TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

Recommendation	
	That Council <u>does not recommend</u> to the Minister that 115 Main Road Hope (T02-11), be established as a special housing area

Land Parcel Information	
Application Number	T02-11
SHA Name	Hope SHA
Property Address	115 Main Road Hope
Area (ha)	3.6719 Ha
SHA Requester	A J & J K Mudgway

Development Proposal		
Developer	A J & J K Mudgway	
Brownfield/Greenfield	Greenfield	
Expected yield	40 – 47 sections/dwellings	
Expected delivery programme	Timing/roll out	
Affordability provisions	Claimed 100% affordable – to be sold as sections	
Qualifying development criteria		
• Maximum number of storeys that building may have:		1
• Maximum calculated height that building must not exceed:		7.5 metres
• Minimum dwelling or residential site capacity:		40

SHA Establishment Criteria as per Lead Policy		
Criteria	**Notes**	
Consistent with Tasman Housing Accord	The application is considered to be generally consistent with the Tasman Housing Accord and lead policy. It is meets eight of the nine assessment criteria under the lead policy and partially meets the ninth criteria.	
2.1 Alignment with Tasman Resource Management Plan and other Council plans	The proposed pattern of development and the average lot density is in general keeping with the TRMP for residential development taking into account the minimum number of dwellings applied for in the SHA. However, the area is zoned Rural 1. The area of Rural 1 land between White Road and the current southern boundary of residentially zoned land in Richmond is identified as a possible future growth location in the proposed Future Development Strategy that is currently open for public submissions. The Applicant's property is part of a larger area that is identified as a possible location for business land.	
Infrastructure availability / readiness, including available capacity Readiness: Very Good / Good / OK / Poor / Very Poor	**Stormwater** • There is insufficient detail in the application to determine how stormwater will be managed. However with detailed design stormwater could be adequately managed. This level of detail is required for resource consenting. Because this can be addressed through the resource consent process and detailed design, it meets the requirements for a SHA to be established • Development would be required for Pre- and Post-development flows to be the same. On site detention and soakage needs to be designed into the subdivision • Initial designs show that a combination of detention at the dwelling and swales and soakage in and alongside the roads will mitigate flows off site to pre-developed flows. • Secondary flow paths are shown out to SH60 via public assess ways. Some raising of the land to be required due to flood maps showing inundation.	POOR

TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

SHA Establishment Criteria as per Lead Policy		
Criteria	**Notes**	
	Wastewater • This development will take up most of the last remaining capacity in the local reticulation system. • Due to overflows further downstream in the turn main, and likely elevated ground water levels at times. It is proposed to reticulate with low pressure wastewater pump stations on each lot and discharging to the sewer main in Whites road. These Pump stations will discharge between the hours of midnight and 4am, required to have storage of approximately 1m3 and be telemetry to the Council scada system via one transmission device. Once the trunk main and NRSBU main is upgraded, these limitations can be removed.	good
	Water • The source water is secure in three years once the Waimea Community Dam is operational. Until then, any properties on this site that develop will contribute to summer time restriction challenges (along with all other developments in progress). • Council has storage, treatment, and reticulation capacity for this site. • Out of zone application. Water is sourced from the Brightwater system. Will take a portion of the capacity which is available for existing residential zoned land and for deferred land. Net impact minor.	Good
	Transport • Has NZTA approval and good access to the highway network with the Right Turn Bay at the SH6/Whites rd. intersection. • Access is off White s road and walkway links back out the SH6 and doubles as secondary flow path and services location	Very good
	Reserves and Facilities • The applicant has indicated they will provide for a reserve or reserves consistent with the council's policies and level of service requirements. The applicant has provided an undertaking that the plans submitted with any resource consent application under HAASHA will include a reserve to vest in the location identified.	Good
2.2 Infrastructure	A. Infrastructure Exists with Capacity • HAASHA requires that infrastructure exists or is likely to exist. With the exception of stormwater, infrastructure with capacity already exists.	
	B. Infrastructure in LTP Enabled by Developer • The proposed development does not require an upgrade to existing Council infrastructure	
	C. Unplanned Infrastructure Enabled by Developer • No unplanned infrastructure is required for the proposed development	
	D. Stormwater Mitigation provided to Meet Appropriate Standards • Stormwater can be managed with appropriate design and construction of a stormwater system.	
	E. Infrastructure to be Designed to Meet Appropriate Standards • The application not include any proposed infrastructure that is not in keeping with the Tasman District Council Engineering Standards and Policies or NZS4404.	
	F. Concept Engineering Plans Provided • None provided	

TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

SHA Establishment Criteria as per Lead Policy	
Criteria	**Notes**
	G. Land is Geotechnically Stable • Yes.
2.3 Demand for a QD	The applicant states that the site is entirely residential. It will provide between 40 and 47 residential lots. The primary purpose of this proposal is to deliver new residential housing in a timely manner, thereby supporting the aims and targets of the Tasman Housing Accord.
2.4 Demand for Residential Housing	The applicant states that the proposal will provide additional sections to meet current and forecasted demand as required by the Tasman Housing Accord.
2.5 Predominantly Residential	The proposed development is entirely residential. If approved the site would require rezoning once completed.
2.6 Commercial Viability	The applicant has advised that the SHA status will change the financial viability of the project by allowing it to proceed quickly as development costs are increasing every year. The applicant's own research indicates that the cost of development has increased 30-35% over the last 18 months.
2.7 Building Height	The proposed building height is consistent with the adjoining zones.
2.8 Consultation	The applicant has consulted with Council prior to acquisition of the property and as part of the pre-application process. The applicants indicate they have consulted with one neighbour who supports their proposal. The Council's Lead Policy indicates it may choose to seek feedback from the community on new SHA proposals. Given the Government's deadline of 30 April for any new SHA recommendations, there is not enough time available to seek community views.
2.9 Affordability	The applicants have indicated they intend to sell all 40-47 lots for between $240,000 through to (capped) $300,000, depending on costs at time of subdivision construction. The application proposes a number of measure to address affordability including: • Selling sections only, no house and land packages. • Covenants on titles to prevent rapid on-selling of sections at increased prices • Developing quickly to beat increasing development costs

Ownership information per parcel	
Street Address	115 Main Road Hope
Owner	JK & AJ Mudgway
Valuation Number	1943026600
CT Number	3C/163
Legal Description	PART SECTION 15 WAIMEA EAST DISTRICT BLO CK VI WAIMEA S D
Area (ha)	3.6719 ha

TRMP Provisions	
Zone	• Rural 1 – (3.7ha)
Density (Controlled Activity)	• Residential – 450 square metres (Rule 16.3.3.1(a)) • Rural Residential – 5,000 square metres (Rule 16.3.8.1(a)) • Rural 1 – 12 hectares (Rule 16.3.5.1(a)) • Rural 1 – 30m setback to Rural land (Rules 17.5.3.1 (kb))
Height Limit (Permitted Activity)	• Residential – 7.5 metres (Rule 17.1.3.1(p)(ii)) • Rural 1 – 7.5 metres (Rule 17.5.3.1(f))
Area Overlays	• The site is not affected by any area overlays • Land Disturbance Area 1

TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

Resource Consents Required	• Subdivision Consent • Land Use Consent • Discharge Permit – Stormwater

Other Comments	
Reasons for using SHA Process	The applicants state the reason for using the SHA process is "to get as many young couples/young families into affordable housing as soon as possible". The applicant considers that the process will enable them to realise their vision in a timely manner. They state that they have had experienced staff leave as a consequence of unaffordable housing.
Planning History	The following Resource Consents are noted against the property: 160608 land use consent to construct a second dwelling within the Rural 1 zone (July 2016)

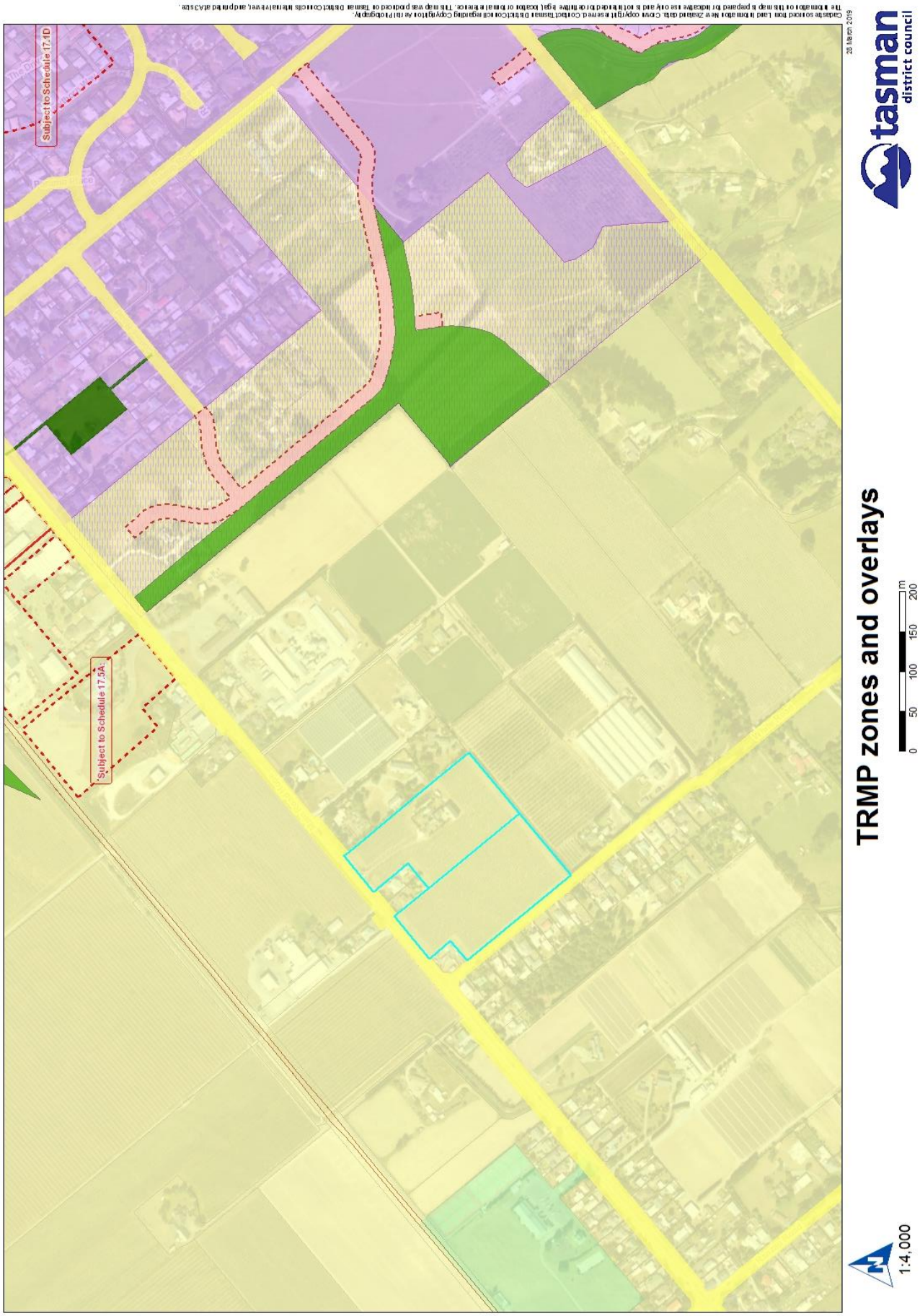
Decision Implications	
Comments	None

Reviewed by	
Site Visit	2019
Consents	2019
Engineering	2019
Environmental Policy	2019
Reserves and Facilities	2019

