TE TUPU NGĀTAHI
SUPPORTING GROWTH

North Staging Considerations

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Version 1.0

WAKA KOTAHI NZ TRANSPORT AGENCY

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Disclaimer

This is a draft document for review by specified persons at Auckland Transport and the New Zealand Transport Agency. This draft will subsequently be updated following consideration of the comments from the persons at Auckland Transport and the New Zealand Transport Agency. This document is therefore still in a draft form and is subject to change. The document should not be disclosed in response to requests under the Official Information Act 1982 or Local Government Official Information and Meetings Act 1987 without seeking legal advice.

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Acronym/Term	Description
ADT	Average Daily Traffic
AFC	Auckland Forecasting Centre
AT	Auckland Transport
ATAP	Auckland Transport Alignment Plan
ASH	Alternative State Highway
AUPOIP	Auckland Unitary Plan - Operative in Part
Council	Auckland Council
DBC	Detailed Business Case
Development ready	Bulk infrastructure is in place to service development, including three waters, transport, and social infrastructure
FTN	Frequent Transit Network
FULSS	Future Urban Land Supply Strategy
FUZ	Future Urban Zone
GPS 2021	Draft Government Policy Statement on Land Transport 2021/22 – 2030/31
ha	hectare
HIF	Housing Infrastructure Fund
IBC	Indicative Business Case
ITA	Integrated Transport Assessment
MSM	Auckland Regional Transport Model (Macro Strategic Model)
NIMT	North Island Main Trunk Line
NoR	Notice of Requirement
NZUP	New Zealand Upgrade Programme
Partners	Collectively refers to Auckland Transport, Waka Kotahi NZ Transport Agency, Manawhenua, Auckland Council and KiwiRail
PT	Public transport
RASF	Roads and Streets Framework
RLTP	Regional Land Transport Plan
RTC	Rapid Transit Corridor. Forms part of the overall Auckland Rapid Transit Network (RTN).

Acronym/Term	Description
RTN	Rapid Transit Network which is comprised of multiple Rapid Transit Corridors (RTC's) around Auckland.
SGA	Supporting Growth Alliance (referred to as Te Tupu Ngātahi)
SH16	State Highway 16
SH18	State Highway 18
SHA	Special Housing Area
Te Tupu Ngātahi	Supporting Growth Alliance
TFUG	Transport for Future Urban Growth
The Council	Auckland Council
The Programme	The Supporting Growth Programme
TOD	Transit Oriented Development
UDF	Te Tupu Ngātahi Urban Design Framework
Waka Kotahi	Waka Kotahi New Zealand Transport Agency

1 Introduction

1.1 Purpose

This report has been prepared to support the North Detailed Business Case (DBC) and set out considerations relating to the potential implementation of the transport projects identified in the North area. Two scenarios are considered in this report including:

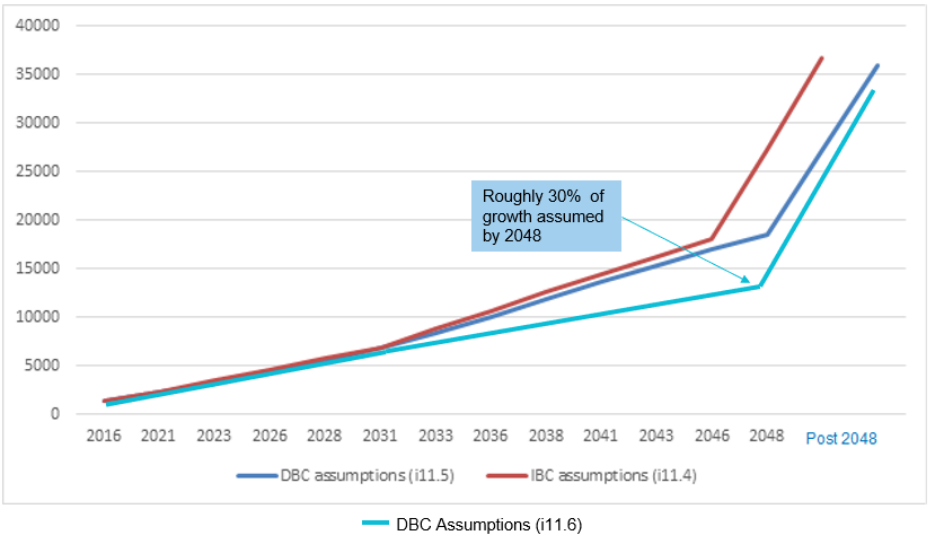
A set of assumed project timings has been developed based on the latest thinking on land use staging and will inform the development of the Financial Case, including the economic analysis, for the North DBC.

The implementation of projects within the north area is highly dependent on the development of FUZ land and availability of funding to deliver the transport infrastructure. Critically, this assessment looks to identify interdependencies between projects and relationships between transport projects and land use as opposed to providing an accurate implementation timeframe. Given the inherent uncertainty with land use timing, commentary has been provided on the implications of development happening quicker or slower than the assumed timing.

1.2 Background

The considerations relating to the implementation of North DBC transport projects will be driven by assumptions around the land use roll-out. The expected timeframes for the future land use roll-out in the North growth areas has initially been guided by Auckland Council's Future Urban Land Supply Strategy, released in July 2017 (FULSS).

Since the FULSS strategy in 2017, updated assumptions have been made in relation to the growth in the North areas through the Auckland Council growth assumptions which are fed into the regional transport modelling. Since 2017 (Scenario i11.4), land use assumptions for the North area have suggested a delay to the assumed urban development in the north area. The current land use scenario adopted by Auckland Council (Scenario i11.6) shows around 30% of the growth assumed for the northern growth area by 2048. The majority of growth occurs outside of the 2048 period.



Coupled with this land use context are the current expectations around the potential timing for key strategic transport projects in the North area, outside of the North DBC programme. These include:

- Full implementation of the Penlink project by 2031
- The Avenue and Lucus Creek project by 2038

