

# NEIGHBOURHOOD DESIGN STATEMENT: WARKWORTH NORTH STRUCTURE PLAN



Warkworth

Warkworth North Structure Plan Area

*Technical Report supporting the Structure Plan for Warkworth North, Revision J January 2019*

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TABLE OF CONTENTS

Table of figures ..... 3

Introduction ..... 4

    Background ..... 4

    Purpose of This Report..... 5

    Site Photo ..... 5

Site Location ..... 7

Site Description ..... 7

Site Context..... 8

    Access ..... 9

    Site Edges ..... 9

        State Highway 1 ..... 9

        Hudson Road..... 9

        Mahurangi River Edge ..... 9

        Viv Davie-Martin subdivision edge ..... 10

        Future Motorway Corridor edge..... 10

Site Analysis ..... 11

    Natural Environment ..... 11

    Topography ..... 11

        Slope Analysis: Structure Plan Area ..... 11

        Slope Analysis: Entire Warkworth Area ..... 13

    Cultural Environment ..... 13

    Built Environment..... 13

        Movement Network..... 13

        Surrounding Built environment ..... 13

    Constraints ..... 14

        Additional Discussion on Topographical constraints ..... 14

    Opportunities ..... 16

Design Response ..... 17

    Design Principles – Responding to Natural Place ..... 17

        Acknowledging the challenging topography ..... 17

        Keep and protect stands of trees and waterways ..... 17

**Appreciate natural areas** by putting PATHS, roads, Houses and public places along their edges. .... 18

    Design Principles- Creating a Built Urban Environment ..... 19

        Connect the Western LINK ..... 19

        Provide a well-connected NEIGHBOURHOOD centre ..... 19

        Create a contained and hierarchical horizontal mix of uses ..... 20

        Create a legible multi modal movement network ..... 20

Structure Plan Proposal..... 21

    Parks and Green Spaces..... 23

    Movement and Connections ..... 24

        Public Transport ..... 27

    Internal edge Interfaces ..... 28

    Neighbourhoods and Building Typologies ..... 28

Design Assessment ..... 30

    Comment against Design Qualities of the Urban Design Protocol ..... 30

Conclusion..... 31

## TABLE OF FIGURES

Figure 1 Structure Plan Area .....	4
Figure 2 Aerial Photograph of Structure Plan area .....	5
Figure 3 Site Photos .....	6
Figure 4 Location .....	7
Figure 5 Site Location in Warkworth .....	7
Figure 6 Local Contextual Features .....	8
Figure 7 State Highway One Edge .....	9
Figure 8 Hudson Road Edge .....	9
Figure 9 Mahurangi River Edge .....	9
Figure 10 Viv Davie-Martin Subdivision Edge .....	10
Figure 11 Motorway Edge .....	10
Figure 12 Gateway Landscape Design .....	10
Figure 13 Natural and Heritage Features .....	11
Figure 14 Slope Analysis Diagram, Structure Plan Area .....	12
Figure 15 Slope Analysis Diagram, Warkworth Area .....	13
Figure 16 Topographical Constraints Summary .....	15
Figure 17 Opportunities including Land Use options .....	16
Figure 18 Areas of significantly different topography .....	17
Figure 19 Green Corridors to be enhanced .....	17
Figure 20 Public paths or housing alongside natural feature edges .....	18
Figure 21 Western Link connection .....	19
Figure 22 Local Centre .....	19
Figure 23 Horizontal mix of uses .....	20
Figure 24 Connected Streets .....	20
Figure 25 Proposed zoning .....	21
Figure 26 Proposed Structure Plan .....	22
Figure 27 Transport Networks .....	25
Figure 28 Warkworth Greenways Plan. Auckland Council .....	26
Figure 29 Long Cross Section .....	28
Figure 30 Collector Road / Residential interface across from park .....	28
Figure 31 Local Road / Neighbourhood Centre interface to park .....	28

## INTRODUCTION

### BACKGROUND

This report has been prepared to inform the Warkworth North Structure Plan (“Structure Plan”) and Plan Change on behalf of SF Estate Limited. The boundary for the Structure Plan and Plan Change are shown in Figure 1 below.

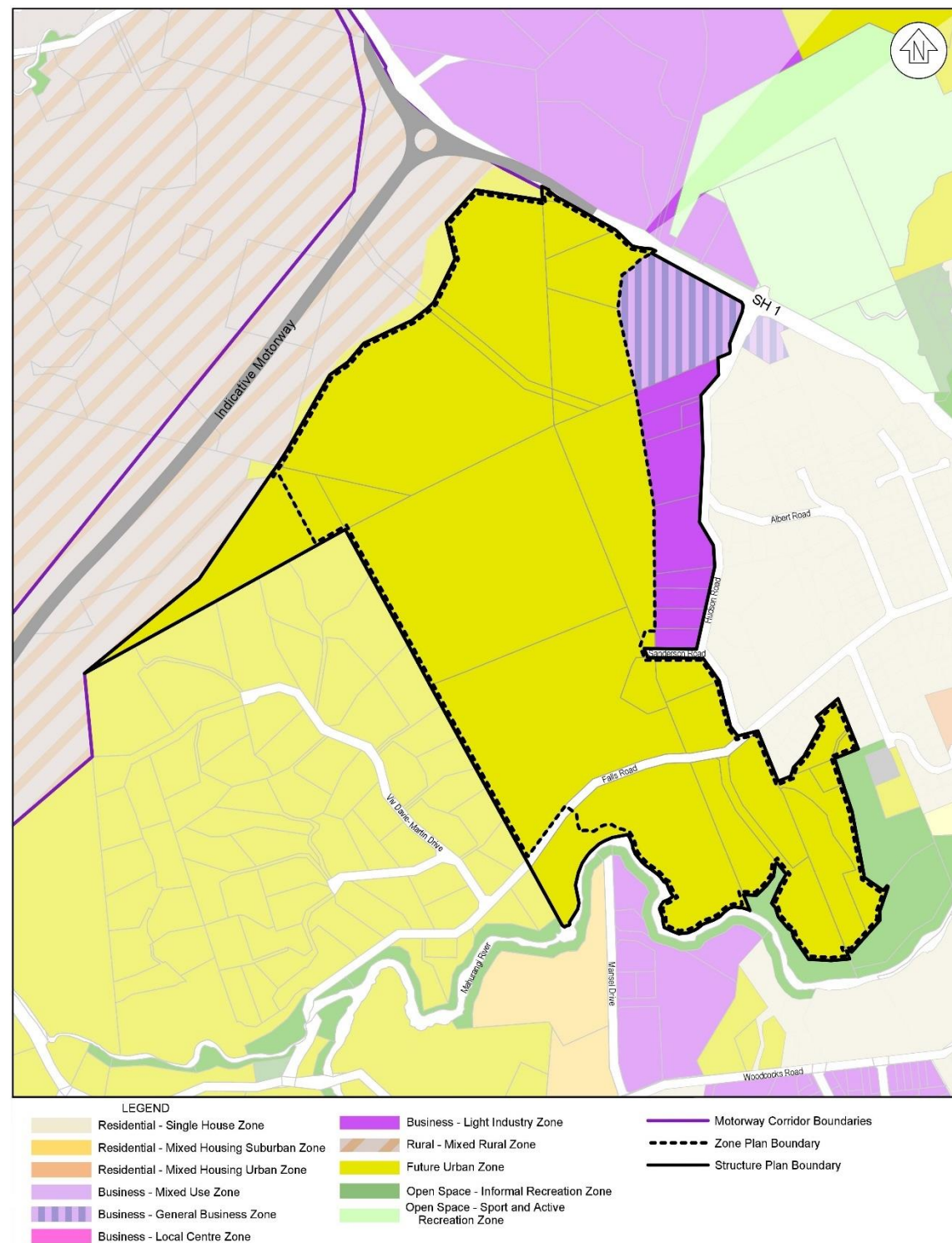


Figure 1 Structure Plan Area

A single landowner owns a significant amount of the structure plan area, giving opportunity for viable planned development to occur in a managed way.

Major changes are likely within the medium term (five years) that will affect the character and functioning of Warkworth, including the completion of the Puhoi to Warkworth motorway extension, and the requirement under Council policy documents to provide for significant amounts of new housing.

The Structure Plan area includes the Future Urban zoned (“FUZ”) land bounded by the proposed Puhoi to Warkworth motorway extension in the north-west, the Viv Davie-Martin Drive lifestyle development to the west, the Mahurangi River to the south, and Hudson Road and State Highway 1 to the east and north-east.

The area proposed to be rezoned as part of the Plan Change more or less applies to the Structure Plan area, with the exception of 141 Carran Road, the western extent of Lot 1 DP 508375, and the existing General Business and Light Industrial zoned land to the east.

The applicant has commissioned a specialist consultant team to work on this project and is providing supporting reports for this application. There has been significant consultation with stakeholders by various members of this team, including two meetings with a Council specialist group that included Council Landscape Architects and Urban Designers. From these meetings site specific issues were identified, and apart from addressing the required matters named in Appendix 1.1 of the AUP:

#### 1.4.5. Urban development

(1) A desirable urban form at the neighbourhood scale including all of the following:

- (a) a layout providing pedestrian connectivity with a network of streets and block sizes which allow for a choice of routes, particularly near centres and public transport facilities;
- (b) provision of a diversity of site sizes within blocks to enhance housing choice, accommodate local small-scale community facilities and where appropriate enable a range of business activity and mixed use;
- (c) provision of open spaces which are highly visible from streets and of a scale and quality to meet identified community needs;
- (d) appropriate transitions within and at the edge of the structure plan area between different land use activities, intensities and densities; and
- (e) the application of an integrated stormwater management approach within developments to reduce impacts on the environment while enhancing urban amenity.

It was agreed with council at these meetings that the relationship of topography and land use would be a significant determinant of the form of the proposal and would require analysis. To this end the applicant engaged a specialist mapping company to provide slope analysis to the Structure Plan area, and the whole of Warkworth to the outer perimeter of the *Future Urban* zone.

This report is to be read in conjunction with other specialist reports and the main structure plan document.



## PURPOSE OF THIS REPORT

This report addresses a significant area of FUZ zoned land, together with “live” zoned land. To enable a plan change process to rezone from FUZ, a structure plan is required. The Structure Plan will then be used to inform any plan change proposals that may cover future urban or otherwise live zoned land.

This Neighbourhood Design Statement (“Statement”) describes the options for different land uses, activities and places able to be created by zoning and other mechanisms proposed within the Structure Plan.

The Statement considers the context, constraints, and opportunities presented by the site itself, and offers an evaluation of urban use and design rationale based on these.

A rational distribution of land uses and demonstration of how these can efficiently create liveable neighbourhoods of distinct types will be used to inform a proposed plan change.

The Structure Plan considers responses to:

- The existing environment, topography and natural features
- Boundaries and their treatments, including the proposed motorway corridor boundary
- Zoning and activities
- Vehicle and pedestrian connections
- Built form
- Open amenity spaces.

## SITE PHOTO

Positions of site photos next page are indicated



Figure 2 Aerial Photograph of Structure Plan area





A From SH1 looking south to site



B From corner SH1 and Hudson Road looking west to site



C From Hudson Road looking west toward the site, with typical light industry at Hudson Road edge.



D View down Sanders Road west to site



E From Falls Road looking north-west to site



F From Viv Davie-Martin Drive looking north-east to site



G From Falls Road looking west to site



G From Falls Road looking north-west to site

Figure 3 Site Photos



## SITE LOCATION

The Structure Plan area is in Warkworth, a town of approximately 4000 people about 60km north of Auckland city. Warkworth is a thriving town that, while being part of the Auckland Council area, has a distinctly different character to urban Auckland. It services the surrounding rural area, including the coastal areas to the east that contain a mix of holiday lifestyle residences and permanent residents.

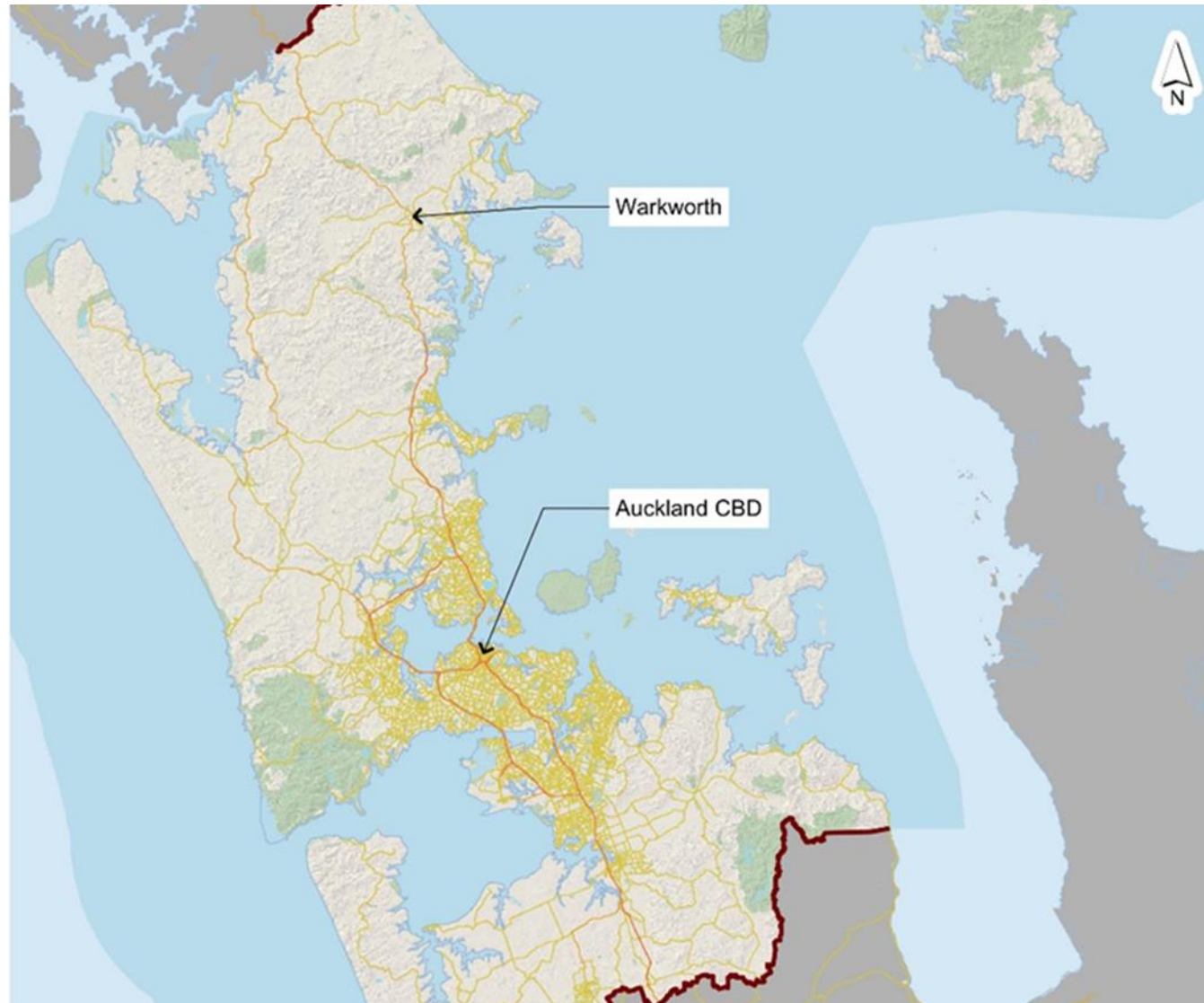


Figure 4 Location

The greater urban context of Warkworth presents a combination of Residential, Town Centre, Mixed Use and Light Industry zones. The Residential zoning is mainly Single House, with a small area of Mixed Housing Urban. This Warkworth urban residential development is largely characterised by single detached dwellings.

