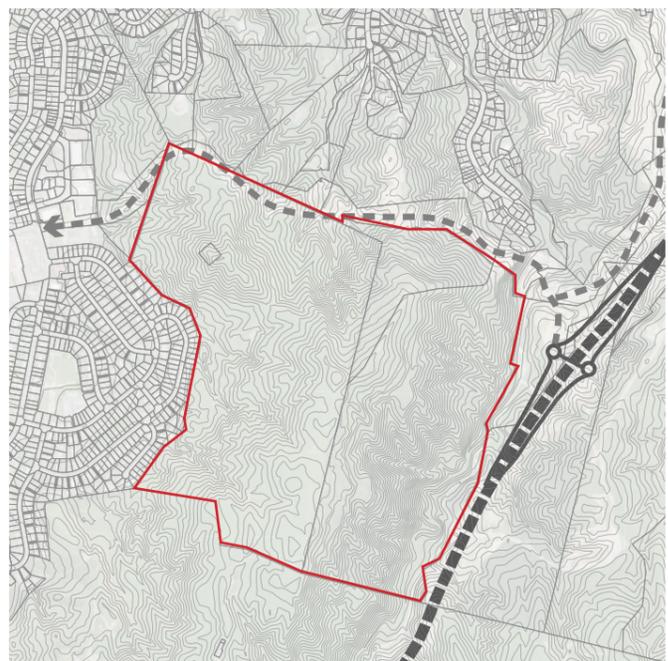


APPENDIX ONE

DRAFT STRUCTURE PLAN



**silverwood
rezoning**

DRAFT

Proposed Structure Plan



Client: Silverwood Corporation Limited
Project No: 20-014

DRAFT FOR SUBMISSION 20 NOVEMBER 2020



Client: Silverwood Corporation Limited
Project No: 20-014

Scale: NTS @ A3
Date: 20 November 2020

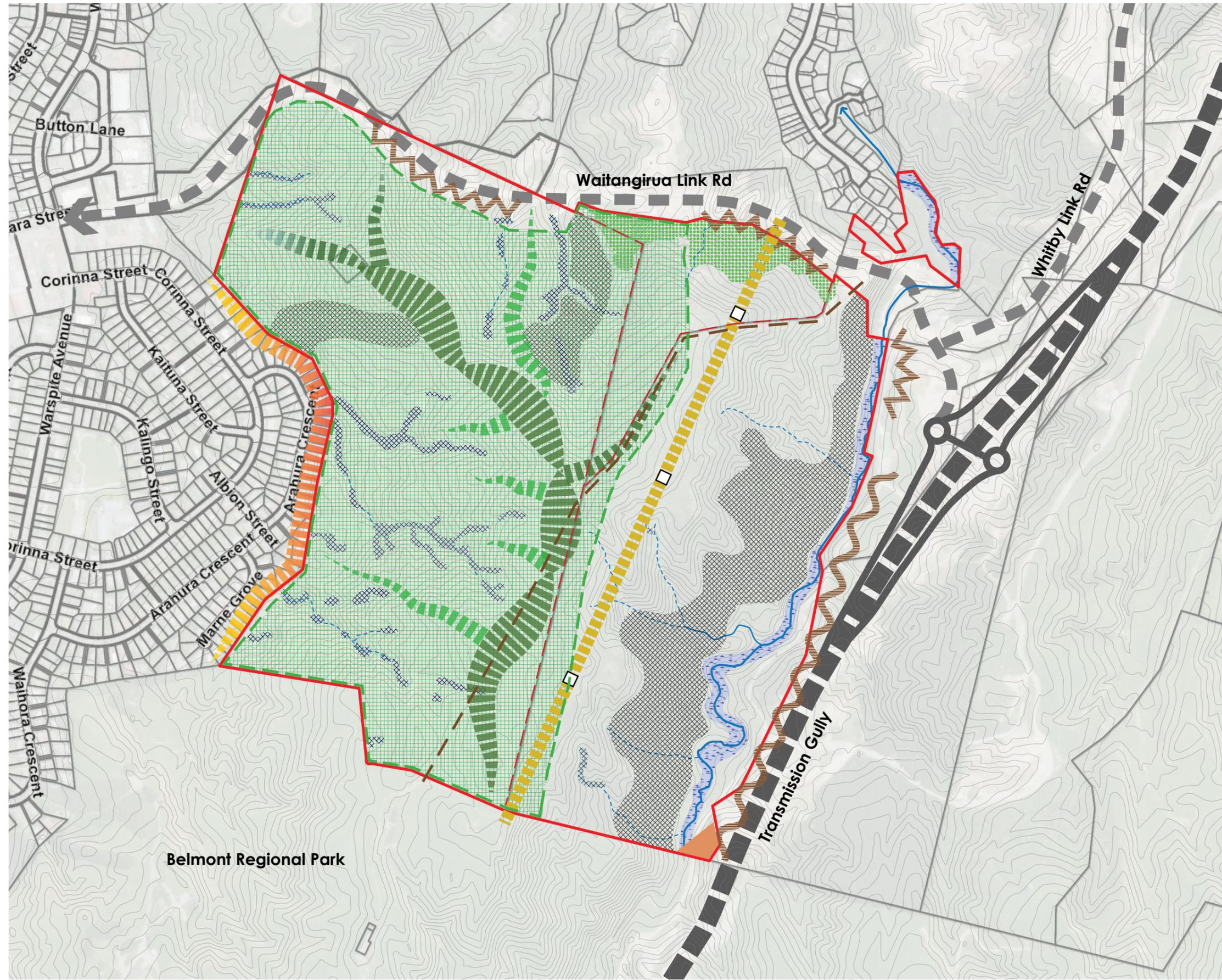
Dwg No: 20-014-05102020-02
Revision: 01

Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.

Silverwood Rezoning
 Porirua



constraints



- internal lot boundaries
- pylon for overhead transmission line
- secondary ridge line
- primary ridgeline - visual backdrop
- existing residential interface
- steep land + limited access to Waitangirua Link Road and Transmission Gully Motorway
- Transmission Gully Motorway - visual and aural impacts
- underground infrastructure - gas line
- overhead transmission line corridor - 25m "no build" zone
- Significant Natural Area
- areas with vegetation which meets definition of Significant Natural Area
- Special Amenity Landscape
- very steep land, not suitable for development
- permanent/intermittent stream
- drainage corridor
- Duck Creek riparian corridor
- Fault Rupture Zone



Client: Silverwood Corporation Limited
 Project No: 20-014

Scale: NTS @ A3
 Date: 20 November 2020

Dwg No: 20-014-05102020-03
 Revision: 04

DRAFT FOR DISCUSSION

Silverwood Rezoning
 Porirua



Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.

opportunities



-  Marae
-  Waitangirua local centre - expanded and revitalised
-  Porirua Development - Kainga Ora - revitalising Eastern Porirua
-  Public Reserve
-  Future Urban Zone
-  protect landscape value of ridgeline
-  protect wetland/riparian areas or leave steep slope to regenerate as native bush
-  potential development areas
-  internal connectivity - driving/walking/cycling
-  link to marae and Waitangirua town centre
-  potential access points
-  potential bus stop
-  northern/western aspect, providing good solar gain and coastal views
-  Belmont/Cannons Creek Ridge/Whitby West native bush corridor
-  ridgeline walk, potential to connect to Bothamley Path
-  Belmont/Duck Creek/Porirua Harbour ecological corridor
-  Duck Creek to Porirua Harbour pedestrian and cycle link
-  protected drainage corridor - stormwater treatment
-  establish riparian margin
-  existing farm tracks
-  potential access route



Client: Silverwood Corporation Limited
 Project No: 20-014

Scale: NTS @ A3
 Date: 20 November 2020

Dwg No: 20-014-05102020-04
 Revision: 03

DRAFT FOR DISCUSSION

Silverwood Rezoning
 Porirua



Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.

proposed structure plan



- development areas
- ① Hillside Living
 - ② Whitby Views
 - ③ Waitangirua Community
 - ④ Hilltop Clusters
 - ⑤ Bush Living

- Marae
- Waitangirua local centre
- ridgetop lookout
- Duck Creek walkway
- ridgetop track
- other walk/cycle way
- collector road
- potential bus stop
- vehicle entry point
- pedestrian/cycle connection

- open space areas
- Significant Natural Area
 - ridgetop protection area
 - Biodiversity Offsetting and Restoration Areas
 - drainage corridor protection



Client: Silverwood Corporation Limited
Project No: 20-014

Scale: NTS @ A3
Date: 20 November 2020

Dwg No: 20-014-05102020-05
Revision: 02

DRAFT FOR DISCUSSION

Silverwood Rezoning
Porirua

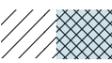


Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.

Potential Measures of Control		Landscaping/planting requirements	Restriction on earthworks	Building form/roof and materials	building platforms identified at subdivision stage	Landscape and Visual Assessment required at subdivision stage	indicative development area
1	 Hillside Living						10.5ha
2	 Whitby Views	✓	✓	✓	✓	✓	6.5ha
3	 Waitangirua Community	✓	✓	✓	✓	✓	21.2ha
4	 Hilltop Clusters	✓	✓	✓	✓	✓	8ha
5	 Bush Living	✓	✓	✓	✓	✓	11.9ha
							58.1ha

 High level of control
 Medium level of control
 Low level of control

SITE AREA = 114.1ha

Open Space Area	Notes:	Indicative Areas
 Significant Natural Area	As per PCC DP	3.7ha
 Ridgeline Protection Area		26.7ha
 Biodiversity Offsetting and Restoration Area		25.6
 Drainage corridor Protection	wetlands and/or riparaian corridors	spread across other zones (both development areas and open spaces)
TOTAL		56ha (49%)

DRAFT FOR DISCUSSION



Client: Silverwood Corporation Limited
Project No: 20-014

Scale: NTS @ A3
Date: 22 October 2020

Dwg No: 20-014-05102020-06
Revision: 02

potential areas and control

Silverwood Rezoning
Porirua



Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.

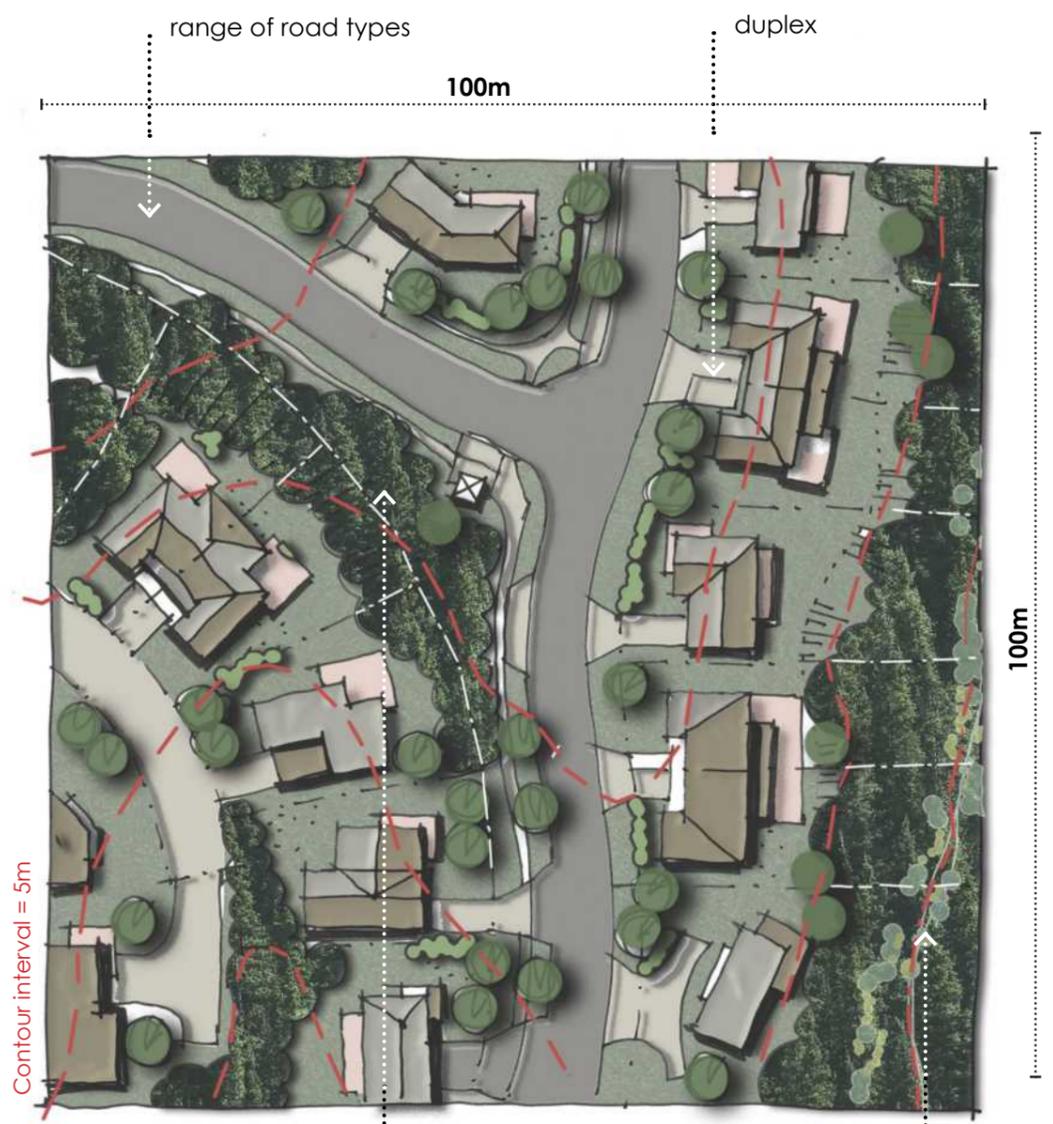
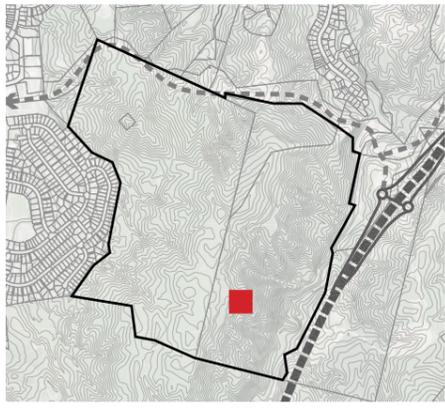


duplex typologies on flatter land BORA area - pine forest left to vegetate as native bush

Indicative illustration only

Development Area 1
Hillside Living

- west facing slopes with low visual sensitivity
- variety of lot/house types including compact, comprehensively developed options
- estimated yield 8 to 10 du/ha

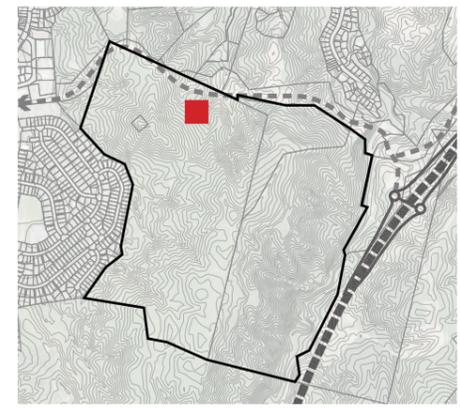


planted batter slopes wetlands and riparian corridor protected

Indicative illustration only

Development Area 2
Whitby Views

- north facing slopes
- low visual sensitivity
- maximise potential yield through range of housing and roading typologies
- estimated yield 12 to 15 du/ha



DRAFT FOR DISCUSSION



Client: Silverwood Corporation Limited
Project No: 20-014

Scale: 1:750 @ A3
Date: 22 October 2020

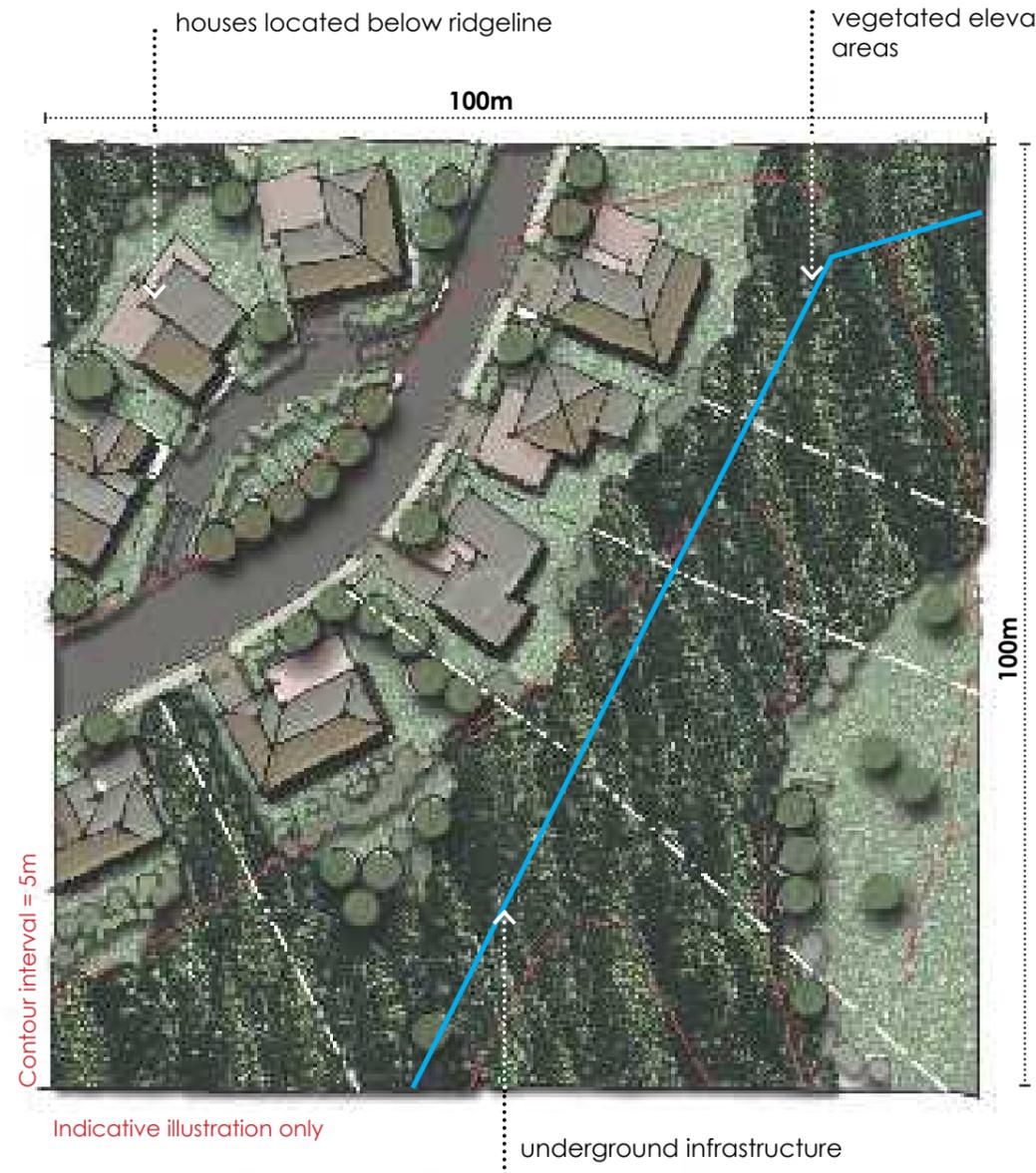
Dwg No: 20-014-05102020-07
Revision: 01

development area outcomes

Silverwood Rezoning
Porirua

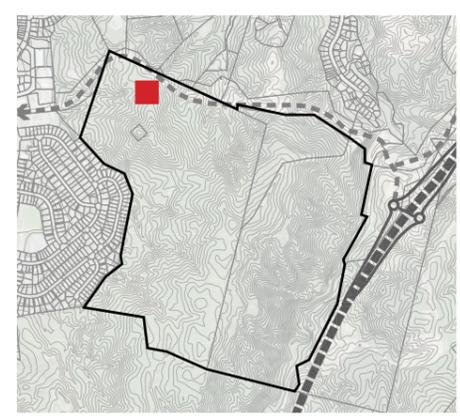


Disclaimer: This is a desk top concept sketch only, engineering, traffic and planning advice is required to confirm development yield, compliance and feasibility.



