UPPER HARBOUR Greenways Plan

September 2019

Upper Harbour Local Board
Auckland Council

Auckland Council Stock Photo, 2012.

Contents

Sandringham Local Street Auckland Council Stock Photo, 2012.

Executive Summary

Overview of the Greenways Plan

The original Upper Harbour Greenway Plan was published in 2015, in response to objectives and key initiatives proposed within the Upper Harbour Local Board Plan 2014. The plan delivered the objective to create a network of greenways that would respond to Upper Harbour's unique environment and provide linking circulation networks on land and water connecting parks, open spaces and coastal environments to improve local ecological and recreational opportunities.

In 2017 the Upper Harbour Local Board released its Local Board Plan further highlighting its intention to provide efficient and effective transport links with the intention to investigate and expand on some of the projects that had transpired since the 2015 Greenways Plan.

The purpose of Auckland's Greenway Plans was to create pathways linking parks and open spaces predominantly for recreational purposes with the intention that greenways would connect and create consistent connections throughout the Auckland region.

More recently, it has been recognised that the emphasis for walking and cycling needs to be expanded to encompass connections to services and amenities for daily trips, in addition to recreational tracks as prescribed in the first generation of Greenways Plans.

The Upper Harbour Refreshed Greenways network is built on the existing and planned network and includes further investigation of additional networks with the purpose of delivering effectual alternative transport/travel options to assist with the reduction of vehicle use for local trips.

The Greenways Plan presents a vision of a complete network of shared paths connecting town centres, schools, public facilities, recreation areas and public transport hubs. It is a long-term plan with the aim of significantly improving walking, cycling and ecological connections within the urban and rural environs of the Upper Harbour Local Board area. It is anticipated that this will be implemented over time to achieve the vision, key objectives and outcomes prescribed by the Local Board.

The design principles and the path types in this plan are based on the Local Paths Design Guide developed for Auckland Transport and Auckland Council. It describes a set of local path types which use a combination of design treatments to 'provide priority to people riding bikes and improve the conditions for walking'. The Greenways Plan is designed to provide active transport options, appealing especially to those in the community that may not be comfortable cycling or walking on streets where cars are prioritised.

The four path types serve different functions and different user experiences in combination with varying landscape characters. From fast paced Express Paths for direct commuter cycling, to Local Paths - On Streets for quiet neighbourhood connections, to Local Paths - Open Spaces for recreation and links through the parks network, and finally, to the more informal Nature Trails used purely for recreation which can sometimes include bridle paths.

The Process for developing the Upper Harbour Greenways Plan - Refresh

The process of creating the Greenways Plan involved internal and external research, consultation and engagement with Mana Whenua, key stakeholders and the wider public. This was done through a variety of workshops, hui, public open days and correspondence. Analysis of the feedback received through this process laid the foundations of the refreshed Greenways Plan. Existing, proposed and aspirational paths were identified with the use of engagement feedback, and previously located routes prescribed in the 2015 Greenways Plan.

Once the path network was applied to the map, patterns of connections and links could be identified and decisions surrounding the type of path appropriate to the setting could be made. In some cases, paths that already exist are identified as proposed / aspirational. This occurs in locations where the existing path is not deemed to be fit for purpose or not providing an adequate level of service envisaged for the Greenways Plan. For example Upper Harbour Drive cycle path does exist on both sides of this busy road linking Greenhithe to Albany Highway. The 1m allocated for cycle path is the absolute minimum space and does not include any form or barrier separating it from traffic. The intention of this cycle / express path is for fast access commuter cycling. The vehicle speed limit on Upper Harbour Drive is 70km/hour, it is recommended that express paths on roads between 50 - 100km/hour be protected and separated by a 1m safety strip or clear barriers, such as fencing bollards or planting- therefore it is identified on the Greenways Plan map as proposed/aspirational.

Focus Areas

In order to help, enable and facilitate the next stages of the path network the Upper Harbour Local Board has been organised into six focus areas to clearly identify, evaluate and prioritise 'key routes' and 'key connections' for each area. Constraints and opportunities have been outlined at a high level to help frame the key phases necessary to take next steps.

Focus Areas are:

Focus Area 1_ Albany, Albany Village and Rosedale
Focus Area 2_ Northern Corridor Improvement Project
Focus Area 3_ Lucas Heights and Pāremoremo
Focus Area 4_ Greenhithe and Schnapper Rock
Focus Area 5_ Whenuapai and Herald Island
Focus Area 6_ Hobsonville and West Harbour

Key routes are identified as primary routes supplying express connections in and between the focus area. Key connections provide the finer grain links to and between local destinations.

Next Steps

Next steps outlines the core phases necessary to implement the Greenways Plan. The next steps involve:

Consideration of best practice guidelines including consideration of the design principles of the Local Path Design Guide which sets a framework for paths to be safe, connected, accessible, comfortable and enabling. These principles are intended to work with the key objectives and values of the Te Aranga Design Principles to develop a more fine grained means of expressing cultural landscapes and enhance our collective appreciation of 'sense of place'.

Ongoing community engagement, stakeholder collaboration and partnerships with key council departments and community organisations. Sourcing and allocation of funding. Funding has been allocated for road improvements in the Local Board areas in Auckland Council's Long Term Plan (LTP) for the next 10 years, and some of this funding could be used to implement the Greenways Plan. Other funding avenues include Auckland Transport and the NZTA's regional cycleways fund.

An investigation phase to test the feasibility and viability of a key route and/or key connection. The investigation phase will identify and confirm neighbourhood destinations, key routes and connections; collect and analyse base data; identify and prioritise paths; identify key design requirements and outline a rough order of costs.

A design phase to develop, refine and confirm the alignment and design requirements developed through the investigation phase.

The delivery phase including the procurement of a contractor to build the proposed project and resolve any issues that may have emerged through construction before practical completion.

The ongoing management and maintenance of the path, needs to be established during the design phase and confirmed by the time the construction of the project is complete. Responsibility for ongoing maintenance and costs need to be agreed with the part of Auckland Council or Auckland Transport responsible for the path type. The choices surrounding durability of surfaces, furnishings and landscape features, maintenance requirements of plants and the provision of emergency vehicle access into path design are detail elements that require foresight and attention in order to successfully deliver each local path project and future proof the effective continuation of the Upper Harbour Greenways Plan.

Part One

Overview

View of Rosedale Park North, looking south. Auckland Council Stock Photo, 2012.

1.1 Purpose of the Document

The purpose of this document is to update or 'refresh' the Upper Harbour Greenways Plan developed in 2015 and to fulfil on some of the aspirational outcomes outlined in the Upper Harbour Local Board Plan 2017.

The rationale behind the document is to identify potential links between local open spaces, streets, educational and community facilities, libraries and parks, to create safe and accessible walking and cycling networks that will improve community health and ecological connections and inspire a reduction in private vehicle use for local trips.

This is a visionary and guiding document intended for use by elected members, Council officers, community groups, private developers and other interested parties. The Upper Harbour Greenways Refresh Plan outlines long - term actions for the Upper Harbour area, with a view to setting priority projects up for funding and implementation over the coming years

1.2 Strategic Fit

Links to the Auckland Plan 2050

The Auckland Plan 2050 was adopted in June 2018, replacing the Auckland Plan 2012.

The Auckland Plan 2050 is a streamlined spatial plan presenting a simple structure with clear links between outcomes, directions and measures. It shows how Auckland is expected to grow and change during the next 30 years.

Six visionary outcomes set Auckland's strategy to 2050. Each outcome is accompanied with directions and areas of focus. Four outcomes have a direct relationship to the development of this Greenways Plan:

Outcome: Belonging and Participation

All Aucklanders will be part of and contribute to society, access opportunities, and have the chance to develop to their full potential.

Outcome: Homes and Places

Aucklanders live in secure, healthy, and affordable homes, and have access to a range of inclusive public places. Connecting areas and residents to each other and to the public amenities they value.

Outcome: Transport and Access

For Auckland to be a truly accessible city there is a need to make sure that people of all ages and abilities, including people with reduced mobility levels, can go about their daily lives and get from one place to another easily, affordably and safely. A well-connected society enables access to community resources, and provides for positive experiences and better life outcomes.

> ***Direction 1:*** *Better connect people, places, goods and services.*
>
> ***Direction 2:*** *Increase genuine travel choices for a healthy, vibrant and equitable Auckland.*
>
> ***Direction 3:*** *Maximise safety and environmental protection. A key focus area is to make walking, cycling and public transport preferred choices for many more Aucklanders.*

Outcome: Environment and Cultural Heritage

Aucklanders preserve, protect and care for the natural environment as our shared cultural heritage, for its intrinsic value and for the benefit of present and future generations.

Links to other initiatives

In developing this Greenways plan, a number of related Council and non-Council initiatives have been investigated and where possible included in the network:

- The Auckland Unitary Plan;
- The Auckland Plan 2050;
- The Upper Harbour Local Board Plan 2017;
- Parks and Open Spaces Strategic Action Plan 2013;
- Adopted Greenways Plans;
- Local Path Design Guide;
- Te Aranga Design Principles;
- Parks Sports and Recreation Action Plans;
- Walking school bus routes;
- Initiatives currently underway or proposed by community and ecological restoration groups;
- New Zealand Transport Authority (NZTA) proposals, such as the Northern Corridor Improvement (NCI) project;
- Homes, Land and Communities Ltd (formerly Hobsonville Land Company) plans and development;
- Auckland Tourism Events and Economic Development proposals;
- Watercare proposals;
- Auckland Transport projects

1.3 Upper Harbour Local Board Area

Auckland Context

This aerial map shows the Upper Harbour Local Board area in its wider context within the Auckland isthmus.

The Upper Harbour Local Board comprises a land area of approximately 6990 hectares and is sited on the upper reaches of the Waitematā Harbour. Waterways and motorways characterise the area creating challenges and opportunities to deliver a connected community.

The landscape in the north east of the Upper Harbour area is dominated by steep clay hills that surround more fertile, low lying alluvial soils to the south in the Albany basin.

The landscape in the south west of the Upper Harbour mostly comprises low-lying, fertile soils that historically have been intensively developed for horticulture and lifestyle blocks.

The area is bordered by Henderson-Massey, Rodney, Hibiscus and Bays, Devonport - Takapuna and Kaipātiki Local Board areas. The Upper Harbour Local Board area is home to the centres of Albany, Windsor Park, Greenhithe, Hobsonville, Whenuapai, residential neighbourhoods of Northcross, Pinehill, and Greville, and countryside areas of Lucas Heights and Pāremoremo.

Site Location

Upper Harbour

The adjacent aerial photograph shows the broad landscape patterns of the Upper Harbour Local Board area within its surrounding context.

The area is dissected by the upper reaches of the Waitematā Harbour, with the SH18 bridge from Hobsonville and Greenhithe being the only connection between the eastern and western land areas. Both the SH1 and SH18 motorways further dissect the Local Board area.

The area is bounded:

- To the north-east, predominantly by residential land sloping down towards the east coast.
- To the south-east, by the Waitematā Harbour, with Hellyers Creek to the north and Limeburners Bay to the south.
- To the south-west, by residential and pastoral areas;
- and to the north-west, by countryside living with a small area of general rural land.

The mixed land use types of Upper Harbour Local Board area can be clearly seen in this aerial photograph - featuring swathes of residential land, vegetated areas, countryside living, and pockets of industrial land.

Residential land_ Large areas of residential land exist throughout Upper Harbour. These areas are somewhat disjointed - being dissected by the Waitematā Harbour, motorway system, rural land and vegetated escarpments.

Vegetation_ Significant areas of vegetation exist within Upper Harbour Local Board area, including the southern escarpments leading down to both Lucas Creek and Hellyers Creek, as well as the Scenic Reserves at Pāremoremo and Fernhill escarpment.

Countryside living_ Countryside living largely exists on northwestern portion of local board area, on the northern side of Upper Harbour Motorway and Lucas Creek.

Industrial land_ Industrial land is generally located adjacent to motorways, at Rosedale, Schnapper Rock and Albany, and heightens their severance aspect, from a greenways perspective.

Upper Harbour Local Board Aspirations

Each Local Board plan is a reflection of what elected members have heard from their community. Feedback gained both formally and informally have been instrumental in shaping these plans, and they provide a touchstone for the aspirations of each area's community.

The Upper Harbour Local Board plan 2017 comprises aspirational outcomes and objectives to achieve them, including some of the key initiatives to be carried out. It reaffirms the priority, set out in the 2015 Greenways Plan to provide cycling and walking connections that are safe, enjoyable and ecologically friendly.

The following aspiration outcomes and objectives are supported by this Greenways Plan:

Outcome 1: Empowered, engaged and connected Upper Harbour communities

People living in Upper Harbour are able to influence what happens in their neighbourhoods.

Outcome 2: Efficient and effective transport links

A well-connected and accessible network that provides a variety of transport options.

Outcome 3: Healthy and active communities

Our residents have access to open space and a wide variety of sports and recreation opportunities.

Outcome 5: Our environment is valued, protected and enhanced

Communities are actively engaged in enjoying, preserving and restoring our natural areas.

A key transport link initiative in the local board plan is to:

"Investigate opportunities to progress options identified in our Upper Harbour Greenways Plan, such as the proposed Saunders Reserve link".

1.4 Upper Harbour Local Board

1.5 What is a ‘Greenways Plan’

A Greenways Plan is a blueprint document to guide the creation of a network of walking and shared / cycling paths that safely connect people to key destinations such as public transport, schools, local shops, libraries, parks and reserves. Walking or cycling for short local trips instead of driving reduces stress on the transportation network, supports local businesses, provide wider health benefits, for people and the environment, and helps create more connected communities.

The Upper Harbour Greenways Plan will connect Upper Harbour to wider Auckland, by linking into regional transport networks, and neighbouring local board greenways/local path networks. Conveying the greenways plan network beyond the boundaries of Upper Harbour is an essential part of building a connected Auckland.

The Upper Harbour Greenways Plan outlines stakeholder and community engagement strategies, key design principles and environmental benefits that have helped define the outcome. The local board area has been divided into focus areas to simplify the identification of strategic key routes and connections to fulfil the objectives of the plan. This also includes an overview of potential constraints, opportunities and strategic questions that would need to be considered when developing the next stages of the plan.

Opportunities and Benefits of a Greenways Plan

Greenways plans provide opportunities for the local board and the community to engage with the social, cultural and environmental context of their local and wider neighbourhoods.

There are many benefits from developing a network of neighbourhood local paths, including:

Transport
Cycle and walking paths can be used to link schools, workplaces and communities with parks, shops, and public transport routes, reducing reliance on private vehicle use.

Recreation
Improving people’s access to outdoor recreation and enjoyment close to their home.

Environmental
Creating cycle and walking networks within natural landscapes present opportunities to enhance and maintain the health of local waterways and bush environments, in addition to sharing Māori cultural and spiritual significance of these places. Sensitive and inclusive design principles applied to natural landscape corridors and open spaces enhance ecosystems, habitat sources and ecological niches. They also provide opportunities for communities to interact with their natural environments and understand kaitiakitanga.

Reducing our reliance on fossil fuels by providing attractive and safe alternative transport choices, improving water quality and reducing flooding events through water sensitive design (WSD) measures are important steps to improve environmental safety and wellbeing for future generations.

Social
Providing improved opportunities for people to get out of their cars and engage with safe, accessible and connected networks provide opportunities for street based initiatives to happen. Community projects/initiatives such as berm gardening, street parties, play streets, bike trains and walking school buses empower citizens to re-imagine their streets and create opportunities to reclaim them as valuable open spaces that accommodate people of all ages and abilities.

Health
Providing improved opportunities for activity and fitness which benefits both physical and mental health.

Education
Providing opportunities to learn about the vegetation, wildlife, ecology, history and people of the landscapes that they pass through.

Economic
High-performing greenway paths can create improved local employment opportunities as areas become more desirable for businesses and shoppers. They can also provide tourist destination/interest areas for international and national visitors.

Placemaking
Incorporating artwork such as murals/ sculpture and information boards can infuse a local flavour into the network and serve the purpose of wayfinding signage, education and provide opportunity to exhibit a celebration of place.

1.6 Different Types of Paths

The Greenways Plan walking and cycle path network is comprised of four distinct paths types, each having a design treatment based on their proposed use and environmental context.

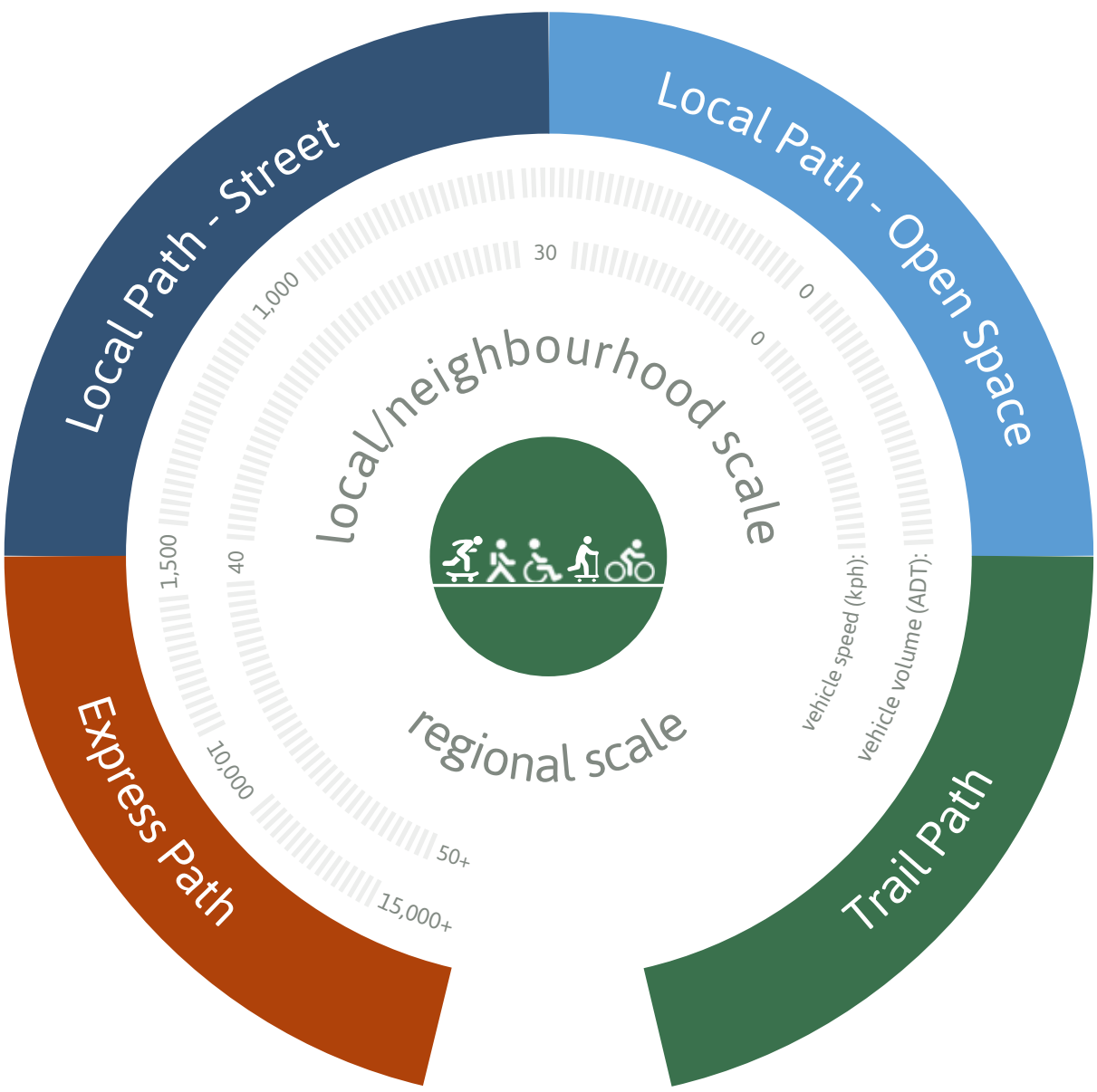
Express Path
Forming the base structure of the path network, express paths are cross city connections that provide walking and cycling separated from vehicles, creating links to regional and local centres.

