BEFORE THE HEARINGS COMMISSIONERS FOR THE WAIKATO DISTRICT COUNCIL

UNDERthe Resource Management Act 1991ANDof hearing submissions and further submissions
on the Proposed Waikato District PlanHearing 25 – Zoning Extent Hearing

PARTIES REPRESENTED

CSL TRUST AND TOP END PROPERTIES (89)

STATEMENT OF ARCHITECTURAL AND URBAN DESIGN EVIDENCE FROM BILLY C. H. HO FOR CSL TRUST AND TOP END PROPERTIES

18 DECEMBER 2020

Counsel Instructed:

Peter Fuller LLB, MPlan, DipEnvMgt, BHortSc. Barrister Quay Chambers Level 7, 2 Commerce Street PO Box 106215 Auckland 1143 021 635 682 Email: peter.fuller@quaychambers.co.nz

MAY IT PLEASE THE PANEL

1.0 QUALIFICATIONS AND EXPERIENCE

- 1.1 My full name is Billy Chun Hon Ho. I am a Registered Architect practising at an architectural firm Architecturo Limited.
- 1.2 I hold a Bachelor of Architecture (BArch) degree with 1st Class Honours from the University of Auckland in 2003 and a Master of Business Administration (MBA) degree with 2 specializations (Operations & Management, and Marketing) in 2008. I am an Architect member of the NZ Institute of Architects (NZIA), a member of the NZ Registered Architects Board (NZRAB) since 2009 and a Green Star NZ Accredited Professional of NZ Green Building Council (NZGBC) in 2009.
- 1.3 I have 17 years of experience of practicing architecture and am a director and co-founder of Architecturo Limited, a NZIA Practice, with a main focus on residential projects and masterplanning with urban design. My colleague, Ben O. H. Mak, the other director and co-founder of Architecturo Limited who holds a Master of Architecture in Urban Design (MArch) degree with 2nd Class Honours from the University of Auckland in 2004, is also involved as a key member of the project team responsible for the submitted Urban Design report.
- 1.4 My experience ranging from residential projects that involve carrying out assessments on urban design for subdivision/site development, to public building projects which impact on streetscape in urban context. Liaison with our planners is essential on all projects to ensure consistency and compliance to local territory authority's design guideline and requirements.

2.0 CODE OF CONDUCT

2.1 I confirm that I have read the Waikato District Council (WDC)'s Urban Design Guidelines for Residential Subdivision 2018 and Multi-Unit Development 2018, WDC Character Statements for Pokeno Town Centre 2018 and Pokeno Town Centre Architectural Form, Materials and Signage Design Guide 2015.

3.0 PURPOSE AND SCOPE OF EVIDENCE

- 3.1 The purpose of my evidence is to provide an overview of the urban design aspects of the proposed development at 179 & 205 Helenslee Road, Pokeno.
- 3.2 My evidence will address the urban design outcomes of the masterplan in relation to the relevant sections in the abovementioned Urban Design Guidelines.



179 & 205 Helenslee Road, Pokeno - sitting across the road from the PVE development

4.0 SUMMARY OF EVIDENCE

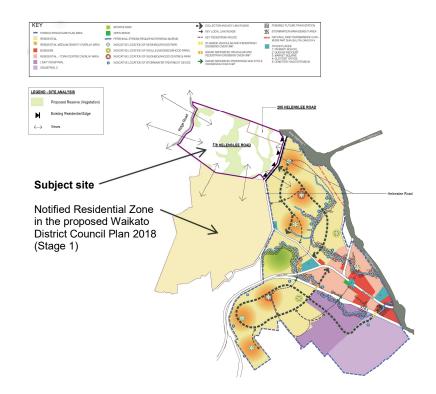
4.1 I support the proposed western expansion to Helenslee Road from the existing residential development area 'Pokeno Village Estate (PVE)'. My evidence should be read with the previously submitted urban design report which additional relevant supporting information is now being provided.

5.0 URBAN DESIGN OUTCOMES

5.1 <u>Masterplan</u>

5.1.1 The subject sites are directly adjacent to the existing and proposed residential areas in the proposed Waikato

District Plan which provides a range of different types of housing, local shops and reserves to meet the needs of increasing population in Pokeno. It seems logical to further expand the residential area to the West of Helenslee Road and all materials provided by various consultants support the proposal with evidence.



- 5.1.2 A good mixture of residential lots with standalone dwellings as shown on the masterplan in 3 different zones will achieve good urban design outcomes in terms of density and respond to the natural landscape that offers expandable views for visual connection with the surrounding existing development.
- 5.1.3 The local centre with small shops and eateries helps to serve the local community by linking the new lower catchment residential precincts and the existing development of PVE.
- 5.1.4 I believe commitment to deliver good urban design outcomes can be achieved with this proposal if the Urban Design Protocol are followed as per the Waikato Urban Design Guidelines. The planning and design of the urban

environments have been integrated into a carefully formatted network that enhances the site context, connection between different places, and ensuring design is environmentally sustainable, safe and healthy.

5.2 <u>Networks</u>

- 5.2.1 The proposal was prepared in conjunction with all other consultants (i.e. Surveyors, Civil and Traffic Engineers etc) to create a seamless integration between the subject site and the proposed lower catchment residential area as well as the existing development on the opposite side of Helenslee Road.
- 5.2.2 The roading design is to comply with the access and road conditions on Table 14.12.5.14 of the WDC Plan 2018.
 Detailed landscape design will be part of our masterplanning on road, pedestrian movement and green networks.



Use of street trees and landscaping to reinforce local amenity and character – WDC Urban Design Guidelines

5.2.3 The subject site is unique with a few significant natural areas which separate the proposed medium and high residential precincts with the low density, countryside living area. The proposed green network connects all areas and enables pedestrian links to be integrated to create an eco-friendly context from an urban design perspective.

5.2.4 The proposal aims to meet the Urban Design Guidelines for Residential Subdivision's Section 4 Connectivity and Movement Networks. The outcomes sought for this development align with the guidelines 'to create a positive relationship between vehicles, pedestrians, cyclists and... help to create a safe, inclusive and vibrant environment that encourages people to use the public realm.'

5.3 <u>Streetscape</u>

- 5.3.1 The proposed streetscape enables Crime Prevention through Environmental Design (CPTED) for safer suburban context. It can be achieved with adequate use of street lightings, trees and pedestrian paths.
- 5.3.2 Low/no fencing policy at private front yard to all residential properties would encourage passive surveillance watch is vital to CPTED. A positive relationship to street will be achieved as an urban design outcome of the proposed masterplanning.



Design of private front yard – WDC Urban Design Guidelines

- 5.3.3 Street trees and landscaping to reserves will be strategically planned for long term maintenance and management with utilising the tree resource within Waikato District.
- 5.3.4 *'Public open spaces with edges that are activated or overlooked by adjacent streets...'* has been included in

the masterplan as per the Urban Design Guidelines for Multi-Unit Development's Section 8 Communal Open Spaces and Landscape Treatment.



Proposed housing on high density precinct – WDC Urban Design Guidelines



Reserves within the PVE development – View from Mark Ball Drive, Pokeno

5.4 Residential housing design

- 5.4.1 The three different density precincts are arranged in respect to the natural context and provide opportunity to implement best practice design principles in meeting the council's objectives and policies within the Waikato District Plan.
- 5.4.2 The variety of housing types provides diversity and choice for people in the community which is one of the vital qualities of good urban design outcome.
- 5.4.3 The character of the proposed housing aims to enhance the identity of the urban environment and its surrounding area in the township.

5.5 <u>High density precinct</u>

5.5.1 Higher density housing (on lot sizes at around 300m²) are placed in proximity to the local amenity, public open spaces and surrounded by primary roads.



Proposed housing on high density precinct – WDC Urban Design Guidelines

- 5.5.2 The residential block layout enables house frontage on each side of the street to face one another in the medium density precinct. Pedestrian movement networks have been implemented to connect all the residential blocks, public open spaces and parks for greater outcomes of CPTED & accessibility.
- 5.5.3 The architectural style of the double-storey semidetached and/or standalone houses will create a strong sense of neighbourhood. It further enhances the presence of the local hub with amenity and greater social interaction with the public open spaces nearby.