The Warkworth town centre is over 1.4km away, and the commercial area of Woodcocks Road is over 800m. These are the closest retail amenities to the Structure Plan area, with the offer at Woodcocks Road being extremely limited in choice (local dairy only).

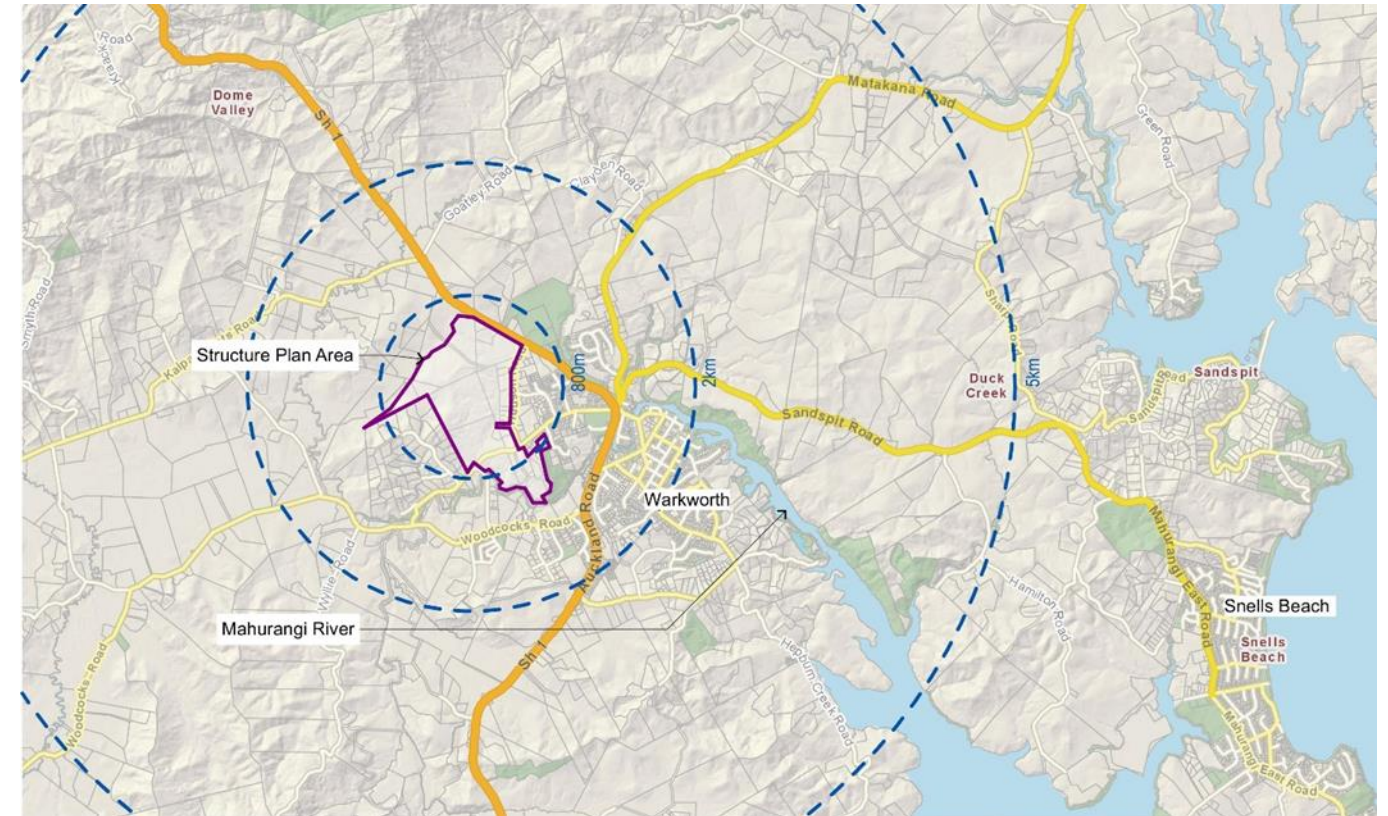


Figure 5 Site Location in Warkworth

## SITE DESCRIPTION

The site is held in multiple titles on the north western quadrant of the existing built township of Warkworth, about 2 km from the town's centre. It is bounded by three roads, State highway 1, Hudson Road and Falls Road, and the recently developed large residential lot Viv Davie-Martin subdivision.

The site is largely steep rural grassed land, that is currently farmed over most of it. The land flattens out toward State Highway One. Significantly however there is a strip of established light industrial buildings and yards on the Hudson Road edge.

The main tributary of the Mahurangi River flows through the site on its eastern edge between the grassed farmed area and the Light Industrial strip. To the north of the site are large forested hills that provide a backdrop to the Warkworth North area.



SITE CONTEXT

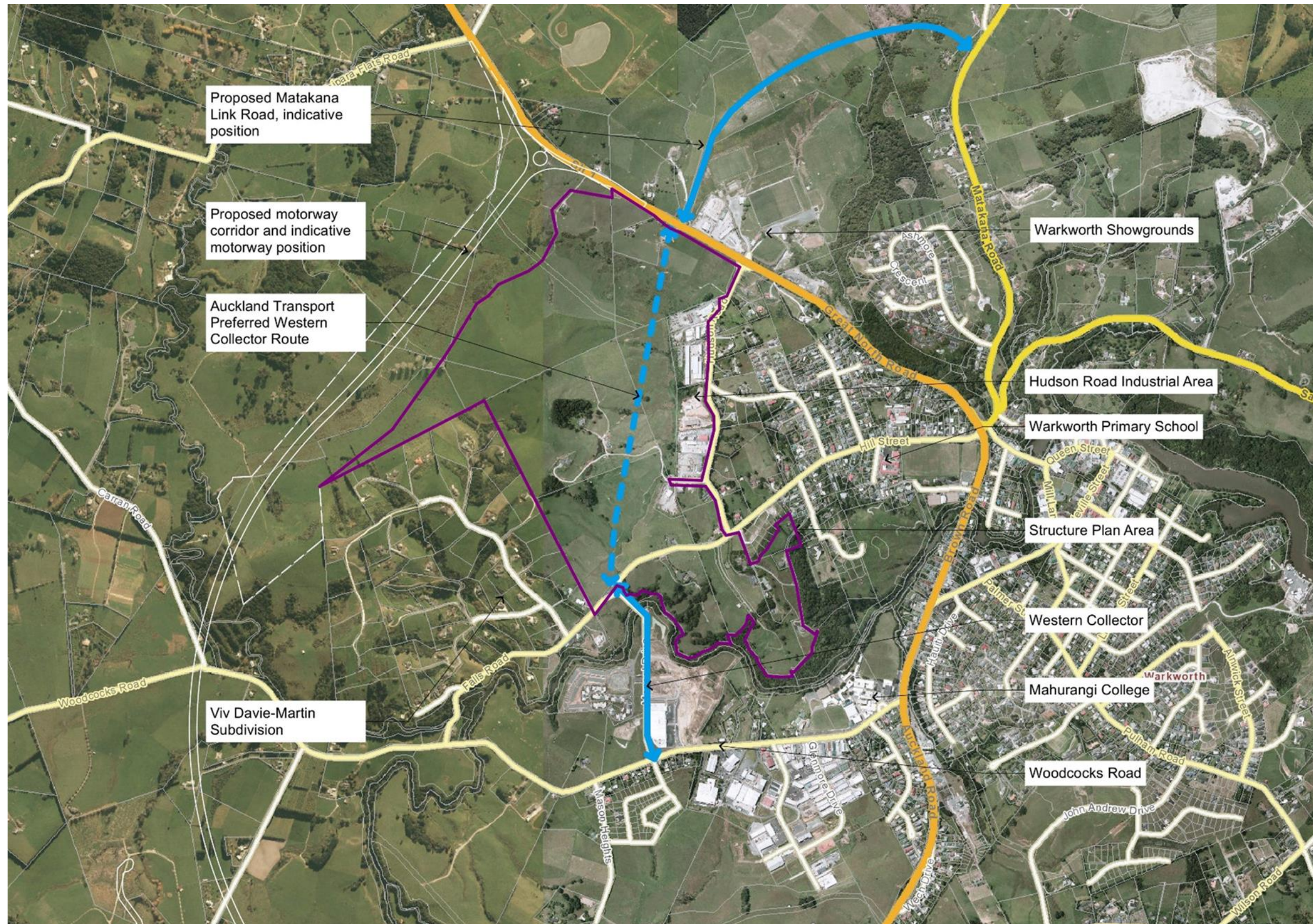


Figure 6 Local Contextual Features



## ACCESS

The site has multiple approaches from the existing Warkworth area, State Highway One northbound from Warkworth runs past its northern boundary. This connects with the proposed Puhoi-Warkworth motorway

extension that is under construction and due for completion in 2021. This section of road will no longer be a State Highway but will instead be the main collector road from the motorway (future SH1) to Warkworth and will be limited access. The proposed "Matakana Link Road" is under design with all indicative route options terminating at SH1 just north of the Warkworth showgrounds, across SH1 from the site. This is indicated as a 4 lane road that will service the eastern bays and settlements directly from the proposed motorway without having to go through Warkworth township.

The recently completed Mansel Road bridge connects the site with the Woodcocks Road industrial area. This is a strategic link under the "Western Collector" project by Auckland Transport. This gives a bypass option to the existing SH1 through Warkworth from the industrial area and FUZ zoned land south it that area. Significantly, Auckland Transport have indicated that in principle the preferred option for the Western Collector is to go through the structure plan area site, and connect the Mansel Road Bridge with the Matakana Link intersection and proposed motorway.

Falls Road (transitioning into Hill Street) is a residential street that connects the site directly with Warkworth and Warkworth Primary School. This a 50km/hr road with formed footpaths to the site boundary. Albert Street is a residential street that goes from Hill Street to connect with Hudson Road about half way along its eastern boundary.

The Viv Davie-Martin subdivision has no direct access to the site.

## SITE EDGES

### STATE HIGHWAY 1

The State Highway 1 edge is presently a 2 lane turning into 3 lane 100km/hr section of highway with a passing lane within a 31m road reserve. It has a small number of residential driveways off it servicing isolated houses. Across the highway is a large area of undeveloped and smaller area of developed light industrial live zoned land.



Figure 7 State Highway One Edge

This is currently limited access due its State Highway status and will stay as limited access when it becomes the collector road into Warkworth from the proposed motorway. Any new buildings on the live zoned un developed land will need to be accessed from within that land, not off SH1. The Warkworth Showgrounds can be easily accessed across this edge through the traffic light controlled intersection of Hudson Road and SH1, for cars, pedestrians and cyclists.

### HUDSON ROAD



Figure 8 Hudson Road Edge

The photograph is representative of the typical current edge defined by Hudson Road. Light industrial buildings within the Structure Plan area are accessed off Hudson Road, while dwellings on large lots are accessed off the opposite side of Hudson Road to the site. With the residential land up-zoned to a Single House Zone in the Unitary Plan, this area is now considered under developed. There are no formed footpaths on this road and it is largely a 20m road reserve. Given this is a local road there is good permeability potential through this edge between the Structure Plan area and the live zoned Single House land on the other side.

Existing live zone setbacks applies to development.

### MAHURANGI RIVER EDGE

South of Falls Road the edge is characterised by native bush of various density sand quality, leading down to the beginning of the Mahurangi River. This edge has a partial esplanade reserve setback. The bush provides a visual buffer to the Light Industrial zoned land across the river.



Figure 9 Mahurangi River Edge



## VIV DAVIE-MARTIN SUBDIVISION EDGE



Figure 10 Viv Davie-Martin Subdivision Edge

The western edge of the site borders the Viv Davie-Martin subdivision which is now built out with detached dwellings on large grassed lots, many of which border this edge. The boundary follows the fence line shown in the centre of the photo. The subdivision over this edge is now zoned FUZ and as such its future status, use and potential developed density is not known.

## FUTURE MOTORWAY CORRIDOR EDGE

The NZTA gained 15 resource consents for the proposed Puhoi to Warkworth motorway on 2 September 2014.

The applicant met with NZTA on July 6th 2017 to consult on the draft Structure Plan. NZTA said it was unaware the area could possibly change in the future to a different use, therefore the consents were granted on the assumption that the land would be zoned Rural. This has potential impacts on its edge quality to the structure plan area in that NZTA is not required to mitigate its effects either visually or acoustically on a large area of the Structure Plan area. It is understood from the Decision that visual mitigation is required against the Viv Davie-Martin Drive edge only.

Auckland Council noted in its Key Issues Report however, written for the Board of Enquiry that the consents were lodged before the PAUP (which proposed for the land to be rezoned Future Urban) was notified. Significantly it also notes that Warkworth is identified as a future urban expansion area (7.2 Key Issues Report, Auckland Council, November 2013) and goes on to state that no assessment was provided by the NZTA on the impact on the identified FUZ areas (7.13, which refers to 3.6 Key Issues Report, Auckland Council, November 2013).