Local Path - Street
An On-street Local Path has pedestrians accommodated on footpaths with streets that are safe enough to cycle on without the need for separated cycle lanes. Traffic calming tools, pavement markings and signage are used to improve safety for all street users.

Local Path - Open Space
Off-road Local Paths run through parks and open spaces and accommodate both cyclists and pedestrians. Together with On-street Paths they are designed to create links to local centres parks, schools and transport links including express paths.

Trail
Distinct from a Local Path, a Trail is found alongside streams, coasts or in rural or bush settings and are primarily for recreation. Trails may connect to off road Local Paths and can also allow for horse-riding alongside walking and cycling. Trails are not generally intended to form a connection between destinations, and often run in loops through and around open spaces.

Greenway Path Network



Express Path

Creating connections within and between local board areas

Key Attributes

Vehicle Volumes

- Average daily transport 1500+

Vehicle Speed(Km/h)

- 50-100 km

Arterial Road Crossing

- Include pedestrian or signalised crossings
- 50 - 100 per hour

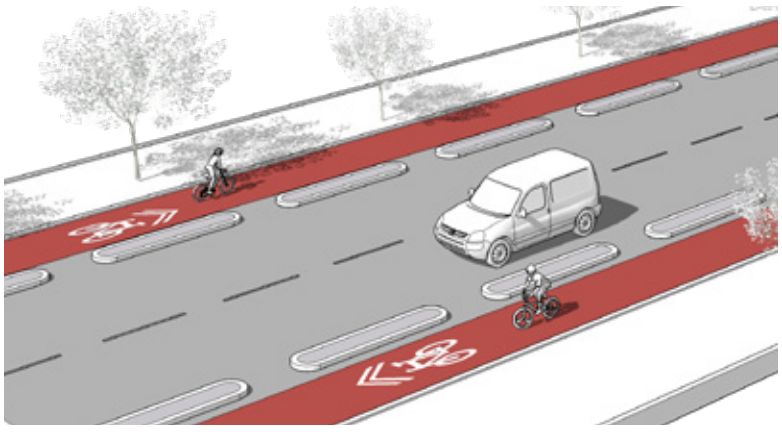
Accessibility and Safety

- Ministry of Justice 7 Qualities of Safe Spaces
- 1m safety strip separating cyclists from vehicles and opening car doors

Off-Road Paths

- Can be one-way or two way
- Protected and separated from major road corridor by clear barriers, such as fencing, bollards or planting

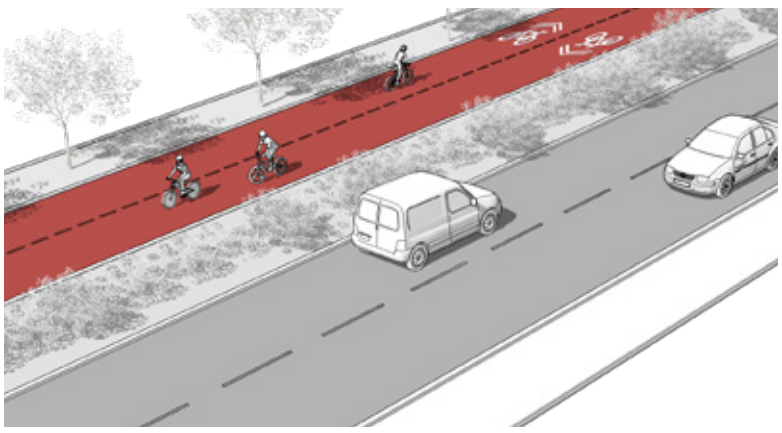
Separated Cycleway with Road Way (single direction)



Illustrative example

Victoria St & Hardinge St, artist impression

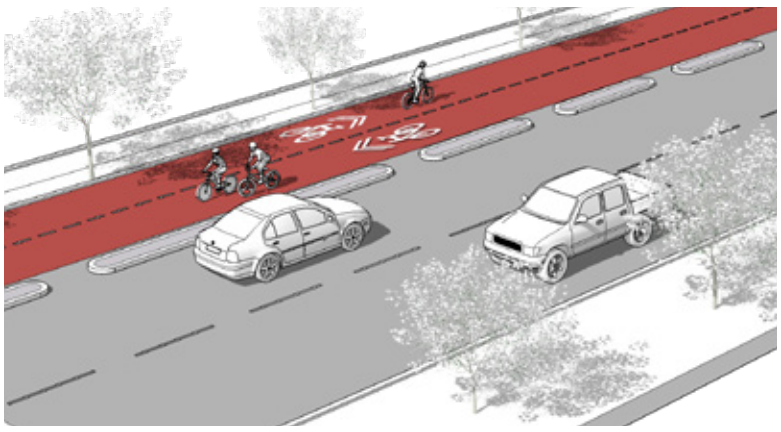
Separated Shared Path



Illustrative example

Grafton Gully Cycleway

Separated Cycleway (both directions)



Illustrative example

Beach Road Cycleway

Express Path _Cross-urban connections _Examples

Nelson Street Cycleway

Beach Road Cycleway

Local Path- Street

Creating safe streets and shared pedestrian paths linking local destinations

Key Attributes

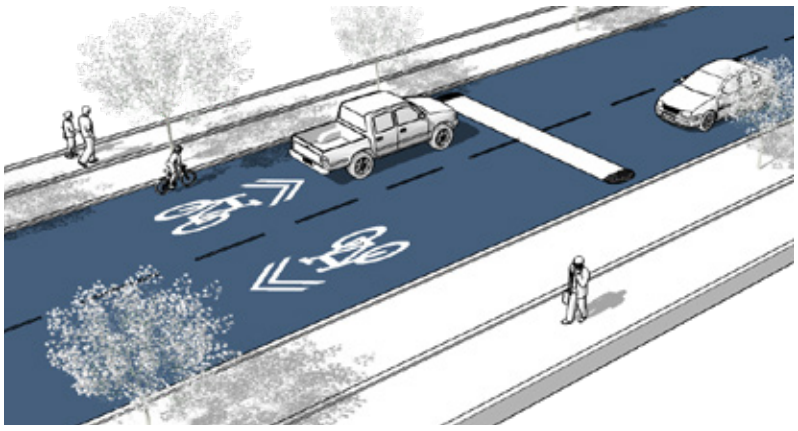
Vehicle Volumes
- Average Daily Transport 1000 ideal, 2000 max

Vehicle Speed(Km/h)
- 30km/hour

Arterial Road Crossing
- Include pedestrian or signalised crossings
- 50 - 100 per hour

Accessibility and Safety
- Ministry of Justice 7 Qualities of Safe Spaces

Green Infrastructure
- Impervious surface 70 - 90%
- Tree canopy coverage greater than 30-40%



Illustrative example

Local Path -Street Cycling, Auckland. NZTA Stock Photo 2019

Local Path - Street _Safe streets and shared pedestrian paths linking local destinations _Examples

Local Path - Suburban Street Cycling

Local Path - Suburban Street Cycling

NZTA Stock Photo

Local Path - Street Cycling, Wellington. NZTA Stock Photo 2019

Local Path - Open Space

Creating shared paths through open spaces for local connections and recreation

Key attributes

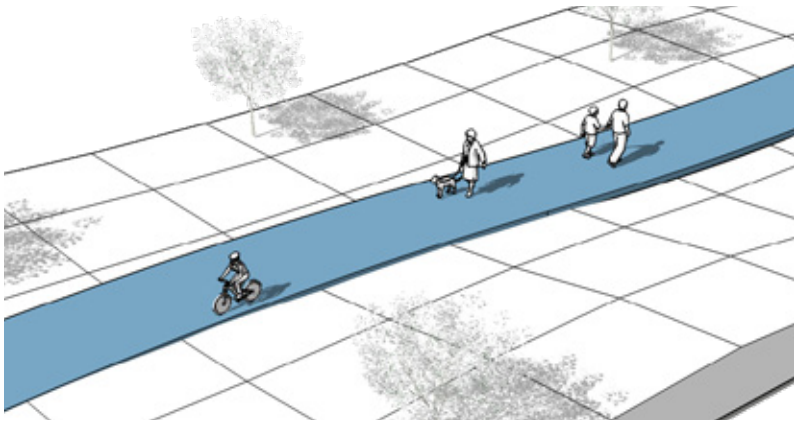
Vehicle Volumes
- N/A

Vehicle Speed(Km/h)
- N/A

Arterial Road Crossing
- N/A

Accessibility and Safety
- 20 km/h design speed/20 metre sight lines and stopping distance

Green Infrastructure
- Tree park: Continuous canopy with grass and assorted low level planting



Illustrative example

Waterview Shared Local Path

Local Path - Open Space _Shared paths through open spaces for recreation and local connections _Examples

Hobsonville Point - Shared Local Path

Pink Path, Auckland - Shared Local Path

Waterview - Shared Local Path

Devonport to Takapuna - Shared Local Path

Trails

Creating shared paths along coastal edges and through rural or bush settings for recreation

Key attributes

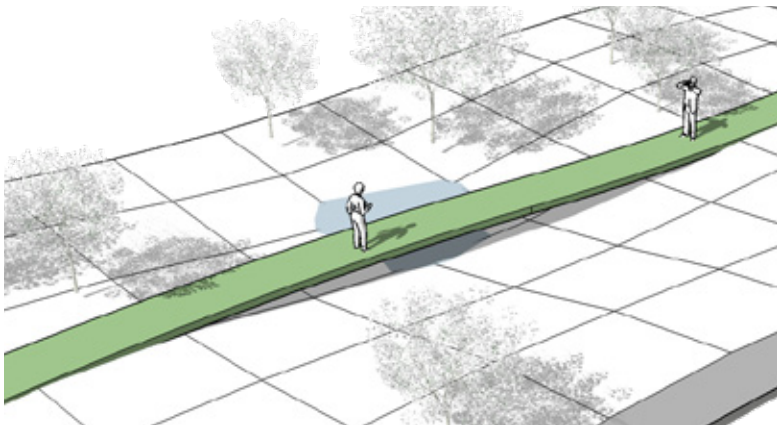
Vehicle Volumes
- N/A

Vehicle Speed(Km/h)
- N/A

Arterial Road Crossing
- N/A

Accessibility and Safety
- 20 km/h design speed/20 metre sight lines and stopping distance

Green Infrastructure
- Park land/water systems/self regenerating forest



Illustrative example

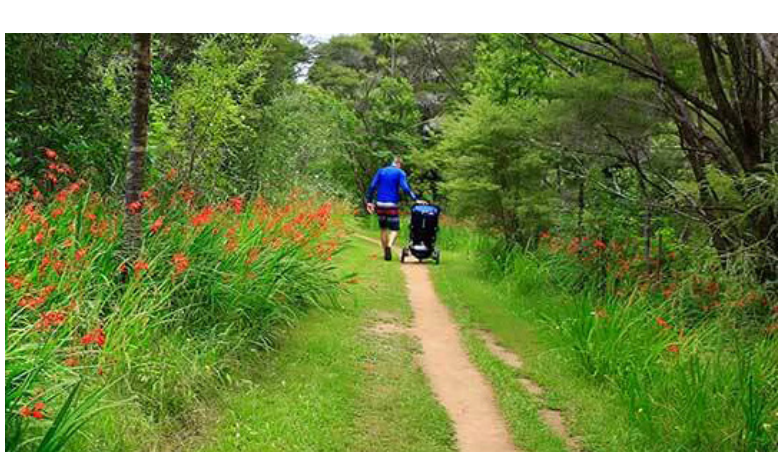
Te Wai O Pareira / Opanuku Stream

Trails _Shared paths along coastal edges and through bush settings for recreation _Examples

Trail - West Coast (L. Gardiner, Adventure South NZ, 2019)

Trail - Shared Bridle Trail

Trail - West Coast (Adventure South NZ, 2019)



Trail - Fiordland National Park

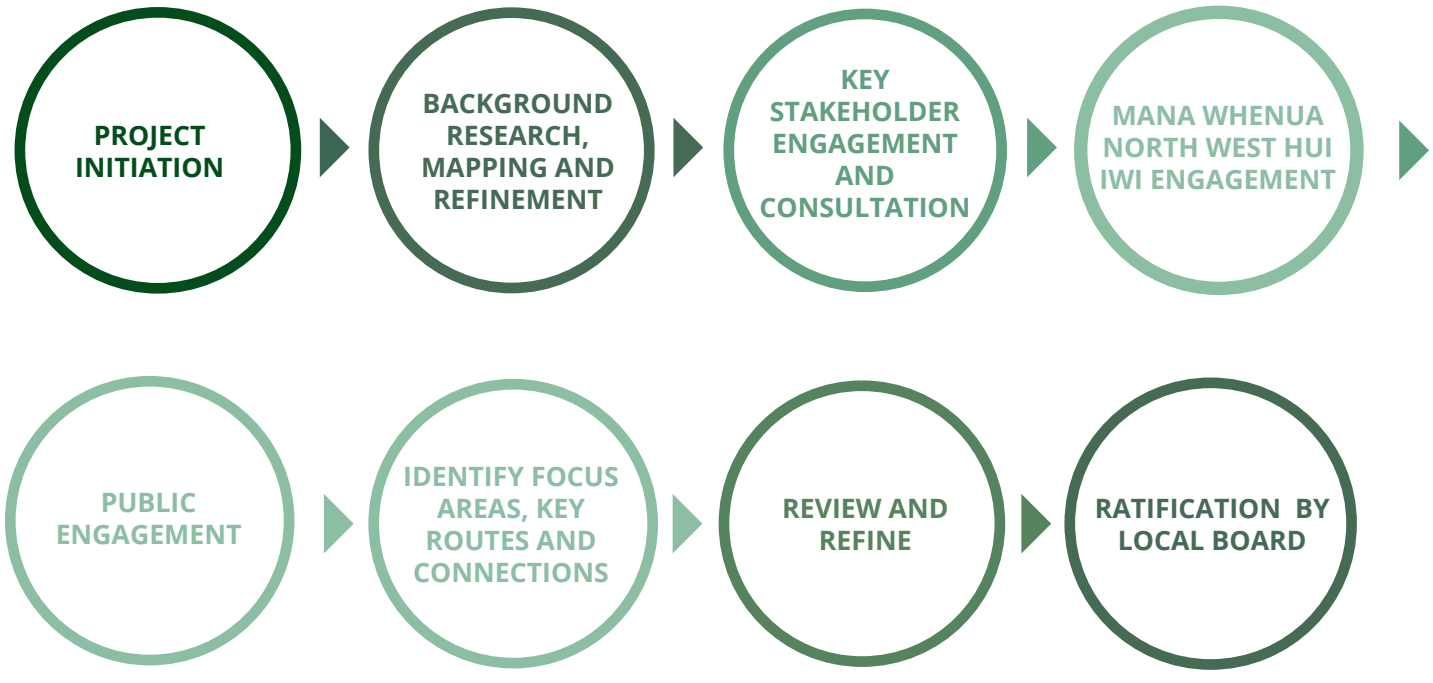
Part Two
Methodology

Auckland Council Stock Photo, 2018.

2.1 Overview of Methodology

The process to create the Greenways Plan consisted of internal and external research, consultation and engagement. An important part of the process was to ensure the Greenways Plan would be a robust guiding document that in the course of time maintains its functionality and correspondence to other projects being undertaken within the Upper Harbour area and surrounding local board areas. The Upper Harbour Greenways Plan was developed via an iterative eight phase process, as outlined below:

Upper Harbour Greenways Refresh Plan Process



Objectives of the Engagement Strategy

The engagement strategy builds on relationships previously established by the Upper Harbour Local Board with Auckland Council, Mana Whenua, and incorporates ways of engaging with the wider community.

- Inform stakeholders of the Greenways Plan project and the stages of the consultation process.
- Engage with Mana Whenua about the plan and seek direction and guidance on how to best embed Mana Whenua values, aspirations and concerns in the Greenways Plan and subsequent phases.
- To involve project partners and key stakeholders on aspects of the proposed design and encourage input and feedback on the options as they relate to them.
- To consult with stakeholders on the functional and operational aspects of the Greenways Plan.
- To consult with community stakeholders on aspects of the proposed design and encourage feedback on the options as they relate to them.
- To promote the greenway network as a significant community asset for the existing and future residents of the region.
- To use engagement activities as opportunities to inform the design and development of the greenways network through stakeholder feedback.
- To record and transparently report on the outcome of the engagement activities.
- To ensure communication occurs throughout all stages of the project.

2.2 Who Has Been Involved

INCREASING — INFLUENCE ON DECISION MAKING — DECREASING

Empower | Collaborate | Involve | Consult | Inform

	PROJECT DESIGN TEAM	PROJECT PARTNERS	KEY STAKEHOLDERS		WIDER COMMUNITY
PARTICIPANTS	+ Auckland Council Project Manager + Resilio Studio + Upper Harbour Local Board + Upper Harbour Plan Working Group + Auckland Transport	+ Mana Whenua + Auckland Council Consultation Team	INTERNAL + Environmental Services + Healthy Waters + Parks, Sports & Recreation + Panuku Development + Community Facilities	EXTERNAL + DOC + Bike Auckland	+ Local Community + Local Business Associations + Community Interest Groups + Resident and Ratepayer Associations
ROLE	+ Final decision-making is guided by this group	+ To partner with in each aspect of decision making including the development of alternatives and the identification of preferred solutions	+ To work directly with throughout the process to ensure that concerns and aspirations are consistently understood and considered	+ To provide balanced and objective information to assist in understanding the problem, alternatives, opportunities and / or solutions.	+ To obtain public feedback on analysis, alternatives and / or decisions
COMMITMENT	"We will implement what you decide"	"We will look to you for advice and innovation and incorporate this in decisions as much as possible"	"We will work with you to ensure your concerns and aspirations are directly reflected in the decisions made"	"We will listen to and acknowledge your concerns"	"We will keep you informed"
ENGAGEMENT METHODS	+ Face to Face Meetings / Hui + Co-design Workshops + Email & Written Communications	+ Meetings / Hui + Email & Written Communications	+ Meetings / Hui + Email & Written Communications	+ Email & Written Communications + Public Open Days	+ Public Open Days + On line feedback survey through 'Have Your Say'

2.3 Detail of Process

Project Initiation

Meetings with Upper Harbour Local Board and project partners to discuss the purpose, programme and definition of the project.

