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WALLACEVILLE PLAN CHANGE STRUCTURE PLAN REPORT

Wallaceville Developments Limited



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1.0 INTRODUCTION

1.1 INTRODUCTION

The purpose of this report is to provide background and explanation to the proposed Wallaceville Structure Plan ('the Structure Plan') and key infrastructure. The Wallaceville Structure Plan supports the commitment of Wallaceville Developments Limited (WDL) to a model of sustainable and integrated urban living, and will help to define a vision and to plan for future growth in Wallaceville.

1.2 THE STRUCTURE PLANNING PROCESS

The aim of a structure plan is to:

- + Set out where growth (residential, commercial, and recreational) can be accommodated in a sustainable manner;
- + Guide infrastructure planning including roading, water, wastewater, community facilities and public open space.

Structure planning considers the natural and physical resources of the land, including its values, the location and scale of infrastructure (with specific emphasis on transport infrastructure), and identifies the future pattern of significant land uses based on a consideration of opportunities and constraints. Structure planning is a planning tool that supports the comprehensive and effective planning for, and management of growth areas. It is the output of a planning process and provides a strategic spatial and developmental framework that is then subsequently implemented through more detailed planning, for example through District Plan Changes and resource consent applications. Structure plans generally comprise one or more maps, plans or diagrammatic representations of the proposed spatial distribution of landuses, features, character and links within a defined area of land. These plans are a good way to:

- + Provide integrated management of complex environmental issues within a defined geographical area;
- + Provide a co-ordinated approach to infrastructure provision;
- + Provide higher levels of certainty to developers, Councils, the public and affected parties regarding the layout, character and costs of development in areas identified for redevelopment;

- + Promote a better understanding of the inter-relatedness of issues and proposed management approaches to be used in a particular area;
- + Ensure that new development achieves quality urban design by defining the layout pattern and density of new development and transportation linkages;
- + Show how heritage and cultural matters are being provided for and managed alongside environmental considerations;
- + Assist meeting the Section 32 duties under the Resource Management Act 1991 (RMA), particularly with regards to consultation and assessing alternatives.

The structure planning process for Wallaceville has been a design-led, multidisciplinary process, incorporating principles of good urban design. Urban design contributes to a comprehensive, integrated and vision-led approach to how urban environments are planned and managed. It is about both process and outcomes. Integrating process and design is the key to achieving successful and sustainable built environments. In other words, the steps we follow to develop a design and to implement it are as important as the specific design ideas themselves. In this way, urban design is as much an approach to development as a set of criteria or principles to follow.

SUCCESSFUL URBAN DESIGN INVOLVES AN APPROACH THAT:

- + Understands and responds to the urban context;
- + Brings together different disciplines and professional groups involved in place-making;
- + Emphasises a place-based analysis of issues and options;
- + Develops plans that use an urban design approach that builds on planning, council aspirations and community values;
- + Responds to different cultural, ecological and heritage issues

1.3 STRUCTURE PLAN AS A GUIDING TOOL

The Wallaceville Structure Plan will provide a framework to guide the future development of Wallaceville over the next 10 - 20 years, and will be used to inform future resource consent applications.

The Wallaceville Structure Plan is not considered to be an exact blueprint for growth; however it is anticipated that the future growth of Wallaceville will be generally consistent with the Wallaceville Structure Plan. It is considered to be a “guiding” document, which facilitates the future growth of Wallaceville ensuring that Wallaceville grows in a sustainable, well planned and comprehensive manner.



Wallaceville - past and present



2.0 CONTEXT

2.1 SITE LOCATION

The site is located in the Hutt Valley, approximately 1.5km by road from the central city of Upper Hutt. It is situated south of the railway line and within easy walking distance of train stations at Wallaceville and Trentham, which have journey times of less than 45min to Wellington City Centre.

2.2 SITE DESCRIPTION

The northern boundary is defined by either the railway line or the National Centre for Biosecurity and Infectious Diseases. Ward Street forms the eastern boundary. Trentham Racecourse, Summerset Rest Home and Private Hospital and Ministry of Defence are located on the western boundary. The southern boundary is formed either by Alexander Road or land which forms part of the Upper Hutt Southern Hills, separating the Hutt Valley from the Whitemans Valley. The Southern Hills, covered in mature vegetation, provide a significant visual and landscape backdrop.

The site measures approximately 62ha, with one title incorporating the Wallaceville land and the remainder part of the race course title. Due to the location and alignment of the Trentham Racecourse chute, the site has an irregular shape, almost dividing the site into two halves. Alexander Road also bisects the site, leaving a small portion (around 9ha) to the south of the road. The majority of the site is located north of Alexander Road. Its current access points (two) are to Ward Street, with the remainder of the property currently fenced.

The site is predominantly flat, with a very little spatial variation in topography. This provides an openness to the north and good opportunities for sun exposure. The Southern Hills to the south provide a significant visual and landscape backdrop to this site and the wider Hutt Valley. There are also long distance views to hills in the north. The site is currently unoccupied except for a few minor tenancies on very short term leases.

2.3 SITE CONTEXT

The site is situated on the southern edge of the valley's urbanised environment, with predominantly residential development on the north and east. To the west is Trentham Racecourse while existing industrial subdivision to the southwest of the site is partially developed. The Southern Hills, covered in mature vegetation, provide a significant visual and landscape backdrop. The photographs overleaf illustrate site context while the community infrastructure within close proximity of the site is included on page 9.



View north west across the site from Alexander Road

CONTEXT - REGIONAL



CONTEXT IMAGES



1



2



3



4



5



6



7



8



















9

- 1 local convenience store to the north along Ward Street
- 2 college to the north of the site
- 3 local playground to the north along Ward Street
- 4 Southern Hills to the south of the site
- 5 Wallaceville railway station
- 6 local residential character east of Ward Street
- 7 industrial development along Alexander Road
- 8 Trentham Camp
- 9 typical local street east of Ward Street

CONTEXT - LOCAL

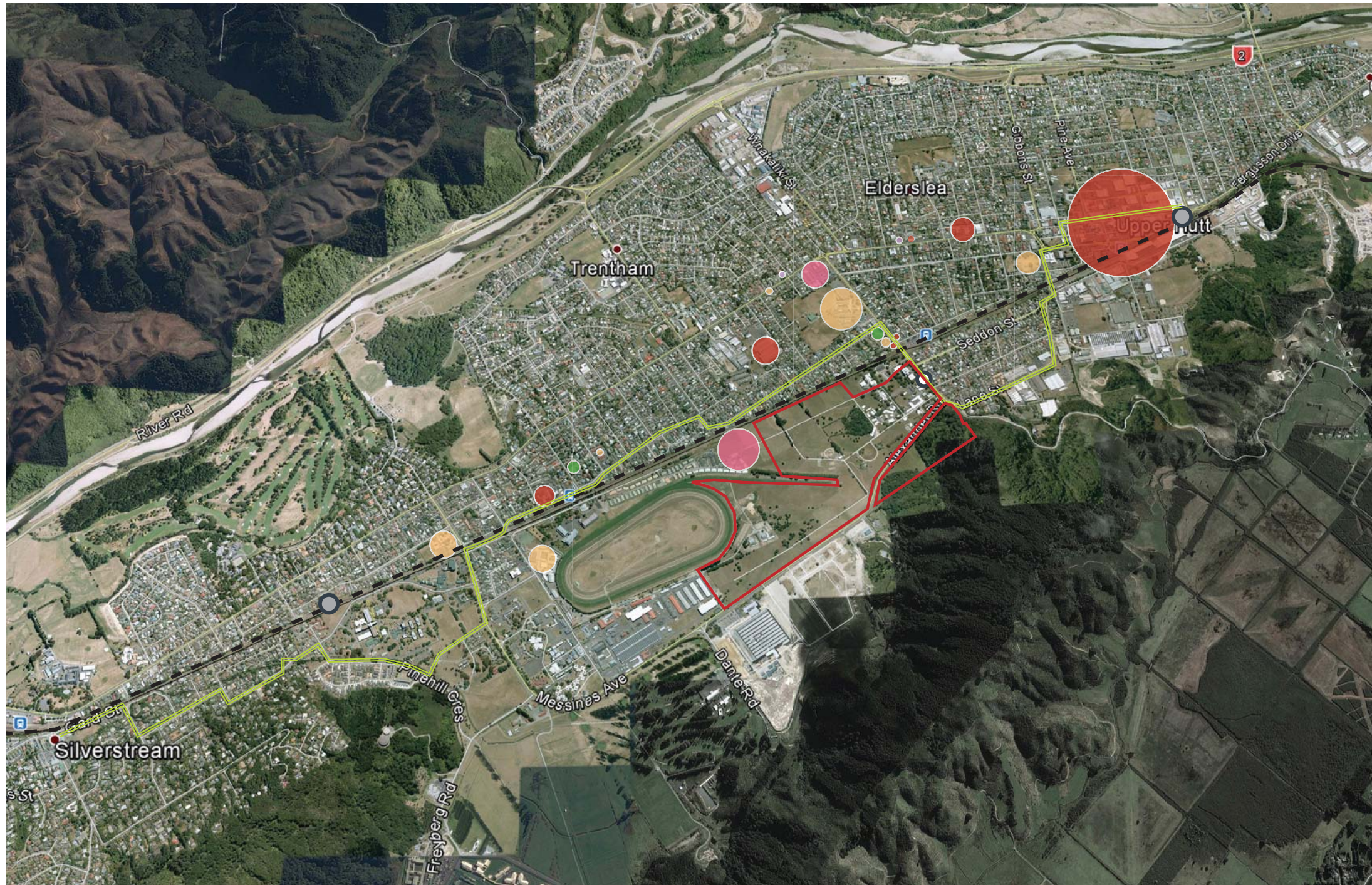


KEY

-  plan change boundary
-  vegetated backdrop
-  college/school
-  industrial activity
-  railway line
-  recreation space
-  neighbourhood shops
-  racecourse landholding
-  racecourse land under purchase negotiation by WDL
-  Summerset Retirement
-  Defence Force
-  Secondary District Arterial
-  pedestrian crossing over rail line
-  vehicle crossing over line
-  long views to valley sides
-  view to "green wall"

 Not to Scale

CONTEXT - SOCIAL INFRASTRUCTURE



KEY

- retail
- education
- open space
- retirement
- bus route
- bus stop
- train station

Not to Scale



3.0 PLANNING BACKGROUND

3.1 APPROACH TO DEVELOPMENT OF THE STRUCTURE PLAN

The Structure Plan has been developed over a period of 10 months since early 2014. A preliminary development plan was first prepared for the site as a desktop exercise. This was prepared over February and March 2014 and was used to determine an indicative yield for the site and as background for the technical assessments and engagement with key stakeholders. It is noted that this was prepared for a site area larger than that included in the proposed Structure Plan and Plan Change. Specifically the area of the Trentham Racecourse chute was included in the Preliminary Development Plan, but has since been excluded from the Structure Plan / Plan Change at the Racing Club's request.

Over June and July 2014 various technical reports were commissioned on the site. The purpose of these technical reports was to identify site values and opportunities relevant to the site's development. The preliminary development plan was also reviewed by each of the technical experts and considered as part of their recommendations. Each of the technical reports is summarised in section 5 following. During the same period consultation with stakeholders and neighbours was initiated. This occurred through 3 main approaches.

First a joint working group (JWG) was established involving the Upper Hutt City Council and Greater Wellington Regional Council. This met over July to September to review the briefs for several of the technical reports, to be briefed on the findings of the draft reports and to be presented with a summary of the site constraints and opportunities. A further meeting of the JWG was held in late November 2014 to discuss the draft Structure Plan.

Meetings were also held with other key stakeholders, namely the Department of Conservation, Heritage New Zealand, the Wellington Tenth Trust and the National Centre for Biosecurity & Infectious Diseases. To seek feedback on the preliminary development plan, and to discuss the findings of relevant technical reports. Letters were also sent to a range of other parties at this time, being Te Runanga o Toa Rangatira, KiwiRail and Summerset Group Holdings Limited.

As a result of this process of technical evaluation and consultation, an opportunities and constraints summary was prepared in September

2014 and as noted was presented to the JWG. Based on this, the structure plan was prepared over September to November. Key aspects of the development of the structure plan were discussions with the Department of Conservation regarding the two conservation covenants registered against the site title, investigation of site contamination issues particularly regarding the race course portion of the site, and assessment of opportunities to reduce the posted speed of Alexander Road.

Throughout the development of the structure plan various meetings and communications occurred with the two Councils and other stakeholders and neighbours. As the Structure Plan developed, options for the District Plan mechanism to achieve its implementation were considered. This process is set out in the s32 Evaluation associated with the Private Plan Change application.

3.2 POLICY CONTEXT

The existing policy context has been taken into account as part of the development of the Structure Plan. Specifically, the Regional Policy Statement (RPS) and the Upper Hutt Urban Growth Strategy 2007 have been considered. Key provisions are briefly set out below. These are also evaluated in the s32 evaluation which accompanies Plan Change application.

3.2.1 REGIONAL POLICY STATEMENT

The provisions of the RPS most relevant to the Structure Plan are those relating to 'Regional form, design and function' in section 3.9. This section of the RPS identifies three resource management issues being:

- + Poor quality urban design
- + Sporadic, uncontrolled and/or uncoordinated development
- + Integration of land use and transportation.

The Objective relating to these issues is:

Objective 22

A compact well designed and sustainable regional form that has an integrated, safe and responsive transport network and:

- d. a viable and vibrant regional central business district in Wellington city;
- e. an increased range and diversity of activities in and around the regionally significant centres to maintain vibrancy and vitality;
- f. sufficient industrial-based employment locations or capacity to meet the region's needs;
- g. development and/or management of the Regional Focus Areas identified in the Wellington Regional Strategy;
- h. urban development in existing urban areas, or when beyond urban areas, development that reinforces the region's existing urban form;
- i. strategically planned rural development;
- j. a range of housing (including affordable housing);
- k. integrated public open spaces;
- l. integrated land use and transportation;
- m. improved east-west transport linkages;
- n. efficiently use existing infrastructure (including transport network infrastructure); and
- o. essential social services to meet the region's needs.

The following Policies are intended to achieve this Objective and are relevant to the Structure Plan:

Policy 31

District plans shall:

- a. identify key centres suitable for higher density and/or mixed use development;
- b. identify locations, with good access to the strategic public transport network, suitable for higher density and/or mixed use development; and
- c. include policies, rules and/or methods that encourage higher density

and/or mixed use development in and around these centres and locations, so as to maintain and enhance a compact, well designed and sustainable regional form.

Policy 54

When considering an application for a notice of requirement, or a change, variation or review of a district or regional plan, for development, particular regard shall be given to achieving the region's urban design principles in Appendix 2. The Region's urban design principles cover the following design elements:

- + Context
- + Character
- + Choice
- + Connections
- + Creativity
- + Custodianship
- + Collaboration

To achieve the RPS objective for water quality, Policy 42 is particularly relevant to the Structure Plan. This directs that the adverse effects of stormwater run-off from development shall be reduced by having regard to:

- a. limiting the area of new impervious surfaces in the stormwater catchment;
- b. using water permeable surfaces to reduce the volume of stormwater leaving a site;
- c. restricting zinc or copper roofing materials, or requiring their effects to be mitigated;
- d. collecting water from roofs for domestic or garden use while protecting public health;
- e. using soakpits for the disposal of stormwater;

- f. using roadside swales, filter strips and rain gardens;
- g. using constructed wetland treatment areas;
- h. using in situ treatment devices;
- i. using stormwater attenuation techniques that reduce the velocity and quantity of stormwater discharges; and
- j. using educational signs, as conditions on resource consents, that promote the values of water bodies and methods to protect them from the effects of stormwater discharges.

The RPS (Objective 15) also seeks to protect historic heritage from inappropriate modification use and development. This is to be achieved through district plan provisions and by managing effects on these values in decisions on plan changes and resource consent applications.

Given the proximity of the site to Wairarapa rail line (which is defined as regionally significant infrastructure in the RPS) the infrastructure provisions of the RPS are also relevant. The relevant objective (#10) seeks that the benefits of the rail line are recognised and protected. The relevant policies seek to do this through District Plan provisions and consideration which:

- + recognise the benefits associated with the movement of people and goods
- + protect the infrastructure from incompatible new development.

3.2.2 UPPER HUTT URBAN GROWTH STRATEGY

The Urban Growth Strategy (UGS) adopted by Council in 2007 is relevant to the Plan Change in that it provides an overall direction on the sustainable development of the City, ensuring that it is integrated, affordable and sustainable. The UGS also includes a specific section on the Wallaceville site.

As an overall objective the UGS seeks to achieve an integrated, affordable and sustainable outcome by providing strategic direction to decisions on business, retail, housing, transport and infrastructure systems, the open space network and community facilities.

The Retail section of the UGS includes an assessment of the distribution and function of retail centres in the City. This recognises the importance of existing suburban centres and seeks opportunities (pg 17) to foster these existing centres through intensification, an expanded mix of uses and through comprehensive residential development in proximity to the centres. With regard to greenfield sites, the UGS notes that structure plans should identify the position of new local shops.

The business commercial & industrial section of the UGS outlines the existing business centres in the City. It notes that the Structure Plan site, the balance of the former Animal Research Centre will become available for redevelopment. As part of the 'strategy' for business areas in the City, the UGS proposes two areas for business investment on the Structure Plan site – a business park adjoining Ward Street and a light industrial area adjoining Alexander Road.

The UGS specifically identifies the Wallaceville site as a development opportunity. The stated vision for the site is for a 'Smart-Village', including:

- + Wallaceville as an innovative, leading edge, 'smart' Village within Upper Hutt City
- + Sustainable, 'low impact' development with efficient use of resources
- + Comprehensive design and implementation of subdivision and land use.



Figure 1: General Pattern of Land Use, Upper Hutt City Council Urban Growth Strategy, 2007.

- + Development to complement the landscape and character of Wallaceville.

A focus of the UGS is to ensure that the development of the site creates local employment opportunities and that best practice concepts in sustainable development and urban design are followed. A range of landuse opportunities were identified in the UGS, being commercial, industrial, residential and open space. These are reflected in the General Pattern of Landuse set out on page 27 of the UGS (refer to Figure 1).

As is noted in section 4 following, consultation with UHCC has confirmed that Council accepts that not all of this “General Pattern of Landuse” remains the most appropriate outcome of the site. In particular, Council accepts that the industrial land provision is not necessary in the City.

The UGS strategy for housing includes eight themes as follows:

1. Create a greater choice of housing options
2. Foster good urban design
3. Protect important features
4. Allow for more intensive forms of housing development within walking distance of the city and village centres
5. Reduce or remove the potential for housing development in more sensitive environments
6. Generally maintain the same potential for housing development throughout much of the city, whilst reviewing the current nature of infill development in tandem with bulk and location standards
7. Identify and provide for significant new areas of residential development
8. Work with the central government, other agencies and the private sector to provide housing which people can afford to buy.

Themes 1-4 and 7-8 are particularly relevant to the re-development of the Structure Plan site. The UGS includes a specific Wallaceville description relative to theme 7 as this is one of three identified new housing

areas. This description specifically notes that the area is ‘well suited to development of medium to higher density housing’ (pg 54).

Under the heading of ‘Good Transport and Infrastructure Systems’ the UGS identifies both Ward Street and Alexander Road as Secondary (Regional) Arterials consistent with the Upper Hutt District Plan. With regard to servicing the UGS makes no recommendations specific to the structure Plan site, however includes 3 general themes, which are:

1. Design to minimise infrastructure demands – this seeks to ensure that development is well integrated from a servicing perspective. It also states that Council will consider proposals which incorporate new and innovative ways of addressing basic infrastructural requirements.
2. Undertake more detailed investigations – under this theme the UGS notes that Council will review capacity in areas of proposed development and identify appropriate development contributions.
3. Update the works programme and development contributions.

The open space section of UGS identifies that the overall supply of reserve land in the City is generous (11.4 ha per 1000 residents). However this is more consistent with standard levels of supply when bush clad areas are removed (6.35 ha per 1000 residents). The UGS notes that low density housing typically requires 6 ha per 1000 residents, while higher density typically requires 3 ha per 1000 residents. The strategy for open space includes the theme to ‘Plan for New Open Space Networks’. Under this theme the UGS notes that Council will acquire those features and tracts of land of most benefit to the community, which include:

- + Flat, well drained land for any required sports facilities and neighbourhood parks.
- + Walkway and cycleway links between the existing area of urban development and the new areas, as well as within the new areas.
- + Esplanade reserves of between 5 and 20 metres width adjoining any rivers and streams.
- + Significant tracts of native vegetation may be included within reserves where this or adjoining land has value for other open

space activities [e.g sports, walking tracks, river protection] or has exceptionally high ecological, cultural or amenity values.

With specific reference to the Structure Plan site, the UGS states that it:

... is flat and features an important stand of native trees to the west of the main buildings which warrant formal protection. It is likely that stormwater will be managed through a system of swales and ponds which could include a walking and cycle network. No land for sportsfields will be required here.

Finally the UGS addresses provision of community facilities. There are no specific directions provided relative to the Structure Plan site, however it is noted that the structure plan process would be used by Council to identify the need for new community facilities.



4.0 CONSULTATION

Consultation is an integral part of a structure planning process by indicating what is important to stakeholders and provides guidance for how growth should occur. The development of the Wallaceville Structure Plan has been informed by consultation with a number of stakeholders and neighbours.

4.1 UPPER HUTT CITY COUNCIL

Staff from various departments of the Upper Hutt City Council have been consulted throughout the development of the Structure Plan and Plan Change application. The key mechanism through which this has been undertaken has been the Joint Working Group. In addition, staff have been consulted on specific subjects at numerous other times during the Structure Plan development.