The motorway corridor is subject to an Urban Design and Landscape Plan (UDLSP). The relationship of the Structure Plan area to the motorway is contingent on the final design of this corridor and there is scope for further collaboration and development in this regard. There is significant undeveloped land in the motorway corridor reserve and NZTA have stated they will likely sell this off on completion. Access away from the Warkworth North Structure Plan area should be proposed for this land used outside planting mitigation areas. A significant landscaped “gateway” is proposed in the UDLSP that is supported by the Warkworth North Structure Plan.

A further meeting with NZTA was held on July 2<sup>nd</sup> where it was stated to NZTA that compliance with *the NZTA Guide to the management of effects on noise sensitive land use near to the state highway network* was achieved by the buffer distance being exceeded, and therefore any potential noise effects could therefore be dealt with at resource consent level. A specialist acoustic report is understood to be supplied by the applicant to confirm this.

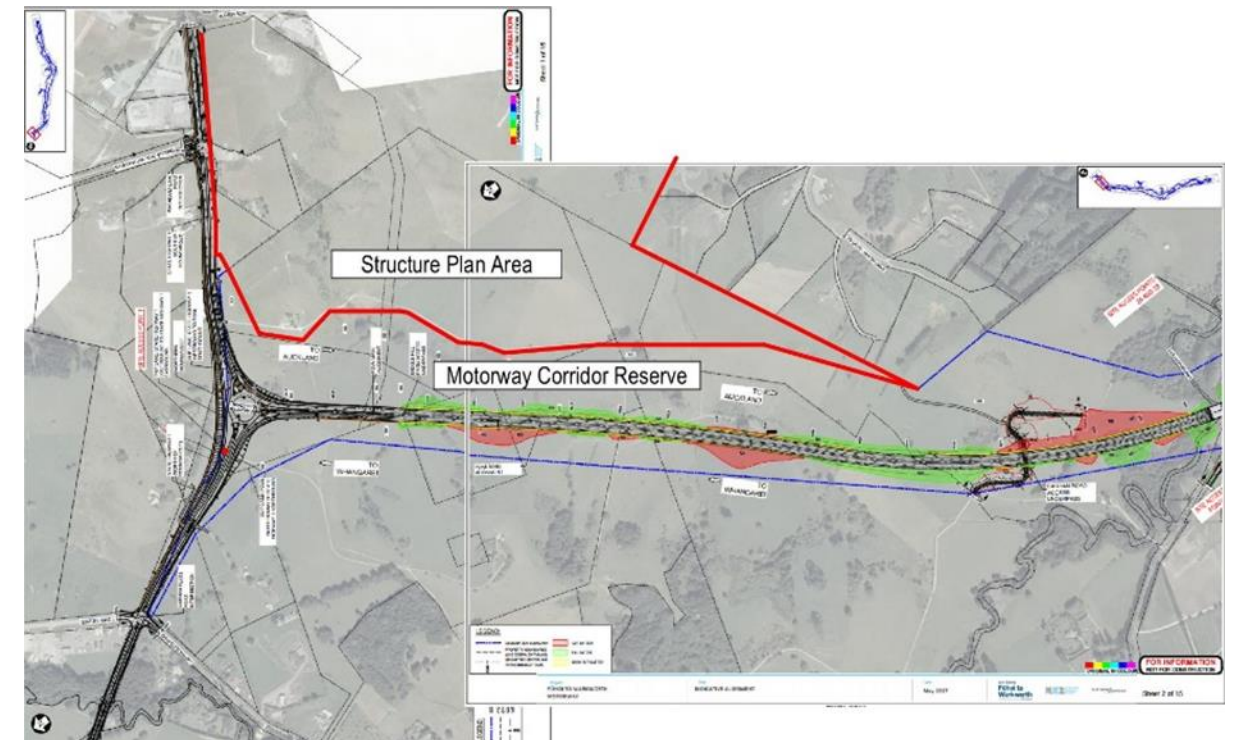


Figure 11 Motorway Edge

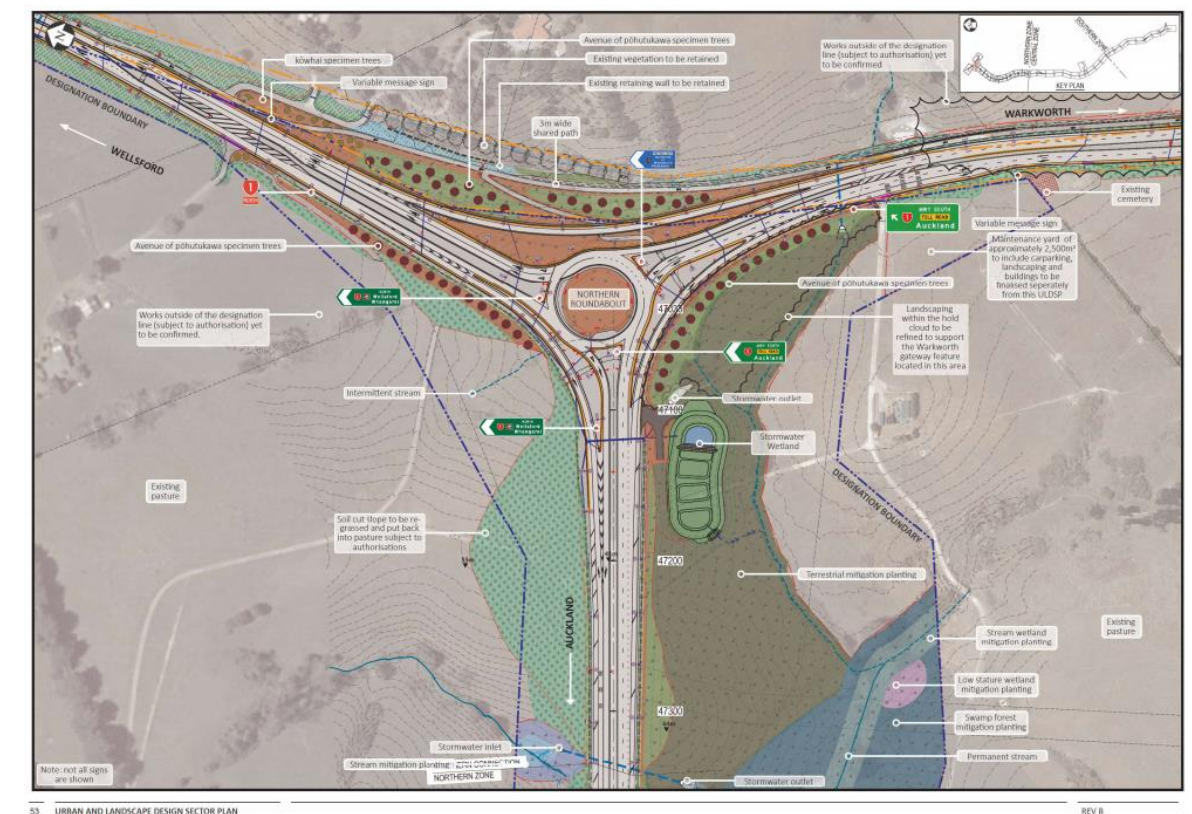


Figure 12 Gateway Landscape Design



## SITE ANALYSIS

### NATURAL ENVIRONMENT

The natural environmental features of the site are summarised in the diagram above. It is characterised by its significant areas of steep topography, with a flood plain and the Mahurangi River tributary defining the base of the sloping section of the Structure Plan area against the flat areas. The land contains stands of trees that are not classified as SEA's.

The ecological context is subject to a comprehensive specialist report by Bioreserches, and states the following of relevance:

*The vegetation present at the site, while of low to moderate botanical value, does provide ecological values in the context of the wider surrounding landscape as habitat and food resources for native fauna. Areas 1, 3, and 4 provide vegetative buffers for the headwaters of tributaries flowing into the Mahurangi River. Where practicable, as much vegetation as possible should be retained within the development design.*

### TOPOGRAPHY

#### SLOPE ANALYSIS: STRUCTURE PLAN AREA

A Slope Analysis was undertaken by *Interpret Geospatial Solutions* to allow an understanding of the topography, and is used as a basis for evaluation. Topography of distinctive characteristics largely separated by watercourses have been identified by areas 1-4 in the diagram below generated by *Interpret*. Discussions with Council have identified this as a potential issue that needs analysis and comment as the topographical form may determine land uses. The slope analysis establishes that within the Structure Plan area, there are significant areas of land that at a slope of over 12.5% (the maximum slope of a legal road) and of that sloping land, the majority is over 20% slope, Areas 1 & 4

The major areas of land under 12.5% slope are adjacent to State Highway 1 (area 2), and Hudson Road (area 3). Other land under 12.5% slope are the terrace and ridge areas within the predominantly sloping land of area 1 (area 1A).