Background Research Mapping and Refinement

Previous studies and planning documents relevant to the area were collected and reviewed. The Upper Harbour Local Board Plan 2017 was reviewed to gain an understanding of both the communities strategic vision and their planned projects. Workshops with project partners and key stakeholders were attended to discuss the process and agree on next steps.

The previous Upper Harbour Greenways Plan 2015 was used as a guide to identify and re-confirm existing and aspirational connections between parks and reserves. Maps identifying conventional destinations, transport routes, social and cultural sites and environmental elements of the Upper Harbour area were created. Broad desire lines were drawn to illustrate potential key connections between neighbourhoods and destinations. Further desktop studies were carried out to identify strategic routes that would link into both the existing network and to proposed/aspirational connections, forming a high level draft overview of potential strategic greenway paths.

This desktop Greenways Plan was taken to the project group for review to ensure that it was aligned with the local board's aspirations and objectives of the project. The project group consisted of project partners - Auckland Council, Upper Harbour Local Board, Mana Whenua and Auckland Transport.

Key Stakeholder Engagement and Consultation

Following analysis, and review, a presentation meeting with internal and external stakeholders was held. The purpose of this meeting was to discuss the state of the project, gain insights from their Key Stakeholder knowledge of the area and to gain a better understanding of their ambitions for the Greenways Plan.

Mana Whenua Engagement

The project was presented at the North West Mana Whenua Forum on June 6 2019 to inform Tāmaki Makaurau iwi of this project and enquire as to which iwi, and how, they would like to be involved.

During the process Te Kawerau Ā Maki, Ngā Maunga Whakahii O Kaipara and Te Akitai re-affirmed their interest in involvement.

It was agreed that exploring the place-based applications of Te Aranga Design Principles was a good first step to the process and that iwi would like to be involved in reviewing the design details, relevant to Te Aranga Design Principles, as the Greenways Plan progresses through subsequent phases.

Public Engagement

Following project partner and key stakeholder consultation, an open public engagement afternoon /evening was held at the Albany Local Board offices. Despite not being well attended, there was a good amount of information and ideas shared that were useful to the development of the project. Online feedback was activated through the council website 'Have Your Say' for three weeks. This achieved some quality response and useful feedback.

Identify Focus Areas

The Upper Harbour area was organised into a series of focus areas. Within each focus area key routes and connections paths were identified. This includes strategic questions to inform next steps and further investigations that will be required, to create the desired network, have been identified for each focus area.

Review and Refine

Public feedback was analysed and collated into themes and patterns and applied to the design process of the network. The updated network was presented to the Working Group for review. Subsequently, a refined 80% draft of document was presented to the Local Board and Mana Whenua for final review.

Ratification by Local Board

Final Greenways Plan presented to the Upper Harbour Local Board for ratification.

All project partners and consultation groups updated on release of final adopted plan.

Part Three

Greenways Plan

Auckland Council Stock Photo, 2012.

3.1 Introduction

The Greenways Plan map shows the long term network of walking and cycling in the Upper Harbour area. As outlined in part one, this is a visionary document similar to others developed by Local Boards in Auckland.

The scale of the Greenways Plan network provided a base to analyse the main road, streets and open space network and was used in all engagement processes. It was critical to identifying the desirable and practical links that would strengthen walking, cycling and ecological connections throughout the Upper Harbour area.

3.2 Overview of Greenways Plan Map

The greenways network has been structured according to four path types. Each path type is influenced by its purpose and the landscape character of the environment it is located in.

Additionally these path types have been allocated a status according to their stage of planning, commitment or aspiration, which were determined through the consultation process.

The 'existing' network includes express paths that appear along arterial roads and motorways, local path through parks, and trails through reserves. There are very few local paths on streets identified as 'existing' in the Upper Harbour area.

'Planned' path status infers these paths are currently within the planned and/or construction phase and have a foreseeable completion date. The northern corridor express path is an example of this, with sections complete, or near complete, with remaining sections subject to funding availability.

The 'proposed' path network occurs where there is currently no formed path and a proposed future path would improve network connectivity. The proposed path network has been collated from The Upper Harbour Greenways Plan 2015 and other published plans and strategies created by transport agencies and local interest groups.

'Aspirational' paths refer to paths that have been proposed or suggested by the local community or local board through the consultation phase of this project. They have been included in the same key as 'proposed paths' as they are regarded as desirable connections that present as much comparable value to network connectivity as 'proposed' paths.

An example of this is to continue the Northern Corridor shared path, past the Albany Highway off ramp, along Upper Harbour Highway and connecting to the existing express path at Tauhinu Road to cross the Greenhithe bridge.

The extension of this express path opens up a future potential connection to the North Western Motorway express path and completes a cycle connection from central North Shore to central Auckland.

The proposed development of the Sky Path across the Auckland Harbour Bridge presents future opportunities to further extend an express path along the Northern Motorway, linking back into the Northern Corridor shared path.

These aspirational express paths would create a significant cycle loop connecting the central, northern and western areas of Auckland, providing an efficient and effective transport link and viable commuting option.

Aspirational paths also include 'existing paths that need upgrading' to improve their level of service. This has been proposed based on the level of planning and construction involved in repairing and widening an existing path being very similar to constructing a new path.

Future Growth and Development

There are a number of projects underway or in the planning phase in and around the Upper Harbour Local Board area. The following projects offer opportunities to incorporate the development of the Greenway network.

Hobsonville Point has been developed by Homes Land and Communities Ltd (previously Hobsonville Land Company), a subsidiary of Housing New Zealand. Development is well underway and works already completed include schools, a ferry terminal, housing, parks, reserves, open space, and community halls and gardens. Works in progress include a commercial hub, apartments and housing, retirement living and coastal walkway.

Scott Point has been identified as a Special Housing Area (SHA). The precinct will provide for a residential area integrated with public transport and movement networks, a neighbourhood centre, a range of public open spaces, and a variety of housing options. A new primary school has been confirmed and will begin construction 2019. Scott Point is proposed to have 2500 houses built.

Whenuapai has been earmarked for future urban development. The Whenuapai Structure plan presents a framework to develop the semi rural environment into an urbanised community over the next 10 - 20 years. The structure plan includes the development of a rapid transit network stations and park and ride facilities in addition to a well connected cycle - pedestrian network. Phase one is estimated to provide up to 1800 homes, with completion expected by 2021.

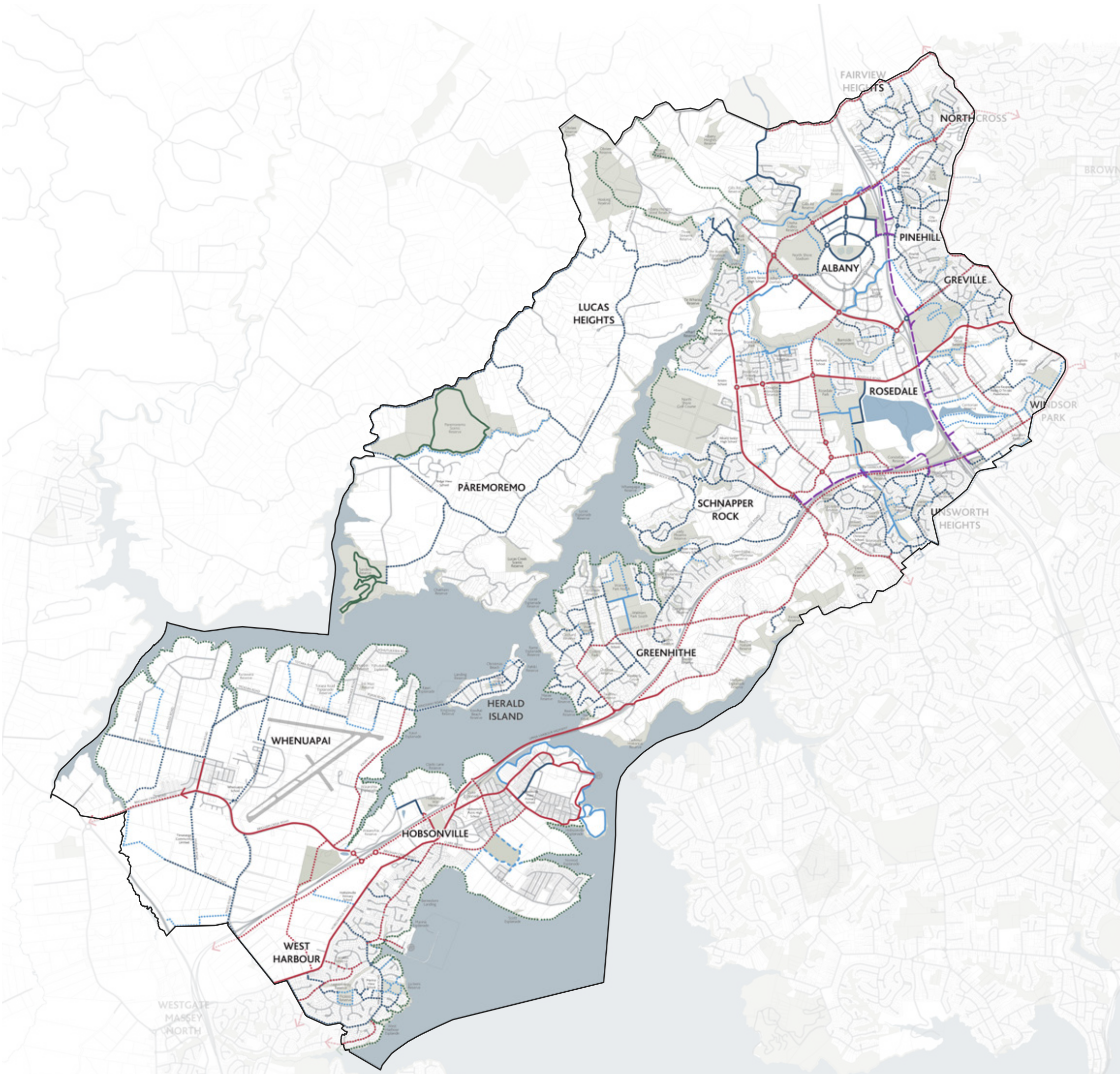
A Busway Station is proposed for Rosedale Road, estimated to open 2021. It is forecast that the busway will integrate into existing busway, walking, and cycling improvements.

The Northern Interceptor project is a Watercare project, proposing to build new wastewater pipelines and associated infrastructure to convey wastewater from north-western parts of Auckland to the Rosedale Wastewater Treatment Plant in Albany. Construction of the Northern Interceptor is intended to be staged. Phase One, Hobsonville to Rosedale Wastewater Treatment Plant began construction 2017 and is expected to be completed in 2020. Future phases are projected to occur between 2020 - 2030.

3.3 Upper Harbour Greenways Plan

N

Scale: 1:50,000 @ A3



KEY

- Local Board Boundary
- Parcel Boundaries
- Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Northern Corridor
- Express Network
- Local Network - Street
- Local Network - Open Space
- Trail Network

1 _ Paths currently within the planning and/or construction phase

2 _ Paths advocated to improve network connectivity, with a high degree of value and/or commitment.

Part Four

Focus areas

4.1 Focus Areas

The Upper Harbour Local Board area has been organised into six focus areas to clearly identify, evaluate and prioritise key routes and key connections for each area. The six focus areas are:

1_ Albany, Albany Village and Rosedale
2_ Northern Corridor Improvement Project
3_ Lucas Heights and Pāremoremo
4_ Greenhithe and Schnapper Rock
5_ Whenuapai and Herald Island
6_ Hobsonville and West Harbour

Each focus area has its own character, community, needs, aspirations and unique set of constraints, challenges and opportunities.

In order to help frame next steps and to prioritise specific projects and funding, key routes and connections have been identified for each focus area.

Routes align along roads, streets and through parks and open spaces. In some cases a path already exists that requires an upgrade to accommodate a greater number of uses, and/or to improve accessibility, safety, amenity and ecological performance. In other cases a new route will be introduced.

Key routes are often express paths and provide a primary cycling network within and between the focus areas.

Key connections highlight a link to and between key destinations, such as a residential area with a school, a village centre, transport facilities or another connecting path. Key connections are often local paths along streets or through parks and open spaces. They form a finer grain of connectivity to and between local destinations as well as into the express path network and are critical to encouraging local trips for daily needs and connecting into recreational trails.

For all of the focus areas the following constraints, challenges and opportunities will exist:

Constraints and Challenges

- Major arterial roads, particularly State Highway 1 and 18 restrict connections between neighbourhoods.
- Space conflicts between on street parking, cycling, buses and bus stops along main arterials.
- Streets and intersections are typically designed to prioritise private vehicles.
- Significant vehicle movement through peak hours of the day.
- The steep topography in parts of the Upper Harbour Local Board area.
- High numbers of unconnected cul-de-sacs.
- Single use land areas and a lack of mixed use encourage car use for daily trips.
- Transit through large roundabouts.
- Large scale of block size.
- Constrained access along coastal margin.

Opportunities

- Create clear and safe connections to the Northern Corridor shared path.
- Create an express path network to connect centres of employment and key destinations with residential areas and neighbouring focus areas and communities.
- Reduce vehicle volumes and speeds on local street network to improve safety for pedestrians and cyclists.
- Enhance intersections to improve accessibility and safety for pedestrians and cyclists.
- Create new crossing for pedestrians and cyclists on main roads and busy streets where they don't already exist.
- Create bike storage locations at local transport hubs and bus stations
- Improve tree coverage and integrate water sensitive design into street network, parks and open spaces to improve character, amenity and ecological function.

4.2 Focus Areas in Context of the Local Board Area Boundary

The adjacent map shows the boundary of the six focus area. The borders of each focus areas overlap to show shared strategic connections.

N

Scale: 1:50,000 @ A3

1_ ALBANY, ALBANY VILLAGE and ROSEDALE

2_ NORTHERN CORRIDOR IMPROVEMENT PROJECT

3_ LUCAS HEIGHTS and PĀREMOREMO

4_ GREENHITHE and SCHNAPPER ROCK

5_ WHENUAPAI

6_ HOBSONVILLE and WEST HARBOUR

KEY

Local Board Boundary

Focus Area Boundary

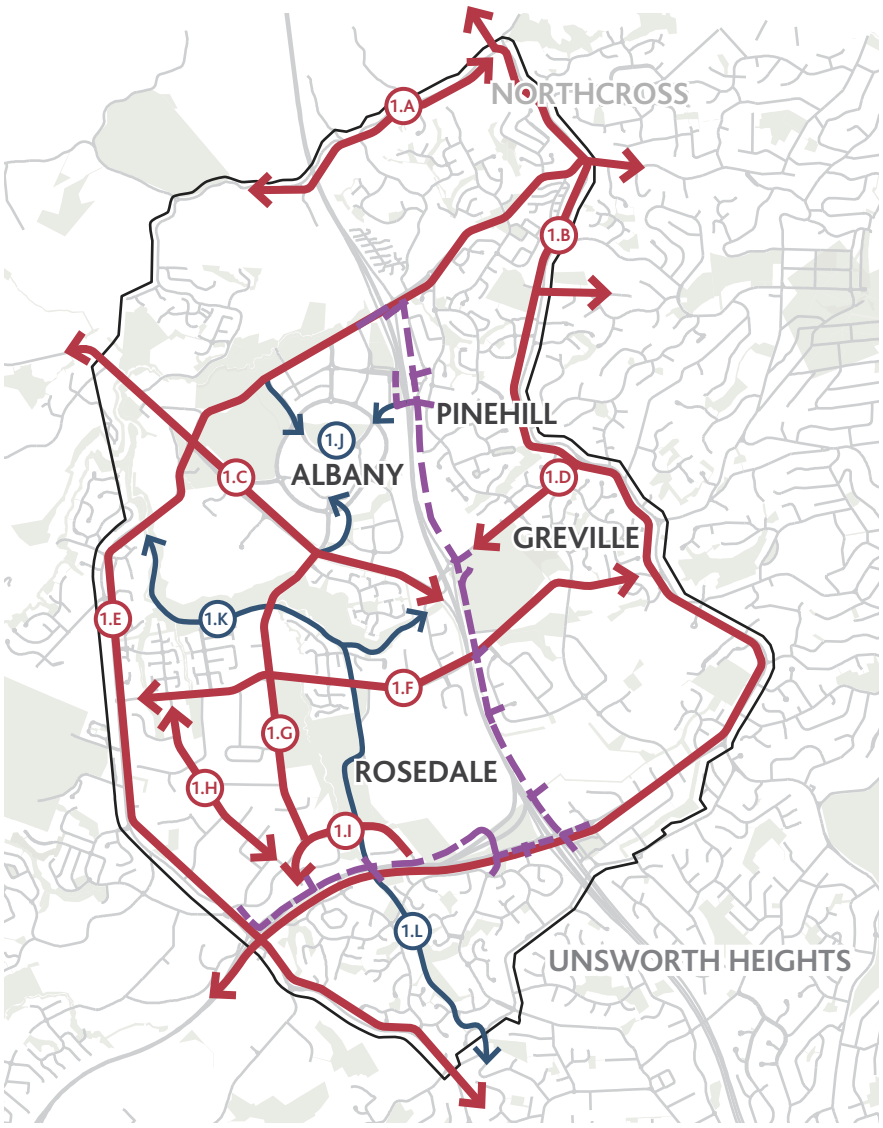
Focus Area 1 - Albany, Albany Village and Rosedale

Character

This focus area includes Albany Town Centre, Pinehill and Greville to the north east of the Upper Harbour area traveling south to include parts of the south eastern suburbs of Unsworth Heights and Windsor Park and encompasses the entire business industrial area of Rosedale.