Proposed housing with street planting – WDC Urban Design Guidelines

- 5.5.4 We strive to '*utilise an integrated design theme that* respects the character of adjoining properties and provides visual quality and interest' as per the guidelines for neighbourhood character under Urban Design Guidelines for Multi-Unit Development.
- 5.5.5 Private residential amenity will be provided to meet all urban design requirements. Outcomes sought to maximise light access, views and privacy will be achieved by good architectural design i.e. through carefully designed internal layout and orientation.



Example of private outdoor space – Auckland Design Manual

5.6 Medium density precinct

- 5.6.1 Walkable blocks are established which provide connections between spaces and street networks for greater accessibility as per Figure 2 of the Urban Design Guidelines for Residential Subdivision's Section 4 Connectivity and Movement Networks.
- 5.6.2 The majority of the residential houses are in the medium density precinct. The proposed standalone, single-storey houses and lot sizes at around 500-600m² in average are to be similar to the existing residential area of PVE. The design approach is to complete the streetscape of Helenslee Road on the Western side (as the 'live zone' with active frontage), and continue the development

further from the road with houses designed using the same urban design and architectural design principles for better integration with the surrounding areas.



Aerial view of PVE development



Example of typical single storey house at Pokeno

- 5.6.3 The green network has been integrated into planning of the residential development as per the design guidelines i.e. 'with dwellings and street overlooking these areas, to assist in passive surveillance and activation.'
- 5.6.4 The design of the houses will respect the existing topography and any external retaining works will be incorporated into masterplanning at early design stage. The amount of earthworks will be minimized where possible and with the intention to improve the quality of spaces around the housing development.
- 5.6.5 Adequate outdoor living spaces will be provided on each lot with landscape design, direct access from the main living areas and connect to the street and/or public open spaces.



Example of private outdoor space of a house at Pokeno

5.7 Low density precinct

5.7.1 The North-Western end of the subject site is ideal for low density, lifestyle residential development due to the landform. Countryside living style houses (on lot sizes >5,000m²) provide a contrasting design in relation to the proposed and existing surrounding residential areas.



Example of lifestyle dwelling at Pokeno

5.7.2 The low density precinct creates a buffer zone between the immediate rural areas (on Ridge Road) and the medium density residential zones. Vehicle and pedestrian access will be provided to link the two existing main roads across the subject site which provide connection for the local community as one the proposed urban design outcome.

- 5.7.3 Landscape treatment will be proposed for the primary roads to keep consistency between the urban residential zones and the countryside living areas.
- 5.7.4 Positions of houses have been planned to be near the roads but with adequate set back to minimize site works where possible.



Example of driveway design and landscaping of lifestyle dwelling at Pokeno

5.8 Local amenity

5.8.1 The proposed shops are designed with neighbourhood character in mind to promote local cultural and natural heritage of existing establishment during masterplanning. The WDC's Pokeno Town Centre Architectural Form, Materials and Signage Design Guide is to be followed for the new development.



Existing Pokeno town centre

- 5.8.2 The chosen location is strategically planned with visual references to the road and pedestrian movement networks, and connect to the immediate adjacent reserves (i.e. rainwater garden) for maximization use of the open green spaces.
- 5.8.3 The proposal meets the Urban Design Guidelines for Residential Subdivision in all aspect, in particular to Section 5 Neighbourhood Character for such scale of large residential development with the intention to create a strong community identity.
- 5.8.4 The proposed local centre with amenity would have an appearance of buildings typical of a small rural town i.e. to create interesting street frontages made up of 'individual buildings' of different heights and proportions.



Street frontage design – WDC Pokeno Town Centre Architectural Form, Materials and Signage Design Guide

5.9 Public open spaces

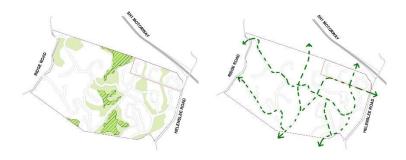
- 5.9.1 As per the design guidelines, public open spaces are provided with edges that are activated or overlooked by adjacent streets and dwellings.
- 5.9.2 The proposed rainwater garden has been carefully planned to be close to the local centre at the lower catchment area on the subject site. It helps to prevent flooding, erosion and pollution by managing the stormwater run-off. The collected stormwater can contribute to amenity and ecology outcomes which align

to the Chapter 8 Low Impact Urban Design as in the Urban Design Guidelines for Residential Subdivision.



Stormwater ponds within public open space - WDC Urban Design Guidelines

5.9.3 Significant Natural Areas will be preserved to protect the existing vegetation (including large number of native trees). They are integrated into the reserves and linked by pedestrian movement network which is accessible for everyone in the sustainable community.



Proposed green spaces and pedestrian links

- 5.9.4 The proposed public green spaces are to be more than 25% of the total site area that is plentiful compares to other large-scale development in Pokeno. The proposed residential development with local amenity sits well amongst the natural surrounding area that provides beautiful scenery and healthy environment for the local community.
- 5.9.5 A large area for countryside living (low density precinct) further contributes to a green environment, with an expectance of overall natural landscape area over 50%.

5.9.6 There will be areas allocated for a few local public parks that offer a variety of activities for recreation, rest and play for the neighbourhood.



Public recreational parks – WDC Urban Design Guidelines

6.0 APPENDIX

6.1 Urban Design Report and architectural plans

(please refer to the attached, separate document for appendix)

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Billy C. H. Ho Architecturo Limited

18 December 2020

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6.0 APPENDIX

6.1 Urban Design Report and architectural plans



179 & 205 Helenslee Road

POKENO WESTERN EXPANSION URBAN DESIGN REPORT

Prepared by Architecturo Ltd.

Issue date: 20 September 2018 Job ref. 1811 & 1812



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Architectural Master Planning (A3 Drawings)

Documentation Control:

Prepared by: Checked by: Approved by: Clement Loh & David Tan Billy Ho (Director) Billy Ho (Director) & Ben Mak (Director)

Cover Photo:

Sourced from Birch Surveyors Ltd.

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ARCHITECTURO architects



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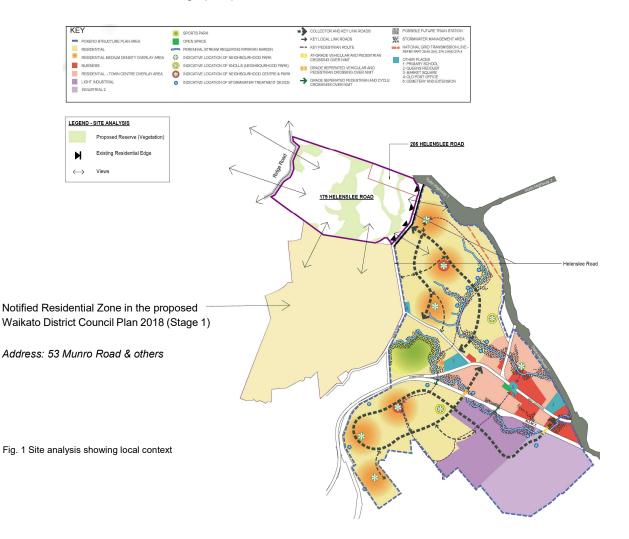
INTRODUCTION

Application Summary

The subject sites, 179 & 205 Helenslee Road, is located North-west of the existing Pokeno Township and adjoin to the properties in the lower catchment on the Western side of Helenslee Road which are in the notified Residential Zone in the proposed Waikato District Plan 2018.

The sites cover an area of approximately 95 hectares of both levelled and contoured land and stretch between Helenslee Road and Ridge Road. Both sites located within the Rural Zone of the current and proposed Waikato District Council (WDC)'s plans and comprise of vacant agricultural fields and unused land with vegetation.

This report supports the intended rezoning of the site to expand the Pokeno Township and provide more houses for the increasing population. The report should be read in conjunction with the submission report prepared by Birch Surveyors as it is based on their provided information. It is aiming to explain the proposed plan in respect to the context from an urban design perspective.