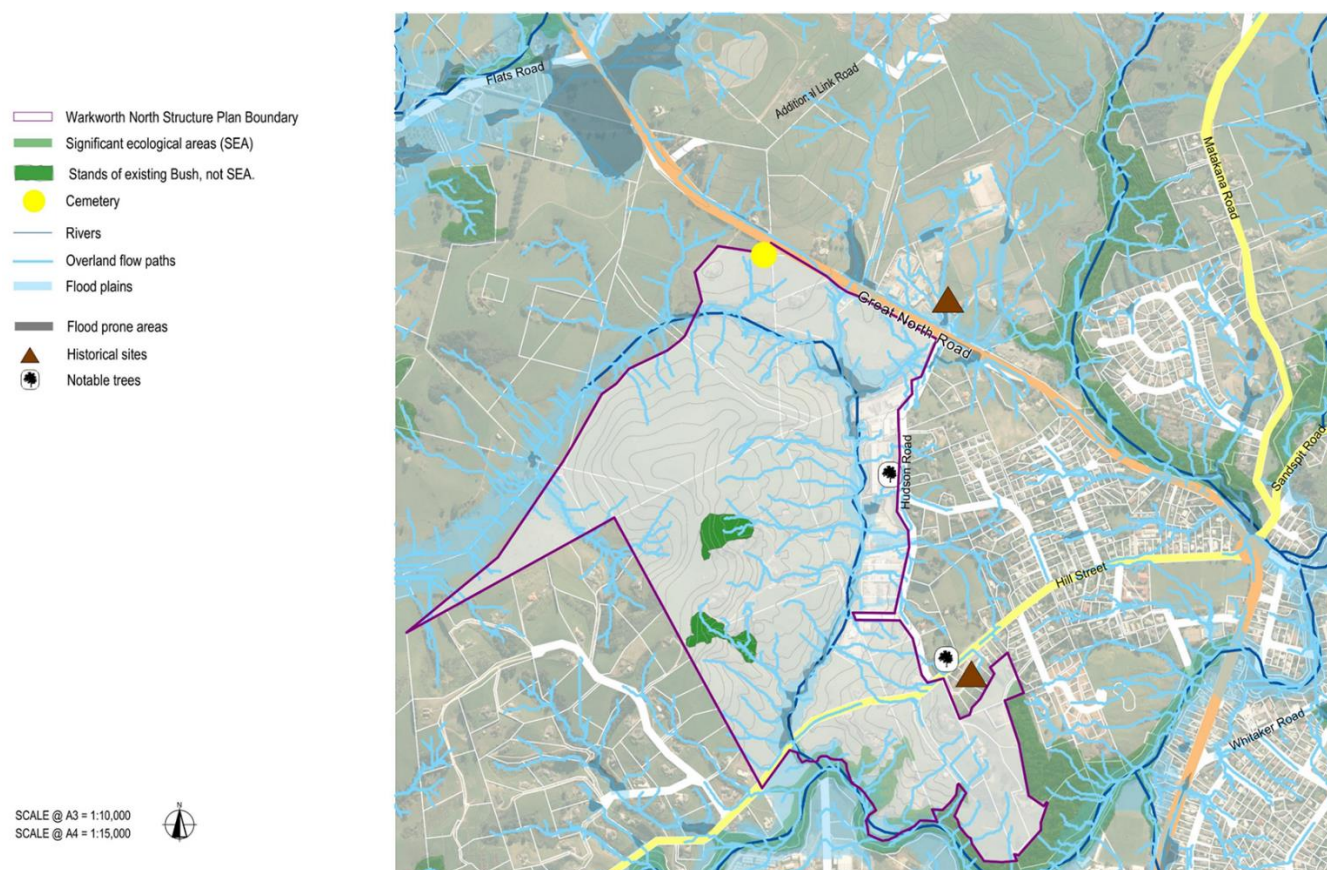


Figure 13 Natural and Heritage Features



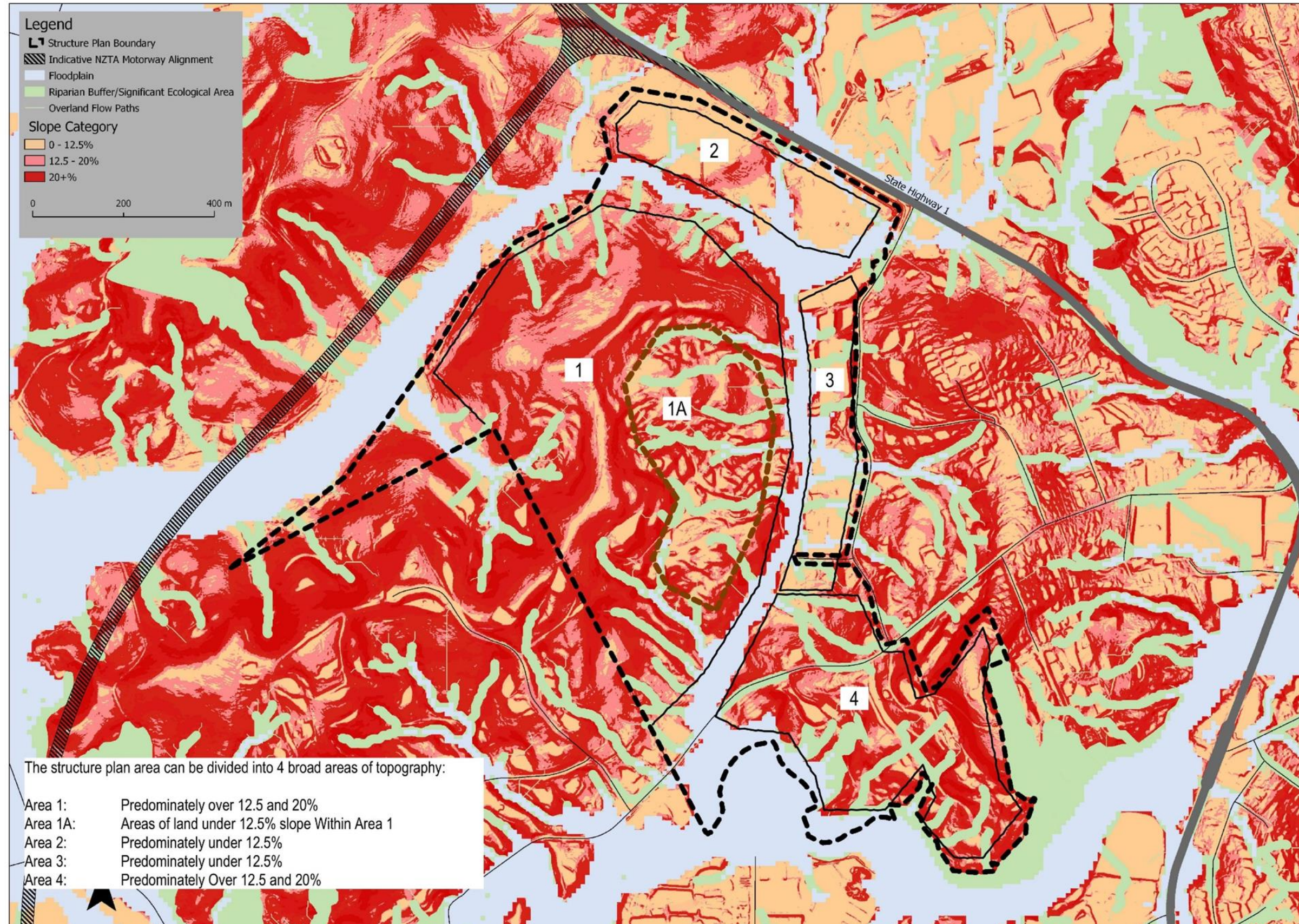


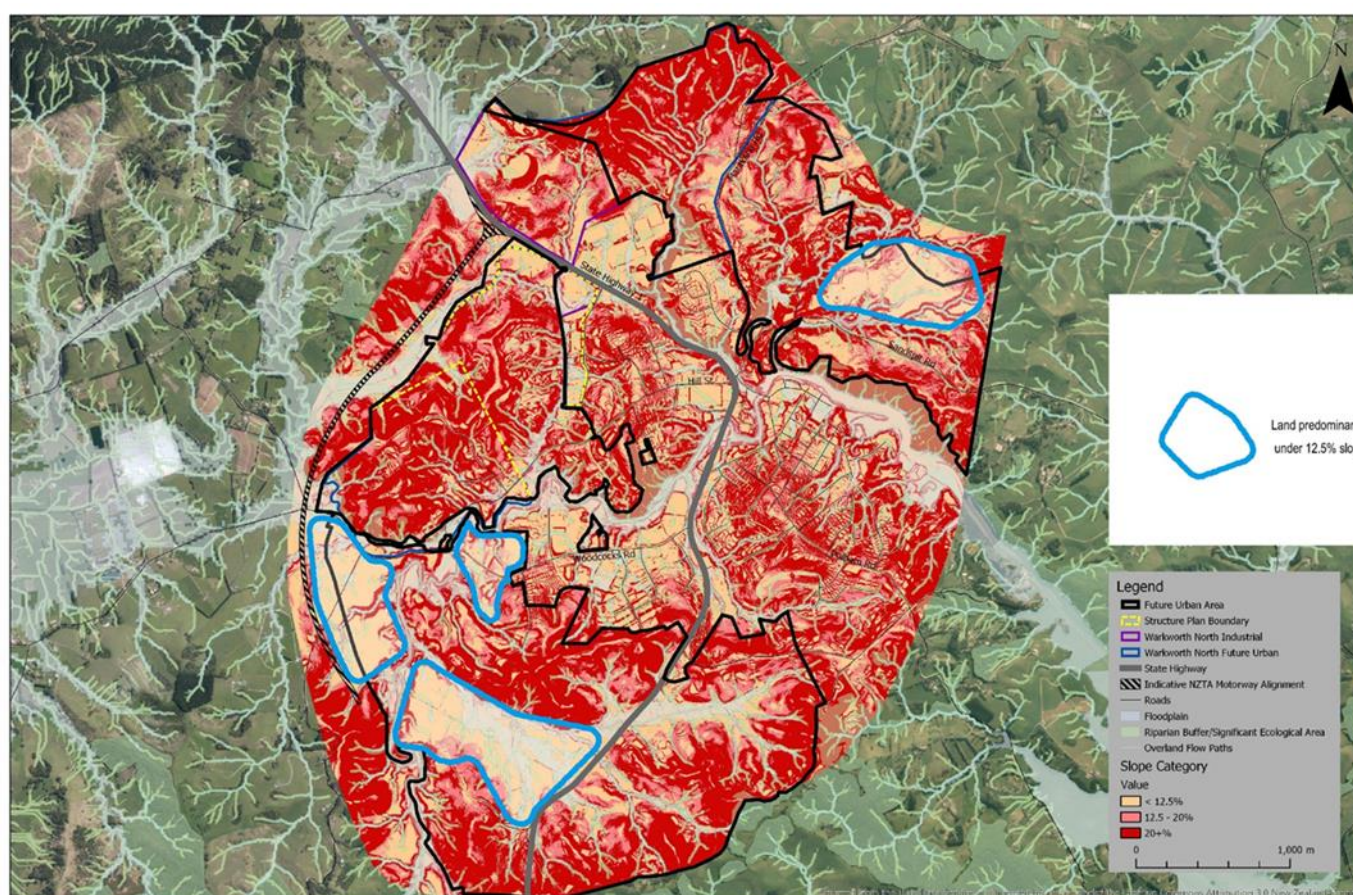
Figure 14 Slope Analysis Diagram, Structure Plan Area



## SLOPE ANALYSIS: ENTIRE WARKWORTH AREA

Interpret Geospatial Solutions has been commissioned to provide a slope analysis of the Warkworth Future Urban Zone, plus the existing live zoned land. The purpose of this is to provide an indication of land stock in the wider area under 12.5% slope. This land is more efficient to develop for large lot and floorplate development than land over 12.5% slope. This greater efficiency is due to lesser site modification costs than with steeper sloping land, and the ability to layout roads without being affected by contour, therefore being able to create more efficient block sizes that maximise the number of regular shaped large (50m frontage minimum) lots for business use.

Notably three significant areas of land under 12.5% slope are located in the south western quadrant of Warkworth future urban zone with the proposed motorway in close proximity. It has not been established by NZTA if a second motorway exit would be provided in this area in the future to provide alternative access points to cope with increased traffic load from these viable business potential areas, such as constructed on SH1 at the Millwater area between Orewa and Silverdale. These areas also feed into the Western Collector.



Slope and Drainage Analysis  
Warkworth Future Urban Zone

Figure 15 Slope Analysis Diagram, Warkworth Area

## CULTURAL ENVIRONMENT

Cultural Impact Assessments were produced by both *Te Kawerau a Maki Settlement Trust and Tribal Authority* and *Ngati Manuhiri*. These are comprehensive and multi-layered documents that describe the cultural significance of the site and wider context, and they should be referred to in their entirety to establish the relevant quotes from below in context.

The *Te Kawerau a Maki Settlement Trust and Tribal Authority* report states:

*No known wahi tapu are associated with the site or known to be within the walkway footprint. It is of note however, that the surrounding local area does contain sites of significance*

And

*There are currently no known archaeological sites within the project footprint. An investigation by Clough & Associates Ltd (2017) did not locate any previously unidentified archaeological remains. It is important to note that the absence of archaeological values does not represent an absence of cultural values. Any buried or undiscovered Maori archaeology is considered taonga.*

The *Ngati Manuhiri Cultural Values Assessment (May 2017)* report comprehensively presents a list of concerns and then relevant advocacy points reflecting Iwi cultural values.

## BUILT ENVIRONMENT

### MOVEMENT NETWORK

The existing movement is currently vehicle and road orientated, with the site largely being in a fringe rural area. There are limited formed footpaths accessing it, although the Falls Road footpath has recently been extended to it and the Mansel Road Bridge connects by footpath to the Woodcocks Road area. There are no currently formed cycle paths, however a recently promoted council initiative, the *Greenways Network* has indicated a cycle network that that could connect to the site and integrate with it.

Public transport to the site, and Warkworth in general, is extremely limited. The Traffic Impact Assessment describes these options in detail.

The future movement network is set to change significantly, with the completion of the motorway extension to be completed in 2021, together with the proposed Matakana Link opportunities for multimodal transport are increased and planned for. A bus interchanged is earmarked by Auckland Transport near the motorway termination to provide a park and ride station. Public transport feeders into this bus station, likely within the structure plan area, should increase opportunity for local bus networks across the wider Warkworth area to integrate.

Purpose built cycle lanes are proposed for the Matakana link road.

### SURROUNDING BUILT ENVIRONMENT

The structure plan area is located at the north west quarter of Warkworth, adjacent to the live Single House zoned land of the town edge. This Single House zoned land is currently under-developed, having only been up-zoned recently in the Unitary Plan, giving potential for a population increase in the area.

The greater urban context of Warkworth presents a combination of residential, town centre, Mixed Use and light industry zones. The residential zoning is mainly Single House, with a small area of Mixed Housing Urban. Warkworth's urban residential development is largely characterised by single detached dwellings.



Warkworth town centre is over 1.4km away, and the commercial area of Woodcocks Road over 800m. These are the closest retail amenities to the structure area, with Woodcocks Road being extremely limited in choice (local dairy).

Within the site along Hudson Road the land between the river tributary and the road is currently zoned Light Industry, and generally built out with a combination of recently developed yard storage activities and older light industrial buildings of varying quality. This existing strip of buildings presents an internal light industrial edge within the structure plan area. Careful thought will need to be given to ensuring that incompatible activities do not generate reverse sensitivity effects on the existing Light Industrial activities.

Foodstuffs, who own the large vacant site on the corner of Hudson Road and SH1, have stated that a supermarket will be built there soon. A recently constructed service station sits on the other side of this intersection. The general area suffers from a lack of retail service amenity west of SH1 and north of the Mahurangi River.

## CONSTRAINTS

- Compatibility of adjacent edges;
- Existing light industrial uses;
- Motorway edge;
- On site natural drainage and waterways including flood plains;
- Existing stands of native trees;
- Topography;

## ADDITIONAL DISCUSSION ON TOPOGRAPHICAL CONSTRAINTS

Urban development options will inevitably be influenced by constraints imposed by the significant topographical features of the structure plan area. Areas discussed are shown in the diagram below.

Areas 1 and 4 within the Structure Plan area have slopes predominately over 12.5% and would require substantial modification to the land to enable both viable building sites, and viable road access suitable for any large floor plate building development. For example, a 12.5% slope means more than 6m height difference would need to be absorbed across a 50m frontage of each 2000m<sup>2</sup> site (using minimum lot sizes for Light Industrial land). Much of the land within these areas is sloped over 20%. It is noted that the existing Woodcocks Road commercial and industrial area is largely on land under 12.5% slope.

It is considered that the extent of land modification necessary to enable business or industrial typologies to be built in *area 1*, would be so significant in landform alteration that it would not be in accordance with, or meet, **AUP Regional Policy Statement** objective B2.3.1 (1) (A)

*B2.3.1. Objectives (1) A quality built environment where subdivision, use and development do all of the following: (a) respond to the intrinsic qualities and physical characteristics of the site and area, including its setting;*

and policy B2.2.3 (1) (a)

*B2.3.2. Policies (1) Manage the form and design of subdivision, use and development so that it does all of the following: (a) supports the planned future environment, including its shape, landform, outlook, location and relationship to its surroundings, including landscape and heritage;*

Landform modification to the extent necessary to accommodate viable business lots for large flat floor plate buildings and associate yard and parking areas on sloping land is also directly contrary to the advice of the **Auckland Design Manual** (Subdivision) Section 3

*The most important features of a site should influence the subdivision design. This means that very sloping land will not suit a flat-site-based development,*

The terraced land within *area 1* (*area 1a*) also contains significant stream and riparian constraints. While providing more business typology buildable landforms, they are not consistent and would require significant alteration to achieve large commercial sites.

It is therefore considered that in *area 1*, the most efficient urban land use developed in accordance with the regional land use policy and the Auckland Design Manual is residential, as this has a capability to absorb and adapt to steeper sloping landforms. Different residential typologies can also adapt to sloping sites of various steepness.

It is also considered that the smaller terraced areas of land under 12.5% slope within *area 1* can be used for either adaptable floor plate comprehensive residential typologies, or supporting local amenity as required under B2.4.2 of the *Regional Policy Statement*.

*Area 4* being adjacent to the existing Single House zoned land, and largely having land slope being over 12.5% is also considered not suitable for business use and best suited as residential use.

The FUZ zoned part of *area 2* is considered developable for business uses as it is under 12.5% slope, and has close association with both the motorway termination, the live zoned Light Industry zoned land directly across SH1 from it, and the General Business live zoned land to the south west of it.

Residential use of *area 2* could generate reverse sensitivity effects on activities occurring in those surrounding zones and on the existing SH1.

*Area 3* is already developed, and at this stage the mature development can co-exist given suitable buffer mechanisms to *area 1*.

It is considered that these topographical and environmental constraints can help inform a broad pattern of urban development within the structure plan area.