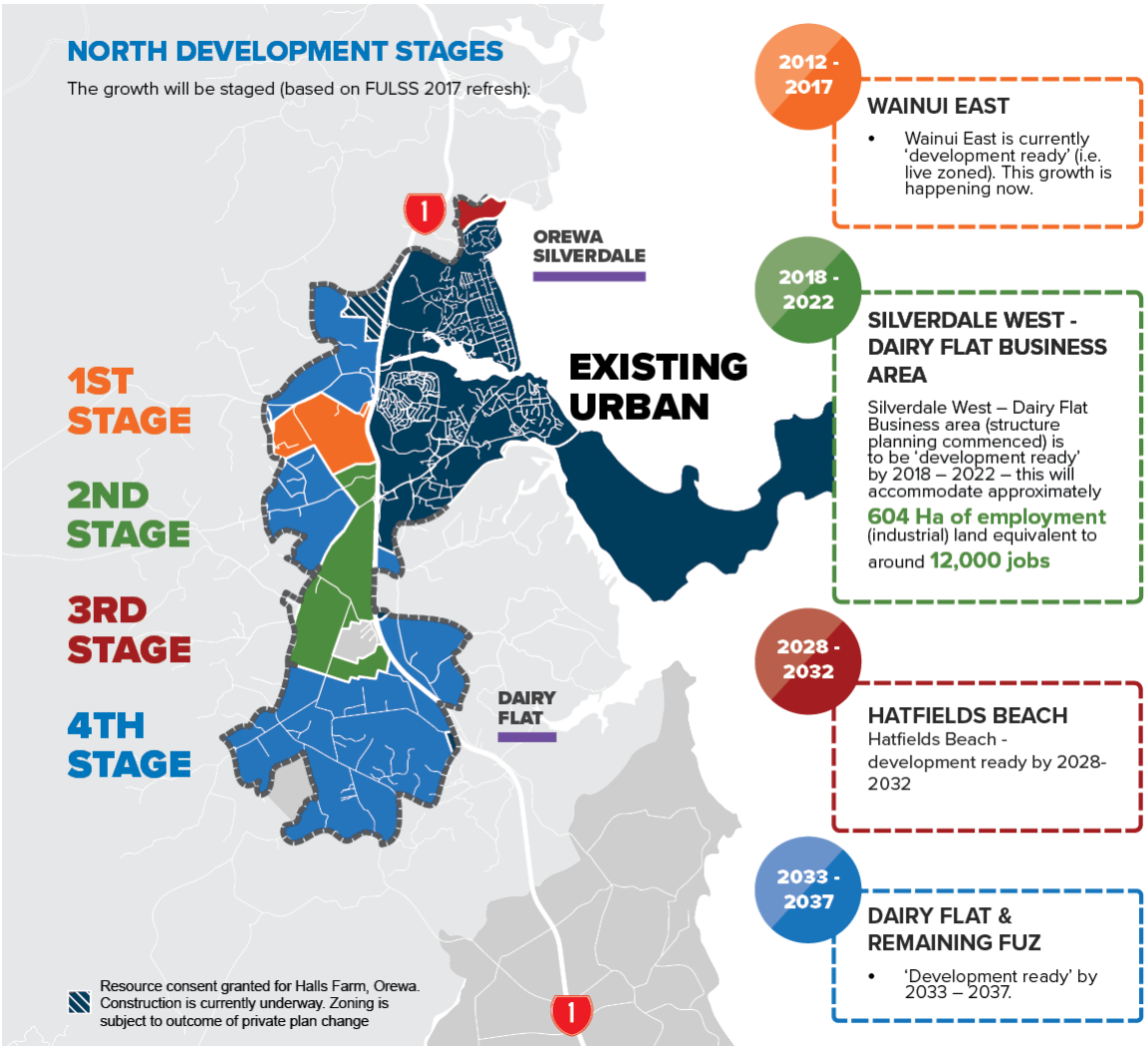
In addition to the above, for the North DBC, it is also necessary to consider alternatives to the staging of this transport infrastructure that provide an affordable implementation of the North transport projects, whilst still supporting the growth areas and enabling transformational change and travel choice, as well as considering the uncertainty that exists in relation to the potential timing and location of growth. This is discussed further in Section 3.

2 Land Use and Transport Inputs

2.1 FULSS

The FULSS was adopted in 2017 and formed the basis for the Transport for future urban growth programme business case and North indicative business case in 2019. The FULSS for the North growth areas is illustrated on Figure 2-1.

Figure 2-1: FULSS for North



Section 3.3 and Table 3-2 compare the assumed staging of transport infrastructure for the North growth areas based on the FULSS with the staging assumptions used in the transport modelling for the North DBC (based on assumptions for the purposes of modelling (not funding) provided by Waka Kotahi and AT).

2.2 Land Use Forecasts

The transport modelling for the North DBC has been informed by the I11 version 6 land use forecasts agreed with Auckland Council. These have informed the transport modelling using the regional transport model (the Macro Strategic Model (MSM), as well as the Strategic Active Modes Model (SAMM) used for the assessment of the active modes demands. The outputs from the MSM have then provided inputs to the EMME based traffic models, which have more specifically considered the traffic effects.

The Auckland Council latest set of growth assumptions (as set out in Scenario i11.6) provides an interpretation of how growth in this area might eventuate over the modelled periods. Differing levels of growth can be found in different areas. All future urban areas show a significant portion of growth in

the 2048+ timeframe. This is illustrated in Figures 2-2 and 2-3 below for employment and households respectively.

Figure 2-2: AC growth scenario i11.6 by area - Employment

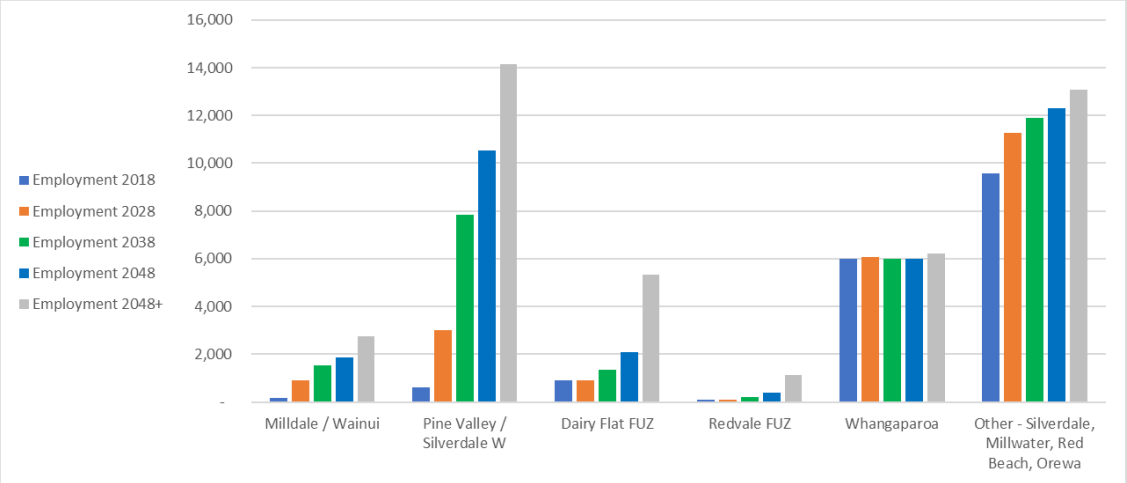
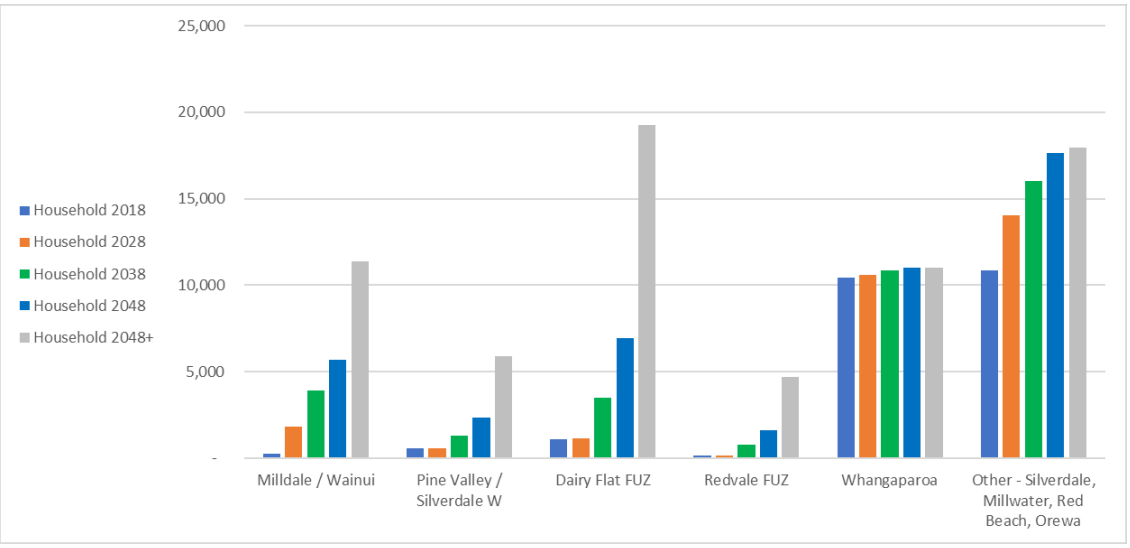


Figure 2-3: AC growth scenario i11.6 by area - Household



The figures below generally indicate the following in relation to the timing of the population and jobs within the North growth areas:

- The Whangaparaoa area is expected to only cater for a modest level of growth.
- Silverdale, Millwater and Orewa are expected to contribute to growth over the next 30+ years.
- The Milldale and Wainui area is expected to grow in a staged manner from the current decade to beyond 2048.
- The Pine Valley area contributes to around two thirds of jobs in the area and is expected to develop in a staged manner from the first decade.
- The Redvale FUZ area and Dairy Flat FUZ area are predominantly expected to occur late in the timeframe with a significant proportion expected beyond 2048.

