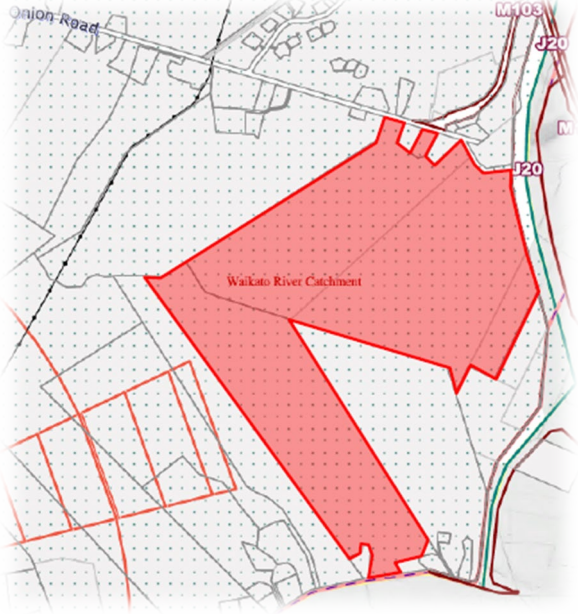


# RMA s32AA Evaluation: Submission 832.1 and 832.4 Hounsell Holdings Ltd

**Table 1: Rezoning Proposal**

The specific provisions sought to be amended	Assessment of the efficiency and effectiveness of the provisions in achieving the objectives of the Proposed Waikato District Plan (PDP)
<p><b>The rezoning proposal</b></p>	<p>The rezoning proposals are to:</p> <ul style="list-style-type: none"> <li>• Amend the zoning of the property at 268 Te Kowhai Road, Te Kowhai from Rural Zone to Residential Zone; AND Amend the Proposed District Plan to make any consequential amendments as necessary to address the matters raised in the submission. (Submission 832.1)</li> <li>• Amend the zoning of the property at 284 Onion Road, Te Kowhai from Rural Zone to Residential Zone; AND Amend the Proposed District Plan to make any consequential amendments as necessary to address the matters raised in the submission. (Submission 832.4)</li> </ul> <p>The extent of these two areas are shown in red on the plan extract below, as included in the submission:</p> 

	<p>The subject land comprises approximately 142 hectares and is generally located in the Te Kowhai area south of Horotiu and borders the State Highway.</p> <p>Directly to the south of the land is the Rotokauri Growth Cell including residential, and business land and the Te Rapa Industrial Area, within Hamilton City. Development of the adjacent land was approved via Special Housing Area in 2018 (133 ha).</p> <p>2km to the north is the Horotiu settlement and its rural hinterland. A submission (Submission 790.2) has been made to extend the industrial zone. This will come within 650m of the subject land.</p> <p>4km to the west is the Te Kowhai Settlement</p> <p>The residential zoning will support at least 2,000 dwellings at conventional density as set out in the submission, and 2,500 to 5,000 dwellings at foreseeable target densities.</p>	
<p><b>Relevant objectives of the PDP</b></p>	<p><b>Objective</b></p>	
	<p>1.12.8 Strategic objectives</p>	<p>The matters set out in paragraphs 4.1.1 – 4.1.7 provide the overarching directions for the development of the objectives, policies and other provisions within the district plan.</p> <p>In summary, the overarching directions include the following:</p> <ul style="list-style-type: none"> <li>i. Urban development takes place within areas identified for the purpose in a manner which utilises land and infrastructure most efficiently.</li> <li>ii. Promote safe, compact sustainable, good quality urban environments that respond positively to their local context.</li> <li>iii. Focus urban growth in existing urban communities that have capacity for expansion.</li> <li>iv. Plan for mixed-use development in suitable locations.</li> <li>v. Encourage community collaboration in urban growth decisions.</li> <li>vi. Protect and enhance green open space, outstanding landscapes and areas of cultural, ecological, historic, and environmental significance.</li> </ul>
	<p>2.12 Objective -Whakapapa (connection to nature)</p>	<p>a) Relationships with ancestral lands, water, sites, waahi tapu and other taonga are protected and enhanced.</p>
<p>4.1.1 Objective – Strategic</p>	<p>(a) Livable, thriving and connected communities that are sustainable, efficient and coordinated.</p>	