Key feedback recorded during meetings and communications with UHCC representatives has been:

- + Council is generally supportive of redevelopment of the site;
 - + Council is reviewing the Urban Growth Strategy for the City, including that industrial land provision within the Wallaceville site is not needed. However the 2007 UGS is likely to be in effect at the time the Plan Change application is scheduled to be lodged (late 2014);
 - + Council supports medium to high density residential development, particularly at the Ward Street end of the site. A single density or housing typology across the site is unlikely to be supported. Some innovation with regard to housing typology and density is expected;
 - + The proposed Structure Plan and Plan Change needs to be supported with clear information and understanding about the servicing needs for the development, and that any servicing proposal needs to treat the site as a whole and not be approached in piecemeal fashion;
 - + An upgrade of the down stream waste water services would be required as a result of the development
 - + The suitability and long term sustainability of individual on-site stormwater disposal was questioned. The long term maintenance requirements of any proposal to deal with stormwater needs to be addressed and details provided on where overland flows would go during large rainfall events.
- + The traffic assessment for the proposal needs to look at network impacts including SH2, Fergusson Drive and Lane Street;
 - + Reducing the posted speed limit for Alexander Road may be possible and may be supported by Council;
 - + Any proposal to apply the District Plan 'Centres Overlay' to part or all of the site needs to be supportable, in terms of providing a centre within the development and taking account of the policy intent of that Overlay;
 - + Rezoning hill slopes south of Alexander Road from the Southern Hills Zone would be controversial, and may be difficult to justify;
 - + Council would be willing to consider accepting Grants Bush as part of the reserve contribution, subject to a number of actions being dealt with as part of the subdivision consent. In addition, the provision of an open space in the close proximity of the Ward Street entrance would enhance the proposed neighbourhood centre and the heritage buildings providing a welcoming entrance to the subdivision. This space would also require the provision of amenities such as shade trees, seats, paths etc. which should be addressed as part of the subdivision consent. Additional reserve areas are not required due to the location and size of the covenanted areas;
 - + Interfaces with adjoining land uses require careful consideration, particularly issues associated with noise;
 - + With regard to parks and reserves Council indicated it is willing to consider accepting Grants Bush as part of the reserve contribution, subject to a number of actions being dealt with as part of the subdivision consent. In addition, the provision of an open space in the close proximity of the Ward Street entrance would enhance the proposed neighbourhood centre and the heritage buildings providing a welcoming entrance to the subdivision. This space would also require the provision of amenities such as shade trees, seats, paths etc. which should be addressed as part of the subdivision consent.

4.2 GREATER WELLINGTON REGIONAL COUNCIL

Like UHCC, staff from Greater Wellington Regional Council (GWRC) participated in the JWG, and were consulted more directly on specific matters. Key feedback from GWRC was:

- + Pedestrian and cycle access should be incorporated into the Structure Plan;
- + Provision for bus routes should be assessed;
- + Regional Policy Statement guidance on low impact design should be considered;
- + RPS provisions should not present a hurdle to a development pattern that differs from that in UGS, assuming UHCC clearly signals the UGS is subject to review;
- + The water courses on site are farm drains and are not deemed to be rivers or streams. Therefore the Regional Freshwater Plan provisions relating to reclamations do not apply;
- + Notwithstanding the status of the waterbodies, best practice would involve having fish relocation provisions on site at time of works as a contingency measure.

4.3 IWI AUTHORITIES

The following Iwi organisations were engaged with as part of the Structure Plan Development, including as part of the completion of the Cultural Values Report:

- + Wellington Tenth's Trust & Port Nicholson Block Settlement Trust
- + Te Runanga O Toa Rangatira
- + Ngati Tama through Ngati Tama Mandate Limited

Wellington Tenth's Trust specifically requested the completion of a Cultural Values Report. This was completed by Raukura Consultants and its findings are summarised in section 5 below.

Written correspondence (email) and phone communication about the Structure Plan was made with Te Runanga O Toa Rangatira in September 2014. The purpose was to provide some preliminary information about the proposal, including the Preliminary Development Plan, and to offer to meet with representatives of the Runanga if they wished. No request for a meeting was made by the Runanga. The communications in September were followed up in November when feedback was sought on the draft Cultural Values Report. This feedback was incorporated in to the Cultural Values Report. Ngati Tama through Ngati Tame Mandate Limited was also sent the draft Cultural Values Report. No feedback was provided

Ngati Tama ke te Upoko o te Ika was also consulted on the draft Cultural Values Report. No feedback was received.

Written correspondence and phone communication about the Structure Plan was made to the Orongomai Marae in September 2014, with an offer to meet. Orongomai Marae passed this onto marae members and also to Mr Kara Puketapu of Te Atiawa. Mr Puketapu phoned Wallaceville Developments Limited querying whether the material had been sent to the Port Nicholson Trust (which it had) and noted that there would unlikely be further interest. No feedback was received from Orongomai Marae.

Written correspondence advising that Wallaceville Developments Limited was preparing a Private Plan Change application and inviting feedback

was sent to Te Runanga o Taranaki Whanui ki te Upoko o te Ika a Maui, Ngati Kahungunu and Rangitane o Wairarapa Inc. No feedback or meeting request was received from these parties.

4.4 HERITAGE NEW ZEALAND

Several meetings have been held with representatives from Heritage New Zealand during the course of the Structure Plan development. Key feedback has been:

- + The area of the heritage covenant on site is intended to help maintain connection between key heritage features on the site and for views of the features;
- + The covenant is a starting point for discussion about a future development proposal;
- + The covenant area was defined based on a report by Russell Murray (this report was provided and informed the Built Heritage Assessment summarised in section 5 following);
- + Protection of other built heritage values on site is encouraged, where possible, and these values present an opportunity to positively influence the development;
- + Archaeological assessments should be completed, which was done. This report was provided to the regional archaeologist who accepted the findings and recommendations of the report.

Feedback was also sought from HNZ on the briefs for both the built heritage and archaeological assessments.

4.5 DEPARTMENT OF CONSERVATION

Several meetings occurred with a representative from the Department of Conservation. The primary purpose of these meetings was to discuss the shape, location and management of the two conservation covenants. This included the presentation of a proposal to amend the covenants and for Wallaceville Development Limited to facilitate an accelerated ecological restoration of the covenants. A briefing on the findings of the ecological assessment was also provided. Key feedback from the DoC representative was:

The area and positioning of the covenants was not based on a expert report;

- + DoC has been working with Forest and Bird representatives on the covenant areas, including the preparation of a management plan for each covenant;
- + DoC would not accept a reduction in the area of the covenants, and did not accept that the accelerated restoration of the covenant areas would be a suitable offset for a reduction in their area;
- + DoC is open to considering changes to the shape/location of the Grants Bush covenant, but does not see any conservation benefit in changing the boundary of the flood plain remnant covenant. The proposed Structure Plan shows a central open space area that is consistent with an agreement with DoC on the Grants Bush covenant.

It is noted that WDL still intends to pursue with DOC a revision to the Flood Plain Remnant Covenant.

4.6 NEIGHBOURS

4.6.1 KIWIRAIL

In late November a letter was sent to KiwiRail setting out the development and seeking comments. No response was received.

4.6.2 NATIONAL CENTRE FOR BIOSECURITY AND INFECTIOUS DISEASES (NCBID)

Key issues raised by representatives of NCBID were:

- + To help address reverse sensitivity matters NCBID saw benefit in a reverse sensitivity covenant in favour of NCBID's activities, including emergency operations that may occur on rare occasions;
- + New trees adjoining the boundary with NCBID should be avoided so that they do not provide a 'ladder' into the NCBID site;
- + A building set back should be considered along the NCBID boundary;
- + Noise from emergency activities and day to day equipment such as generators and compressor units needs to be addressed, particularly where residential activities are proposed close to the boundary; and
- + Any changes to infrastructure should not adversely effect capacity for NCBID.

4.6.3 WELLINGTON RACING CLUB

Wallaceville Developments Limited has had ongoing communications with the Racing Club. The primary purpose of these discussions has been as part of negotiations over the purchase of the part of the Club's property to include in the Structure Plan / Plan Change area. At the conclusion of these discussions the Racing Club, via RACE Inc's Chief Executive stated:

RACE Inc / Wellington Racing Club have reviewed the consultation and is satisfied in all respects with the proposed development and Private Plan Change at the former Ag research site and is in full support of the proposal

4.6.4 MINISTRY OF DEFENCE

Key feedback received from the New Zealand Defence Force is that with one proviso it is comfortable with the Plan Change proposal and is likely to provide affected parties approval to a proposal comparable to the preliminary concept.

The proviso was that the Plan Change must recognise the proximity of the Trentham Camp and the potential for occasional intrusive noise from training activities. Noise sources might include blank firing of small arms, detonation of small explosive charges and overflying by military helicopters. Such events are infrequent and are partially protected by the terms of the existing Designation and Special Purpose Zoning. Notwithstanding the Defence Force retains some concern about noise complaints. They therefore provided a suggested reverse sensitivity covenant, which Wallaceville Developments Limited has agreed to register on relevant titles.

4.6.5 SUMMERSET RETIREMENT VILLAGE

Key feedback received from Summerset was as follows:

- + The material provided to them was high level and they wished to be involved in the formal notification process;
- + Preference is for a landscape buffer along their boundary;
- + Preference is for pedestrian rather than vehicular access to their eastern boundary.

4.6.6 RESIDENTIAL NEIGHBOURS

To provide an opportunity for the numerous residential neighbours to the Wallaceville site to view and comment on the draft Structure Plan, a public drop-in session was held on site on November 22, 2014.

The session was advertised through a mail box drop. Those attending (approximately 30-40) were able to view the opportunity and constraints summary, the draft structure plan, and various drawings and figures from the technical reports summarised in section 5 following.

A summary of the feedback received is:

- + General support for the redevelopment, although some opposition/qualifications as below
- + Protect trees along the Ward Street frontage
- + Keep native trees through the site, particularly in Grants Bush and on the southern hills
- + Retain weather station (could be relocated) and manometer
- + Concern about too much direct access onto Ward Street
- + Concerned about the amount of traffic onto Ward Street, and adjoining residential streets
- + Concerned about extra traffic causing bottle necks on Alexander Road and on the wider road network
- + Support for local shops, provided not too big and does not compete with the Upper Hutt city centre
- + Would like to see community use of older buildings
- + Any soil contamination issues needs to be resolved
- + Some concern about houses being packed in, giving people no room to relax in their own yards
- + Some concern about construction noise over a number of years
- + Please keep us in the loop about the types of housing

- + Some preference for the site to be developed for a film studio or other large scale employer
- + Don't want to see the site developed with Government and/or social housing.



Figure 2 and Figure 3: Photographs taken from the public drop-in session held on 22 November 2014.



5.0 ANALYSIS

To inform the development of the Structure Plan, a series of technical investigations have been undertaken. These provide information on the values of the site, as well as provide recommendations for the Structure Plan and Plan Change. The technical reports are attached as appendices to the plan change application, but are also summarised below.

5.1 HERITAGE

A Heritage Assessment was commissioned by WDL to assess the heritage values of the site and to make recommendations regarding how those values would appropriately be preserved through the development.

The assessment concludes that the site has considerable heritage significance, based on its past use as a national animal research centre. Signs of this past use remain in the buildings, roads, plantings, and enclosures. The assessment states that the site's heritage value should be considered in the design of the redevelopment and that it should be 'visible in the layout, materials and aesthetic of the common works' (pg. 47).

The existing heritage covenant (in favour of Heritage New Zealand) protects a zone around the Category 1 Gilruth Building, the incinerator, and the Hopkirk Building. Ecological covenants protect Grant's Bush, and an area of individual trees. The District Plan lists the Gilruth Building and ten trees on the Ward St frontage in its Heritage and Notable Tree Schedules.

The assessment also notes that the aesthetic values of the site as a whole are the 'campus' like effect of buildings, lawns and trees to Ward St, and the 'park' like effect of numerous specimen trees in open ground or pasture. The Assessment sets out a number of site "Specific Recommendations". Having reviewed the structure Plan and the Plan Change notes the following as positive outcomes:

- + The area of the heritage covenant has been integrated into the site planning, and effort made to ensure that area is respected by adjacent new buildings in terms of location and design.
- + The proposed inclusion of the Hopkirk Building and the Incinerator in the District Plan recognises their significance, and reinforces the protection given by the heritage covenant.

- + The proposed new road layout retains existing road locations where possible. This both retains and enhances memories of the original use, and generates long views through the site that are reminiscent of the rural character. The retention of the existing street pattern gives additional relevance to the proposed reuse of previous street names.
- + The retention of trees throughout the site assists in maintaining the campus/rural character throughout. The integration, and planned regeneration, of Grant's Bush as a key aspect of the site is highly valued as a link to the pre-European history of the wider area of the Hutt River valley.
- + The provision of a neighbourhood park around the incinerator is a welcome creation of additional space around the structure. The incinerator gives the park an identity and focal point, which in turn reinforces the significance of the incinerator as a remnant of the site's former use.
- + The inclusion of interpretation by signage and landscaping in the park areas will tell the history of pre-development Wallaceville.
- + The inclusion of outcomes and rules that facilitate easy reuse of existing buildings located outside of the heritage covenant is valuable in that it increases the potential for these buildings to be retained.

Overall the Assessment concludes that:

the recommendations of the Heritage Assessment have been well understood, and sensitive consideration has been given to maintaining heritage significance in the proposed new use.

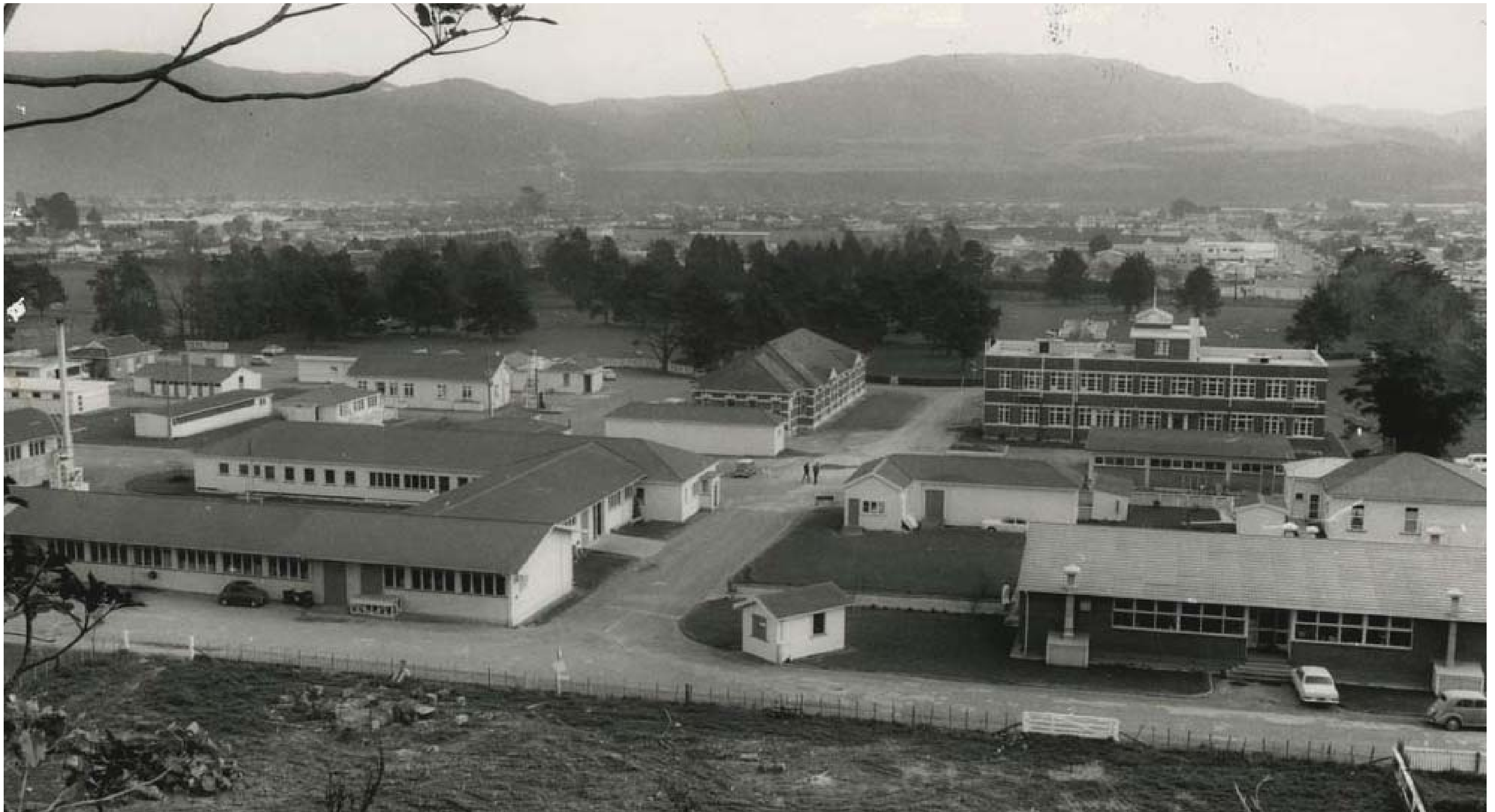


Figure 4: Wallaceville Animal Research; central buildings seen from the hills, looking north-west, 1964. Upper Hutt City Library [P2-968-2245]

HERITAGE IMAGES



1. Present day photograph of the Hopkirk Building (2014)
2. Present day photograph of the Gilruth Building (2014)
3. Present day photograph of Hopkirk Building (2014)
4. Present day Photograph of the old incinerator (2014)
5. Present day photograph showing the entrance to the Wallaceville Animal Research Centre. Hopkirk Building is visible in left of photograph with Gilruth Building is in the midground (2014)
6. Wallaceville Animal Research; the original brick building; renamed the Gilruth Building in June 1985. Upper Hutt City Library
7. Trentham Racecourse, c1914; troops assembled in front of the main stand. [P3-457-1718] Upper Hutt City Library
8. Photograph of the Admin Building and mature vegetation on Ward Street (2014)
9. Present day photograph of Gilruth Building (2014)
10. Present day photograph of the Gilruth Building (2014)
11. 1979, Wallaceville Animal Research; tour party open day [P2-958-2236] Upper Hutt City Library
12. c1938, Wallaceville Animal Research from Ward Street entrance. [P2-971-2248] Upper Hutt City Library
13. Wallaceville Animal Research; Hopkirk Building and original Building. [P2-61-108] Upper Hutt City Library
14. Wallaceville Animal Research; aerial map [P4-161-2206] Upper Hutt City Library
15. Wallaceville Animal Research Centre circa 1910. [P1-418-2198] Upper Hutt City Library

5.2 CULTURAL VALUES

The assessment of the cultural value of the site and surrounds notes that various iwi groups have interest and/or are tangata whenua of in the area. These groups are the Wellington Tenth Trust, the Port Nicholson Block Settlement Trust, Ngati Tama ki te Upoko o te Ika, Ngati Toa, Ngati Rangatahi and Ngati Haua. The Report concludes that the area (Mawai Hakona) was an important Maori cultural site in the upper Hutt Valley. It probably was most associated with Ngati Tama who were traditionally known as a hapu of Ngati Awa or Te Atiawa. The last known Maori occupiers of the site were those of Te Kaeaea or Taringa Kuri's whanau at least until his death in 1871 and his subsequent burial in the Te Puni Urupa in Petone with his Te Atiawa kin.

By the time the land was taken by the Crown and developed into the Wallaceville Animal Research Centre, just after the turn of the 20th Century, Maori had gone from the area and it had been farmed. The Report concludes that, although it is unlikely, there may be some remnants of the Maori occupation of the area. Maori cultural items may be found during developments and if found then an accidental discovery protocol should be followed.

The Report recommends:

- + The Port Nicholson Block Settlement Trust and the Wellington Tenth Trust (the Trusts) consider that some archaeological site examination for this site may be useful to see if any evidence remains of any traditional Maori archaeology on the site especially in the areas where the trees are located as these are unlikely to be in an area disturbed by farming and construction. Consultation with a suitably qualified archaeologist to see what may be appropriate for the site.
- + The Trusts propose an accidental discovery protocol as set out in Appendix I of the Report. The protocol should be attached to the conditions of consent.
- + That a Maori cultural blessing of the site is done prior to any work commencing on site by the mana whenua.

5.3 ARCHEOLOGICAL ASSESSMENT

The Archaeological Assessment Report notes that the area became known as Mauai Hakona in the years following acquisition by members of Ngati Tama in the late 1850s or early 1860s. After a brief period of occupation by Ngati Tama, the land appears to have been leased out continuously to Pakeha settlers until sale to the New Zealand Government 1904-1909. There is evidence of pre-1900 settlement on the north-eastern portion of the site. This settlement has, as a result of this Archaeological Assessment Report, been recorded as R27/520 in the New Zealand Archaeological Association database (Archsite).

There was additional farming carried out in western portions of the site, when part of the area was included in the Geange family farm. It is possible, but not likely, that farm buildings were present on the development area. The Assessment notes that the site subsequently was developed for a Crown agricultural research centre (AgResearch) and a small part of the Trentham Racing Club. The majority of the land is undeveloped pasture with buildings located at the Ward Street (eastern) end of the site.

While the potential for archaeological sites, material or features is low in the majority of the development area, without doubt the site of Dahl's House (recorded as NZ Archaeological Site R27/520) is an archaeological site under the terms of the Heritage New Zealand Act (ie. developed and/or occupied prior to 1900).

The Assessment concludes that the planned development has the potential to adversely affect the site recorded as Dahl's House, and excavation for services, utilities and building foundations will undoubtedly damage or destroy archaeological deposits should they still be in evidence there. An application therefore needs to be made to Heritage New Zealand Pouhere Taonga for a General Archaeological Authority (under Section 44a of the Heritage New Zealand Pouhere Taonga Act 2014) prior to any earthworks being carried out there.

Over the remainder of the development area, the Assessment concludes that the historic evidence suggests that there is little potential for adverse effects on archaeological sites. Therefore for the majority of the site any potential for adverse effects on archaeological values can be satisfactorily mitigated by the adoption of an Accidental Discovery Protocol.

5.4 TRANSPORT AND TRAFFIC ASSESSMENT

The Transportation Assessment considers the following matters:

- + Existing transport environment and the expected impact of the proposed Structure Plan & Plan Change on the traffic network
- + Access arrangements to and from the site
- + The form and function of Alexander Road and the appropriateness of the internal roads and pedestrian and cycle pathways in the Structure Plan.

The Assessment is based on an assumption of 700 to 800 residential lots, 3,000 sq m office space and 2,000 sq m retail space. The traffic modelling undertaken using the available UHTM indicates that the additional traffic generated by the development will disperse well and not give rise to new deficiencies on the local road network that require mitigation works. Access to the site off Ward Street, via the proposed Heritage Street, is expected to function satisfactorily, with no change required to Ward Street. Access arrangements onto Alexander Road are proposed to include 3 new intersections for the western portion of the site (Area A), the third of which will be approximately 600m from the Ward Street intersection. This proposal is determined to be a satisfactory outcome.

The Assessment supports that proposal to change the posted speed on Alexander Road from 80 km/hr to 60 km/hr. It also supports the proposal to alter the physical form of Alexander Road over the 600 m portion west of the Ward Street intersection in accordance with the proposed road typology. With regard to the internal pedestrian, cycle and road layout the Assessment concludes that road typologies are consistent with appropriate standards and that good quality pedestrian and cycle connections will be achieved.