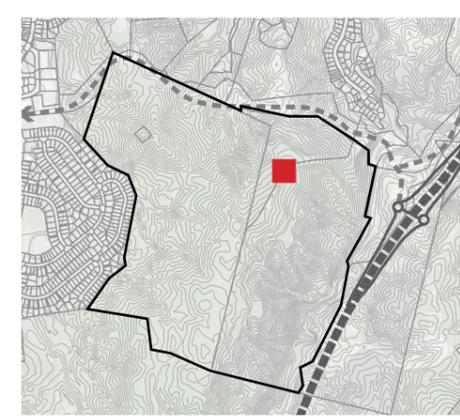
Development Area 3
Waitangirua Community

- lower slopes facing east towards Waitangirua
- sensitive placement of house platforms/clusters and landscape controls to promote visual integration
- estimated yield 5 to 7 du/ha



Development Area 4
Hilltop Clusters

- sensitive placement of house platforms lower than main ridgeline
- variety of lot sizes and house types
- estimated yield 8 to 10 du/ha

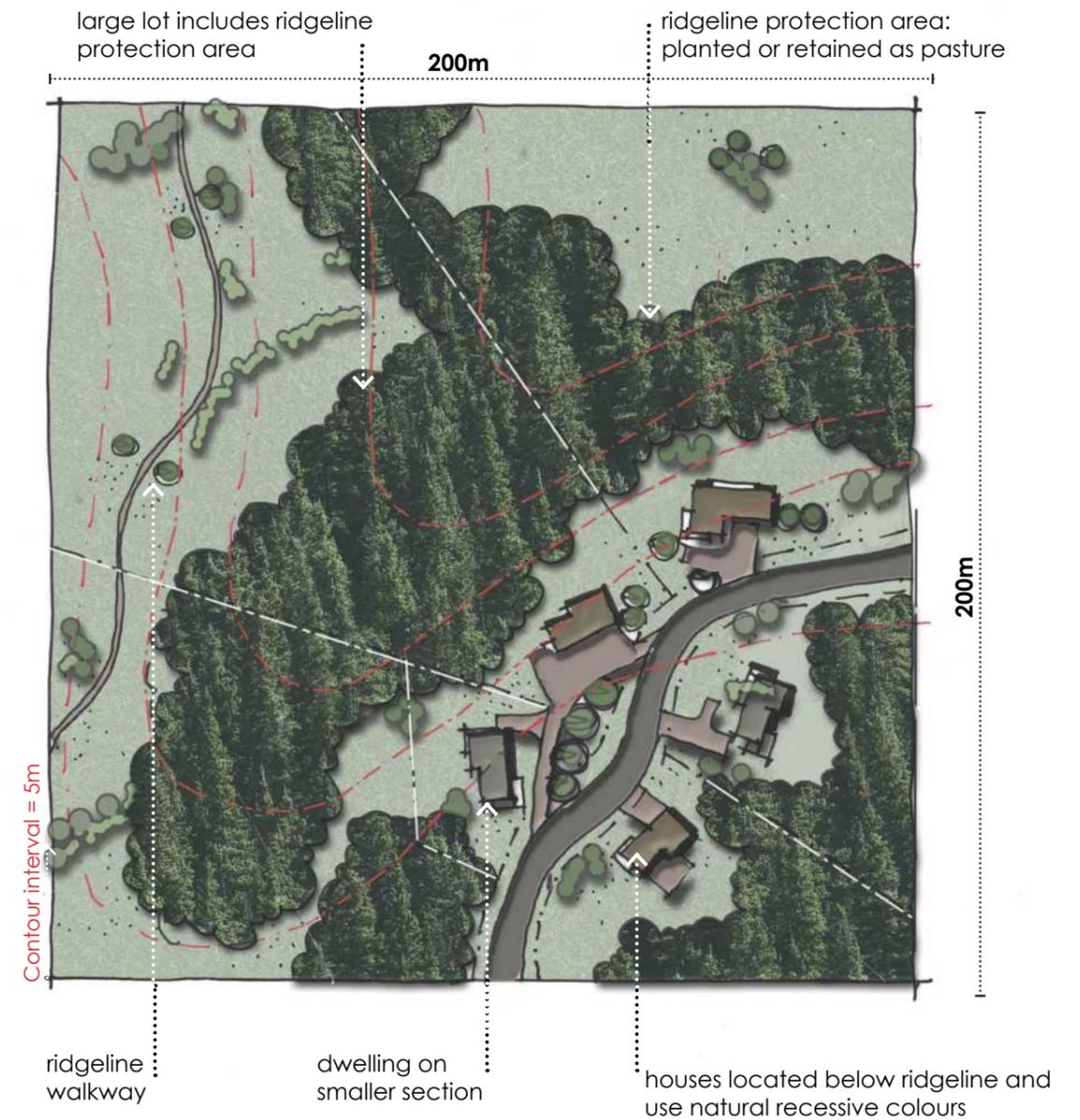
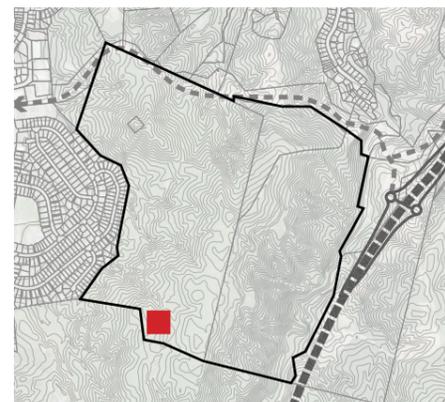




Indicative illustration only

Development Area 5
Bush Living

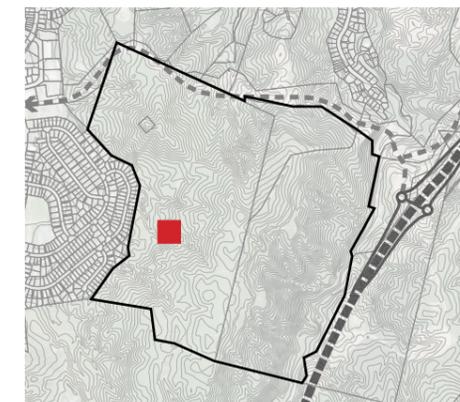
- steep visually sensitive land in SAL
- sensitive placement of house platforms/clusters and landscape controls to promote visual integration
- estimated yield 1 to 2 du/ha



Indicative illustration only

Cluster Concept (any area)

- grouping dwellings together to make best use of infrastructure and minimise visual impact
- big variation in lot size and choice
- land management system
- sensitive placement of house platforms/clusters and landscape controls to promote visual integration



APPENDIX TWO

DRAFT STRUCTURE PLAN DOCUMENT

DRAFT
NOVEMBER 2020



SILVERWOOD

Draft
Structure
Plan

*...in support of a
submission for rezoning
under the Porirua City
Council District Plan
Review*



Prepared on behalf of Silverwood Corporation Limited by:



Stephanie Blick
Egmont Dixon



Andrew Jackson + Ryan Rose
Envelope Engineering



Lauren White + Summer Xu
Urban Acumen



Tony Paine + Graham Ussher
RMA Ecology



John Hudson + Chelsea Kershaw
Hudson Associates Landscape Architects



Thomas Vollebregt
ENGEO



Jamie Whittaker
Stantec

Contents

- 01** scope and purpose..... 3
- 02** introduction..... 6
- 03** providing for growth..... 10
- 04** proposed district plan drivers..... 12
- 05** site analysis..... 16
- 06** draft structure plan..... 20
- 07** outcomes..... 22
 - respecting landscape..... 22
 - protecting ecology..... 24
 - building community..... 26
 - maximising land use..... 30
 - appropriate urban form..... 32
 - providing connections..... 42
 - adequate servicing..... 46
- 08** conclusion..... 48

01

scope and purpose

The District Plan review process presents the opportunity to realise the growth potential of the site in line with the Porirua Growth Strategy, and to assist in providing further housing supply to meet projected population growth within the Porirua District.

This document is prepared in support of an application to rezone land from rural to Future Urban Zone (FUZ) as part of the Porirua Proposed District Plan Review.

The inclusion of the Site as a potential growth area in the Growth Strategy sets a clear signal that Porirua City Council ("Council") would look favourably on a submission that requests that the site be rezoned to Future Urban Zone.

In order to provide Council sufficient certainty that rezoning of the site will satisfy the relevant matters of FUZ-P1 (the policy that identifies criteria for rezoning land to FUZ), Silverwood Corporation Limited (SCL) engaged a project team of experts to undertake site investigation and analysis work.

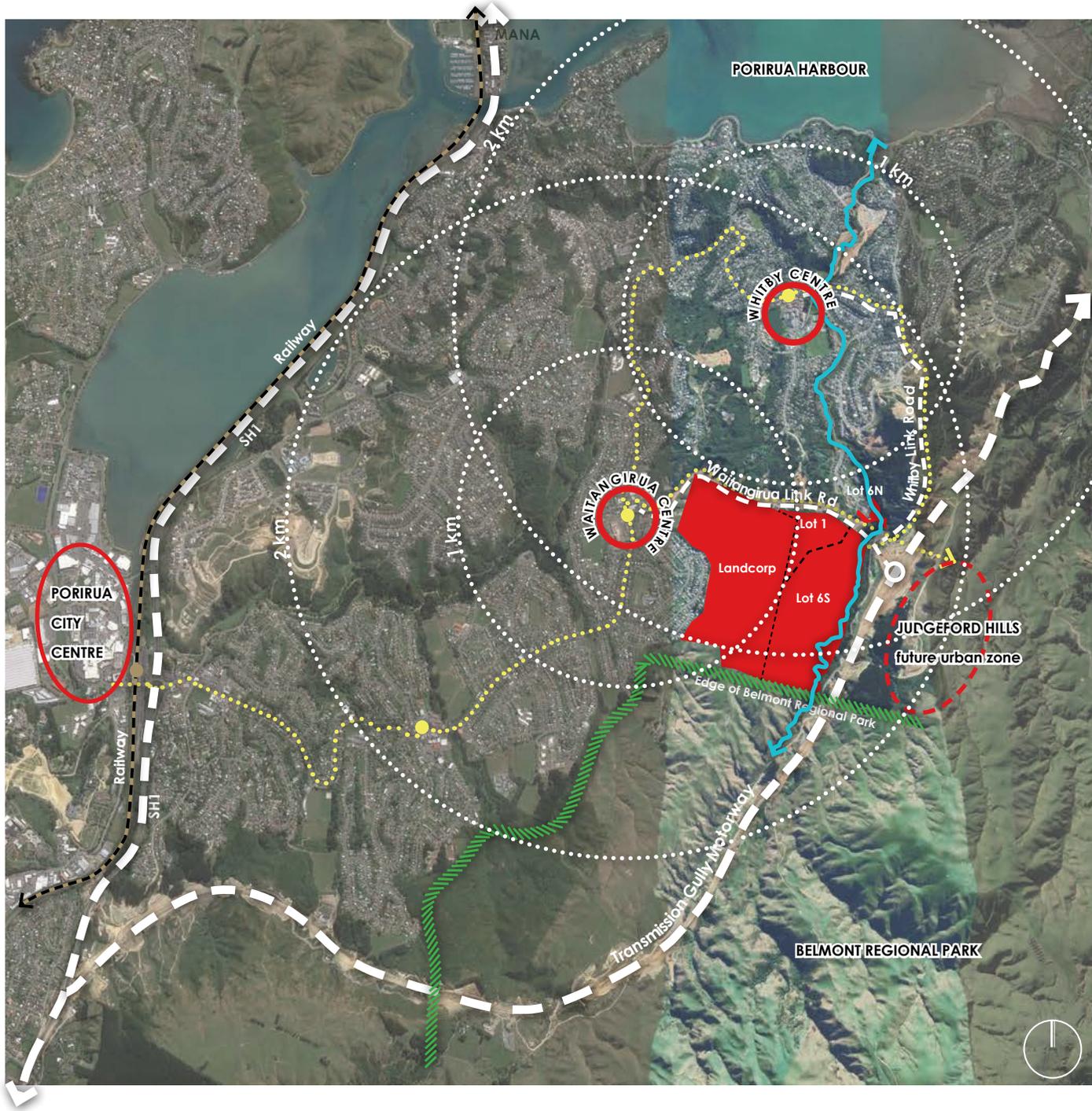
While the preparation of a draft structure plan and accompanying structure plan document is not explicitly required to confirm consistency with Policy FUZ-P1, and therefore may not necessarily be required to enable the site to be rezoned to FUZ, the site assessments and analysis undertaken by the project team has led to the development of a Draft Structure Plan and associated supporting technical reports.

From a strategic planning and growth point of view, rezoning of the site presents mutually beneficial outcomes for –

- SCL by enabling it land to be utilised for an appropriate sustainable mix of urban and conservation uses;
- The Waitangirua, Silverwood and wider Porirua community via the introduction of new and varying housing stock; and,
- For PCC through providing opportunity for future zoned land to accommodate 30+ years of population growth (as required in the NPS-UD).

While a future plan change process would need to be advanced, the Draft Structure Plan and this accompanying Draft Structure Plan document, provides certainty to PCC, GWRC, landowners, and the community regarding the potential scale and nature of development that could occur on the site.

This document provides commentary in line with the FUZ Structure Plan guidance as Appendix 11 of the Porirua Proposed District Plan (the "Proposed Plan").



- Future Mega Bus Route
- Future Mega Bus Stop
(Porirua Growth Strategy 2048)
- ↔ Duck Creek
- Metro Location

02

introduction

The land subject to this submission includes:

- Sec 9 SO 475749/Lot 6 (north) which lies north of the Waitangirua Link Road (Silverwood Land 2015 Limited Partnership) and measures 1.5ha;
- Sec 7 SO 475749/Lot 1, adjoining the Waitangirua Link Road ((Silverwood Land 2015 Limited Partnership) and measures 8.3ha;
- Sec 10 SO 475749/Lot 6 (south) which adjoins the Transmission Gully Motorway on its eastern boundary (Silverwood Land 2015 Limited Partnership) and measures 42.3ha;

and

- Lot 2 DP 389024, Landcorp landholding at 61.2ha (tied to Lot 34 DP 29428 (90 Arahura Crescent, Waitangirua, already zoned residential)

Please note that portions of Lot 6(N) and Lot 1(N) and Lot 1(S) are already partly zoned for residential use. The submission does not seek the rezoning of the residential portion of the site to Future Urban Zone.

The Silverwood land originally formed part of a larger contiguous block of forestry land owned by SCL. This larger block was subdivided into 6 lots (this being parts of Lots 1 and 6). Significant parts of these 6 lots have since been taken for roading purposes to enable the construction of the Transmission Gully Motorway (TGM) and the associated link roads and intersections.

The Silverwood land is currently covered predominately in exotic regrowth as a result of its former use as a plantation pinus radiata forest. The plantation trees were harvested

in the early 2000's and the land has been unmaintained since that time. The regrowth has not been planted or pruned and no weed control has been carried out within the gullies or elsewhere on the property.

Currently the Landcorp Corporation land (Lot 2 DP 389024, 62.1Ha) accommodates pastoral purposes. Farm tracks have been formed across the site to access the various paddocks. The Landcorp land is all currently zoned rural.