Aerial site photo of 115 Main Road Hope

TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

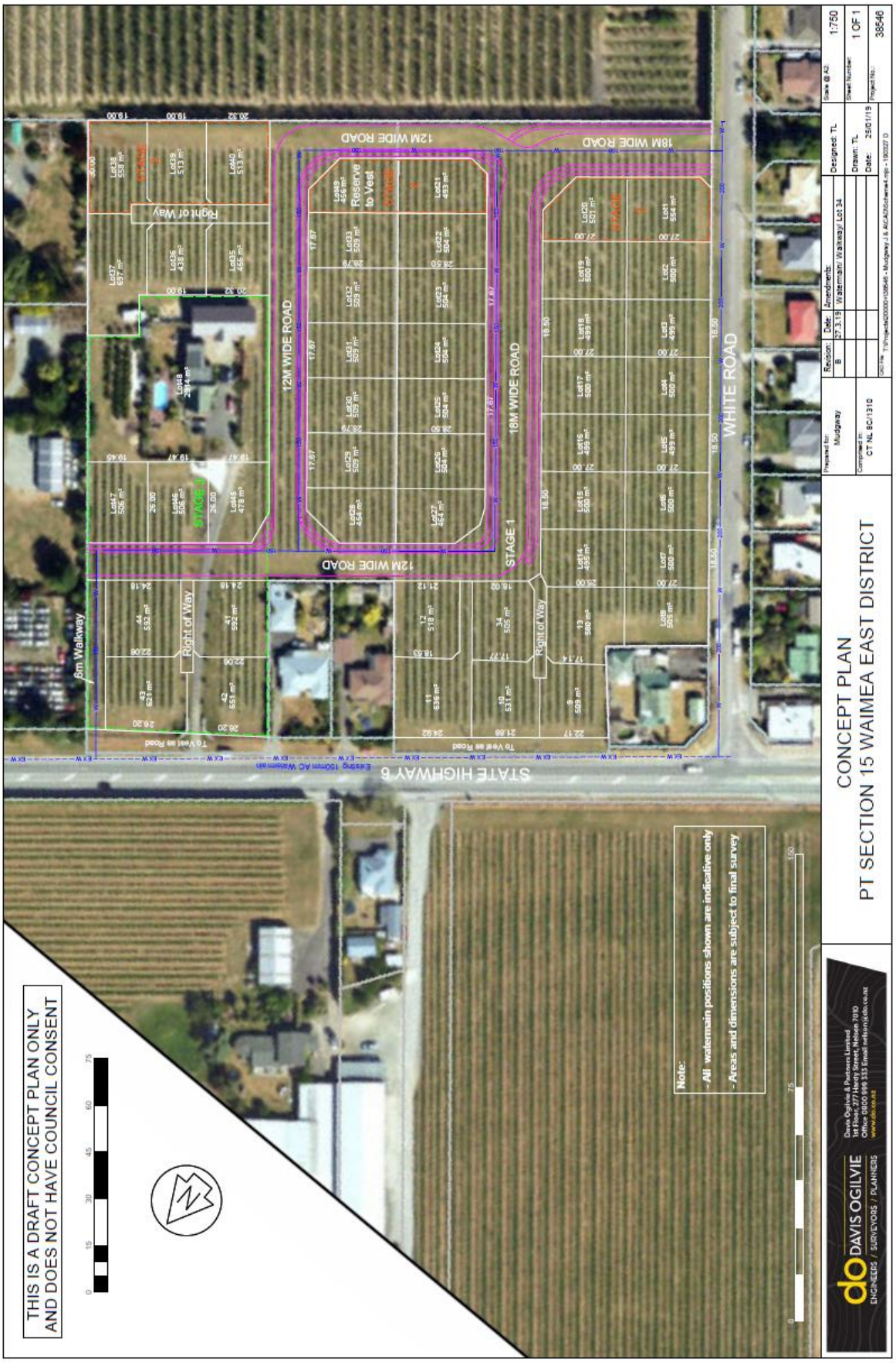
Tasman Resource Management Plan – Zone and Overlays Map



T02-11 Hope SHA

TASMAN HOUSING ACCORD – SPECIAL HOUSING AREA
LOCATION SUMMARY T02-11

Concept Plan provided by Developer



29 March 2019

Tasman District Council
189 Queen Street
Private Bag 4
RICHMOND 7050

To Whom it May Concern,

Special Housing Area under HASHA – Full Request

A J & J K Mudgway – *Hope SHA*

Please find attached a Full Request from A J & J K Mudgway to establish a *Special Housing Area* on approximately 3.6719 hectares of land located at 115 Main Road Hope, Hope, Richmond 7020 (described within Certificate of Title NL8C/1310 as PART SECTION 15 WAIMEA EAST DISTRICT BLO CK VI WAIMEA S D).

This request has been prepared in accordance with the *Assessment Policy for Special Housing Area Requests* (approved by the Environmental and Planning Committee on 01 June 2017 and updated by resolution 22 March 2018).

We appreciate the opportunity to present the proposal at the next TDC Environment and Planning Committee meeting on 18th April 2019.

Please don't hesitate to contact the writers, if you have any further queries.

Yours faithfully

Jason and Ange Mudgway
115 Main Road Hope
Hope
RICHMOND 7020
M 0274 847 227 – Jason
E build@mudgway.com

Housing Accords and Special Housing Areas Act 2013

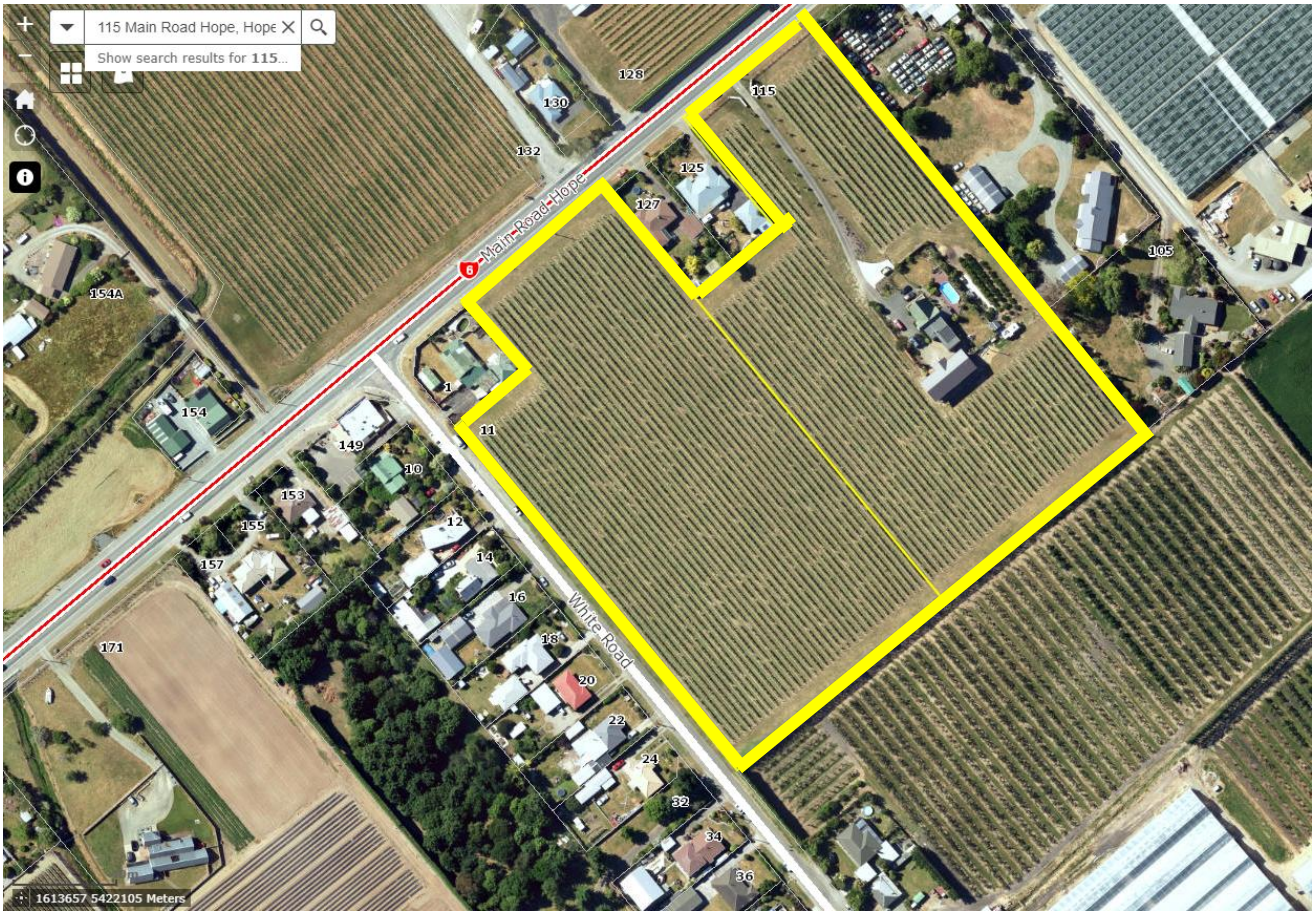
Tasman Housing Accord

Full Request in accordance with the

Assessment Policy for Special Housing Area Requests

A J & J K Mudgway

Hope SHA



EXECUTIVE SUMMARY

Ange & Jason Mudgway submit this Expression of Interest (EOI) for its land at 115 Main Road Hope, Hope, Richmond 7020, for consideration as a Special Housing Area (SHA). The subject site is identified on the Site Locality provided within **Attachment 1.**

Our concept is for a residential subdivision with a minimum of 40 reasonable sized sections with modest sized housing at attractive and affordable price points.

Our purpose is to give those with limited means an opportunity to own a stand-alone home with an enviable amount of land. A simple concept that now alludes so many.

Our vision is to have a well laid out/designed subdivision with tasteful plantings, attractive hedging near roads and appropriate shrubbery to beautify surroundings.

Though our land is currently zoned Rural 1, we are aware of the intention for residential development to travel in a SW direction from Richmond (that is, the block formed by Main Road Hope, Ranzau Road, Paton Road and Bateup Road) – as some of this land has already been re-zoned as *Deferred Residential Zone*. We understand this is in alignment with the Long Term District Plan to become residential in the next 5-8 years.

The proposed SHA has been designed to fit within its context and connect well to adjoining and nearby properties. It is consistent with council's Assessment Policy for Special Housing Area Requests and the statutory considerations under the Housing Accords and Special Housing Areas Act 2013.

Refer to **Attachment 2**

Using the SHA process would enable our concept/purpose/vision to become a reality in a timely manner. We have experienced staff that have had to leave the area as a consequence of unaffordable housing. The reason for our SHA proposal is to get as many young couples/young families into affordable housing as soon as possible.

The SHA consists of the following components:

- Development of at least 40 residential lots allowing for stand-alone housing. The size of the lost ranges from 454m² - 697m².
- The creation of a local street network with access from White Road at the southern most point of the property. Street range in width from 12m to 18m and 3 x Right of Ways. Lots 1 – 8 are all accessed directly from White Road.
- A shared path, 6m in width which allows access to SH6.
- Stoned feature wall at entrance on White Road with attractive landscaped plantings.

