

URBPLAN325

Assignment 4

Individual Report

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Executive Summary

Purpose

This report outlines the development process of a single key move and its integration with an overall framework plan consisting of three other key moves. This framework plan aims to establish a strategic direction for the suburb of Onehunga for the next 30 years, specifically regarding integrating transportation and land use.

Vision

The overall framework plan envisions Onehunga as “the preeminent example of sustainable living in Tamaki Makaurau. A safe and resilient place that puts people first. Enabled through a compact urban form, public and active transport and equitable access to green space.” This report delves into how the vision of equitable access to green spaces will be realised in the next thirty years for Onehunga.

SWOC

A SWOC table produced as a group can be seen in Appendix A. This SWOC table was created through desktop analysis and supplemented by in-person observations. It was developed throughout parts 1 and 3 of the assignment and expanded upon in this assignment.

Key Moves

There are four central key moves to realise the vision of Onehunga as an example of sustainable living. Key move 1 revolves around integrating public transportation into the overall suburb. An interim bus network redesign will be implemented to ensure faster, more efficient bus services for the residents of Onehunga due to the promised rail improvements by KiwiRail, namely Avondale-Southdown, which will take a long time to implement. This key move also involves ideas about integrating the new train station and its associated bus network redesign into the wider suburb. Access to public transportation is an essential need that must be addressed to ensure that sustained population growth in Onehunga is sustainable and encourages a mode shift towards more sustainable and efficient modes.

The second key move revolves around vehicular movements in and around the precinct. Currently, vehicular travel through residential areas is an important issue that

must be addressed. Creating an arterial network plan that shifts traffic onto dedicated corridors and implements solutions such as T2 and clearway lens will help improve overall safety as well as the efficiency of the roading network.

The third key move revolves around the creation of new active transport infrastructure. For the compact urban form of Onehunga to be realised, residents need to feel comfortable and safe walking and cycling within the suburb and further out. Creating a new cycleway linking regional cycleways, new raised crossings, traffic-calming solutions, and low-traffic neighbourhoods will ensure that walking and cycling are safe and comfortable, hence encouraging a shift towards active modes of transport.

The fourth key move, which this report delves into, concerns the creation of blue/green network infrastructure. New green spaces are desperately needed to improve residents' access to amenities. Moreover, innovative solutions are required to address the flood risk associated with the area. New linear parks, a suburban pocket programme, flagship urban parks and new retention ponds will ensure that blue/green infrastructure is not a limiting factor in the development of Onehunga in the next thirty years.

Background

Land use

Onehunga consists of mixed-use developments along Onehunga Mall, a robust industrial sector that provides employment opportunities to the south and lower-density residential suburbs to the north and east (Auckland Council, 2022b). There are a few parks within the suburb, with residents needing to travel far to Gloucester Park and Onehunga Bay Reserve along the foreshore to meet amenity requirements. The suburb has been widely upzoned as part of the Auckland Unitary Plan process. It will be further upzoned following the implementation of the Medium Density Residential Standards and (Auckland Council, 2022a) the creation of Avondale-Southdown station. The population is projected to double in the next thirty years, increased and more equitable access to green spaces is essential to support this increased density (Auckland Council, 2024a).

Transport

Bus services serve Onehunga well, allowing residents to reach all parts of the city (Auckland Transport, 2023). However, the lack of transit priority means these services are congested and unreliable for many residents (Auckland Transport, 2025b). Moreover, the lack of a grided network in Te Papa and Oranga severely constrains connectivity and therefore discourages the use of active transportation. These issues, alongside the lack of active transport infrastructure and efficiently designed arterial corridors, must be addressed to ensure that Onehunga's transportation system can cope with projected population increases.

Observations

Several streets are placed upon key ridges (Auckland Council, 2024b), which direct overland flow paths (Auckland Council, 2024e). Moreover, large parts of Onehunga are severely flood-prone (Auckland Council, 2025). A high proportion of impervious surfaces (Auckland Council, 2024c), a lack of green land cover (Auckland Council, 2024d), and the contours of the site (Auckland Council, 2024b) worsen flooding.