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SITE ANALYSIS

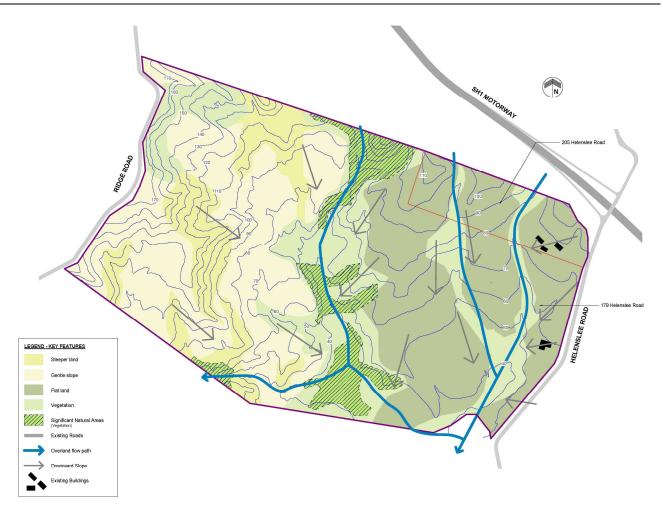


Fig. 2 Key features of the site

Existing Features

Location

Pokeno is in close proximity to SH1, SH2, and the North Island Main Trunk (NIMT) railway line, which makes it very accessible from major cities or town centres of the North Island. The site is at the outskirt of Pokeno spanning between two major roads with direct access to motorway up/off ramp to SH1.

The proposed development comprises of affordable land and houses similar to the existing development on the opposite side of Helenslee Road, and is within a commutable distance from Auckland and Hamilton in particular.



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Existing Vegetation

It is acknowledged that there are Significant Natural Areas (SNA) that should be retained and protected for wildlife. The trees are an important asset to this proposed development scheme.

Views

The Northern, Western and Eastern boundaries are at the apex of the site. Significant views from these high grounds encompass the SNA at the centre of the site, which creates a strong visual amenity.

Movement

The site is located within 2km to existing facilities and amenities at Pokeno. This would encourage the new residents to walk and/or cycle to their destination. Most of the areas of the site are located within walking distance of 20-30 minutes to Pokeno Town Centre where there is a bus stop for regional buses. There are currently no public transport networks that serve the Pokeno area other than the regional buses. However, there are studies in developing public transport networks connecting Pokeno to Pukekohe and other parts within Auckland, Hamilton and wider Waikato areas.

Buildings

There are few existing buildings on the subject site, which none of them will be retained as they are old farm houses that are lack of maintenance for many years.

Ecology

The primary feature of the site is the mature Kahikatea forest. It is an outstanding natural habitat that has been untouched. As seen on Fig. 2 & 3, approximately 20-30% of the site is covered with vegetation. Most of the vegetation will be retained to preserve existing ecosystem and minimize environmental impact. The overland flow paths form the land separation and defines the locations for potentially developable areas.

Opportunities

Gateways

New vehicular access points connecting Helenslee Road and Ridge Road create gateways into the proposed development. As some of the access points are at the apex of the site, they give people positive picturesque first impression of the development on Ridge Road with lifestyle properties. The vehicular network is not only just connecting the two major existing roads, but also link with the two new access points in the Southern end of the site that connect to the proposed lower catchment residential area; combining the two communities together with new public transport where possible.

Views

The existing street views along Helenslee Road are considered during the design process of the development. It creates a visual amenity for the residents across the road which community has already been established.



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Existing Developments

The development represents a logical expansion to the current and proposed residential zone. It fits well and in line with the WDC's vision as a continuation of the expanding community and growth for Pokeno.

DESIGN PROCESS

Design Principles

Vision

The aim is to create a pleasant and safe environment for the residents to raise families as well as to provide comfortable, suburban living spaces with attractive public areas for the local community. The expansion is also a great opportunity for population growth just outside the Auckland region. By developing this site in Pokeno alongside with the adjacent future residential zoned areas, it encourages the existing facilities and public amenities to be further developed and increases the quality of living for all residents in developing a stronger community. Furthermore, it would help ease the increasing housing demand for the greater Pokeno area.

Key Considerations

The following are the key considerations to designing the western expansion to Pokeno:

- Connections to Pokeno township and its existing facilities
- Provide comfortable, suburban living spaces
- Conserve and respect existing vegetation and natural areas
- Create sustainable infrastructure i.e. drainage systems
- Encourage residents to use sustainable means of transport when it becomes available



Aerial Site Plan from WDC's GIS portal Not to scale



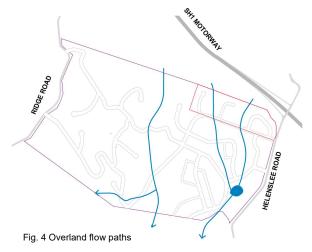
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Open Green Spaces

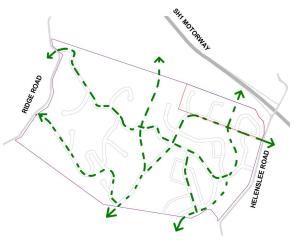
By conserving the SNA, it provides a natural picturesque backdrop and can support off-road walking and leisure biking trails. The green spaces create a foundation for accessible and adequate recreational spaces that can be inter-connected by pedestrian path network.

Fig. 3 Greenery on site



Sustainable Drainage

The topography of the land creates an opportunity for sustainable stormwater drainage systems. Rainwater garden can be integrated into the design as part of the planning for eco-living environment as required. The overland flow paths are connected to the new stormwater drainage system in the lower catchment area.



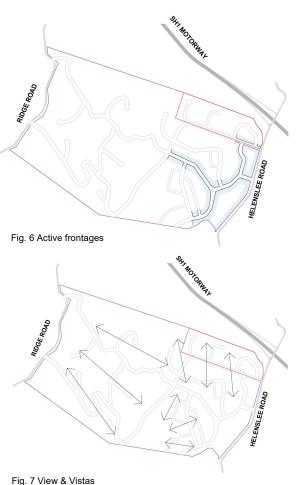
Pedestrian Link

The Pokeno town centre is approximately 20-30 minutes walk from the site. With pedestrian links running through the entire site, they provide safe and attractive means of transport for all residents to existing amenities within Pokeno as well as new local shops, community services and recreational spaces.

Fig. 5 Pedestrian link



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Active Frontages

The proposal will ensure that buildings facing the key public spaces and main roads will be emphasized through a careful use of materials, landscaping and building forms to provide an attractive streetscape.

View & Vistas

With the intention to create a pleasant, suburban environment, the proposed design captures the local views and significant natural and cultural elements. Landmarks can be used to provide a form of familiarity to help residents navigate throughout the site and surrounding neighbourhood.



Fig. 8 Density

Density

The site is split into mainly two residential sections with different densities. This is used to attract a variety of residents who prefer different lifestyles and outdoor spaces. The Eastern side of the site is proposed to be of low to medium density zones with local shops, whereas the Western side of the site is proposed to be developed for countryside living. Currently Pokeno is still considered as a new emerging suburban local town centre. As some residents would not prefer the suburban lifestyle, the proposed countryside living zone is best targeted for those people.



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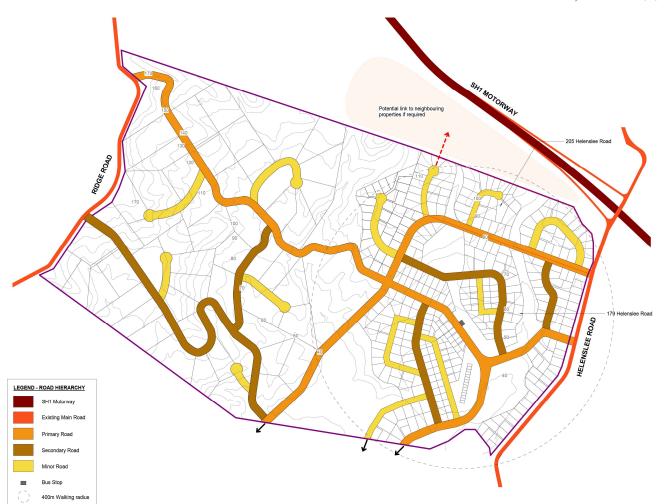


Fig. 9 Street hierarchy

Street Hierarchy

The main accesses to the site are the two intersections on Helenslee Road and connection with the lower catchment area. The primary roads will lead directly to the core of the site, which is the location of the proposed local shops. The primary street can also be used as a shortcut to crossover to Ridge Road from Helenslee Road, or vice versa. Currently, there is no connection between Helenslee Road and Ridge Road within 2km of Pokeno other than the motorway. The primary roads will provide a useful shortcut or even a possible detour for residents in the neighbourhood through the new development as required.