	(b) National Policy Statement on The minimum targets for sufficient, feasible development capacity for housing in the Waikato District area are met, in accordance with the requirements of the National Policy Statement on Urban Development Capacity 2016.
4.1.2 Objective – Urban growth and development	a) Future settlement pattern is consolidated in and around existing towns and villages in the district.
4.1.7 Objective – Character of towns	Development in the Residential, Village, Industrial and Business zones is attractive, connected and reflects the existing character of towns.
5.1.1 Objective – The rural environment	Objective 5.1.1 is the strategic objective for the rural environment and has primacy over all other objectives in Chapter 5.  (a) Subdivision, use and development within the rural environment where:  (i) high class soils are protected for productive rural activities;  (ii) productive rural activities are supported, while maintaining or enhancing the rural environment;  (iii) urban subdivision, use and development in the rural environment is avoided.
5.2 Productive Versatility of Rural Resources	5.2.1 Objective - Rural resources  (a) Maintain or enhance the:  (i) Inherent life-supporting capacity and versatility of soils, in particular high class soils;  (ii) The health and wellbeing of rural land and natural ecosystems;  (iii) The quality of surface fresh water and ground water, including their catchments and connections;  (iv) Life-supporting and intrinsic natural characteristics of water bodies and coastal waters and the catchments between them.
6.1.1 Objective – Development, operation and maintenance of infrastructure	Infrastructure is to benefit the social, economic, cultural and environmental well-being of the district.
6.1.6 Objective – Reverse sensitivity	Infrastructure is protected from reverse sensitivity effects, and infrastructure (including the National Grid) is not compromised.

	6.1.8 Objective – Infrastructure in the community and identified areas	Infrastructure takes into account the qualities and characteristics of surrounding environments and community well-being.
	0.2.1 Objective – Contaminated land	The subdivision, use and development of contaminated land is managed to protect human health and the environment.
	Objective 15.2.1 - Resilience to natural hazard risk	<p>Stage 2 Content</p> <p>A resilient community where the risks from natural hazards on people, property, infrastructure and the environment from subdivision, use and development of land are avoided or appropriately mitigated.</p>
<b>Scale and significance of the rezoning proposal</b>	<p>The rezoning proposal is of large scale with at least 2,400 residential dwellings able to be provided at a target density of 20 lots/ha within the subject area comprising 142ha.</p> <p>The rezoning is regionally significant as it provides an important contribution to long term land supply for housing.</p> <p>The site is not currently identified as a future development area in the Future Proof Settlement Pattern for Hamilton City or Waikato 2070 and sits outside the current RPS urban limits. However, the site is within the Northern Corridor of Hamilton City as outlined by Future Proof, Hamilton-Waikato Metropolitan Spatial Plan (MPS).</p> <p>The rezoning will change the outcomes/character/amenity currently anticipated for the subject area.</p> <p>The effects of the rezoning on resources that are a matter of national importance under Section 6 of the RMA are likely to be limited as the area is not within the coastal environment, lacks areas of significant landscape and ecological value, has no rivers or lakes or known heritage values or customary rights areas. The land is not subject to any proposed natural hazard areas under the Stage 2 PDP.</p> <p>In regard to the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, the proposed rezoning creates the potential for environmental and cultural enhancement of downstream waterways and the potential to reestablish cultural identity in the area through place recognition and naming, and urban design.</p> <p>The development of the land requires the provision of wastewater, water supply and stormwater. Wastewater and water supply can be supplied from Hamilton City. Stormwater effects can be managed on the site applying the principles and approaches consistent with the Mangaheka Integrated Catchment Management Plan.</p> <p>The rezoning will change the anticipated future rural productive uses planned for in the subject area.</p> <p>While the level of investigation and design is currently at a preliminary level, it is important that this area is not overlooked for the potential capacity that it offers and positive urban environmental qualities.</p>	