2.3 Changes in forecasts since the FULSS

Auckland Council is in the process of updating the FULSS and is developing the Future Development Strategy (FDS) which considers growth at a regional level based on an updated context. Since the FULSS was developed in 2017, several important changes have occurred including:

- National Policy Statement on urban development – This new policy document provides some direction to councils on urban development. Of particular relevance to the North area is the direction on density of development around the Rapid Transit Network both inside the FUZ land and within the existing catchments of the RTN network.
- MDRS – The medium density residential standard directs council to allow for an increased development potential over large portions of existing urban areas.
- Statistics New Zealand have updated the national and regional population forecasts. The most recent forecast shows a reduced growth forecast for the Auckland region.

While the FDS document is yet to be complete, the above factors lead to a reduced growth in population in Auckland and increased development potential in the existing brownfield areas. It is likely the FULSS timing for the growth in the north area will be delayed. This is already reflected in the regional model growth scenarios and there is potential for further change following the council review.

2.4 Transport context

The North network will need to integrated with the wider transport network which will influence the staging of projects. The following key influences have been identified:

- Additional Waitemata Harbour connections – The Business case is currently considering the future RTN network south of the study area. The RTC project will need to tie into the RTN network at Albany and will be sensitive to timing of any work south of Albany.
- Ō Mahurangi Penlink – This project is under construction and is expected to be open within the first decade. The SH1 upgrade project and Redvale interchange will need to tie in with this upgrade.

3 Staging Considerations

3.1 Principles

Due to the uncertainty regarding the timing and form of specific land use activities, a principle-based approach is regarded as the best way to manage and deliver the desired transport and land use outcomes consistently. This recognises that staging in many cases will either be determined by regional, inter-regional and local priorities, which heavily rely on the scale and rate of growth.

A set of principles has therefore been developed, which links staging decisions to broader strategic goals regarding travel demand management and modal shift.

Key principles for staging have been developed that seek to assist in delivering the desired transport and land use outcomes aligned with programme or project objectives. These principles include supporting the following outcomes:

- Immediate shift to more sustainable travel choices.
- Manage adverse impacts of development on the wider system.
- Support the desired urban form, particular high density, quality urban environments.
- Recognise the need to support both place and movement function.
- Provide affordable staging plans that match development staging.
- Protect for longer-term needs.

The suggested principles for staging include:

- Provide a meaningful improvement to walking and cycling and public transport in the short to medium term to support the existing urban areas and portions of new growth already underway.
- Programme public transport and active mode facilities and services from the outset of urban development to support a shift to more sustainable travel.
- Prioritise PT and active mode facilities that support attractive access to the RTC stations.
- Consider staging of elements of a project to match likely development stages and system needs, whilst also considering pathways to achieve the full-build elements.
- Consider the needs to support place-function, not solely movement function.
- Provide safe travel by all modes.
- Staging that can respond to the timing, scale, and form of urban development as defined by the Future development Strategy work.
- Providing multimodal access to meet MOT inclusive access objective.

3.2 Interdependencies with other projects

There are multiple potential combinations of how the staging of projects could be implemented to respond to the timing, scale, and form of urban growth in the North. There are inherent uncertainties linked to how projects are delivered due to the overarching uncertainty in land use timing.

Table 3-1 provides an overview of the interdependencies and relationships with North DBC projects and development areas to provide further clarity about likely timing and trigger points of each project.

Table 3-1: Key Project Interdependencies

Project	Interdependency with external projects	Inter-dependency with other SGA projects	Dependency with Land use
A new Rapid Transit corridor between Albany and Milldale	Interdependent with the Additional Waitemata Harbour Connections project to the south and any changes to the mode of the RTC corridor and changes to the Albany station.	Dependant on local bus services providing connectivity to the RTC stations. Dependency on the following Road upgrades: • Upgrade and extension to Bawden Road • Upgrade to Dairy Flat Highway • New connection between Dairy Flat Highway and Wilks Road • New Argent Lane and New Pine Valley Road The RTC project has an interdependency with the SH1 improvements on the section between Lonely Track Road and Bawden Road due to the need to shift the SH1 carriageway to the East to accommodate the RTC alignment. The RTC project needs to follow the SH1 project or be done simultaneously.	A level of dependency on the cumulative North FUZ area, but a strong dependency on land use development and form of development within the following areas: • Dairy Flat area • Pine Valley area The RTC project is a key driver to land use form and travel behaviour therefore should be in place to influence travel from the outset of development. Consideration should be given to a release of land use which supports development of the RTC corridor from south to north.
Upgrades to SH1 - Albany to Redvale	Interdependency with Penlink project which is currently in construction.	SH1 upgrade project has a strong level of interdependency with the walking and cycling upgrade between Albany and Redvale and the RTC corridor. All projects share the same corridor.	The SH1 mainline upgrade is not considered to be dependent on land use as the interim use is expected to improve bus services
Upgrades to SH1 - Redvale to Silverdale and interchanges	Interdependency with Penlink project which is currently in construction.	High interdependency with the walking and cycling upgrade on SH1 as the projects are located within the same corridor. The Wilks Road interchange is interdependent with the East Coast Road upgrade and new link between Wilks Road and Dairy Flat Highway. The Redvale interchange is dependent on the Bawden Road upgrade and extension.	SH1 mainline upgrades are not considered to be dependent on land use as the interim use is expected to improve bus services. Wilks Road interchange implementation is required to enable stage 2 of the Silverdale West industrial area, as per the structure plan ITA. The Redvale interchange upgrade is considered necessary once the land in the Dairy Flat area is under development.
A new walking and cycling path along SH1	Interdependency with Penlink project which is currently in construction.	High interdependency with the SH1 improvements and interchange upgrades and would likely need to be constructed at the same time.	Silverdale to Grand Drive has no significant dependency on land use, as the surrounding land is already built out. Section between Silverdale and Redvale has a level of interdependency on land use in Silverdale West and Dairy Flat, however, could be implemented early as a connection. Southern section between Redvale and Albany considered to have less dependency on land use and could be provided as a connection to the Penlink facility.
Improvements to the existing Silverdale interchange	N/a	Interdependency on the upgrade to Dairy Flat Highway and active mode and public transport upgrades along Hibiscus Coast Highway.	Some dependency on development in Milldale (later stages) and Silverdale West Structure Plan Stage 1 and 2.

