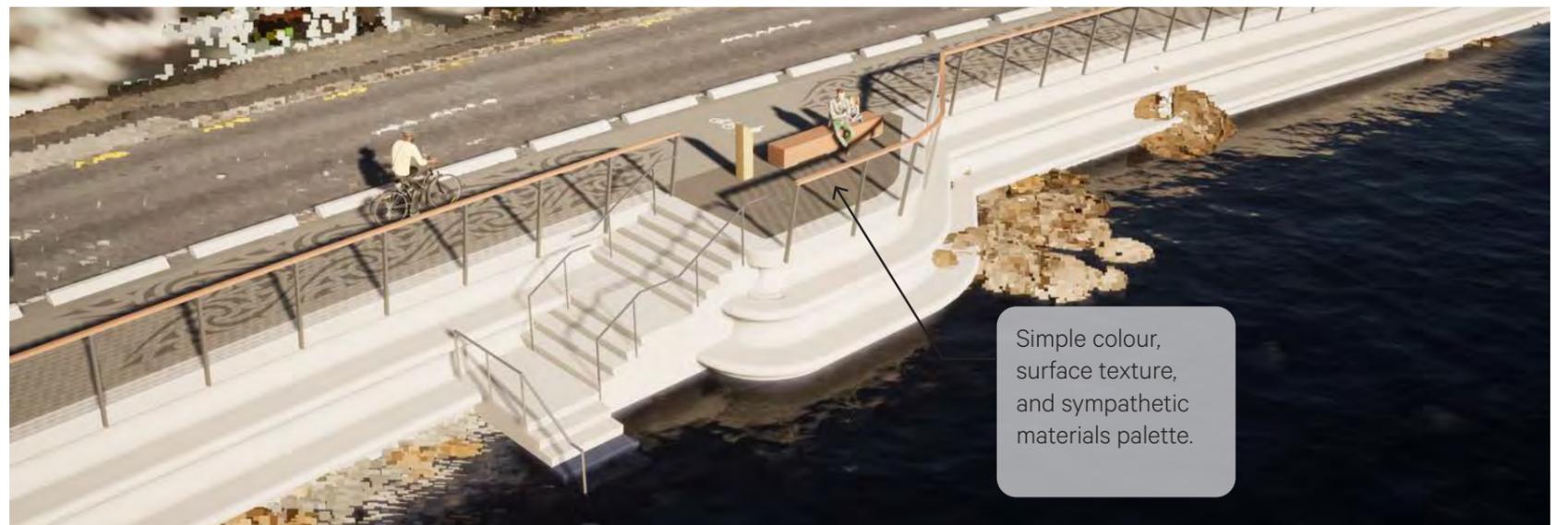


Figure 1.12 Standard steps, indicative artistic impression.

Priorities for Mā-Koromiko.

Ecology

An ecology assessment of intertidal benthic ecology was undertaken in 2016-2017 by EOS Ecology (McMurtrie & Brennan, 2019a). The assessment found that the existing intertidal environment is currently highly modified, with seawalls along the majority of the shoreline consisting primarily of angled concrete seawalls that support low species diversity and richness. Beach areas and fish passage issues have been summarized in the LUDP and BSUDP. Seabird protection is detailed in the Bird Protection Plan (McArthur, N, 2021).

The main design aspects that will help to improve intertidal ecology and fish passage include:

- A texture applied to the curved seawalls (the curved vertical surface and horizontal flat steps or 'goings'/risers and the vertical sides of access points (steps and ramps) to provide habitat for intertidal biota and splash zone coastal species. The textures are described and shown in the LUDP, the Seawall Revetment Habitat Plan (SRHP), and BSUDPs.
- Ecological tiles applied to discrete locations along the curved seawall and side of some of the access steps that are within the intertidal zone.
- Re-use of in situ rocky material in front of the new curved seawalls and within the revetments.
- Providing for fish passage at stream culverts to ensure the current level of fish passage for fish species migrating into upstream freshwater habitats is maintained or improved.

For sea bird protection areas, the main outcomes are to:

- Use vegetation to provide cover for sea birds, particularly penguins.
- Use fencing to deter people and in pest prevention.
- Use wayfinding signage to support interactive methodologies to tell stories and raise awareness.



Figure 1.16 Indicative graphic of texture applied to curved seawalls horizontal surfaces and vertical faces



Figure 1.14 Ecological tiles, to be added at discrete locations along vertical surfaces at steps and landings within the intertidal zone.



Figure 1.15 Penguin nesting box.

Natural Character

The overall adverse effects on natural character for Mā-Koromiko are considered to be less than minor for the coastal landscape. The landscape and urban design approach and principles have been developed to mitigate effects of the project on natural character.

As outlined in the LUDP, it is expected that the effects on natural character from the Project, including the seawall and shared path will lessen over time as they weather and become established.

A list of mitigation measures related to natural character attributes is provided below. Further detail of mitigation of effects on natural character and integration with the natural landscape is provided with the description of design areas and elements in the Urban Design Outcomes Section of the LUDP.