Other reasonably practicable options to achieve the objectives (alternative options)	Option		Description
	1	Residential	In accordance with this submission.
	2	Residential with Structure Plan.	Rezone the subject area “Residential” with provisions that would make development non-complying until completion of a Structure Plan supported by geotechnical assessment, cross boundary servicing agreements being in place, and gaining appropriate stormwater discharge consents. This option is within the scope of the submission, being a lesser scope.
	3	Rural with Hamilton Urban Expansion Area overlay	Apply Hamilton Urban Expansion Area overlay and related provisions. Rezoning to Residential or other urban zoning would be subject to consideration of most appropriate zoning including other land in the Northern Growth corridor, completion of a Structure Plan, cross boundary Development Agreements and/or local government boundary changes, and gaining appropriate stormwater discharge consents based on an amended ICMP. This option is within the scope of the submission, being a lesser scope.
	4	Rural	Retain current Rural zoning.

**Table 2: Benefits and Costs Analysis of the Rezoning Proposal**

<b>Option 1 - Residential</b>		
	Benefits	Costs
<b>General</b>	<p>Rezoning will enable development that will build on existing growth patterns, achieving a more compact and concentrated urban form over time.</p> <p>The site is near to existing or planned infrastructure, including strategic road connections into the Te Rapa Metropolitan Centre, and proximity to planned rail transit that can service the development.</p> <p>It is likely that SH39 and SH1 and the associated Burbush Road roundabout interchange would be able to accommodate a significant proportion of this traffic as these routes were upgraded as part of the Waikato expressway delivery and will have been designed and sized to accommodate a degree of future traffic growth.</p> <p>Mathers Road and Onion Road would need some upgrading to accommodate the likely volume of traffic. Both are currently low volume local roads and carrying significant volumes of traffic has not previously been envisaged for them.</p> <p>At least two points of connection to the existing road network would be needed, not only from a capacity perspective but also to ensure that there is suitable network resilience, locally and within the wider Hamilton surrounds.</p> <p>Further consideration of relevant traffic and transport issues is set out in the desktop review in Appendix 1.</p> <p>The extent of development on site will need to be linked to access provision through Structure Planning and staging rules governing any new zone covering the site. This will address other mitigating infrastructure needed, and at what point it must be provided, to support development of the scale envisaged.</p>	<p>With the level of investigation and design currently at a preliminary level, uncertainties remain on the provision of three waters services and transport infrastructure, and geotechnical suitability of the land.</p> <p>The submission scope does not encompass all of the land that could be used for urban development, creating some risk of poor integration should other land be rezoned in the future.</p>
<b>Environmental</b>	<p>The land lacks significant topographical constraints and has no identified significant ecological or landscape values.</p>	<p>Loss of productive land, albeit that the land is not high-class land.</p> <p>The area currently contains a mix of small lots and farming lots. The rural character of the area will be replaced by urban environment.</p>

		There is likely to be the presence of indigenous fish species in the drainage network within the land. Modification of the land will affect this habitat which will require mitigation within on site, or through offsetting habitat restoration at other locations.
<b>Social</b>	The land is well located with good access to community infrastructure and schooling.	Rural community linkages will be displaced for some, but this is a minor issue. The area is in the peri urban area where urban social networks are likely to predominate.
<b>Economic - General</b>	The additional provision of land for residential development will increase overall housing supply and increase housing affordability.	None identified.
<b>Economic Growth</b>	The subject land is located within minutes of current and future employment areas at Te Rapa Spine and Horotiu Freight Hub.	None identified
<b>Employment</b>	Development will create additional employment in land development and housing, as will any local service activities and home-based businesses operating within the development area.	None identified.
<b>Cultural</b>	The proposed rezoning creates the potential for environmental and cultural enhancement of downstream waterways and the potential to reestablish cultural identity in the area through place recognition and naming, and urban design.	None identified.