Project	Interdependency with external projects	Inter-dependency with other SGA projects	Dependency with Land use
Upgrade to Pine Valley Road	N/a	Interdependency with Argent Lane and New Pine Valley Road upgrade.	Independency with land use development in Pine Valley[1] FUZ area.
Upgrade to Dairy Flat Highway between Silverdale interchange and Kahikatea Flats Road	N/a	Interdependency with Argent Lane and New Pine Valley Road upgrade and Silverdale interchange upgrade. RTC corridor crosses this section, but assumed RTC is responsible for structure on DFH.	Silverdale West Structure Plan area (stage 1 and 2).
Upgrade to Dairy Flat Highway between Kahikatea Flats Road and Durey Road	N/a	Interdependency with new connection between Wilks Road and Dairy Flat Highway, as well as Bawden Road.	Silverdale West Structure Plan area (stage 1 and 2).
New connection between Dairy Flat Highway and Wilks Road	N/a	Interdependency with Wilks Road interchange. This project will be required to be implemented simultaneously or after the interchange is completed.	Silverdale West Structure Plan area (stage 2 / 3) – according to the structure plan.
Upgrade and extension to Bawden Road	N/a	Interdependent with the Redvale interchange upgrade and upgrade of Dairy Flat Highway in the Dairy Flat area.	Interdependent with development of the Dairy Flat FUZ[2] area.
New connection between Milldale and Grand Drive	Ara Hills development of connection to Grand Drive.	Interdependency with Wainui Road upgrade.	Interdependent with development of upper Wainui FUZ area (Milldale and north of Milldale).
Upgrade to East Coast Road between Silverdale and Redvale Interchange	Penlink project.	Interdependency with Redvale interchange upgrade and SH1 improvements	Southern section is interdependent with the development of the Redvale FUZ area.
Upgrade to Dairy Flat Highway between Dairy Flat and Albany	The Avenue Project at the Albany Village	Interdependency with the Dairy Flat upgrade, north of Durey Road.	Interdependent with development of the Dairy Flat FUZ area.
Upgrade to Wainui Road	Upgrade of the western portion of Wainui Road ,as per Milldale IFA.	Interdependency with new connection between Wainui and Grand Drive, as well as connection to the new walking and cycling path along SH1 (Silverdale to Grand Drive).	Interdependent with development of upper Wainui FUZ area (Milldale and north of Milldale).
Upgrade of Hibiscus Coast Highway and Grand Drive for public transport and active modes	Penlink project provides an opportunity for implementation.	Silverdale interchange upgrade and connection to the new walking and cycling path along SH1 (Silverdale to Grand Drive).	Not considered interdependent with land use, as the corridor is already built out.
New SH1 crossing at Dairy Stream	N/a	Interdependency with SH1 upgrades and the Bawden Road upgrade and extension.	Interdependent with land use in Dairy Flat and Redvale[3] FUZ areas being under development.
A new active mode connection along the Dairy Stream	N/a	Interdependency with the Dairy Stream SH1 crossing and SH1 walking and cycling facility.	Interdependent with development of the Dairy Flat area
New Argent Lane and New Pine Valley Road	N/a	Interdependency with Dairy Flat Highway upgrade and the Rapid Transit Corridor / station in this location.	Interdependency with Milldale (later stages) and remaining development of the Wainui area.

[1] Area around Pine Valley Road
[2] Area to the west of SH1 and south of the Airport.
[3] Area to east of SH1 and around Redvale interchange

3.3 Assumed DBC staging of projects

For the purposes of the DBC, an assumed staging of projects has been identified in line with the principals identified in Section 3.1. Figure 3-1 to Figure 3-4 below set out the anticipated staging.

Stage 1 provides the necessary infrastructure to support the stage 1 of the Silverdale West industrial area and includes upgrade to the Hibiscus Coast Highway and Grand Drive corridor to support mode shift in the existing brownfield areas.

Stage 2 continues to provide infrastructure to support the ongoing development of the Silverdale West industrial area and includes some infrastructure north of Milldale to support the ongoing development of this area. An upgrade is proposed on SH1 to improve bus travel to and from the North area.

Stage 3 and 4 includes infrastructure required to cater for development of the remaining FUZ land. From a public transport perspective, Stage 3 includes implementation of a portion of the RTC corridor and a station at Pine Valley, as a catalyst from development in the area. Stage 4 sees the full implementation of the RTC corridor and infrastructure required to serve the Dairy Flat FUZ area. Stage 4 is likely to be implemented in a staged manner given the transport upgrades required and quantum of development. As the RTC provides the critical spine to the transport network, A progression of development from South to North would best support the implementation of this corridor.