Most of the secondary and minor roads are inter-connected except where access is required to specific housing locations due to natural landform.



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Fig. 10 Master site plan with contours

Master Plan

Green Infrastructure

The master site plan above illustrates that majority of the existing vegetation will be retained. The vegetation sets a foundation for the proposed public spaces and pedestrian links. The site contains a mixture of open spaces, parks and the greenery that connects all areas together. The greenery in this development enriches the various spaces that have been proposed in line with the surrounding environment towards the lower catchment area.

There are altogether three major overland flow paths that run through the entire site. The overland flow paths also locate within the linked greenery areas that helps with nurturing the existing vegetation on site.



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The vegetation defines the proposed green spaces in this development, it divides the site into various small pockets of communities as well as providing the necessary privacy between houses and the nearby residential areas that follows the natural contour.

Stormwater Management

The proposed stormwater management system on the lower catchment area at 53 Munro Road and others, is a sustainable drainage system that collects the water run-off from impermeable areas and discharges at a restricted rate to the water course along Huia Road. The drainage system comprises of a series of both underground and above ground networks and channels, as well as stormwater pond facilities and rain gardens. The stormwater discharges for the subject site is proposed to be an extension of that stormwater management system which has the required capacity for the entire catchment area.

Streets & Connections

The road hierarchy diagram on Fig. 9 shows the network that connects all the different zones and spaces together. It is acknowledged that the proposed development at the lower catchment areas has established future connections which conveniently, subject site can be an extension of that and can easily be linked to the proposed road networks altogether. The road layout has been designed so that it could support a future public transport network system.

Residential Lots

The master site plan with dwellings (Fig. 15) demonstrates how residential lots could be laid out on the site. It is essential that all individual lots have public frontages onto the street especially when they are facing a primary road. Each lot also has private and secure back yards for outdoor living space.

The plan also shows how different densities of development areas could work. The Western end of the site is proposed to be for countryside living in larger lots and as it gets closer to the town centre, the lot sizes become smaller. Even though majority of the proposed blocks are residential, there is a row of local shops being proposed at the hub of the town centre. These shops would be approximately 10-15 minutes walk from the furthest point of the site.

Movement Network

The main goal is to provide a new connected network to the proposed residential area in the lower catchment, as well as an expansion to the existing surrounding movement network.

Road Hierarchy & Character

By providing multiple access points to the site and a fully connected road network system with pedestrian links, it encourages residents to choose the most sustainable means of transport. Access to and from the motorway is readily available on Helenslee Road and Ridge Road.



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Collector Road

The collector roads serve approximately 100 dwellings of the proposed development and offers direct route in and out of the site (Fig. 9). It provides a minimum 2.0m footpaths to both sides of the carriageway. A 1.3m berm is left for planting of trees to add more greenery at the threshold between the road and the footpath. The roads will be expanded to meet the minimum 22m width to comply with the access and road conditions on Table 14.12.5.14 of the WDC Plan 2018. Because these will be the primary roads, they would need to be well designed and landscaped to create a safe and attractive gateway for the proposed development.

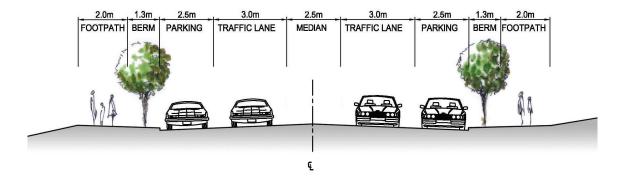


Fig. 11 Typical collector road cross-section

Local Road

The local road is smaller than the collector road. It gives direct access to houses as well as minor local roads leading to more dwellings. It provides a minimum 2.0m footpath to both sides of the desirable 10.4m carriageway. The roads will be expanded to meet the minimum 20m width to comply with the access and road conditions on Table 14.12.5.14 of the WDC Plan 2018.

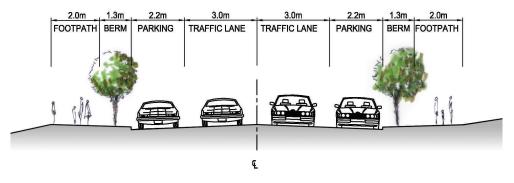


Fig. 12 Typical local road cross-section



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Local Road (Minor)

These are roads that connect collector and local roads together. It has the minimum 2.0m footpath and parking variations where needed. Provision of public carparking is planned for high density residential precinct as more than one off-street carpark may not be able to provide on site at each lot. Like the local road, the roads will be expanded to meet the minimum 20m width to comply with the access and road conditions on Table 14.12.5.14 of the WDC Plan 2018.

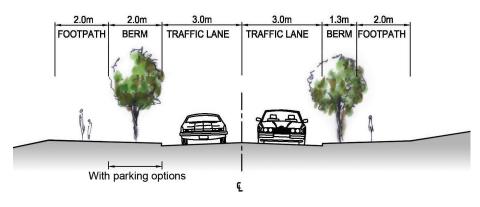


Fig. 13 Typical local road (minor) cross-section



Aerial photo of Helenslee Road – Sourced from Birch Surveyors Ltd.



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Green Network

The greenery that runs through the entire site is an important asset that can be taken as advantage in order to create better public open spaces. Since majority of the vegetation will be retained therefore it helps to layout the location of the proposed public spaces. The residential development serves as an opportunity to protect and restore a significant network of streams and bush areas resulting in an essential natural amenity with lots of environment and ecological benefits.

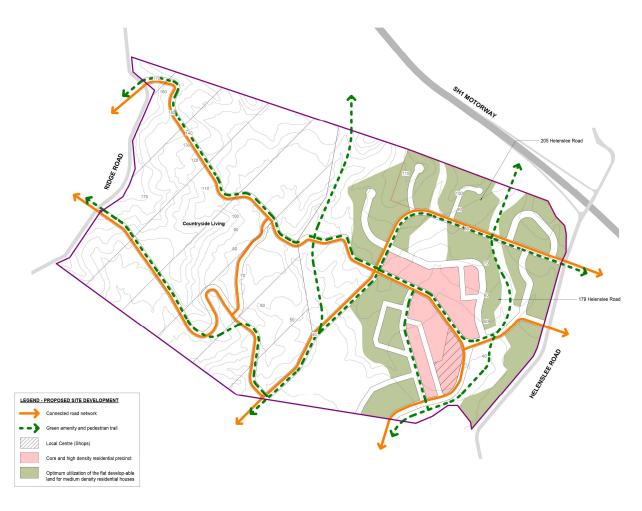


Fig. 14 Pedestrian and vehicular links

Recreational Parks

Accessible, public recreational spaces are crucial for the residents. It is important to develop a masterplan that includes adequate and flexible, shared leisure spaces for the neighbourhood.

Pedestrian Amenities

Because the site is mostly covered with greenery, there is an opportunity to use the green infrastructure for making extensions to the existing pedestrian paths and creating new links.



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Land Use

The residential development comprised of approximately 56ha (59.0%) of land for residential use. The expected roading infrastructure takes up approximately 14ha (14.7%) of land area. Landscaping and open spaces are proposed to be approximately 25ha (26.3%) which is more than one quarter of the total site area. Furthermore, the countryside living zone has a high percentage of reserved green area for onsite drainage etc, hence the overall natural landscape area would be over 50% of the entire site.



Fig. 15 Master site plan with dwellings



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

Countryside Living (Low Density Precinct)

These areas of low density development are the furthest away from the local town centre. Due to the land being steep and uneven, it is impractical to form this area with higher density housing as it would require an unnecessary amount of land cutting/filling to achieve the desired contour suitable for such development.



Countryside Living House - Sourced from Saunders Robinson Brown Countryside Living House - Sourced from Booking.com

Residential Medium Density Precinct

These areas of medium density development surround the outer region of the local town centre. They mainly comprise of detached houses on 500-600 square metre sized lots.