Blue and Green Networks Key Move

Description and rationale

The blue/green key move consists of four key actions. Firstly, and arguably the most important in terms of equity, is creating suburban pocket parks. These suburban pocket parks are designed to provide equitable and widespread access to green spaces for residents in areas lacking amenities.

The creation of any such programme will require the displacement of families in the implementation process; This is something that the design process took into consideration, to ensure that the minimum number of dwellings would be affected.

Moreover, the location of these parks is used strategically to help address the lack of connectivity in Te Papa and Oranga. These parks will act as green pathways, helping to improve the permeability of long blocks and provide pedestrian access at the end of cul-de-sacs.

This network of new suburban pocket parks will act as modal filters, enhancing accessibility for active transport. A total of 16 suburban pocket parks will be created, with an intense concentration in Oranga due to its lack of green space and proximity to other green spaces.

This programme will affect around 50 dwellings. A designation process will be started in the short term to acquire these locations, with construction taking place in the medium term.

Another major part of this key move is the creation of flagship urban parks in Onehunga Central, ensuring the Onehunga Mall corridor, which has the highest development capacity, has sufficient green amenity close by. To minimise the effect of these new parks, the trend of redeveloping car parks will be continued, two council-owned car parks, namely the library and park and ride car park, as well as a private car park, will be utilised to add to the growing Onehunga Central town centre following the Waiapu precinct redevelopment.

The third and fourth parts are the most crucial and go hand in hand. New linear parks will be created along central ridges, directing overland flow paths to new dedicated retention ponds. Retention ponds will be made in existing green spaces, with a depth of

8m, holding the approximate volume of 10% of a 100-year storm, significantly improving surface flooding in the future and improving the resilience of the suburb.

Linear parks will not only help address flood resiliency but will also form crucial green corridors across the site, helping to provide more equitable access to green spaces where new parks are not possible. Linear parks will run along Onehunga Mall, Church Street, and Route 10.

They will direct overland flow paths towards Onehunga Bay Reserve, Florence Park, Waikaraka Park and new retention ponds in Te Papapa.

The linear park will run alongside the dedicated Avondale-Southdown corridor in the west, helping to create a green corridor like the Te Ara Ki Uta Ki Tai path (Auckland Transport, 2025a). It will also cut across new pocket parks near Te Papapa, directing overland flow paths from route 10 towards dedicated retention ponds and improving access across the industrial sector towards Waikarak Park.

Illustrations

Illustrations for this key move can be seen in Appendix B.

Integration with the Overall Framework Plan

The overall framework plan aims to boost the integration of transportation with land use. To support the projected increased population due to redevelopment, an increased shift towards active and public transport modes will be required.

Whilst this key move focuses on providing sufficient blue-green network infrastructure to support this increased population density, it also integrates with other key moves to boost transport opportunities and further integrate with land use. The suburban pocket park programme will boost connectivity in cul-de-sacs in Te Papapa and Oranga, improving connectivity using green pathways, increasing opportunities for active transport.

Moreover, the new linear parks will also work to provide improved active transport opportunities, particularly along the Avondale-Southdown corridor, potentially linking to the SH20 cycleway.

Through increased access to green space, transport demand will also be managed; there will be a need for shorter trips to meet the demand for green space, and shortening trip lengths will also help to reduce reliance on private vehicles.

A linear park along Onehunga Mall and Church Street will also boost the integration of active and public transportation, increasing the comfort and safety of these essential pathways that are central to the wider public transportation network, allowing residents to walk to bus stops in a pleasant environment. Linear park corridors are concentrated on routes that are less important for vehicular transport (except Church Street), helping to minimise disruption to vehicular road users.