DEVELOPMENT TEAM

Jason Mudgway has over 32 years' experience in the building industry with a mix of architectural residential and commercial builds. Jason's practical knowledge of subdivision development will be extremely beneficial in the process.

Jason & Ange Mudgway have been the owner/directors of Mudgway Construction Limited for 16 years. As employers we understand the challenge faced by employees to obtain affordable housing. Fundamentally this is the basis for our SHA. Our commitment to affordable housing is reflected in our intended covenants, for example, maximum house size of 120m², must live in house for minimum of 3 years, cannot on-sell house for a minimum of 3 years, houses cannot be rented out, no group housing or specialist housing companies allowed to purchase or build in subdivision, no hipped roofs, no Linea cladding, maximum tree heights of 3m, no relocatables, good design approved at our discretion.

We have assembled a team of highly skilled specialists who have all provided encouraging feedback for our SHA. The project team includes the following members in addition to Jason & Ange:

- Mark Lile: Planner, Landmark Lile
- Tony Lindbom: Surveyor, Davis Ogilvie
- Andrew Noble: Quantity Surveyor, Hay & Associates
- Richard Stocker: Stormwater Engineer, Land & River Limited
- Gary Clark: Roading Consultant, Traffic Concepts
- Marty O'Kane: Soil Tester

Our team have made a concerted and proactive effort to provide a high quality residential development that integrates with the established surrounding residential environment and achieves the intent of affordability.

REQUIRED RESOURCE CONSENTS

Once approved as a Special Housing Area (SHA) the Housing Accords and Special Housing Areas Act 2013 (HASHA) requires resource consent applications to be obtained in accordance with Section 88

and the Fourth Schedule of the Resource Management Act 1991. The information requirements therefore remain the same under HASHA as they are under the RMA.

The *Hope SHA* will require resource consent for a range of activities, including:

- Subdivision Consent; and
- Land Use Consent.

ASSESSMENT

Location (Criterion 2.1)

The subject site is located at 115 Main Road Hope, Hope, Richmond 7020 and is zoned Rural 1. See **Figure 1** below.

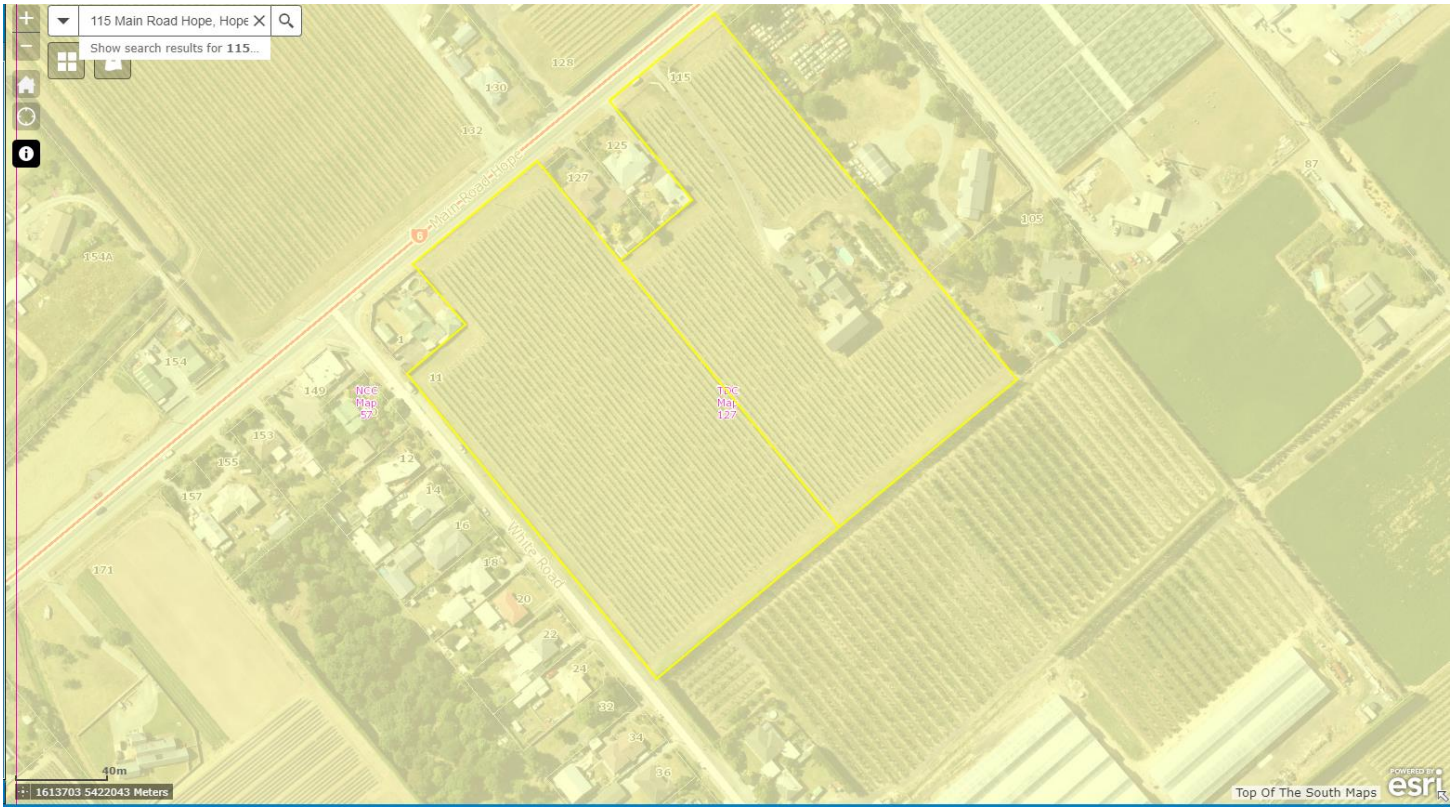


Figure 1: Existing zoning

The surrounding land is also zoned Rural 1, however, land southwest and northeast is residential in character.

As with many blocks in the Hope area they were subdivided down to approximately 3-4 hectare lifestyle blocks some time back. Our block is 3.6719 hectares and is currently planted in grape vines. In the three years that we have owned the property, we have never received a yield from the grape harvest. In fact, the property as it stands has never made a profit each year. Blocks of this size are not financially viable to farm on.

In the Tasman District Council Long Term Plan and Council's Asset Management Plans it states that 'Proposals on land zoned other than residential must demonstrate that the loss of land for the zoned

purpose is sustainable'. We believe that changing the land use to affordable housing would be more sustainable than its current use whereby, we are looking to provide up to 47 families with warm, dry, new homes compared to making a few bottles of wine.

Adequate Infrastructure (Criterion 2.2)

Water

Water comes from Brightwater and is at capacity in the current network. Council is planning an upgrade of the network along with the construction of the Waimea Community Dam. We will install a 200mØ water main down White Road (TDC supplied pipe) and then T-off into proposed subdivision with a 150mmØ water pipe that loops back into the water main running along Main Road Hope (under 6m walkway).

Sewerage

There is an existing wastewater pipe that runs down White Road. We intend to install the Ecoflow E/One lower pressure sewer system including a 2,000l tank to each property (refer **Attachment 3**). Ecoflow have installed over 10,000 of these systems throughout New Zealand in both council projects and green-field subdivisions. These systems are considered better for New Zealand's environment and have minimal impact on council's existing sewer network. The systems will outlet into the 150mmØ sewer main on White Road. With this system there will only be a 63mmØ diameter connection into the main sewer line. We will link each pump into a centralized UHF aerial that the TDC telemetry system can control in storm events.

Stormwater

It is the considered opinion of our stormwater engineer that we can mitigate stormwater run-off through the alluvial composition of the land. We will install soakpits for properties and roads, with secondary path along walkway out to SH6. Refer **Attachment 4.**

Roading

It is the considered opinion of our roading engineer that the roading layout proposed does not impact greatly on current traffic volumes along White Road (refer **Attachment 5**). Adequate access and roading layout is proposed to support the development and seamless integration with the local roading network. NZTA have also given positive feedback whereby traffic from existing 2 properties would now gain access only via White Road and would therefore cease from SH6. An outcome very favourable to NZTA. We intend to install a footpath along Main Road Hope along our current boundary and kerb & channel and footpath along White Road, along our current boundary.

Power

We currently have capacity for 47 new dwellings along with the 2 existing dwellings

SOIL

Soil sampling will be completed if SHA is to proceed. Initial research shows there will be minimal contaminants on the property.

RESERVE

We have incorporated a 456m² reserve into the proposed subdivision located in a central position. We intend to tastefully plant the reserve. There is a large reserve located at the Hope Community Hall area.

Demand for a Qualifying Development (Criterion 2.3)

Section 14 of HASHAA sets out the meaning of 'Qualifying Developments'. Central to this meaning is that Qualifying Developments must be 'predominantly residential'. The proposed development will be entirely residential and will be consistent with this requirement. As shown on the concept plans provided within **Attachment 2**, the proposed SHA is expected to deliver approximately 40-47 allotments.

The primary purpose of this SHA is to deliver new residential housing in a timely manner, thereby supporting the aims and targets of the Tasman Housing Accord.

Demand for Residential Housing (Criterion 2.4)

The Housing Accord sets out the necessity of additional housing supply to meet current and forecasted demands.

While the land is zoned Rural 1, we believe the proposed SHA to be considered in an appropriate location, in terms of surrounding land use activities in the town of Hope. Hope boasts schools, churches, pre-school, dairy, community centre, tennis court and petrol station.

There has been sustained demand for housing in Nelson/Tasman region since 2016 with commensurate increases in prices making it now one of the most expensive residential markets in New Zealand.

In terms of general growth, the Tasman District has experienced **5.6%** growth in residential values over the last year (Jan 2018-Jan 2019, QV property statistics). This is contrasted with other recent high growth areas of Auckland – 2.8% decline, Tauranga City – 3.3% growth, Queenstown Lakes District – 7.6% growth, Christchurch – 6.6% growth. Growth in residential property values within the Tasman District appears to remain strong.

While significant levels of housing is starting to be supplied, this is currently only being provided by a relatively small number of developers and this constraint is a contributing factor to the high prices.

Predominantly Residential (Criterion 2.5)

The proposed development will be entirely residential with a landscaped reserve.

Commercial Viability (Criterion 2.6)

We are working closely with our development team to ensure that our approach and delivery for an truly affordable subdivision remains financially and commercially viable. We will be taking into account land costs, required infrastructure and development costs.

Assuming the SHA is established mid 2019, we are strongly motivated to obtain required consents before the repeal of HASHAA. This is for our own commercial reasons in the fact that subdivision and development costs are increasing at an alarming rate.

Building Height (Criterion 2.7)

This proposed SHA is planned to have a maximum building height of 7.5 metres, being consistent with the maximum height for buildings in the Residential Zone.

Consultation (Criterion 2.8)

We have consulted with one neighbouring property, who supports our proposed subdivision.

Affordability (Criterion 2.9)

Our intention is to keep subdivision costs as low as possible, whilst delivering a quality community subdivision. Ideally, we would like to sell all 40-47 lots for between $240,000 through to (capped) $300,000 (depending on costs at time of subdivision construction. This price point is un heard of and as a consequence we have verbally sold all sections to date. The lowest priced section that is currently on the market in the Richmond region (Trade Me/realestate.co.nz dated 27 March 2019) is $339,000 for a section of a comparable size to what we are proposing.