Medium Density Housing - Sourced from Newhomes



Medium Density Housing - Sourced from LJ Hooker



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

Residential High Density Precinct

This precinct primarily surrounds the town centre to allow for a higher number of people to live as near as possible to the local hub within a short walking distance. It is also used to create a strong and attractive streetscape with active frontage. These areas should comprise of a mixture of semi-detached and standalone 2-storey houses.



High Density Housing - Sourced from McLennan Housing

High Density Housing – Sourced from Hargrave

Local Centre (Shops)

The shops are located at the town centre and is the local hub of the residential development. It serves as a focal point within the neighbourhood with all local amenities in one convenient location and establishes a meeting place with proposed public transportation nearby.





Shop Lots - Sourced from Yelp

Shop Lots – Sourced from Waterford Press



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

The expected number of new homes that this site can accommodate would be approximately 415 which helps to meet the increasing housing demand as per the WDC's long-term housing plan requirement for the wider Pokeno township.



Fig. 16 Architect's impression of the completed development at 179 & 205 Helenslee Road, Pokeno



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

Development Stages

It is proposed that the site will be splitted into four stages for development.

Stage One being the first pocket of residential houses. They will be facing Helenslee Road with active frontage therefore the houses will need to be well-designed with reference to the existing neighbourhood across the road to create an attractive streetscape.

Stage Two will be the two pockets of area that comprises of medium to high density housing and local shops.

Stage Three will be consisting of mainly medium density housing near the centre of the site where SNA is located.



Fig. 17 Eastern section showing Stages 1-3 of the proposed residential development (Medium to High Density Precinct)



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010



Proposed Residential Medium Density Precinct

Fig. 18 Architect's impression of the proposed residential development (Medium to High Density Precinct)



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

Lastly, Stage Four will be the Countryside Living Zone on the uneven and steep terrain on the upper part of the site beyond the proposed green reserves.



Fig. 19 Western section showing Stage 4 of the proposed residential development (Countryside Living Zone)

From an urban design perspective, a variety of different housing types can be achieved to create a pleasant and safe environment that benefits all residents. The four development stages suggested for this site have been carefully planned around the proposed new residential development on the lower catchment area at 53 Munro Road and others of which the master planning is prepared on a similar basis with the mindset of shared infrastructure could be made available.



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

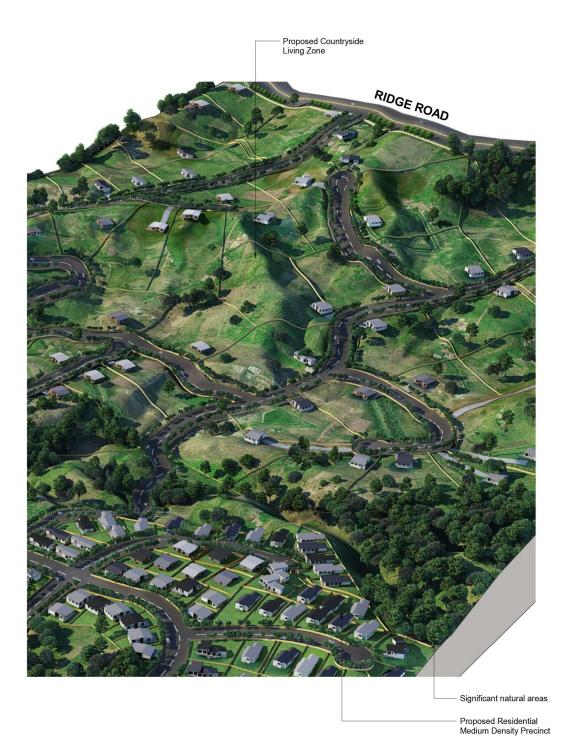


Fig. 20 Architect's impression of the proposed residential development (Countryside Living Zone)



> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

SUMMARY

This urban design report for the Western expansion of Pokeno aimed to explain how the proposed subject site is to be developed from a simple concept to a refined masterplan. The final proposal has considered the factors of the local and wider site context and features, the Waikato District Council's policies, and fundamental urban design principles.

Herewith some keypoints as noted in the report:

Housing

- Approximately 415 new homes to ease the increasing housing demand to meet Council's long-term housing plan requirement for Pokeno.
- A variety of different housing types can be achieved to create a pleasant environment for its residents.

A new, well-designed and attractive extension to an existing community

- Create accessible, recreational public spaces
- Sustainable drainage systems
- Improved pedestrian links within the site and connecting to the surrounding countryside areas
- Safe and linked road network, with attractive streetscapes, to encourage sustainable means of transport

New community facilities

- New recreational public spaces bring people together that serve not only its residents but also the wider Pokeno area as well using good urban design principles
- New flexible, shared leisure spaces to serve the desired function of the community
- Local shops may provide all necessary amenity and services to the neighbourhood

A development that is responsive to the site and local context

- Retention of existing greenery including a large number of native trees to act as buffer zone to create a sense of privacy within the community
- Sustainable drainage that takes advantage of the existing natural features of the site
- Residential development will protect and restore a significant network of streams and bush areas

Wider social and economic benefits

- New road network through the site includes connections to both Ridge Road and Helenslee Road, will attract more visitors and local residents to the proposed development
- Provide the required housing to meet the growing population of Pokeno
- Increase employment opportunities during and post construction that help creating a positive impact to the future of Pokeno township

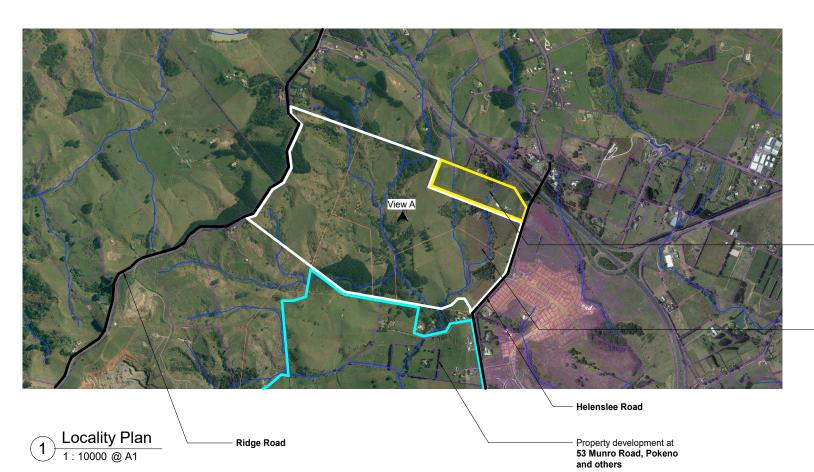


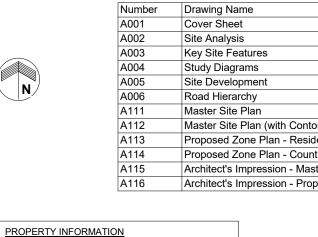
> 109A Ti Rakau Drive, Pakuranga Auckland, New Zealand 2010

APPENDIX

Architectural Master Planning (A3 Drawings)

1812 – A001 1812 – A002	Cover Sheet Site Analysis	Revision PD Revision PD
1812 – A003	Key Site Features	Revision PD
1812 – A004	Study Diagrams	Revision PD
1812 – A005	Site Development	Revision PD
1812 – A006	Road Hierarchy	Revision PD
1812 – A111	Master Site Plan	Revision PD
1812 – A112	Master Site Plan (with Contours)	Revision PD
1812 – A113	Proposed Zone Plan – Residential	Revision PD
1812 – A114	Proposed Zone Plan – Countryside Living	Revision PD
1812 – A115	Architect's Impression	Revision PD
1812 – A116	Architect's Impression – Proposed Zone Plans	Revision PD





Site Address: Legal Description: Title Reference: Total Site Area:	205 Helenslee Road, Pokeno PT ALLT 11 Mangatawhiri SD CT NA545/269 76,847m ²	
PROPERTY INFORM	ATION	
Site Address: Legal Description: Title Reference:	179 Helenslee Road, Pokeno ALLT 311 Mangatawhiri SD ALLT Mangatawhiri SD PT ALLT 8 Man CT NA1044/261	
Total Site Area:	873,589m ²	