# EVALUATION OF TOPOGRAPHICAL IMPACT ON DEVELOPMENT

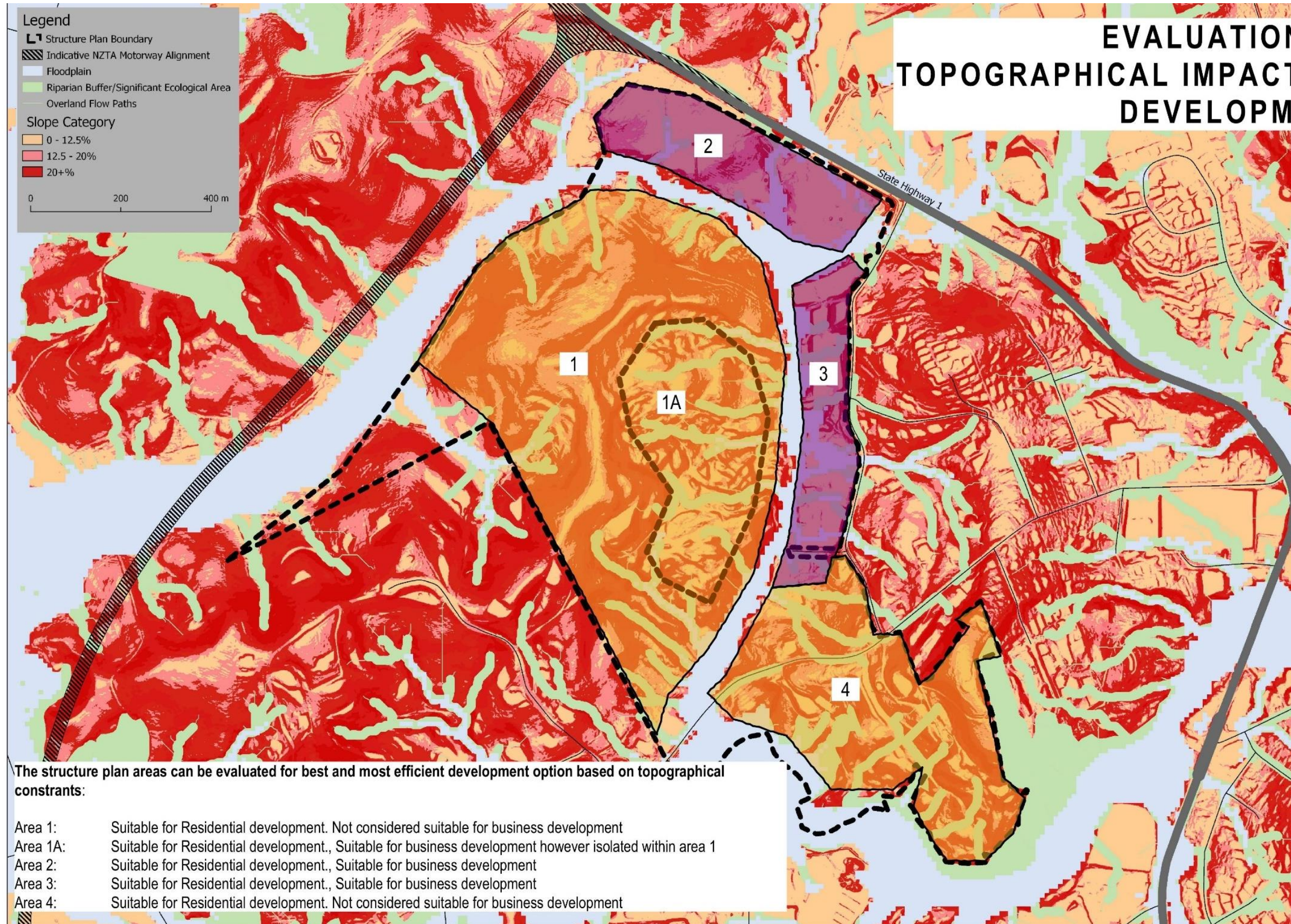


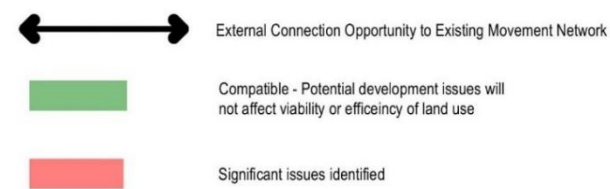
Figure 16 Topographical Constraints Summary



**OPPORTUNITIES**

- To respect landforms and topography, and do not develop inefficient or unrealistic uses against the varied identified topographical character areas
- To acknowledge the significance of the landscape to the character of Warkworth and Iwi.
- To manage internal and external interfaces appropriately to promote contained and defined development
- Manage the permeability of the different edge types
- Provide buffer zones to the Hudson Road industrial strip
- Provide future options for connectivity to this industrial strip should the use change in the future
- To retain stands of native bush and integrate them into development for the maximum amenity of future residents
- Integrate water sensitive engineering design with onsite natural waterways
- Provide links and connections to surrounding areas outside the Structure Plan area
- Incorporate the Western Collector road and create robust connection with Matakana Link Road

- Provide choices of residential living options and typologies to compensate for the current lack of options with the largely monolithic Warkworth Single House zone
- Provide community social and business amenity for the area and surrounding areas
- Use natural land features as incompatible activity buffers



Development typology can be evaluated using a matrix with fundamental constraints that directly impact development viability.

	Residential Land Development			Business Land Development			Recommended development
	Topography	Edge compatibility	Existing use	Topography	Edge compatibility	Existing use	
Area 1	Green	Green	Future Urban	Red	Red	Future Urban	Residential
Area 1A	Green	Green	Future Urban	Limited	Limited	Future Urban	Residential/appropriate business
Area 2	Green	Red	Future Urban/Business	Green	Green	Future Urban/Business	Business
Area 3	Green	Green	Light Industrial	Red	Red	Light Industrial	Business/potential future residential
Area 4	Green	Green	Future Urban	Red	Red	Future Urban	Residential

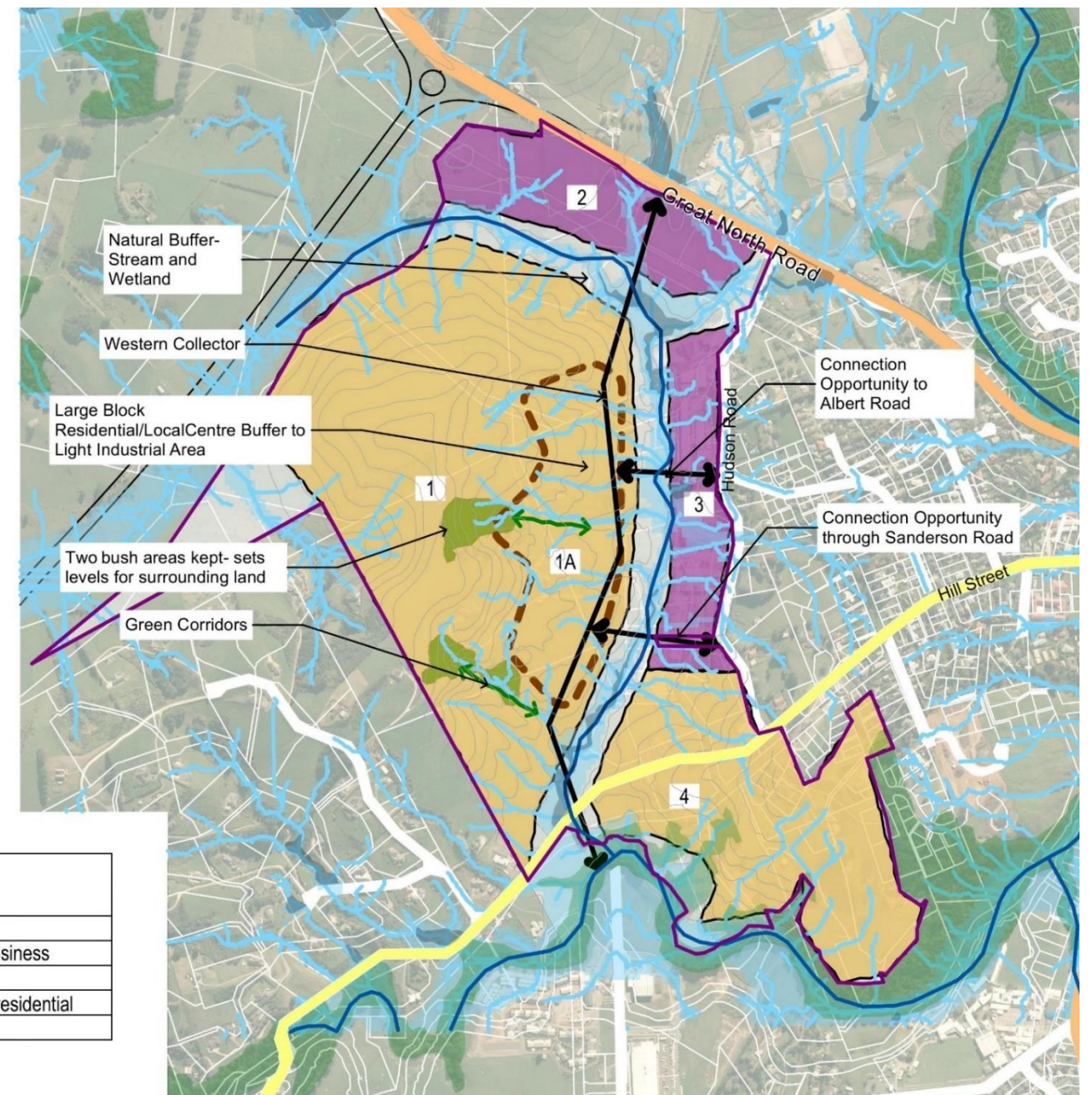


Figure 17 Opportunities including Land Use options



## DESIGN RESPONSE

The design response is formed from understanding the constraints and opportunities of the site, and the collective vision of the stakeholders. This response is based on a rationale of design principles; guidelines that direct the development strategy in a tangible way.

## DESIGN PRINCIPLES – RESPONDING TO NATURAL PLACE

### ACKNOWLEDGING THE CHALLENGING TOPOGRAPHY

- While topography alone should not determine use, in this case it is important to exclude potential uses that may not be viable due to either site modification cost, or the visual impact of alteration of the wider landscape.

#### Outcomes:

- Distributing uses so they can be cost effectively developed on appropriate terrain.
- Setting development levels from existing natural features and working with the surrounding topography.

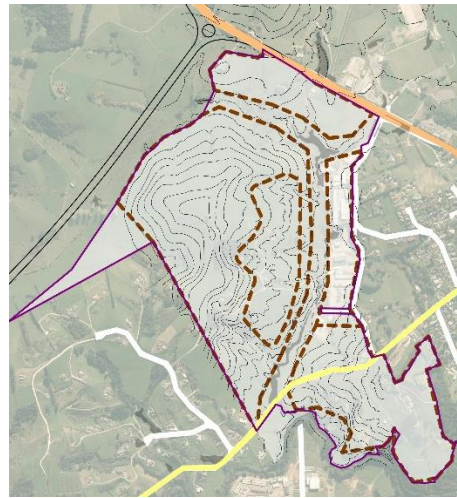


Figure 18 Areas of significantly different topography

### KEEP AND PROTECT STANDS OF TREES AND WATERWAYS

- The site has some stands of mature native trees that will be retained and included in the development, along with some waterways.

#### Outcomes:

- Planting the watercourses from the stands of trees to the Mahurangi River tributary.
- Connecting these areas by green corridors
- Incorporating these natural features into storm water treatment design.



Figure 19 Green Corridors to be enhanced



**APPRECIATE NATURAL AREAS BY PUTTING PATHS, ROADS, HOUSES AND PUBLIC PLACES ALONG THEIR EDGES.**

- These natural areas provide significant visual amenity as well as stormwater treatment benefits. By associating these areas with both public access routes and overlooking by housing, natural area benefits can be enjoyed by the maximum number of people.

*Outcomes:*

- Multimodal paths are placed by planted and landscaped areas
- Higher densities of housing can also overlook to enjoy the visual amenity of these areas.
- Good custodianship of natural areas

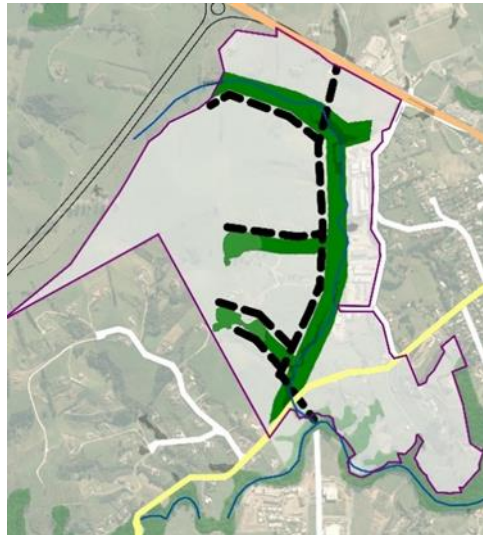


Figure 20 Public paths or housing alongside natural feature edges



CONNECT THE WESTERN LINK

- Through the area from the Mansel Road bridge to the proposed Matakana link road intersection with State Highway One.

Outcomes:

- Creating dominant and legible entries to the site
- Acknowledging it as a through road and minimising interaction from it with incompatible activities, eg residential vehicle entrances

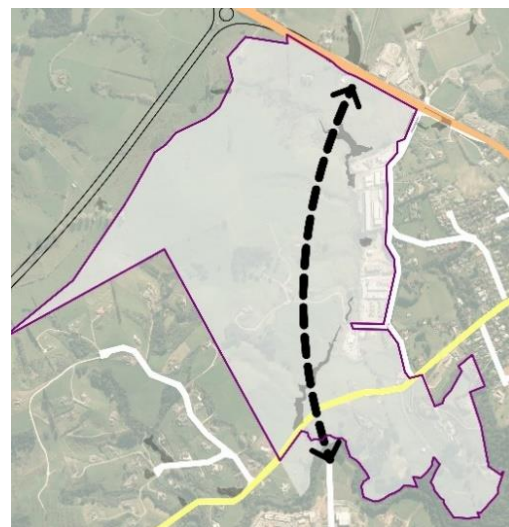


Figure 21 Western Link connection

PROVIDE A WELL-CONNECTED NEIGHBOURHOOD CENTRE

- For residents of the Structure Plan area, and surrounding areas, larger scale use buildings positioned to **act as a built buffer** between proposed lesser scale building residential uses and the existing light industrial strip.