Albany is the primary retail centre of the Upper Harbour area and has been identified for significant growth and intensification over the next 30 years. State Highway 1 currently restricts connectivity east west through the area, however the implementation of the Northern Corridor Improvement project (NCI) is likely to improve this significantly. For purposes of this greenways plan the NCI is presented as its own focus area. Albany and Rosedale provide the business and commercial centre of the Local Board area, and support major sports and educational facilities such as the North Harbour Stadium, Albany Swimming Pool and Massey University. The surrounding eastern suburbs consist predominantly of residential neighbourhoods and corresponding parks and local amenities.

Key Routes and Connections



Key Routes and Connections

1.A - 1.I
Create a network of express paths to connect into and around Albany and Rosedale

Constraints and Challenges*
- Vehicle congestion on all major arterial roads
- Varying topography of the area
- Limited space for separated cycle paths on main arterial roads
- Busy roundabouts and intersections
- Some arterials, such as Albany Highway already have shared paths which may need upgrading.
- Major intersections and roundabouts

Opportunities*
- An express path key route from north Albany along the Albany Highway will encircle the commercial heart of Upper Harbour
- Provide safe and direct cycle routes into the main employment hubs of the Upper Harbour area
- Create safe east-west connections by linking express paths along arterial streets into the Northern Corridor shared path

1.L - 1.K
Create north south local path connections from Albany through Rosedale to Unsworth Heights

Constraints and Challenges*
- Access across Oteha Stream
- Steep bush within Burnside escarpment

Opportunities*
- Link into an off-road east west connection through Burnside and Fernhill Escarpment
- Make connection into the Northern Corridor shared path
- Utilise the existing open space landscape corridor to make off road connections

1.J
Create safe and accessible connections into and around Albany Town Centre

Constraints and Challenges*
- Under utilised pedestrian environment
- Numerous large roundabouts

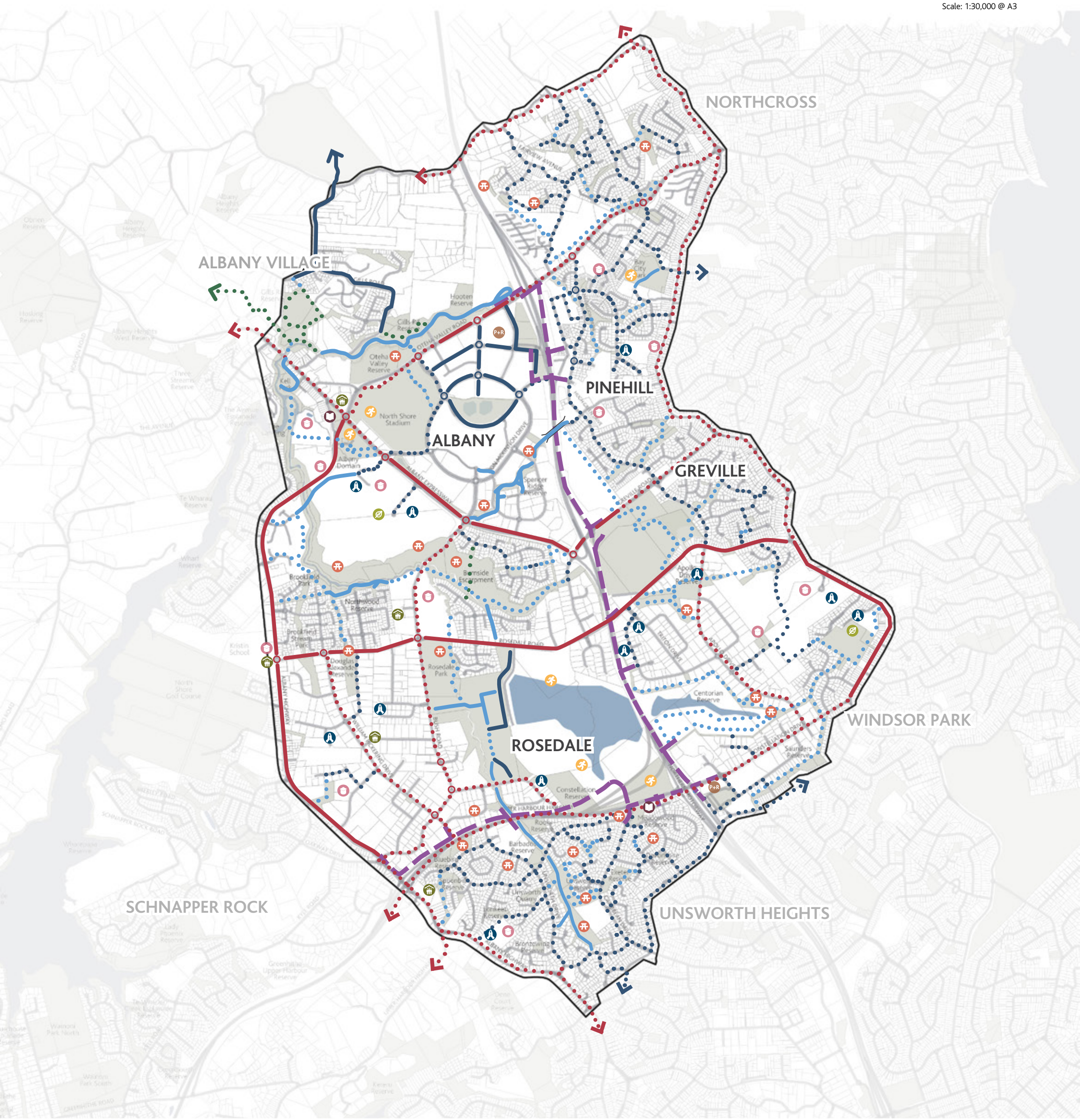
Opportunities*
- Introduce a more people oriented street atmosphere to the town centre
- Link existing open spaces for people to enjoy
- Incorporate Massey University into the town centre
- Develop signage for safer transit through roundabouts
- Connect into established shared path network
- Install wayfinding signage
- Typography of the area is conducive to walking and cycling

** In addition to the constraints, challenges and opportunities in section 4.1*

Albany, Albany Village and Rosedale Greenway Plan

N

Scale: 1:30,000 @ A3



KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network
- Northern Corridor

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools/Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

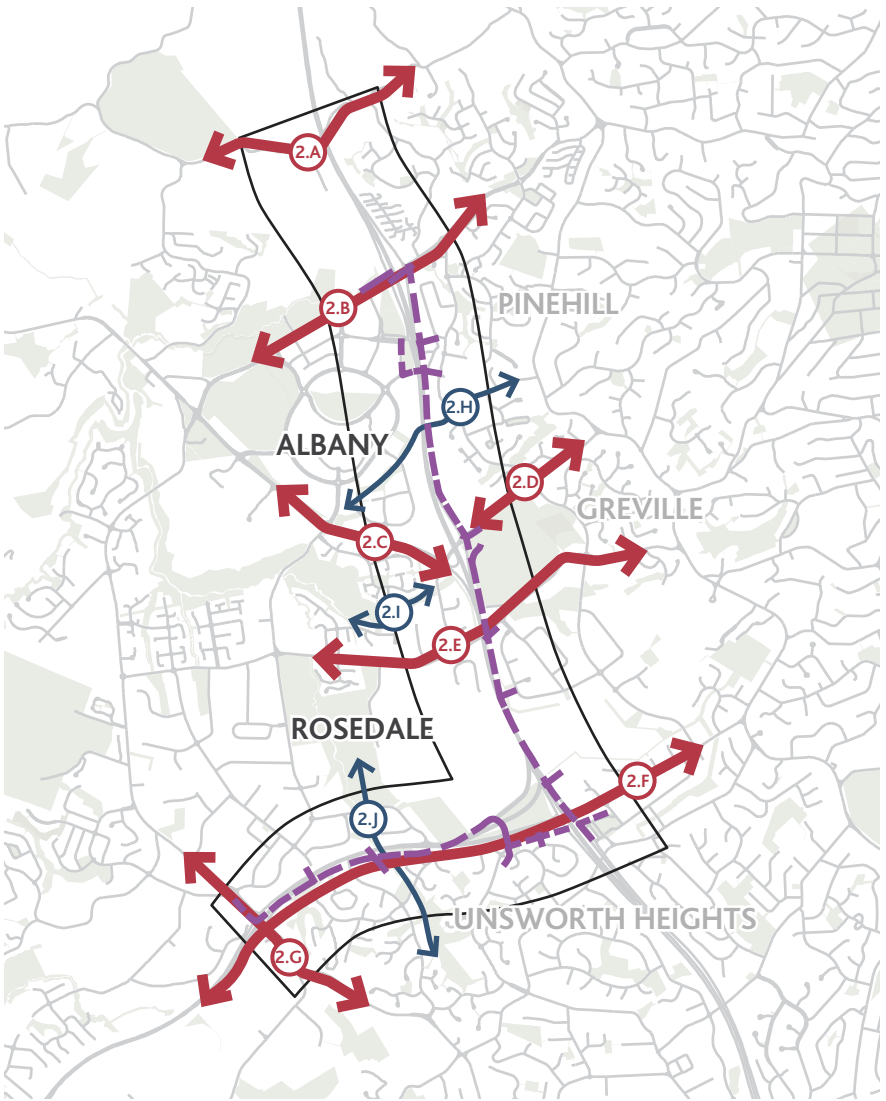
2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

Focus Area 2 - Northern Corridor Improvement

Character

The Northern Corridor Improvement (NCI) project includes shared use walking and cycling paths which run down to Constellation Drive and then across and along SH18, joining up to the new cycle path on Albany Highway. The corridor has an east-west pedestrian cycleway over bridge located at Spencer Road and has a number of walking and cycling connection points, for exit and entry, along the length of the shared path. The shared path is to be 5m wide in most places and is expected to be complete by 2022.

Key Routes and Connections



ROUTES and CONNECTIONS

- Key Routes
- Key Connections
- Northern Corridor

Key Routes and Connections

2.A - 2.G
Create safe and accessible connections to all available on/off ramps proposed on the NCI shared path

Constraints and Challenges*

- Ensuring the Northern Corridor shared path provides on/off ramps with equal access to both eastern and western sides of the Upper Harbour area
- Significant vehicle movement through peak hours of the day
- Balancing pedestrian safety with fast moving cyclists

Opportunities*

- Connect into greenways network
- Increase cyclist commuter traffic and decrease vehicle use for local trips
- Create bike storage locations at local transport hubs and bus stations
- Extend express path along SH18 to connect with SH16

2.H - 2.J
Create key Connections from shared path into open space network

Constraints and Challenges*

- Typography of landscape
- Barriers formed by busy intersections and arterial roads
- Transitioning cycle speed from express path to local path-open space

Opportunities*

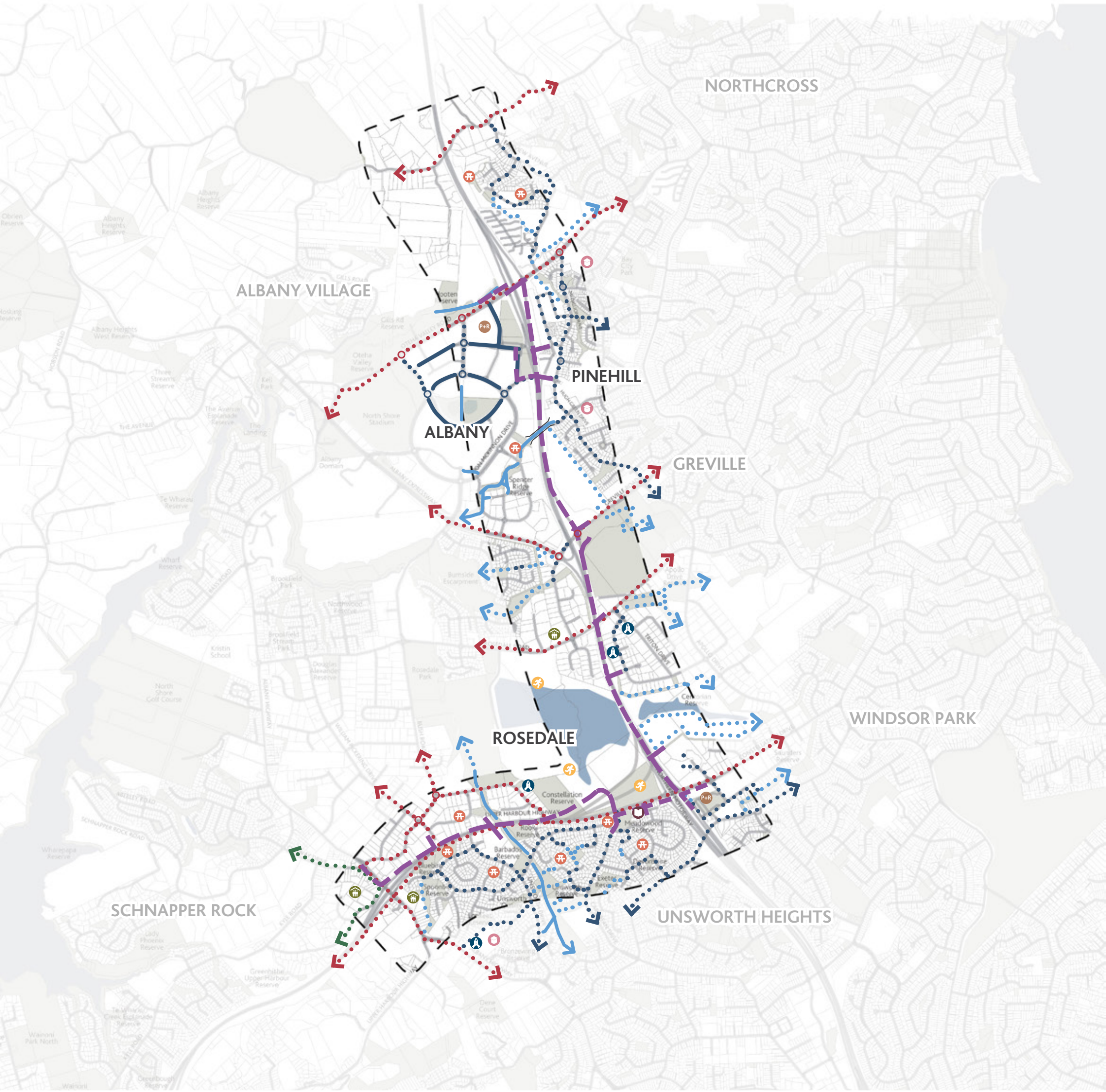
- Create unique wayfinding signage promoting key connections around Upper Harbour
- Improve recreational links and connections
- Increase non vehicle exploration and transit through Upper Harbour

** In addition to the constraints, challenges and opportunities in section 4.1*

Northern Corridor Improvement

N

Scale: 1:30,000 @ A3



KEY

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- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network
- Northern Corridor Network

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

Focus Area 3 - Lucas Heights and Pāremoremo

Character

Most of this focus area is rural in character and is located just beyond the Auckland rural urban boundary. Consistent with the rural character, the primary land uses of the focus area are lifestyle blocks and larger farm lots. Albany Village forms the primary retail and commercial centre servicing this focus area. The rural fringe of Albany village has experienced transformational residential growth over the last 20-30 years and now reflects a suburban character more common to other parts of the local board area.

Bordered to the west by the Rodney Local Board and to the east by the Lucas Creek, and overlooked by the Albany Heights hills to the north, the rural topography of the area is a combination of bush clad ridges, gullies, open pastures and steep coastal edges.

Pāremoremo has three large scenic reserves and is the location of New Zealand's highest security prison.

Key Routes and Connections

Key Routes and Connections

3.A
Reinstate connection along Lucas Creek at Dairy Flat Highway bridge

Constraints and Challenges*
- Ecological restrictions along Lucas Creek edge
- Space restrictions

Opportunities*
- Upgrade and enhance ecological function along Lucas Creek corridor
- Engage the community to protect and maintain Lucas Creek
- Off road connection to Gills Road area

3.B
Create a safe express path connection to the new Albany Town Centre

Constraints and Challenges*
- Creating safe crossing points on Oteha Valley Road

Opportunities*
- Connect residents on rural urban boundary into wider express path network
- Introduce suitably located signalised pedestrian crossing points on Oteha Valley Road

3.C
Create a loop cycle path connecting Lucas Heights, Lucas Creek Scenic Reserve, Sanders Reserve and Pāremoremo Scenic Reserves

Constraints and Challenges*
- Substantial scale of rural lifestyle blocks
- Width of road corridor
- Variety of rural vehicle types using roads
- No street lighting

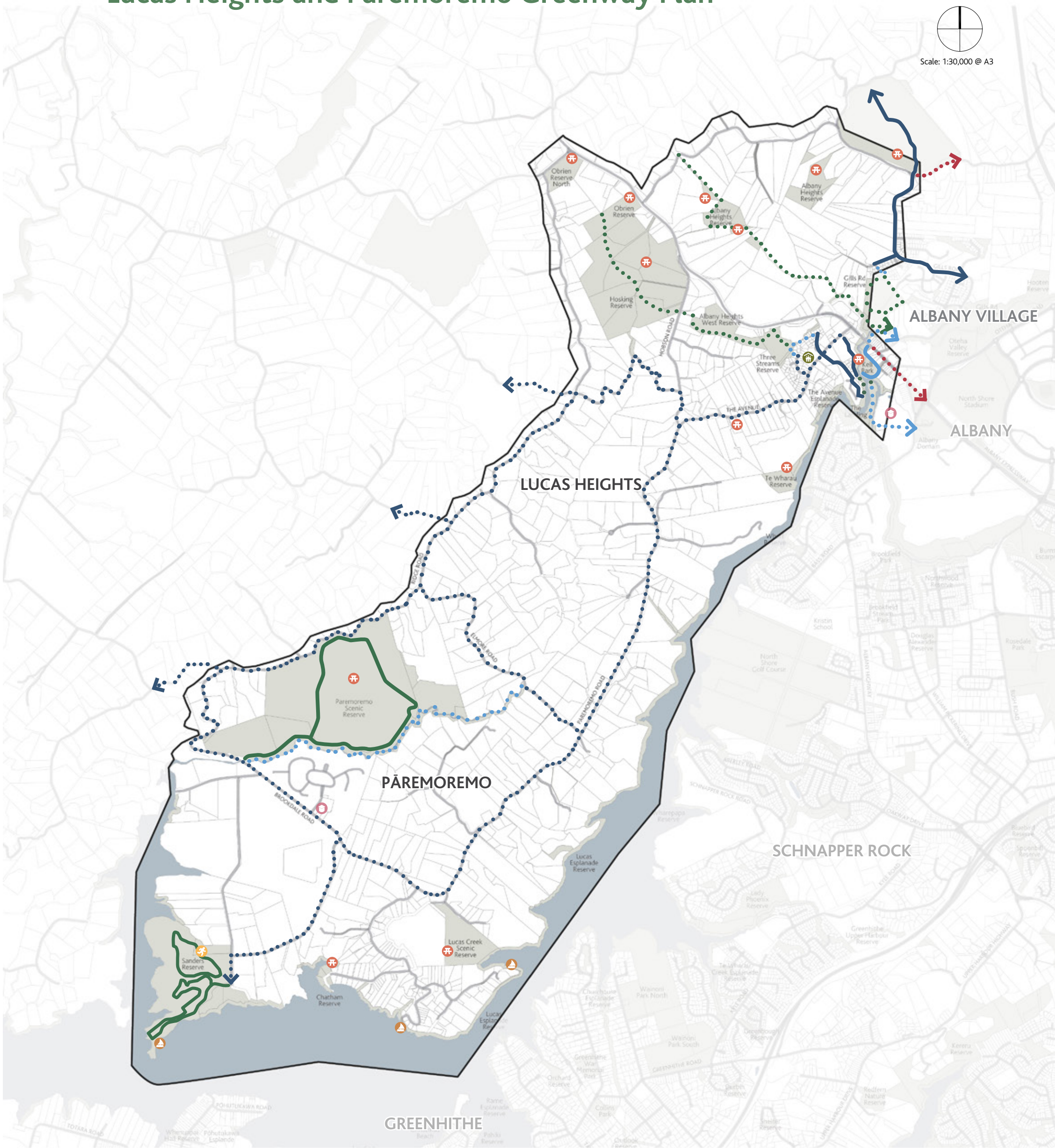
Opportunities*
- Extend path network to link into Riverhead Greenways
- Improve safety for local pedestrian and cycle travel on rural roads
- Increase cyclist commuting from Rodney area
- Improve safety of commuters and recreational cyclists