Overall the Assessment concludes that:

Based on the Structure Plan as proposed, and the analysis undertaken, it is assessed that the proposed residential and commercial land use can be established in a manner that is acceptable to Council, and in line with good practice, from a traffic and transportation perspective.

5.4 SOIL CONTAMINATION

A Preliminary Site Investigation (PSI) was commissioned for the site to determine suitability of the site for the proposed re-development.

The PSI notes that historically several HAIL activities have been undertaken on the Agresearch part of site. Significant work (including remediation work) was undertaken by the Crown over 2003-2008 to ready this portion of the site for sale. Based on this work the land was determined to be 'remediated for residential'.

The PSI however notes that despite this earlier conclusion, as the National Environmental Standard (NES) subsequently came into force in 2012, several soil samples which were previously below residential guidelines, are now above the current Residential Soil Contaminant Standards. The PSI also identified that some parts of the former Agresearch site were not tested during this earlier work.

With regard to that portion of the site which has historically been part of the Trentham Race Course, the PSI has also identified potentially contaminated areas. The PSI concludes that all of these identified areas require further investigation (see Figure 10 of the PSI for an illustration of their location). However, the PSI states that:

a plan change to residential use at this stage would be suitable for this site. Areas not yet investigated, or areas where soils have been identified above residential guidelines and therefore currently not suitable for residential use (areas with red hatch in Figure 10) can be investigated further (Detailed Site Investigation) and remediated if necessary at resource consent stage.

The Detailed Site Investigations would involve a series of test pits and/or hand augers across the areas identified from which soil samples will be collected and sent to a laboratory for testing for the identified contaminants of concern. Sampling in some areas may be more appropriate once the buildings have been demolished.

5.5 GEOTECHNICAL ASSESSMENT

A desktop and visual geotechnical assessment of the site was undertaken to support the completion of the Structure Plan. The assessment was based on:

- + A review of published geotechnical and geological information relevant to the site;
- + A site walkover assessment by an experienced ground engineering professional to capture key site data, including geomorphological features and other features that may pose a risk to site development.

The assessment concludes that there are no geotechnical reasons why the proposed plan change cannot proceed. Notwithstanding this the following recommendations are made to allow greater certainty across the site and to support the developed design at resource consent stage:

- + It is recommended that a survey of levels across the site and in particular in the southeast corner of the site is completed to accurately characterise the topography of the observed gully feature. We recommend that the hill slopes (south of Alexander Road) are mapped by an experienced Engineering Geologist to assess the risk of rockfall and/or debris flow to identify the requirement for mitigation options.
- + Ground investigations are required across the site to determine material types and strength characteristics of the near surface materials, to confirm the potential for liquefaction and investigate the levels of compaction achieved within the areas of earlier fill.

Due to the likely presence of alluvial gravel at shallow depth beneath the site, it is considered that the majority of the proposed houses are likely to be suitable for shallow foundations. The proposed lots at the base of the gully feature (south of Alexander Road) may be underlain by a substantial depth of colluvial slope wash and therefore may require deeper foundations than the other lots on the flat sites.

It is considered that these matters can be suitably addressed at either resource consent or building consent stage.

5.6 LANDSCAPE AND VISUAL ASSESSMENT

A Landscape and Visual Assessment was completed of the key landscape and visual components within the Structure plan area. It also assessed the potential effects on the physical and visual landscape that may result from, or be influenced by, future development within the Structure Plan area. The assessment concludes that from a landscape perspective the site can accommodate the development of a high quality neighbourhood. It includes the following specific recommendations:

- + Promote the retention of the existing stand of mature bush known as Grant's Bush to acknowledge existing landscape character and sense of place;
- + Retain and include in design existing mature specimen trees and vegetation (where possible and suitable) to acknowledge existing landscape character and rural land use;
- + Promote the incorporation of green corridors into development layout (eg along boulevards and/or heavily planted tree-lined streets) for green linkages to provide landscape and visual amenity.
- + Promote the integration of stormwater requirements and flood attenuation into green infrastructure and open space design
- + Promote visual and landscape connection with Grant's Bush and the Southern Hills (eg use of appropriate species along streets, aligning streets for viewshafts)
- + Promote visual connection of chute into wider open space network
- + Should industrial development occur along the southern side of the western end of Alexander Road, a landscape interface treatment along this section may be required to promote residential landscape and visual amenity
- + Fencing should be considered as part of any Architectural Design Guidelines to promote the use of permeable fencing such as post and rail, pool fence and/or hedging or shrubbery along public interfaces (ie front boundary fencing). Implementation of close-boarded timber fences should be restricted to rear boundaries only. It is acknowledged that this may need to be balanced with requirements to achieve appropriate noise environments;

- + Promote the use of existing heritage tree species such as oaks, elms, totara and tulip trees in the public realm;
- + Promote the use of large grade specimen trees at implementation of any feature planting;
- + Promote precinct style development and zoning;
- + Promote Ward Street character by retaining the significant tree species and campus layout/open space in the urban environment;
- + Promote including existing materials as identified by the Heritage Architect into future design elements to acknowledge history and sense of place
- + Promote the protection and ongoing enhancement of the existing stands of mature vegetation and selected specimen trees that are to be retained.
- + Promote gateway/identity to site from main access points through planting and/or landmark.



Figure 5: (Image 1, top right) Typical view of the study area. Landscape Visual Assessment, August 2014

Figure 6: (Image 2, middle right) Shows the typical view along Alexander Road to the west. This shows the existing semi-vegetated edge of the main part of the site and wider views out over to the hills that border the Hutt Valley. Landscape Visual Assessment, August 2014

Figure 7: (Image 3, bottom right) Shows the commercial development and NZ Defence force campus buildings in the distance, with the hills providing the backdrop to the wider landscape. This view also shows the stands of mature vegetation which are recommended to be retained as part of an open space network in future development. Landscape Visual Assessment, August 2014

5.7 URBAN DESIGN

From an urban design perspective, the 60+ hectare site at Wallaceville offers a huge opportunity to create a high quality neighbourhood with a variety of activities and living options. Its size and location represents a unique challenge to develop a new piece of the city in an innovative and integrated way. The natural and built heritage of the site provides options for amenity, character and a strong identity. The urban design challenge comes in the guise of limited accessibility, the shape factor and balancing development yield with the natural and built heritage.

The following urban design recommendations are made to inform the structure planning process and help create a high value place.

- + recognise the unique identity and history of the site
- + maximise opportunities for connections to adjacent urban fabric
- + maximise development potential in this accessible location
- + respect unique site values of vegetation and heritage
- + strive for a mix of appropriate land uses
- + provide for a variety of living options to encourage a mixed community
- + encourage a range of residential densities
- + respond to interface restrictions with innovative solutions
- + incorporate low impact design principles
- + follow adopted CPTED policy
- + incorporate water sensitive design principles
- + provide a connected, multi-functional open space system
- + provide a connected movement system including walking and public transport
- + maintain visual connections to valley sides and internal landscape features

5.8 ECOLOGY

An ecological assessment was undertaken to accompany the Structure Plan and Plan Change application. This assessment considers both the terrestrial and freshwater ecological values associated with the site. With regard to terrestrial values, the assessment records that:

The two existing covenanted areas (referred to herein as Grants Bush and Floodplain Remnant) were assessed based on their current condition with recommendations made relating to future management. Each of these two areas differs in character with Grants Bush retaining an area of fenced regenerating bush which has not been subject to sustained stock damage. Both areas displayed ongoing weed management issues which are limiting the viability of natural unassisted regeneration of the understory and open pasture areas. Both covenant areas retain significant areas of open pasture which currently include very few distributed established trees. Whilst the deed of covenant recognizes the intent to regenerate these areas over time it is noted that they currently retain little ecological structure and will require extensive human intervention to restore them to representative valley floor forest.

The Assessment notes that the hills south of Alexander Road exhibit well advanced regenerating bush interspersed with some mature trees within the gullies. A number of large wilding pines (and other exotics) are also prevalent throughout this area of the site. In particular, on the north-east side of the open area a large stand of tall pines are adversely impacting on regeneration. The slope behind these trees is less well advanced and dominated by maunka, tree ferns and other early colonisers.

With regard to the site's freshwater values, the assessment concludes that the open drains on-site offer poor ecological habitat and biodiversity, and do not warrant protection as waterways. This is due to the fact that they do not reflect historical hydrology of the site and further that there would need to be extensive modifications to establish them as functional water courses as part of development. Consultation has occurred with Greater Wellington Regional Council over the status of these water bodies and GWRC has confirmed that they would not be considered streams for the purposes of the Regional Plan. The report makes a number of other site wide recommendations:

- + Exotic vegetation on the northeast side of the gully on the east side of Alexander Road should be removed. A large Eleagnus hedge should also be controlled along the other side of the gully where it grows beneath the regenerating native bush.
- + An assessment should be made of the remaining dispersed totara which exist across the site. Where practical, these trees should be protected on titles and incorporated into the urban design within road reserves and open space.
- + An assessment should be made of the remaining large deciduous exotics which exist across the site. Where practical, these should be protected on titles and incorporated into the urban design within road reserves and open space
- + Manage covenant reserves in accordance with the documented covenant conditions to reduce incidence of predation and disturbance to fauna
- + Develop urban design to complement covenant areas and other biodiversity initiatives. Selection of suitable tree species should consider the ecological template of the remnants and seasonal food sources for a range of birds
- + Support management of covenant areas (by others) in accordance with existing management plans prepared as part of the covenant process.

5.9 ARBORIST

A preliminary report by an arborist was initially completed to assist with the preparation of the Structure Plan and the Plan Change application. The aim of the report was to identify individual specimens / stands of significant trees or vegetation which may qualify for protection under the Upper Hutt District Plan. It is noted that initially the report did not assess the trees already protected by the two conservation covenants on site. However as an agreement has been reached to amend the Grants Bush covenant a follow up assessment was made of the trees that were outside the revised boundaries.

The findings of the report, including the review of trees outside the revised Grants Bush boundary, were that:

- The site offers a significant opportunity to add to the City's notable tree population through responsible development and environmental stewardship, offering successful outcomes for the development itself and its incumbent tree population;
- Trees and vegetation of local and regional significance were assessed within the scope of the report. All other trees and vegetation located on the Wallaceville site noted in the report, protected in the covenants, already listed in the District Plan or located in the native bush area south of Alexander Road are to be managed at the discretion of Wallaceville Developments Limited;
- 49 trees have been identified as requiring further assessment using the Standard Tree Evaluation method (STEM), in addition noteworthy specimens of value have also been recorded;
- A degree of remedial pruning may be required and will be assessed on a tree by tree basis;
- Unless specified in writing (by a qualified arborist) no removal, pruning and/or excavation works should occur to or in the drip line of trees noted in this report.

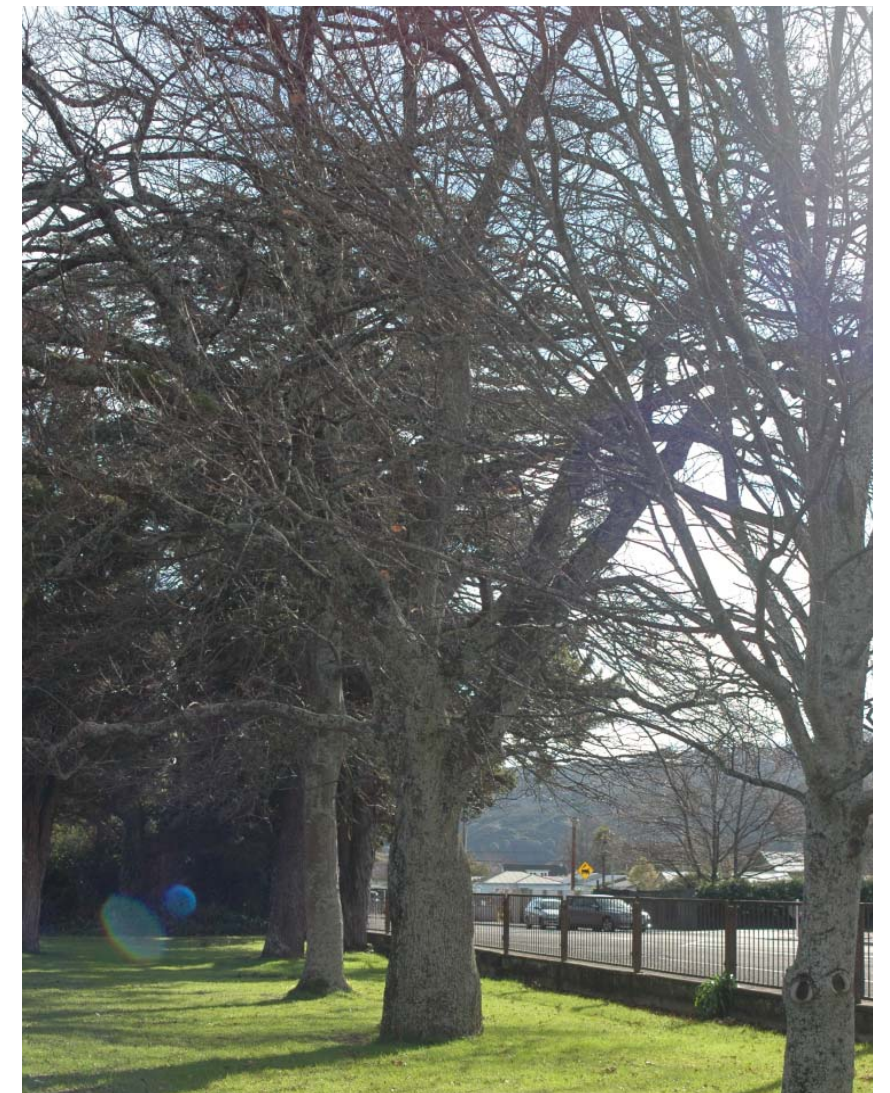
Based on the Preliminary assessment an assessment using the STEM approach was made on the 54 trees. This identified 43 trees with a score of 100 or greater. These trees therefore comply with the level that

warrants inclusion with the Schedule of Notable Trees in the Upper Hutt District Plan.

The STEM Report also concludes that:

In order to gain maximum benefit and minimise any detrimental effects on trees or vegetation to be retained mitigation measures where ever possible need to be pre-emptive; TPZs [Tree Protection Zones] should be established in advance of operations and should be signed and robust enough to withstand the actions of people or plant. In addition to the proposed pruning / removal works any disturbance to root zones / damage to roots must be minimised wherever possible through a combination of suitable excavation methods, responsible operators and arborist supervisions as required.

It is considered that these measures can be ensured via the future resource consent process.



Protected trees on Ward Street



Stands of mature specimen trees



Edge of Grants Bush

5.10 ENVIRONMENTAL NOISE

The noise assessment completed for the Structure Plan and Plan Change application assesses noise emissions from the proposed development, noise received from adjoining activities, vibration, reverse sensitivity issues and mitigation options. The assessment is based on a review of the District Plan to establish the potential for noise in the area and a survey of the existing ambient noise conditions. The assessment identifies external noise sources that need to be recognised and considered as part of the development of the site.

With regard to noise from the Industrial land south of Alexander Road the assessment concludes that potential effects are likely to be minor due to existing limits on noise emissions from this area and the separation distance. The Assessment has determined that noise associated with the use of Alexander Road may have an adverse effect on development within the Structure Plan site. Recommended mitigation measures include set backs, noise barriers (e.g. fences), insulation and ventilation standards.

With regard to the National Centre for Biosecurity and Infectious Diseases the Report recognises potential noise arising from this established activity and recommends a combination of fencing and ventilation requirements to mitigate any adverse effects.

Noise from other adjoining 'Special Activities Zone' (Trentham racecourse and Ministry for Defence land) is not expected to give rise to any adverse noise effects and therefore no mitigation measures are recommended.

With regard to the rail corridor, the assessment has considered the current level of service on the line and the noise associated with the different rolling stock. The Assessment then estimates daily rail noise levels and recommends fencing, insulation and ventilation requirements based on these estimates.

With regard to noise generated by the proposed activities in the site, the assessment states that these will not be a significant source of noise, and are able to adequately controlled by the existing noise limits in the District Plan.

The Assessment takes account of the potential for medium density development and concludes that the effects of increased density can be overcome via compliance with acoustic requirements of the Building Code. The report does however recommend a ventilation requirement be applied to residential activities in the Business Commercial part of the site to mitigate noise effects on living quality.

The Report also assessed potential issues associated with ground vibration and notes that due to ground conditions no significant adverse effects are expected.



6.0 OPPORTUNITIES AND CONSTRAINTS

This section of this report provides a detailed investigation of the opportunities and constraints of the subject site to support future development. The opportunities and constraints are informed by an analysis of technical reporting (Section 5.0) with the findings expected to influence the concept plan for Wallaceville. The key areas considered by the opportunities and constraints table include:

- + Interfaces
- + Heritage
- + Natural Environment
- + Infrastructure
- + Access
- + Landuse
- + Other

These issues, their implications for the structure plan and the potential planning/design response are documented in the tables on the following pages and also illustrated in the Opportunities and Constraints Map at the end of this section.

INTERFACES

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Alexander Road – current speed environment and associated amenity not consistent with residential development directly addressing the street. Future residents likely to be sensitive to effects arising from the road in its current form/state.	Structure plan could be responsive to this existing environment or alternatively it could be used to drive a change to the existing environment. There will always be a need to accommodate industrial traffic, regardless of future use south of Alexander Road.	Reduce speed on Alexander Road through use of roundabouts, intersections etc. Retain speed/function on Alexander Road, by restricting property access, intersections and provide landscape buffer and/or setbacks to residential lots. Provide non-residential land use adjoining Alexander Road
National Centre for Biosecurity and Infectious Disease. Potential noise sensitivity/reverse sensitivity.	Interface response may be additional building setbacks and/or landscaping as well as noise insulation. Potential loss of yield/density	Landscape buffer, residential setback, Detailed house design solutions, Non residential use as a transition
Southern Hills. Visual effects of potential development adjacent to this area	Location, density and design of development options.	Create public reserve. Lower density development options. Additional design rules or assessment criteria for development in this area to minimise visual effects.
Defence Force Land	Scale and form of buildings. Visual and aural effects on future adjacent development	New road to development acts as buffer. Lower density residential. Landscape buffer. House design guide/assessment criteria. Reverse sensitivity covenants. Non residential use adjacent to this area
Trentham Racecourse	Protection of ongoing use and heritage value. Recreational/open space outlook for future properties	Building setbacks to boundaries. New roads adjacent to boundary. Ensuring visual connection
Summerset Retirement Village	Fairly compatible use. Potential noise and overlooking. Opportunities to connect & integrate	Height limits adjacent to boundary. Increased building setbacks. Explore options for potential access to Trentham railway station.
Rail Corridor	Limits connectivity of future development to suburban environment to the north. Visual and aural impacts on future development. Opportunity for maximising public transport choice	Landscape buffer. Building setbacks. Acoustic measures
Existing Residential north of Ward Street	Like for like residential. Amenity provided by development site's Ward street frontage expected to be valued. Traffic. Existing population to assist with the viability of non-residential land uses	Retain existing built form along this frontage. Keep vehicle circulation pattern similar to present. Direct majority of traffic via Alexander Road

HERITAGE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Heritage buildings and their setting, including vegetation and roading patterns	Restrictions to movement pattern/capacity around them. Limits to yield potential around them. Visual sensitivity and integration. Limitations/lack of feasible options for reuse due to economic feasibility and market demand. Opportunity to develop local character associated with the historic buildings and heritage values. Potential loss of yield/efficiency by recognising movement pattern.	Low density/low height buffer zones around sensitive heritage area. Setbacks from heritage buildings. Heritage/Conservation plans. Integration of values into structure plan. Promote inclusion of existing materials into future design elements to acknowledge history and sense of place. Reflect site history through naming, signage and landscaping. Reflect site history by retaining historic movement patterns. Incorporate limits on height and proximity to heritage buildings/features. Reflect/echo historic materials in future development. Significant vegetation is identified and retained. Fence on Ward Street retained. Re-use of heritage buildings identified as worthy of retention. Additional buildings identified for listing/protection.