Outcomes:

- Local amenities within a 400m walking distance- currently over 1.4km to the Town Centre edge.
- Enhanced sense of community
- Opportunity for local employment
- Opportunity for choices of living, eg apartments within mixed use buildings
- Larger scale Mixed Housing Urban Type buildings can be acoustically controlled efficiently and act as acoustic buffers against Light Industry zoned land

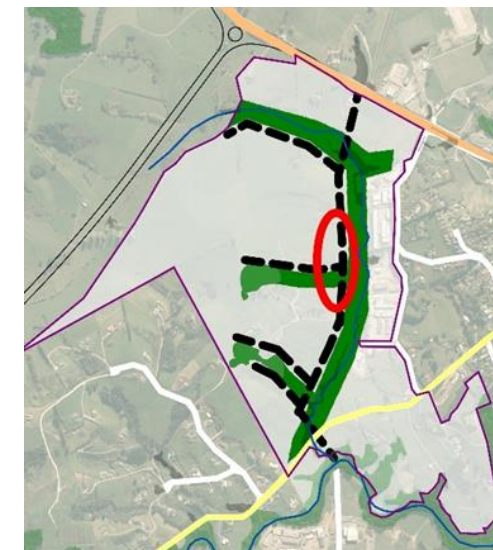


Figure 22 Local Centre



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CREATE A CONTAINED AND HIERARCHICAL HORIZONTAL MIX OF USES

- Over the development area using natural features as buffers.

*Outcomes:*

- Urban form with a hierarchy of density and height toward the Local Centre or visual natural amenity
- Enhanced natural features can divide up the overall scale of the development
- These distinct areas inevitably reflect the areas of different topographical characteristics
- Key natural feature of the river tributary at the base of the steeper areas can be enhanced and used as a visual buffer between different uses and contain them
- 



Figure 23 Horizontal mix of uses

---

CREATE A LEGIBLE MULTI MODAL MOVEMENT NETWORK

- Of connected streets and paths that form blocks and minimise cul-de-sacs

*Outcomes:*

- Provides pedestrian, cycle and vehicle options
- Provides connection and integration options for potential future changes in land use.
- Provides equitable access to neighbourhood public spaces and parks.
- Provides walkable options to public transport connections
- 

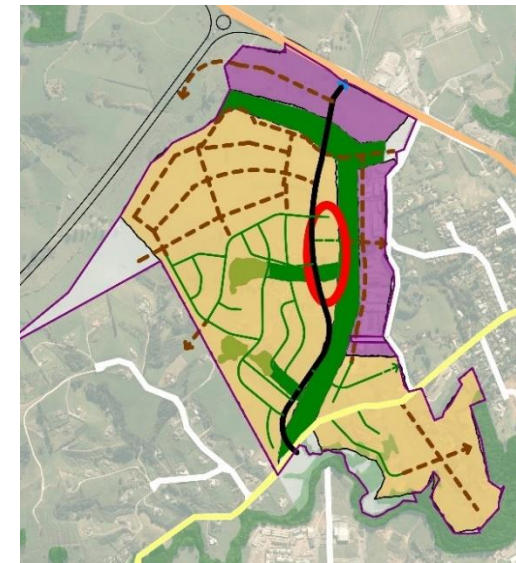


Figure 24 Connected Streets



## STRUCTURE PLAN PROPOSAL

The Structure Plan area is expected to contain around 1200-1300 new dwellings as detailed in the *Economic Assessment*- (McDermott Consultants), and provide community and employment opportunity when developed.

The Structure Plan has considered the topographical nature of the land, along with other physical constraints, and has distributed activities in accordance with their development viability against these constraints, along with consideration of internal and external edges, and existing urban context.

As slope analysis shows, significant areas of land exceed 12.5% and of that the majority over 20% making it primarily suitable for housing, with much of it precluding large floorplate buildings.

The overall structure of the subdivision is also generated by a principle of retaining areas of bush and some waterways, and to be integral with this natural amenity. These retained bush and stream areas radiate down the steeply sloping land and connect with a Mahurangi River tributary along the base of the subdivision. The retention of these areas is both for the visual amenity benefit to residents, and for wider Warkworth within the visual catchment of the Structure Plan area, and to facilitate low impact engineering design principles.

This design principle of retaining and protecting areas of bush and streams sets the surrounding ground levels for development, and helps generate the development form as shown in the illustrative structure plan drawing.

Residential areas have a variety of density and offer choice, this is placed in a hierarchy toward a neighbourhood centre. Where these high density residential areas face the collector road they are accessed by vehicle separately from rear loaded lanes, and by pedestrian from the public collector road side.

The residential zones terminate where the steeply sloping land changes to flatter land that is viable for business use. Transitions are largely managed by incorporating wide landscaped green buffers of existing wetland and watercourses at the base of the slope.

The western collector is proposed to go through the Structure Plan area. This road defines the edge of the residential area to the west of it, and a higher intensity residential and mixed-use area to the east (largely) that also acts as a buffer to the current light industry activity across the river tributary.

A focussed Neighbourhood Centre comprises of Mixed Uses by way of Business Neighbourhood Centre zoning, and a significant open space is proposed on the eastern side of the western collector. This area will be subject to masterplanning that will ensure:

- A mix of uses that includes high density residential apartments of numerous sizes and price points including “affordable”
- A hierarchy of height and varied roof form to give a sense of legibility to the purpose and location of the centre within the context of the Structure Plan area.
- Quality of built environment where street level uses are small scale retail and service businesses that address it.

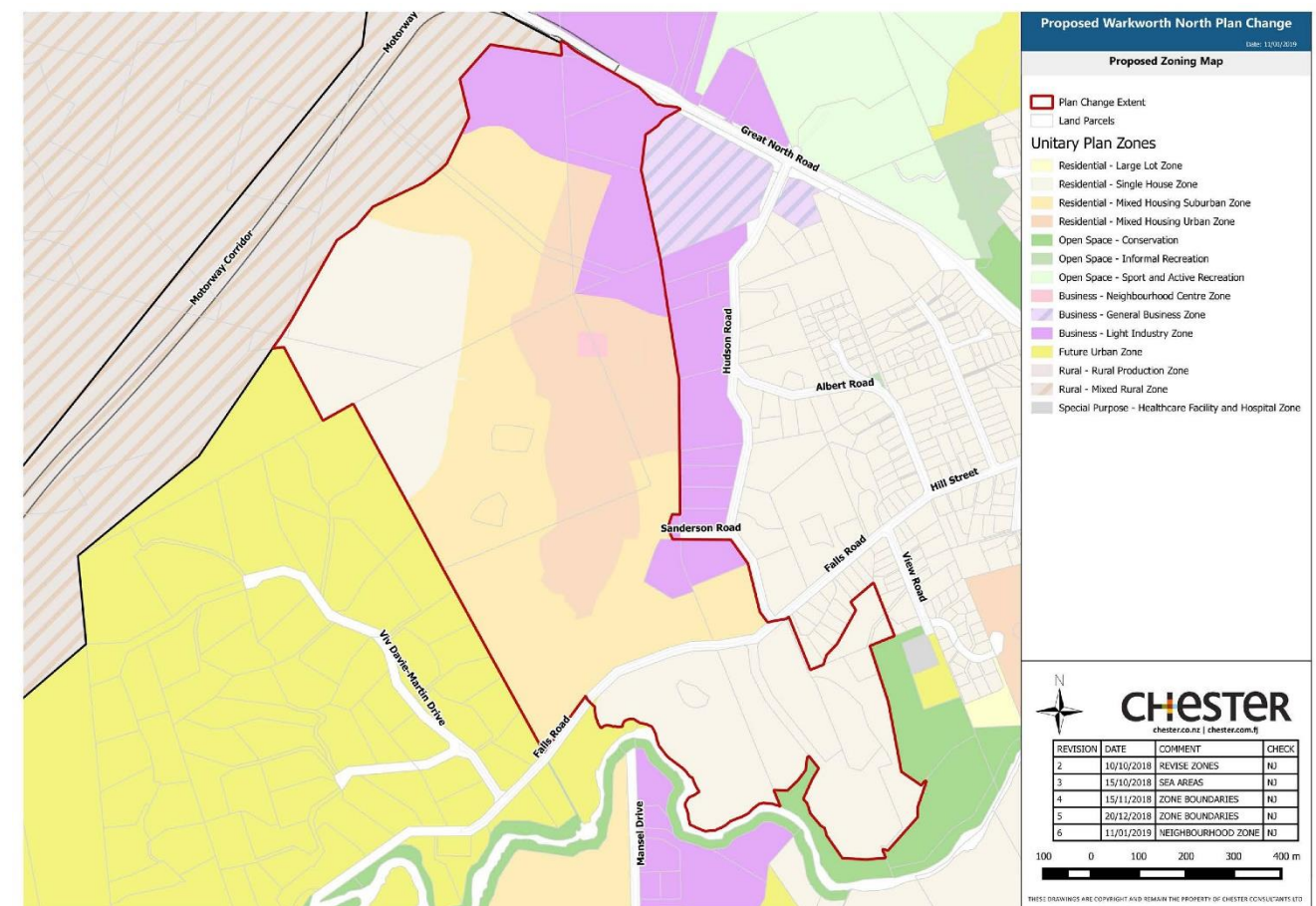
The Neighbourhood Centre on the western collector road it is spatially separate from the commercial activities on Mansel Drive, and the Light Industry/live General Business Zone beside SH1.

Light industry zoned land is proposed to reflect the live zoned use across SH1, and its accessibility to the proposed motorway without causing disruption to the residential areas. An area of Light Industry zoned land is proposed between the collector road and the existing Hudson Road Light Industry land, although the slope analysis identified it as steeper land, in this case the proximity to both the existing zoned land and the highway can potentially justify the extra development costs.

Proposed zoning is described in the Chester Consultants Proposed Zoning Map set revision 6, dated 11/01/2019.
















These drawings are included in the application.

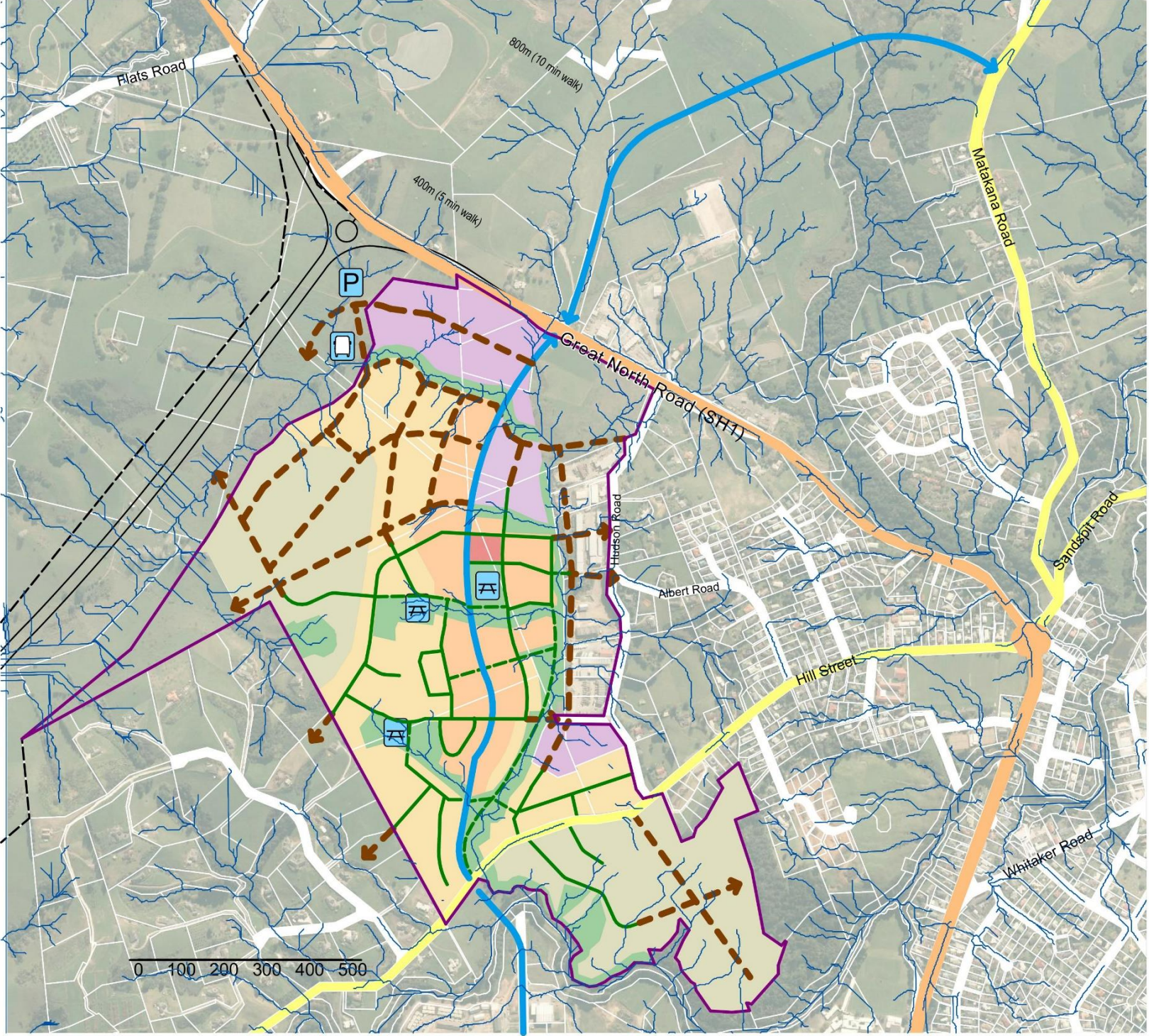
Figure 25 Proposed zoning.