** In addition to the constraints, challenges and opportunities in section 4.1*

Lucas Heights and Pāremoremo Greenway Plan

N

Scale: 1:30,000 @ A3



KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

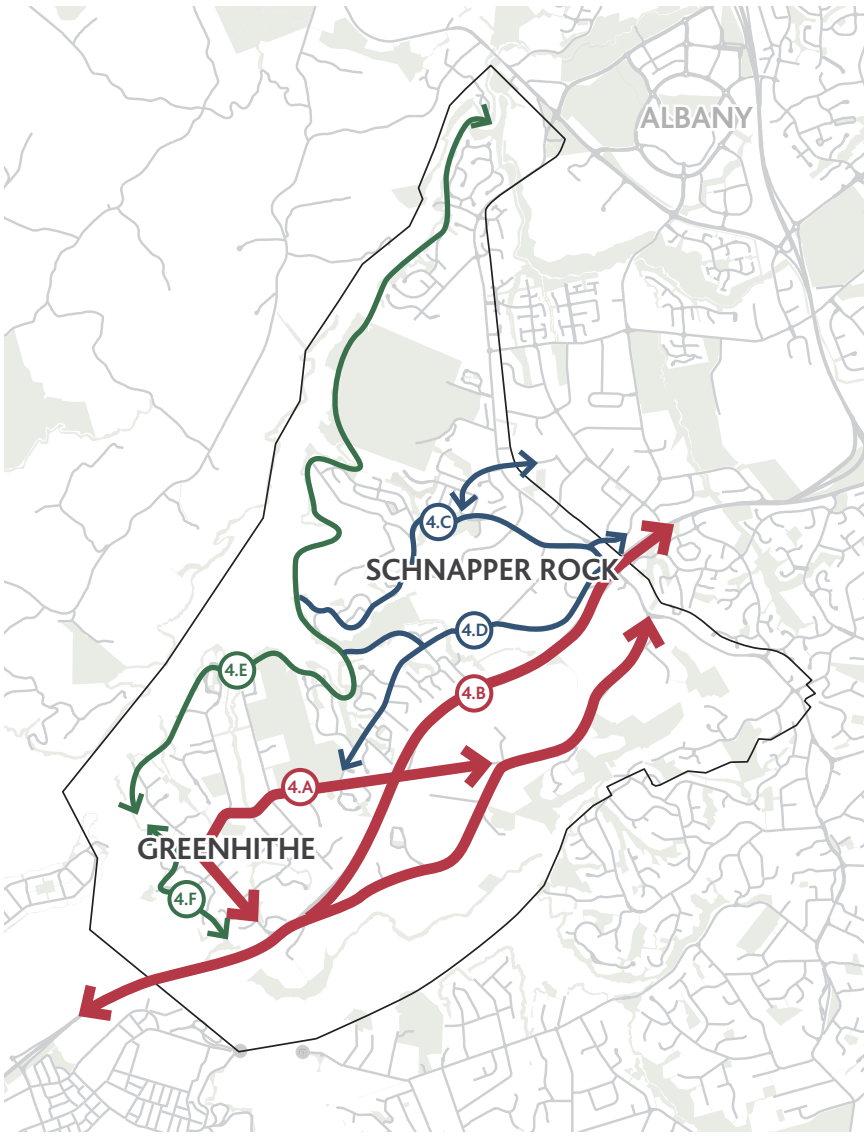
Focus Area 4 - Greenhithe and Schnapper Rock

Character

Greenhithe is bordered by Lucas Creek in the north and Hellyers Creek in the south and is connected to the western side of the Waitematā by the Greenhithe Bridge, originally built in the 1970s. The Upper Harbour Motorway was built through Greenhithe by Transit NZ and was completed in late 2007. For the purpose of these focus areas the area located south of the Upper Harbour Motorway will be also be referred to as Greenhithe.

Located north of Greenhithe, Schnapper Rock has emerged over the last 20 years. Topographically located on a ridge line, the western edge of the suburb extends to the coastal edge of the Lucas Creek. The area has a well connected street system with modern single lot dwellings and large areas of open space. Much of its coastal edge is occupied by the North Shore Memorial Park cemetery and the North Shore Golf Club.

Key Routes and Connections



Key Routes and Connections

4.A - 4.B
Introduce an express path on Upper Harbour Motorway

Constraints and Challenges*
- Spatial constraints on vegetative edge of road corridor
- Navigating on and off ramps
- Topography of landscape

Opportunities*
- Create safe and direct cyclist commuter link to central North Shore
- Create safe and direct cyclist commuter link to Northern Motorway Shared path
- Improve connection to Hobsonville and Whenuapai
- Create a North to West express link
- Reduce traffic on Upper Harbour and Northwestern motorways

4.C - 4.D
Create an express path connection along Greenhithe Road

Constraints and Challenges*
- Spatial constraints of road corridor
- Navigating through roundabouts
- On-street parking

Opportunities*
- Improve the connectivity of Greenhithe to the wider Upper Harbour community
- Remove on-street parking and replace with cycle lane
- Connect to Tauhinu Road and Upper Harbour Drive cycle paths
- Create connection to Hobsonville, crossing Upper Harbour / Greenhithe bridge

4.E - 4.F
Create local street path network through Schnapper Rock

Constraints and Challenges*
- Navigating roundabouts
- Kyle Road and Wickham Lane both narrow rural type roads
- Hidden driveways on narrow roads
- Navigating busy intersections on Albany Highway
- Varying topography of area

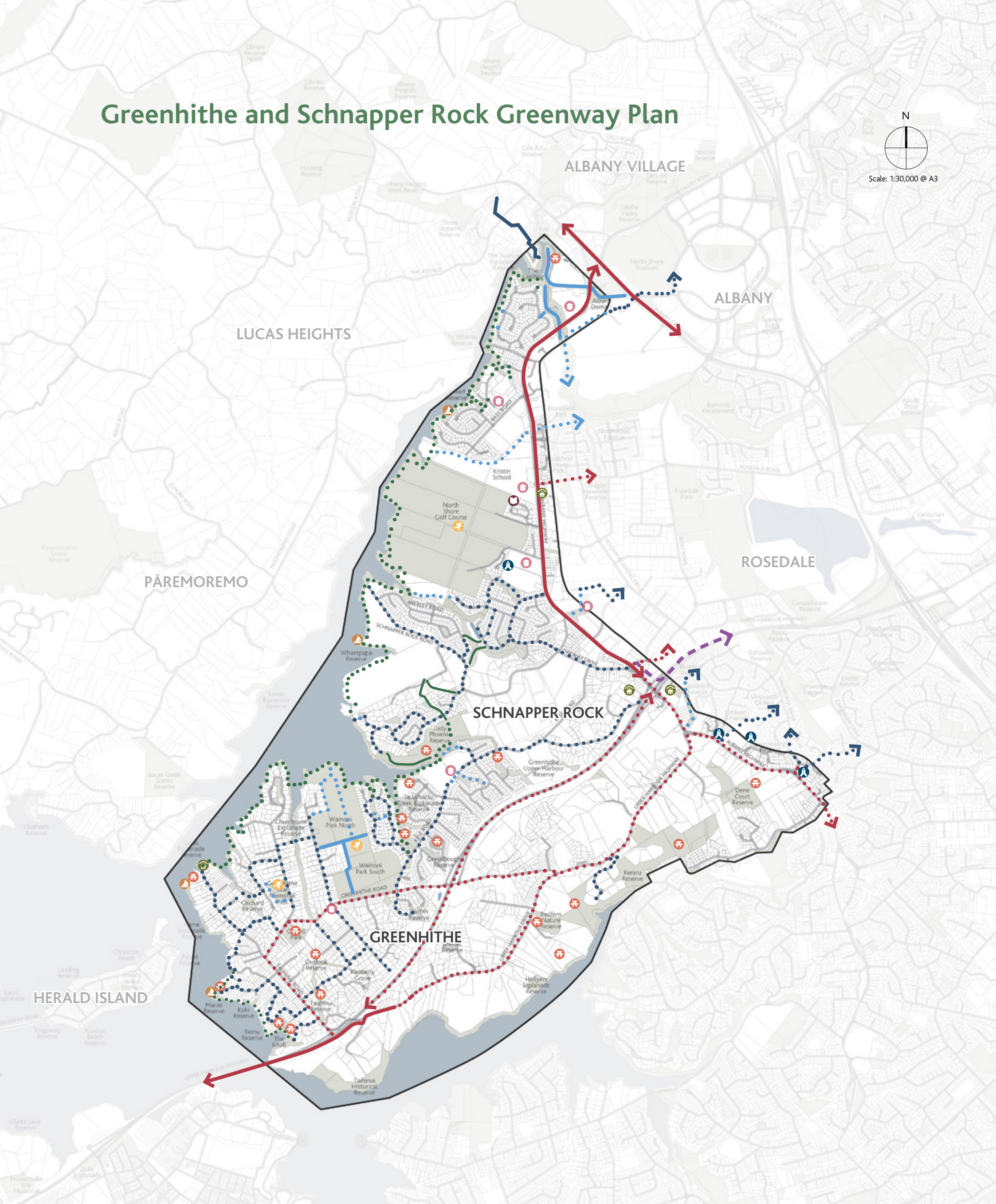
Opportunities*
- Establish local path - street paths through Schnapper Rock while suburb is still young
- Connect to existing shared paths
- Increase berm planting in Schnapper Rock
- Link to shared path between Schopolo Park and Miromiro Street
- Create safe local on-street path connecting to local schools
- Improve cycle connection to Rosedale commercial district
- Utilise wide streets for safe cycle routes

** In addition to the constraints, challenges and opportunities in section 4.1*

Greenhithe and Schnapper Rock Greenway Plan

N

Scale: 1:30,000 @ A3



KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network
- Northern Corridor

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

Focus Area 5 - Whenuapai and Herald Island

Character

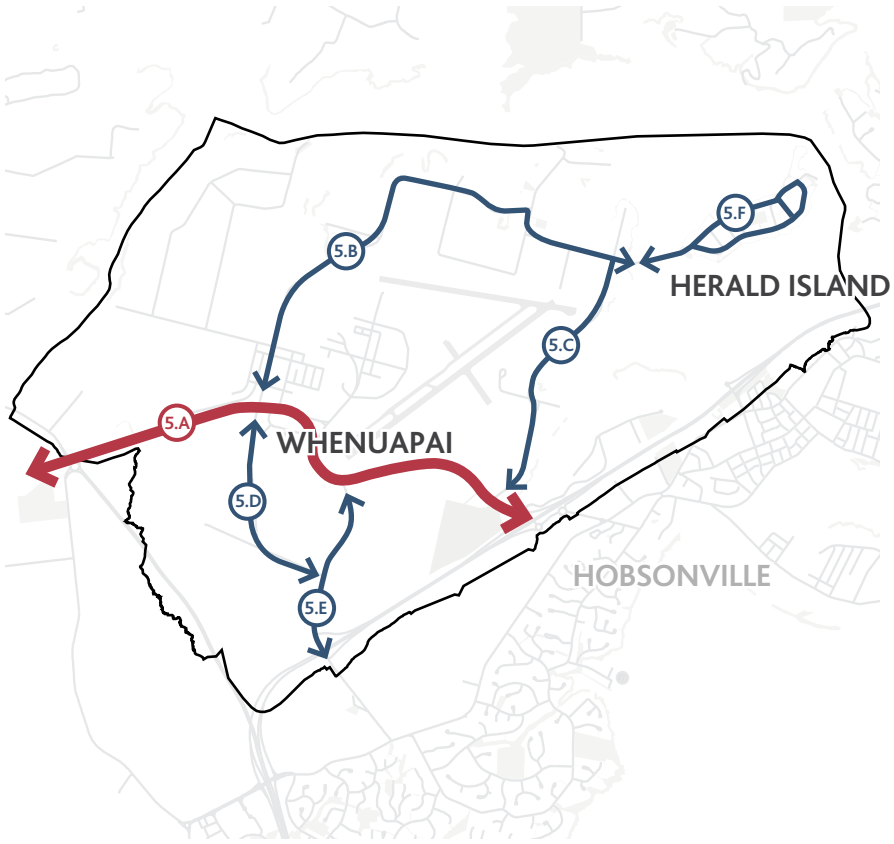
Whenuapai is on the southwestern edge of the Upper Harbour area and lies just beyond the Auckland rural urban boundary. Land within Whenuapai is predominantly low-lying and flat to undulating, with the lowest elevated areas to the north and adjacent to the harbour, the land gently rising to the south as it joins Hobsonville Road. The coastal edge comprises a combination of steep cliffs to moderate slopes and gentle slopes grading down to the tidal zone which is fringed with mangrove forest.

The coastline of the Upper Waitematā Harbour, an area ranked highly in terms of vulnerability and ecological value, forms Whenuapai's northern boundary.

Up until recently Whenuapai has been a small village supporting the RNZAF base. The Whenuapai airbase has been located on the site since 1937 and is New Zealand's largest operational airbase. The airbase provides a unique sense of place to Whenuapai and occupies a large section of the area. Strategic plans for higher density residential and commercial development are currently under development.

Located at the north-west of the Waitematā Harbour, Herald Island is connected to Whenuapai by a causeway over the tidal mangrove forest. The small island community of under 300 houses has a rural atmosphere and has a simple street and local path system looping the island and touring the public reserves/parks and coastal edge. The Island has a rich cultural history with some heritage buildings remaining. The original post office now houses a local museum and the old fire station located next door is a community arts and craft centre and library.

Key Routes and Connections



Key Routes and Connections

5.A
Create an express path extension connecting SH18 to SH16

Constraints and Challenges*
- Road corridor spatial constraints between Airport and Brigham Creek Road
- Narrow bridge on Brigham Creek Road

Opportunities*
- Extend existing shared path on Brigham Creek Road
- Safely connect Westgate to Whenuapai and Hobsonville
- Increase options for commuter cyclists
- Provide safe cyclist access to Hobsonville Point ferry

5.B - 5.E
Create a safe local path network linking to Brigham Creek Road express path

Constraints and Challenges*
- Narrow rural roads
- Kingsway Road is the only access road to Herald Island and is extremely busy
- Open drain on Totara Road limiting footpath expansion
- Links through private land

Opportunities*
- Incorporate into current Whenuapai development plans
- Improve access to coastal trail
- Protect and improve ecological quality of coastal margin
- Community involvement in ecological projects
- Create alternative route to and from Herald Island and Whenuapai village
- Connect schools, parks and reserves

5.F
Upgrade and formalise walking and cycling connection to and around Herald Island

Constraints and Challenges*
- Narrow rural roads
- Kingsway Road only access to Herald Island
- Kingsway Road very narrow

Opportunities*
- Upgrade existing paths
- Protect and improve ecological quality of coastal margin
- Involve community in protection and maintenance of coastal margin
- Encourage non vehicle use for local trips around the island

** In addition to the constraints, challenges and opportunities in section 4.1*

Whenuapai and Herald Island Greenway Plan

N

Scale: 1:30,000 @ A3

PĀREMOREMO

HERALD ISLAND

WHENUAPAI

HOBSONVILLE

WESTGATE

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

Focus Area 6 - Hobsonville and West Harbour

Character

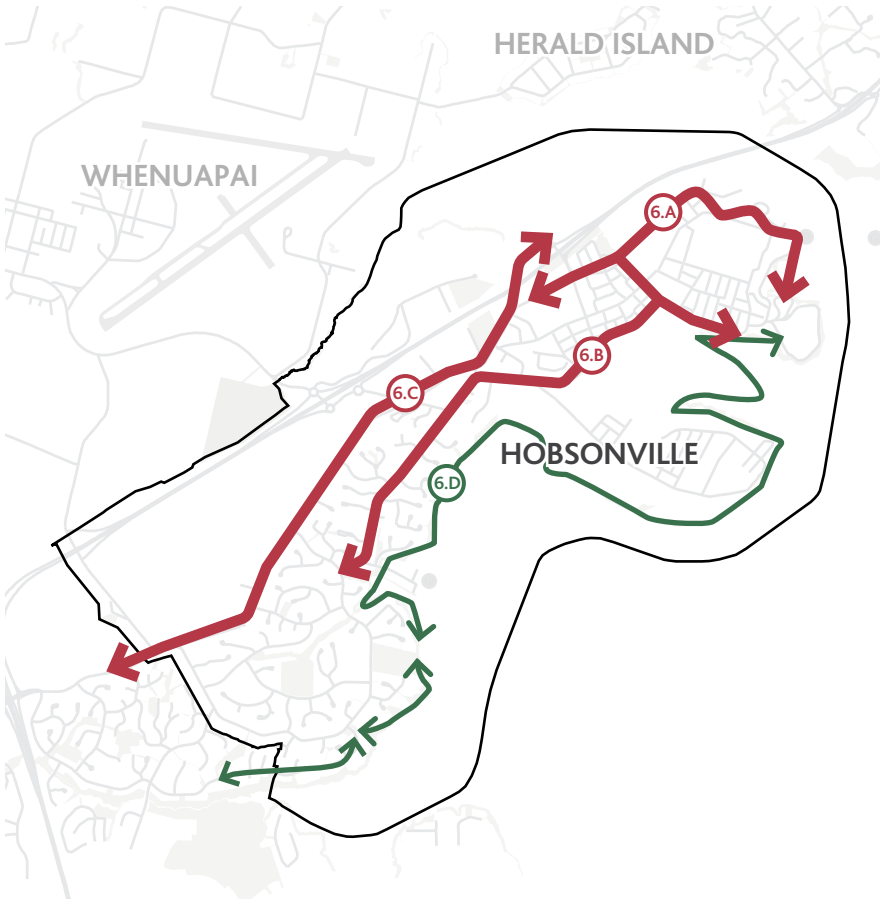
Hobsonville and West Harbour are located on the northwestern edge of the Waitematā Harbour. Both are suburban in nature and lie on the eastern side of Hobsonville Road, just inside the line of the Auckland rural urban boundary. The sloping terrain of West Harbour provides magnificent views over the harbour towards the central city. Its coastal edge consists of steep cliffs that reduce in height towards Waipareira Beach and the edge of Hobsonville marina.