NATURAL

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Mature vegetation- retaining mature trees provide immediate amenity, sense of scale and connection to history	Potential loss of yield. Restrictions on movement pattern. Compatibility of mature trees, especially shelter belts with residential use (shading, leaf/limb fall). Compatibility of mature trees, especially the exotic shelter belts with ecological values. Retention of landscape character. Opportunities for added character and amenity outcomes through retention. Ongoing ownership and management.	Larger residential sections around trees to encourage their retention. Protection via private covenants. Groups of trees located within public open space areas. Removal of some or all trees to maximise yield. Identify limit areas of hedging that is also within potential open space areas. Specify hedge species as an option for future planting schemes. Individual trees worthy of retention identified and protected through notable tree provisions. Groups of trees located within public open space areas. Rows of trees incorporated into movement pattern and accommodated in road reserves. Promote the incorporation of green corridors into development layout for green linkages to provide landscape and visual amenity. Provide viewshafts to surrounding hills, down roads and through open spaces.
DOC Covenants on Grants Bush and Floodplain Remnant	Opportunity for open space amenity for residential uses, accessible by pedestrians and cyclists. Loss of yield. Fragmentation of neighbourhoods. Long term ownership and management	Retain in current form and adjust structure plan accordingly. Reduce and/or realign covenant areas and off set loss with re-vegetation. Land swap, e.g area south of Alexander Road, for Doc covenanted land. Off site off-sets. Council ownership as reserve. Private ownership by future residents. Incorporate stormwater attenuation areas
Protected trees on Ward Street	Limits locations for access into site. Potential lack of solar access for future development. Contributes to visual amenity of the Ward Street frontage.	Retain as existing and maintain existing protections. Review/amend protection covenants. Assess tree health and long term sustainability.
Rock fall and flooding on land south of Alexander Road	Potential activity restrictions. Mitigation measures	Flood attenuation area. Building setbacks from base of slope. Rock/debris retention structure. Land swap with DOC
Visual sensitivity and steep contour of land in Southern Hills Area	Limits potential development	Retain as Rural Lifestyle Zoning. Ensure large minimum lot sizes. Taken as reserve by Council

INFRASTRUCTURE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Management of storm water, including treatment and attenuation	Site not connected to city network. No opportunities to connect to off-site infrastructure. Needs to be managed on-site, may require open space. Potential loss of developable land – reduces yield	Disposal to 1 in 25 yr event on individual sites. Use of WSUD measures in road ways. Provision to integrate stormwater management within the DOC conservation covenants. Adopt innovative stormwater attenuation devices including rain tanks, rain gardens etc. to reduce attenuation area. Require on-site attenuation/soakage areas. Promote the integration of stormwater requirements and flood attenuation areas into green infrastructure and open space design

ACCESS

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Access from Ward Street	Retention of trees limits options for access. Intersections with Wilford and Seddon Streets also restricts potential access points. Retaining existing northern access has potential effect on heritage value. Retaining existing southern access is too close to Ward Street roundabout to be a local road	Retain current two access points, one of which has implications for heritage area/surrounds, the other implications for traffic. Limit development to one intersection. Explore options for new intersection opposite Wilford Street, although this may require roundabout or left in/left out traffic arrangement
Access from Alexander Road	Limited options for location of intersections due to existing intersections on southern side. Restrictions to individual property access	Utilise roundabouts at existing intersections. Incorporate pedestrian only links into development site. Individual property access with on-site manoeuvring. Utilise slip lanes to access properties and ensure good frontage to the road
Access to public transport	Directions for density distribution	Application of higher density zoning within walking distance of station. Potential links through Summerset site to Trentham Station. Identify bus route through site
Internal access	Connected internal movement system	Provide for convenient, interesting and safe movement to railway stations. Provide for high quality pedestrian and cycling. Provide for potential bus route through the site Provide a clear roading hierarchy Provide for a range of appropriate road typologies to add character/identity Establishment of perceptual gateways to development site (Ward Street and Alexander Road) to assist with identity and legibility

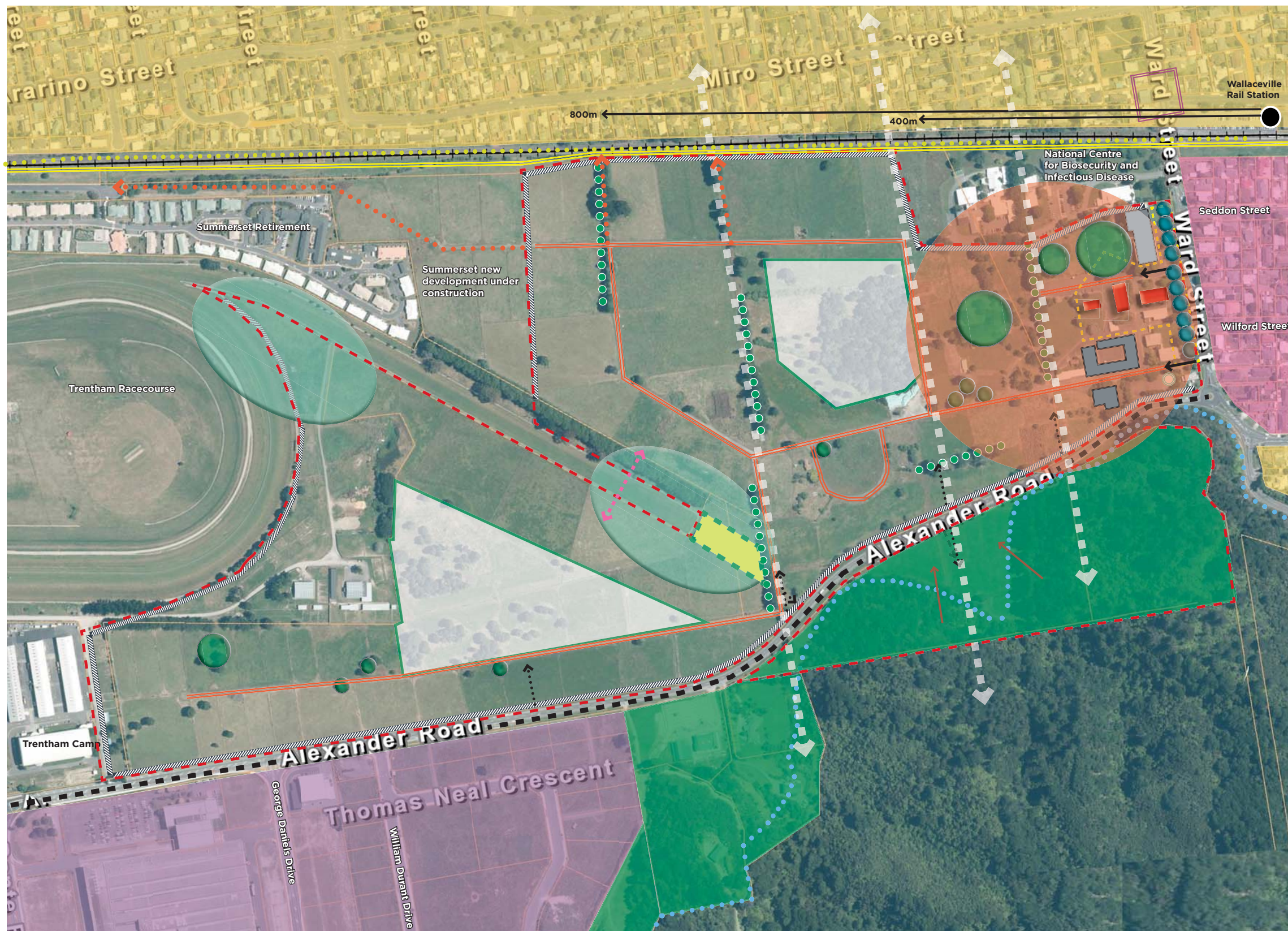
LAND USE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
	Residential activity	A range of housing typologies to promote a mixed community. Higher density typologies to maximise land resource in this location, particularly in close proximity to railway station. Appropriate distribution of higher density typologies adjacent to public transport infrastructure and/or public open space. Opportunities for retirement living. Lower density and/or design innovation to provide for values (e.g. specimen trees) and to help address interface issues.
	Non – residential activity	Commercial/business use of listed heritage buildings to ensure their ongoing use and maintenance. Neighbourhood scale local centre to provide for daily convenience needs e.g. dairy/bakery/kindergarten etc. Business/industrial use, particularly as a transition to incompatible interfaces
	Open space	Open space located to ensure retention/protection of mature trees. Neighbourhood reserves/pocket parks to provide local recreation opportunity. Multi-functional space to accommodate stormwater attenuation areas

OTHER

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS
Racecourse chute	Shape factor implication for development site means potential disconnect between neighbourhoods	Maximise internal connectivity in this area. Create distinct neighbourhood focus/amenity in each area, with independent layout and character Utilise non-residential land uses
Lack of demand for industrial land	Restricts viability of using alternative land uses to manage interface issues.	Landscape buffers to residential use. Lower density housing in interface areas. Housing design. Treatment of Alexander Road
Land south of Alexander Rd	Disconnection from main development site. Separation due to speed/function of Alexander Road. Lower development potential due to topography Protection from rockfall required	Lower density residential use. Comprehensive residential development. Change form and function of Alexander. Road to allow for integration. Land swap with DOC, or covenant this area with low density residential land in order to create biodiversity.

OPPORTUNITIES AND CONSTRAINTS PLAN



- KEY**
- Plan Change Area Boundary (Racecourse still subject to negotiation)
 - Residential Zone
 - Rural Lifestyle Zone
 - Business Industrial Zone
 - Residential (Centres Overlay) Zone
 - Heritage Covenant Category 1
 - Protected Historic Buildings
 - Potential reuse of building
 - Ecological Covenant Area
 - Southern Hills Area
 - Community/retail
 - Protected trees on Ward Street
 - Significant tree lines
 - Significant stands/specimen trees
 - Interface condition
 - Traffic speed
 - Existing movement tracks retained
 - ➔ Existing access points
 - ⋯➔ Potential access points
 - ➔ Potential pedestrian/cycle connection
 - Future cycle route - Silverstream to CBD
 - Visual/open space connection
 - ➔ viewshafts retained
 - Area within close walking distance of train station
 - ↔ Disconnection due to chute
 - ➔ Rock fall
 - Difficult shape factor
 - future walkway/cycle way



7.0 VISION AND PRINCIPLES

It is important when shaping the design of a place to have a clear vision of the desired outcome. The Upper Hutt Urban Growth Strategy (2007) sets a direction for future development of the site as follows:

- + an integrated, high quality development which will enable people to live in an attractive environment, with work opportunities, the central city, open spaces, schools and public transport all close at hand.
- + a higher density of residential development will be possible due to the comprehensive nature of the development
- + opportunity to create a medium to high density comprehensive residential development incorporating sustainable environmental design principles such as energy efficiency, on-site water conservation measures and other 'soft' measures for stormwater

This has been the starting point for the Structure Plan which aims to maximise this strategic land resource while also delivering a new residential environment with a strong sense of place. The following principles underpin the Structure Plan's aspirations and have guided decision making across the consultant and client team. They are informed by knowledge and understanding of best practice urban design as well as a sound understanding of the site's unique opportunities and constraints.

HERITAGE/IDENTITY/SENSE OF PLACE

The site has a unique history which, if respected and reinforced, can contribute to sense of place. Key directives include:

- + Preservation and celebration of built and natural heritage
- + Respecting unique site values
- + Recognising context
- + Creating a community focus/heart for the future development area

INTEGRATION/CONNECTION

The development of the site needs to maximise opportunities for integration with its adjacent environment in order to:

- + Provide for an accessible and legible movement network
- + Ensure a walkable environment
- + Anticipate future connections
- + Respond appropriately to surrounding interfaces

A MIXED COMMUNITY

Due to the scale of the development site, the range in site characteristics and interfaces and the likely development timeframes, a variety of distinct neighbourhoods can be developed. The Structure Plan therefore aims to:

- + Encourage a diversity of residential densities and typologies
- + Support local retail and employment opportunities

SAFETY/ACCESSIBILITY

The Structure Plan applies the principles of Crime Prevention through Environmental Design including:

- + Good accessibility
- + Surveillance and sightlines
- + Legible layout
- + Sense of ownership and community

LANDSCAPE CHARACTER

The site has a recognised and appreciated landscape character, established by significant and mature trees within the site and its location adjacent to the southern hills. Key moves supporting this principle include:

- + Retaining significant vegetation
- + Providing a variety of open spaces
- + Reinforcing visual connections to the valley sides and internal landscape areas



8.0 DESIGN RESPONSE

The design response is made up of a number of layers which together form the basis of the structure plan, namely:

- + movement
- + heritage
- + built form and land use
- + landscape and views
- + public realm and open space

8.1 MOVEMENT

The movement network helps define a sense of place by determining levels of accessibility and legibility. The New Zealand Urban Design Protocol identifies the need for good connectivity to “enhance choice, support social cohesion, make places lively and safe, and facilitate contact among people”. It goes on to suggest that places with strong “connections between activities and careful placement of facilities benefit from reduced travel times and lower environmental impacts”.

An interconnected movement network comprising of streets, laneways and pedestrian linkages, is fundamental to achieving a sustainable, good quality outcome. Connectivity within the movement network provides a choice of routes and convenience for walking and cycling, and provides access for residents without vehicles including those too young or old to drive. Well designed pedestrian areas will ensure residents and visitors can easily access dwellings and communal space and will facilitate connections with the public realm. Connected movement networks will also aid navigation and wayfinding for residents and visitors through a more legible and unambiguous roading structure.

While roads need to be designed to cater for traffic and infrastructure services, they also have a large role in determining the character, and ultimately the urban form of a subdivision. Road widths, cycleway, footpath styles, landscaping and berm location and width can all be used creatively to deliver variety, interest and identity into neighbourhoods. The location of roads and their relationship to open space and housing can impact on both actual safety and perceptions of safety for users, community cohesion, privacy and openness within neighbourhoods. As an example, the combination of a street which provides direct frontage to a park, with housing which directly overlooks the park, will present a more attractive and lively interface. This arrangement will also help improve pedestrian’s sense of safety, as well as discouraging unwanted behaviours through ‘more eyes’ on the public realm.

The movement response has been informed by the Transportation Assessment Report by Traffic Design Group.

8.2 HERITAGE

A heritage report was prepared by Studio Pacific Architecture to help inform the appropriate response to the retention and preservation of heritage values within the Wallaceville Structure Plan area. It is the intention of the Structure Plan to develop the site in a manner that respects past uses on the site, particularly around heritage buildings of significance. It is also expected, that through sympathetic design, new uses can be found for heritage buildings in a manner that retains the architectural integrity of the buildings, while landscaping and urban design of the site should support references to past uses of the site.

The Heritage Assessment identifies the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value as the most appropriate conservation standard for use in New Zealand. The report goes on to identify key conservation principles contained within the charter which are of particular relevance to the site. These principles provide a strong overarching framework for the protection and enhancement of both the architectural and contextual values of heritage buildings on site, and are consistent with the intent and vision of the structure plan. They include:

- + Find a Compatible Use: Ideally the original use of a heritage building should be continued. As this is often impracticable, a compatible and economically feasible use should be found. A compatible use is one that can be incorporated into the building without excessive change, and without significant reduction of heritage significance.
- + Distinguish new from Old: Growth and change are natural parts of the life of any building. Major changes, especially additions, should be able to be seen as such so as not to confuse the new with the old. Compatible design, where the new does not dominate or conflict with the old, should be the aim.
- + Respect the Patina of Age: Patina, the visible evidence of age, is something to protect carefully. Buildings should look old as they mature, as age is one of the qualities we value them for.
- + Respect the Contents and Setting: The contents and setting of a heritage building can often have heritage value in their own right and both should be regarded as integral with the building.

8.3 BUILT FORM AND LAND USE

Successful places are those that can cater for a wide range of people who can meet their daily needs within an easy walking distance. To achieve this, design decisions regarding where to locate different activities, such as shops, parks and houses, are crucial. The Structure Plan considers a number of factors (proximity to existing residential development and the Wallaceville Station; heritage, landscape features, interfaces and the road network), which help to inform the preferred location for future land uses and the form that those land uses take. To address the range of opportunities and constraints within the structure plan area and achieve distinct character locations across the site, five separate precincts have been proposed: Gateway Precinct, Urban Precinct, Grants Bush Precinct, and the Wallace Living Precinct. The proposed precincts exclude the portion of the site that will be retained as Rural Lifestyle. No changes to this area are proposed in the Structure Plan. Each precinct will provide for a variety of housing types which will cater for the full life cycle needs and future resilience of the community. This includes a mix of single, two and three storey dwellings comprising both detached and duplex/terrace typologies. It is anticipated that future subdivision applications will contain a variety of lot sizes which encourage a diverse community.

Where built form is located adjacent to open space, housing will be designed to address this space and incorporate principles of crime prevention through environmental design (CPTED). The Structure Plan encourages a best practice architectural response in residential layout and building design that responds to existing character, maximises safety for residents, enables good solar access, clearly defines public and private space, provides consistent lot dimensions and avoids rear lots.



Figure 9: (Top) Image showing terraces houses which address the public realm and contain clear and legible access.

Figure 10: (Above) Image showing the use of brick in terrace design.

8.4 LANDSCAPE AND VIEWS

The Landscape and Visual Assessment identified the existing landscape character, features and values of the site; assessed the impact development would have and the changes that would occur. This assessment also identified the visual sensitivity and potential for visual integration of development within the existing surrounds. Key physical and visual landscape attributes were identified through the analysis of suitability of the site for development, potential for mitigation treatments, and distinctiveness of the site.

From this analysis the main recommendations for development of the site were defined. Due to the site's location, scale, topography and surrounding environment, the site can accommodate development of an urban nature. The mature vegetation of Grants Bush, the stands of mature trees to the south-west and the mature trees along Ward Street create the sense of place, refer to the heritage of the site and are the key elements to retain. There is opportunity to promote the visual and landscape connection to the Southern Hills and wider valley landscape through street layout. There is additional opportunity to incorporate green corridors into the streetscape which will enhance the landscape and visual linkages and amenity.

It was concluded that due to the site's location, scale, topography and surrounding environment, the site can accommodate development of an urban nature. To achieve development that is visually integrated with its surroundings, incorporation of the key landscape and visual recommendations will mitigate any potential negative visual effects and assist with a positive outcome.

8.5 PUBLIC REALM AND OPEN SPACE

Public realm and open space are important elements of any neighbourhood. They provide opportunities for recreation and social contact, and act as visual relief within urban landscapes. Open space, both passive and active, provides the 'breathing space' within the built environment and where possible will be designed around notable and protected trees. The manner in which a subdivision relates to public spaces such as roads, parks, and streams is very important for visual amenity and safety. Too often parks are inconveniently located, inappropriately sized or poorly overlooked, being comprised of left-over land from the subdivision design process.

Open spaces within the Wallaceville Structure Plan Area will consist of Public Open Space (conservation) and neighbourhood parks, which will be strategically located within the site to ensure they are convenient and accessible for residents and visitors of all ages. Open space will be located adjacent to public streets to enhance its use and place making qualities within the urban environment.



Figure 11: (Top) Streets abutting the edge of open space with housing providing clear visibility and surveillance of the park and playground.

Figure 12: (Above) View from housing surrounding this neighbourhood park.



9.0 PROPOSED STRUCTURE PLAN

As a signatory to the New Zealand Urban Design Protocol (2005), the Upper Hutt City Council has made a commitment to create quality urban design through its own actions. Accordingly, a collaborative urban design approach with planning and engineering has driven the development of the structure plan, with the aim of providing an appropriate place making framework to guide the future development of the site.

A comprehensive analysis of the existing environment's qualities, features and characteristics informed the identification of appropriate opportunities and constraints. This, in turn has informed the development of the Structure Plan which indicates key structural elements of movement and land use as well as specific road cross sections, open space and other place making recommendations.

The entire site is well suited to residential use due to its location and accessibility; proximity to existing, or planned residential development and its natural features and potential open space amenity. However, due to uncertainty regarding the final location of the Floodplain Remnant Covenant and the nature of development on the southern side of Alexander Road (Plan Change 36), this Structure Plan has been limited to the area north and east of the racecourse chute (Area A). Whilst constraints and opportunities for the remaining part of the site (Area B) have been assessed, it is considered appropriate to delay structure planning for that area until these uncertainties can be addressed.



KEY

- Area A Boundary
- Area B Boundary (subject to future structure planning)

9.1 DENSITY

The vision for the Structure Plan, in line with the Urban Growth Strategy, indicates the provision of higher density residential development on the site. The structure plan also adopts the principle of fostering a number of neighbourhoods with different characteristics. Differences in density is one way to achieve this. The map overleaf illustrates the area of the site considered appropriate for higher density residential development. The distribution of higher density residential development is based on proximity to:

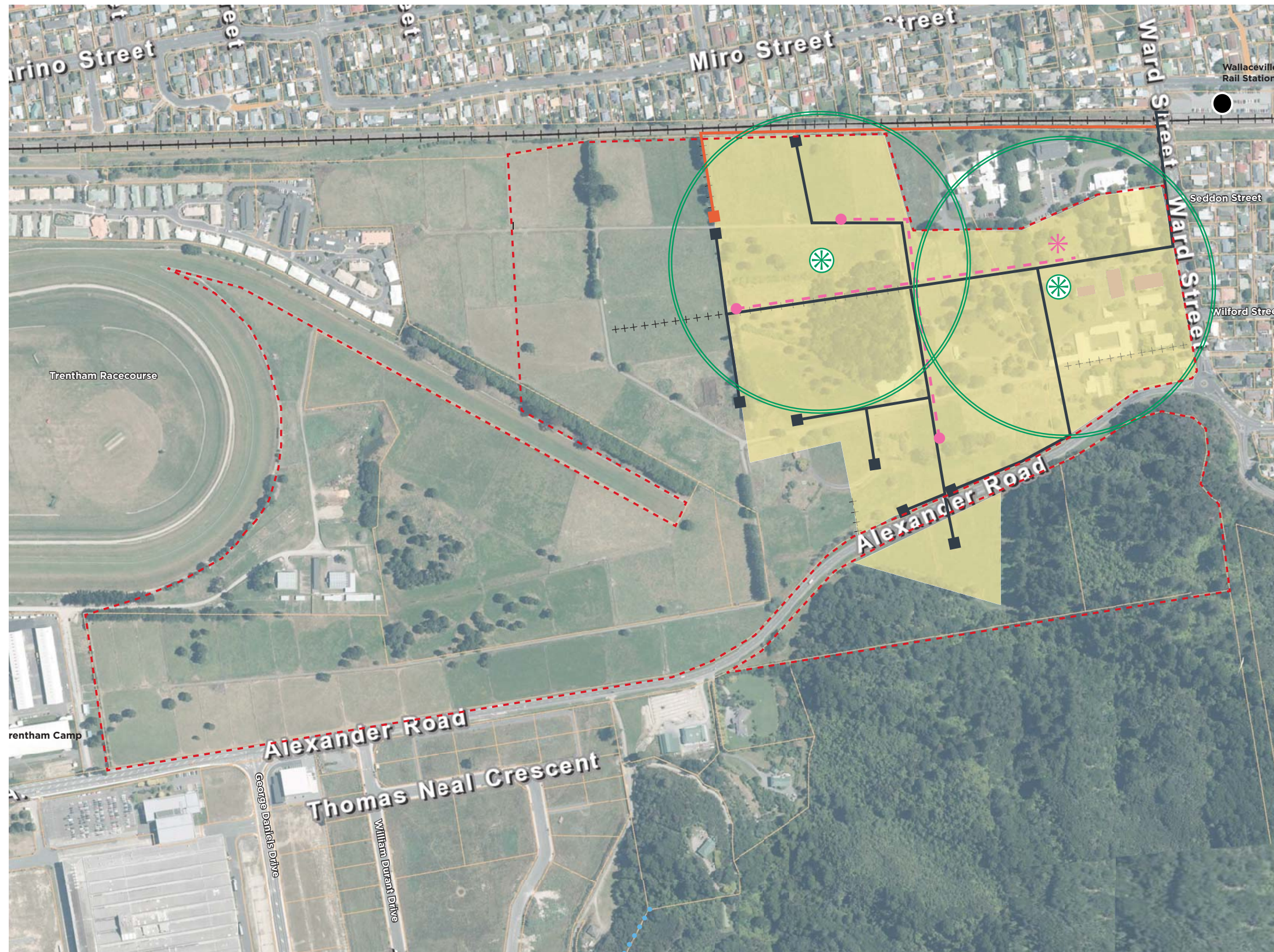
- + public transport (Wallaceville rail station)
- + employment/business areas
- + neighbourhood services (community and retail)
- + open space/recreation opportunities
- + urban design approach/vision with regards to identity, neighbourhood definition etc.

The site is flat and therefore easy for walking and cycling. The widely accepted walking distance of 800m (10min walking time) has been adopted when identifying density distribution. This includes walking distance from the railway station, future neighbourhood centre and also considers the location of open spaces.