Legibility – geomorphology:

- Retention of local rock for reuse at base of the seawall.

Legibility – wayfinding and orientation:

- Reinforcement of the undulating coastline morphology by positioning the shared path along the coastal edge.
- Opportunities for local variation/reinforcement of local identity in the form of access points from the path to the foreshore.
- Improved access to headlands with strong natural character and natural features (such as trees, rocky outcrops and rock stacks).
- Provision of wayfinding marker, street furniture and signage to reinforce the bays and associated neighbourhoods.
- Provisions for cultural expression and naming to reinforce sense of place.

Visibility – public and private views:

- Consistent detailing along the coastal edge and road edge to reduce the visual impact.
- Appropriate/considered design of urban design and landscape elements such as seating, bins, handrails, seaward side linear barriers, stormwater outlets, planting, signage and path markings to integrate them with the landscape setting.
- Incorporation of eco-mitigation surface textures consistently applied along the lower curve and ‘step’ of the wall to reduce the visual presence of the seawall.
- Any safety balustrades to be designed as ‘transparent’ as possible to reduce visual appearance.

Picturesqueness:

- Path alignment responds to the local landform and land use patterns.
- Sensitive detailing of urban design and landscape elements, that respond to Mana Whenua and community identity and sense of place.
- Removal of existing unsightly structures and infrastructure along the project site and the replacement of an eroding road with a consistent structurally stable edge.

Recreational Amenity

The main priorities identified are:

- Creating a fit for purpose shared path that provides access to the coast and to the bays between Point Howard and Eastbourne for people walking and cycling.
- Provide access to the beach, water and headlands.
- Provide stopping and resting places.
- Maintain views to the coast.

Priorities for Mā-Koromiko.

Cultural Landscape

Patterns:

Te Āti Awa tupua rau, he auripo i te manga iti, he auripo i te manga nui raanei, he kaitiaki ki te whenua.

Te Āti Awa of many phenomena's, where there is a ripple in a small tributary or great river, there is a guardian and protector on the land.

- This speaks to the connection between the tidal movements and the creation of the eastern bays land mass by Tupua Horo Nuku – Ngake

Mouri Marker:

- The Mouri Marker represents an area of significance to Mana Whenua. It will highlight the Maori and English names of the bays and allow for our cultural narratives of those bays to be told.

Landscape and Urban Design

The LUDP outlines the principles, narratives and for detailed design. Principles can be summarized as:

- Reflective of rugged coastal environment – materiality, robustness.
- Less is more – emphasise the natural setting and views.
- Maintain integrity of natural rock outcrops.
- Retain natural coastal vegetation where possible and avoid use of amenity planting along coastal edge.
- Retain natural coastal planting where possible.
- Details and elements to reflect bay specific character/qualities
- Consistency across elements – a coordinated suite.
- Simple robust forms.
- Highlights through colour, surface texture, bespoke signage, ecological habitat.
- Reflective of existing coastal structures and elements.
- Maintenance considerations.
- Bay specific narratives.
- Sympathetic materials palette.

Two plant communities have been identified in the LUDP.

- 1. Bird Protection Areas.
- 2. Rocks / Landscape / Headland Areas.
- To the right examples of typical species, forming the basis of planting.



Taupata
Coprosma repens, NZ laurel



Wīwī
Ficinia nodosa, knobby clubrush



Wharariki
Phormium cookianum, coastal flax



Pohuehue
Muehlenbeckia complexa, wire vine

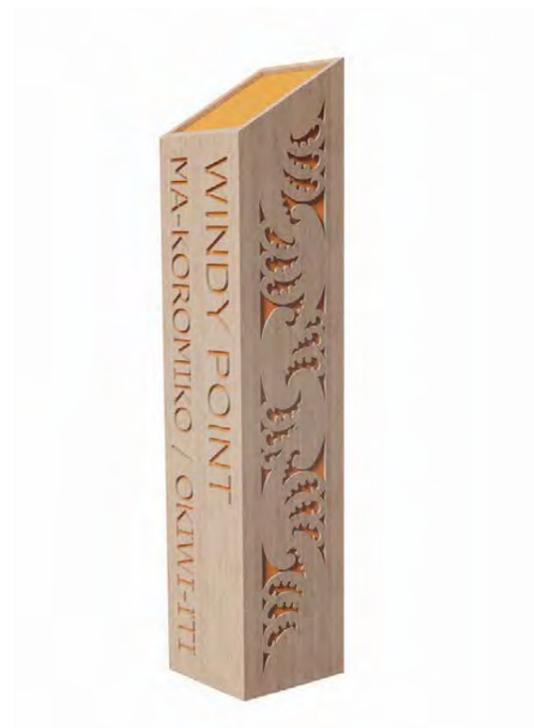


Figure 1.17 Mouri Marker post, indicative sketch.



Figure 1.18 Path graphics, indicative artistic impression.



Figure 1.19 Ma-Koromiko, indicative artistic impression.

Ngā mihi nui.