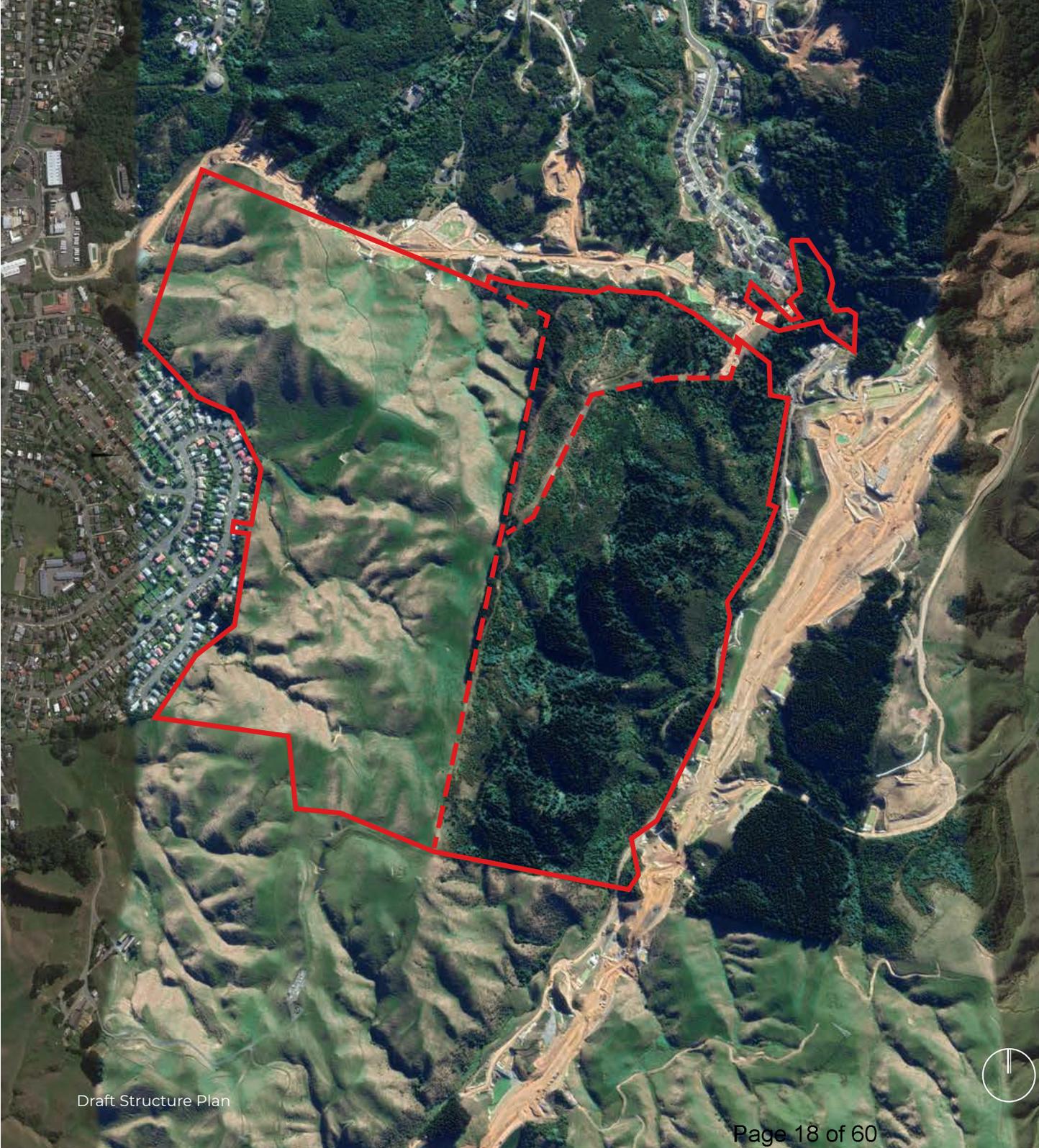
All the land parcels adjoin the new Waitangirua Link Road.

Silverwood

Landcorp



Looking south over Waitangirua Link Road



03

providing for growth

Proposed District Plan Appendix 11

- the location, type and form of the urban edge, its appropriateness to the structure plan area and the surrounding area and how transitions between the area to be urbanised and other areas with different activities, building types and densities or levels of intensity are to be managed.
- linkages and integration with existing urban-zoned and/or rural-zoned land adjoining the structure plan area through careful edge or boundary treatment.
- opportunities to improve access to landlocked parcels.

The rezoning of the site, coupled with the implementation of a structure plan, ensures development that will:

- align with Council's proposed approach to the rezoning of greenfield sites that have been identified as growth areas in the Porirua Growth Strategy 2048 (the "Growth Strategy"). The Site has been identified in the Growth Strategy as a "Potential Residential Area – Medium Term".
- provide additional housing capacity to meet expected housing demand brought about by projected population increase over the next 30 years.
- deliver a range of housing typologies to the market to meet a wide range of demographics. This was identified as a key issue through the District Plan review public engagement process.
- complement the existing urban environment and contribute to a compact urban form.
- support the viability of the Waitangirua town centre.

- ensure development of the site occurs in a comprehensive, integrated and co-ordinated manner.
- enable a more efficient and integrated use of the strategic land resource; and,
- provide, through the construction and operation of the Waitangirua Link Road, opportunities to ensure the new communities are well connected with established neighbourhoods as well as the Waitangirua town centre. The Waitangirua Link Road which is identified in the Growth Strategy as a future public transport route "Potential West-East Public Transport".

Also, it is acknowledged that the site is not surrounded by rural zoned land. Accordingly, no adverse rural character and amenity effects or reverse sensitivity effects would arise from the rezoning.

The Porirua Growth Strategy 2048

The Growth Strategy was developed and consulted on under the Local Government Act 2002 and is intended to guide and influence the future growth of the City. It provides a framework for how and where the city will grow over the next 30-years. It was formally adopted by Council in March 2019, replacing the 2009 Porirua Development Framework.

Relevant to the rezoning of Site to FUZ, the Growth Strategy includes the following key directions:

- plan for neighbourhoods that encourage a diverse range of living options for people that rent, and for people that own their own homes.
- integrate design principles that reflect the diversity of Porirua, including the place of Ngāti Toa.
- encourage development of homes that match our communities' changing preferences, with a range of options – including standalone, medium density and high-density housing.



Aerial view of site looking north

- ensure sufficient land is available to meet the need for regeneration and for developing new communities and do this in a way that works with and enhances the health of our natural environment.
- make walking, cycling, and public transport choices for more people of varying abilities.

“Our urban boundary will be extended in the east from the Lanes Flat interchange in the north, to Kenepuru in the south and between Waitangirua/Cannons Creek to the Transmission Gully Motorway (TGM) (with the exception of Judgeford Hills). This means land to the east of Whitby/Waitangirua and Cannons Creek up to Transmission Gully Motorway can be considered for residential zoning through the Proposed District Plan review.”

Porirua Growth Strategy 2048

03

providing for growth

Proposed District Plan Appendix 11

- the location, type and form of the urban edge, its appropriateness to the structure plan area and the surrounding area and how transitions between the area to be urbanised and other areas with different activities, building types and densities or levels of intensity are to be managed
- linkages and integration with existing urban-zoned and/or rural-zoned land adjoining the structure plan area through careful edge or boundary treatment
- opportunities to improve access to landlocked parcels

National Policy Statement for Urban Development

The NPS-UD requires councils to provide in their plans enough development capacity to ensure that demand can be met. This includes both the total aggregate demand for housing and business land, and also the demand for different types, sizes and locations. This development capacity must also be commercially feasible to develop, and plentiful enough to recognise that not all feasible development opportunities will be taken up.

Of relevance to the requested rezoning of the Site, the Part 1 Section 32 Report for the Proposed Plan, outlines how the Proposed Plan seeks to give effect to the NPS-UD. This includes –

- introducing a Future Urban Zone for greenfield sites which can be up-zoned following appropriate structure planning and infrastructure capacity becoming available. As such, the FUZ is intended to help meet both shorter term housing needs and provides a buffer for future needs.

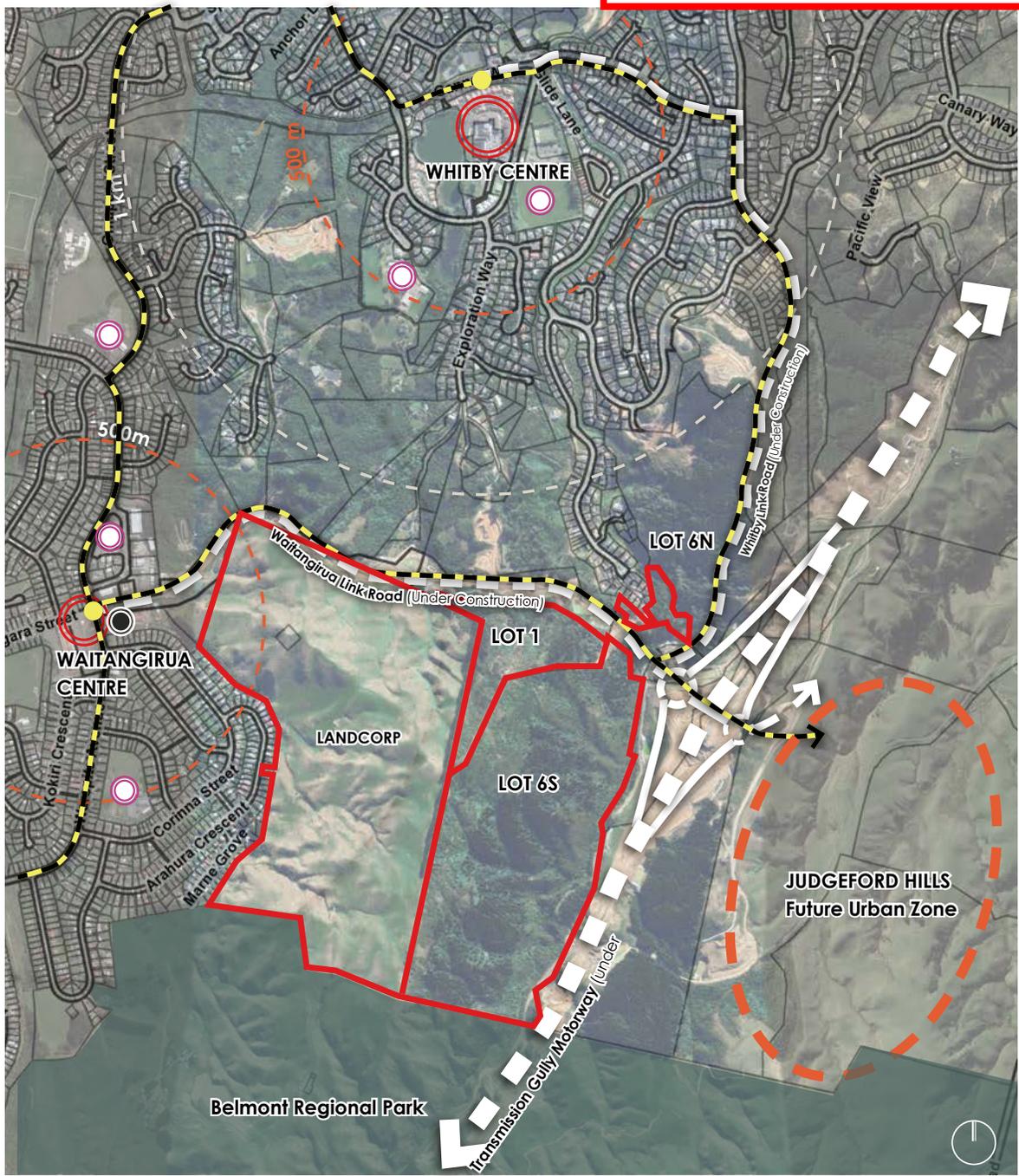
- memoranda of understanding will be entered into with FUZ greenfield landowners to advance up-zoning of their sites. These determine roles and responsibilities for advancing plan changes or major resource consent applications, confirm programme timeframes and procedural matters, and confirm cost recovery mechanisms.

Development of the site will provide a unique offering with a development design that is high quality and visually complements its surroundings. At this stage, it is envisaged that the development may yield up to 500 dwellings ranging from medium density (achieved via comprehensive residential development), papakainga, standard density residential and rural lifestyle.

Integration with existing urban-zoned land

The site provides an excellent opportunity to provide urban expansion that is contiguous with an existing settlement. The site is an ideal location for a residential development and represents a sustainable and efficient use of the land. The site also provides an opportunity to develop greenfield land in a location which is ideally connected for travel around the region for social, education, retail, and employment purposes.

-  Future Mega Bus Route
-  Future Mega Bus Stop
-  community infrastructure (e.g. school, kindy, park, recreation)
-  marae



04

proposed district plan drivers



The Porirua Proposed District Plan includes a number of overlays and features.

All sites are proposed to be zoned Rural with the exemption of a significant portion of Lot 6 North and two small portions of Lot 1 South and Lot 6 South that are zoned General Residential. The areas zoned General Residential are excluded from this submission

The submission by SCL does not seek to amend or remove any of the proposed overlays and notations proposed across the Site. Instead, these features are captured in an opportunities and constraints analysis undertaken by the Project Team, and informed the development of the Draft Structure Plan.

Significant Natural Areas SNA084 and SNA083

The Regional Policy Statement for the Wellington Region 2013 ("the RPS") sets out criteria that must be followed to identify Significant Natural Areas ("SNA's") in District Plans. Between November 2017 and January 2018, Wildlands Ecological Consultants undertook a reassessment of sites identified in earlier studies and from this identified 222 potential significant natural areas or 17% of the Districts land area. As part of this process Council have identified "SNA084 – Exploration Drive Kanuka Forest". This SNA is located in Lot 1, covering approximately two thirds of this allotment, and a portion of the Landcorp site. Council also identified "SNA083: Duck Creek and Saltmarsh" which is partially located on Lot 6 North.

The Proposed Plan contains a chapter with provisions that seek to manage the effects of activities on the biodiversity values of SNAs. Among other things, the rules control indigenous vegetation removal, subdivision and new buildings within SNAs. For example, for a subdivision of a lot containing a SNA, a future building platform must be located outside of the SNA area.



SNA084



SNA083

Special Amenity Landscapes - Cannons Creek Ridge

In early 2018, Boffa Miskell were engaged by Council to update the landscape assessment they undertook in 2013 to inform the Landscape Management Strategy. The assessment was undertaken in accordance with the criteria within Policy 25 of the RPS. Boffa Miskell identified five 'Outstanding Natural Features' and seven 'Special Amenity Landscapes' ("SAL's") including the Cannons Creek Ridge (refer Figure Four below) that is located over the Landcorp site and a portion of Lot 1 and Lot 6 South.

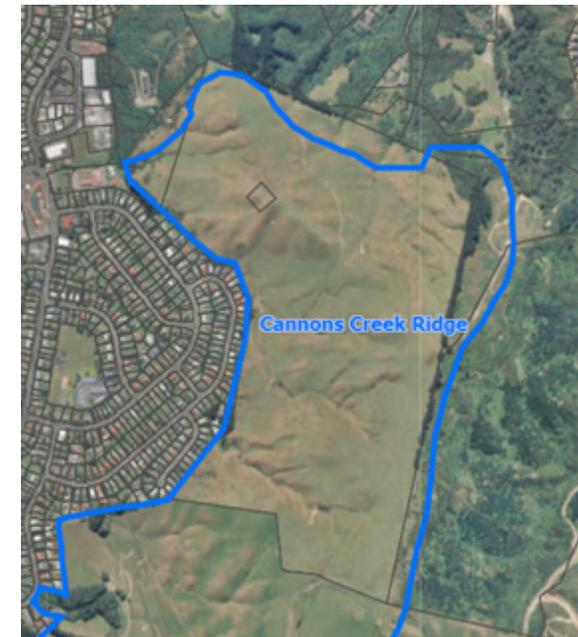
In mid-2019, Isthmus were engaged by Council to review the work and assessment already undertaken by Boffa Miskell and to engage with Ngati Toa regarding the proposed features and landscapes. Through this review process, some of the boundaries / extents of some of the SAL's were revised. Isthmus prepared the 'Draft Landscape Evaluation' that was published on Council's website in 2019.

Isthmus' key findings in relation to the Cannons Creek Ridge are as follows:

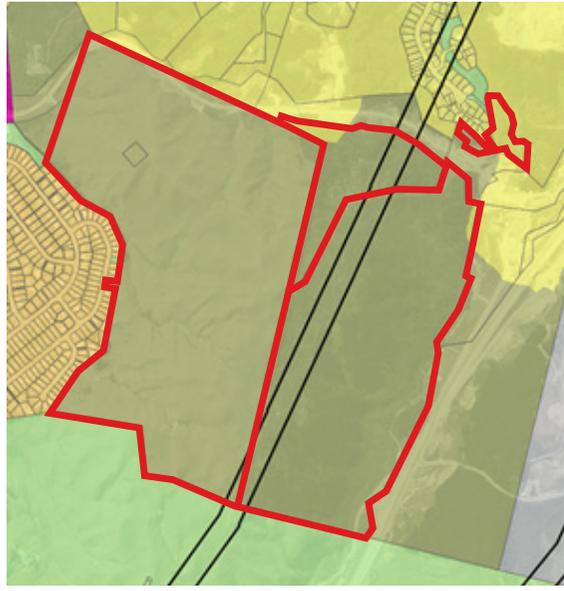
- 2018 western boundary follows property boundaries rather than landform;
- 2018 south-western boundary follows a catchment approach, rather than landform approach.
- landform slopes at the southern extent (excluded from the 2018 draft SAL) contribute amenity and this will continue post-Transmission Gully, particularly with proposed associated planting mitigation (the route passes adjacent to this area).

In the report, Isthmus recommended that western boundary of the SAL be adjusted to follow the contour / landform more closely. Relevant to the subject sites, there was no recommendation to extend or adjust the northern or eastern boundaries.

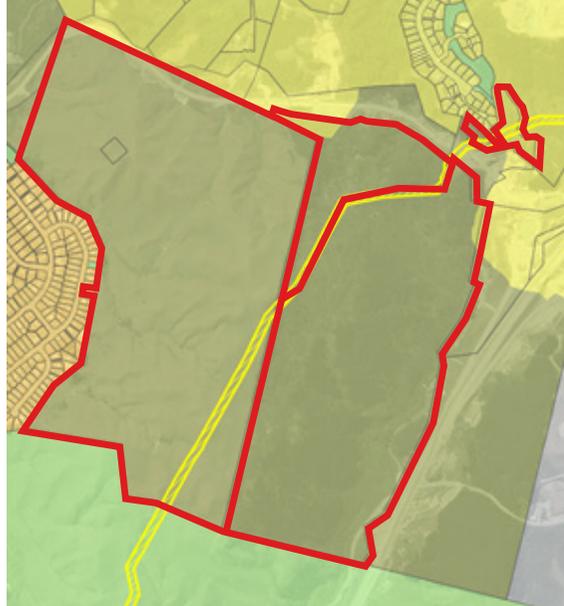
The Proposed Plan includes a chapter that seeks to manage the effects of subdivision, use, and development within SALs and ensure the landscape values are maintained or enhanced.



Proposed Special Amenity Landscape - Cannons Creek Ridge
(Porirua City Proposed District Plan)



Proposed National Grid Corridor (Porirua City Proposed District Plan)



Proposed Gas Transmission Pipeline (Porirua City Proposed District Plan)

National Grid Corridor

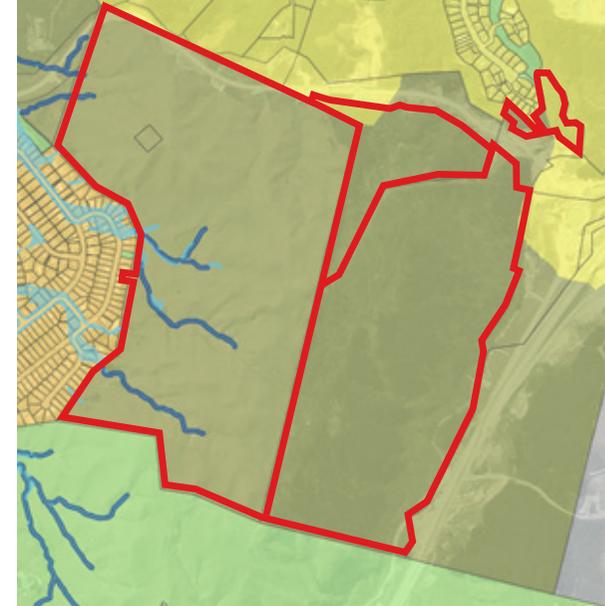
An overhead 110kV transmission power line (identified as the 'National Grid Corridor') bisects Lot 1 and Lot 6 South (refer Figure Five below). This designation has been carried over from the Operative District Plan.