This distribution/extent is dependent on safe and attractive pedestrian connections:

- + through Grants Bush
- + on the future walkway/cycleway adjacent to the railway line
- + on pedestrian facilities within proposed road corridors

DENSITY RATIONALE



KEY

- 800m walking distance from railway platform (on roads and pedestrian links)
- 800m walking distance from railway platform (on cycleway within road corridor)
- 400m walking distance from neighbourhood centre (on roads and pedestrian links)
- 200m distance (crow flies) from neighbourhood park (equates to 5 to 10 min walk approx)
- Higher density residential appropriate
- * Neighbourhood Centre

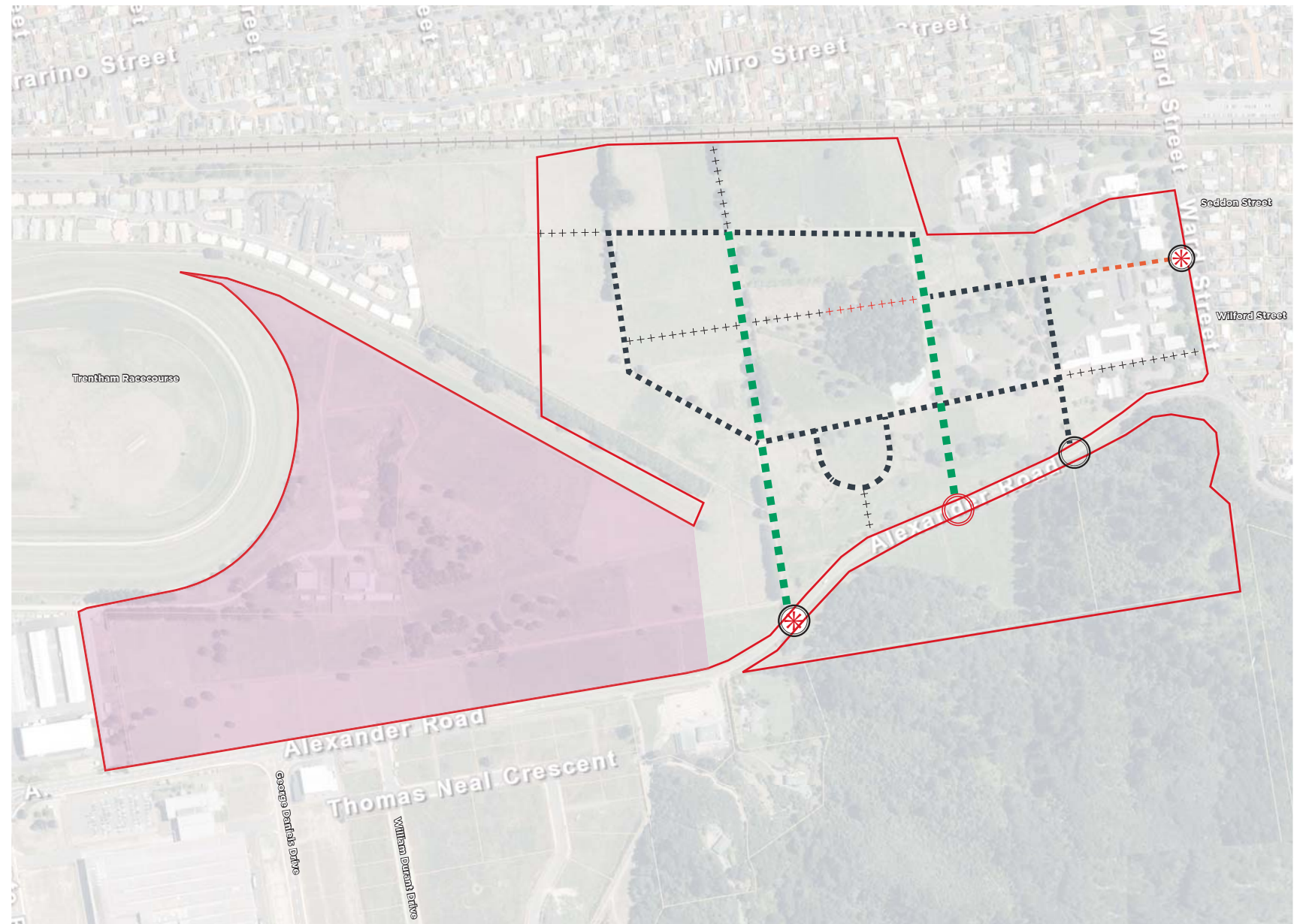












MOVEMENT

The movement network proposed in the Structure Plan provides a connected and convenient circulation system with a range of roading typologies, pedestrian links and public transport services. The proposed movement pattern responds to the following principles:

- + A clear/easily understood movement hierarchy with a range of street typologies appropriate to function
- + Boulevard roads with significant planting that visually establishes their place at the top of the internal road hierarchy
- + A well connected and walkable neighbourhood promoting direct access to shops, bus stops and open spaces
- + Adherence to historic movement patterns and responsive to historic buildings and their settings
- + Inclusion of water sensitive design devices to aid low impact development
- + Gateways to signal change in speed environment and/or land use
- + Streets which contribute positively to the character of the development with street trees and grassed berms
- + Connections which promote walking and cycling as an alternative mode of transport

The Structure Plan illustrates the application of these principles to provide a connected and integrated movement system which supports residential development, contributes to character and promotes walking and cycling.



KEY			
	Structure Plan Boundary		gateway feature
	Area B		Four way intersection
	Boulevard Road (indicative location)		T-junction
	Key Local Road (indicative location)		
	Heritage Street		
	Pedestrian/Cycle Connection		
	Grant Bush Walkway		

MOVEMENT

9.2 ALEXANDER ROAD

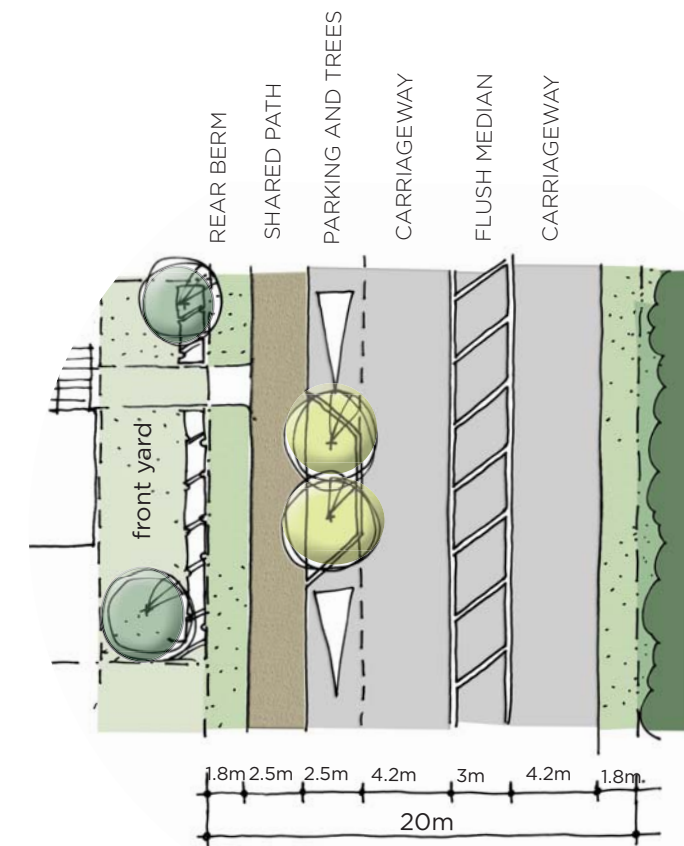
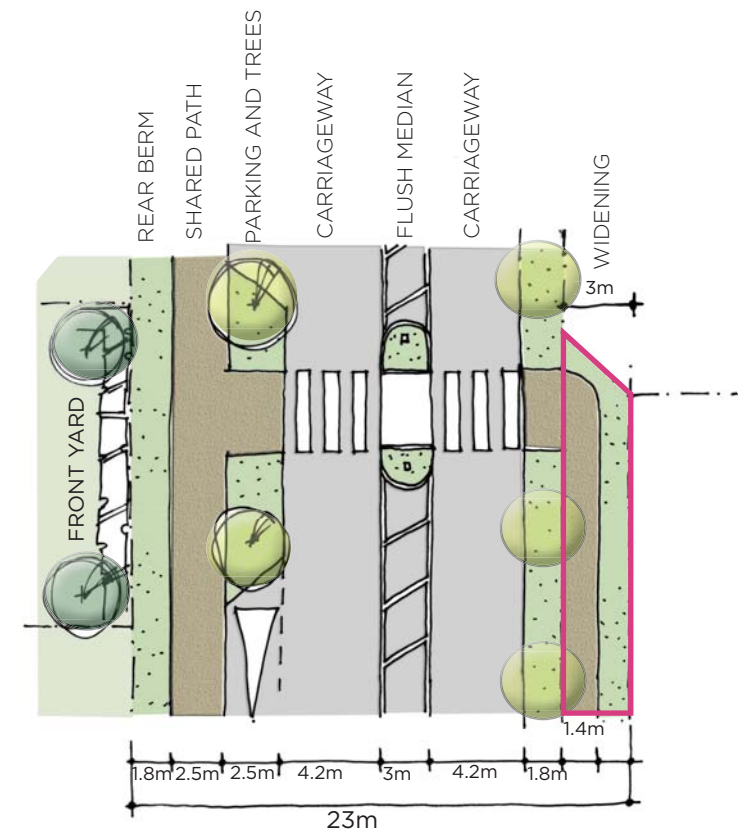
Due to the limits in providing additional access from Ward Street due to the protected trees and sensitive historic buildings, Alexander Road is an important access route for the site. The change of use within the Wallaceville Structure Plan Area to residential activity, the importance of Alexander Road as a frontage for the future development as a whole, and residential development south of Alexander Road, supports the proposal to change the form of the road to one more compatible with the anticipated development.

Alexander Road is an arterial road which carries significant traffic volumes to and from the Upper Hutt central city. This function needs to be accommodated in the future and balanced with future development of the Wallaceville Structure Plan area. Residential amenity, pedestrian and cycle provision and visual appeal are also important outcomes that need to be balanced with traffic speed, flow and volume. As a separate process, the developer is requesting that Council consider reducing the speed limit along the portion of Area A to 60km/hr and that formal traffic calming measures are provided. This enables a higher amenity, safety and comfort level for adjacent residential properties. Vehicle access can be controlled to reduce potential conflict along the route by ensuring vehicle turning on site or rear access, future dwellings should front the street, with front doors and post boxes in order to ensure an attractive and safe street environment.

The road is proposed to accommodate two vehicle lanes of 4.2m which allow for heavy vehicles and buses as well as on-road cycling at the edge of the traffic lane. These lanes are divided by a central flush median which provides for turning lanes to assist traffic movements and intersections and prevent delays to through traffic. A parking lane and tree build outs are proposed on the north side of the road. This provides for visitor parking, street trees and also improves comfort of pedestrians and cyclists as they are separated from the moving traffic lane. A 2.5m wide shared path for pedestrians and cyclists is provided on the north side.

The existing reserve width of Alexander Road is 20m which accommodates traffic lanes, tree planting/parking and shared path on the northern side. Where residential development is planned on the southern side of the road it is necessary to widen the reserve in order to

accommodate a pedestrian path on the southern side as well. Pedestrian crossing points over Alexander Road are also necessary to ensure residential development on the southern side can access recreation space and community retail/services in the northern portion of the Wallaceville Structure Plan Area. The number, form and location of crossing points can be determined during detailed design. In order to signal the change in land use and a lower speed limit as well as help calm traffic, a gateway feature is proposed along Alexander Road at the intersection of the western boulevard road. Signage, planting and road surface changes can help to signal this change.



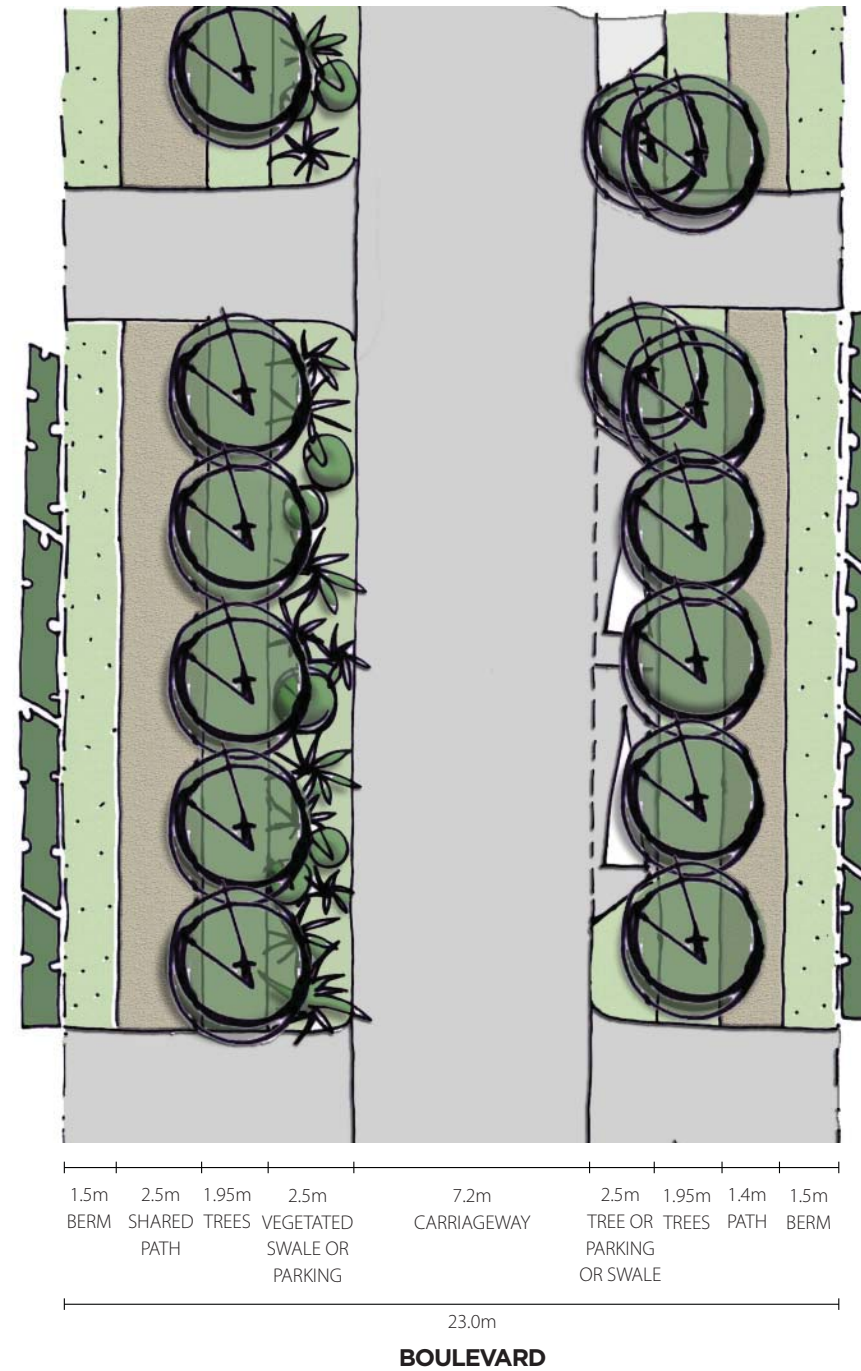
MOVEMENT

9.3 BOULEVARD

These streets are envisaged as heavily planted streets, providing green corridors which visually connect with the bush clad valley walls to the north and south. They function also as main entry points from Alexander Road and help to establish a high level of amenity upon entry.

The generous 23m reserve width enables dedicated tree berms on both sides of the road. Additional tree planting and swale planting further contributes to the green image of these streets. Swales can contribute to low impact design by treating the road runoff and attenuating stormwater. The carriageway allows for two way traffic and parking on both sides of the road, in between parking bays or street trees/swales, driveways permitting. A shared path on one side of the road provides for cycling.

Tree species can echo historic planting themes, for example totara and oaks. Oaks function well as street trees and will change with the seasons. Totaras can be used as feature trees on corners or at gateways.



MOVEMENT

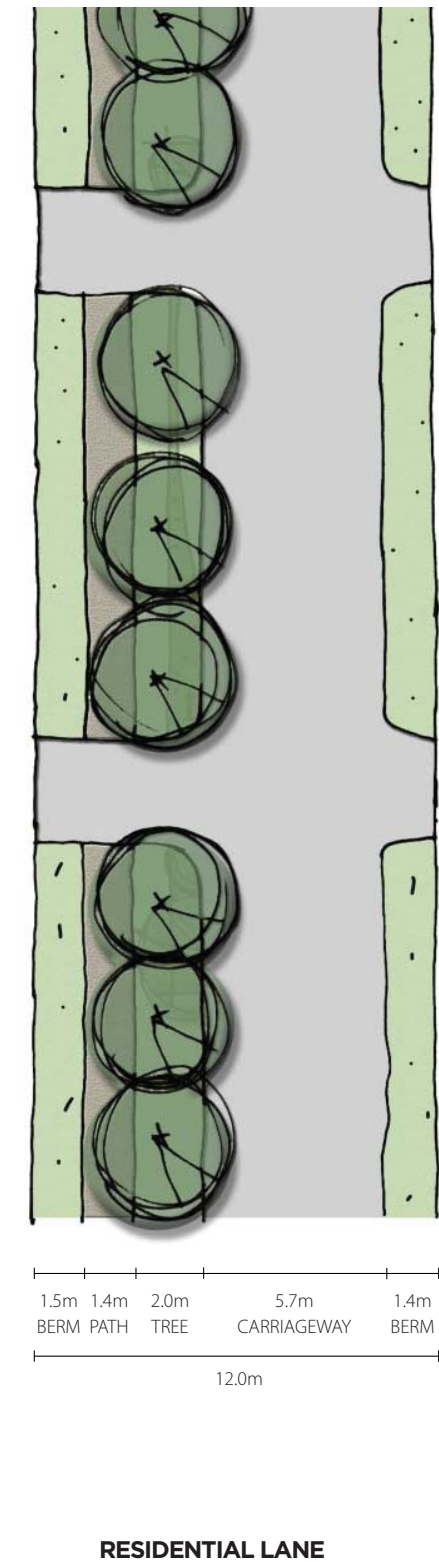
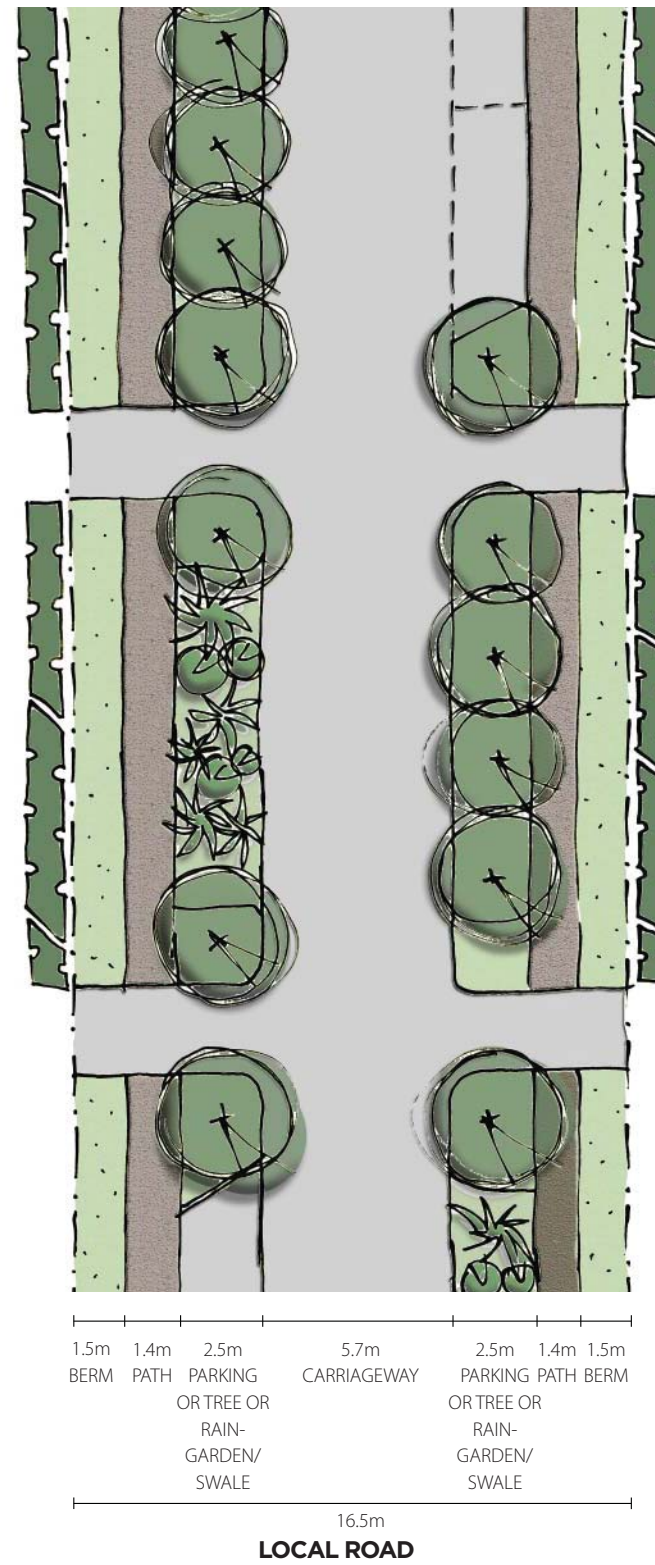
9.4 LOCAL ROAD

Key local road connections are illustrated on the Structure Plan map. These echo historic movement patterns and intended for the distribution of local traffic only. At 5.7m, the carriageway allows for informal on street parking on both sides. Street trees, swales and car parking is accommodated on both sides of the road, inbetween driveway crossings. Footpaths are provided on both sides of the road and together with the rear berms, make up the 16.5m reserve width.

9.5 RESIDENTIAL LANE

This public road has a narrow reserve width (12m) although a standard 5.7m carriageway is still provided. A tree berm is also accommodated, adjacent to a footpath on one side only. Rear berms are also provided for services.

This road typology is intended for very local use only. It is intended to be straight, short (less than 100m) and serve 20 or less dwelling units. It extends the range of road typologies, is more intimate and community focussed and helps increase residential yield.