The suburb of Hobsonville extends beyond the marina and consists largely of residential cul-de-sacs branching off the main spine of the suburb via Wisely Road. Hobsonville extends to Hobsonville Point which is essentially a peninsula surrounded by water.

Hobsonville Point was an RNZAF airfield until the late twentieth century. In 2002, the land was sold to the government and masterplanning of a high density residential village began. Construction was started in 2011, and although still under development, Hobsonville Point has become a popular destination for living and entertainment.

Accessible by SH16, SH18 and a ferry to the city, the area is one of the fastest growing parts of Auckland and due to it being masterplanned, Hobsonville Point has a well designed street layout, generous amounts of outdoor amenities and a skillfully designed existing shared path and trail network.

Key Routes and Connections



Key Routes and Connections

6.A - 6.C
Create an express path network along arterial spine roads

Constraints and Challenges*
- Width of road corridors
- Width of footpaths
- Judder bars
- Concealed driveways

Opportunities*
- Reduce vehicle traffic on residential roads
- Improve means of travel choice for residents
- Create safer streets
- Join into shared path that already exists along Hobsonville Road at Hobsonville Point

6.D
Extend express and trail paths from Hobsonville Point to West Harbour

Constraints and Challenges*
- Private land ownership
- Varying typography

Opportunities*
- Create a high quality recreational link
- Trail becoming a key tourist and visitor destination
- Protect and improve ecological quality of coastal margin
- Involve community in protection and maintenance of coastal margin
- Create an on-street based key connection to from Hobsonville to West Harbour

** In addition to the constraints, challenges and opportunities in section 4.1*

Hobsonville and West Harbour Greenway Plan

N

Scale: 1:30,000 @ A3

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

PATH TYPE STATUS

- Existing
- Planned[1]
- Proposed / Aspirational[2]
- Roundabout

PATH TYPE

- Express Network
- Local Network -Street
- Local Network -Open Space
- Trail Network

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

1 _ Paths currently within the planning and/or construction phase

2 _ Paths proposed to improve network connectivity and / or with a high degree of commitment.

Part Five

Next steps

New Zealand Herald File Photo, 2019

5.1 Overview

The Upper Harbour Greenways Plan will be implemented over time to achieve the outcomes envisaged in the Local Board Plan. Implementation of this plan will include the upgrade of existing walking and cycling connections (both on and off-road), as well as the creation of new paths on existing streets, within open space land, through designation areas, and/or via property easements.

Best Practice Guides

Future detailed planning and design shall also take into consideration best practice guidelines, which include:

- Local Path Design Guide (2017)
- Auckland Design Manual
- Te Aranga Design Principles
- Auckland Transport Code of Practice - Cycle Infrastructure Design (2013)
- Stormwater Code of Practice (SWCoP 2015)

Related 'best practice' documents such as NZTA's 'Bridging the Gap – Urban Design Guidelines (2013)', DoC's 'Caring for Archaeological Sites' (2007) report, and the Ministry of Justice's 'National Guidelines for Crime Prevention through Environmental Design (CPTED) in New Zealand' shall also be taken into account as designs develop, in addition to all relevant Unitary Plan management layers and area-specific policies.

Engagement and Consultation

Ongoing community engagement, stakeholder collaboration and partnerships are key to the successful implementation of the Upper Harbour Greenways Plan and will require coordination and commitment from the Upper Harbour Local Board; Mana Whenua; key stakeholder groups; Auckland Council departments; Auckland Transport; key related public/utility organisations such as the New Zealand Transport Agency (NZTA), Watercare, Transpower and Vector.

As with this Greenways Plan, it is recommended that project partners and key stakeholders are organised into different groups with corresponding levels of engagement, with different levels of participation at different stages of the project utilising the International Association for Public Participation (IAP2) Spectrum of Participation. This means that the engagement and consultation process is organised into different engagement streams that run concurrently.

For example, project partners, who include Auckland Council staff, Auckland Transport, Mana Whenua, and the Upper Harbour Local Board, will be involved in key decisions regarding the design, and their concerns and aspirations will be considered and understood throughout the decision making process. Engagement with Mana Whenua will focus on understanding the values, aspirations and cultural narratives specific to the place. Engagement with Auckland Council staff will be more focused on regulatory compliance and practical matters concerning buildability and maintenance.

Understanding Mana Whenua values, aspirations and cultural narratives specific to the place will require further engagement and collaboration with iwi to deliver positive outcomes. It was agreed that exploring the place-based applications of Te Aranga Design Principles was a good first step to the process and that iwi would like to be involved in reviewing the design details, relevant to Te Aranga Design Principles, as the Greenways Plan progresses through subsequent phases.

Key Stakeholders, who include existing network users and the general public, should continue to be involved and consulted during the design process to ensure their concerns and aspirations have been understood and considered. Further engagement will assist key stakeholders to understand the intricacies involved in developing the next stages of the Greenways Plan.

Grass-roots community involvement is very important to ensure the ongoing success of the Greenways Plan. Local knowledge-sharing and volunteering are needed to provide community ownership, care and responsibility. Community involvement could include but should not be limited to social procurement (e.g. work with community to explore innovative ways to deliver projects through social entreprise), youth employment opportunities, planting/weed clearance days, 'adopt a stream' street groups, fundraising, lobbying and artistic input.

Funding

Funding has been allocated for road improvements in the Local Board areas in Auckland Council's Long Term Plan (LTP) for the next 10 years, and some of this funding could be used to implement the Greenways plan. Other funding avenues include Auckland Transport and the New Zealand Transport Agency's (NZTA) regional cycleways fund. Upper Harbour Local Board could also fund paths that occur within open space.

Strategic Questions and Technical Reports

As part of the subsequent phases to develop the design for individual paths and connections, further questions will need to be asked of the immediate community to ensure the project fits the community needs, concerns, desires and aspirations.

Examples of some strategic and qualitative questions may include, but won't be restricted to;

- Are there particular places where the local path network needs to take extra care?
- Are the proposed walking and cycling connections likely to improve access to work, school, recreational facilities or shopping opportunities?
- Are there any specific issues within the proposed path networks that need to be addressed?
- Are there any concerns which would reduce the use of a particular route - for example: high speed traffic, unsafe environments, difficult road crossings?
- Are there any potential heritage, cultural or social stories to be told along the path?
- Are there any potential ecological enhancement opportunities that could be incorporated into the path design?

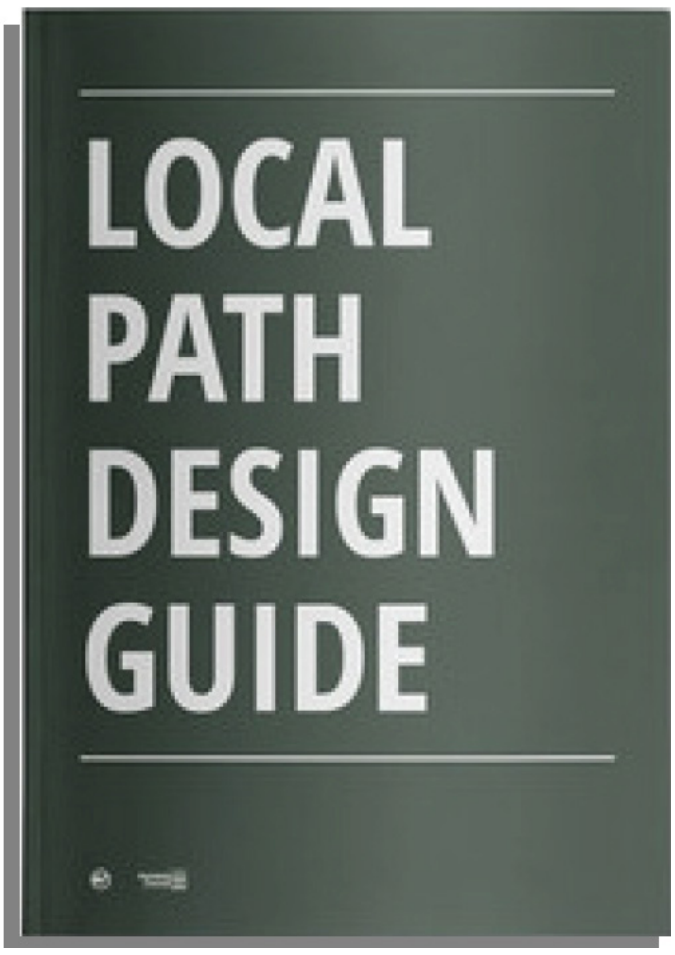
The process for determining the feasibility and developing the design for individual paths and key connections will require further detailed studies. Further investigations/technical reports required may include but not limited to;

- Detailed topographical survey in key locations
- Geotechnical investigations in key locations
- Assessment of contaminated land
- Road safety audit for proposals that include express paths and/or local paths on-street
- Ecological assessments
- Arboricultural assessments
- Hydrological assessments

5.2 Local Path Design Principles

The following design principles are proposed to guide the implementation of the Greenways Plan. The design principles are organised under two headings, Local Path Design Principles and Te Aranga Design Principles.

Local Path networks must primarily meet the needs of all people who use the paths, whether they are walking, cycling, in wheelchairs, pushchairs, on motorised scooters, with a guide dog, or whether the user is an adult or a child. The design framework is based on the principles of safety, connection, accessibility, comfort and enablement.



Safe

Safety and a stress free environment are core tenets of achieving a successful local path network. A consistent level of experience and character within the path type chosen for the route is paramount to its safe function. Crime prevention and enhanced social safety are also keen outcomes of a well designed local path network. CPTED pronounced ‘sep-ted’ means ‘crime prevention through environmental design’ and aims to reduce opportunities for crime and antisocial behaviour through designing environments that make committing these acts less easy – reducing opportunities for crime to occur.

Connected

Local path networks should connect destinations encouraging less use of the motor vehicle. They should seamlessly connect to the wider transport network including express networks. Additionally these networks should be designed to be easily navigated with clear, uncomplicated wayfinding signage. Having a consistent look and feel to each path type reduces the need for excess signage as the route can be logically inferred on the ground.

Accessible and Comfortable

All path/network infrastructure should be accessible to all users no matter what the level of personal mobility. Considerations include ample width, gentle gradients, smooth transition surfaces and attractive surrounds.

Enabling

Iwi, community and stakeholders should be engaged early in the process to incorporate any local initiatives. Local paths should integrate with the existing streetscape and celebrate Auckland’s unique character by responding to and incorporating elements of the surrounding natural and built environment, heritage and culture. Opportunities to include ecological function through planting, water sensitive design and low energy/low toxicity materials should be integral to each path network design.

5.3 Te Aranga Design Principles

The Auckland Design Manual (ADM) notes that the key objective of the Te Aranga Māori Design Values and Principles is to enhance the protection, reinstatement, development and articulation of Mana Whenua cultural landscapes and to enable all of us (mana whenua, mataawaka, tauiwi and manuhiri) to connect with and to deepen our collective appreciation of 'sense of place'. The Following core Māori values have informed the development of the outcome-oriented Te Aranga Māori Design Principles:

- Rangatiratanga
- Kaitiakitanga
- Manaakitanga
- Wairuatanga
- Kotahitanga
- Whanaungatanga
- Matauranga

Mana Rangatiratanga - Authority

Outcome_ The status of iwi and hapū as Mana Whenua is recognised and respected.

Attributes
Provides a platform for working relationships where Mana Whenua 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

Outcome_ Māori names are celebrated.
Opportunity for re-naming sites throughout the connections network.

Attributes
Recognises and celebrates the significance of Mana Whenua ancestral names.
Recognises 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

Outcome_ The natural environment is protected, restored and / or enhanced.

Attributes
Sustains and enhances the natural environment.
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 Tū - Environmental Health

Outcome_ Environmental health is protected, maintained and / or enhanced.

Attributes
The wider development area and all elements and developments within the site are considered on the basis of protecting, maintaining or enhancing mauri.
The quality of wai, whenua, ngahere and air are actively monitored.
Community wellbeing is enhanced.

Mahi Toi - Creative Expression

Outcome_ Iwi/hapū narratives are captured and expressed creatively and appropriately.

Attributes
Ancestral names, local tohu and iwi narratives are creatively reinscribed into the design environment including: landscape; architecture; interior design and public art.
Iwi / hapū mandated design professionals and artists are appropriately engaged in such processes.

Tohu - The Wider Cultural Landscape

Outcome_ Mana Whenua significant sites and cultural landmarks are acknowledged.

Attributes
Acknowledges a Māori world view of the wider significance of tohu/landmarks and their ability to inform the design of specific development sites.
Supports a process whereby significant sites can be identified, managed, protected and enhanced.
Celebrates local and wider unique cultural heritage and community characteristics that reinforce sense of place and identity.

Ahi Kā - The Living Presence

Outcome_ Iwi/hapū have a living and enduring presence and are secure and valued within their rohe.

Attributes
Mana Whenua live, work and play within their own rohe.
Acknowledges the post Treaty of Waitangi settlement environment where iwi living presences can include customary, cultural and commercial dimensions.
Living iwi/hapū presences and associated kaitiaki roles are resumed within urban areas

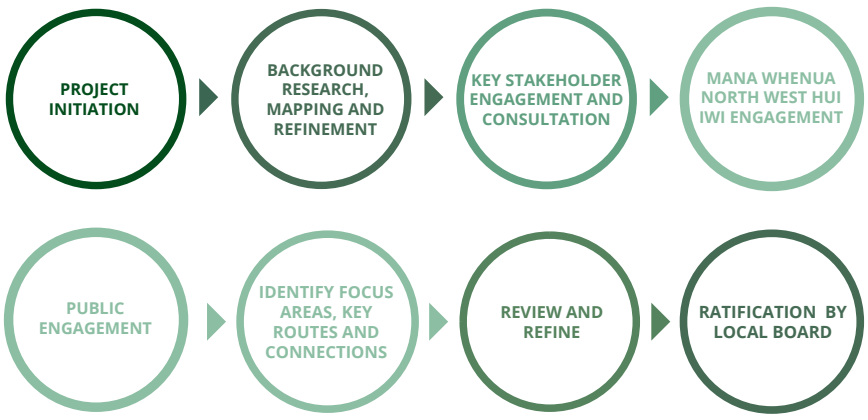
Application

While the Te Aranga Design Principles are well recognised and formally adopted by Auckland Council it is important to note, that in keeping with the principle Mana Rangatiratanga, it should not be assumed that Mana Whenua want to use these principles to inform their contribution to the design. Whether to use this framework or not should be confirmed as part of the initial engagement with the relevant iwi authorities.

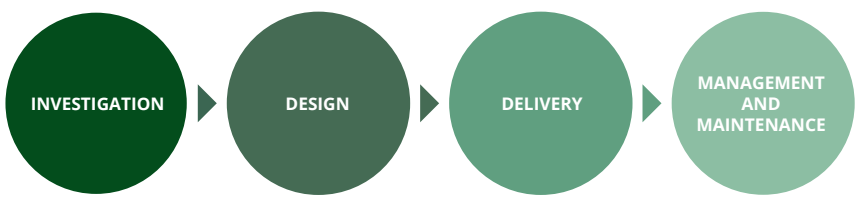
5.4 Summary of Process

The Upper Harbour Greenways Plan presents a vision of an entire network of greenway paths connecting town centres, schools, public facilities, recreation areas and public transport hubs. It is a long-term plan with the aim to significantly improve walking, cycling and ecological connections within the urban environs of the Upper Harbour Local Area. The Greenways Plan provides a thorough exploration of the places and destinations which would greatly benefit from walking and cycling connections. Key routes and key connections have been identified and constraints, challenges and opportunities have been outlined at a high level to help frame the key phases necessary to plan, design, implement and maintain a path as part of the Upper Harbour Greenways Plan.

Upper Harbour Greenways Plan Process



Next Steps



Investigation Phase

The purpose of the investigation phase is to test the feasibility and viability of a key route and/or key connection. A feasibility study is often completed to fulfil the requirements of the investigation phase.

The investigation phase will involve continued engagement with project partners and stakeholders. At a minimum, a draft feasibility design should be prepared with project partners and stakeholders and the public should be consulted.

The investigation phase can be organised into a sequence of 5 key phases:

- Identify and confirm neighbourhood destinations, key routes and connections
- Collect and analyse base data
- Identify and prioritise paths
- Identify key design requirements
- Rough order of costs

Design Phase

The design phase will continue to develop, refine and confirm the alignment and design requirements developed through the investigation phase. The design phase typically consists of 3 phases - concept design, developed design and detailed design and tender documentation for construction. The design phase will also include the preparation for lodgement of resource and building consent and as with the investigation phase, continued engagement with project partners and stakeholders.

Delivery Phase

The delivery phase involves the procurement of a contractor to build the proposed project, the construction of the project and resolution of any issues that emerged through construction before practical completion and the project is formally handed over to the asset owner and party responsible for managing and maintaining the path over the long term. In most cases this will be Auckland Council.

The delivery phase will need to consider

- Tender evaluation process
- Staging options
- Construction timeframes and seasonal considerations
- Any approvals required during construction such as traffic management plans
- Quality assurance and quality control processes
- Construction observation and monitoring

Management and Maintenance

The ongoing management and maintenance of the project needs to be established early in the process and by the time the construction of the project is complete responsibility for ongoing maintenance and costs need to be agreed with the part of Auckland Council or Auckland Transport responsible for future maintenance of these features, prior to the design being completed.

During the design phase, consideration should be given, but not limited to:

- Durability and ease of maintenance of all surfaces and hard landscape features such as furnishing and lighting.
- Establishment and maintenance requirements of plants and with the expectation that in most cases maintenance is going to be sporadic and low maintenance native plants are recommended.
- In some situations, provision will need to be made to ensure there is access for emergency response and maintenance vehicles.

Part Six

Appendices

The following maps display the priority features of the Upper Harbour Local Board area which need to be considered when determining and designing a successful greenways path network.

A.1 Environment

This map presents the Upper Harbour Blue Green Networks including the priority features of the environment that need to be considered.