Appendix A

Group Strengths, Weaknesses, Opportunities and Constraints analysis table

Strengths	Weaknesses	Opportunities	Constraints
Strong pre-existing town centre	Non-existent bus priority	Continue redevelopment of surface car-parking, building on the Waiapu Precinct model.	Limited development potential in some areas due to the application of special character areas.
Vast industrial employment base	Poor integration with the rail network		
Access to solid cross-town bus routes	Poorly designed arterial network	Creation of linear parks along key overland flow paths to manage stormwater.	Vast amounts of land are privately owned.
Existing rail connection & corridor	Entrenched car-dependency		Freight corridor limitations
Extensive development potential	Lack of active transport infrastructure	Incoming Central & Local Government investment from Avondale-Southdown & East West Link	Uncertainty is associated with future transport infrastructure.
Strong gridded street network	Lack of green space		
	Very flood-prone	Active transport infrastructure, integrating into wider regional cycleways	Entrenched car-dependency.

Note. Reproduced from group report. Authors: Arson Rashidmardani, Mina Al-Ali, Christian Black, Ty Smith

Appendix B

Key Move Illustrations and Bullet Points

Blue & Green Networks

- Suburban pocket park programme aimed at increasing access to green space. Supporting increased residential densities whilst improving connectivity at cul-de-sacs in the form of green pathways.
- Creation and expansion of retention ponds at key existing green spaces to address flood resilience. Approximately 96,000 m³ holding 10% of runoff volume from a 100 year storm.
- 8km of new Linear parks at key ridges to direct overland flow paths to retention ponds; simultaneously increasing access to green spaces outside the precinct in the form of green pathways.
- Redevelopment of key parking lots in Onehunga Central to create key flaship green spaces in Onehunga Central town centre.
- Creation of a green pathways alongside protected Avondale-Southdown route, similar to Te Ara Ki Uta Ki Tai. To be co-designed alongside community and KiwiRail. Integration with existing SH20 regional cycleway improving cross-town access.
- Approximately 120,000 SQM of new dedicated green spaces, effecting 50 dwellings as part of designation process.

Figure 10: Blue & green key move



Note. Map by Authors

Note. This page illustrates the key move, alongside explanatory bullet points. Produced by Author

References

- Auckland Council. (2022a). *Plan Change 78* [Dataset]. <https://www.arcgis.com/apps/webappviewer/index.html?id=df2ce24d0c3046598604c21c40fd45c>
- Auckland Council. (2022b). *Unitary Plan (Shapefile)*. <https://data-aucklandcouncil.opendata.arcgis.com/documents/4673e8f3f20942d7a21cfc36971e103/about>
- Auckland Council. (2024a). *Auckland Growth Scenario v1 1* [Dataset]. <https://data-aucklandcouncil.opendata.arcgis.com/datasets/auckland-growth-scenario-v1-1/about>
- Auckland Council. (2024b). *Contours 2016 (NZVD2016)* [Dataset]. <https://data-aucklandcouncil.opendata.arcgis.com/datasets/8014c86dd4e84eb2b5bd373c34440a60/about>
- Auckland Council. (2024c). *Impervious Surfaces 2017* [Dataset]. <https://data-aucklandcouncil.opendata.arcgis.com/search?q=impervious%20surface>
- Auckland Council. (2024d). *Land Cover 2017* [Dataset]. <https://data-aucklandcouncil.opendata.arcgis.com/datasets/017febe483a14ba99108215cc1a3804c/about>
- Auckland Council. (2024e). *Overland Flow Paths* [Dataset]. https://data-aucklandcouncil.opendata.arcgis.com/datasets/8217a19b1079402bbd026f5a869e8eed_0/explore
- Auckland Council. (2025). *Flood Plains* [Dataset]. https://data-aucklandcouncil.opendata.arcgis.com/datasets/0d50200579364e0bb6cda2be0893fc8b_0/explore
- Auckland Transport. (2023). *Bus Service* [Dataset]. <https://data-atgis.opendata.arcgis.com/maps/d5a4db7acb5a45a9a4f1bd08a3f0f0a6/about>
- Auckland Transport. (2025a). *Glen Innes to Tāmaki Drive Shared Path*. <https://at.govt.nz/projects-initiatives/east-auckland-projects-and-initiatives/glen-innes-to-tamaki-drive-shared-path>
- Auckland Transport. (2025b). *Transit Lanes* [Dataset]. https://data-atgis.opendata.arcgis.com/datasets/f7a0ea8116084c62873345df0089ea8e_0/explore