Envelope Engineering advise that, as with previous developments across Whitby, due to the size and cost involved in underground the lines, any development is likely to be designed around the power line. This is the assumption the Project Team adopting for the development of the Draft Structure Plan.

The Proposed Plan includes provisions in the District-Wide infrastructure chapter that seek to manage the scale of earthworks and the effects of sensitive activities, building platforms located within the National Grid Yard and subdivision within the National Grid Corridor. As the transmission line is 110kV, the corridor is 32m either side of the centre line of the line. The 'National Grid Yard' is the area located within 12m either side of the centreline of the transmission line. The location of the National Grid Corridor and a review of implications for future development was undertaken by Envelope and included in the Infrastructure Report. The corridor is also included on the project team structure plan constraints plan.

Gas Transmission Pipeline Corridor

A Gas Transmission Pipeline Corridor bisects Lot 6 South. This designation has been carried over from the Operative District Plan. The Proposed Plan includes provisions in the District-Wide infrastructure chapter that seek to manage the effects of subdivision, use, development and earthworks on the corridor. The location of the Gas Transmission Pipeline Corridor and a review of implications for future development was undertaken by Envelope and included in the Infrastructure Report. The corridor is also included on the project team structure plan constraints plan.



Proposed Flood Hazard (Porirua City Proposed District Plan)

Flood Hazard

Flood hazard stream corridor and ponding areas are located within the Landcorp site. These areas have been identified as 'drainage protection corridors' on the Draft Structure Plan and the proposed development areas are located outside of these areas. Therefore, the draft structure plan avoids placing people / development in high risk areas.

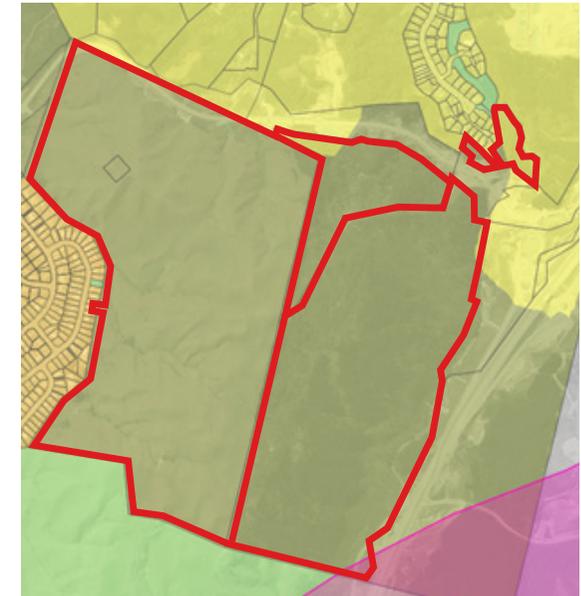
Any development will seek to avoid natural hazards and recognise the potential for natural hazards management. Further, with respect to the potential for climate change to cause or exacerbate natural hazard events will be given particular regard for future stormwater modelling work undertaken. Also, the Site is far enough away from the coastal environment to not be susceptible to anticipated sea level rise.

Fault Rupture Zone

A very small portion of Lot 6 South is located within the Fault Rupture Zone. The proposed rules related to fault hazard restrict buildings and activities from being located no closer than 20m from either side of either the Pukerua Fault Rupture Zone or the Ohariu Fault Rupture Zone. ENGEEO have identified in the Geotechnical Suitability Report that the Ohariu Fault is located approximately 100m from the southern boundary. The zone is included on the project team constraints map and on the Draft Structure Plan

Noise

The southern portion of Lot 6 South is located within the Transmission Gully noise corridor. Proposed Objective NOISE-O2 of the Proposed Plan seeks to ensure that the function and operation of existing and permitted noise generating activities are not compromised by adverse effects, including reverse sensitivity effects, from noise-sensitive activities. Proposed rules and standards in the noise chapter of the Proposed Plan seek to control buildings and activities, including requirements for acoustic insulation, within the noise corridor. The corridor is also included on the project team structure plan constraints plan.



Proposed Fault Rupture Zone
(Porirua City Proposed District Plan)



Proposed Noise Corridor
(Porirua City Proposed District Plan)

05 site analysis

constraints

The Urban Design Compendium 1 (English Partnerships 2007) provides a useful guide to site analysis relevant to urban design under the broad heading of 'Appreciating the Context'.

What is meant by context?

Context is the character and setting of the area within which a projected scheme will sit. It is its natural as well as human history; the forms of the settlements, buildings and spaces; its ecology and archaeology; its location, and the routes that pass through it. Context also includes people, the individuals living in or near an area and how communities are organised so that citizens become real participants in the projected development.

A thorough appreciation of the overall site context is the starting point for designing a distinct place.

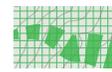
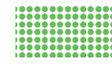
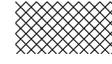
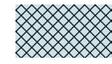
Why context is important?

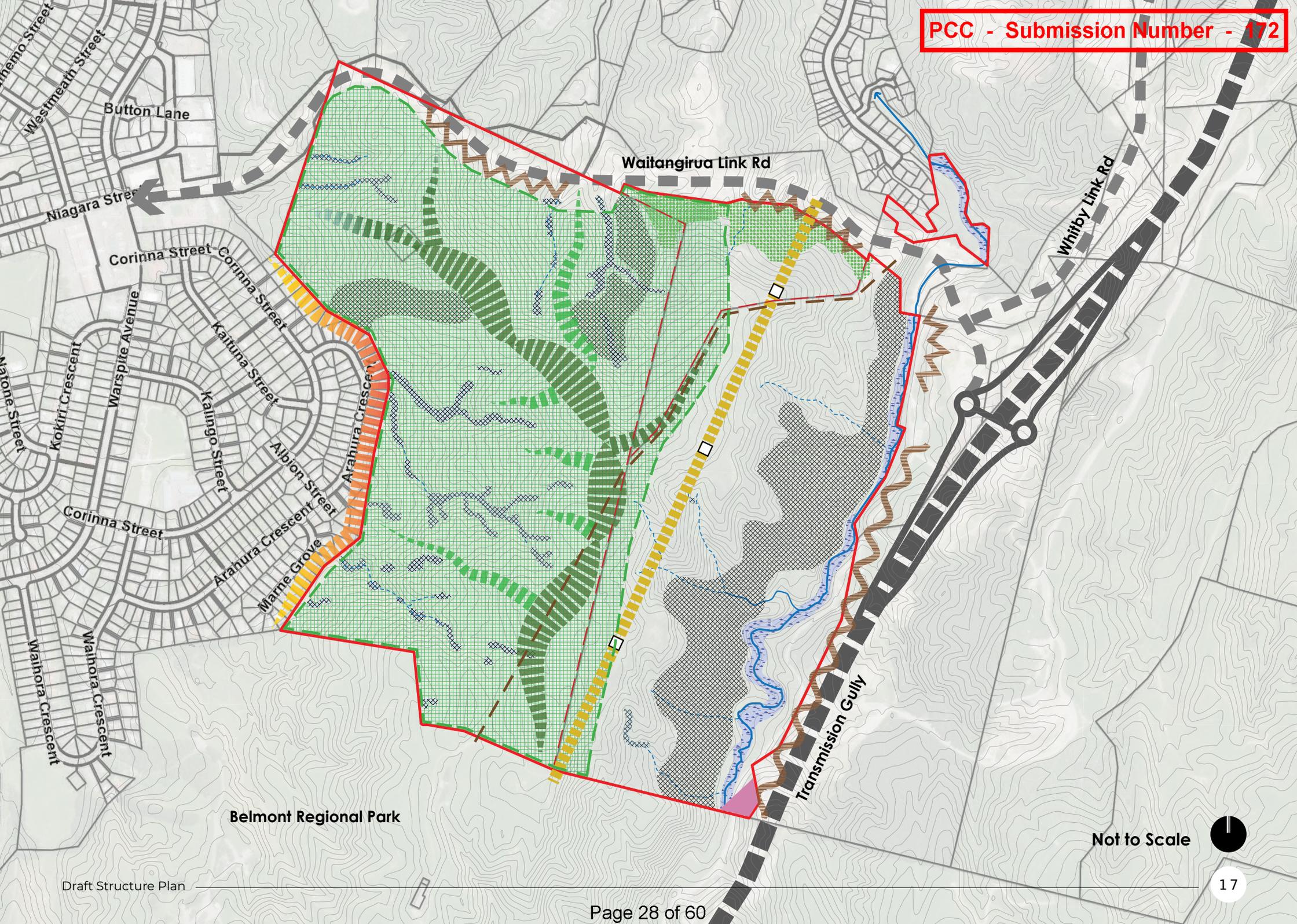
Context is crucial. It is about understanding the position of development, and how to position a development. This involves a range of considerations and participants, directly or indirectly. High quality places will only emerge if the approach is cohesive and inclusive.

Planning for growth is by nature a multidisciplinary process and relies upon, and is enriched by, collaboration with all built and natural environment professionals.

As part of the planning and design process, the site specific opportunities and constraints have been assessed by the project team. These include:

- Existing context & adjacent communities
- access and connectivity
- landscape evaluation
- landform and topography
- ecology
- transport
- infrastructure
- interfaces

-  internal lot boundaries
-  pylon for overhead transmission line
-  secondary ridge line
-  primary ridgeline - visual backdrop
-  existing residential interface
-  steep land + limited access to Waitangirua Link Road and Transmission Gully Motorway
-  Transmission Gully Motorway - visual and aural impacts
-  underground infrastructure - gas line
-  overhead transmission line corridor - 25m "no build" zone
-  Significant Natural Area
-  areas with vegetation which meets definition of Significant Natural Area
-  Special Amenity Landscape
-  very steep land, not suitable for development
-  permanent/intermittent stream
-  drainage corridor
-  Duck Creek riparian corridor
-  Fault Rupture Zone



Belmont Regional Park

Not to Scale



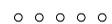
05 site analysis

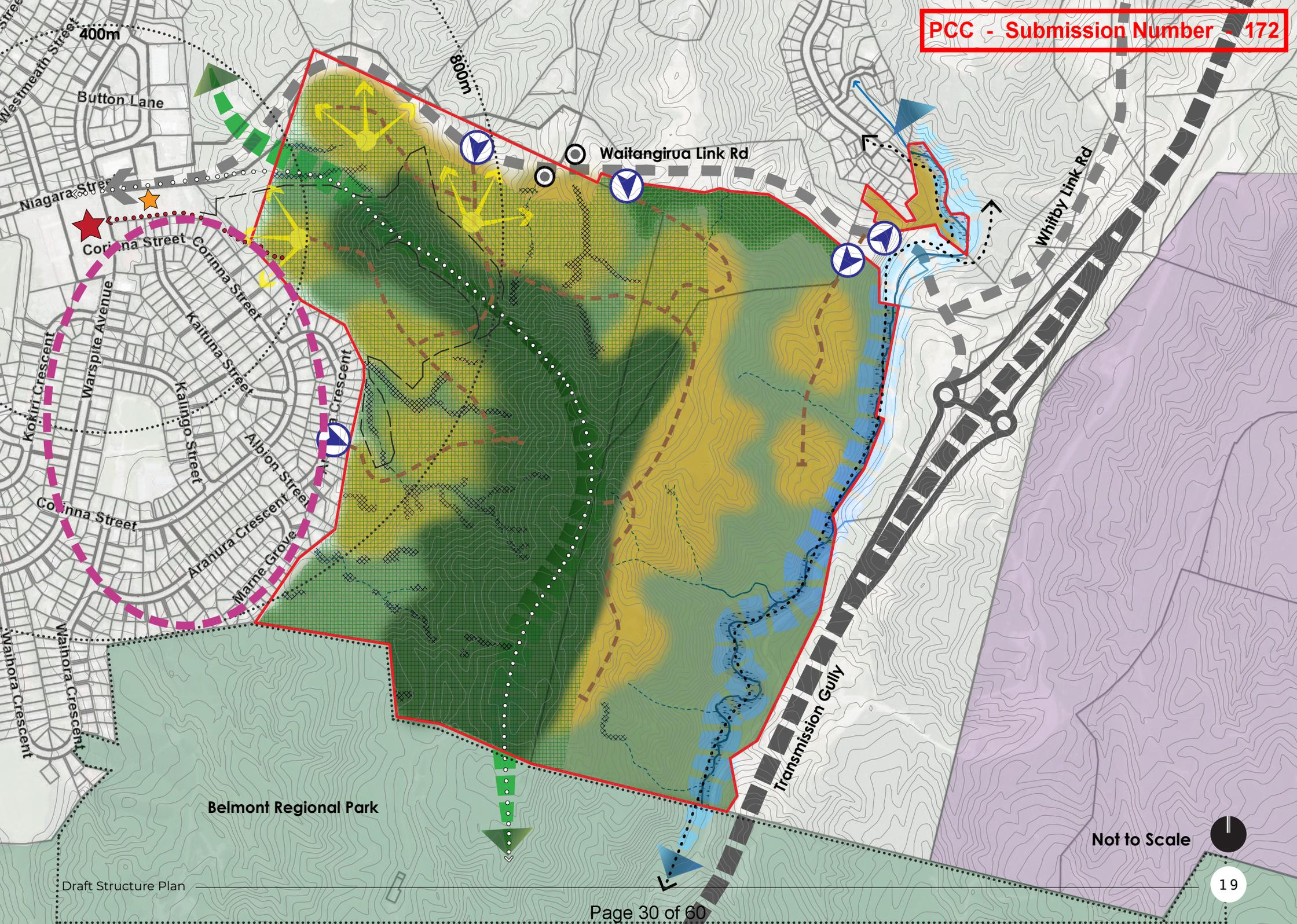
opportunities



The objective is to regard site constraints as site specific opportunities. In that way, the development of the site will deliver a unique and appropriate environment, where built form is balanced with landscape value.

-  Marae
-  Waitangirua local centre - expanded and revitalised
-  Porirua Development - Kainga Ora - revitalising Eastern Porirua
-  Public Reserve
-  Future Urban Zone

-  protect landscape value of ridgeline
-  protect wetland/riparian areas or leave steep slope to regenerate as native bush
-  potential development areas
-  internal connectivity - driving/walking/cycling
-  link to marae and Waitangirua town centre
-  potential access points
-  potential bus stop
-  northern/western aspect, providing good solar gain and coastal views
-  Belmont/Cannons Creek Ridge/Whitby West native bush corridor
-  ridgeline walk, potential to connect to Bothamley Path
-  Belmont/Duck Creek/Porirua Harbour ecological corridor
-  Duck Creek to Porirua Harbour pedestrian and cycle link
-  protected drainage corridor - stormwater treatment
-  establish riparian margin
-  existing farm tracks
-  potential access route



06

draft

structure plan

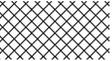
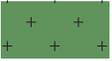
To fully address and recognise the particular values, opportunities and constraints of the site, a structure plan approach has been adopted. The plan on the adjacent page illustrates the outcome of this collaborative design process, during which all project team members have provided input.

Through the introduction of the structure plan framework, there is an expectation that a high standard of amenity will be achieved whilst also giving appropriate recognition to the existing values of the site, particularly ecological and landscape values.

The structure plan elements include an indicative roading layout, pedestrian and cycle connections, the open space network and various residential development areas. These development areas have been identified in response to the varying levels of physical, visual and landscape values of this large site. Descriptions, intentions, and outcomes for each development area could also form part of the structure plan documentation. It is envisaged that specific policies and development controls for each area would be developed as part of a future plan change process.