The southwestern section of Upper Harbour is predominantly coastal, whilst the inner area is permeated with streams from the Waitematā Harbour.

The map shows flood prone areas, floodplains, and flood sensitive areas as well as the existing permanent watercourses. Some of the greenways will naturally follow streams and waterways as many parks and recreation areas are also located on these areas. Locations that are prone to excess water pooling from extreme weather events, should be considered in the alignment and materiality design process of the path network.

Green/Vegetation Network

Significant Ecological Areas
A SEA is an area of significant indigenous vegetation or a significant habitat of indigenous fauna, that is identified for protection within the Unitary Plan. Any vegetation removal or alteration within SEA would require a resource consent. More stringent provisions may also apply for earthworks and other activities, to ensure development is directed away from SEAs as much as possible.

Auckland Council used five criteria to assess whether or not a natural area was significant, these were: representativeness; threat status and rarity; diversity; stepping stones, migration pathways and buffers; and uniqueness or distinctiveness. An ecological assessment of a site against these criteria was used to determine the site's significance.

Unitary Plan Overlays
A number of coastal areas within Upper Harbour are indicated as having high and outstanding natural qualities. These areas must be maintained, preserved and protected and any land-use practices require enhancement of the character or landscape integrity and visual coherence.

Ancestral relationships with Mana Whenua, archeological sites and outstanding or high natural landscapes overlays must also be recognised and provided for when considering key routes and greenway connections.

Terrestrial and Wetland Ecosystems

Shown on the map are the regional variants of 'potential' indigenous ecosystem vegetation.

This comprises thirty-six terrestrial and wetland ecosystems, and their regional variants that have been identified by Auckland Council as occurring in the Auckland region. The work is based on the national ecosystem classification system developed by the Department of Conservation.

In simple terms, an ecosystem is a biological community of interacting organisms and their physical environment. As defined by Keith et al. (2013), ecosystems are units of assessment that represent complexes of organisms and their associated physical environment within an area. Three categories occur in the Upper Harbour Local Board area.

North-West Link

The Upper Harbour Local Board area is situated within the North-West Wildlink. The North-West Wildlink (NWW) is a corridor of ecosystems linking regional biodiversity/conservation hotspots across Auckland's east and west coasts. The NWW is expected to provide improved migration routes from Tiritiri Matangi Island to Shakespear Regional Park and the Waitakere Ranges. The NWW project is a collaborative effort between Forest & Bird, Auckland Council and DoC.

The development of the greenways network will contribute positively to the success of the NWW project, as their aims are inter-linked by provisions in the Auckland Unitary Plan to ensure they are not damaged or destroyed.

Notable Trees

Trees shown on this map have been considered to be notable and identified for protection.

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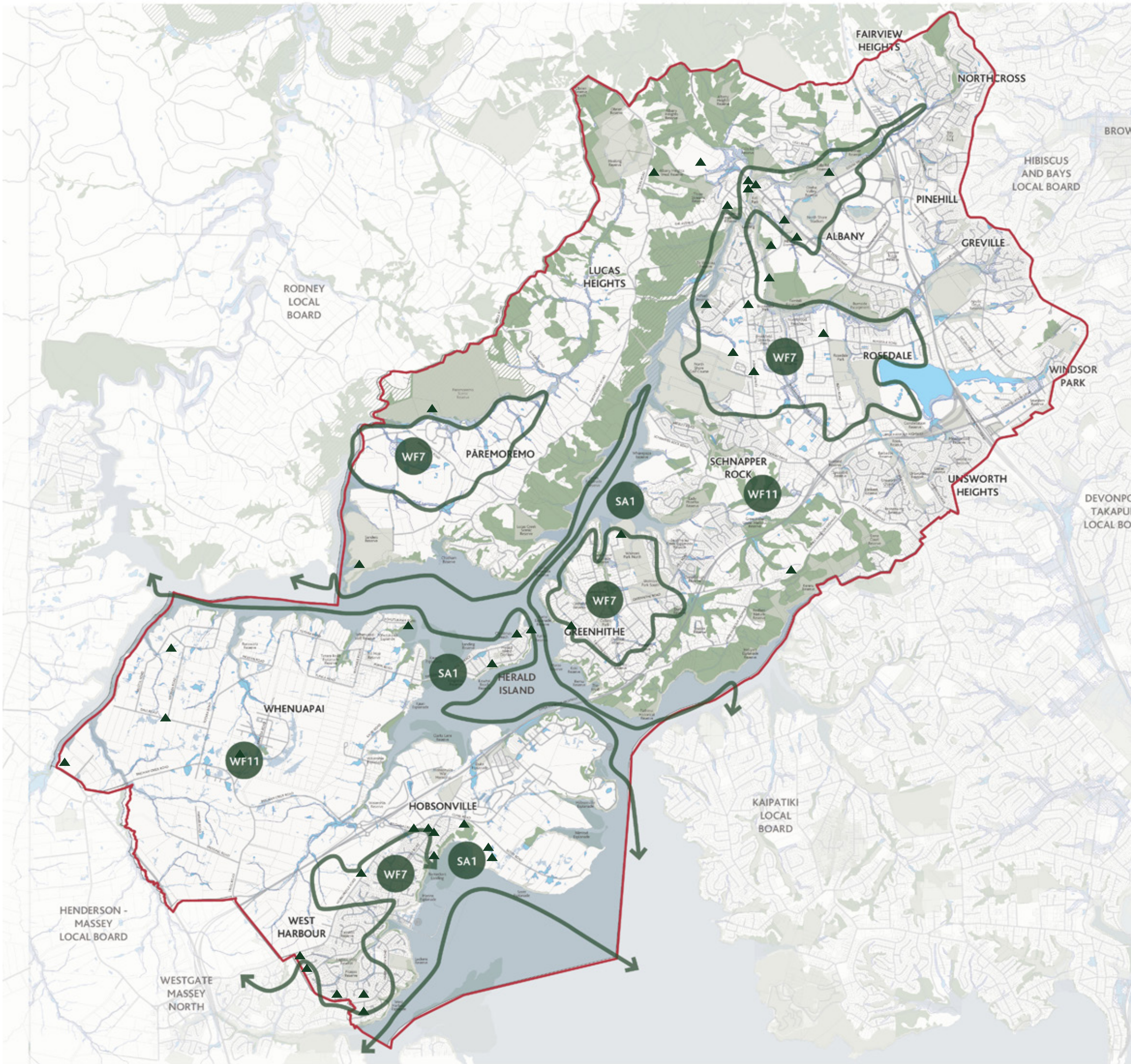

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

ECOLOGY

- Significant Ecological Area
- Notable Trees
- Wf7 - Pūriri Forest
- WF11 - Kauri, Broadleaf, Podocarp
- SA1 - Mangrove Forest and Scrub

HYDROLOGY

- Flood Prone Areas
- Flood Sensitive Areas
- Flood Plains

A.2 Destinations

This map shows the variety of destinations generally regarded as places of service, recreation and social concourse.

Identifying focal community destinations assist the decision making and design process in order to allocate and deliver the appropriate route and path type which will encourage safe and accessible walking cycle passage for local trips.

Active and passive recreation parks and reserves have been indicated separately as the path type may vary between them. Active Recreation includes sports grounds, Albany Stadium - including the pool and golf courses. Passive recreation consists of parks and reserves that have children's playgrounds and conservation areas used for walking and informal recreation.

Neighbourhood centres are small shopping strips that provide retail and commercial service needs for the surrounding neighbourhood. These tend to be in more residential locations, however they also appear in business zones.

Schools are critical points of focus for a Greenways Plan. Providing safer and more accessible connections to schools has the potential to reduce private vehicle use and make the streets around schools safer places. Proposed connections to schools may be influenced by existing 'walking school bus' routes or may influence the development of 'walking school bus' routes.

Park and Ride facilities provide local commuters to connect with core public transport routes. Bike racks and lockers are also available at the Park and Rides encouraging and supporting the objective to reduce private motor vehicle use. There are currently two Park and Rides in Upper Harbour however a future facility is planned near Whenuapai to accommodate travel demands associated with future urbanisation proposed for the area.

A Busway Station is proposed for Rosedale Road, estimated to open 2021. It is forecast that the busway will integrate into the existing Northern Corridor walking and cycling improvements. No park and ride is planned, however the same symbol has been used indicating its location on the map.

Community gardens are becoming a more common feature in Auckland neighbourhoods. Community gardening attracts a variety of people for a diversity of reasons and have the potential to become active and inclusive community spaces.

Libraries provide multiple opportunities to contribute to community connections.

Churches and places of worship are weekly gathering venues and are often used for other community events. Predominantly located in residential areas they provide an important area of focus for local greenways. Cycle and walkway connections to places of worship will assist the reduction of weekend traffic and parking congestion.

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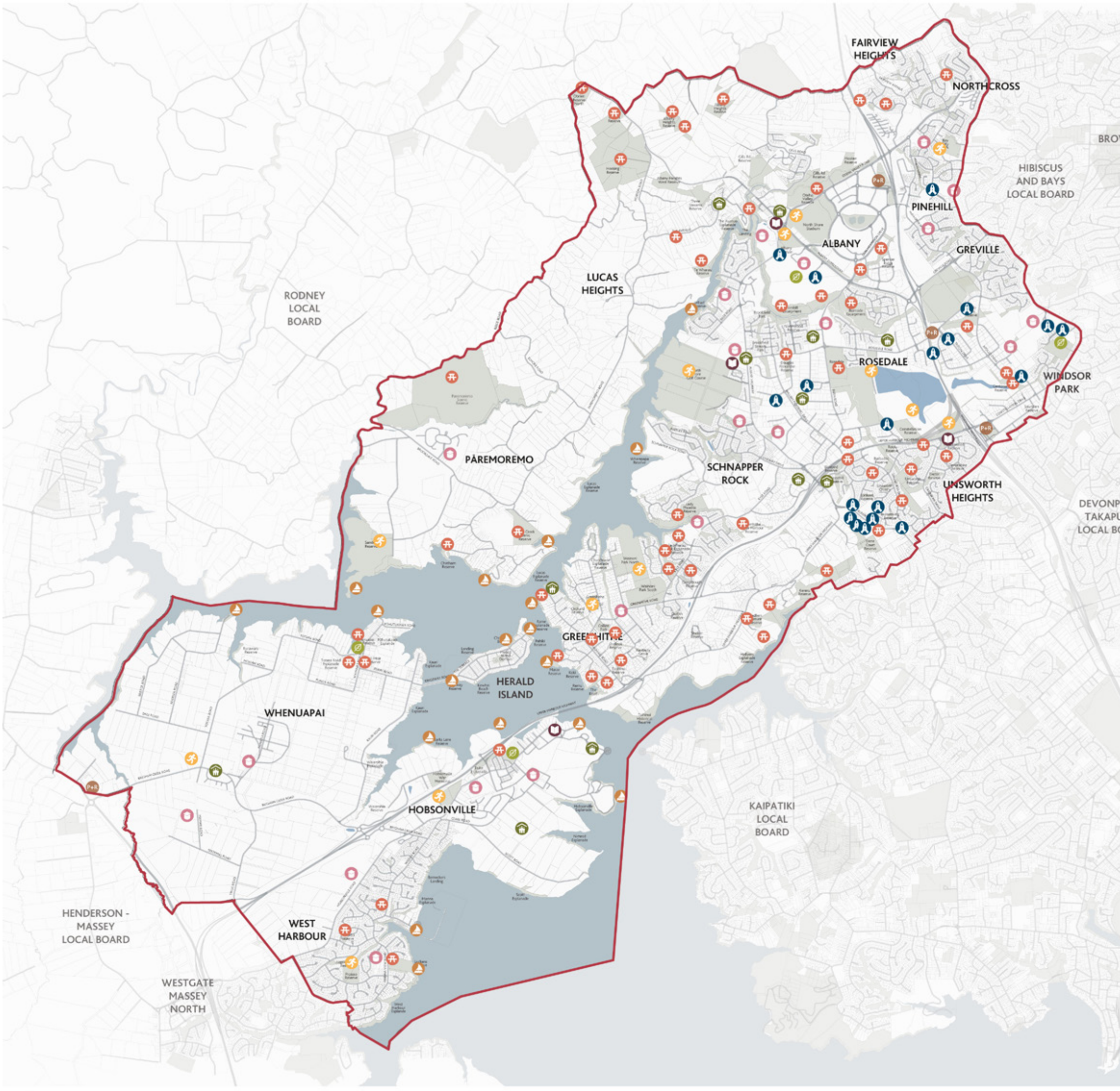

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

RECREATION

- Active Recreation
- Passive Recreation

SOCIAL

- Community Gardens
- Community Hub/ Neighbourhood Centre

PUBLIC FACILITIES

- Pools / Swimming facilities
- Hospital
- Place of Worship
- Public Library
- School

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

A.3 Socio-cultural

This map indicates population size according to the designated focus area.*

The total population of Upper Harbour was recorded as 53,670 in the 2013 Census, a 25% rise since the 2006 census. Population distribution is concentrated around the Albany metropolitan centre with smaller suburban centres accommodating most of the residential population.

Population density is important in Greenways planning as it shows where potential users will be coming from, and it is logical to focus efforts in these areas (in addition to providing strategic regional connections, which are not as influenced by proximity to housing).

Heritage

The map also displays historic heritage sites as indicated on the Auckland Council Historic Heritage Overlay. A historic heritage place may include; cultural landscapes, buildings, structures, monuments, gardens and plantings, archaeological sites and features, traditional sites, sacred places, townscapes, streetscapes and settlements. Identifying the location of heritage sites is crucial to route design of a greenway for both protection of the site and opportunity to incorporate its significance into greenway design details.

Community Centres and Marae

Community Centres come in a variety of forms and are used for a wide variety of community activities. Traditionally, council owned stand alone buildings were found on main streets or in a council owned park. More recently, Community Centres have become a part of libraries, recreation centres or re-purposed council buildings, such as the 1930's art deco RNZAF Headquarters building on Hobsonville Point.

Community Centres and Marae are located within this map to highlight their significance and to assist in identifying keys routes that could further link them into their surrounding neighbourhoods.

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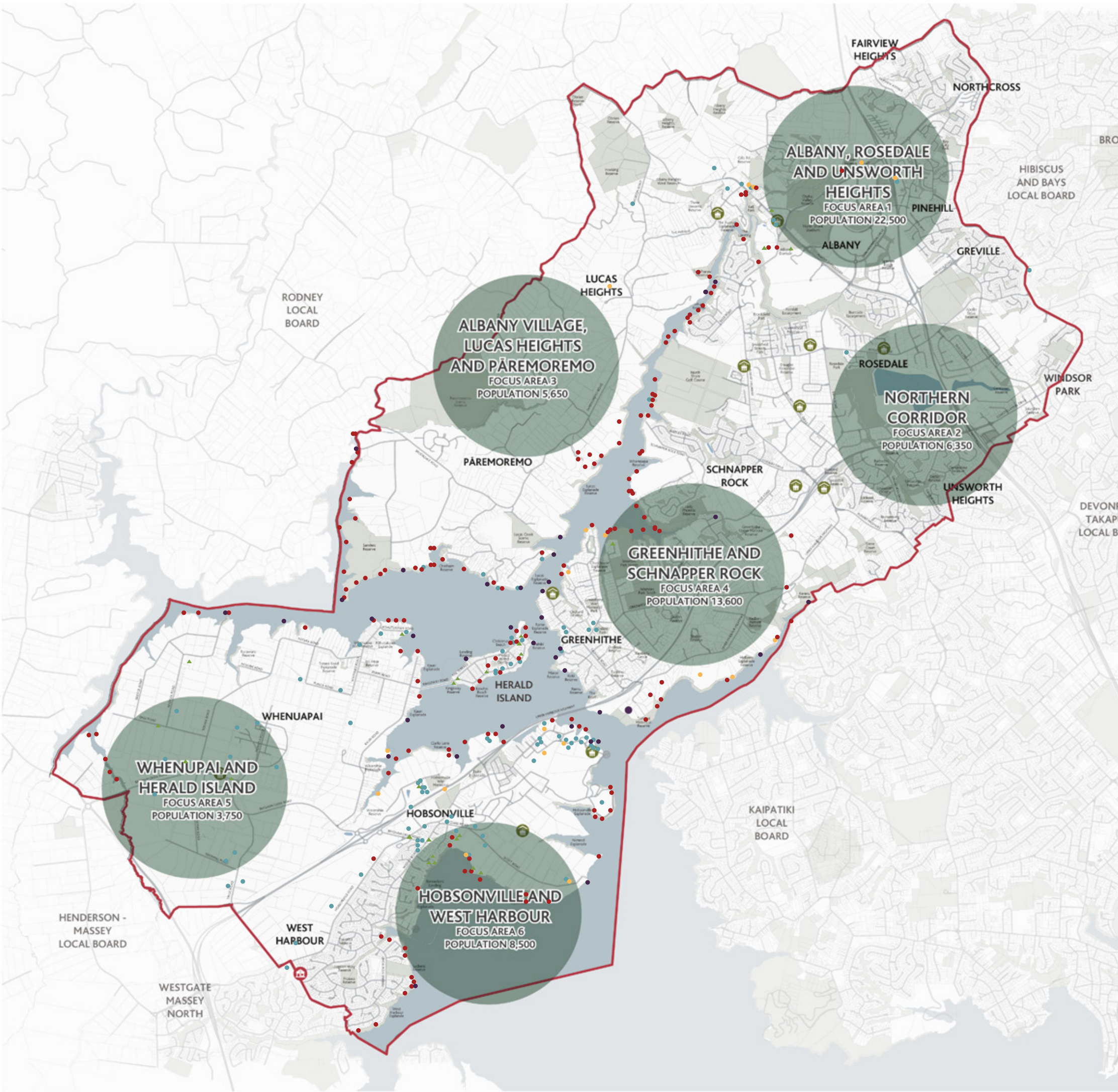

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

RECREATION

- Community Centres
- Marae

HISTORIC SITES

- Archaeological sites
- Maritime Sites
- Historic Sites
- Historic Structures
- Historic Botanic Sites

A.4 Transport

Road Hierarchy

Auckland's roading is organised into a hierarchical network of motorways, roads and streets. Highways and main arterial roads are typically for heavy traffic and fast direct travel whereas local roads are slower speed environments with lower traffic volumes and speeds. Consideration of the road hierarchy is crucial to determining the appropriate path design and safest route choice.

Ideally the greenways network design will have a symbiotic relationship with the road hierarchy and safely provide for the needs of the user, whether it is for passive recreational use or active commuter use. The different path types reflect these variations and involve safety measures appropriate to each environment.

The road hierarchy also affects potential street 'greening' initiatives to support the green links network. Methods for providing safe crossing points will also be affected by the road hierarchy - for instance, un-signalised crossings are unlikely to be permitted on arterial roads.