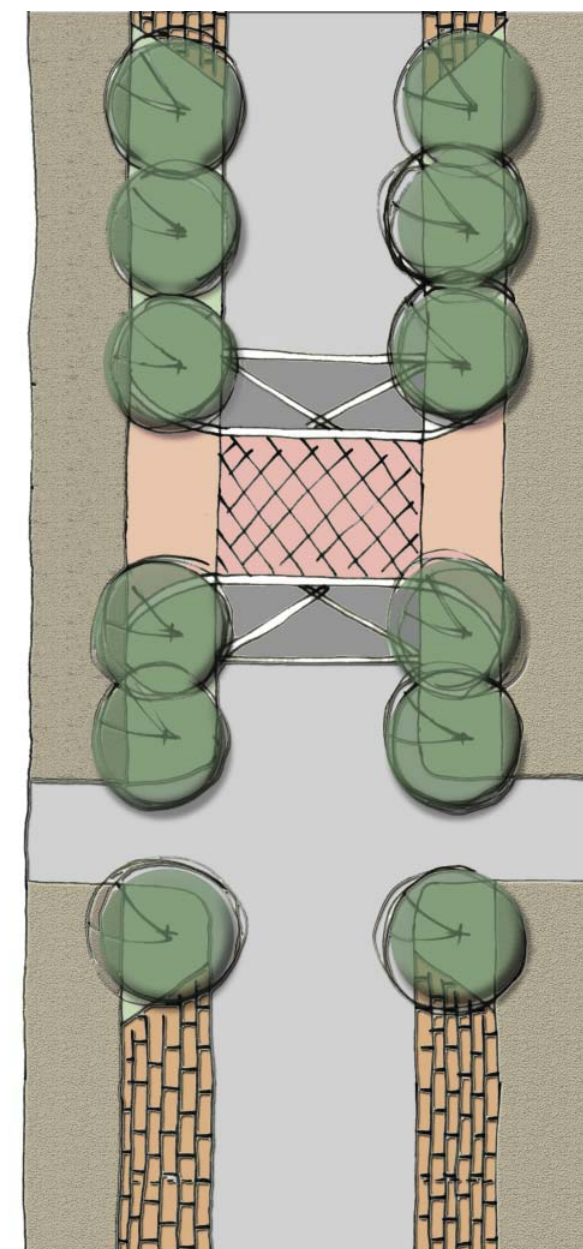


MOVEMENT

9.6 HERITAGE STREET

The street which functions as the “front door” to the Wallaceville Structure Plan Area, passes through the gateway precinct and in close proximity to protected historic buildings and trees. The carriageway allows for easy movement of traffic through the precinct. Slow speeds are intended along this route, encouraged by alternative surface treatments which reference the materials of the historic buildings. It is intended that this street have high pedestrian priority, with generous crossing points and wide footpaths on both sides. Street trees and short term parking are provided on both sides of the road.

Due to the location of the historic buildings, the carrigeway is likely to have a horizontal deflection which will help reduce traffic speeds and provide identity and visual interest. The street needs to be designed with a high value on “place” as well as accommodate the movement function.



HERITAGE STREET

PEDESTRIAN AND CYCLING ROUTES

9.7 GRANTS BUSH WALKWAY

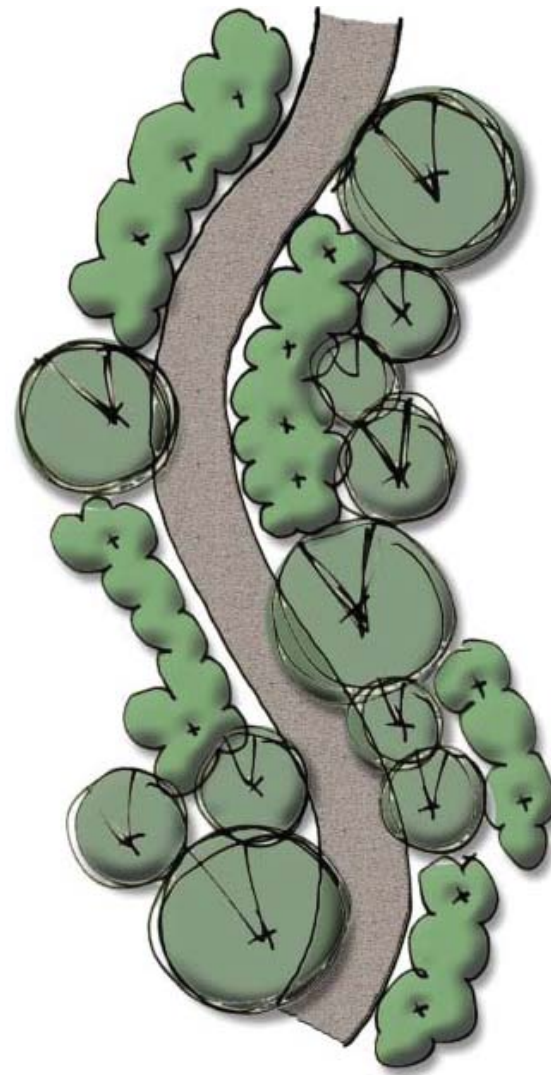
Grants Bush is located in the centre of the Wallaceville Structure Plan Area and will be surrounded by residential development. In order to ensure pedestrian and cycle connection in this area, a walkway is proposed through this native stand of bush, which connects directly to key roads and onward to the Gateway Precinct. With residential development all around the bush (some of which is likely to be at higher densities) it is likely that there will be increased traffic through the bush. To protect the health and ongoing sustainability of the bush, it is important to provide for this demand and prevent informal and unmaintained tracks through it.

It is also necessary to balance the movement need and the necessary removal of bush to accommodate it. The path needs to provide for pedestrians, cyclists, and prams. For two people to pass, a recommended path width of 1.4m is proposed. A width narrower than this will likely mean people stepping off the path to pass each other, causing damage to the bush. It is also likely that the bush may overhang the path and so this width is necessary to ensure ease of movement.

The path is proposed to have a metallised surface with timber edging. No lighting is recommended as its use at night should not be encouraged. It may meander in order to avoid removal of specimen trees. It should not be fenced.

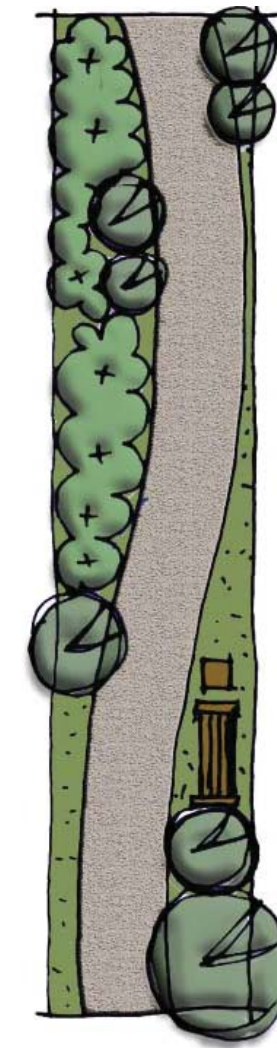
9.8 PEDESTRIAN AND CYCLE LINKS

A number of pedestrian and cycle links are included on the Structure Plan map to promote pedestrian and cycle use and connections with the wider pedestrian and cycle network. These may or may not be provided on public roads. If they are not provided on public roads, these links should follow principles of Crime Prevention Through Environmental Design (CPTED). As such, they must be of sufficient width to include landscaping and lighting. They should also be straight and short and overlooked by adjacent properties. Adjacent fencing should be limited in height to ensure surveillance.



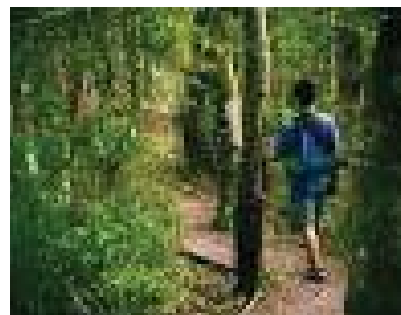
1.4m

GRANTS BUSH WALKWAY



Varies 2.5m Varies
5m

PEDESTRIAN AND CYCLE LINK



GATEWAYS

In addition to the movement network, a number of intersections are identified as having a gateway function. These areas should be given special consideration in terms of creating a sense of arrival or departure. These gateways signal to drivers that they are making a transition, either from rural area to urban, or from town to town centre and should adjust their behaviour accordingly. They also contribute to the town's identity and help to create a sense of place. Gateways can be created in a number of ways, including, but not limited to:

- + Signaling the change through feature planting such as groups of trees and shrubs that are different to those used in the street;
- + Feature signage and/or public art;
- + Memorable architectural forms on adjacent properties.

Images (right):

1. Compass Point, Pakuranga
2. The Elms on Prebleton, Christchurch
3. Northwood, Christchurch
4. Hobsonville Point, Auckland
5. Northwood, Christchurch
6. The Lakes, Tauranga
7. Ocean Ridge, Kaikoura
8. The Lakes, Tauranga
9. The Lakes, Tauranga

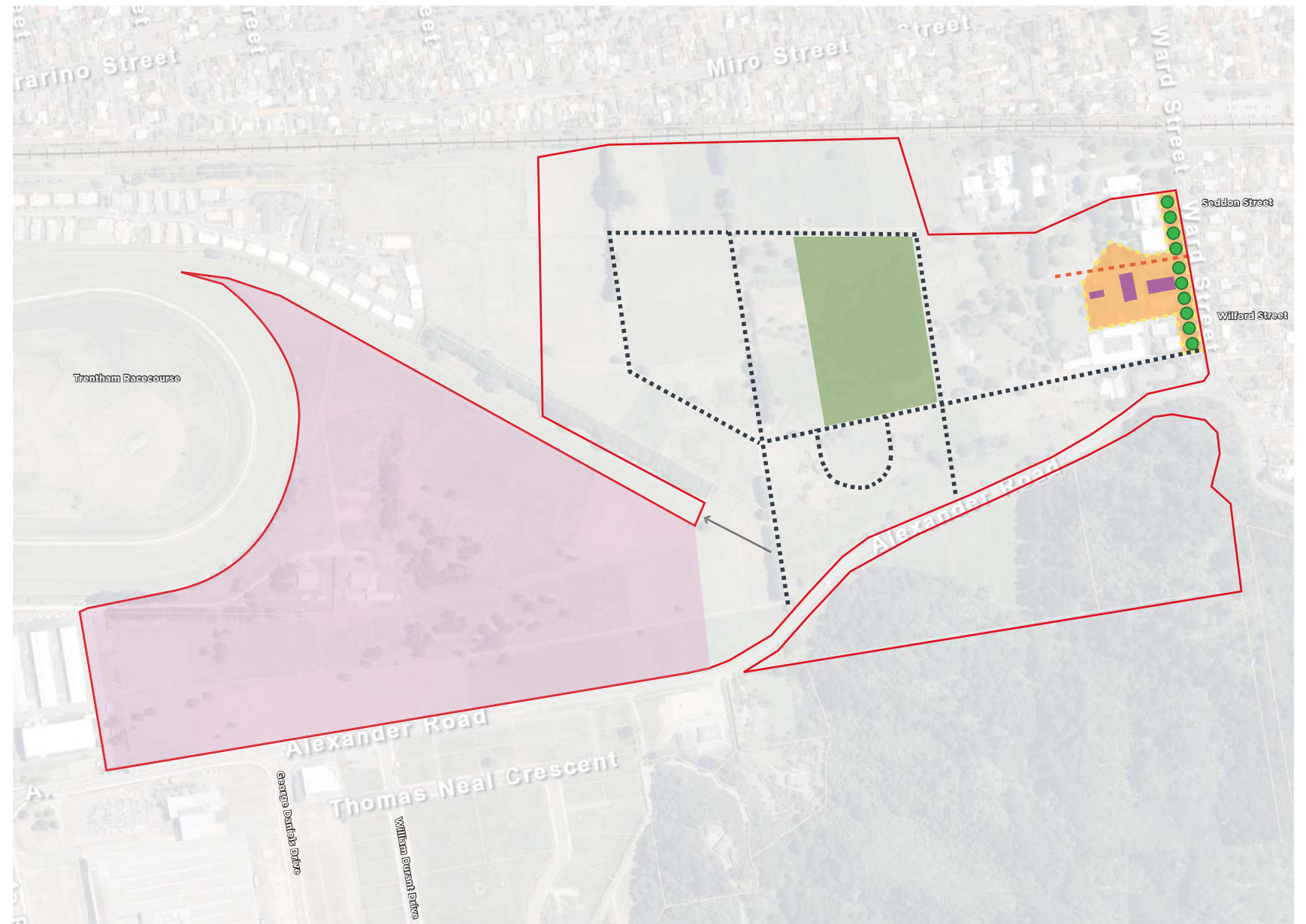











Figure 13: (Above) Indicative examples of 'gateway features' from various residential subdivisions.

HERITAGE

As described in the summary of the Heritage Assessment, the site has a unique and interesting past. The heritage values of the site have been a significant driver in the development of the structure plan. The opportunity to provide new development with identity through a link to the past uses of the site has been maximised through the following structure plan directives:

- + Protected buildings, fencing and trees in the Ward Street area are recognised as part of the gateway to the site and the location for the new community heart
- + The existing heritage is respected
- + The reuse of existing listed buildings is encouraged
- + Historic movement patterns have been retained in the proposed movement network
- + Significant trees are proposed to be retained (details in Arborist/STEM report)
- + A heritage street is proposed through the Gateway Precinct to respond in a unique and sensitive way to this historic area
- + Sensitive development (appropriate building height, materials and signage) in close proximity to heritage buildings is proposed
- + Reference to historic vegetative character is to be made in future landscape proposals
- + Grants Bush is retained and promoted as a high amenity resource (visual outlook and relief) for the future community
- + Provision of a neighbourhood park, incorporating the Incinerator and interpretation as to its former use through signage and landscaping
- + A main public park located in the north west corner of Grants Bush and incorporating interpretation as to the former use of the site through signage and landscaping
- + A view to the racecourse chute is indicated in order to maintain visual connection to this historic and ongoing activity

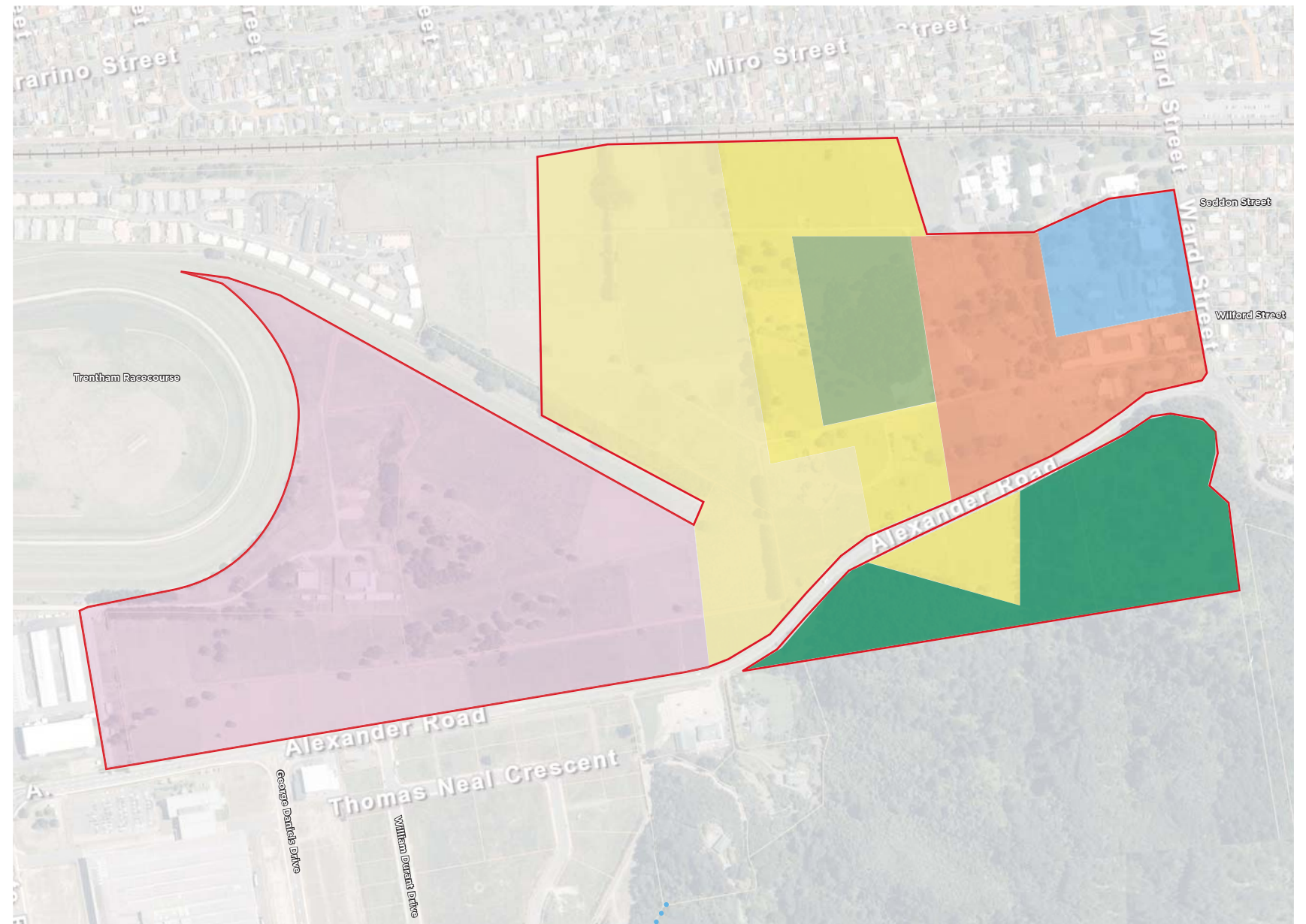








KEY	
	Structure Plan Boundary
	Area B
	Heritage Buildings
	Heritage Covenant Category 1
	Grant Bush (conservation)
	Historic movement patterns to be retained
	Heritage Street
	Protected Trees
	visual connection

PRECINCTS

In order to address the many varied interfaces, constraints and opportunities across the large structure plan area, a number of residential precincts have been identified. This approach encourages variety and identity, and divides the Wallaceville Structure Plan Area into perceptually different neighbourhoods with distinct character. There are four proposed precincts in Area A of the Structure Plan, namely:

- + Gateway Precinct
- + Urban Precinct
- + Grants Bush Precinct
- + Wallaceville Living Precinct



KEY	
	Structure Plan Boundary
	Area B
	Gateway Precinct (mixed use, heritage protection/character)
	Urban Precinct (high density, predominantly attached housing, 3 st max, some commercial/retail)
	Grants Bush Precinct (Mixed residential typologies, 2 storey max)
	Wallaceville Living (predominantly detached residential typology, 2 sto max)
	Rural Lifestyle Zone
	Public Open Space (conservation)

PRECINCTS

9.9 GATEWAY PRECINCT

This Precinct is the smallest precinct, is located adjacent to Ward Street and incorporates heritage buildings. The historic buildings, together with the many significant mature trees create a campus and park-like setting. Its approximate size is 2.5ha and it also interfaces with the National Centre for Biosecurity and Infectious Disease. It is in very close proximity to the Wallaceville train station, making the whole precinct within easy walking distance.

9.9.1 INTENTIONS

With its frontage and access to Ward Street, this precinct will determine the first impression of much of the new development and has the potential to contribute to the character of new development of the new neighbourhood. As such, it is intended that development in this precinct:

- + Signals a new and different character as a gateway to the larger Wallaceville development
- + Respects the heritage character and values of protected buildings and their settings
- + Includes a mix of activities, including retail, commercial, community services and high density residential
- + Establishes a heart or 'centre' to the wider Wallaceville Structure Plan Area
- + Allows movement of vehicles, cycles and pedestrians from Ward Street through to the wider structure plan area
- + Includes provision for a range of residential housing types at a relatively high density, including duplexes, terraces and low rise apartments.

9.9.2 OUTCOMES

- + Re-use of existing buildings and materials where practicable, including possible multi-storey residential or residential care in the existing multi-storey Admin building
- + Retention of healthy high value trees

- + New tree planting to reinforce existing species
- + Fencing along Ward Street retained as much as practicable
- + Provision of a neighbourhood park, incorporating the Incinerator and interpretation as to the former use of the site through signage and landscaping
- + Main public road to recognise sensitivity of protected buildings, prioritise pedestrians and consider alternative surface treatments to reinforce this
- + A simple, grid structure, with blocks adopting a north south orientation, retaining long distance views of hills and maximising solar gain
- + Small scale business and retail uses, actively fronting streets with little or no setback from the front/road boundary, including café or restaurant type activities
- + Signage and advertising to respect heritage values with regard to size and position and have a consistent theme/style
- + Residential development to recognise Design Guide for Residential (Centres Overlay) Zone
- + Materials and colours of new buildings to reflect historic character and favour brick and weatherboard
- + Retention of existing building names
- + Naming of streets to consider referencing historic uses
- + Height of new buildings to respect/consider scale and form of heritage/protected buildings



PRECINCTS

9.10 URBAN PRECINCT

This area measures approximately 6.6ha and is located adjacent to the compact heart of the Wallaceville Structure Plan Area and in close proximity and easy walking distance of the Wallaceville train station. It has access points to Alexander Road, direct pedestrian access to the southern portion of Ward Street and an interface with NCBID and Grants Bush. It also has an interface with the bush clad slopes of the Southern Hills area.

9.10.1 INTENTIONS

- + A compact and attractive residential precinct, making efficient use of the land resource in this location and providing a transition from the Business Commercial Zone to other residential areas.

9.10.2 OUTCOMES

- + Three storey height limit (11m) to allow for three storey attached terraces and low rise apartments with pitched roof forms
- + A simple, grid structure, with blocks adopting a north south orientation, retaining long distance views of hills and maximising solar gain
- + A range of housing types, predominantly attached types, including terraces, duplexes, and allowing for residential units entirely above ground floor
- + Some business/commercial uses
- + Retention of healthy high value trees where practical
- + Development that is respectful of historical street pattern
- + New tree planting to reinforce existing species
- + Residential development to recognise Design Guide for Residential (Centres Overlay) Zone
- + Utilisation of a range of street typologies
- + Provides active street frontage to Grants Bush

- + Active frontage and direct access from properties adjoining Alexander Road
- + Development that incorporates on-site measures to protect noise sensitive activities from any adjoining intrusive noise effects



PRECINCTS

9.11 GRANTS BUSH PRECINCT

This precinct (8.5ha) will take much its identity from Grants Bush which provides a significant open space amenity in its midst. It also functions as the transition between the more urban and mixed use precincts and the conventional living areas of the Wallaceville Structure Plan Area. It has interfaces with the rail corridor and access to Alexander Road. The area to the south of Alexander Road is also included in this precinct as it is also within 10min walking distance of the train station. This also means that both sides of Alexander Road can develop consistently and contribute to the change of character along Alexander Road as it moves through the Wallaceville Structure Plan Area. The land to the south of Alexander Road is generally flat, outside of the Southern Hills area and its development does not restrict long distance views of the valley sides.