Figure 3-1: Stage 1

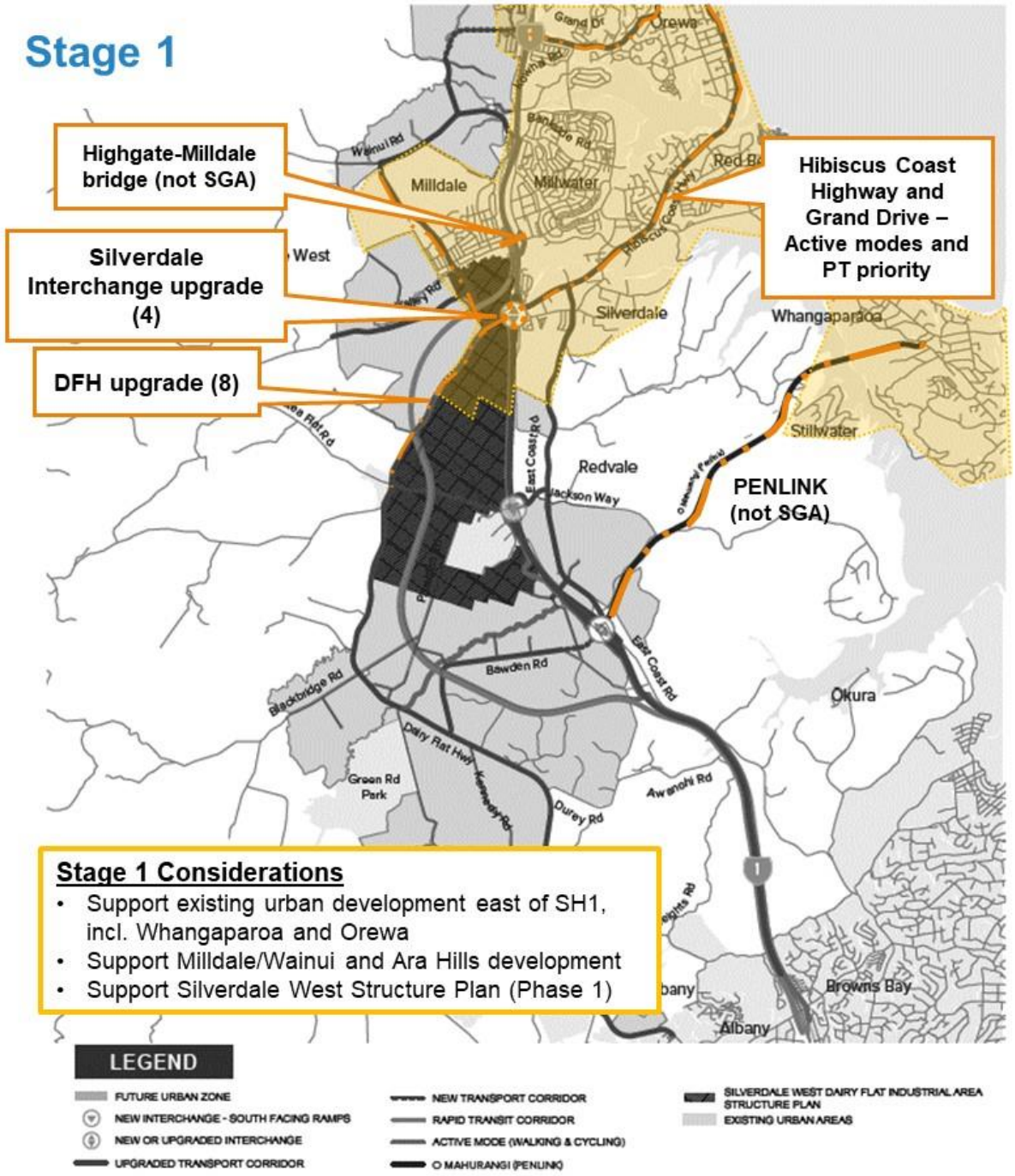


Figure 3-2: Stage 2

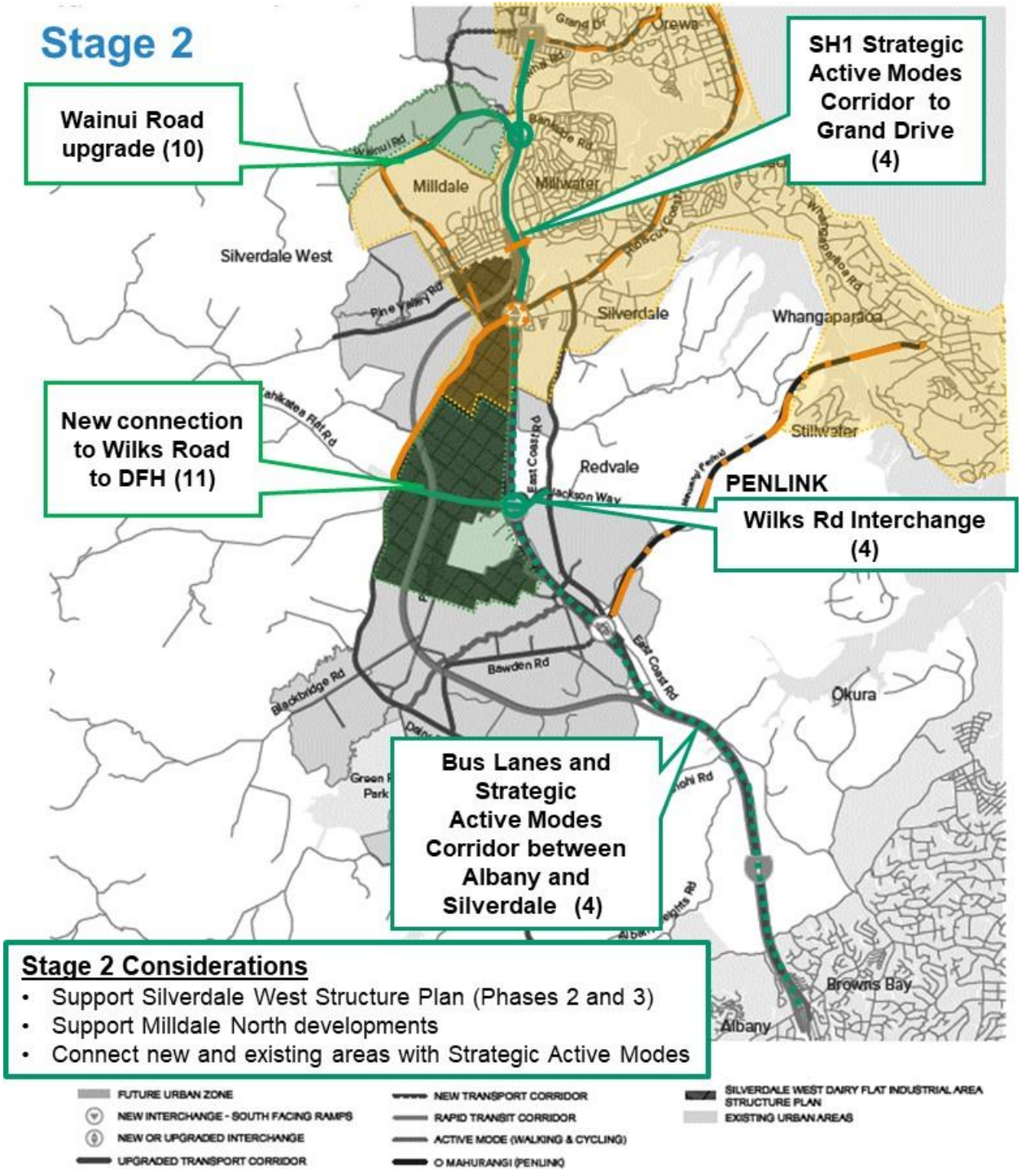


Figure 3-3: Stage 3

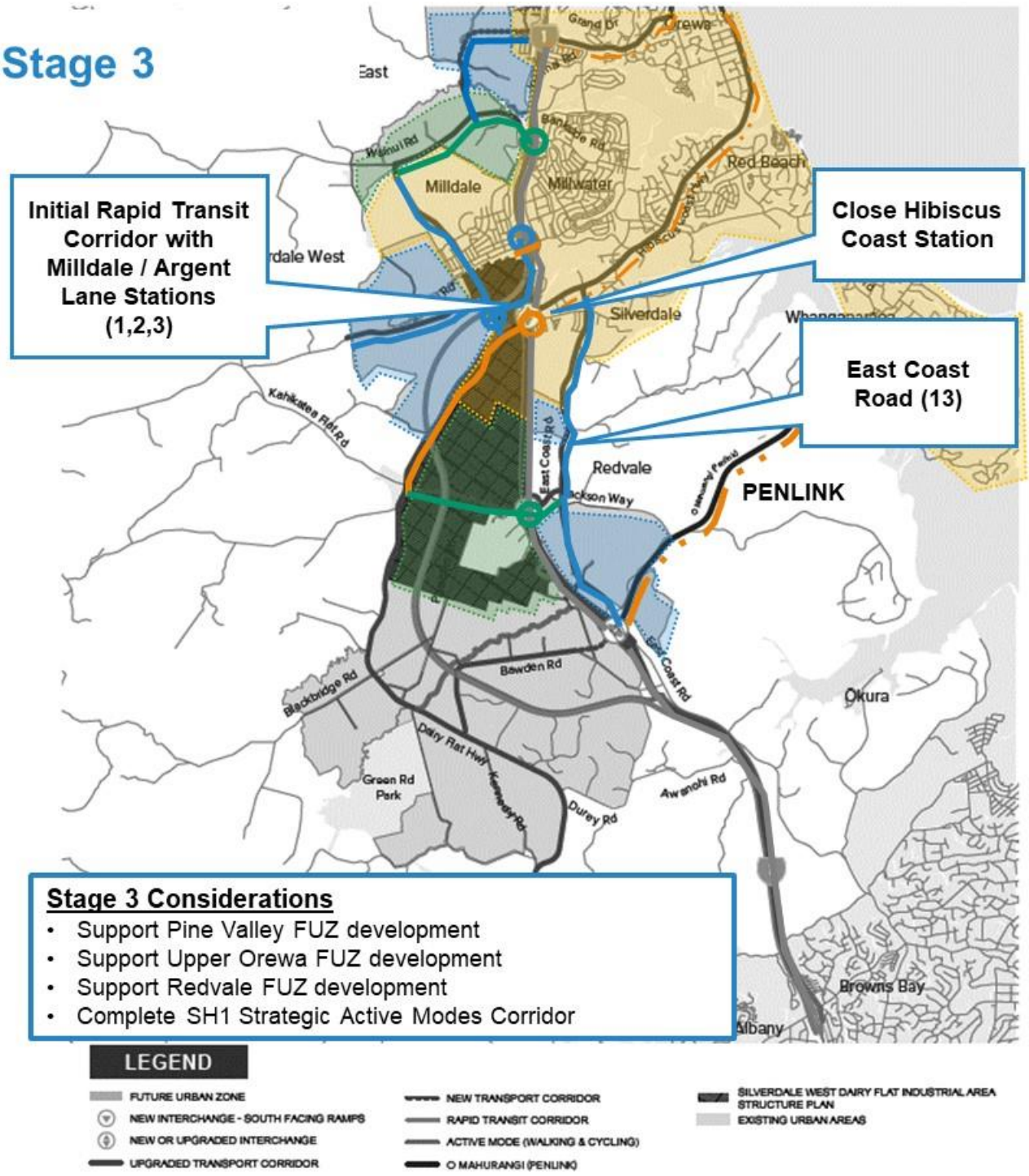


Figure 3-4: Stage 4

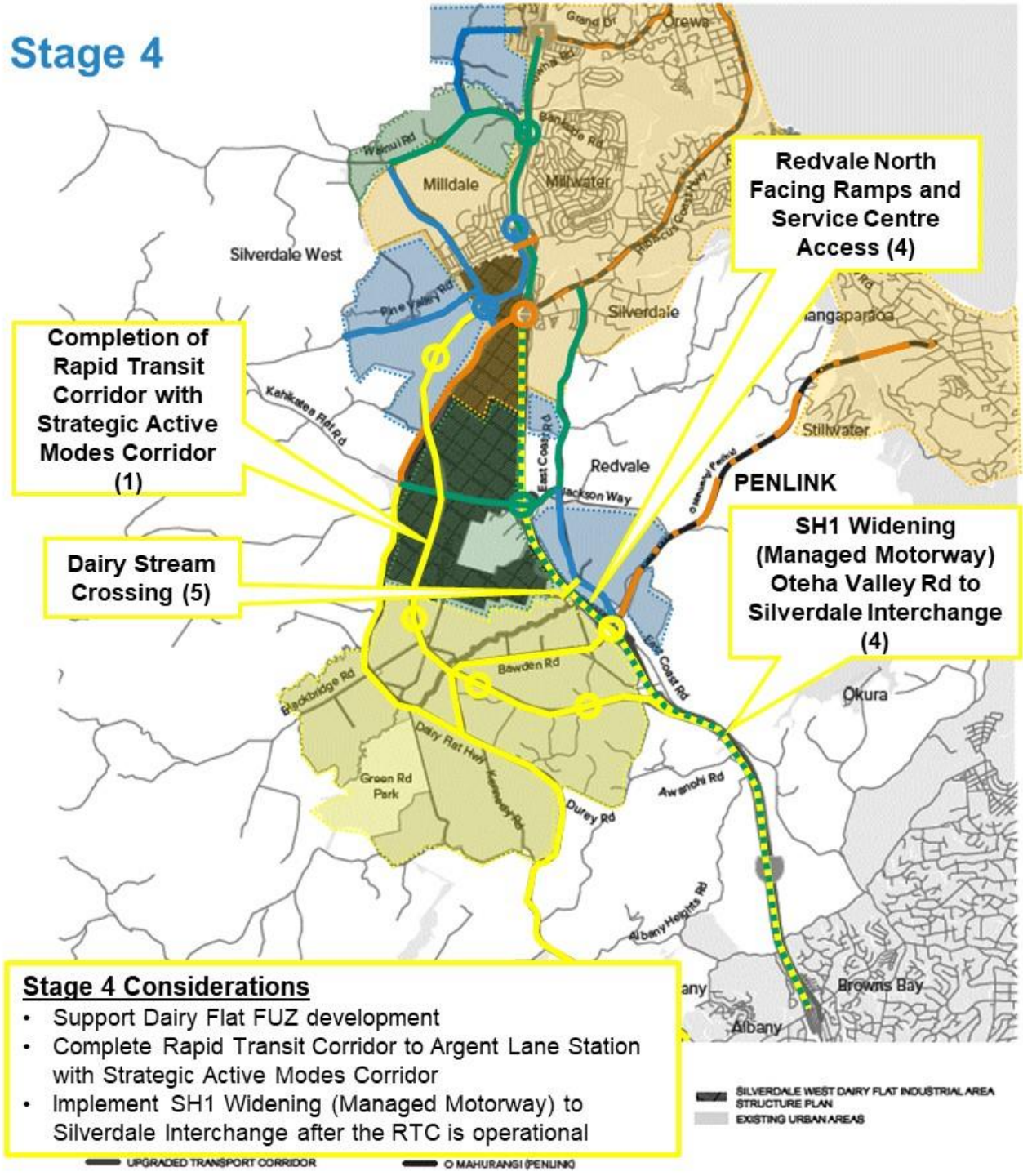


Table 3-2 outlines the assumptions made in the DBC (to inform the financial case and economics) based on current thinking on timing of the land use in the north.

Table 3-2: FULSS versus North DBC Modelling Staging Assumptions

Transport Project	North DBC Modelling Staging (Opening year)
A new Rapid Transit corridor between Albany and Milldale	2053
Upgrades to SH1 - Albany to Redvale	2039
Upgrades to SH1 - Redvale to Silverdale and interchanges	2039
A new walking and cycling path along SH1	2038
Improvements to the existing Silverdale interchange	2031
Upgrade to Pine Valley Road	2046
Upgrade to Dairy Flat Highway between Silverdale interchange and Kahikatea	2028
Upgrade to Dairy Flat Highway between Kahikatea and Durey Road	2051
New connection between Dairy Flat Highway and Wilks Road	2035
Upgrade and extension to Bawden Road	2052
New connection between Milldale and Grand Drive	2041
Upgrade to East Coast Road between Silverdale and Redvale Interchange	2045
Upgrade to Dairy Flat Highway between Dairy Flat and Albany	2052
Upgrade to Wainui Road	2036
Upgrade of Hibiscus Coast Highway and Grand Drive for public transport and active modes	2031
New SH1 crossing at Dairy Stream	2052
A new active mode connection along the Dairy Stream	2052
New Argent Lane and New Pine Valley Road	2041

From the above table, it can be seen that:

- The North Strategic projects have been assumed to occur in a later time horizon, than may be anticipated under the FULSS staging, particularly projects in the southern part of the growth area.
- Development of Milldale is anticipated to occur in line with the FULSS timing due to the progress of development in this area.

3.3.1 How the public transport network works with stages

An important consideration in the staging of transport infrastructure, is how the public transport network will work in each stage. With partial construction of some corridors, initial high-level consideration has been given to how the RTN and FTN services could work in each stage.

Stage 3 provides a portion of the RTC corridor as an interim step. This strategy is dependent on the mode of the RTC, as it relies on use of SH1 over a portion of the route. Alternative options would need to be considered if an LRT or light metro mode was chosen in the future.

Stage 4a and stage 4 provide an indication of how the implementation of the RTC corridor may take place, with a gradual progression from south to north.

Figure 3-5 to Figure 3-8 set out the proposed PT network corresponding to each stage outlined in Scenario 1 in Section 3.3.