N

0

2 View A from the property looking down to Helenslee Road

	Revision
	PD1
tours)	PD1
idential	PD1
ntryside Living	PD1
ister Site Plan	PD1
oposed Zone Plans	PD1
•	

DRAWING REVISIONS

ESCRIPTION	DATE	REV	
laster Planning	2018.08.06	PD	
Pavised Master Planning	2018 00 20	DD1	

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179 & 205 Helenslee Road Pokeno 2472

DRAWING TITLE

Cover Sheet

	DATE	INITIAL
DESIGNED	2017.11.21	B HO
DRAWN	2018.09.20	D TAN & C LOH
CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO
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As indicated

JOB NUMBER

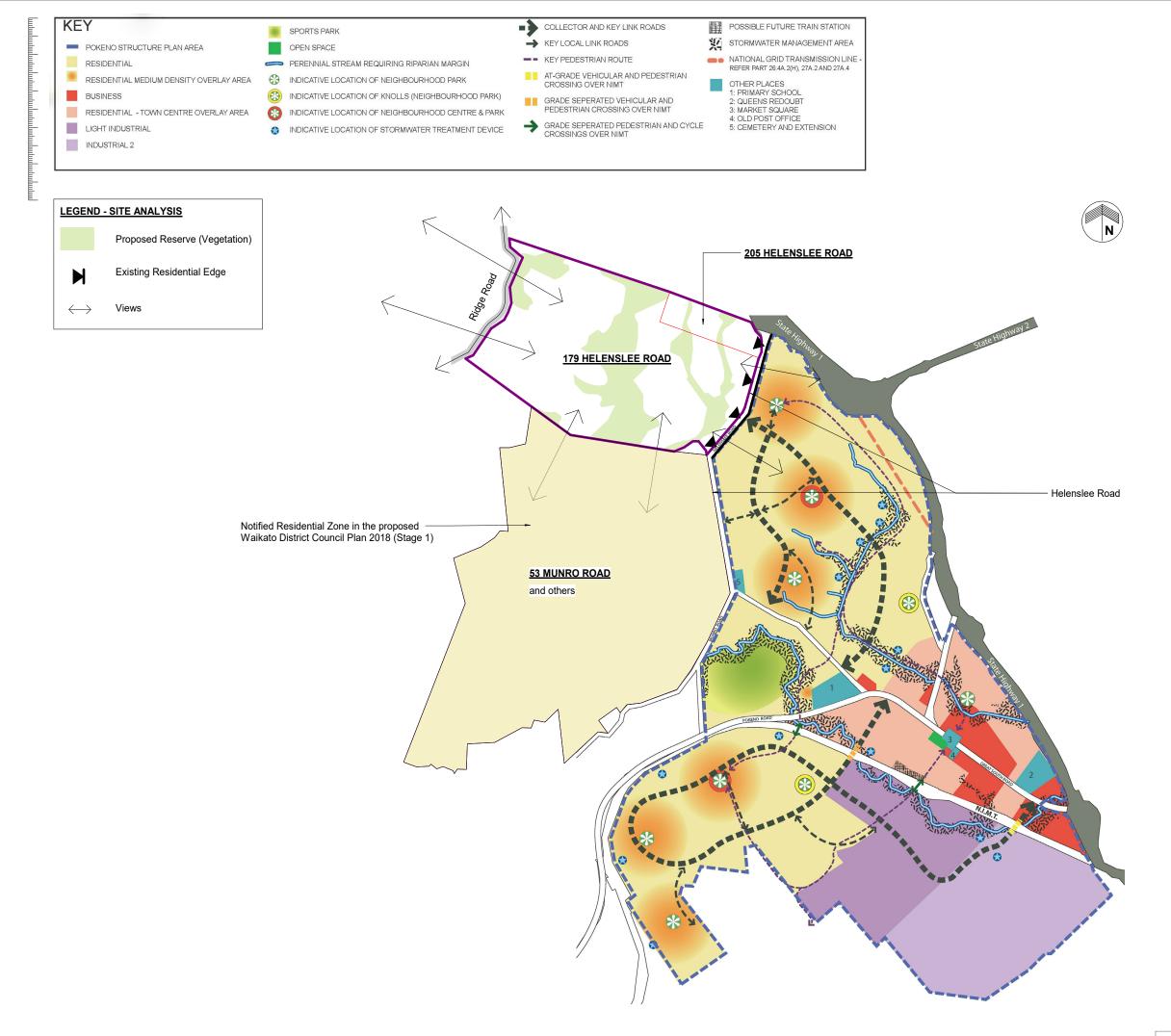
DRAWING NUMBER

PD1

REVISION



1812 A001



DESCRIPTION

Master Planning

DATE 2018.08.06 2018.09.20 Revised Master Planning

REV PD PD1



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DRAWING TITLE

Site Analysis

	DATE	INITIAL	
DESIGNED	2017.11.21	B HO	
DRAWN	2018.09.20	C LOH	
CHECKED	2018.09.20	B HO	
APPROVED	2018.09.20	B HO	

SCALE @ A3

SCALE @ A1

As indicated

JOB NUMBER

DRAWING NUMBER

REVISION PD1



1812 A002



DESCRIPTION	DATE	REV
Master Planning	2018.08.06	PD
Revised Master Planning	2018.09.20	PD1

ARCHITECTURO architects 109A Ti Rakau Drive Pakuranga, Auckland 2010 +64 9 282 4144 general@architecturo.co.nz www.architecturo.co.nz

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DRAWING TITLE

Key Site Features

	DATE	INITIAL	
DESIGNED	2017.11.21	B HO	
DRAWN	2018.09.20	C LOH	
CHECKED	2018.09.20	B HO	
APPROVED	2018.09.20	B HO	

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SCALE @ A3

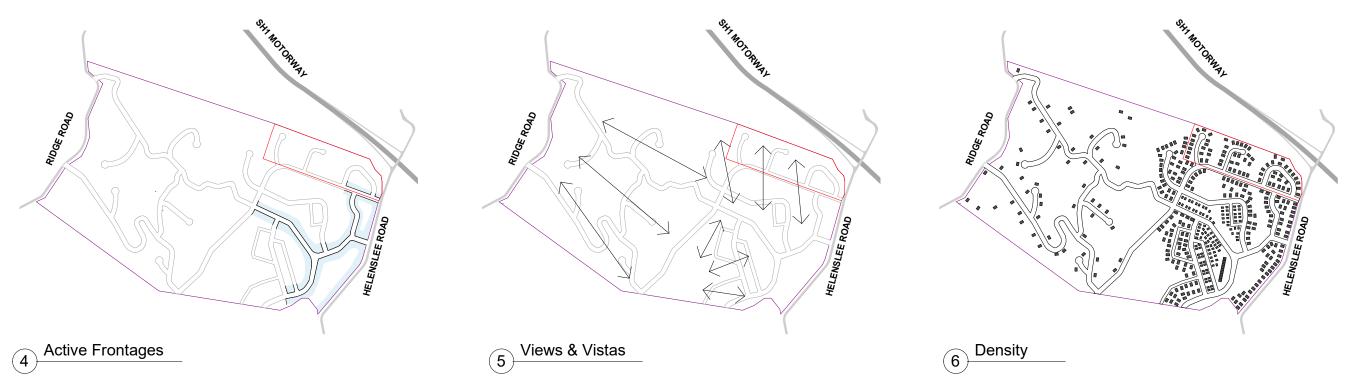
JOB NUMBER

DRAWING NUMBER REVISION

1812 A003 PD1







DESCRIPTION	DATE
M. I. Di	0010 00 00
Master Planning	2018.08.06
Revised Master Planning	2018.09.20