# WARKWORTH NORTH STRUCTURE PLAN

-  Warkworth Structure Plan Boundary
-  Proposed new link road corridors-Refer also Transport Networks Drawings
-  Proposed AT Park and Ride
-  Proposed Neighbourhood Park
-  Schematic proposed roads (indicative)
-  Schematic proposed pedestrian and cycle connection (indicative)
-  Potential Future Roads
-  Existing Watercourse
-  Residential - Single House Zone
-  Residential - Mixed Housing Suburban Zone
-  Residential - Mixed Housing Urban Zone
-  Business -Light Industry
-  Business - Neighbourhood Centre Zone
-  Open Space - Informal Recreation Zone
-  Warkworth Structure Plan Boundary



SCALE @ A3 = 1:10,000  
SCALE @ A4 = 1:15,000

Figure 26 Proposed Structure Plan



## PARKS AND GREEN SPACES

Open spaces will only be commented on in this report in terms of urban design, as they are subject to their own technical assessment; *Landscape Assessment*, Littoralis Landscape Architecture. It states:

*The configuration of the WNSPA proposal has been considerably influenced by the pockets and belts of indigenous vegetation that remain within the area, and by the significantly compromised primary watercourses that exist largely outside of those bush areas. These forest pockets and riparian corridors offer substantial scope for recreational use, pedestrian \cyclist movement, stormwater management and habitat restoration and fit perfectly within the definition of Connection and Linkage Open Space contained in the Auckland Council Open Space Provision Policy 2016.*

The *Landscape Assessment* accompanying this application provides a comprehensive open space network analysis and comments on the potential for pedestrian and cycle connections to significant sports facilities across State Highway 1 from the Structure Plan area. It says:

*Helpfully, the active recreation areas adjoin the riparian corridor system, offering potential for those using these active areas to arrive on foot or by cycle if the path infrastructure were to be fully developed in the future.*

Two residential neighbourhood open spaces are proposed, these are incorporated into the bush areas to be retained. These are described fully in the *Landscape Assessment*.

The northern area is a neighbourhood park intended for passive recreation. It is an area or cleared minor and exotic trees, with a backdrop of native trees. This park is bordered by a road giving good accessibility and CPTED opportunities. It is visually associated through a road corridor with the Local Centre area and is part of a green strip running down the slope.

The southern park has an area of flat topography that can accommodate a children's playground and passive park equipment such as seating. This is also incorporated in an area of retained bush, however roads border it on two sides giving good access and CPTED opportunities.

A significant open space is associated with the Neighbourhood Centre, this provides opportunity for a flat or low grade park for residents use, with a more "urban" ambience. Appropriate uses in the Neighbourhood Zone such as cafes can address this park. This park has good opportunity for roadside parking and access from both the surrounding area by local roads and pedestrian/cycleways separate to the western link.

Planting between the road and these open park areas will be in accordance with CPTED principles and be under 400mm high, with any trees having crowns over two metres clear of the ground to facilitate passive surveillance from public areas and neighbouring houses.

The Mahurangi River tributary is to be used primarily as a landscape asset, however it is intended a cycleway parallel to the collector road will follow the tributary at a lower level than the road through the landscaped area, as a preferred option to the cycleway being incorporated directly with the road in this area.

Planting between the road and the cycleway will be in accordance with CPTED principles and be under 400mm high and any trees have crowns over two metres clear of the ground, to allow the cycleway to be observed from the road.



## MOVEMENT AND CONNECTIONS

The Structure Plan accommodates a connected network of roads and cycleways, together with pedestrian footpaths. These are designed in an integrated way, with the open space network and the bush/waterway areas retained in the design. The pedestrian and cycle network connect to and extends the wider Warkworth network, particularly with the recent Greenways Project (figure 27) which is fully incorporated into the structure plan..

Residential neighbourhoods can access the Neighbourhood Centre directly without having to cross through areas of incompatible use such as industrial or commercial. There are opportunities to connect through to the Viv Davie-Martin subdivision to the South West of the Structure Plan area. This area is a low-density Lifestyle type development now zoned FUZ. Given it is within the Warkworth RUB it is likely that over time that densification will occur.

It is not confirmed at this stage what the final status of the Warkworth entry road will be after the future Warkworth to Wellsford motorway is completed, as it will then be a branch off the main motorway corridor. If the status changes to a road under A.T. control then there is a possibility the road can allow the local network to access and cross it.

Upon completion of the motorway NZTA has stated that areas of surplus land in the corridor could be sold off. The land to the southeast of the motorway is significant and has developable topography, therefore future road linkages should be provided for access into it from the Structure Plan area. Consideration should be given in the UDLSP to retain developable land in it, which could of an appropriate zone to help act as a visual and acoustic mitigating buffer to the future urban area.

Land on the northern side of the ridge of the SP area will overlook the motorway. NZTA drawings 1 and 2 of the proposed motorway design show the actual road structure to the north-western side of the corridor with substantial corridor land to the south west. This larger portion of corridor land faces the Structure Plan area land north of the ridge and gives opportunity for the UDLSP to respond to the future urban zone both by robust planting and bunding as well as creating developable land that can connect to the Structure Plan area.

Housing zones in the area from the ridgeline to the motorway corridor can be accessed from the housing area on the east side of the ridge, allowing residential scale movement networks to flow through to this area. These can be secondary access points at a lesser scale as there is also opportunity for a primary road to connect this area at the green buffer strip between the residential areas and the Light Industry area at the north end of the area. Potential motorway corridor land can be accessed through the Light Industry area.

Potential for connection to Hudson Road exists through the live zoned General Business land on the corner of Hudson Road and the existing SH1. This connection gives an option to connect that is off the existing State Highway 1 at the northern end of the Structure Plan area. Sanderson Road is an existing connection into the proposed western collector road, and subsequently to the Neighbourhood Centre. These connections can have both pedestrian and cycle paths integrated.

It is likely that in the future, the use of the Hudson Road light industrial strip will change; driven by underlying land values increasing. If this changes to a residential use Hudson Road provides opportunity to generate a connected permeable edge to the Structure Plan area.

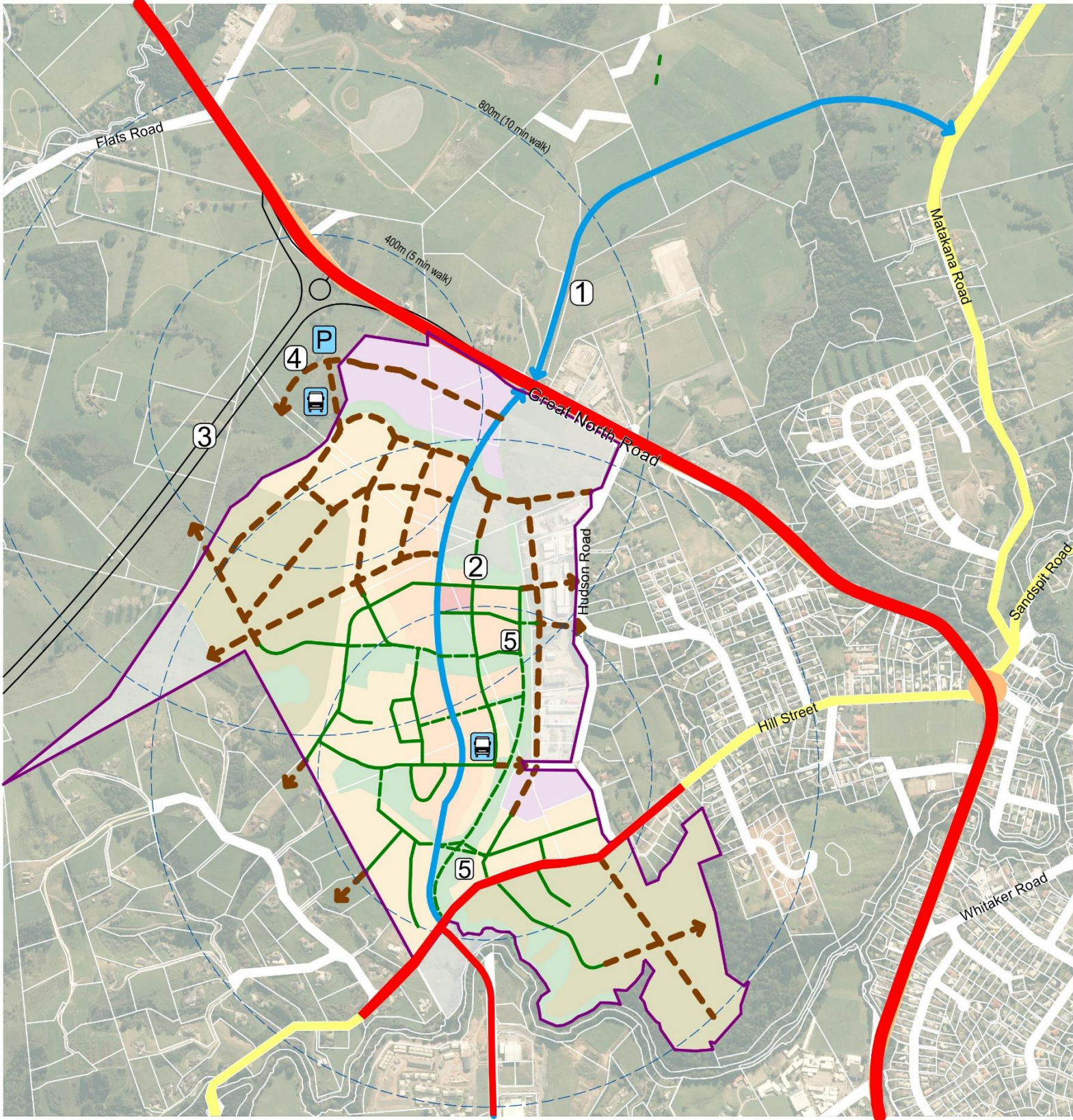
In this scenario the edge of the land facing the proposed neighbour centre and landscaped stream area can address it positively with either higher density housing looking over the stream, or ideally a residential road along the eastern stream edge that forms the western block edge, with Hudson road forming the eastern block edge.

While it would not necessarily be desirable to have a further vehicle bridge across the stream area directly to the Neighbourhood Centre (as there are already vehicle options) it would be desirable to have direct pedestrian and cycle access from Hudson Road lined up with Albert Road to the Centre. The land east of Hudson Road is zoned Single House and is currently under developed, so this link would provide a connection. There is opportunity for this link to be a local road through the new "block" with a pedestrian/cycle bridge over the stream.



# TRANSPORT NETWORKS

- Existing Main Roads
- Warkworth Structure Plan Boundary
- Proposed new road corridors
- Potential bus stop
- Schematic proposed roads (indicative)
- - - Pedestrian or Cycle link only
- - - Potential Future Roads
- ① Matakana link road
- ② Western Collector – Northern and southern connection to State Highway 1
- ③ Motorway
- ④ Proposed AT Park and Ride
- ⑤ Proposed Pedestrian and Cycle Paths



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SCALE @ A4 = 1:15,000



Figure 27 Transport Networks



### 3.7 Proposed Greenway Network Plan

Map 4 of 8 - Warkworth

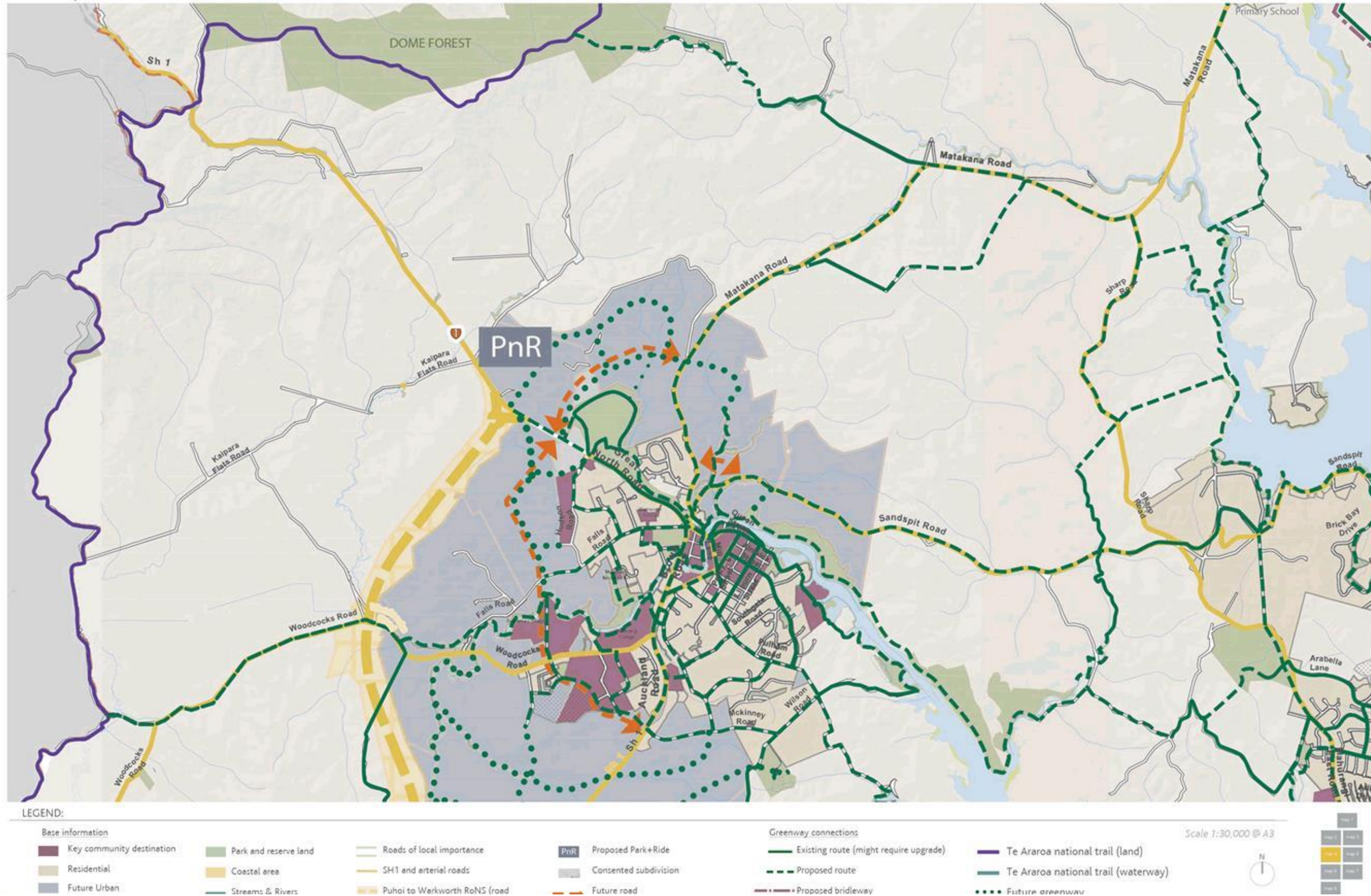


Figure 28 Warkworth Greenways Plan. Auckland Council



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## PUBLIC TRANSPORT

At present Warkworth has good opportunity for public transport travel that can be extended into this area. A.T. run a bus service to connect the surrounding rural and beach areas to Warkworth, and there are A.T. bus services from Warkworth to Auckland CBD via the Hibiscus Coast Bus Station. Intercity network buses frequently stop in Warkworth.