We begun investigating the potential of subdividing 18 months ago. We researched the cost to subdivide per section and during this time have experienced a 30-35% cost increase. To keep the proposed section costs where we believe they are currently affordable (as stated above), we need to action the proposed development as soon as possible.

We are giving an opportunity for young couples/young families or those struggling to obtain affordable housing to purchase a section and build their own homes. At present other developers are not offering this as an option – where we see this as a way for young couples/young families to get ahead. We would like to see young couples/young families build themselves a new dry, warm home for under $500,000.

Our commitment for affordable housing is so genuine, that as building company owner's – we have no concerns if we are not engaged to build one single house!

A further important factor for overall lifestyle affordability is the locational characteristics of the land.

To Richmond Town Centre (Richmond Mall):

- By walking: 30 minutes
- By cycling: 15 minutes
- By driving: 3 minutes

These factors mean that residents within the community should, on average, have low transport costs which assists with overall cost of living affordability.

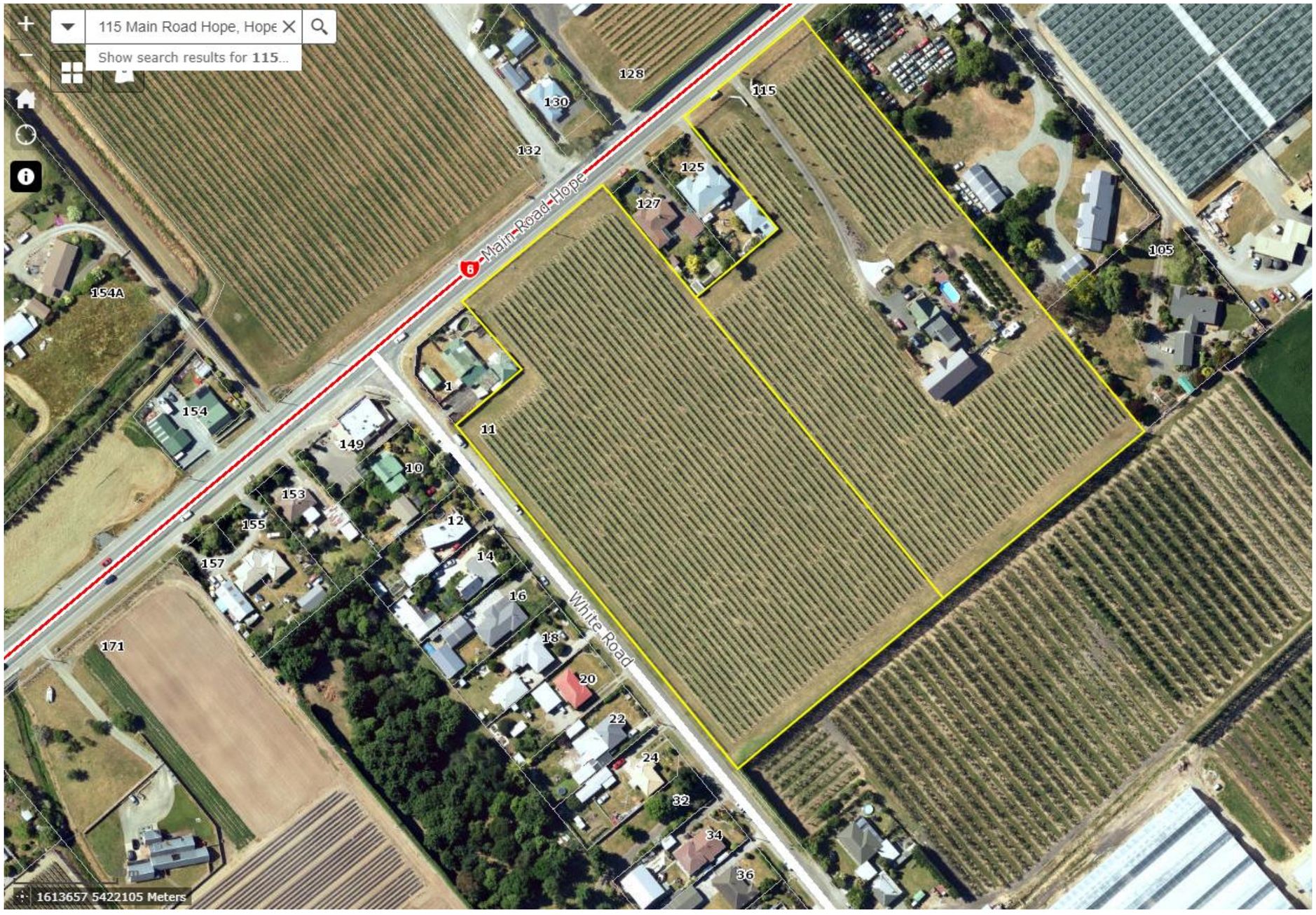
CONCLUSION

Ange & Jason Mudgway appreciates Tasman District Council's consideration of this EOI.

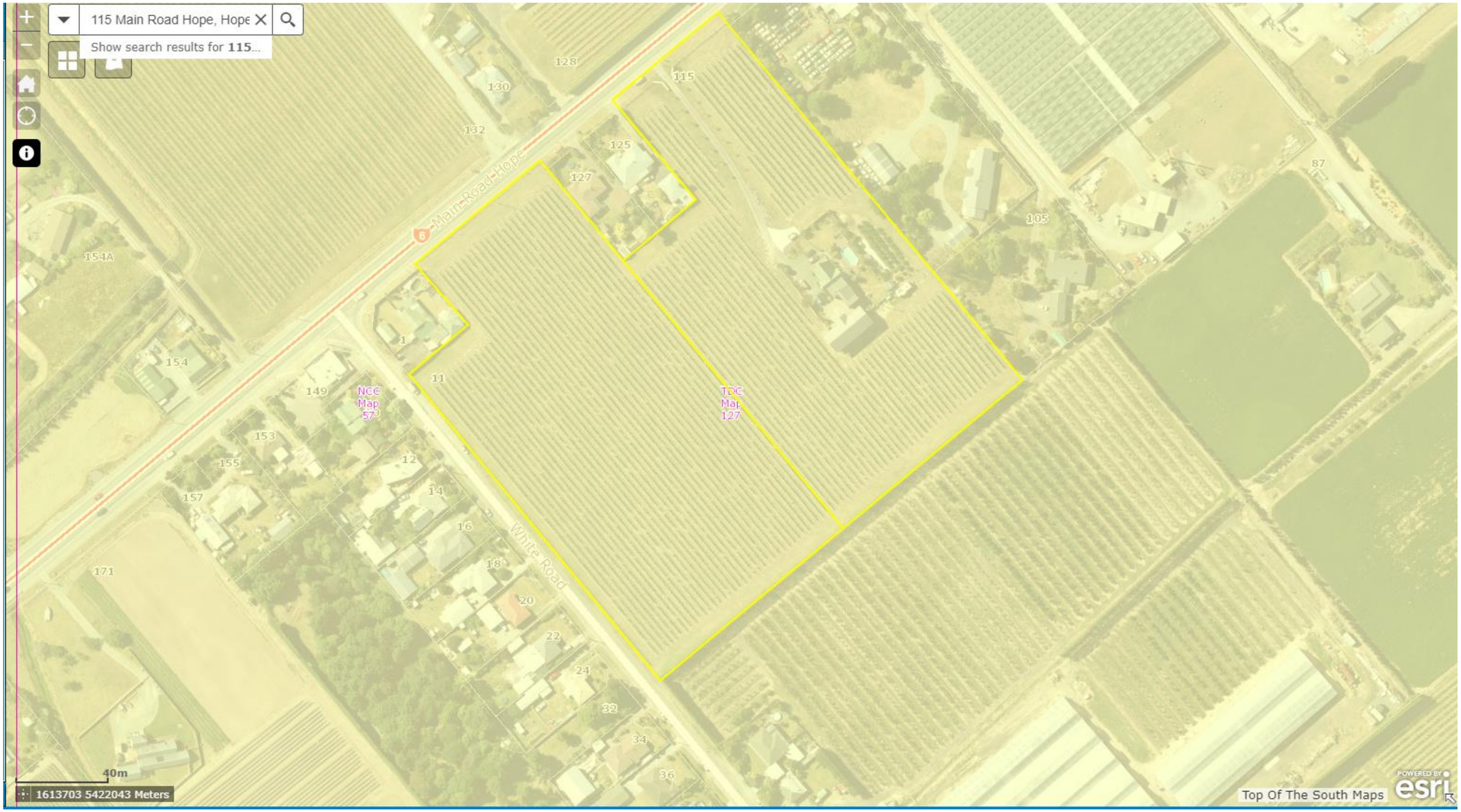
The proposal is considered to satisfy the requirements of Council's Assessment Policy for Special Housing Area Requests and the statutory requirements of the HASAA legislation.

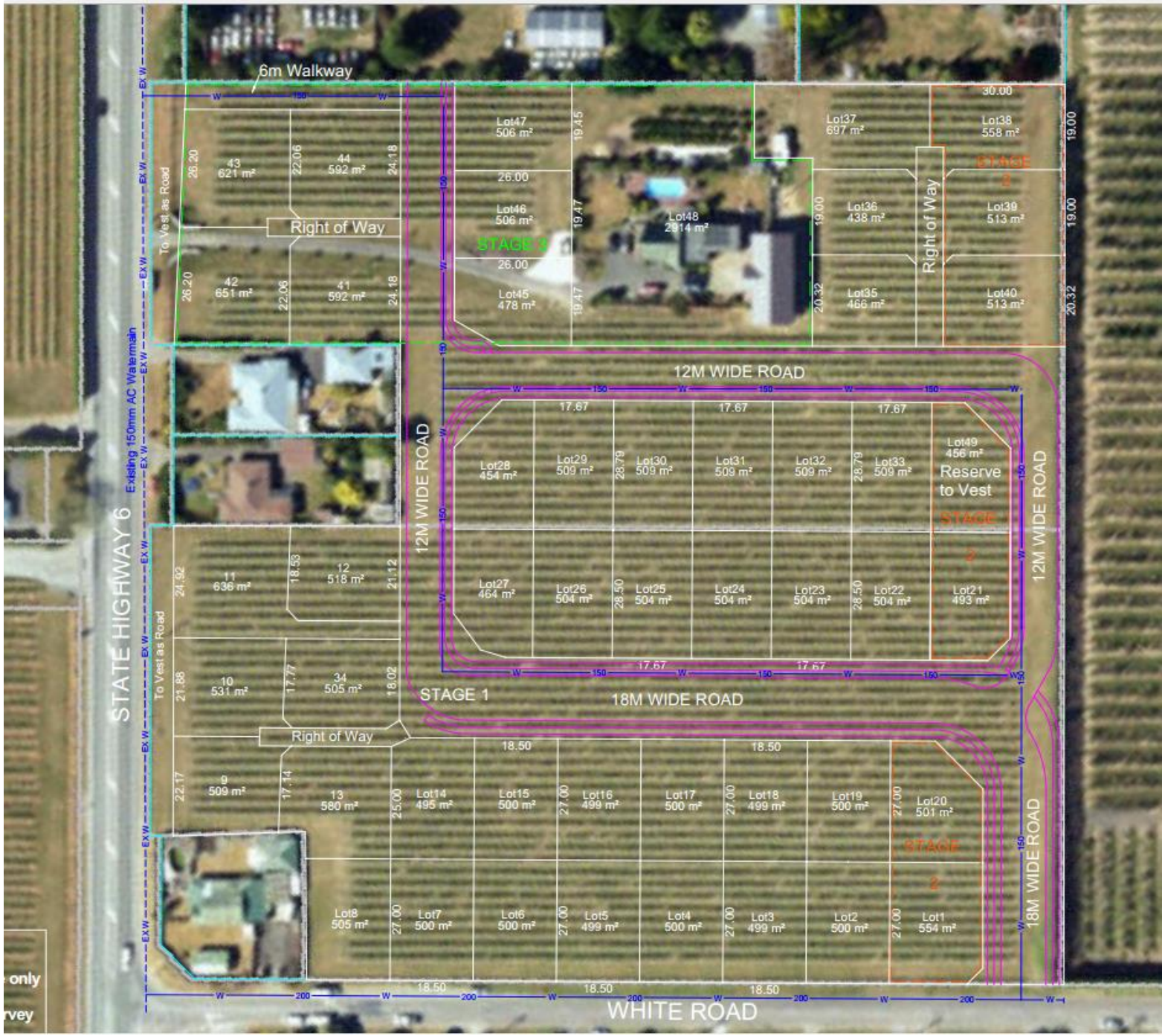
We consider that the proposed SHA will contribute significantly to the social, economic and environmental wellbeing of the Hope community and extend to the wider Tasman/Nelson communities, and readily deliver urgently needed affordable housing to the community.