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DRAWING TITLE

Study Diagrams

	DATE	INITIAL	
DESIGNED	2017.11.21	B HO	
DRAWN	2018.09.20	C LOH	
CHECKED	2018.09.20	B HO	
APPROVED	2018.09.20	B HO	

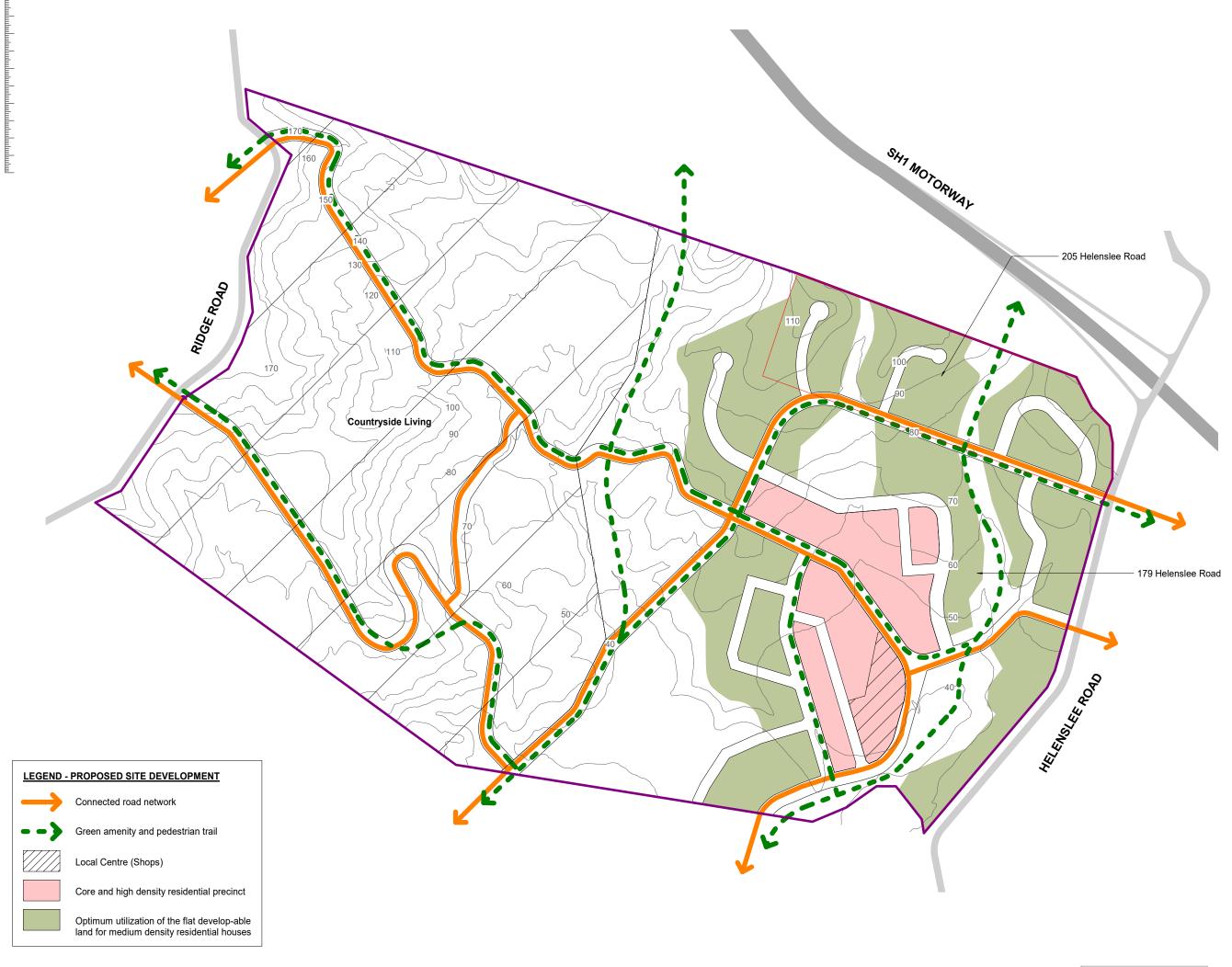
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JOB NUMBER 1812 DRAWING NUMBER

REVISION A004 PD1



DESCRIPTION	DATE	REV
Master Planning	2018.08.06	PD
Revised Master Planning	2018.09.20	PD1



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DRAWING TITLE

Site Development

	DATE	INITIAL
DESIGNED	2017.11.21	B HO
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CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO

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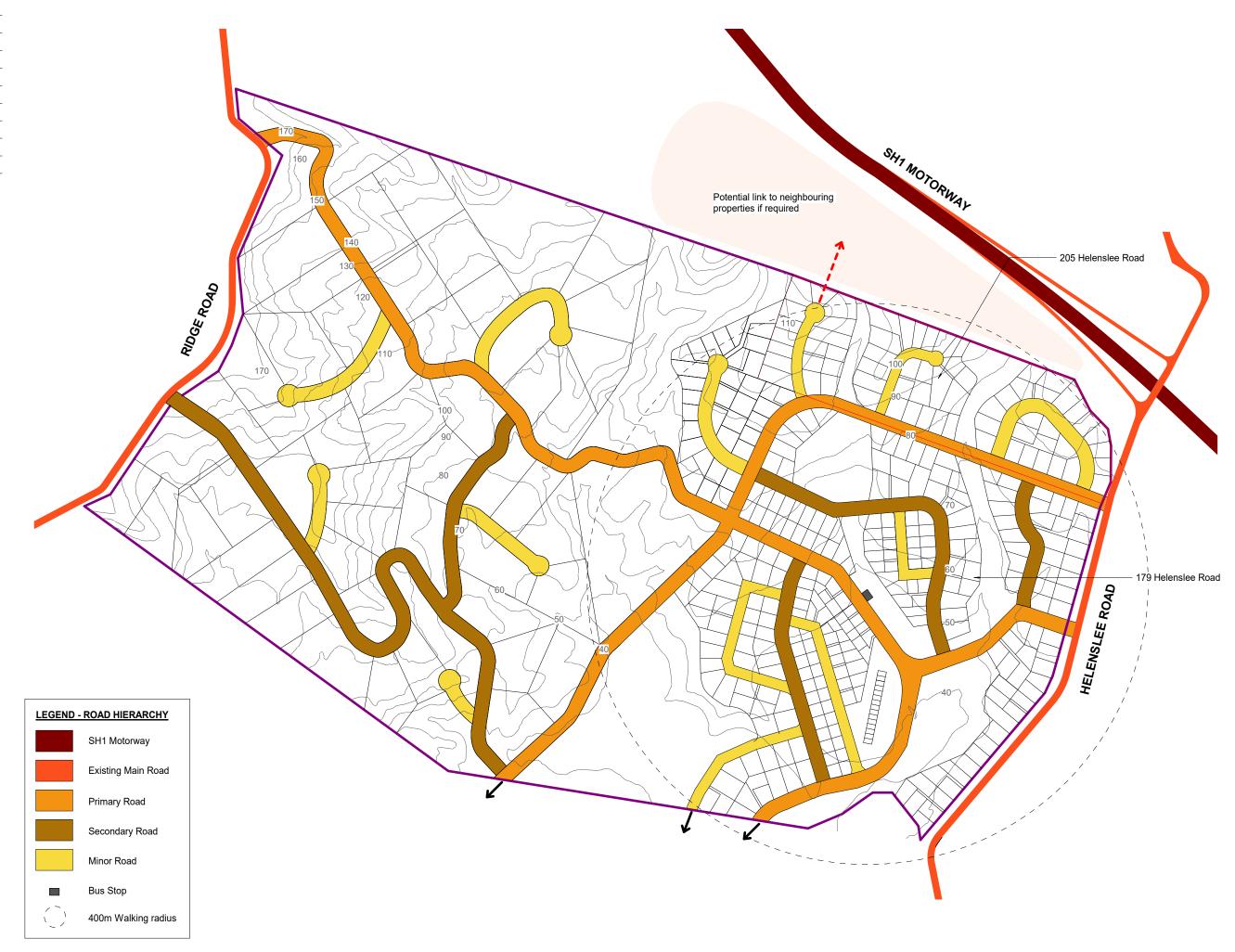
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JOB NUMBER

DRAWING NUMBER REVISION



1812 A005 PD1



DESCRIPTION	DATE	REV
Master Planning	2018.08.06	PD
Revised Master Planning	2018.09.20	PD1



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DRAWING TITLE

Road Hierarchy

	DATE	INITIAL	
DESIGNED	2017.11.21	B HO	
DRAWN	2018.09.20	C LOH	
CHECKED	2018.09.20	B HO	
APPROVED	2018.09.20	B HO	

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JOB NUMBER

DRAWING NUMBER REVISION



1812 A006 PD1



DESCRIPTION	DATE	REV
Master Planning	2018.08.06	PD
Revised Master Planning	2018.09.20	PD1