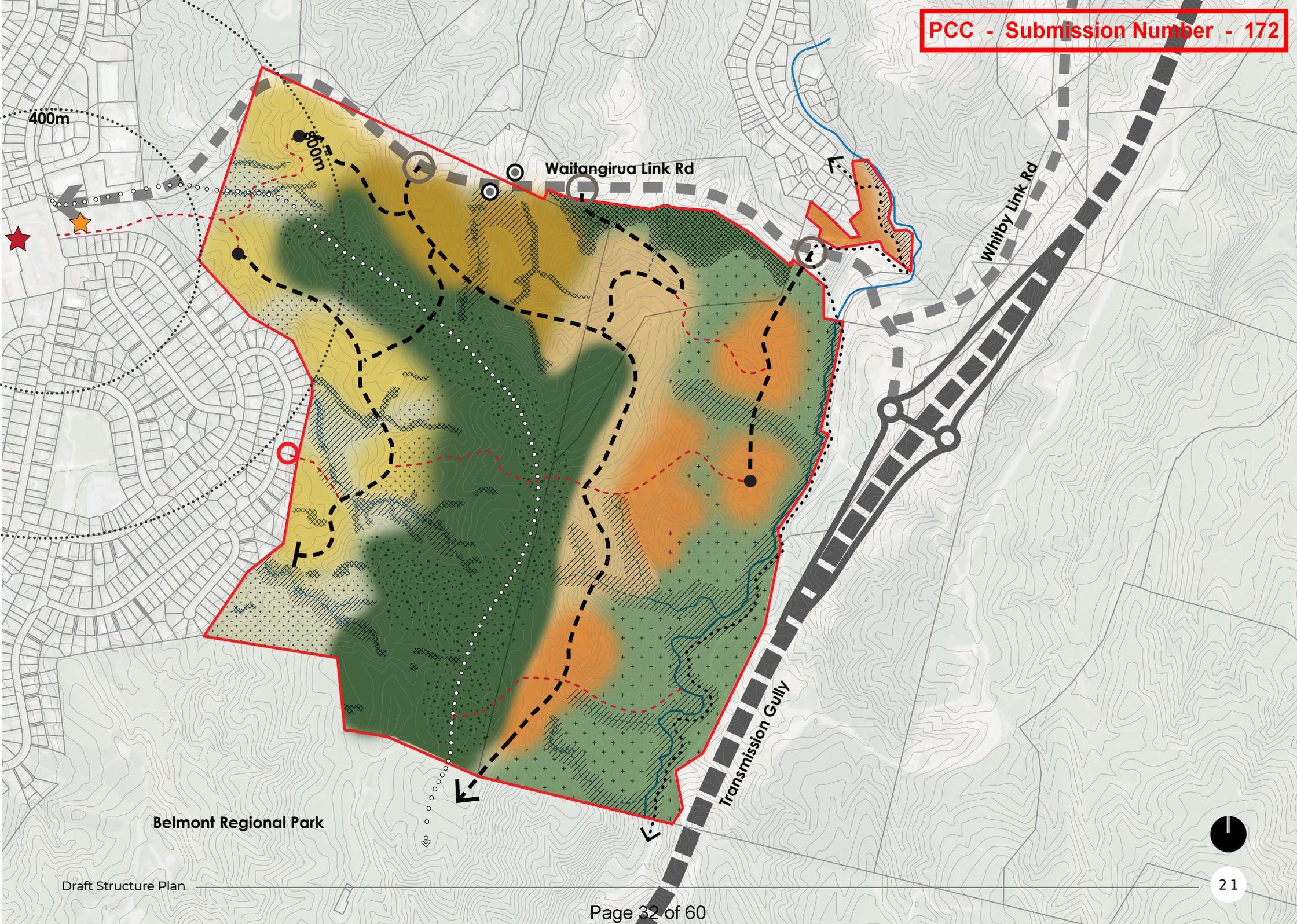
-  Marae
-  Waitangirua local centre
-  ridgetop lookout
-  Duck Creek walkway
-  ridgeline track
-  other walk/cycle way
-  collector road
-  potential bus stop
-  vehicle entry point
-  pedestrian/cycle connection

open space areas

-  Significant Natural Area
-  ridgeline protection area
-  Biodiversity Offsetting and Restoration Areas
-  drainage corridor protection

development areas

-  ① Eastern Hillside
-  ② Whitby Views
-  ③ Cannons community
-  ④ Hilltop Clusters
-  ⑤ Bush Living



Belmont Regional Park

Waitangirua Link Rd

Whirby Link Rd

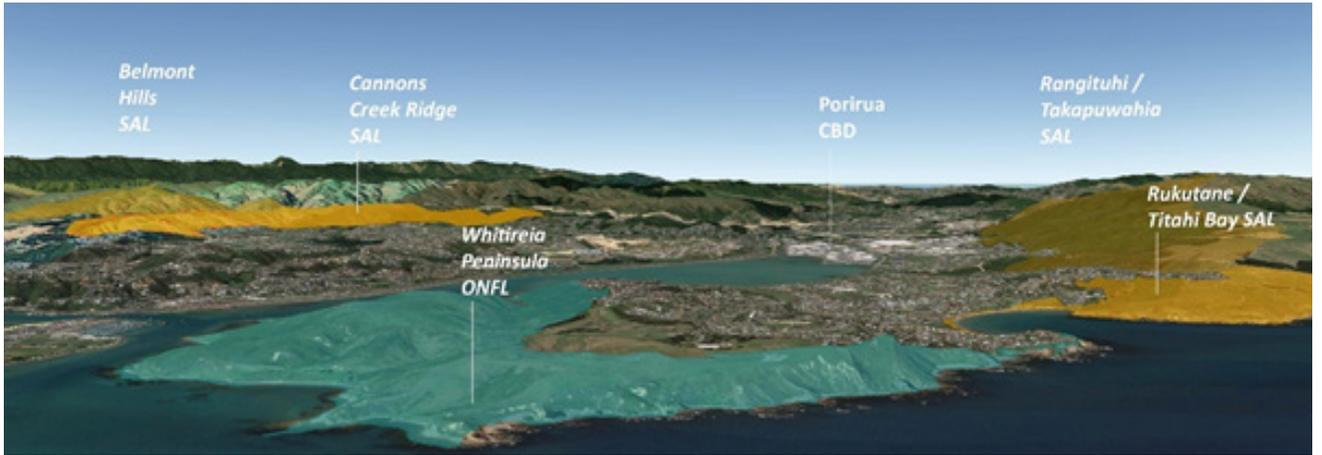
Transmission Gully

07 outcomes

respecting landscape

Proposed District Plan Appendix 11

- the protection, maintenance and enhancement of natural resources, particularly those that have been identified in the District Plan in relation to Ngāti Toa Rangatira, areas of Outstanding Natural Features and Landscapes, areas of Coastal High Natural Character Areas and Significant Natural Areas
- demonstrate how proposed subdivision, use, and development will protect, maintain and enhance the identified values of the resources identified above
- the integration of green networks (such as freshwater and coastal water systems, and ecological corridors) with open space and pedestrian and cycle networks, showing how they reflect the underlying natural character values and provide opportunities for environmental restoration and biodiversity



To inform the development of the Draft Structure Plan, a landscape and visual assessment has been undertaken, the content of which is summarised in this section.

A portion of the site is located on the northern prong of the prominent, low-lying ridge known as Cannons Creek Ridge. This is the local rural backdrop for the residential areas of Waitangirua, Cannon’s Creek and Aotea. The rolling landform is highly visible throughout the wider Porirua area, and is experienced within the backdrop of the distant Belmont Hills. The site is also characterised as a key part of the wider Porirua basin. The prominent hillside creates a sense of enclosure to the surrounding suburbs of Waitangirua, Cannons Creek and Aotea

The site is identified as a Special Amenity Landscape partially due to its proximity to the Eastern Porirua suburban areas of Waitangirua, Cannons Creek and Aotea. For this reason, it also an appropriate site for development.

While the landscape presents possible constraints for development, there are

pockets within the topography which are well-suited for development if implemented in a sensitive and low impact manner. The approach to development is therefore crucial.

If the site is rezoned to FUZ, the Draft Structure Plan is intended to inform a future structure plan and plan change process and the future resource consent applications which would follow.

The Draft Structure Plan aims to:

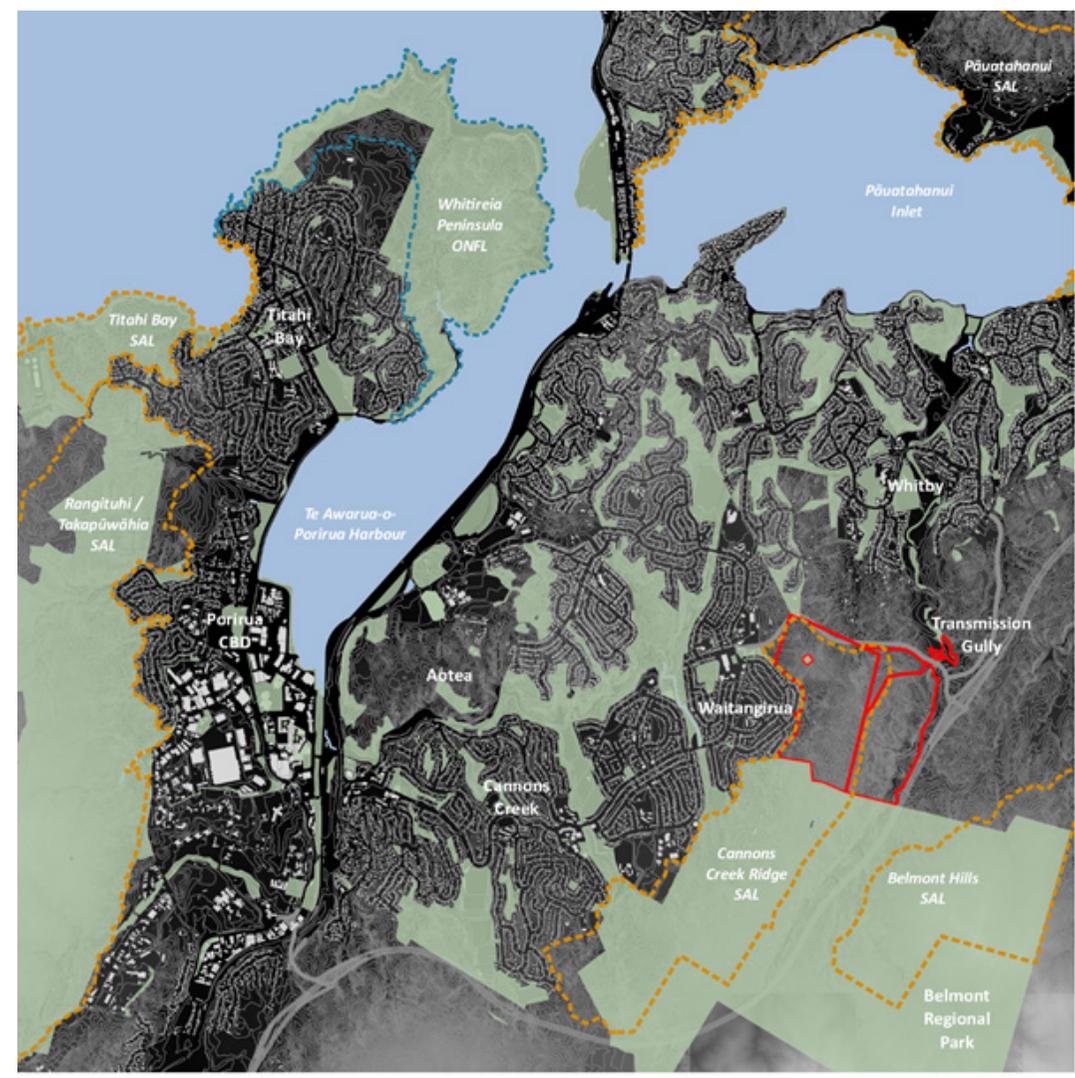
- maintain the prominent unmodified ridgelines, and ensure it is free from incongruous structures.
- avoid development within deep gullies and promote revegetation of these waterways and wetlands.
- encourage development that is low impact, integrated and designed sensitively in response to the existing terrain to limit prominence.
- maintain open space as a characteristic land use which provides connection to surrounding suburbs, promotes diverse outdoor recreation activity, enhances

and expands ecology areas, establishing an ecological corridor for region-wide environmental benefits.

- enable public access through networks across the site and along the ridge, enabling walking and biking access to Belmont Regional Park and other networks
- promote clustered housing is proposed, with smaller lots in some areas, to incentivise the preservation of landscape values in others, e.g. covenants on the larger balance areas of some lots in order to achieve consistent land cover. Such consistency increases visual coherence, which in turn reinforces the perception of a 'predominantly natural backdrop to the city to the east'
- enhance the value of the SAL by converting more landcover to native bush

Given the visual prominence of certain areas, it is recommended that regulatory tools such as protective covenants, reserve management plans or open space covenants should be applied. The SAL emphasises that the ridgeline holds significant amenity value. Consequently, this has been identified in the Draft Structure Plan and marked as a ridgeline protection area. This means that this area is unsuitable for any structures and should be treated as open space. The draft structure plan reflects this.

Adopting site specific controls will ensure development of the the site contributes positively to the urban fabric of the surrounding suburbs and enhances this landscape for the wider Porirua Region.



protecting ecology

Proposed District Plan Appendix 11

- the protection, maintenance and enhancement of natural resources, particularly those that have been identified in the District Plan in relation to Ngāti Toa Rangatira, areas of Outstanding Natural Features and Landscapes, areas of Coastal High Natural Character Areas and Significant Natural Areas
- demonstrate how proposed subdivision, use, and development will protect, maintain and enhance the identified values of the resources identified above
- the integration of green networks (such as freshwater and coastal water systems, and ecological corridors) with open space and pedestrian and cycle networks, showing how they reflect the underlying natural character values and provide opportunities for environmental restoration and biodiversity

To inform the development of the Draft Structure Plan, an ecological assessment has been undertaken, the content of which is summarised in this section. The most important ecological values on site include:

- the main stem of Duck Creek and its tributaries;
- the existing listed indigenous forest areas SNA083 and SNA084;
- the riparian margins surrounding the Duck Creek catchment;
- the kanuka forest beneath the transmission lines; and
- the mosaic of streams and wetlands within the gullies on the Landcorp portion of the site.

Residential development on the site can be compatible with protection and enhancement of ecological values of the subject site. This is possible because:

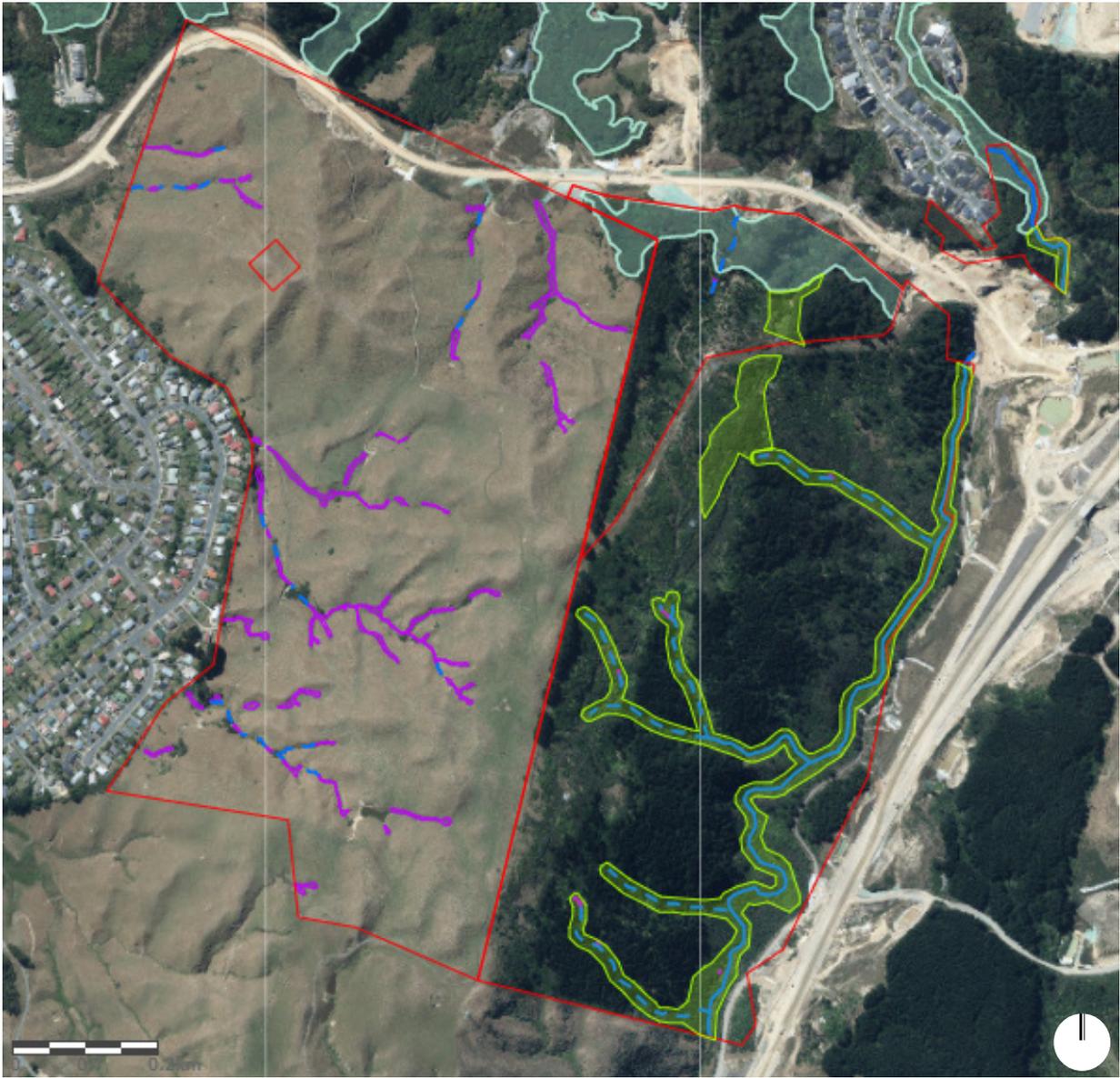
- the topography of the property creates areas that would be difficult to develop and should be included as part of areas set aside for ecological enhancement and possible offsetting;
- the relatively large size of the site compared to the size of the SNA's, enables flexibility in development and protection options;

- the proposed development areas identified on the draft Structure Plan predominantly avoid watercourses, including streams and wetlands on site, and include appropriate buffers that will protect ecological values.

A change of land use also offers the opportunity to undertake ecological enhancement of degraded ecosystems that may otherwise not be undertaken should pastoral use continue.

A range of open space and ecological areas will allow environmental restoration, enhancement and recreation. Outcomes include:

- significant natural areas identified as ecological, recreational, and stormwater drainage assets;
- wetlands protected and enhanced;
- some bush protection areas to be privately owned and managed by a small number of sections or vested in Council as public reserves;
- the transition between urban and natural environment will be managed with revegetation planting which is additionally of ecological value.



Ecological features at the Silverwood site. Permanent stream (solid blue line), intermittent stream (dashed blue line), PNRP/ NPSFM wetland (purple area), PCCDP SNA (teal area), qualifying SNA (light green area), site boundary (red line).

The Draft Structure Plan illustrates that the site can be developed in a way, and to a state, that is sympathetic with the surrounding landform and protects and restores the local ecology, including restoring and reinforcing ecological corridors. In this respect, roads are kept out of ecologically sensitive areas, development areas nestle within the landform instead of rising above it and the streams and slopes are revegetated and integrated within walking and cycling opportunity.

The Draft Structure Plan includes a ridgeline protection area and biodiversity offsetting and restoration areas that will provide key ecological corridors through to Belmont Regional Park to the south, Bothamley Park to the north east and Duck Creek to the north west.

The Draft Structure Plan also avoids development within the identified drainage corridors. The clustered nature of the proposed development layout seeks to avoid, minimise, or mitigate effects on headwater flow paths and watercourses, rather than dispersing the development footprint widely across the site. The predominant patterns of the landform will therefore be preserved and reinforced through appropriate ecological restoration and/or enhancement.

building community

Proposed District Plan Appendix 11

- Feedback from landowners, Ngāti Toa Rangatira, infrastructure providers and communities gained through consultation during the structure planning process.
- the location, scale, function and provision of community facilities, including educational, health, welfare and cultural facilities and open space to cater for the needs of communities in the structure plan area and neighbouring areas.

Project Team Site Vists and Workshop

The Project Team experts have undertaken site visits and, on Thursday the 17th of September, a workshop was held. The intention of the workshop was to identify and confirm all relevant opportunities and constraints prior to developing a draft structure plan for the site.

Key messages from the workshop included:

- the development of subdivision, land modification and building controls will be crucial in ensuring landscape values on the site can be maintained.
- develop a range of appropriate housing/site typologies from terraces to large lots and identify the appropriate range for each.