Figure 3-5: Stage 1 PT network

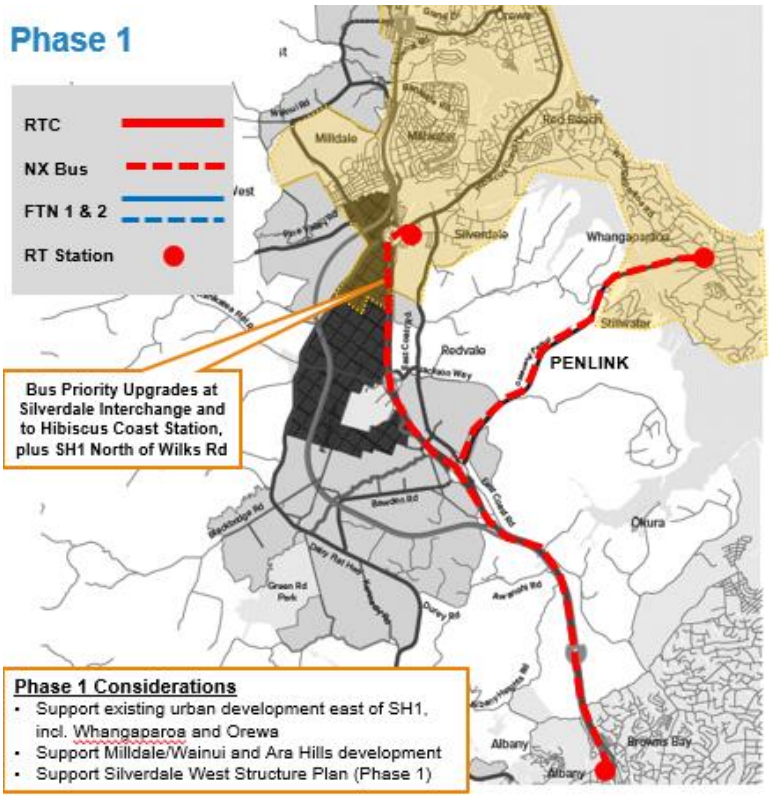


Figure 3-6: Stage 2 PT network

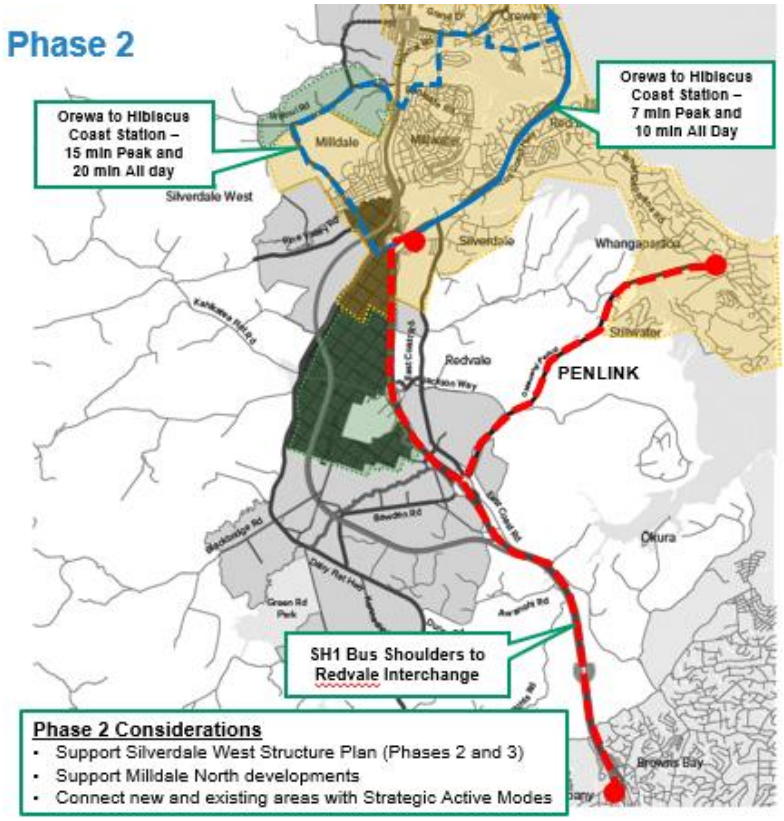


Figure 3-7: Stage 3 PT network

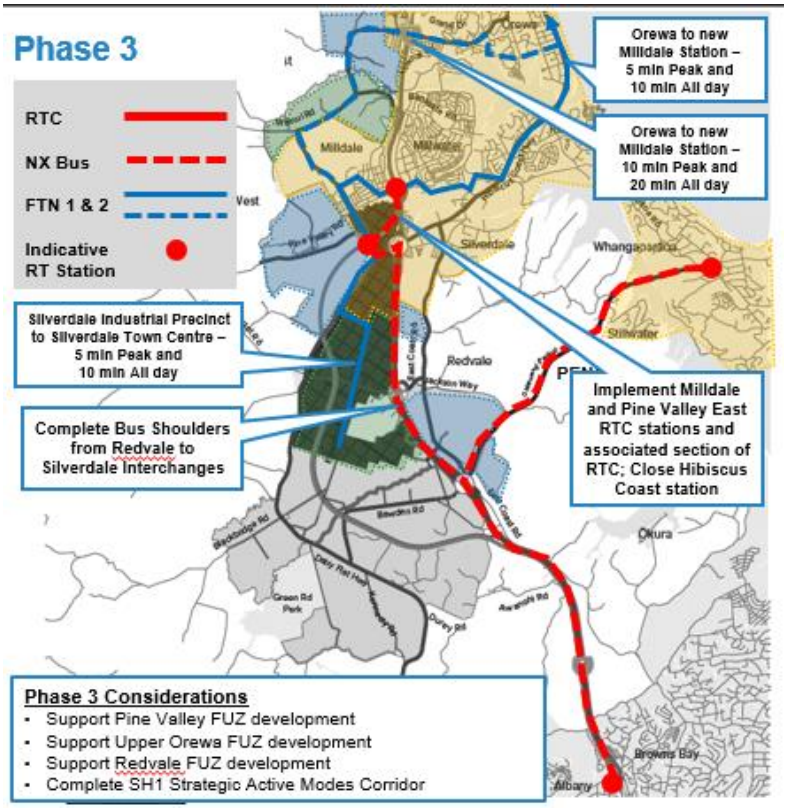


Figure 3-8: Stage 4a PT network

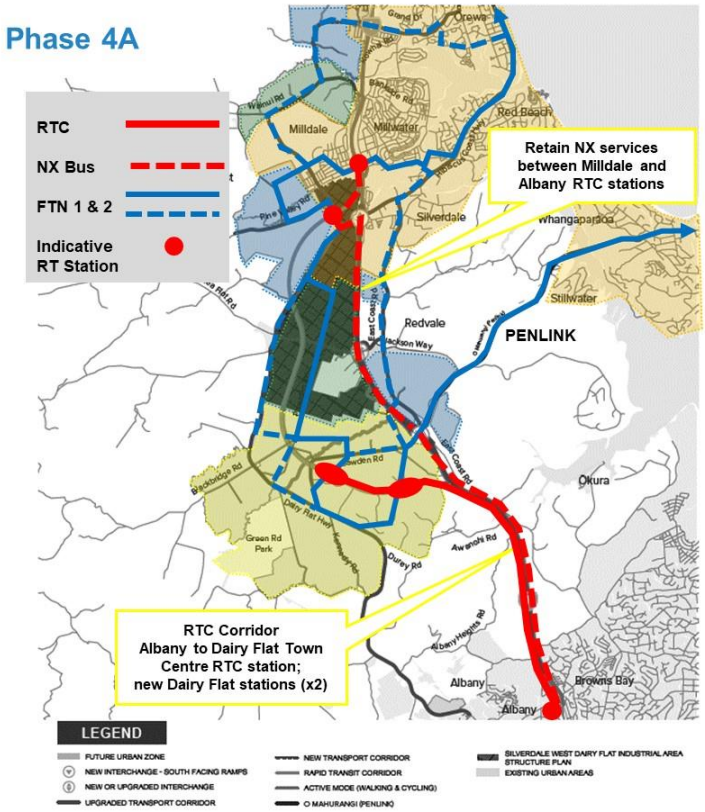
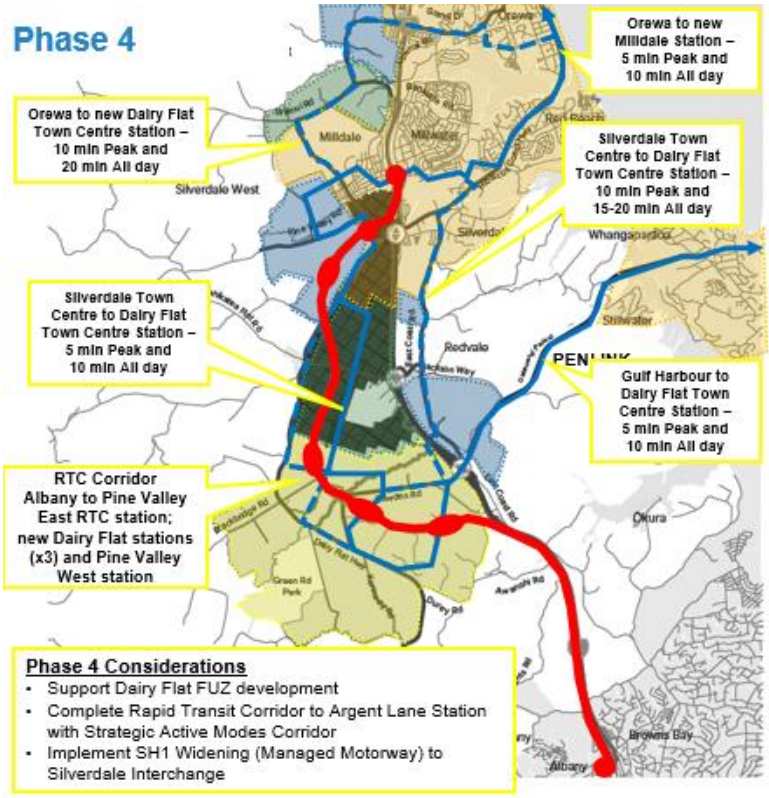


Figure 3-8: Stage 4 PT network



3.4 What happens if the timing of land use changes?

The timing of growth in the Northern growth area is subject to inherent uncertainty in timing. Since the IBC phase, regional forecasting has suggested a delay to growth in the northern area. In recent population forecasts, Auckland regional growth has reduced further to compared to the growth assumed in the regional transport model.

The council is considering both changes in regional forecasts and the implications of Policy changes such as the NPS:UD and MDRS on both existing urban areas and Future urban areas alike in the refresh of the FULSS work. The Future Development Strategy workstream is occurring in parallel to this DBC. While no detailed changes were available to taken into account with the DBC, consideration has been given to what a delay in growth might mean for the North staging.

On the flipside, portions of the North area could come under development pressure building on successful developments in the area such as Milldale and Ara Hills or taking advantage of Transport infrastructure projects. Examples from elsewhere in Auckland suggest development of FUZ land out of the Councils desire sequencing can occur and avenues are available to developers to progress these projects.

Table 10-4 sets out some consideration of changes to land use timing, considering both delay and acceleration to land use development and provides commentary on how this might influence staging of infrastructure.

Table 11-5: Resilience of the proposed network to land use changes

Change	Commentary
Dairy Flat growth is delayed further	With growth in Dairy Flat delayed further, Stage 4 of the recommended staging strategy would be delayed. Infrastructure such as implementation of the full RTC, Upgrades to Dairy Flat Highway, Upgrade and extension of Bawden Road, Upgrade of the Redvale interchange, Dairy Flat SH1 crossing and Dairy Stream active modes would be delayed in implementation timeframes. With the RTC corridor implementation delayed further, consideration should be given to further enhancements to the SH1 bus lanes through consideration of priority at the interchanges to better serve the existing and newly developed areas until such time as the RTC corridor could be implemented.
Dairy Flat growth occurs earlier than anticipated and earlier than land to north	With growth in Dairy Flat area occurring earlier, the staging approach to the RTC project will need to adapt to service this area. Development of the RTC corridor from the south (Albany) to Dairy Flat could serve the area and drive desirable land use outcomes. As areas to the north are developed, the RTC corridor could be extended north. Other projects within the Dairy Flat area would also likely be required to cater for growth including Redvale interchange, The Dairy Stream SH1 crossing, Bawden Road, Dairy Flat Highway and dairy stream active mode corridor.

Change	Commentary
Wainui area develops earlier than anticipated	The Wainui area (north of Milldale) is expected to come under development pressure prior to the FULSS and regional modelling assumed timeframes for development. If development was brought forward, implementation of supporting transport infrastructure would be required. The infrastructure expected to be required include: • Wainui Road • SH1 walking and cycling facility • SH1 upgrade • New connection between Wainui and Grand Drive • Argent land and New Pine Valley Road upgrade If land use development is accelerated, funding is likely to be a key consideration governing if the required infrastructure can be implemented to support development.