9.11.1 INTENTIONS

- + A residential precinct with identity and variety and which makes good use of land resource and addresses Grants Bush

9.11.2 OUTCOMES

- + A range of housing types to encourage diversity and a mix of residents while promoting smaller dwellings and sites
- + A simple, grid structure, with blocks adopting a north south orientation, retaining long distance views of hills and maximising solar gain
- + Road frontage to Grants Bush
- + Active edges to Grants Bush, with habitable room windows facing streets and open spaces
- + A main public park located in the north west corner of Grants Bush and incorporating interpretation as to the former use of the site through signage and landscaping, combined with the Grants Bush covenant to create a large central green space for the development
- + Grants Bush extent to be either unfenced or fenced with permeable fencing
- + Landscaping character to reflect native bush species

- + Variation in style, form and materiality to allow for individuality
- + Low level front fencing and generous front yard setbacks to allow for front yard activity
- + Front boundaries along boulevards defined by hedging which reflects historical planting
- + Development to respect historical street pattern
- + Pedestrian/cycle connection to proposed rail corridor walking/cycling path and within road corridors
- + Secondary pedestrian connection provided through Grants Bush
- + Active frontage and direct access from properties to Alexander Road
- + Development that incorporates on-site measures to protect noise sensitive activities from any adjoining intrusive noise effects
- + Residential development in accordance with Design Guide for Residential (Centres Overlay) Areas



PRECINCTS

9.12 WALLACEVILLE LIVING

This precinct is identified for both Area A and Area B.

Area A

At approximately 13.4ha, this precinct is the largest precinct and the precinct provides a transition to the adjacent Summerset Retirement Village and Trentham Racecourse. It has interfaces with the rail corridor and the race course and access to Alexander Road.

9.12.1 INTENTION

- + Traditional residential density, compatible with adjacent existing residential areas with clusters of higher density residential development, particularly around amenity or open spaces
- + Development to respect historical street pattern

9.12.2 OUTCOMES

- + Variation on house styles, form and materiality to allow for variety
- + Some pockets of higher density comprehensive residential development, located at nodes in the movement network and adjoining public open space
- + Visual links to racecourse provided through road alignment
- + Interfaces treatment to railway
- + Low level front fencing and generous front yard setbacks to allow for front yard activity
- + Front boundaries along boulevard roads defined by hedging to reflect historic landscape
- + Good pedestrian and cycling connections to wider network and Alexander Road
- + Active frontage and direct access from properties to Alexander Road, east of proposed gateway feature and t-junction

Area B

This portion of the site has not yet been the subject of a structure planning exercise, given uncertainty over the final boundaries of the Flood Plain Remnant covenant and the nature of the development on land south of Alexander Road (Plan Change 36). Notwithstanding, the following description is intended to guide the future structure planning exercise.

9.12.3 INTENTION

- + Traditional residential density with pockets of higher density to provide housing variety and visual interest
- + Higher density pockets to be located at nodes in the movement network and adjoining public open space
- + Development to respect historical street pattern
- + Degree to which properties access and address Alexander Road to be determined once nature of the development across Alexander Road is confirmed
- + Significant trees are protected and conservation covenant providing significant private or public green space

9.12.4 OUTCOMES

- + Wallaceville Living precinct applies
- + Promotes a design theme that is consistent with Area A in terms of road reserve and reserve corridors, road typologies, stormwater management, bulk and location requirements, boundary treatments, and landscaping measures
- + Provides for urban development that allows for a range of different housing typologies including clusters of high density housing, which are appropriate to their locations, maintains amenity, and supports pedestrian, cycle and public transport



BUSINESS

9.13 LOCAL CENTRE

The structure plan proposes a local retail centre to provide for daily convenience needs of future residents as well as help to create a community heart for the development. It is intended that small scale/ boutique shops establish in a cluster in the Gateway Precinct in line with the following outcomes:

- + Small scale retail to provide a range of daily convenience and speciality stores, including a small neighbourhood supermarket/superette
- + Retail activities which front/address the street with front doors and glazing
- + Car parking provided to help support viability of shops but located away from key public areas
- + Appropriate and consistent signage that reflects local character
- + Provides local employment opportunities
- + provides for the re-use of heritage buildings as possible office space and/or residential use

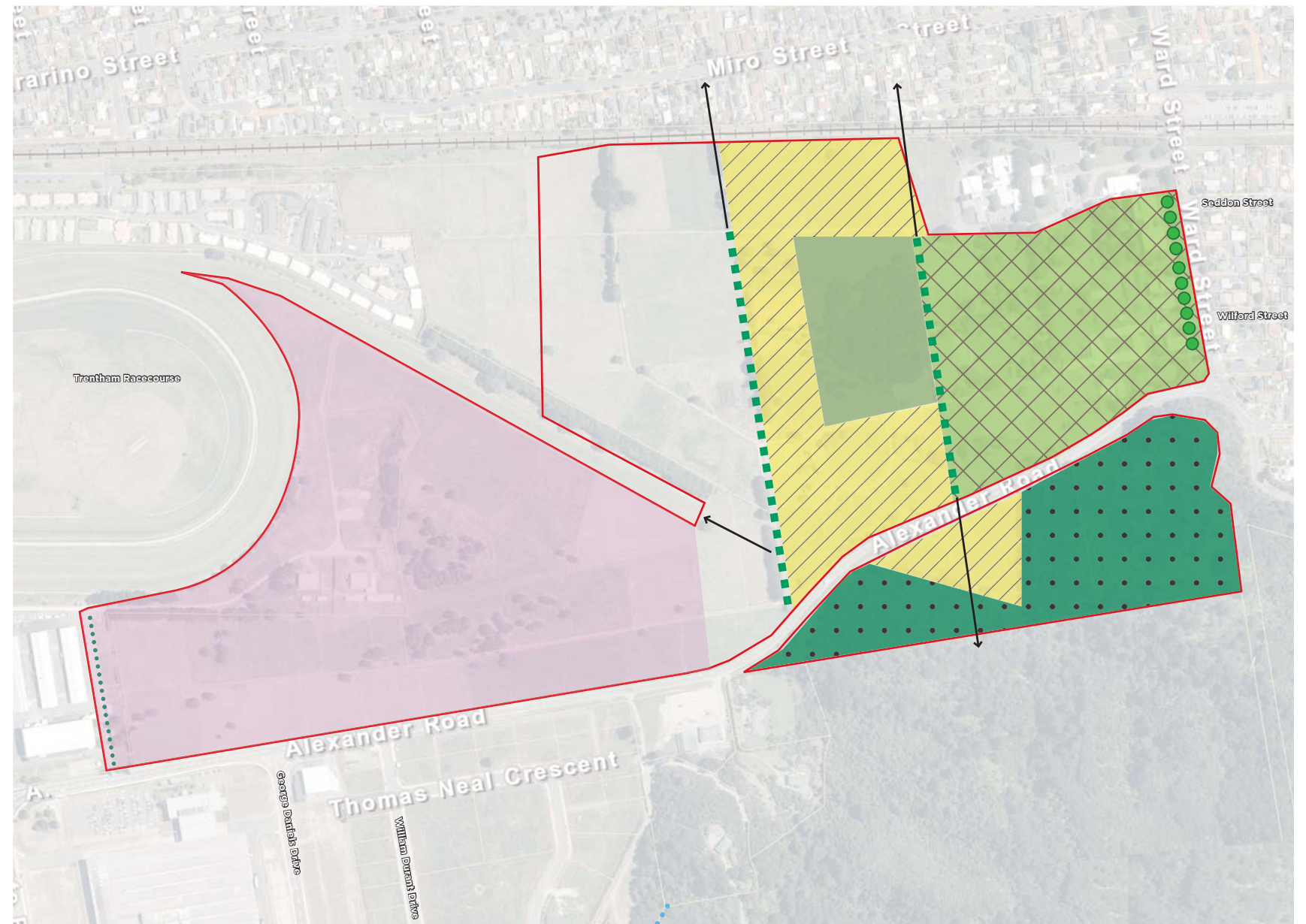
Commercial/business use is also anticipated as the most feasible for the re-use of existing historic buildings.












LANDSCAPE & VIEWS

Landscape character is recognised as a key structure plan component with the ability to contribute significantly to the identity and character of future development. Elements of the Structure Plan that deliver the intentions of the landscape assessment and recommendations include:

- + Grants Bush, which is retained and supported in its ongoing sustainability
- + Wide, heavily planted boulevards which contribute to habitat for birds and insects, provide landscape character and visually connect the heavily planted valley sides
- + Retention of significant trees along Ward Street frontage
- + View to racecourse chute retained
- + Southern Hills overlay retained as an important backdrop for the site
- + Gateway Precinct and Urban Precinct to reflect historic landscape character in new public landscape
- + Grants Bush Precinct to reflect existing native landscape character

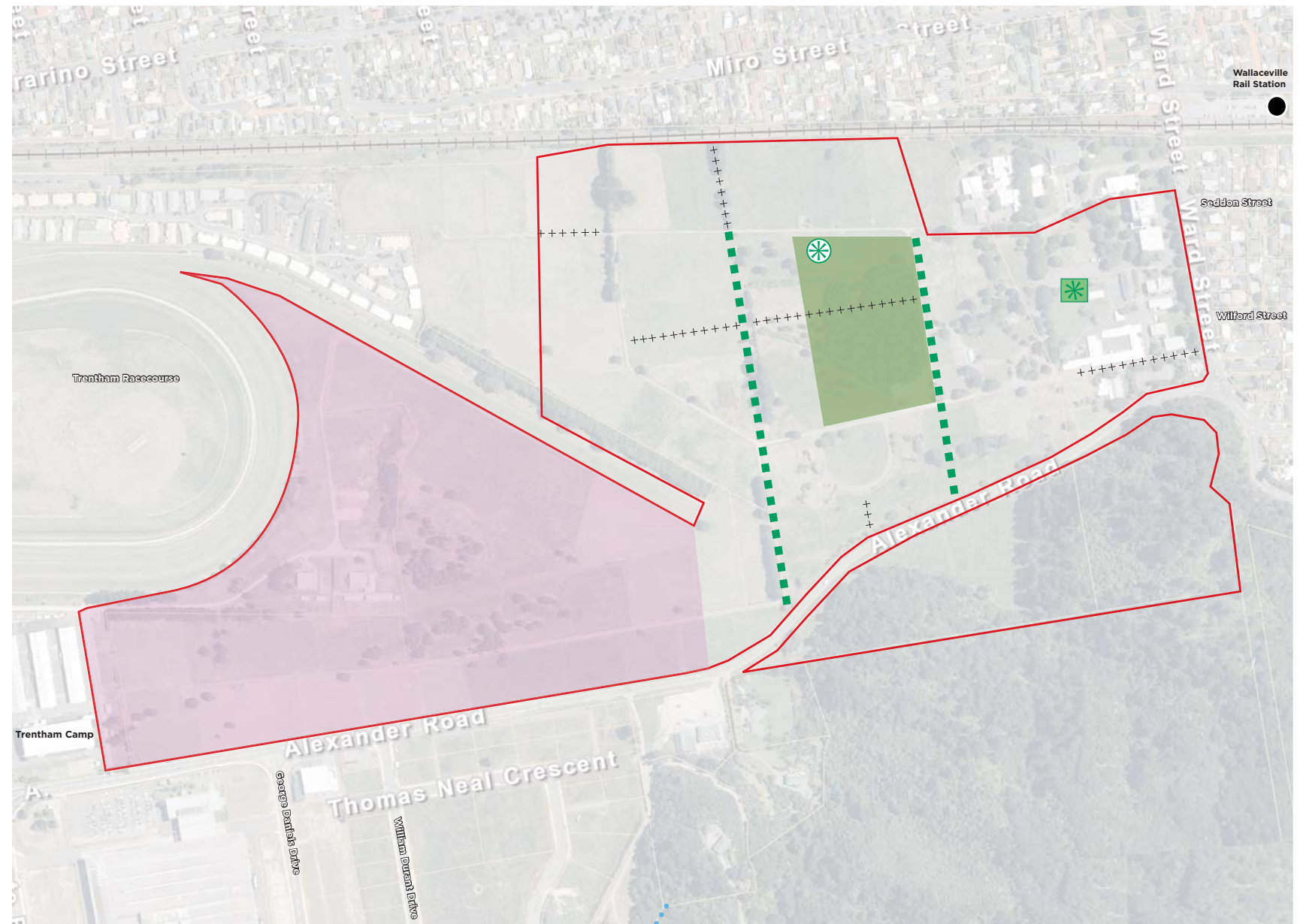


KEY	
	Structure Plan Boundary
	Area B
	Grant Bush retained
	Southern hills overlay area
	Healthy high value trees to be retained
	Public landscape to reflect Grants Bus landscape character
	Boulevard Road
	Protected trees
	visual connection/long distance views

PUBLIC REALM & OPEN SPACE

The open space network of the Structure Plan includes a variety of open spaces with varying functions which together fulfil the needs of future residents for active and passive recreation. They also provide visual relief and outlook and character for new, sometimes higher density, development. Open space components include:

- + Grants Bush which is retained as a stand of natural bush with high ecological value. This area provides for outlook amenity and vegetative character
- + A neighbourhood park associated with Grants Bush to provide for both active and passive recreation and a focus for social interaction
- + A public open space – “Furnace Green” associated with the existing incinerator building, reinforcing the community heart of the gateway precinct and showcasing its heritage value
- + Boulevard roads with significant tree planting to provide green streets for amenity and outlook
- + Pedestrian and cycle connections which also function as small scale public open spaces for rest and reflection
- + any stormwater attenuation areas to be incorporated into wider open space system



KEY

- Structure Plan Boundary
- Area B
- Public Open Space (conservation)
- ✳ Neighbourhood Park (indicative location)
- ✳ Furnace Green
- Boulevard Road (indicative location)
- +++ Pedestrian/Cycle Connection

GATEWAY PRECINCT VISUALISATION



INTERFACES

The management of interfaces has been identified as a key Structure Plan response in order to ensure future development integrates with its context. Five interfaces have been identified and assessed with respect to implications for future development, namely:

- + Railway Line
- + Trentham Racecourse
- + Trentham Camp
- + National Centre for Biosecurity and Infectious Disease
- + Alexander Road

Design/planning response to only three of these interfaces is included in the Structure Plan, excluding the Racecourse and Trentham Camp. Assessment of the racecourse interface concluded that noise effects were not required to be mitigated for future residential development and views over the racecourse are seen as an opportunity for future residential development. Similarly, noise effects generated by Trentham Camp are also considered minor and potential measures to reduce the visual impact of the scale of the buildings on future adjacent residential activity can be explored during the future structure planning process for Area B. The Requestor intends to register Reverse Sensitivity Covenants on it titles in respect of the neighbouring activities of Trentham Army Camp and the NCBID.

Three interfaces are identified on the Structure Plan in order to ensure appropriate design response and residential amenity as well as prevent negative impacts on adjacent activity.

9.14 RAILWAY INTERFACE

The railway results in noise and vibration effects that need to be minimised for adjacent residential use. Whilst an acoustic wall seems the simplest solution in order to guarantee noise reduction, this would prevent passive surveillance of the future pedestrian and cycle lane along the railway corridor. It would also cast significant shading over the north-facing private outdoor space of future residential sections along this interface.

For these reasons, a fence height of 1.5m is proposed along this boundary. This fence must have acoustic properties to help screen railway noise in private open spaces. Single storey houses within 12m of the corridor must have alternative ventilation for sleeping rooms and double storey houses within 12m must have both noise insulation and alternative ventilation.

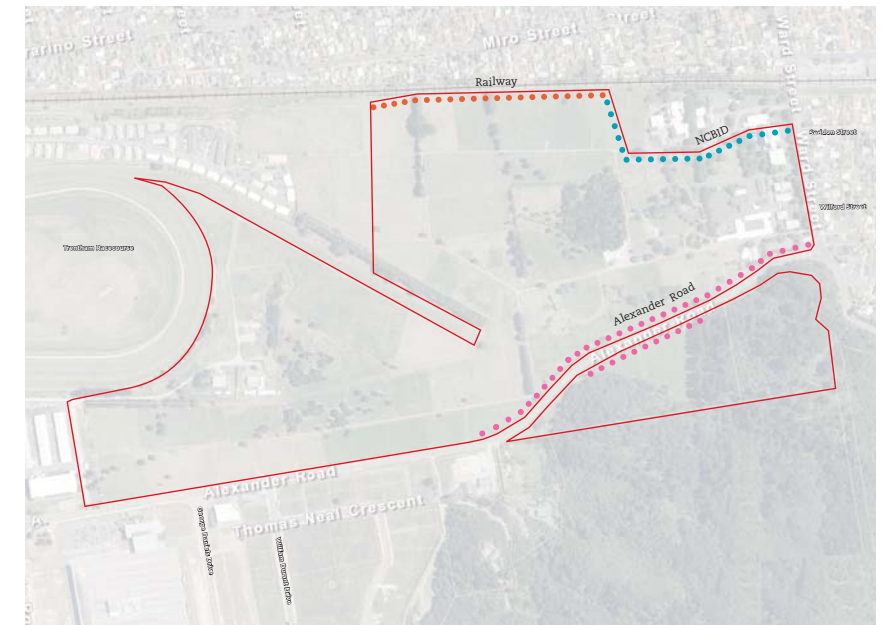
9.15 NATIONAL CENTRE FOR BIOSECURITY AND INFECTIOUS DISEASE

Due to potential reverse sensitivity on this neighbour, the structure plan indicates a 2m high close boarded fence along this boundary. This fence protects outdoor spaces and dwellings. Sleeping rooms on upper levels of two or more storey dwellings must have alternative ventilation.

9.16 ALEXANDER ROAD

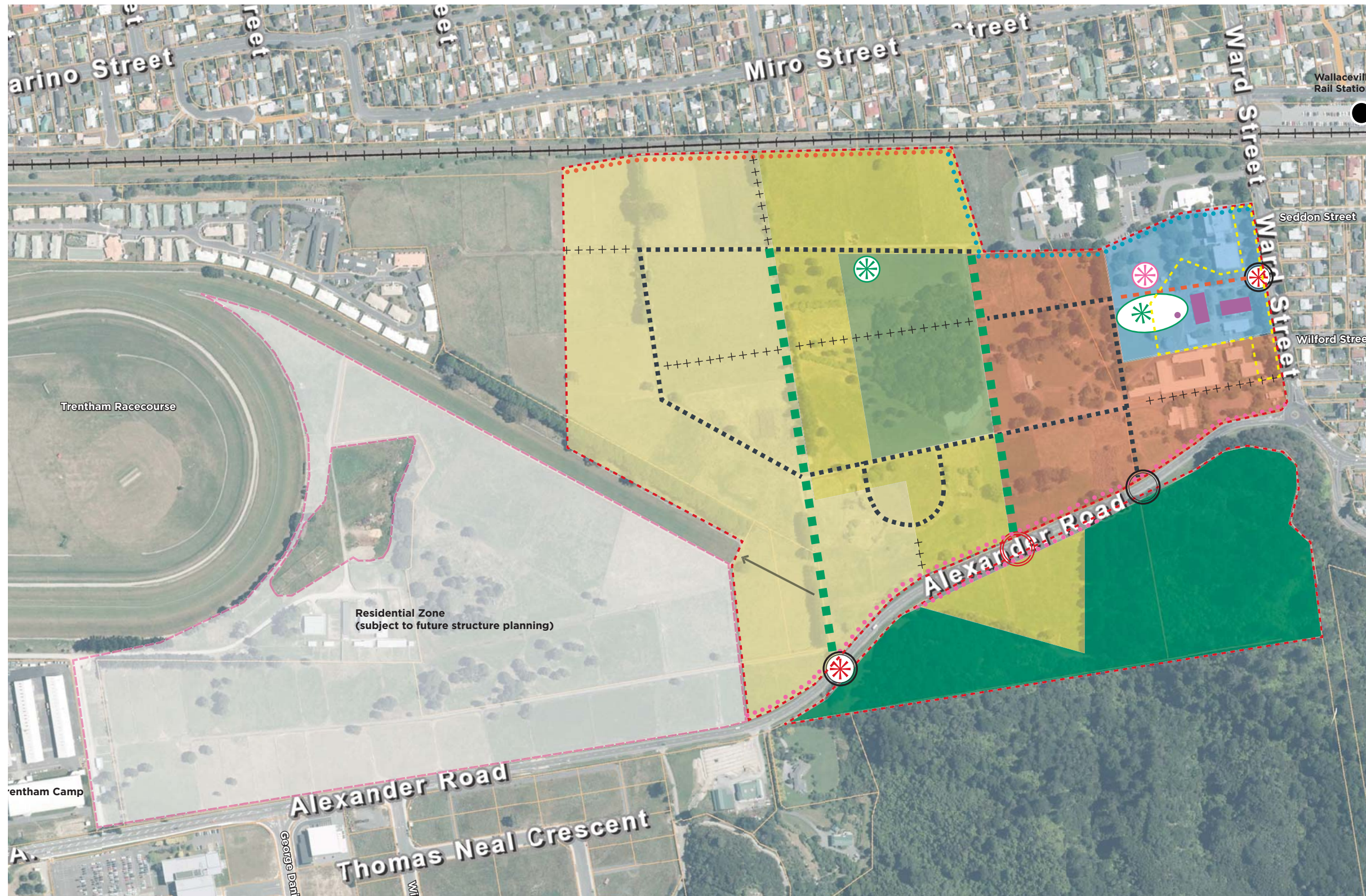
The acoustic report recommends two options for dealing with road noise generated by traffic on Alexander Road. The first solution is to build an acoustic fence and/or bund along the length of the road to protect residential activity from noise. However, it is important to balance good practice urban design and ultimate frontage outcomes with the future noise environment.

The second option is to provide alternative ventilation to sleeping rooms in housing within 20m of the road reserve and acoustic insulation for sleeping rooms within 12m of the road. This option allows for more open fencing, passive surveillance of the road environment, and an appealing frontage to the wider development.