- comprehensive residential development and papakainga housing, particularly in the development areas adjacent to Waitangirua should be included.
- develop specific road typologies appropriate to the site and its character, possibly responding to each development area
- explore opportunities for recreation in areas unsuitable for development, for example steep forested areas
- develop mechanisms for managing open land /vegetated space including that in private ownership
- topography of the site has challenges for efficient rain gardens and standard road typologies.



view from Waitangirua Village Centre (Outside of Maraeroa Marae Assn)

- the desire for density given the sites ideal location for development must be reconciled with the extent of earthworks required.
- central / shared stormwater devices could add value and amenity to subdivisions.
- key ecological areas should be protected and this can be done by a variety of ways, including ownership by PCC, covenant or private management systems (e.g. body corporate).
- the site will re-vegetate over time as grazing is reduced and gullies protected – the ridge backdrop is currently open and rolling landform but this can also be a planted backdrop
- public access should be provided through open spaces to create access through to Belmont Regional Park to the south, the Bothamley walkway and the Duck Creek corridor to the north.

Project team workshops will continue through Phase Two.

Initial Consultation and Stakeholder Engagement

The Phase One works has included holding initial meetings with Ngati Toa Rangitira and stakeholders to provide feedback on their expectations for the site and provide advice on key features of the Draft Structure Plan. Details of initial consultation and stakeholder engagement are provided below.

It is acknowledged that meetings and workshops with relevant stakeholders will continue throughout the further phases including throughout the refinement of the Draft Structure Plan.

■ NGATI TOA RANGITIRA

Meetings that have included reviews of the Draft Structure Plan have been held with the Chief Executive and other members of Ngati Toa.

■ PCC – POLICY

Meetings have been held with staff in the Policy Team of Porirua City Council where no significant concerns with the rezoning proposal were identified .

■ WAKA KOTAHI NEW ZEALAND TRANSPORT AGENCY

Two meetings were held with staff in the Consents and Approvals Team of Waka Kotahi to discuss site access, connectively, interfaces with Transmission Gully and reverse sensitivity.

■ GREATER WELLINGTON REGIONAL COUNCIL

The Draft Structure Plan was discussed with staff in the Environmental Policy Implementation Team of GWRC where no immediate issues or concerns with the concept were identified. At this meeting it was also recommended that the project team review how the development may fit in with the Toitū Te Whenua Parks Network Plan 2020-2030.

building community

Proposed District Plan Appendix 11

- Feedback from landowners, Ngāti Toa Rangatira, infrastructure providers and communities gained through consultation during the structure planning process.
- the location, scale, function and provision of community facilities, including educational, health, welfare and cultural facilities and open space to cater for the needs of communities in the structure plan area and neighbouring areas.



**Te Rūnanga o
Toa Rangatira**

The Landcorp site was listed as a Deferred Settlement Property (DSP) in the Ngāti Toa Rangatira Deed of Settlement. DSPs are offered to iwi as commercial redress, and therefore the intention that sits behind that offer is to redress the economic resources lost through Crown breaches of the Treaty of Waitangi. The rezoning of this site therefore aligns with this intention as it enables the ability or opportunity for future development.

The SCL submission does not seek to amend or remove any of the overlays or notations carried over from the operative Plan, or the proposed plan, but rather seeks to work within these constraints. This aligns with the values that Ngāti Toa holds in relation to the Silverwood site, the Landcorp site, and more broadly, the Eastern Porirua area.

Ngāti Toa Values Assessment of Silverwood and Landcorp Sites for Submission on Proposed Porirua District Plan

Cultural values associated with an area or activity are more than just those things that are important to the iwi. They are a reflection of who we are as tangata whenua and a living expression of the contribution we have to make to the future development of our people and our community.

Based on the review and analysis of existing information (including previous CIA's, Deed of Settlement, Strategic Plans, the following are a list of Ngāti Toa values that are identified as important and/or significant to the proposed area and proposal to rezone the Silverwood and Landcorp sites from Rural to Future Urban Zone.

Kaitiakitanga

Kaitiakitanga is a critical value regarding environmental stewardship and it is summed up best as:

'an inherited responsibility of those who hold mana moana and mana whenua to ensure that the mauri of the natural resources of their takiwa is healthy and strong, and the lifesupporting capacity of these ecosystems is preserved'.

The RMA defines Kaitiakitanga as:

"the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources and includes the ethic of stewardship."

This definition recognises that we all have a part to play as guardians to maintain and enhance our natural resources for current and future generations. Any activity that has the potential to adversely affect the environment must be avoided.

Kotahitanga - Partnership

Working in true partnership built on shared commitment, good faith, active engagement and commonality of purpose. This value identifies a shared commitment that Ngāti Toa seek to work proactively and in partnership to ensure that the values identified are reflected and expressed in a meaningful way. Working as one (kotahitanga) for the benefit of the community is a critical value.

Mana

Ngāti Toa's role as mana whenua is critical to any current and future development. Opportunities to revitalise, promote and uphold our connection to place should be explored. This can include, but is not limited to, signage, place and street names, landscaping and development. The role and visibility of Ngāti Toa should be advanced at every opportunity.

Ki Uta Ki Tai – Holistic and Integrated Management

This value (which translates to 'from the mountains to the sea') arises from a shared belief by Ngāti Toa that resource management cannot be viewed in isolation. It requires a holistic approach which recognises the interconnected nature of the natural world. Māori resource management practices have always recognised that an effect on one resource can also have a flow on effect to

others. In order to mitigate the impact of one, you must also consider how you mitigate or manage the others.

This holistic approach to resource utilisation is a critical component of a Māori world view and to the value of kaitiakitanga. Any potential adverse effect from this activity on fresh or coastal water, sites of significance, waahi tapu or other interests of Ngāti Toa must be avoided, remedied or mitigated.

Mātauranga and Te Reo Māori

This value recognises that mātauranga Māori and Te Reo Māori are a taonga and should be respected and valued for the contribution they can make to decision making processes and operational delivery for holistic (community, environmental, cultural) wellbeing. Te Ao Māori is an equally valid source of knowledge in understanding the rich interactions that exist within tribal decision making.

Rangatiratanga

Self-determination and the ability to determine one's own direction and approach to sustainable development. This recognises Ngāti Toa's desire to introduce a unique approach to co-govern and co-manage urban develop projects moving forward.

Manaakitanga

Protection and preservation to ensure good health and well-being. Recognition that our actions will be considered and justified by using the best available information and good judgement to ensure positive cultural, economic and environmental outcomes.

Te Mana o Te Wai

Valuing freshwater and all that it represents and provides for, including its inherent right to exist in its own state, as well as the species and ecosystems within and surrounding it. To Ngāti Toa (and to Māori generally) water is a taonga – 'he taonga te wai'. Our ancestors referred to freshwater as the 'lubricant of life', and they maintained a strong reliance on water for physical and spiritual sustenance.

Mauri

Mauri is the life force that exists in all aspects of the natural world. Customary concepts of whakapapa, tapu, and tikanga are exercised in order to preserve and nurture mauri inherent in the environment.

Mahi mo te iwi

Opportunities to build capability and capacity of iwi members is a critical priority for Ngāti Toa. This includes employment, education, training, mentoring and governance. Opportunities to provide long term and sustainable employment and training for our people is valued.

Oranga/Ohanga

Sustainable housing and economic development opportunities are valued by Ngāti Toa. The ability to invest in sustainable opportunities to grow the tribal assets and also the provision of healthy homes is a priority. Tribal wellbeing (cultural, economic, environment) is a key measure of success in this development.

maximising land use

Proposed District Plan Appendix 11

- contribution to a compact urban form and the efficient use of land in conjunction with existing urban areas to give effect to the Regional Policy Statement for the Wellington Region 2013
- establishment of new centres and the expansion of existing centres in ways that complement the hierarchy and network of existing centres
- centres should be located and designed to maximise access by walking, cycling and public transport
- a density of development sufficient to support the vitality of centres and communities and to provide housing and transport choice
- a mix and distribution of land uses within the structure plan area, as is appropriate to the area's size and location, to provide opportunities for business activities and employment, community facilities and open space close to where people live
- the location and protection of infrastructure and management of reverse sensitivity effects on infrastructure from subdivision, use and development
- the location and protection of use and development and management of reverse sensitivity effects on use and development.

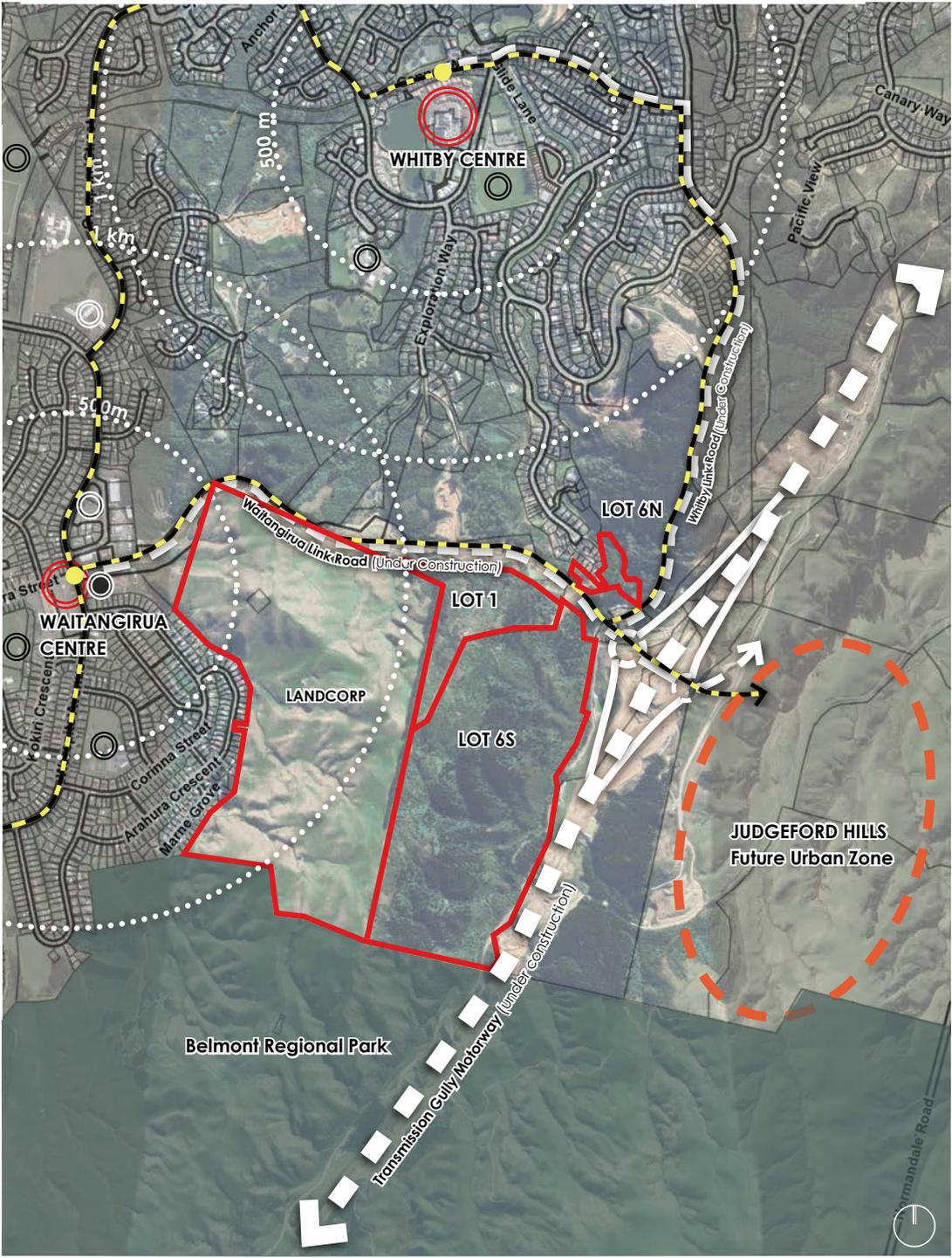
Proximity

On a regional scale, the site is located in close proximity to the existing urban environment and can be provided with a rational connection to the Transmission Gully Motorway. In this regard the development of the site is considered to maintain a compact, connected and well designed regional form. The Transmission Gully Motorway defines the potential edge of the urban area of Porirua (with the exception of the Judgeford Hills FUZ).

At a more local level, the availability of immediate access to the strategic road network from this point means that the site is highly accessible to nearby suburban centres and the Porirua CBD and enables a logical and efficient utilisation of the transport network.

Access will also be available to:

- the south (Tawa & central Wellington) via Transmission Gully to the south and the existing State Highway 1)
- the north (Kapiti, Horowhenua and beyond) (via Transmission Gully, the Kapiti Expressway, the Peka- Peka to Otaki expressway
- the Hutt Valley (via Transmission Gully to State Highway 58 and State Highway 2)
- local facilities in Whitby and Porirua (east) via the Waitangirua Link Road, including:
 - Waitangirua Kindergarden – 500m
 - Tairangi Kindergarden – 950m
 - Natone Park School – 500m
 - Corinna School – 700m
 - Tairangi School – 950m
 - Te Kura Maori o Porirua – 1km
 - Porirua College: 1.8km
 - Aotea College: 3.4km
 - Bishop Viard College: 5.2km
 - Tawa College: 9km



-  Future Mega Bus Route
-  Future Mega Bus Stop
-  community infrastructure (e.g. school, kindy, park, recreation)
-  marae

appropriate urban form

Proposed District Plan Appendix 11

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

- 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
- 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 and mixed-use activities
- provision of open spaces which are highly visible from streets and of a scale and quality to meet identified community needs
- appropriate transitions within and at the edge of the structure plan area between different land use activities, intensities and densities
- the application of an integrated stormwater management approach within developments to reduce impacts on the environment while enhancing urban amenity.

An Urban Design Assessment was prepared to inform the development of the Draft Structure Plan. The purpose of this assessment is to understand the broad contextual issues and opportunities relating to the future development of the site, including:

- existing context & adjacent communities
- access and connectivity
- landform and topography
- other natural features
- infrastructure
- interfaces

The assessment identifies opportunities and constraints in relation to the site's unique location and environment and includes a number of recommendations for site planning.

In response to site topography specifically, and with a view to achieving visual integration of buildings and vegetation, a number of strategies were recommended in the Urban Design Assessment.

These include:

- respecting natural drainage patterns where feasible;
- minimising impervious surfaces on lots;
- utilising retaining walls to reduce the total amount of grading required;
- alignment of allotments to follow hillside contours;
- avoiding encroachment of development into areas with sensitive ecological values;
- cluster development and infrastructure to minimise the need for grading;
- locating dwellings close together on higher ground and surrounding open space managed collectively in the location shown on the draft Structure Plan;
- provide flexibility and allowances for irregular lot sizes and shapes in order to maximise the number of steep hillsides to be preserved; and,
- locate buildings close to streets with garden space falling to the rear site boundary.

The Urban Design Assessment also identifies that architectural strategies could be employed to integrate buildings within the topography, which includes providing steps in building foundations, and employing varying building platforms.

Coupled with evaluations of the other technical experts, this assessment has culminated in the preparation of the constraints plan and opportunities plan, that have formed the basis of the development of the Draft Structure Plan.

The urban design assessment concludes that a clear understanding of the site's unique opportunities and constraints, can inform an appropriate development framework which :

- provides for the efficient and sustainable use of the land while retaining its landscape value for the wider community
- contributes to accommodating growth within Porirua and on land that is well located, accessible and within a logical urban area
- enables the city to capture value from existing infrastructure and reduces growth pressure on adjacent rural areas



From: Auckland Design Manual

Cluster Concept (any area)

- concentrates development in areas with the best aspect and least constraints by grouping dwellings together
- provides for a wide variation in lot size, choice and price point
- retains large ('residual') areas of natural open space, enables a land management system and opportunities for public ROW
- promotes the sensitive placement of house platforms/clusters and landscape controls to promote visual integration
- maintains landscape values whilst achieving a feasible residential development opportunity
- reduces capital costs through reduced infrastructure per lot/unit;
- promotes more opportunities for social interaction, a heightened sense of community, and a sense of security

With respect to the role of urban design in the structure planning process, the Urban Design Compendium identifies the following priorities:

• **Strengthening local communities**

To help ensure that proposed development reinforces, rather than undermines local communities and assists successful project delivery.

• **Creating places of distinction**

Drawing inspiration from a neighbourhood's indigenous character strengthens local identity. Context-less design leads to 'anywhere places'.

• **Harnessing intrinsic site assets and resources**

Harnessing the intrinsic resources of the site - the existing development form, soils and geology, drainage, landscape, solar and wind energy - to create more sustainable development.

• **Integrating with surroundings**

Achieving careful integration with the landscape or surrounding built environment, using the right materials, forms and landscape elements for the locality; respecting footpaths, street and road linkages and relating to existing urban structures.