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DRAWING TITLE

Master Site Plan

	DATE	INITIAL	
DESIGNED	2017.11.21	B HO	
DRAWN	2018.09.20	C LOH	
CHECKED	2018.09.20	B HO	
APPROVED	2018.09.20	B HO	

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JOB NUMBER

DRAWING NUMBER REVISION

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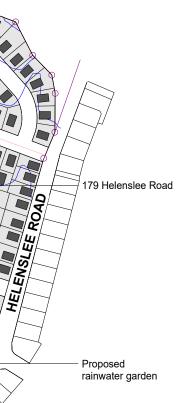
PD1



DRAWING REVISIONS

DESCRIPTION	DATE	REV	
Master Planning Revised Master Planning	2018.08.06	PD PD1	

205 Helenslee Road



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DRAWING TITLE

Master Site Plan (with Contours)

	DATE	INITIAL
DESIGNED	2017.11.21	B HO
DRAWN	2018.09.20	D TAN
CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO

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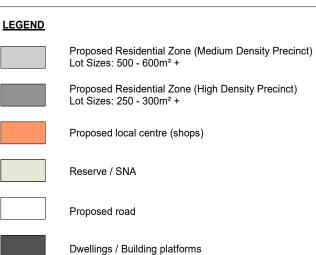
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JOB NUMBER

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MASTER PLANNING

1812 A112 PD1



179 Helenslee Road

Dwellings (Stage 1) - Medium Density Precinct = 59 Lots

Dwellings (Stage 2) - Medium Density Precinct = 27 Lots - High Density Precinct = 89 Lots

Dwellings (Stage 3) - Medium Density Precinct = 99 Lots - High Density Precinct = 20 Lots

Dwellings (Countryside Living) - Low Density Precinct = 55 Lots

Shops = 15 Lots

205 Helenslee Road

Dwellings (Stage 1) - Medium Density Precinct = 25 Lots

Dwellings (Stage 2) - Medium Density Precinct = 24 Lots

Dwellings (Stage 3) - Medium Density Precinct = 17 Lots

TOTAL DWELLINGS: 415 Lots



DRAWING REVISIONS

DESCRIPTION	DATE	REV
Master Planning	2018.08.06	PD
Revised Master Planning	2018.09.20	PD1

Stage 1 - 84 Lots

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179 & 205 Helenslee Road Pokeno 2472

DRAWING TITLE

Proposed Zone Plan -Residential

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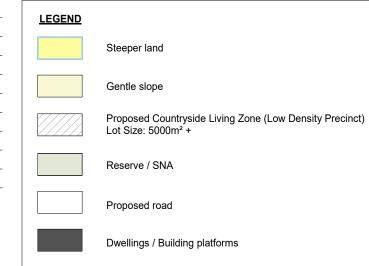
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rainwater garden

MASTER PLANNING

1812 A113

PD1





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DRAWING REVISIONS

ESCRIPTION	DATE	REV
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DRAWING TITLE

Proposed Zone Plan -Countryside Living

	DATE	INITIAL
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DRAWN	2018.09.20	D TAN
CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO

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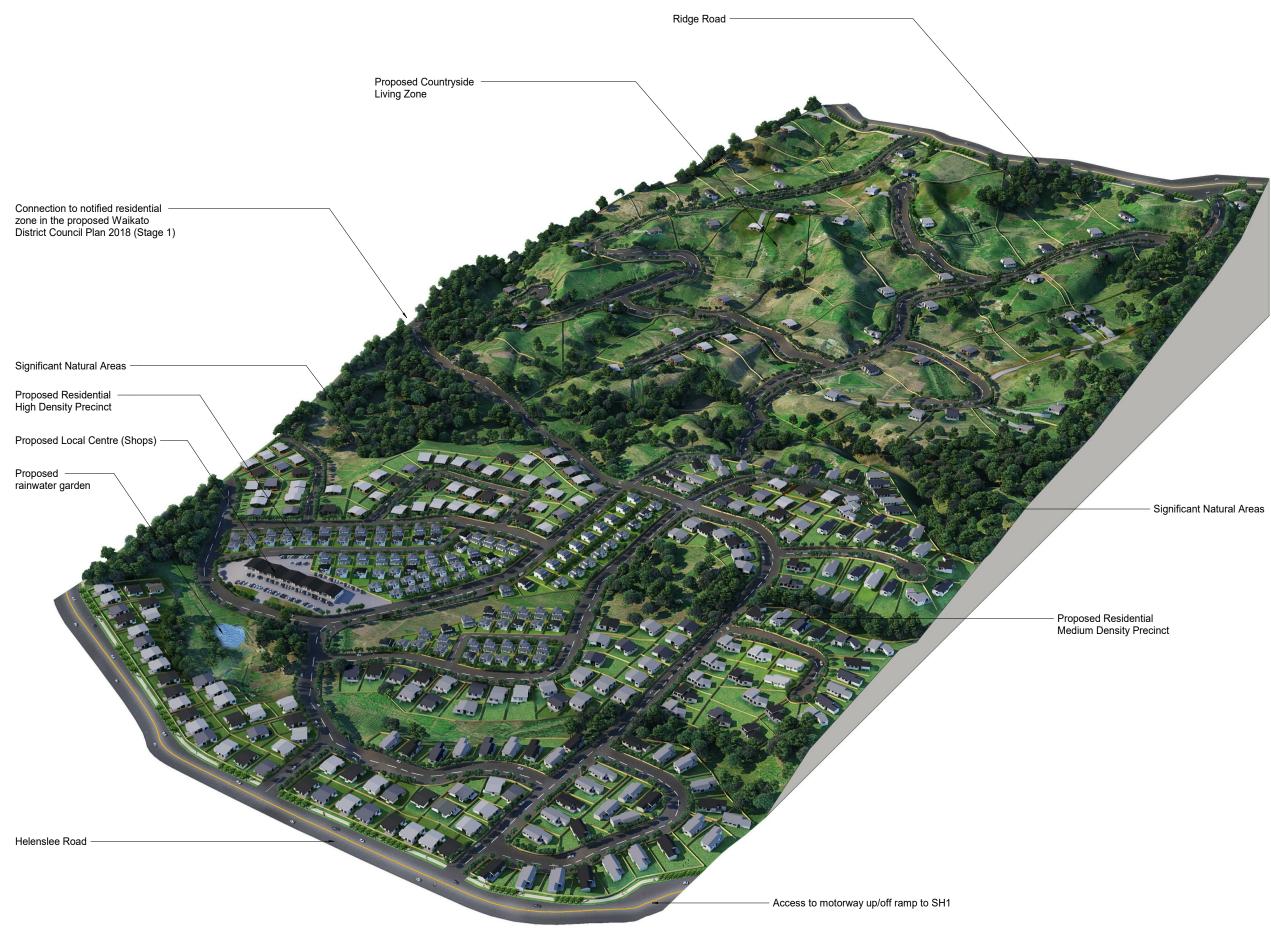
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JOB NUMBER

DRAWING NUMBER REVISION



1812 A114 PD1



DESCRIPTION	DATE
Master Planning	2018.08.06
Revised Master Planning	2018.09.20

PD1

REV



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DRAWING TITLE

Architect's Impression -Master Site Plan

	DATE	INITIAL
DESIGNED	2017.11.21	B HO
DRAWN	2018.09.20	D TAN
CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO
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JOB NUMBER

DRAWING NUMBER

REVISION



1812 A115

PD1



(1)NTS @A1

Proposed Residential Medium Density Precinct DESCRIPTION

DATE

REV Revised Master Planning 2018.09.20 PD1

RIDGE ROAD



Significant natural areas

Proposed Residential Medium Density Precinct

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179 & 205 Helenslee Road Pokeno 2472

DRAWING TITLE

Architect's Impression -Proposed Zone Plans

	DATE	INITIAL
DESIGNED	2017.11.21	B HO
DRAWN	2018.09.20	D TAN
CHECKED	2018.09.20	B HO
APPROVED	2018.09.20	B HO
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NTS

JOB NUMBER

DRAWING NUMBER REVISION

1812 A116 PD1