It has been proposed in A.T. forward planning documents that a “park and ride” bus station be built to compliment the proposed motorway.

The Structure Plan supports this, however it also demonstrates that flat commercially viable land in the area is limited, and a large-scale carpark is not necessarily the best and highest use of a significant part of the land. A smaller car park area is proposed, with the point of difference being that the bus service stops in the residential areas of the town of Warkworth, instead of in principle the town of Warkworth driving to and parking at the dedicated park and ride station.

The higher density housing land is located within 400m of two feasible bus stops, including the A.T. preferred park and ride location.

It is acknowledged that some Park and Ride users will be from surrounding rural areas and carparking should be provided for those who cannot be collected efficiently by bus. It is also proposed that a park and ride carpark should have a constructive use in the airspace over it, and not remain just a carpark.

A Park and Ride facility could be an appropriate use for disused motorway corridor land and would be accessible from the Light Industry zoned land beside SH1 by vehicle, and has the ability to be accessed from the Residential zoned land through the landscaped buffer strip by pedestrian/cycleway.



## INTERNAL EDGE INTERFACES

Housing in the residential area is accessed by vehicles away from the proposed western collector. All high-density housing facing the collector has pedestrian access and a front door off it. Vehicle access is from a lane to the west and east of the collector through the high-density housing zones. Medium Density housing is proposed to face the Mahurangi River. This encourages good river stewardship, and facilitates good CPTED principles.

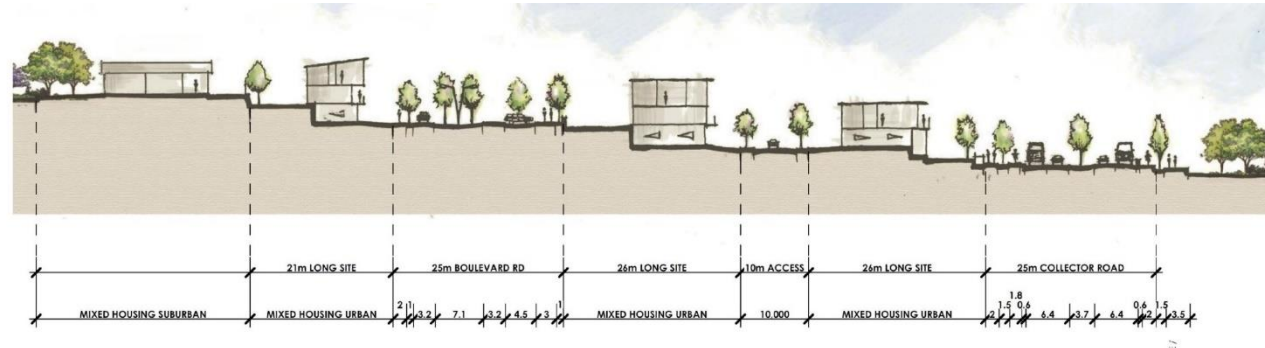


Figure 29 Long Cross Section

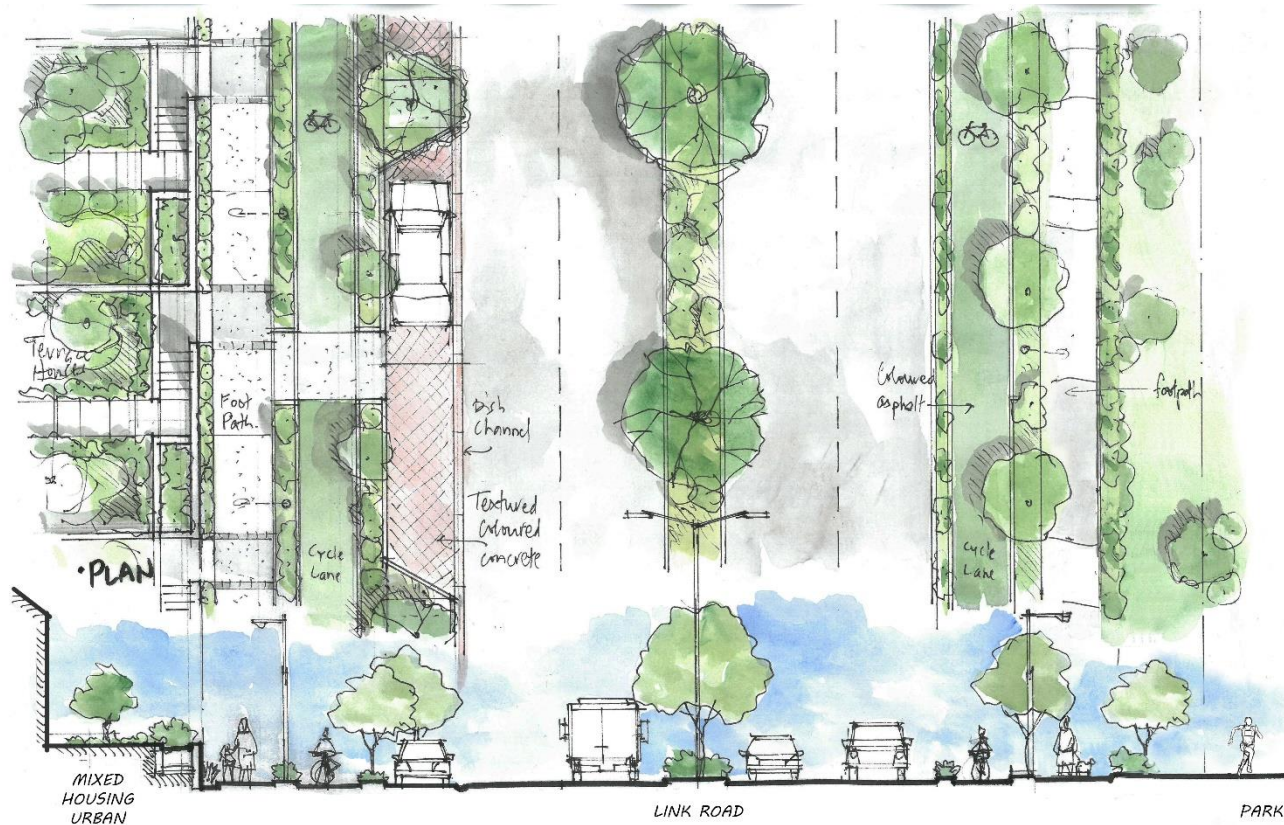


Figure 30 Collector Road / Residential interface across from park.



Figure 31 Local Road / Neighbourhood Centre interface to park

The Neighbourhood zoned area has a direct relationship with the park, allowing uses such as cafes, and first floor living to address it as a visual amenity and provide passive surveillance opportunities. The local roads servicing the neighbourhood shops and park will have parking for both shop and park users.

## NEIGHBOURHOODS AND BUILDING TYPOLOGIES

The Structure Plan area contains four broadly different types of neighbourhood, giving options in living choices, and employment opportunity.

These are as delineated on the plan by the proposed zones and can be characterised as:

**Commercial and Light Industrial:** positioned at the SH1 end of the area with direct connections to SH1 and therefore the motorway. This area is intended for commercial buildings up to a medium size for light industrial use. The ground is not suitable geotechnically for very large buildings.

A supermarket is understood to be planned within the area on the corner of Hudson Road and SH1. This use is fully supported within the Structure Plan, as are the usual ancillary and complimentary retail business that associate with such developments.



This location of the Business Zoned land allows a natural increase in building scale towards SH1.

It is proposed to be zoned **Business-light industry**.

Typologies include but are not limited to:

- Large floorplate supermarket;
- “Big box” retail buildings;
- Light Industrial buildings including associated office space;
- Travellers accommodation;
- Fast food.

**Neighbourhood Centre:** This area will contain mixed use buildings. There will be a horizontal mix of retail and residential apartments. The Neighbourhood Centre will be carefully designed to be the community hub of not only the structure plan residential area, but also the underdeveloped Single House zoned land across Hudson Road. It is not intended to be a “local centre” that could potentially impact the viability of central Warkworth. It will also be designed to be accessible and be able to connect directly to the existing Light Industrial activities on Hudson Road, should the highest and best use of this industrial land supersede the current use- and it becomes a higher density residential use.

This area is proposed to be *Neighbourhood Centre Zone*. While the areas are intended to be generally contiguous, and have a common street design, it would not be desirable for the live and proposed Business zones to “sprawl” into the Neighbourhood Centre .

**Higher density residential:** These areas contain efficiently designed housing constructed comprehensively on superlots. It is considered there is both an urban design and planning rationale to introduce varied densities in this structure plan, as Warkworth is largely monolithic in its residential zoning of Single House, and there is little choice of type available.

This provides an efficient use of land, and the relative increase in yield allows for the retention in the greater Structure Plan area of natural amenities including open space and bush areas to be enjoyed by the entire wider community.

Both **Mixed Housing Urban** and **Mixed Housing Suburban** zones are proposed, as the zones allow a gradation in density from the central area out to the Single House Zone. The higher density zones are directly connected by road and dedicated pedestrian ways, and by relatively flat topography to the Neighbourhood centre.

The denser housing sites have terraced landforms that broadly follow the land contours.

The zone controls in the AUP are adequate to ensure quality placemaking in these neighbourhoods, and the mechanisms of these two zones allow development to be guided without precincts.

It is noted that another higher density housing zone is live in Warkworth, however it is disconnected from complimentary amenity.

Building typologies include:

- Zero lot houses;
- Terrace houses; and
- Duplex houses.

**Single House zone:** This residential zone covers the balance of the built area, it provides a choice of larger housing on larger sites, in accordance with the AUP zone controls.

This zoning covers topographically challenging land. The detached houses allow for flexibility in this situation, as steeper accesses can be accommodated, and the sites generally absorbed in the steeper topography as required.



## DESIGN ASSESSMENT

### COMMENT AGAINST DESIGN QUALITIES OF THE URBAN DESIGN PROTOCOL

The Urban Design Protocol is the pre-eminent document guiding placemaking and to ensure quality urban design outcomes in New Zealand.

It identifies 7 design qualities:

**Context:** *seeing buildings, places and spaces as part of whole towns and cities*

The Structure Plan area is context dependent. Warkworth is a vibrant community and this structure plan seeks to add to and compliment that community, and not act in physical, social, or economic isolation.

**Character:** *reflecting and enhancing the distinctive character, heritage and identity of our urban environment*

The Structure Plan considers the character of the site and allows it to essentially form the outcome. The site is topographically very challenging and this will inevitably limit the type of urban development. By working with the landforms character is kept.

Areas of bush and stream are retained to preserve existing character and integrate it for amenity to the Structure Plan neighbourhoods, to be enjoyed for future generations.

**Choice:** *ensuring diversity and choice for people*

There is a variety of residential choice available for residents of these Structure Plan neighbourhoods. Residential zoning in Warkworth is monolithic, in that is it is largely Single House zone. This does not offer a wide choice for contemporary demographics such as;

- Families;
- Couples without children;
- Couples whose children have left home;
- Single people;
- Single parent families;
- Rental accommodation groups; and
- Affordable housing.

The Structure Plan provides choices to accommodate these and other various potential residents in a way that Warkworth does not. By offering these choices in an integrated way, families and social networks that desire different housing typologies can stay and live in the same community, instead of being separated as less layered planning approaches determine.

**Connections:** *enhancing how different networks link together for people*

The Structure Plan provides for its communities to connect both internally and to its surrounding area through varied integrated movement methods. It facilitates pedestrian, cycle and vehicle movement by a dispersed network of hierarchical streets, local roads dissecting blocks, and safe pedestrian shortcuts. It also integrates fully with the Warkworth Greenways project cycle routes.

**Creativity:** *encouraging innovative and imaginative solutions*

To enable a community to enjoy the natural character amenity of the area, innovative solutions are used. The collector road cycleway follows it along the stream edge separate from the road, and care is taken through design to incorporate the existing stands of bush into creative street design to enable its enjoyment by the public.

**Custodianship:** *ensuring design is environmentally sustainable, safe and healthy*

A high-level design principle of retaining existing bush and stream areas shapes the Structure Plan area. This creates both amenity and buffer zones between uses, and also allows for better on-site storm water management. The interconnected network of cycle and pedestrian paths encourages walking and cycling within the community as a viable alternative to vehicles. Importantly, housing is proposed between the Western Collector and the Mahurangi River to ensure good structural custodianship of the river.

**Collaboration:** *communicating and sharing knowledge across sectors, professions and with communities.*

The Structure Plan has communicated with significant stakeholders. Their involvement has helped shaped the plan. Existing business owners on Hudson Road have been acknowledged and workable solutions applied to acknowledge both their established uses, while at the same time formulating design options that will not compromise potential future change in uses of this area.

The Structure Plan is responding to a market that demands living choices within the community, as an alternative to the singular residential zoning of the Warkworth residential area.



## CONCLUSION

The various neighbourhoods shown in the structure plan are determined by contextual factors, both urban and natural. Through methodological analysis the best uses for the broadly different land areas become apparent. Topography is a key driver here, significant areas of land are over both 12.5% and 20% slope making business type development unfeasible under the rules of the Unitary Plan, where major alteration to landform character is discouraged.

Accordingly, a predominately residential zoning is proposed, of various density relating to access to amenity and movement networks. Business zoning is proposed on land that is feasible to develop in that way, and if it already has a business use.

Options are given in the residential zoning, to compensate for a lack of choice in the current Warkworth zoning mix.

Business zoning options give opportunity in accordance with context; business development within the largest residential area is zoned as a Neighbourhood Centre to ensure compatibility and to support to the residential zone, with larger business options available closer to the live zoned Business land, State Highway 1, and the proposed motorway corridor.

Proposed movement connections involve pedestrian, cycle and vehicle links of appropriate scale within the structure plan area, and to facilitate connection to local networks.

The overall development's structural form is integral with the existing landform and natural features, including keeping stands of trees and watercourse, and turning these into amenity for residents.

Accordingly, it is concluded that the zones shown in the Structure Plan are the most appropriate choices in the areas indicated, to achieve the higher level urban growth objectives of the Unitary Plan, and that alternatives have been tested and eliminated by simple but fundamental methods.