• **Providing vision**

A vision focuses community aspirations, sells a scheme to a developer and provides a long-term aim for project participants. It embodies a strategy for the future that everyone can sign up to and work towards over a period of time.

appropriate urban form



Potential Measures of Control

- ✓ High level of control
- ✓ Medium level of control
- ✓ Low level of control

		Potential Development Controls				
		Landscaping/planting requirements	Restriction on earthworks	Building form/roof and materials	building platforms identified at subdivision stage	Landscape and Visual Assessment required at subdivision stage
Development Area	1	Hillside Living				
	2	Whitby Views	✓	✓	✓	✓
	3	Waitangirua Community	✓	✓	✓	✓
	4	Hilltop Clusters	✓	✓	✓	✓
	5	Bush Living	✓	✓	✓	✓

The draft structure plan identifies a number of different residential development areas in response to the site's varying capacity for accommodating development. This capacity is determined by a number of factors including:

- topography/gradient
- proximity (to existing urban area, transport infrastructure etc.)
- visual/landscape sensitivity

It is envisaged that area-specific development controls, along with a "sliding scale" of control be further considered and confirmed during a future rezoning process. This will ensure:

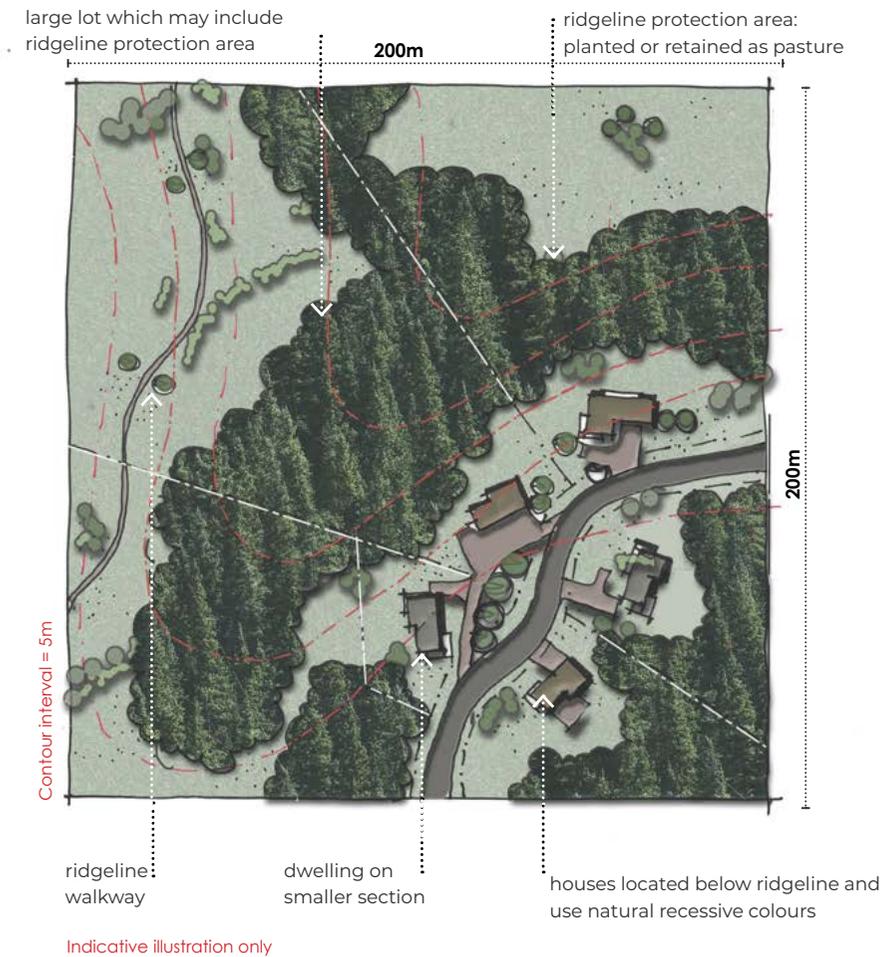
- the integration of built form and landscape
- the protection of the landscape value of the elevated areas of the site
- the creation of a variety of residential and lifestyle options, including the provision of comprehensively higher density typologies and papakainga housing

Open Space

		Indicative Areas
	Significant Natural Area	3.7ha
	Ridgeline Protection Area	26.7ha
	Biodiversity Offsetting and Restoration Area	25.6
	Drainage corridor Protection	spread across other zones (both development areas and open spaces)
TOTAL		56ha (49%)
SITE AREA		114.1ha

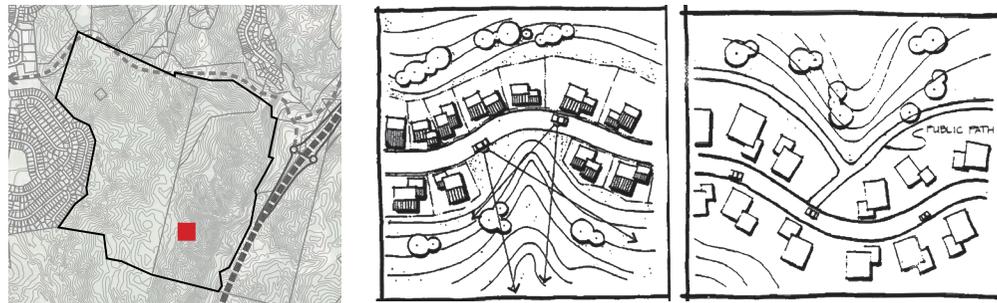
Significant areas of the site are anticipated to be retained as open space. These areas can be identified in line with their purpose/intention and relevant policies and controls be developed.

It is intended that areas appropriate for development include a wide variety of housing types to promote choice, a mixed community and affordability. Each development area should have a full range of housing types.





Indicative illustration only of potential development in the area identified on the key plan below



Development Area 1- Eastern Hillsides

This development area is located on east facing slopes within Lot 6 South, on the east and lower slopes of Cannon’s Creek ridge. It is generally only visible from Transmission Gully and Belmont Hills and is therefore the least sensitive with respect to visual impact of development (from Waitangirua and wider Porirua area on the west and) on the Cannons Creek ridgeline.

The envisaged outcomes in this area include:

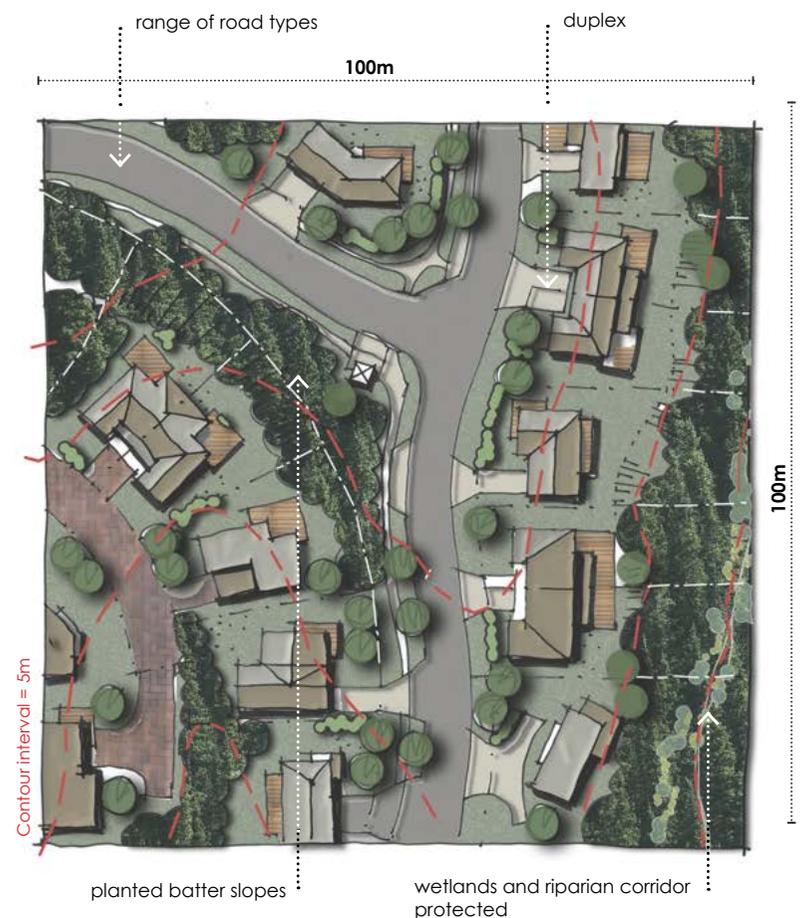
- a variety of lot/house types including compact, comprehensively developed options
- housing which responds to the steep topography and maximises views and opportunities for solar gain
- housing located in clusters to maximise infrastructure efficiency
- a variety of road typologies which minimise earthworks
- a network of pedestrian and cycle links
- areas of regenerating native bush
- drainage corridors which divide residential clusters
- estimated yield 8 to 10 du/ha

Development Area 2 - Whitby Views

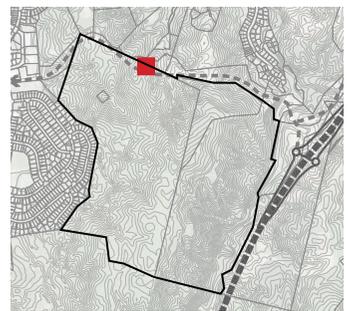
This area is located within the Landcorp lot and within the Cannons Creek SAL. However, these north facing slopes are hidden from most of Porirua. It is well connected by the Waitangirua Link road. Due to low visual sensitivity, more gentle slopes and good proximity to road links, this area has a higher capacity for development.

The envisaged outcomes in this area include:

- a relatively conventional suburban environment with a variety of lot/house types including compact, comprehensively developed options
- housing which responds to the steep topography and maximises views and opportunities for solar gain
- a variety of road typologies which minimise earthworks
- a network of pedestrian and cycle links
- areas of regenerating native bush
- drainage corridors which divide residential clusters
- estimated yield 12 to 15 du/ha



Indicative illustration only of potential development in the area identified on the key plan below

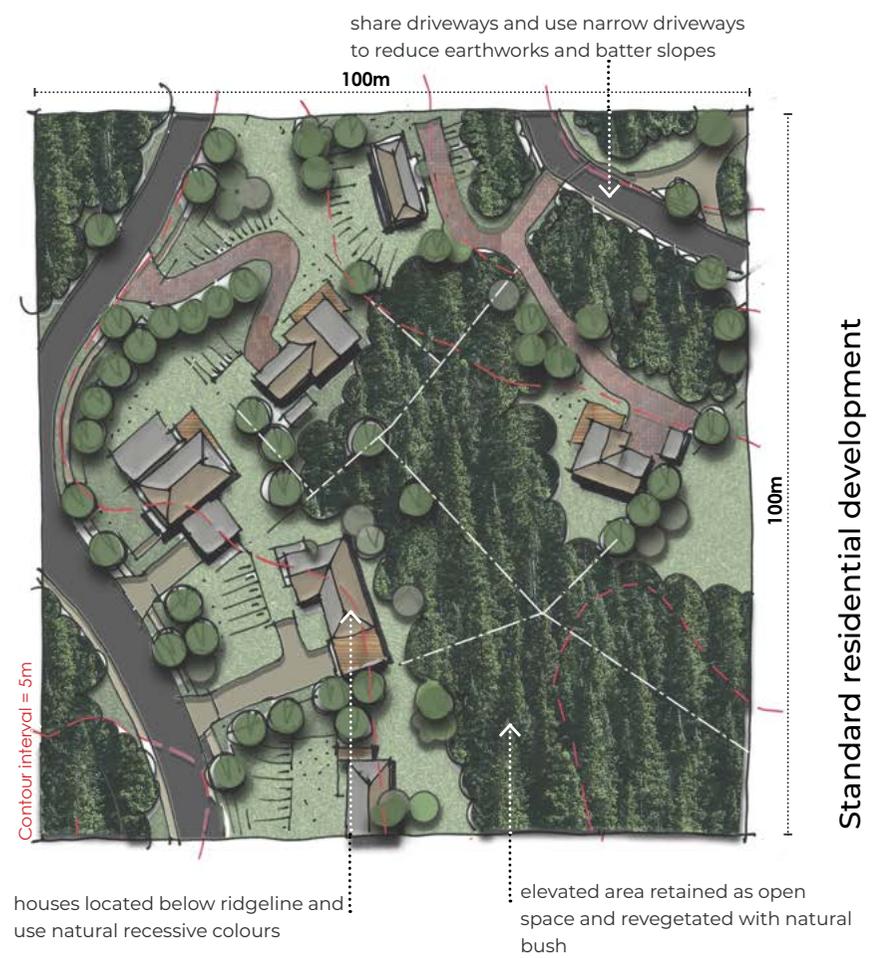


Development Area 3 - Cannons Community

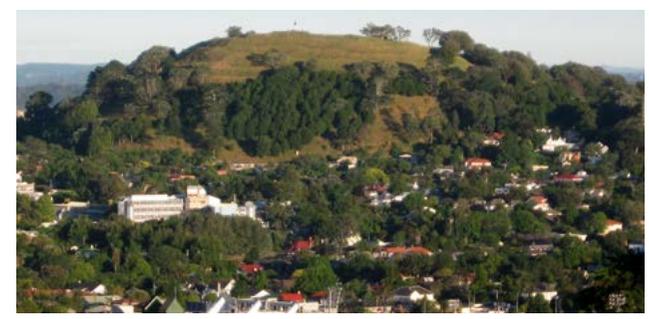
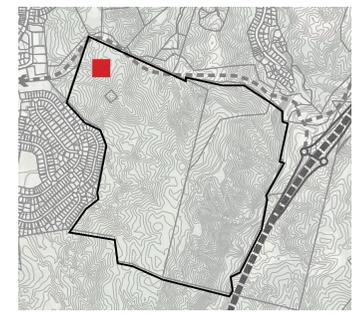
This area is also located within the Landcorp lot and Cannons Creek SAL, but adjacent and connected to the existing Waitangirua community. Lower elevations these east facing slopes are appropriate for residential development to soften the transition from the existing suburbs to open space.

The envisaged outcomes in this area include:

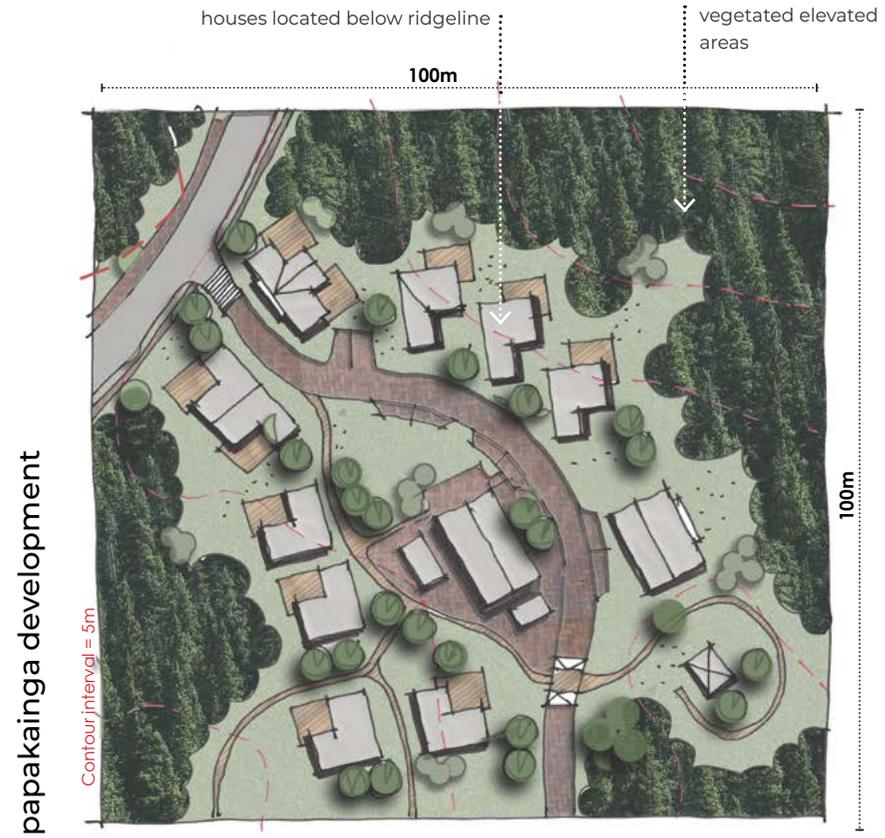
- sensitive placement of house platforms/ clusters and landscape controls to promote visual integration
- protected elevated areas/ridges with either regenerating native bush or open pasture
- a variety of lot/house types including compact, comprehensively developed options
- options for pakakainga housing
- housing which responds to the steep topography and maximises views and opportunities for solar gain
- a variety of road typologies which minimise earthworks
- pedestrian and cycle routes linking the wider site with the Waitangirua centre and wider community



Indicative illustration only of potential development in the area identified on the key plan below

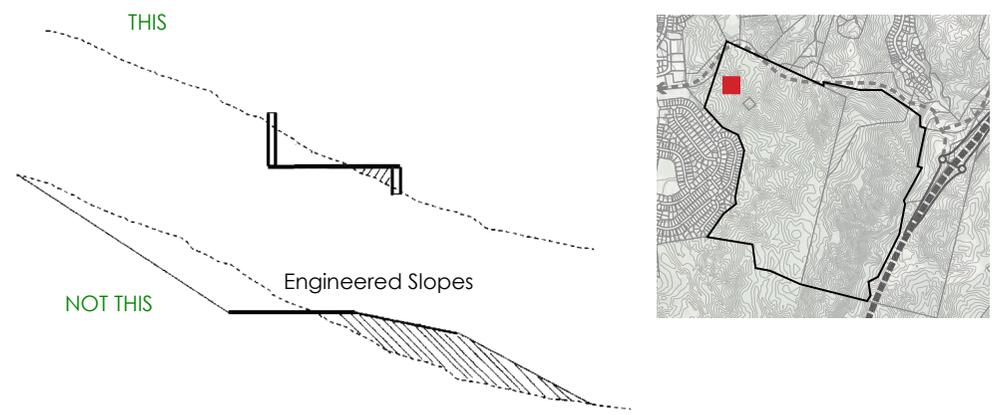


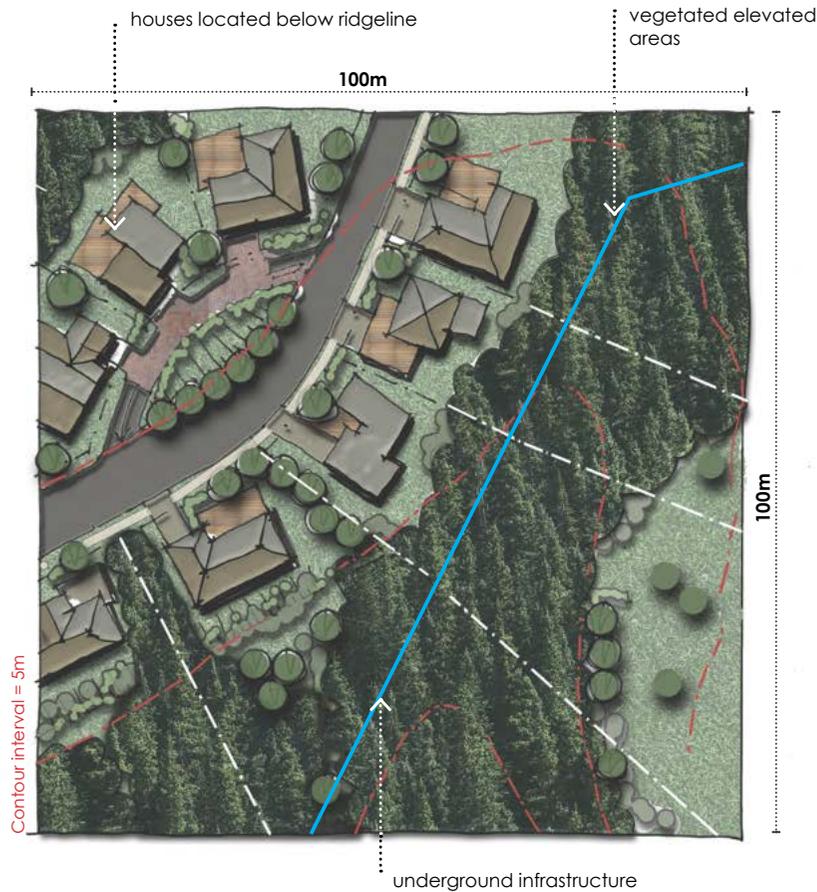
- areas of regenerating native bush associated with riparian corridors
- opportunities for community food /plant resources
- drainage corridors which divide residential clusters
- a high level of control with respect to the location of building platforms
- control over planting, earthworks and building forms/materials to ensure visual integration and low impact
- estimated yield 5 to 7 du/ha