115 MAIN ROAD HOPE, HOPE, RICHMOND 7020



115 MAIN ROAD HOPE, HOPE, RICHMOND 7020




6m Walkway
STATE HIGHWAY 6
Existing 150mm AC Watermain
To Vest as Road
Right of Way
12M WIDE ROAD
18M WIDE ROAD
STAGE 1
STAGE 2
STAGE 3
Reserve to Vest
WHITE ROAD
Lot1 554 m²
Lot2 500 m²
Lot3 499 m²
Lot4 500 m²
Lot5 499 m²
Lot6 500 m²
Lot7 500 m²
Lot8 505 m²
Lot9 509 m²
Lot10 531 m²
Lot11 636 m²
Lot12 518 m²
Lot13 580 m²
Lot14 495 m²
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Lot24 504 m²
Lot25 504 m²
Lot26 504 m²
Lot27 464 m²
Lot28 454 m²
Lot29 509 m²
Lot30 509 m²
Lot31 509 m²
Lot32 509 m²
Lot33 509 m²
Lot34 505 m²
Lot35 466 m²
Lot36 438 m²
Lot37 697 m²
Lot38 558 m²
Lot39 513 m²
Lot40 513 m²
Lot41 592 m²
Lot42 651 m²
Lot43 621 m²
Lot44 592 m²
Lot45 478 m²
Lot46 506 m²
Lot47 506 m²
Lot48 2914 m²
Lot49 456 m²

eone SEWER SYSTEMS

OVER 10,000 INSTALLATIONS NATIONWIDE

ABOUT ECOFLOW

Ecoflow is New Zealand's largest pressurised sewer supplier. Founded in 2007 by two wastewater engineers, with their goal to become New Zealand's leading pressurised sewer system specialist.

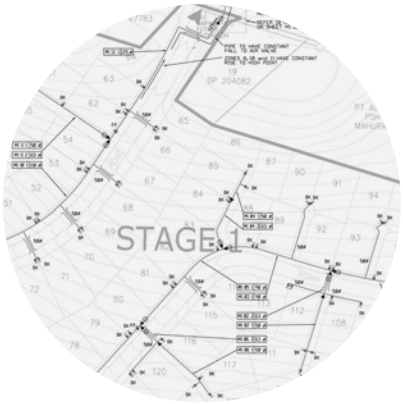
We are proud distributors of the Environment One (E/One) system, E/One are world leaders in low pressure sewer systems having over 600,000 grinder pumps operating globally in 42 countries.

Ecoflow have installed over 10,000 E/One pressure sewer systems throughout New Zealand in both council projects as well as green-field subdivisions.

Our success is simple, we are the most knowledgeable in our field using market leading equipment. We are focused on building strong relationships with our clients offering exceptional service and support.

WHY COUNCILS AND DEVELOPERS ARE CHOOSING E/ONE PRESSURE SEWER SYSTEMS

- Better for New Zealand's environment
- Minimal impact on councils existing sewer networks
- Ideal alternative to deep gravity sewer mains
- More resilient to seismic activity – earth quakes.
- Eliminates large public sewer pump stations



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Pressure Sewer Specialists

RESPONSIBLE FOR 95% OF NZ'S PRESSURE SEWER SYSTEMS

E/ONE QUALITY

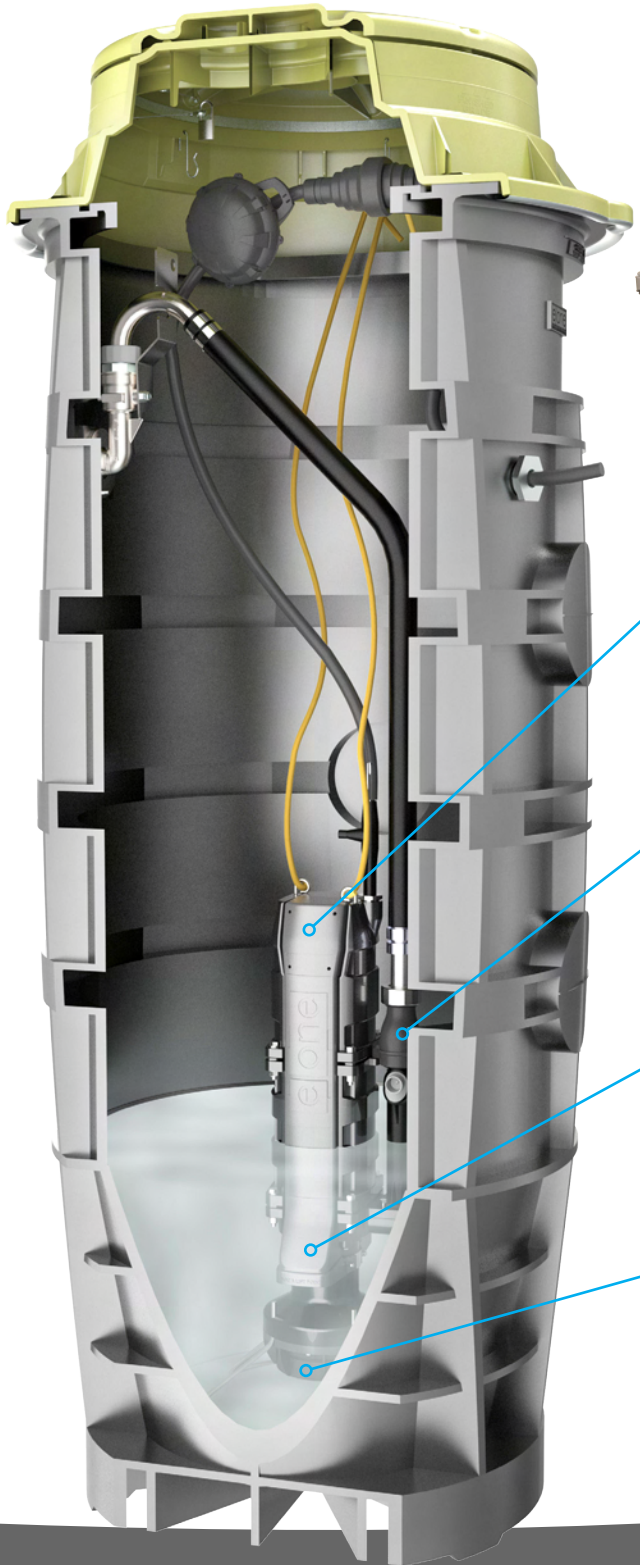
For over 50 years the E/One name is synonymous with reliable, maintenance free grinder pump systems, designed with longevity in mind. Before a product is released it is subjected to meticulous performance tests. The heavy duty cast iron grinder pump is ANSI/NFS 46 Certified. It's an industrial grade pump for residential use. E/One's tank is manufactured in New Zealand and is designed and certified to AS/NZS1546 specifications. It features an integrated stainless steel ball valve with pressure relief.

SERVICE CAPABILITIES

Ecoflow is known for offering end-to-end service. We have close relationships with architects, housing companies, builders, plumbers, drain layers and electricians to achieve a superior level of customer service.

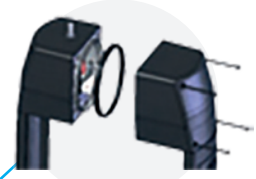
SERVICES INCLUDE:

- Network Design
- Project Management
- Supply of Quality E/One Equipment
- On-Site Delivery
- On-site Installation Training – Approved Drain layers
- Pump Installation and Commissioning
- Supply of Warranty/Consent Documentation
- On-going 24/7 Service



E/ONE ALARM PANEL

To maximise reliability and convenience, the E/One installation includes an IP65 weather proof alarm panel which also protects the pump from low voltage, running dry, and over pressure situations.



PRESSURE SWITCH HOUSING

Pressure switches in the head of the pump for starting and stopping are similar to washing machine controls, eliminating the need for float switches which commonly fail due to fats, hair and rags.

INTEGRATED VALVES

The integral non-return valve protects against system back pressure and the anti-siphon valve facilitates downhill pumping applications.

PROGRESSING CAVITY PUMP

This deceptively simple design produces a nearly constant flow under a wide range of continuously varying conditions.

GRINDER WHEEL AND SHREDDER RING

Hardened forged alloy steel cutter bars and teeth create a shearing action coupled with the high torque pump to help eliminate blockages.