Redvale area develops earlier than anticipated	• The Penlink project is currently under construction and will provide access for land in the Redvale area. Development pressure could occur in this area prior to the assumed timing in the FULSS and regional planning. • Several parts of the network are expected to be required earlier to cater for any change in timing including: • Upgrade to East Coast Road • Walking and Cycling facilities on SH1

4 Summary

In summary, there are a range of different drivers, parallel workstreams and triggers that will influence how network staging will be delivered over the next three to four decades.

Due to the uncertainty regarding the timing and form of specific land use activities, it is not feasible to develop a detailed stage-by-stage implementation plan. Further, this is not required for this Business Case, given its focus on identifying preferred long-term corridors, which will be subject to separate implementation decisions and project specific implementation business cases.

Therefore, a principle-based approach is regarded as the best way to manage and deliver the desired transport and land use outcomes consistently. There are multiple potential combinations of how the staging of projects could be implemented to respond to the timing, scale, and form of urban development, so this assessment can only be considered as illustrative of the kind of staging that could be considered. Importantly, the tables summarise the key interdependencies of projects, so individual project decisions can be easily cross referenced and future decisions are not made in isolation.

Although this report provides a summary of potential staging considerations, it simply reflects the limited current knowledge of land use activities. Therefore, the inherent nuances linked to interdependencies with other projects, longitudinal staging and land use activities should frequently be evaluated (with every Structure Plan, Plan Change) to ensure that optimum transport and land use integration is achieved in the short, medium, and long term.

In summary, the assessment demonstrates there are a number of different drivers and influences on how the North DBC programme could be staged, but this is still subject to some uncertainty. However, the assessment does demonstrate that:

- there are a multitude of ways the urban development of this area could be staged
- there are a number of key corridors (such as upgrades to the northern section of Dairy Flat Highway and Hibiscus Coast Highway) that are considered to be required earlier due to current live-zoned and imminent land use in Milldale and Wainui.
- The implementation of the SH1 upgrade as an interim public transport improvement is considered to provide a meaningful step in driving mode shift for the existing urban areas and developing FUZ land. With uncertainty around timing of development in the Dairy Flat area, this project could play a vital role in accessibility for an extended period.
- there are opportunities to align with the staging principles by further investigating the opportunity for earlier implementation of a portion of the RTC corridor in Pine Valley, which would provide public transport from the outset for this area as well as influence urban form and provide a catalyst for growth.
- that active monitoring and management of implementation decisions will need to be dynamic, pro-active in its response to a range of inputs, including land use planning, land use outcomes and system performance.