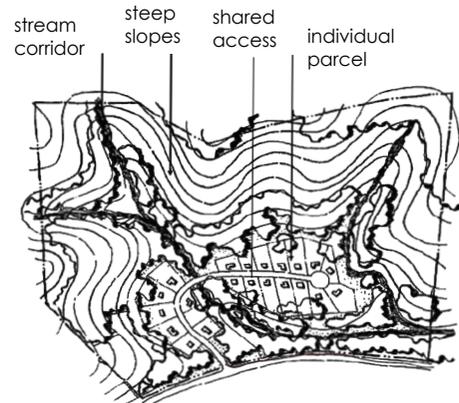
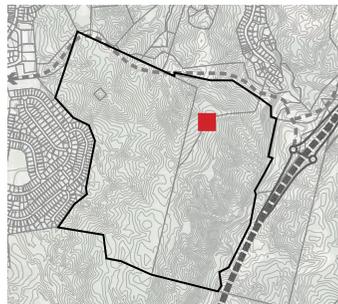
Indicative illustration only

Indicative illustration only of potential development in the area identified on the key plan below





Indicative illustration only of potential development in the area identified on the key plan below



Development Area 4 - Hilltop Clusters

This area is located near the top and on the eastern slopes of the Cannons Creek ridgeline. To mitigate the effects of development here, structures must be set to the east, below the ridge, and clustered along the road in less sensitive locations to ensure building envelopes are not read against the skyline

The envisaged outcomes in this area include:

- protected elevated areas/ridges with either regenerating native bush or open pasture
- a variety of lot/house types including compact, comprehensively developed options with a cluster approach
- housing which responds to the steep topography and maximises views and opportunities for solar gain
- a variety of road typologies which minimise earthworks
- a high level of control with respect to the location of building platforms
- some considerations of planting, earthworks and building forms/materials to ensure visual integration and low impact
- estimated yield 8-10 du/ha

Development Area 5 - Bush Living

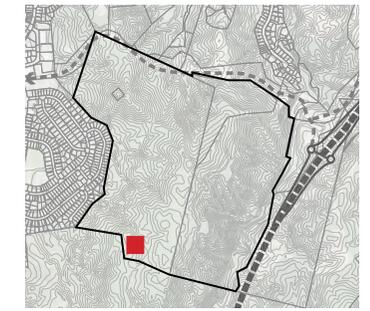
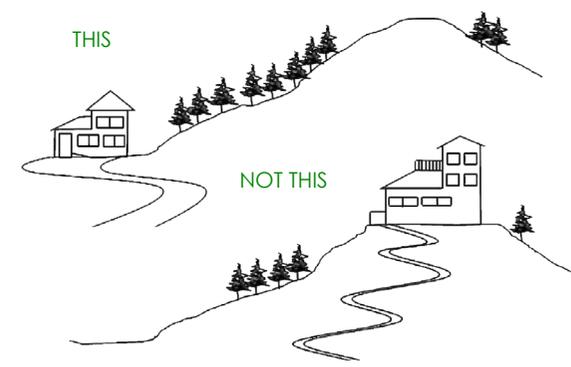
This area is located on hard to access slopes, and/or at high elevations in the Significant Amenity Landscape on the western slopes of Cannons Creek ridge. It has a low capacity for change and would be restricted to a rural lifestyle character, to maintain large areas of open space.

The envisaged outcomes in this area include:

- sensitive placement of house platforms/clusters and landscape controls to promote visual integration
- protected elevated areas/ridges with either regenerating native bush or open pasture
- housing which responds to the steep topography and maximises views and opportunities for solar gain
- minor access routes
- a high level of control with respect to the location of building platforms
- a high level of control of planting, earthworks and building forms/materials to ensure visual integration and low impact
- estimated yield of 1 to 2 du/ha



Indicative illustration only of potential development in the area identified on the key plan below



providing connection

Proposed District Plan Appendix 11

- integration of land use and development with the local and strategic transport networks
- layout of the transport network and facilities in a manner that is safe, attractive, efficient, and resilient to hazards, well connected to local facilities and integrated with land uses, the surrounding area and the wider transport network
- support for transport and accessibility that is multi-modal and interconnected with an appropriate number and location of access points
- provision of public and active transport linkages

To inform the development of the draft structure plan, a transportation assessment has been undertaken, summarised below.

Vehicle access

The site is well located in terms of ready access to the established Waitangirua retail and commercial neighbourhood centre, public transport routes that operate along Warspite Avenue, and the emerging Transmission Gully Motorway (TGM) and associated link road infrastructure.

Development of the Waitangirua Link Road which the Site has direct frontage to, provides a significant opportunity for connecting the respective properties to the external road network. It is intended that provision be made for individual access to each of the four separate properties, thereby allowing flexibility in how and when the Site may be developed.

The challenging topography and presence of SNA's along a portion of the Link Road alignment presents some constraints in terms of access. In this manner, the Waitangirua Link Road construction plans include provisional access locations to each of the respective Site lots, which logically have taken account of both the Link Road alignment (to ensure appropriate sightlines can be achieved) and topography, to ensure a practicable outcome for delivering vehicle connections to these adjacent properties.

The Structure Plan's proposed access

strategy has adopted these indicative locations for accommodating the new Site roading connections, which would likely comprise a standard t-intersection for each of the Lot 1 and the Landcorp sites, whilst a four-way priority intersection is considered to represent an appropriate arrangement for accommodating combined access to Lot 6 north and Lot 6 south.

Walking and cycling

At present, the Site has limited access in terms of established walking and cycling routes, and there are no formal connections to the Belmont Regional Park which abuts the Site's southern boundary. The Draft Structure Plan has therefore been developed to be cognisant of opportunities to support public access, and envisages the following active mode benefits across the wider Site:

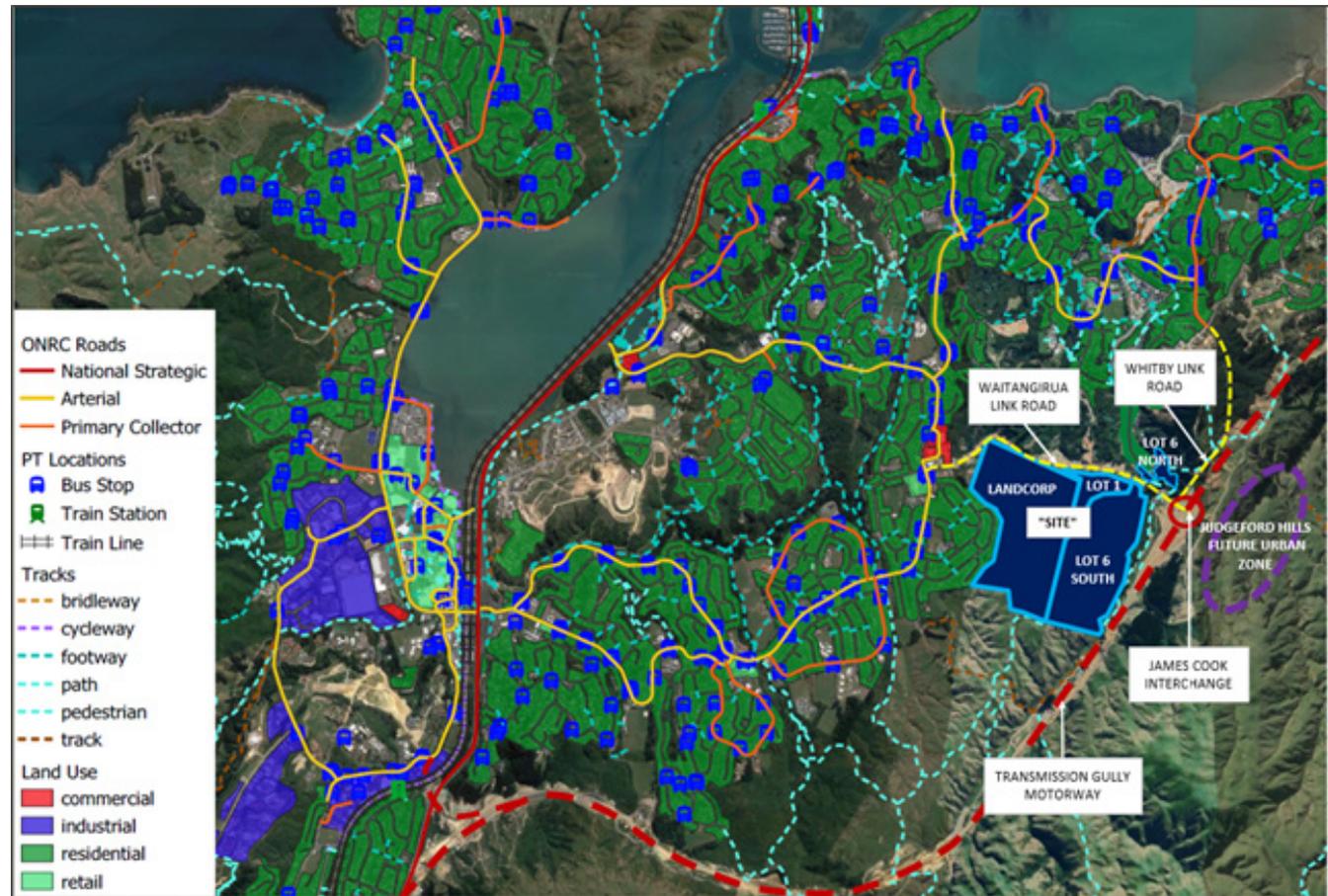
- walking and cycling 'local connection' opportunity through to Arahura Crescent;
- opportunity to provide pedestrian and cycle connection through Lot 6 North, to link with Banks Boulevard, which delivers a convenient connection to possible future bus stops on the Waitangirua Link Road for existing development to the north;
- walking and cycling routes along Duck Creek; and
- ridgeline walk / improved active mode connections through the site to Belmont Regional Park.

Public transport

The nearest established bus stops are located on Warspite Avenue and are served by Route 220 (Ascot Park – Porirua – Titahi Bay), which operates every 20-mins in the peaks and half hourly in the off-peak. These existing bus stops are located about 5-10 minutes' walk from the Landcorp property, and about 10-20 minutes' walk from the Lot 6 north and south. A new future bus route operating along the Waitangirua Link Road would provide an opportunity for most residents at the Site to be within a 10-minute walk of a bus stop.

Traffic Impacts

The assessment shows that with full development of the Site, there will be adequate capacity on the local road network to accommodate the forecast development traffic while maintaining entirely appropriate and acceptable Levels of Service at all key intersection points.



providing connection

Internal roading arrangements

The Porirua City “Code of Land Development and Subdivision Engineering” (Code) sets out standards for new subdivisions including in respect of ‘Roading and Access’, for which reference is made to the New Zealand Standard NZS4404:2004 ‘Land Development and Subdivision Infrastructure’ (which has since been superseded by a 2010 version). In addition, a number of ‘Special Provisions’ are included which have been adopted around the district, and which allow for narrower ‘non-standard’ typologies, subject to specific environment or circumstance. Accordingly, it is likely that a series of roading typologies that provide an appropriate fit for the level and nature of activity within the Site would be developed as more details of the densities and site-specific constraints emerge.

Given the challenging topography which exists across parts of the Site, appropriate consideration of internal road gradients will be required, relative to the Code, which sets out guidelines on maximums for general roads (to be vested) and suburban / rural private ways. In this regard, and noting that a single circulating roadway through the wider site extent at this stage is not considered practicable, provision for a future full-size City-bus service within the Site’s movement network is unlikely to be viable.

With regards to the collector road, its location was determined to be appropriate based on engineering, topographical, ecological, traffic and landscape considerations. It crosses over the ridgeline at the low point of the saddle that has been identified as being less visible than the remainder of the ridgeline.

Due to the sensitivity of the ridgeline and the western aspect, the Landscape Evaluation includes recommendations related to the development of controls in order to mitigate the possible landscape and visual amenity of these roads. These may include:

- required testing of roading parameters such as placement, width, and gradients, to minimise visibility of the road and the earthworks associated.
- rehabilitate fill batters with planting to merge with surrounding landscape patterns, and to provide visual screening.
- no visible cut slopes along the collector road where the road crosses over the saddle of the ridgeline, when viewed from Waitangirua, Cannons Creek, and Aotea.
- no streetlights along the collector road where the road crosses over the saddle of the ridgeline, to maintain ‘distinctive patterns of open spaces with few prominent or incongruous structures’.

Summary

The traffic assessment reached the following conclusions:

- traffic arising from development of the FUZ can be adequately accommodated within the adjacent roading network, with the future planned roading infrastructure providing good connectivity to the local Waitangirua neighbourhood centre and the regional transport corridor of TGM;
- the indicative location of individual site connections to the external roading network are assessed as appropriate, with future consideration of detailed intersection layout and design ensuring that the anticipated demands can be suitably accommodated;
- the Draft Structure Plan provides some real benefits and opportunities to support and encourage local access and connectivity for active mode users; and
- there is no apparent traffic engineering or transportation planning reasons to preclude the rezoning of the Site to FUZ.

The Draft Structure Plan includes multiple access points to enable development to occur independently to enable development to occur on an incremental / staged basis.

The access and transport outcomes include:

- a movement system with a clear hierarchy and range of roading typologies;
- a connected and legible network of public streets and spaces that offers safe walking and cycling options, linking key destinations;
- a public walkway network linking the Waitangirua to the highest point of the site;
- primary access from the Waitangirua Link Road;
- a roading network with a primary collector road.

adequately serviced

Proposed District Plan Appendix 11

- the location and protection of existing and planned infrastructure, including infrastructure corridors
- the location, scale and capacity of existing and new infrastructure to serve the structure plan area
- the location, scale and function of stormwater management facilities based on the principles of an integrated stormwater management approach, including the use of green infrastructure and the primary use of on-site flow and quality controls (to manage stormwater runoff from proposed sites and roads)

To inform the development of the draft structure plan, an infrastructure assessment has been undertaken. This section summarises its content.

Earthworks

For urban development of the site to occur, land development works will be required on site including bulk earthworks to create stable development areas and roadways, installation of infrastructure services, and the creation of stormwater management areas.

The site is generally suitable for residential development. Similar to other developments in the area, due to the sloping nature of the site, some bulk earthworks are likely to be required due to:

- land topography - the varying steepness of the site, sharply incised gullies, and the need to avoid parts of the site with high ecological values
- to provide flat building sites that do not require extensive secondary earthworks
- the provision of adequate roads to access the developed area

Wastewater

In terms of wastewater, it is understood that:

- planned upgrades to the Porirua Wastewater Treatment Plant mean that the WWTP has sufficient capacity to cater for development of the site
- the existing public wastewater reticulation located downstream of the site (either through Whitby or Waitangirua), leading to the WWTP, has some capacity to service the site. This capacity is constrained during wet weather, and attenuation is likely to be required to enable to fully developed site to be serviced
- upgrades to the Porirua East wastewater network may mean that this is the preferred connection point for a larger proportion of the site

Water supply

Bulk water supply (volume of water able to be supplied) is available in this area to cater for the development of the site. However, network extension and extra local storage would be required. This would take the form of a new reservoirs with a total storage dependent on the number of houses developed on the site.

Stormwater Management

This is a key consideration for the site, given the steep landform, the development of hard surfaces and point sources of discharge from development areas.

Stormwater intentions include:

- reducing stormwater runoff volume and peak flow to predevelopment levels.
- managing stormwater quality to avoid adverse environmental effects;
- promoting the health of regional ecosystems including Duck Creek and their associated environmental services through the management of stormwater at the catchment and site scale;
- managing stormwater quantity by integrating stormwater detention measures into existing natural ecological features;
- delivering best practice urban design and broader community outcomes as part of stormwater management delivery;
- managing stormwater quantity by achieving 'hydraulic neutrality' by reducing stormwater peak flow to predevelopment levels up to the 100 ARI event; and,
- managing inundation levels by ensuring any development within existing inundation areas does not result in the loss of flood storage.

Stormwater storage is the most effective and feasible option to mitigate the increased run-off rates. This storage could be in the form of tanks associated with each new house, or as attenuation ponds designed for each catchment. Either approach, or a combination of both is feasible and can achieve the mitigation requirements. There is ample space within the site to locate attenuation ponds if required.

A variety of measures could be used to provide the required treatment. Bioretention is likely to be more effective on the steeper parts of the site, whereas swales or wetlands may be effective on the flatter parts. There is ample space available on the site to construct adequate stormwater treatment devices for the development of the site.

08

summary and conclusion

Ultimately, Silverwood Corporation Limited recommend that Porirua City Council adopt the submission to rezone the site to Future Urban Zone in the Proposed Plan.

In order to confirm whether the site is suitable for rezoning to FUZ, the project team have undertaken detailed investigations of the site including undertaking an analysis of site values, opportunities and constraints. These assessments have culminated in the preparation of the Draft Structure Plan and supporting technical assessments that conclude that the site is appropriate for residential development.

The Draft Structure Plan sets out the significant key elements that SCL wishes to achieve on the site and is of an appropriate density and layout considered acceptable by the project team. These elements include an indicative roading layout, pedestrian and cycle connections, a park and ride facility, a public open space network, reserves (neighbourhood parks), and the main residential development areas.

The Draft Structure Plan and supporting technical documents also illustrate the potential urban form and measures to ensure development of the site protects the identified landscape values while delivering a connected, varied and attractive community.

From a strategic planning and growth point of view, rezoning of the site presents mutually beneficial outcomes for –

- SLC through the realisation of its development aspirations;
- The Waitangirua, Silverwood and wider Porirua community via the introduction of new and varying housing stock; and,
- PCC through providing residentially zoned land to accommodate 30+ years of population growth (as required in the NPS-UD).

While, for future development to occur a future plan change process needs to be advanced, the Draft Structure Plan provides certainty to PCC, GWRC, landowners, and the community regarding the scale and nature of development that could occur on the site.