- Environmentally friendly
- No preventative maintenance
- Unobtrusive, low profile installation
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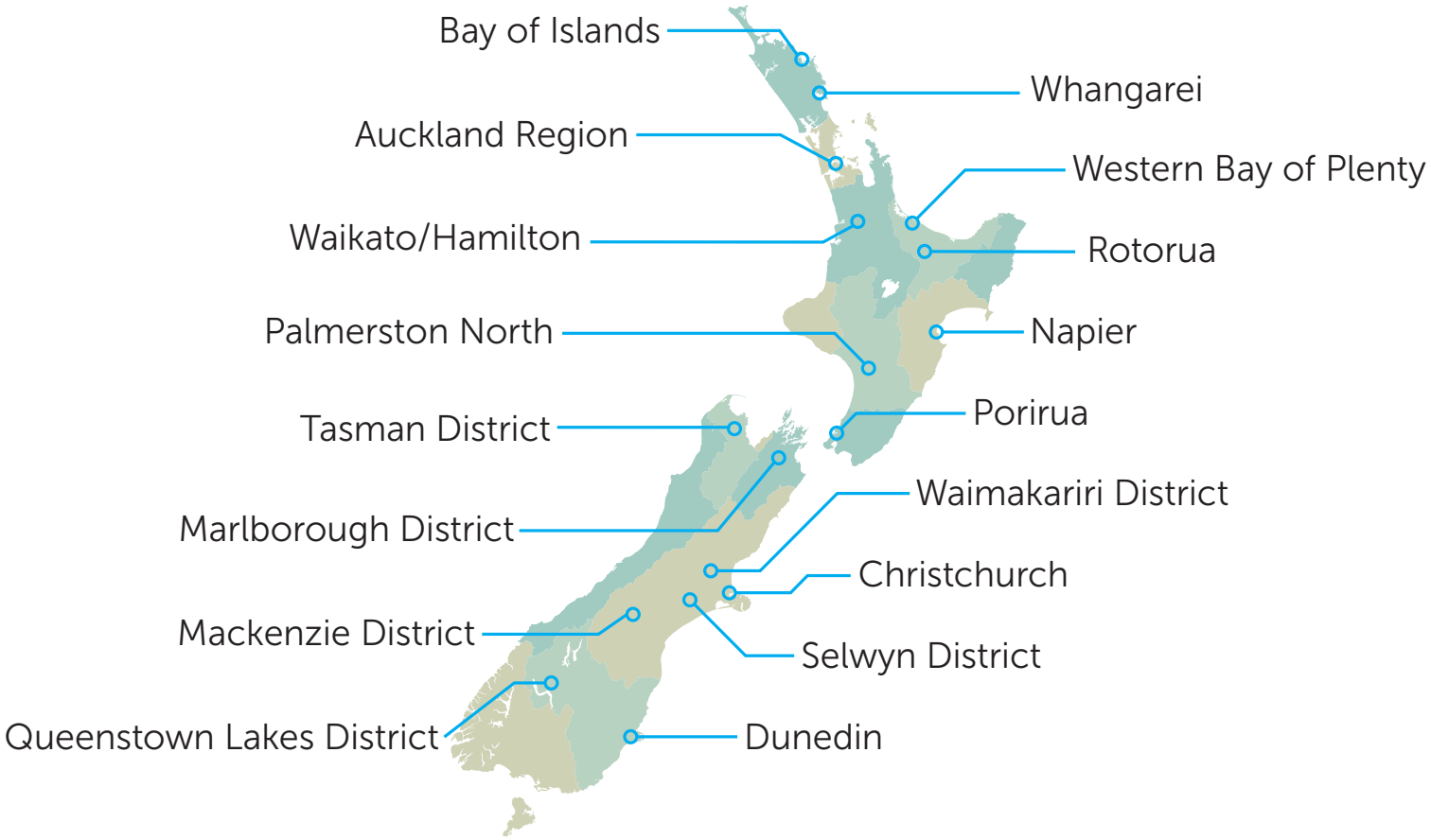

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Puramahoi, R.D.2, Takaka New Zealand
Ph: 64 3 5258243
Email: landandriverltd@gmail.com

PROPOSED HOUSING DEVELOPMENT - 115 MAIN ROAD, HOPE

STORMWATER CONCEPT DESIGN

INTRODUCTION

Mudgway Construction Ltd propose to develop 115 Main Road Hope for residential housing using the SHA process. This report demonstrates the feasibility of stormwater management for the development.

BACKGROUND

It is proposed to develop a 47 residential lots further to the one existing residence on the property. The development includes approximately 550m of new road.

The area of the proposed development is situated on an alluvial terrace of the Waimea River. Excavations at the site have been into coarse gravel and cobbles. A site inspection showed that there were no established contemporary surface drainage features and stormwater disposal from the roofs (two houses) and hardstand (approximately 500m^2) of the existing residence is to a soakpit (2m x 2m x 1.8m deep). Anecdotal evidence has it that the soakpit works well.

It appears that this site is suitable for disposal of stormwater to ground for a residential development.

It is proposed to discharge primary stormwater from roofs to soak pits within each lot. Stormwater from individual property driveways and road could be discharged to a soak pit within the roadway formed as a continuous backfilled trench along the roadway. Soak pits could either be backfilled with clean cobbles or a plastic soak pit structure (*e.g.* Humes' "ChamberMaxx"). Detention tanks are an alternative option to soak pits for roof water or a combination of detention tanks and soak pits.

In consideration of the desirability of minimising movement of silt from road surfaces to the soak pit, stormwater from the driveways and roads could be discharged to the soak pits either through kerb side sumps and suitable silt traps or through kerb cut outs, and over a suitable length of berm formed as grassed swale to sumps in the swale.

PRIMARY STORMWATER

ROOF WATER

Soak pit

Using the NZ Building Code Clause E1 Surface Water S9 procedure to size a soak pit:

Assuming:

- design infiltration rate is 0.030 m/min (Appendix I),
- design rainfall is 1 hour 5% AEP from TDC Engineering Standards 2013 = 43mm/hr,
- typical roof area is 200m^2,
- soakpit 2m long x 2.0m wide x 1.0m deep filled with cobbles with void ratio 50%

$R_c = V_{stor} + V_{soak}$

and $R_c = 10 * c * I * A$, where:

c = 0.9 - for steel roof (from TDC Engineering Standards 2013, Table 7-4)

I = 43mm/hr (1 hour 5% AEP rainfall as NZ Building Code Clause E1 Surface Water S9 procedure).

A = 200m^2, = 0.02 ha Roof area

gives R_c = 7.7m^3

V_{stor} = volume x void ratio
= 2.0 x 2.0 x 1.0 deep x 50% = 1.0m^3 ,

V_{soak} = area x design infiltration rate
= 2.0 x 2.0 x 0.030 x 60 = 7.2m^3,

and $V_{stor} + V_{soak}$ = 1.0 + 7.2 = 8.2m^3 as $V_{stor} + V_{soak}$ is greater than R_c soakpit OK

Assuming a 1.5m setback from a boundary and a 2m setback from a house, then a clear area 5.5m wide by 5.5m long is required for each soak pit.

Detention tank option

From TDC Engineering Standards 2013 DWG 725, minimum detention tank volume required = 28 x roof area = 28 x 200m^2 = 5.6m^3 .

Any storage of rain water for use would have to be additional to the 5.6m^3 .

DRIVEWAY AND ROAD STORMWATER

Using the NZ Building Code Clause E1 Surface Water S9 procedure to size a soak pit:

Assuming:

- design infiltration rate is 0.015 m/min (Appendix I),
- stormwater from driveway (average of 100m^2) runs down to adjacent roadway,
- carriageway and driveway stormwater is discharged to a continuous 1m wide by 1m deep soakpit in the roadway,
- typical lot road frontage is 17.5m,
- for a typical main carriageway width of 10m with two 1.5m footpaths

$R_c = V_{stor} + V_{soak}$

and $R_c = 10 * c * I * A$, where:

c = 0.85 - for roadway (from TDC Engineering Standards 2013 Table 7-4)

I = 43 mm/hr (1 hour 5% AEP rainfall as NZ Building Code Clause E1 Surface Water S9 procedure).

A = 100/17.5 + (10 + 2x 1.5) = 18.7m^2 = 0.0019ha / metre of roadway

gives R_c = 0.69 m^3

for a 1m wide x 1m deep x 1m long soakpit

V_{stor} = volume x void ratio
= 1.0 x 1.0 x 1.0 deep x 50% = 0.50 m^3 ,

V_{soak} = area x design infiltration rate
= 1.0 x 1.0 x 0.015 x 60 = 0.9m^3,

and $V_{stor} + V_{soak}$ = 0.50 + 0.9 = 1.4m^3 as $V_{stor} + V_{soak}$ is greater than R_c soakpit OK

SECONDARY STORMATER

There are no available records of surface flooding at this site. TDC hold a plan of flooding arising from the June 2003 storm and it shows that there was no flooding at this site.

There is a very slight grade towards the northern corner of the site. Under existing conditions, any storm water flowing across the site would arrive at the S.H. 6 berm at the northern corner of 115 Main Road Hope. Post-development, the roadways would provide secondary flow paths for stormwater entering the property from the south west (White Road) or south east boundaries and for any stormwater in excess of what the primary system would handle and conduct the stormwater to the northern corner where the right of way and the walkway (as shown on the Concept Plan) would provide for the secondary flow to discharge to the S.H. 6 berm where it would flow in the predevelopment condition. The proposed development would thus not result in a significant increase in stormwater arriving at S.H. 6.

1% AEP SECURITY

To comply with TDC's "Inundation Practice Note" which requires a 0.5m minimum freeboard for building site level above 1% AEP level, minimum building site levels would need to be 0.5m above adjacent kerb level.

CONCLUSION

That there are practical options for managing stormwater for the proposed development.

RECOMENDATIONS

That ground water levels be monitored to identify maximum winter time level.