Public Transport

Park and Ride facilities provide the opportunity for local commuters to connect with core public transport routes. There are two Park and Ride facilities servicing the Upper Harbour area. The proposed bus station at Rosedale Road has also been indicated on the map with a Park and Ride symbol (although it is not proposed to include a Park and Ride at this point of the planning/design propcess).

Walking Routes

This map also shows existing walking routes within the Upper Harbour area. The intention of the Greenways Plan is to link into these established local path - open space and trail networks expanding pedestrian mobility and serviceability.

Walking School Bus (WSB) routes (not shown on the map) have been developed by Auckland Transport, to provide a safe and healthy environment for children to walk to and from school along quiet streets, under the supervision of an adult. Upper Harbour has an increasing number of WSB routes which could be considered when the Greenways Plan key routes proceed to feasibility stages.

Cycling Routes

The map combines the existing street and open space local path network throughout the Upper Harbour area. Identifying these paths is a necessary part of the process to assist the creation of new paths that provide links to local destinations in addition to recreational purposes.

Recent inclusion of dedicated walking and cycling bridges over busy motorways have improved safety by providing linkages over major obstacles that were traditionally avoided by cyclists and pedestrians, resulting in an expanded area of connectivity, e.g the Tirohanga Whānui Bridge over SH1 connecting eastern suburbs to Albany centre.

Boat Ramps

This map outlines existing and potential entry/exit and stop off points for kayak access along the Upper Harbour coastline. These points have been identified as the first step in developing a Kayak trail or a 'blue-way' for the Upper Harbour Local Board area.

Recreational kayakers have been considered in the development of this Greenways Plan, as the kayak trail has a recreational focus which is consistent with the aspirations of the Upper Harbour Greenways Plan.

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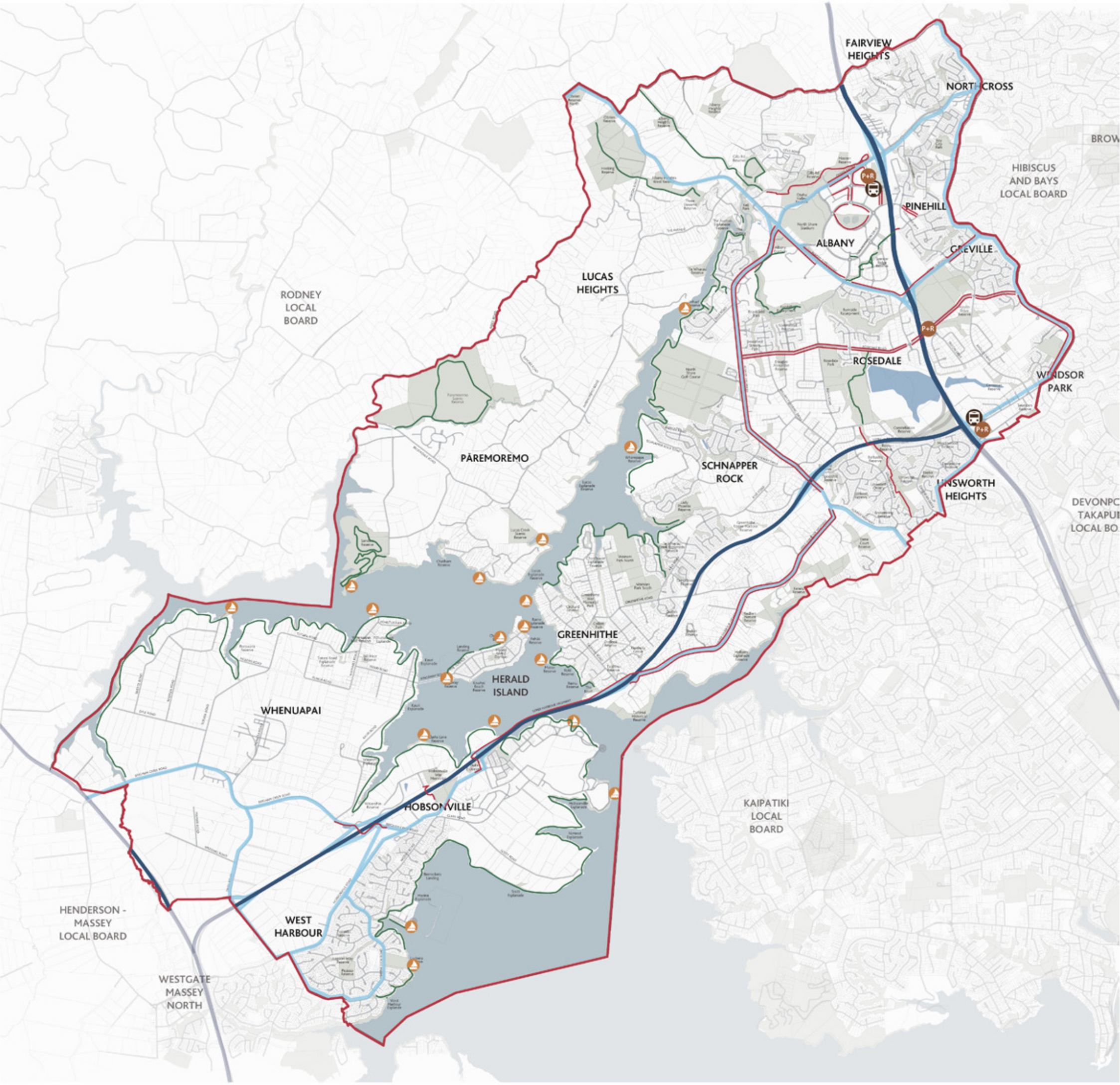


KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas

ROAD HIERARCHY

- State Highway
- Urban Route
- Local Roads

ROUTES

- Walking routes
- Cycling routes

TRANSPORT

- Possible Boat/Kayak Ramp
- Park & Ride RTN
- Public Transport

A.5 Pedestrian and Cycle Sheds

A pedestrian or cycle shed (ped shed) refers to the walkable or cyclable catchment displayed in map form showing the area that can be covered within a 5 or 10 minute distance from any centre, transport hub or specific destination. The walkable or cyclable catchment is simply a technique for the comparative evaluation of how easy it is to move through an urban area to get to and from centres or facilities.

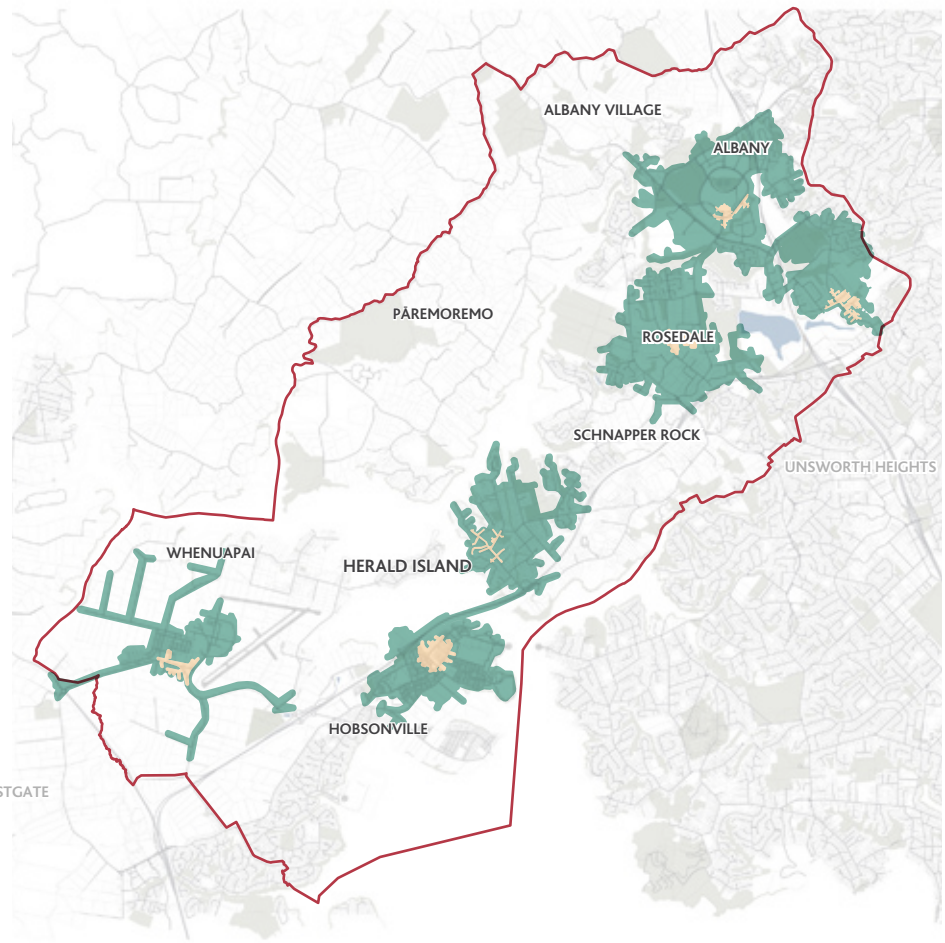
With the help of geospatial analytical data, sourced from Targomo, analysis of cycling and pedestrian catchments surrounding key destinations in the Upper Harbour area were measured and displayed on a series of maps.

They show the actual street area covered within a 5 minute walking distance and a 10 minute cycling distance. These maps inspired some of the proposed and aspirations paths within the Greenways Plan.

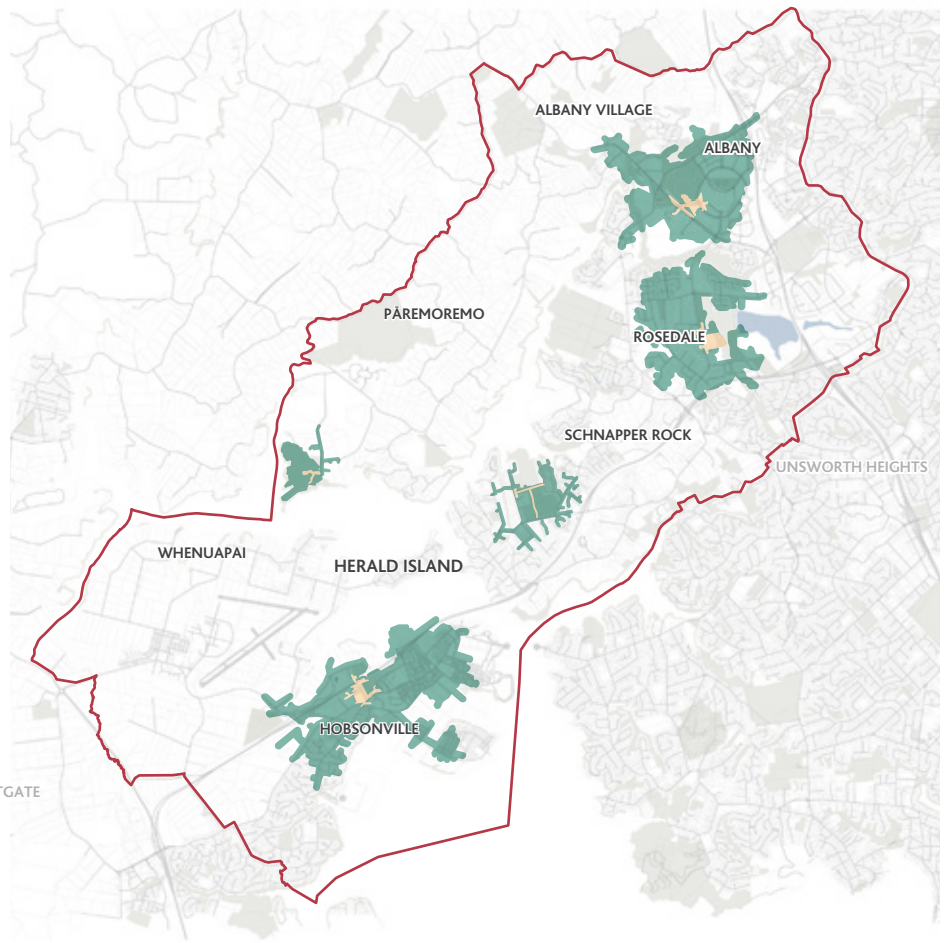
Maps created
Local Retail Centres
Recreational Destinations
Schools
Transport

Analysing destination based ped shed maps can assist the process of prioritising key routes and connections. As a form of digital ground proofing tool, ped sheds can provide valuable insight into which streets or pathways provide the most trouble free, energy efficient and convenient route to a targeted destination.

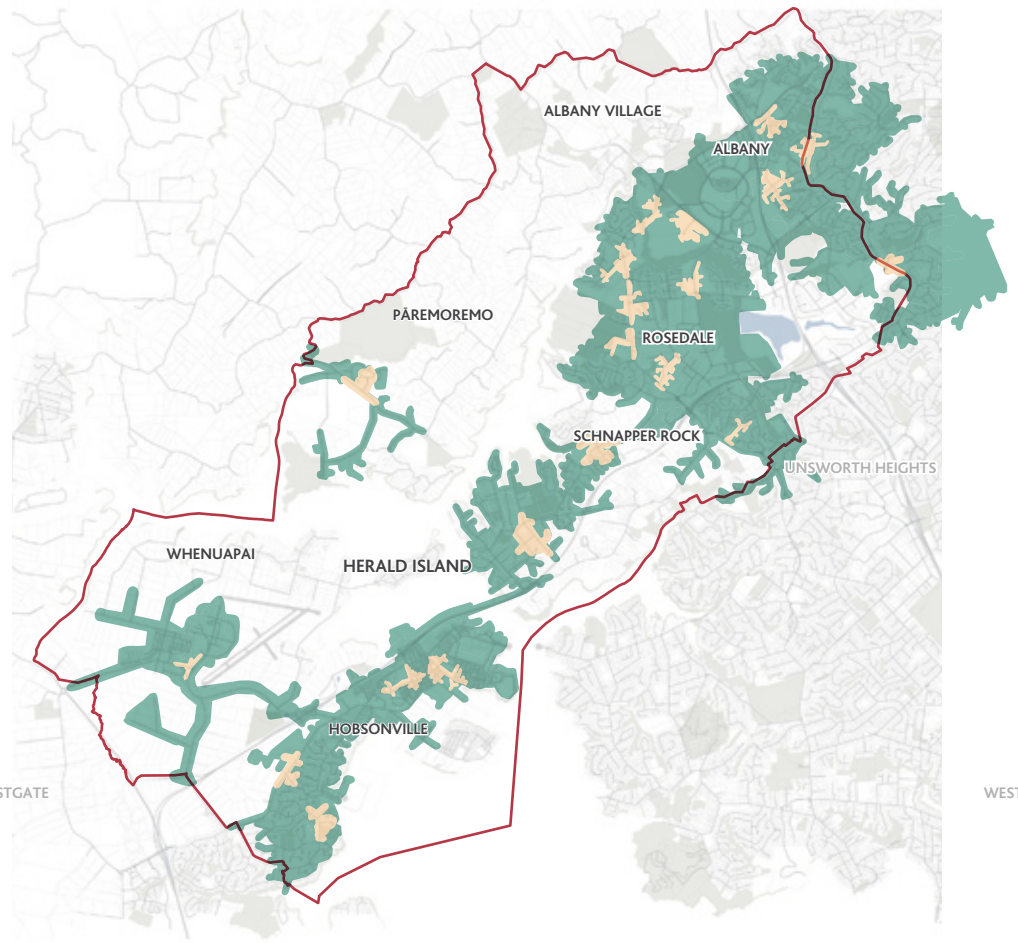
They supply an additional element of detail to assess the extent of pedestrian and cycle movement within communities, and between areas, and can assist decision making surrounding which key routes and connections would be worth investigating further.



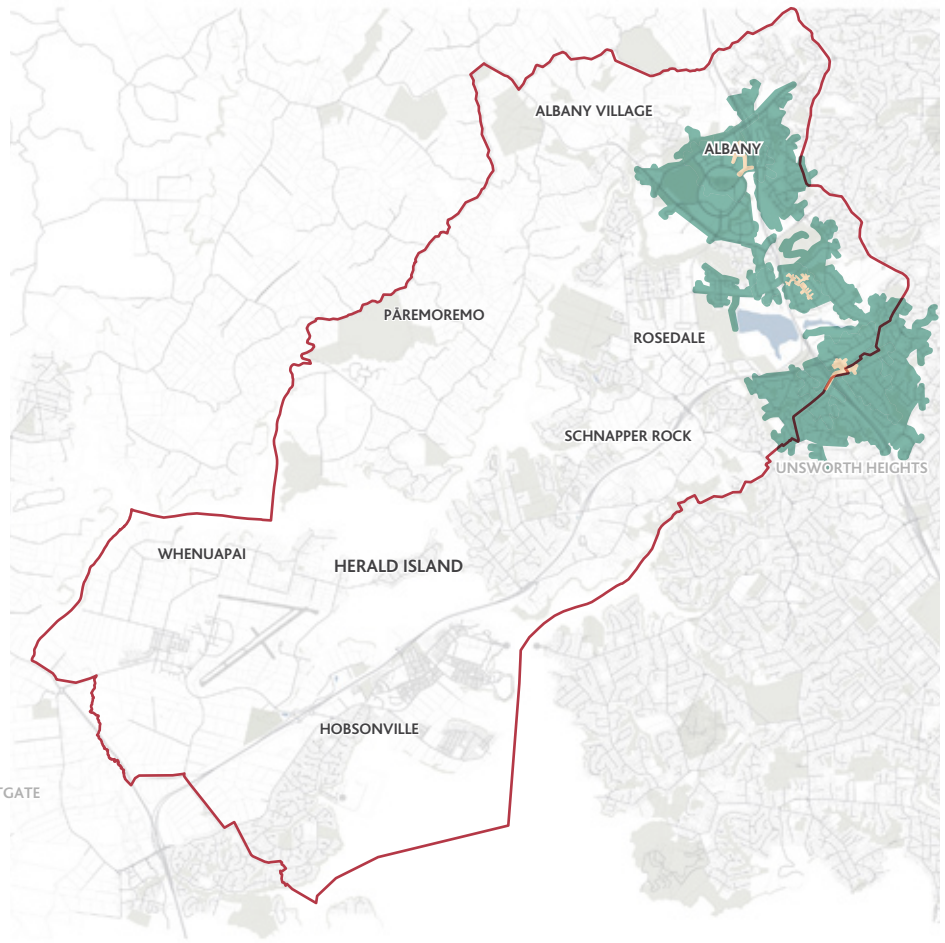
Local Retail Centres



Recreational Destinations



Schools



Transport Hubs

KEY

- Local Board Boundary
- Parcel Boundaries
- Road Network
- Recreation Areas
- Pedestrian Shed 5 min
- Cycle Shed 10 min

Upper Harbour Local Board

Auckland Council