- KEY**
- Structure Plan Boundary
 - controlled through structure plan guidance and District Plan provisions
 - controlled through private covenant and District Plan provisions
 - controlled through District Plan provisions

STRUCTURE PLAN



KEY

- Area A Boundary
- Area B Boundary
(subject to future structure planning)
- Gateway Precinct
(mixed use, heritage protection/character)
- Urban Precinct
(high density, predominantly attached housing, 3 storey max, some commercial/retail)
- Grants Bush Precinct
(Mixed residential typologies, 2 storey max)
- Wallaceville Living
(predominantly detached residential typology, 2 storey max)
- Rural Lifestyle Zone
- Heritage Buildings
- Local Retail
(indicative location)
- Heritage Covenant Category 1
- Public Open Space (conservation)
- Neighbourhood Park
(indicative location)
- Boulevard Road
(indicative location)
- Key Local Road
(indicative location)
- Heritage Street
- Four way intersection
- T-junction
- Pedestrian/Cycle Connection
- * gateway feature
- ↖ visual connection

Interface conditions

- controlled through structure plan guidance and District Plan provisions
- controlled through private covenant and District Plan provisions
- controlled through District Plan provisions

SCALE 1:5000@A3



STRUCTURE PLAN - RESPONSE TO OPPORTUNITIES & CONSTRAINTS

INTERFACES

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
Alexander Road – current speed environment and associated amenity not consistent with residential development. Future residents likely to be sensitive to effects arising from the road in its current form/state.	Structure plan could be responsive to this existing environment or alternatively it could be used to drive a change to the existing environment. There will always be a need to accommodate industrial traffic, regardless of future use south of Alexander Road.	Reduce speed on Alexander Road through use of roundabouts, intersections etc. Retain speed/function on Alexander Road, by restricting property access, intersections and provide landscape buffer and/or setbacks to residential lots. Provide non-residential land use adjoining Alexander Road.	New District Plan Standards: <ul style="list-style-type: none"> + Noise insulation + Ventilation Precinct outcomes specifically relating to development along Alexander Road.
National Centre for Biosecurity and Infectious Disease - noise and security	Interface response may be additional building setbacks and/or landscaping as well as noise insulation. Potential loss of yield/density	Landscape buffer, residential setback, detailed house design solutions, noise insulation, non residential use as a transition.	New District Plan Standards: <ul style="list-style-type: none"> + Noise insulation + Ventilation + Fencing Business Commercial Zone adjoining majority of NCBID southern boundary.
Southern Hills. Visual effects of potential development adjacent to this area	Location, density and design of development options.	Create public reserve. Lower density development options. Additional design rules or assessment criteria for development in this area to minimise visual effects.	Overlay continues to apply. No development of the Southern Hills overlay area anticipated in the Structure Plan. No amendments to Rural Lifestyle Zone provisions proposed.
Defence Force Land	Scale and form of buildings. Visual and aural effects on future adjacent development	New road to development acts as buffer. Lower density residential. Landscape buffer. House design guide/assessment criteria. Reverse sensitivity covenants. Non residential use adjacent to this area.	Specific precinct outcomes for Wallaceville Living Zone relating to the provision of an appropriate interface between the site and the Defence Force Land.
Trentham Racecourse	Protection of ongoing use and heritage value. Recreational/open space outlook for future properties	Building setbacks to boundaries. New roads adjacent to boundary. Ensuring visual connection	Specific precinct outcomes for Wallaceville Living Zone relating to the provision of an appropriate interface between the site and the Trentham Racecourse land.
Summerset Retirement Village	Fairly compatible use. Potential noise and overlooking. Opportunities to connect & integrate	Height limits adjacent to boundary. Increased building setbacks. Explore options for potential access to Trentham railway station.	Land adjoining village zoned 'Wallaceville Living' where existing residential bulk and location controls apply. Standard density residential development adjoining the retirement village not considered to generate any adverse interface issues. Pedestrian connection provided from Wallaceville site through to the retirement village.

Rail Corridor	Limits connectivity of future development to suburban environment to the north. Visual and aural impacts on future development. Opportunity for maximising public transport choice	Landscape buffer. Building setbacks. Acoustic measures.	<p>New District Plan standards:</p> <ul style="list-style-type: none"> + Fencing + Noise insulation + Ventilation <p>Pedestrian connection provided to proposed pedestrian/cycle way along rail corridor</p>
Existing Residential north of Ward Street	Like for like residential. Amenity provided by development site's Ward street frontage expected to be valued. Traffic. Existing population to assist with the viability of non-residential land uses	Retain existing built form along this frontage. Keep vehicle circulation pattern similar to present. Direct majority of traffic via Alexander Road.	<p>Business Commercial Zone to facilitate the development of a local centre. New District Plan standards for the Gateway Precinct:</p> <ul style="list-style-type: none"> + New buildings and significant exterior modifications to require resource consent + New signs in heritage covenant to require resource consent + New activity status for retail and commercial activities <p>Retention of existing fencing and trees along this frontage.</p> <p>Retention of scheduled heritage buildings.</p> <p>Inclusion of Hopkirk Building and Incinerator in Schedule of Significant Heritage Features.</p> <p>Retention of only one vehicle entry prevents additional vehicle conflict.</p>

HERITAGE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
<p>Heritage buildings and their setting, including vegetation and roading patterns</p>	<p>Restrictions to movement pattern/capacity around them. Limits to yield potential around them. Visual sensitivity and integration. Limitations/lack of feasible options for reuse due to economic feasibility and market demand. Opportunity to develop local character associated with the historic buildings and heritage values. Potential loss of yield/efficiency by recognising movement pattern.</p>	<p>Low density/low height buffer zones around sensitive heritage area. Setbacks from heritage buildings. Heritage/Conservation plans. Integration of values into structure plan. Promote inclusion of existing materials into future design elements to acknowledge history and sense of place. Reflect site history through naming, signage and landscaping. Reflect site history by retaining historic movement patterns. Incorporate limits on height and proximity to heritage buildings/features. Reflect/echo historic materials in future development. Significant vegetation is identified and retained. Fence on Ward Street retained. Re-use of heritage buildings identified as worthy of retention. Additional buildings identified for listing/protection.</p>	<p>New District Plan controls:</p> <ul style="list-style-type: none"> + New buildings and significant exterior modification to existing buildings (that are not significant heritage features) requires resource consent + New signage within the heritage covenant area to require resource consent <p>New significant heritage features to be scheduled:</p> <ul style="list-style-type: none"> + Hopkirk Building + Incinerator <p>New notable trees to be included in the District Plan schedule of notable trees.</p> <p>Specific Gateway Precinct outcomes for relating:</p> <ul style="list-style-type: none"> + Consideration of reference to historic uses for buildings and street names + Height of new buildings to consider scale and form of heritage buildings + Retention of healthy high value trees + Main public road to recognize sensitivity of protected buildings + Materials and colours of new buildings to reflect heritage values

NATURAL

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
Mature vegetation- retaining mature trees provide immediate amenity, sense of scale and connection to history	Potential loss of yield. Restrictions on movement pattern. Compatibility of mature trees, especially shelter belts with residential use (shading, leaf/limb fall). Compatibility of mature trees, especially the exotic shelter belts with ecological values. Retention of landscape character. Opportunities for added character and amenity outcomes through retention. Ongoing ownership and management.	Larger residential sections around trees to encourage their retention. Protection via private covenants. Groups of trees located within public open space areas. Removal of some or all trees to maximise yield. Identify limit areas of hedging that is also within potential open space areas. Specify hedge species as an option for future planting schemes. Individual trees worthy of retention identified and protected through notable tree provisions. Groups of trees located within public open space areas. Rows of trees incorporated into movement pattern and accommodated in road reserves. Promote the incorporation of green corridors into development layout for green linkages to provide landscape and visual amenity. Provide viewshafts to surrounding hills, down roads and through open spaces.	Provision of a neighbourhood park in the Gateway Precinct Provision of a neighbourhood park adjoining Grants Bush Specific precinct outcomes relating to: + Retention of healthy high value trees + New tree planting to reinforce existing species + Active edges to Grants Bush with habitable room windows facing streets and open spaces Southern Hills overlay to remain unchanged
DOC Covenants on Grants Bush and Floodplain Remnant	Opportunity for open space amenity for residential uses, accessible by pedestrians and cyclists. Loss of yield. Fragmentation of neighbourhoods. Long term ownership and management	Retain in current form and adjust structure plan accordingly. Reduce and/or realign covenant areas and off set loss with re-vegetation. Land swap, e.g area south of Alexander Road, for Doc covenanted land. Off site off-sets. Council ownership as reserve. Private ownership by future residents. Incorporate stormwater attenuation areas	Area A - Grants Bush covenant to remain, but boundary altered Area B - Floodplain Remnant to be considered in future structure planning exercise
Protected trees on Ward Street	Limits locations for access into site. Potential lack of solar access for future development. Contributes to visual amenity of the Ward Street frontage.	Retain as existing and maintain existing protections. Review/ amend protection covenants. Assess tree health and long term sustainability.	Additional trees to be included in the District Plan Schedule of Notable Trees. Specific precinct outcomes for Wallaceville Living Zone relating to new tree planting to respect and reinforce existing species
Rock fall and flooding on land south of Alexander Road	Potential activity restrictions. Mitigation measures	Flood attenuation area. Building setbacks from base of slope. Rock/debris retention structure. Land swap with DOC	
Visual sensitivity and steep contour of land in Southern Hills Area	Limits potential development	Retain as Rural Lifestyle Zoning. Ensure large minimum lot sizes. Taken as reserve by Council	Southern Hills overlay continues to apply. No development of the Southern Hills overlay area anticipated in the Structure Plan. No amendments to Rural Lifestyle Zone provisions proposed.

INFRASTRUCTURE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
Management of storm water, including treatment and attenuation	Site not connected to city network. No opportunities to connect to off-site infrastructure. Needs to be managed on-site, may require open space. Potential loss of developable land – reduces yield	Disposal to 1 in 25 yr event on individual sites. Use of WSUD measures in road ways. Provision to integrate stormwater management within the DOC conservation covenants. Adopt innovative stormwater attenuation devices including rain tanks, rain gardens etc. to reduce attenuation area. Require on-site attenuation/soakage areas. Promote the integration of stormwater requirements and flood attenuation areas into green infrastructure and open space design	Preparation of stormwater management plan, attached to Plan Change application

ACCESS

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
Access from Ward Street	Retention of trees limits options for access. Intersections with Wilford and Seddon Streets also restricts potential access points. Retaining existing northern access has potential effect on heritage value. Retaining existing southern access is too close to Ward Street roundabout to be a local road	Retain current two access points, one of which has implications for heritage area/surrounds, the other implications for traffic. Limit development to one intersection. Explore options for new intersection opposite Wilford Street, although this may require roundabout or left in/left out traffic arrangement	Development proposed to be limited to one access from Ward Street
Access from Alexander Road	Limited options for location of intersections due to existing intersections on southern side. Restrictions to individual property access	Utilise roundabouts at existing intersections. Incorporate pedestrian only links into development site. Utilise slip lanes to access properties and ensure good frontage to the road	Specific precinct outcomes for Area B relating to an intention to provide at least one intersection with Alexander Road that aligns with the existing Alexander Road / William Durant Drive intersection. Inclusion of a number of indicative road typologies to address Alexander Road connections.
Access to public transport	Directions for density distribution	Application of higher density zoning within walking distance of station. Potential links through Summerset site to Trentham Station. Identify bus route through site	Higher density development anticipated in the Urban Precinct that is situated within walking distance to the Wallaceville rail station. Indicative pedestrian and cycle connections to the Summerset retirement village site.
Internal access	Connected internal movement system	Provide for convenient, interesting and safe movement to railway stations. Provide for high quality pedestrian and cycling. Provide for potential bus route through the site Provide a clear roading hierarchy Provide for a range of appropriate road typologies to add character/identity Establishment of perceptual gateways to development site (Ward Street and Alexander Road) to assist with identity and legibility	Indicative pedestrian and cycleway connections included on the Wallaceville Structure Plan map. Specific precinct outcomes relating to the provision of pedestrian and cycle connections within the site.

LAND USE

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
	Residential activity	A range of housing typologies to promote a mixed community. Higher density typologies to maximise land resource in this location, particularly in close proximity to railway station. Appropriate distribution of higher density typologies adjacent to public transport infrastructure and/or public open space. Opportunities for retirement living. Lower density and/or design innovation to provide for values (e.g. specimen trees) and to help address interface issues.	New District Plan controls for the Urban Precinct to encourage high density development in this precinct: <ul style="list-style-type: none"> + Increase in maximum height + Increase in site coverage + Reduction in private open space requirements + New standards for open space for dwellings located entirely above ground level <p>Specific precinct outcomes for relating to the provision of a range of housing types, variation in style, form and materiality. Specific precinct outcomes in the Wallaceville Living precinct to encourage small pockets of higher density development where appropriate.</p>
	Non – residential activity	Commercial/business use of listed heritage buildings to ensure their ongoing use and maintenance. Neighbourhood scale local centre to provide for daily convenience needs e.g. dairy/bakery/ kindergarten etc. Business/industrial use, particularly as a transition to incompatible interfaces	Gateway Precinct zoned Business Commercial in order to facilitate the development of a local centre.
	Open space	Open space located to ensure retention/protection of mature trees. Neighbourhood reserves/pocket parks to provide local recreation opportunity. Multi-functional space to accommodate stormwater attenuation areas	

OTHER

ISSUE	IMPLICATIONS FOR STRUCTURE PLAN	OPTIONS	STRUCTURE PLAN RESPONSE
Racecourse chute	Shape factor implication for development site means potential disconnect between neighbourhoods	Maximise internal connectivity in this area. Create distinct neighbourhood focus/amenity in each area, with independent layout and character Utilise non-residential land uses	Specific precinct outcomes relating to the provision of visual connections to the racecourse.
Lack of demand for industrial land	Restrict viability of using alternative land uses to manage interface issues.	Landscape buffers to residential use. Lower density housing in interface areas. Housing design. Treatment of Alexander Road	No industrial land identified.
Land south of Alexander Rd	Disconnection from main development site. Separation due to speed/function of Alexander Road. Lower development potential due to topography Protection from rock fall required	Lower density residential use. Comprehensive residential development. Change form and function of Alexander Road to allow for integration. Land swap with DOC, or covenant this area with low density residential land in order to create biodiversity.	Specific precinct outcomes relating to the provision of a range of housing development that has an active frontage and/or direct access to Alexander Road and for residential development adjoining Alexander Road to be orientated in a manner that achieves an integrated, positive relationship with residential activities on the adjacent side of the road.



10.0 INFRASTRUCTURE

An Infrastructure Assessment is attached to this Structure Plan report. The Assessment covers both Areas A and B of the development site, and includes concept service layouts for Area A. The Assessment is based on an estimated development yield of 800 residential dwellings and 2.5 hectares of light commercial activity.

10.1 WATER SUPPLY

Discussions with Council and Wellington Water have been confirmed that the existing main which runs through the development site has sufficient capacity to service all of the development including Area B. Further the existing pipe network is aligned with the proposed roads and therefore will not need to be relocated or renewed.

An indicative water pipe layout is shown on the drawings attached to the Infrastructure Assessment. Proposed connections points are also shown on these drawings to serve Area B. While a concept layout has not been prepared for Area B it is anticipated that this will be similar in principle to the approach used for Area A.

10.2 WASTEWATER

Based on a preliminary design it is proposed that 220 homes (Area B plus 20 homes from Area A) will be connected to the public main in Alexander Road. The remaining residential development (approximately 580 homes) plus the light commercial development will be connected to the public main in Ward Street.

The Assessment estimates peak flows at each connection point to the public mains and concludes that flows to the Alexander Road main can be accommodated, but anticipates that the flows to the Ward Street main will require downstream upgrades. This conclusion is based on discussions and information provided by Upper Hutt City Council and Wellington Water.

Within the site a preliminary waste water layout has been prepared for Area A and this is shown in the drawings attached to the Infrastructure Assessment. A preliminary design has been prepared for Area B, however the Assessment anticipates that approximately 75% of this area will be able to be served via a conventional gravity system to the Alexander Road main. A single pumping station is anticipated to be necessary to serve

the remainder of the Area B.

10.3 DRAINAGE AND STORMWATER

A stormwater management plan has been prepared for the site and is attached to this Structure Plan Report. This has been design in a manner consistent with the outcomes sought for the Structure Plan and integrates with the proposed land uses and layout.

10.4 POWER, TELECOMMUNICATIONS & GAS

As part of the preparations for the Infrastructure Report consultation has been undertaken with the relevant service providers. These authorities have confirmed that sufficient capacity exists in their networks to the supply the proposed development.

10.5 SUMMARY

Based on the assessment of the existing infrastructure, on-site investigations, discussions with Council and other service providers, and the preliminary design, it is considered that the development proposed by the Structure Plan and Plan Change (Area A and Area B) can be adequately serviced. Although the Structure Plan has not yet been completed for Area B the infrastructure requirements of this area have been reviewed and assessed based on the likely yield and it is concluded that adequate capacity exists to service Area B, as well as Area A.



11.0 YIELD

The residential yield in the various precincts has been estimated to help anticipate the outcomes of the Structure Plan. These figures are estimates only as development will occur over a long period of time and respond to changes in market demand and opportunity. These estimates are derived from a desk top study and based on professional experience only. They represent a likely maximum yield, with development taking full advantage of the allowable density. Should market demand dictate a lower density product, then these yields will not be achieved.

11.1 GENERAL ASSUMPTIONS:

- + No allowance has been made for public open space, other than that associated with the Incinerator (Furnace Green) and Grants Bush
- + No allowance has been made for stormwater/flood attenuation areas
- + As lot sizes decrease, so does the proportion of net residential land

11.2 AREA A:

GATEWAY PRECINCT (2.5HA)

As this precinct is small and contains mostly non-residential uses, residential yield is anticipated to be low. Any potential residential use of the historic buildings and the existing Admin Building has not been included as this is subject to more careful feasibility study. Residential development is also restricted by the desire to retain trees and provide a public recreation reserve around the Incinerator building.

Assumptions:

- + some residential use is anticipated above any local retail development
- + residential use is possible within the area subject to heritage covenant

Anticipated yield: **10 units**

URBAN PRECINCT (6.5HA)

It is anticipated that this precinct achieves the highest residential density, with development predominantly terraced or duplex housing typologies. This yield, however, is reduced by the desire to retain significant trees and reduce reverse sensitivity effects on NCBID.

Assumptions

- + net residential land assumed to be 60% of total
- + based on typical lot size of 200m² for terraced house
- + some multi-level development anticipated

Anticipated Yield: 200 units

This anticipated yield does not however take into account the large number of mature specimen trees which are recommended to be retained. The retention of these trees is likely to reduce yield as they constrain movement patterns and lot sizes. As such, a more realistic yield in this precinct is considered to be **170 dwelling units**.

GRANTS BUSH PRECINCT (8.5HA)

This precinct will contain a mix of typologies, both conventional detached housing as well as attached comprehensively developed housing at higher density.

Assumptions:

- + net residential land assumed to be 65% of total
- + 60% of net residential land develops as detached housing (say 400m² sites) while 40% develops as attached typologies (say 200m² sites)

Anticipated Yield: **190 units**

WALLACEVILLE LIVING PRECINCT (13.4HA)

This is the largest of the precincts and anticipated to have predominantly detached housing, with some pockets of comprehensively developed housing at higher density.

Assumptions

- net residential land assumed to be 70% of total
- based on typical lot size of 500m² for 80% of net residential land and typical lot size of 200m² for 20% of net residential land

Anticipated Yield: **240 units**

Total Yield Area A = **610 dwelling units**

This equates to approximately 18 dwelling units/hectare. This is a target yield. It may be prudent to anticipate a likely yield between **550 and 600** dwellings.

Area B

For Area B an estimate of yield is more difficult due to uncertainties around the DOC "Floodplain" covenant. Area B measures 22ha but excluding the covenanted area and reduced developable land to 17.4ha. This area is proposed to be zoned as Wallaceville Living zone but lower densities/yields are anticipated due to existing trees, distance from public transport, community services/retail etc.

Assumptions:

- net residential land assumed to be 70% of total
- based on typical lot size of 550m² for 100% of net residential land

Approximate Anticipated Yield Area B = **220 dwellings**

However, it is important to recognise the difficult shape factor of Area B and the significant potential reduction on yield in this area. Taking a cautious approach, and estimating likely yield in Area B to be between **150 to 200 dwelling units**, results in a likely yield estimate in the total Wallaceville Structure Plan Area of between **700 and 800 dwelling units**.

12.0 IMPLEMENTATION

Three key mechanisms are proposed to implement the Wallaceville Structure Plan. These are:

- + A change to the Upper Hutt City District Plan
- + The provision of reserves to be vested in Council
- + The upgrade of external infrastructure and roads.

12.1 DISTRICT PLAN CHANGE APPLICATION

The proposed District Plan change is described in detail in the accompanying Plan Change application. In summary key proposals are to:

- + Rezone different parts of the site from Special Activities to Business Commercial and Residential, while retaining Rural Lifestyle on the hill slopes south of Alexander Road
- + Apply the Residential (Centres Overlay) Area to the Urban and Grants Bush Precincts
- + Require future development to be generally consistent with the Structure Plan map, Precinct Descriptions and road typologies
- + Require Restricted Discretionary consent for new buildings and significant exterior modification in the Business Commercial Zone and for new signs in the heritage covenant area of the Business Commercial Zone
- + Amend existing and add new residential bulk and location standards to facilitate the anticipated transition in residential density and housing typologies from the Urban Precinct to the Wallaceville Living Precinct
- + Add new listings to the schedules of Heritage Features and Notable Trees
- + Add new standards to manage potential noise issues arising at the interfaces with adjoining non-residential activities and transport corridors

As a result of the proposed changes to the District Plan it is considered that Council will be able to ensure that a development generally consistent with the Structure Plan is achieved.

12.2 PROVISION OF RESERVES

Within Area A two reserves are proposed to be vested in Upper Hutt City Council. The first is the large central green space containing Grants Bush and a community playground. The second is the reserve within the Gateway Precinct, which will accommodate the historic Incinerator and an open green space. Further reserves may be vested in Council, with their agreement, as part of the future Structure Plan for Area B.

12.3 UPGRADE TO EXTERNAL ROADING AND INFRASTRUCTURE

To facilitate the implementation of the Structure Plan the upgrade of downstream waste water services and of Alexander Road will be required. These upgrades will be facilitated through different mechanisms. The upgrade of the down stream waste water services will be completed by Council, timed to coincide with the development of the Structure Plan. It is understood that Council will impose development contributions on each stage of the Structure Plan development. The value of these contributions have yet to be agreed but will take into account the portion of the upgrade costs that will be the direct result of the implementation of the proposed Structure Plan.

The Structure Plan proposes the 'upgrade' of a portion of Alexander Road from the proposed gateway to its intersection with Ward Street. The purpose of this upgrade is to alter the road environment over this stretch so that it is perceived to be part of the surrounding residential suburb rather than a corridor which severs it. To this end it is proposed that the road corridor would be altered by including parking and street trees, and a shared path on the northern side. On the southern side it is proposed to widen the road corridor where it adjoins the proposed area of the Grants Bush precinct. This will enable a footpath to be installed on this side of the road. The physical changes are anticipated to be accompanied by a reduction in the posted speed limit through this section down to 60 km per hour.

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