RICHARD STOCKER

ENGINEER
LAND & RIVER LTD

APPENDIX I

SOAK TEST AND DESIGN INFILTRATION RATE

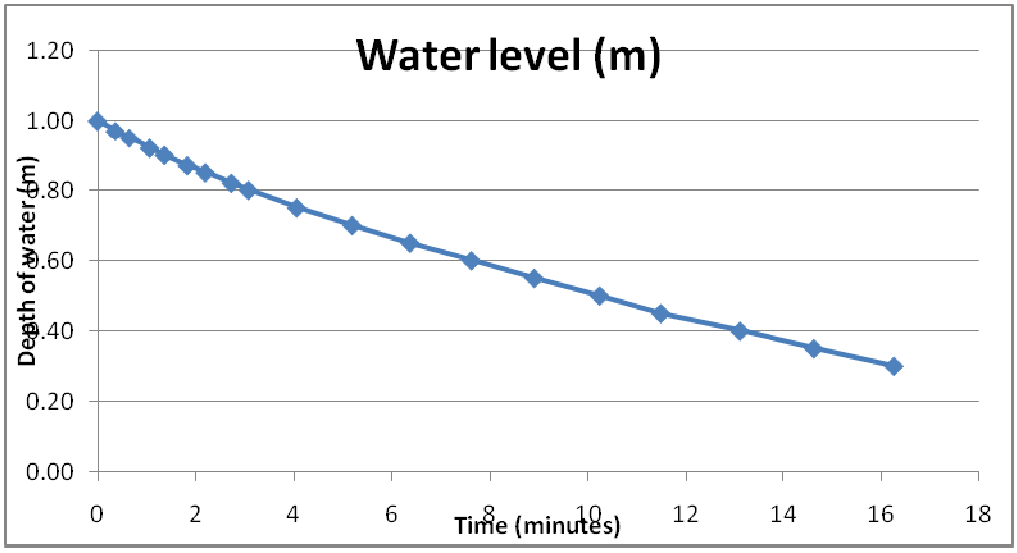
Soak pit sites

Mudgway Construction Ltd,
115 Main Road, Hope

Infiltration Test 25/3/2019

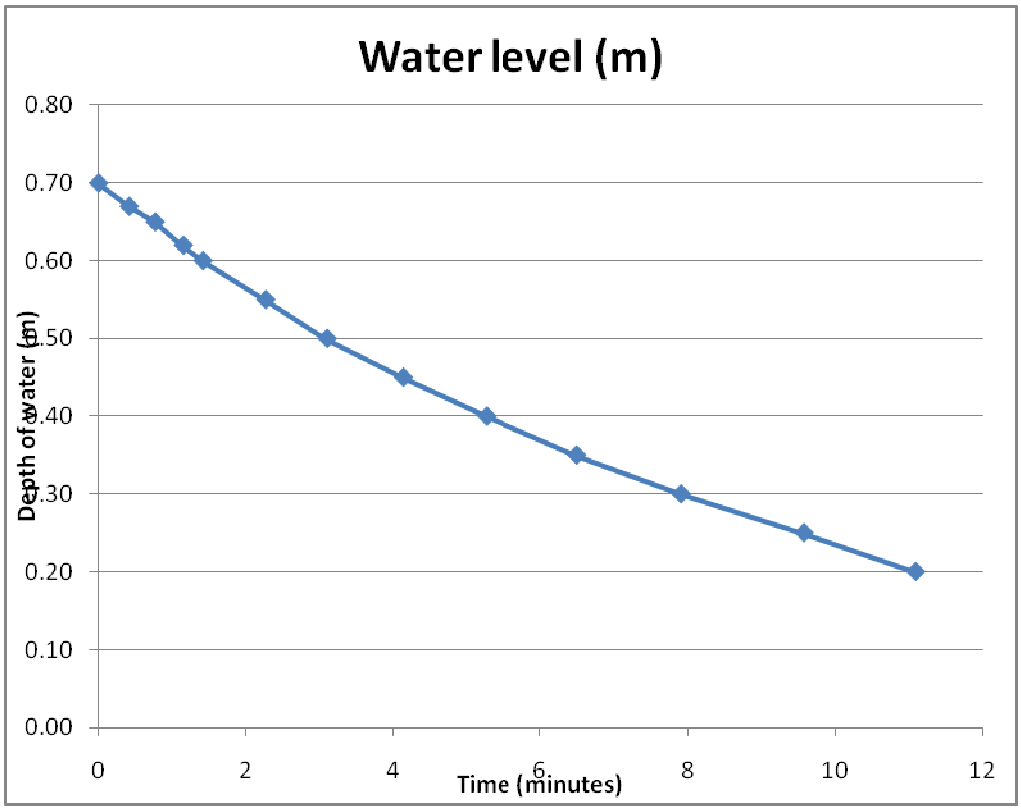
Hole 1

Start fill	1.20pm	Finish fill	Finish fill	1.30pm
Time (m:s)		Staff gauge depth (m)		
0	0	1.00		
0	22	0.97		
0	39	0.95		
1	4	0.92		
1	22	0.90		
1	50	0.87		
2	12	0.85		
2	44	0.82		
3	5	0.80		
4	4	0.75		
5	12	0.70		
6	23	0.65		
7	38	0.60		
8	55	0.55		
10	15	0.50		
11	30	0.45		
13	7	0.40		
14	39	0.35		
16	17	0.30		



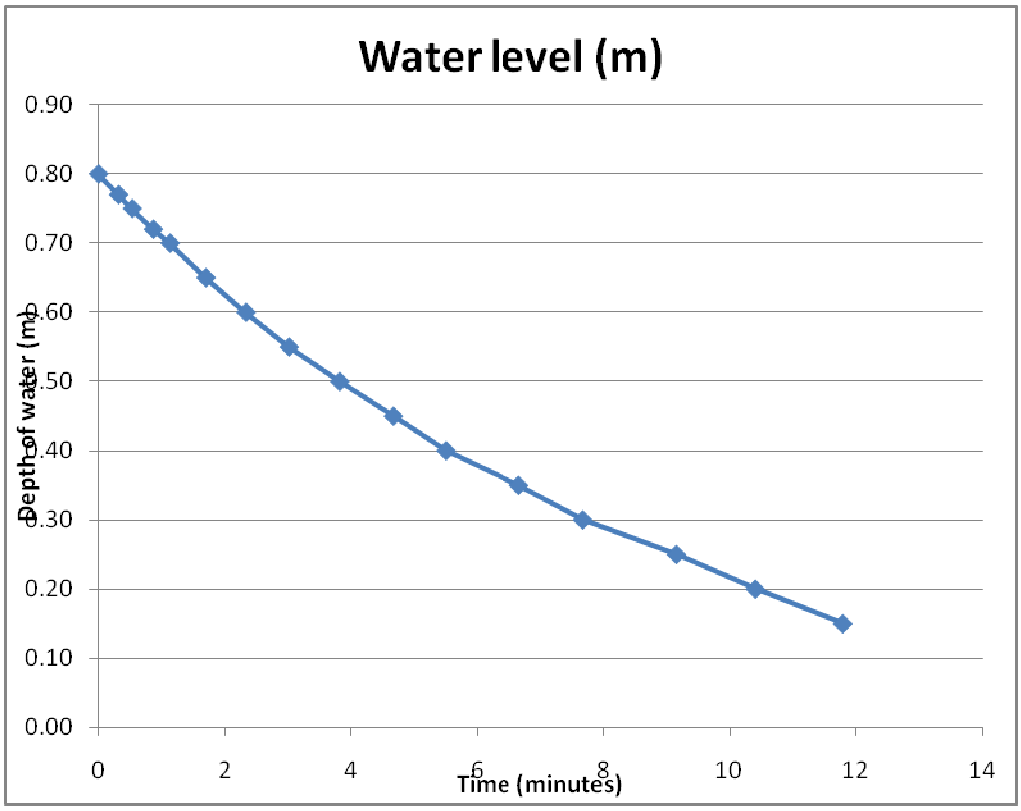
gives infiltration rate (0.8 - 0.4) / (16.2 - 3.08) = 0.030m/minute

Hole		2		
Start fill	2.31pm	Finish fill	Finish fill	2.44pm
Time (m:s)		Staff gauge depth (m)		
0	0	0.70		
0	25	0.67		
0	46	0.65		
1	9	0.62		
1	25	0.60		
2	16	0.55		
3	6	0.50		
4	8	0.45		
5	16	0.40		
6	30	0.35		
7	55	0.30		
9	35	0.25		
11	6	0.20		



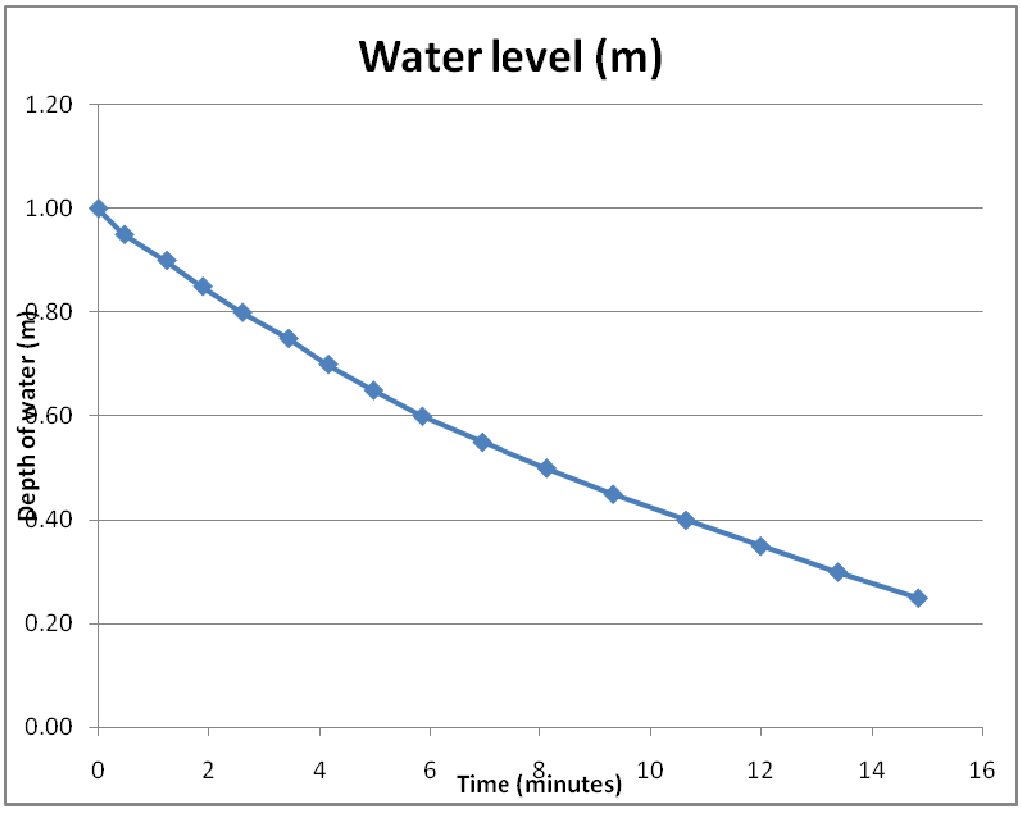
gives infiltration rate (0.45 - 0.2) / (11.1 - 4.1) = 0.036m/minute

Hole		3		
Start fill	3.33pm	Finish fill	Finish fill	3.40pm
Time (m:s)		Staff gauge depth (m)		
0	0	0.80		
0	19	0.77		
0	32	0.75		
0	52	0.72		
1	8	0.70		
1	42	0.65		
2	20	0.60		
3	1	0.55		
3	49	0.50		
4	40	0.45		
5	30	0.40		
6	40	0.35		
7	41	0.30		
9	10	0.25		
10	25	0.20		
11	48	0.15		



gives infiltration rate (0.6-0.15) / (11.8-2.3) = 0.047m/minute

Hole		4		
Start fill	4.34pm	Finish fill	Finish fill	4.46pm
Time (m:s)		Staff gauge depth (m)		
0	0	1.00		
0	28	0.95		
1	14	0.90		
1	53	0.85		
2	36	0.80		
3	26	0.75		
4	9	0.70		
4	58	0.65		
5	51	0.60		
6	56	0.55		
8	7	0.50		
9	19	0.45		
10	38	0.40		
11	59	0.35		
13	23	0.30		
14	50	0.25		



gives infiltration rate (0.6-0.25) / (14.8-5.85) = 0.039m/minute

When these tests were done, ground water level was approximately 6m below the surface in the bore at 111 Main Road Hope. The ground water level was not influencing infiltration rate during the test. No historic applicable winter ground water levels could be located to assess the possibility of high ground water levels limiting the infiltration rate. However it is noted that when the house on the property was built, the steel portal footings were dug down 1.8m in June 2016 and did not encounter ground water (see Producer Statement for BC161132 21/11/2016 page 38). It is recommended that the winter ground water level be monitored in the bore at 111 Main Road Hope to provide a better indication of maximum ground water levels.

For soak pits receiving roof water only a design infiltration rate equal to the lowest infiltration rate measured is appropriate *i.e*. 0.030 m/min. For soak pits receiving stormwater from hardstand and carriageway a design infiltration rate of 50% of the measured rate is appropriate *i.e*. 0.015 m/min which would allow for considerable deterioration in performance due to sealing with fine material carried into the soak pits with the stormwater.

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Tasman District
M +64 (0) 21 243 1233
E+gary.clark@trafficconcepts.co.nz

6 March 2019 Ref: 0662

Jason Mudgeway
115 Main Road Hope
Hope
Richmond 7020

Dear Jason

Mudgeway Development – 115 Main Road Hope – Hope - Tasman
SHA Report

Following on from our discussions and my site visit, I have now completed my consideration of the high-level traffic implications of a proposed subdivision of 115 Main Road Hope in Tasman. This assessment considers the traffic generation of the proposed subdivision along with other traffic matters to determine potential effects and gaps in the adjacent road infrastructure.

1. Site Location and Description

The site is located at 115 Main Road Hope in Tasman which is near the corner of Main Road Hope and White Road.

Figure 1 shows the wider road network as represented in the Tasman Resource Management Plan (TRMP).

Figure 1: Road Hierarchy (Source: Tasman Resource Management Plan)

Main Road Hope is also State Highway 6 and provides a strategic road link for the South Island. The highway provides a link between Brightwater and Richmond and beyond to Nelson. Main Road Hope is listed as an Arterial Road in the TRMP.

White Road is listed as an access road in the TRMP and provides a connection between SH6 and Paton Road.

Paton Road is listed as a Distributor Road in the TRMP and provides a north south link that runs parallel with State Highway 6 which connects to Oxford Street in the north and Clover Road East in the south. Oxford Street and Clover Road East connect back to State Highway 6.

The intersection of Oxford Street and State Highway 6 is controlled by traffic signals. The intersection of Clover Road East and State Highway 6 has recently been recently upgraded and now includes a right turn bay.

Figure 2 shows the site location and the adjacent road network.

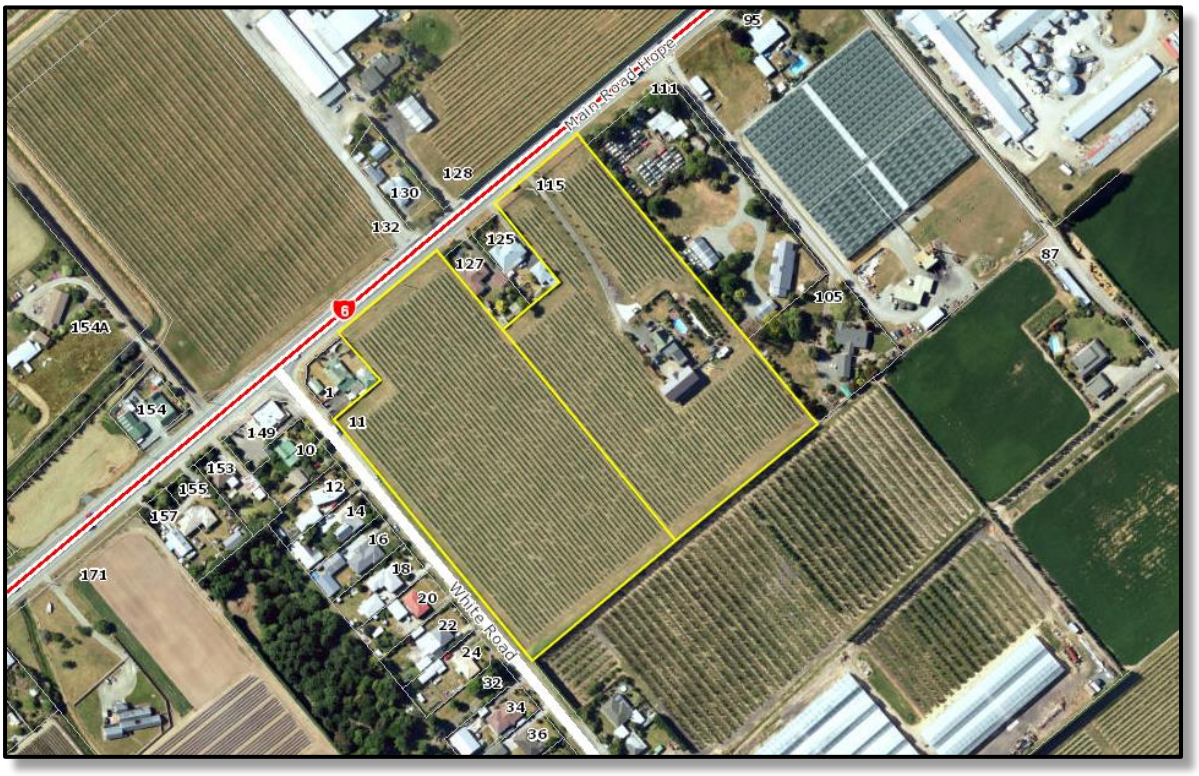


Figure 2: Site Location and adjacent road network (Source: Top of the South Maps)

As shown the site (contained within yellow boxes) is located on the on the fringe of the urban area of Richmond in Tasman District with access to State Highway 6. The land is currently used for wine production and has a large residential building located on the northern boundary of the site.

The land has its main access to State Highway 6 and a farm access on to White Road.

2. Road Environment

State Highway 6 (SH6) has a sealed carriageway of around 12 metres with two 3.5 metre wide traffic lanes separated by a two metre wide flush median along the frontage of the site. There is a two metres wide sealed shoulder along the front of the site.

There are no footpaths along SH6 in front of the site and no kerb and channel. The posted speed limit is 70 km/h. The operating speed (85th percentile) along Main Road Hope adjacent to the site has been measured at 71 km/h heading towards Brightwater and 69 km/h heading towards Richmond.

White Road is on the southern side of the development site. White Road has a sealed carriageway of around six metres and is marked with a dashed centreline. There are no footpaths along the road and no kerb and channel along the frontage of the site. There is a kerb and channel along the opposite side of the road from the development site.

Figure 3 shows the road environment along White Road.

Figure 3: White Road looking east towards Paton Road

As shown the road appears to have a rural edge along the north side and an urban edge on the southern side of White Road. There is a speed limit change that can be seen in the photograph. To the east of the sign, the speed limit is 60 km/h and to the west it is 70 km/h.

The intersection of SH6 and White Road is a tee junction with White Road controlled by give way signs. There is a right turn bay on SH6 which provides a safe waiting area for right turning vehicles to wait clear of the through traffic lane.

Figure 4 shows the drivers view looking to the north along Main Road Hope from White Road.

Figure 4: Main Road Hope looking towards Richmond from White Road

As shows there is excellent visibility to the north towards Richmond. There is a narrow left-turn slip lane for traffic entering White Road. There are no footpaths along the road and broken lines have been painted to ensure the visibility is maintained.

Figure 5 shows the drivers view looking along Main Road Hope to the south and Brightwater from White Road.

Figure 5: Main Road Hope looking south from White Road

As with the view to the north the sight distances are excellent. The right turn bay on SH6 can be seen in the photograph.

3. Road Safety

A detailed search of the NZTA crash database has been undertaken for the five-year period from 2014 to 2018 and the part year of 2019.

Figure 6 shows the study area for the crash analysis for the period noted above.

Figure 6: Road Hierarchy (Source: Tasman Resource Management Plan)

There were two number of reported crashes within the selected study area.

There was a crash reported in 2017 were a car southbound lost control when turning right and ended up in the ditch. This crash was reported at the intersection of Paton Road and White Road and it occurred at 9pm and April. The driver of this car was showing off and doing wheel spins

The second reported crash occurred in 2014. The crash occurred at 250 metres east of SH6 on White Road. The driver of a car heading west on White Road hit a parked vehicle. The driver of the vehicle misjudged the speed of their vehicle. This crash occurred at 7:15 AM in December.

The reported crash history shows that there are no inherent safety deficiencies of the road network in the vicinity of the development site.

4. Proposed Development

It is proposed to develop the existing flat land to provide 47 new residential lots under the special housing areas legislation.

Figure 7 provides in indicative layout of the proposed subdivision.

Figure 7: Proposed Development (Source: Davis Ogilve PN38546)

As shown, the access to the proposed SHA is from White Road with no vehicle access on to SH6. There is a six metre wide walkway linking the development to SH6. The access to the development site is around 180 metres from the intersection of is SH6 and White Road. The existing accesses onto Main Road Hope will be removed.

5. SHA Considerations

The impacts of the proposed development on the transport infrastructure have been considered. The proposed development will see the construction of a comprehensive subdivision well located on the fringe of the Richmond Township. There are excellent connections to the wider road from SH6 and Paton Rod. There at number of traffic matters that need to be considered as part of the proposed development which are set out below.

5.1. Traffic generation and distribution

The proposed development will see the construction of 47 new residential lots with a connection to White Road around 180 metres from SH6.

The 47 lots are expected to generate between six and ten vehicle movements per day with an average of around eight. This will equate to around 380 vehicle movements per day or some 40 movements per hour at peak times. All of the vehicle movements will use the new road connection to White Road.

In terms of trip distribution, it is expected that around 90% of the new vehicle movements will use the intersection ofSH6 and White Road. The remaining 10 percent are expected to travel towards the east and Paton Road. This equates to 36 vehicles heading west towards is SH6 and around four vehicles heading east towards Paton Road.

5.2. Network Capacity

The proposed development is expected to generate around 40 trips in the peak our with 36 movements toward SH6 and four movements towards Paton Road. The distribution of those new trips is expected to be around 80 % of movements leaving the development in the morning with the remaining 20 % entering the subdivision. The evening traffic flows will be reversed with 80 % of the movements coming into the new subdivision.

This would equate to around 29 vehicles heading towards the intersection of White Road and SH6 and around three vehicles heading towards Paton Road in the morning peak. The reserve would occur the evening. It should be noted that there may be more vehicles that decide to use Paton Road to travel to Richmond as this will be seen as quicker as there are no traffic signals for this route. For the purpose of this assessment we have used the general rule of thumb being 80/20 for the morning and evening peak period distribution.

At the intersection of SH6 and White Road there will be further split of the vehicle movements to the north and south. This split is expected to be around 90 % towards Richmond and the north and 10 % to the south and Brightwater. This leads to around 26 turning right, in the peak hour, or around one vehicle every two minutes.

The low number of traffic movements is expected to have no impact on the operation of the SH6 and White Road intersection and can be absorbed by the existing intersection.

5.3. Site Access and Internal Roading

The access to the site will be constructed around 180 metres east of the intersection of SH6 and White Road. The roads within the development and out on to White Road will be vested as roads to the council.

The new intersection on to White Road will be able to meet all the required separation distances, sight distances and other Council's Engineering standards.

The internal roading is able to meet all of the Tasman Resource Management Plan and the Engineering Standards.

It should be noted that the subdivision will also provide the opportunity for some of the existing accesses on SH6 to be removed relocated to the internal roads.

6. Conclusion

The expected number of vehicle movements from the proposed SHA area are relatively low and the number of total movements on White Road will remain relatively low. The increase in movements on the surrounding road network can be readily accommodated.

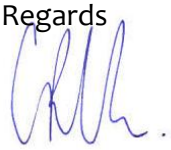
The intersection of SH6 and White Road is well designed with a right turn bay and excellent sight distances.

The roading infrastructure is currently operating safely and the increase in vehicle movements from the site is not expected to change the current levels of safely experienced by other road users.

The proposed SHA is designed to provide an environment to meet the needs of its intended residents.

We happy to provide any further clarification if required.

Regards



Gary Clark

Director

NZCE (Civil), REA, MIPENZ, CPEng

29 March 2019

Tasman District Council
189 Queen Street
Private Bag 4
RICHMOND 7050

To whom it may concern,

Special Housing Area under HASHA – Expression of Interest

115 Main Road Hope, Hope, Richmond 7020

A J & J K Mudgway and R J & E J Simpson own the land at 115 Main Road Hope, Hope, Richmond being 3.6719- hectares described within NL8C/1310 as PART SECTION 15 WAIMEA EAST DISTRICT BLO CK VI WAIMEA S D - currently zoned Rural 1.

We consider the subdivision and development of this site would benefit from becoming a Special Housing Area under HASHA. We therefore, formally request SHA approval and appreciate the opportunity to present the proposal at the next TDC Environment and Planning Committee meeting on 18th April 2019.

Applicant: A J & J K Mudgway

Site: 115 Main Road Hope, Hope, Richmond 7020

This proposed Hope SHA will be *'predominately residential',* that is*, to 'supply dwellings'* as required by Section 14 of the Housing Accords and Special Housing Areas Act 2013.

The following qualifying development criteria are requested:

Maximum Building Height:	7.5 metres
Minimum Number of Dwellings/Units:	40
Maximum Number of Stories:	1
Percentage of Affordable Dwellings:	100%

Please don't hesitate to contact the writers, if you have any further queries.

Yours faithfully

Jason and Ange Mudgway
115 Main Road Hope
Hope
RICHMOND 7020
M 0274 847 227 – Jason
E build@mudgway.com