<b><i>Option 2 - Residential with Structure Plan.</i></b>		
	Benefits	Costs
<b>General</b>	As for Option 1 Option 2 addresses the risk that development of the subject land would be hampered by the inability to provide infrastructural services in an integrated manner and would confirm the suitability of land.	Some risk remains of poor integration of land use and infrastructure should other adjoining land be rezoned in the future.
<b>Environmental</b>	As for Option 1	As for Option 1
<b>Social</b>	As for Option 1	As for Option 1
<b>Economic - General</b>	As for Option 1	As for Option 1

<b>Economic Growth</b>	As for Option 1	As for Option 1
<b>Employment</b>	As for Option 1	As for Option 1
<b>Cultural</b>	As for Option 1	As for Option 1

<b>Option 3 – Rural with Hamilton Urban Expansion Area overlay</b>		
	Benefits	Costs
<b>General</b>	Option 3 minimises the risk that development of the subject land would be hampered by the inability to provide infrastructural services in an integrated manner and would confirm the suitability of land. Option 3 also offers the potential to consider all the land that could be used for urban development in the Northern Corridor locale, avoiding the risk of poorly integrated management.	Costs of option 1 are mitigated.
<b>Environmental</b>	As for Option 1	As for Option 1
<b>Social</b>	As for Option 1	As for Option 1
<b>Economic - General</b>	As for Option 1	As for Option 1
<b>Economic Growth</b>	As for Option 1	As for Option 1
<b>Employment</b>	As for Option 1	As for Option 1
<b>Cultural</b>	As for Option 1	As for Option 1

<b>Option 4 - Rural</b>		
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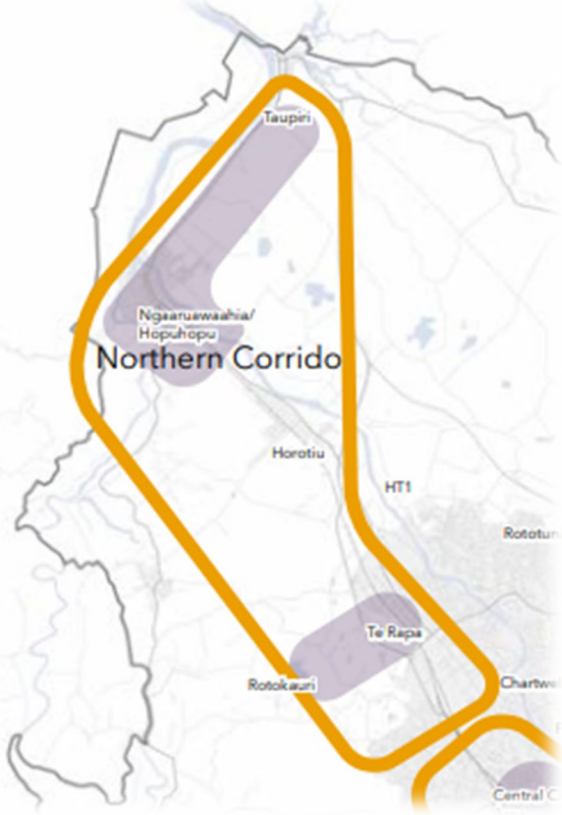


	Benefits	Costs
<b>General</b>	The anticipated future rural development planned for in the subject area will occur.	The potential of the land to contribute to meeting future capacity needs will be put at risk if the land is not identified and protected from fragmentation and inappropriate development. The land will not be factored into capacity assessments and strategic decision on infrastructure.
<b>Environmental</b>	No loss of productive land, albeit that the land is not high-class land. Rural character will be retained. Environmental enhancement within the Mangaheka Catchment can occur within the Drainage District supported by targeted rates.	Opportunities for enhancements driven by urban growth capital foregone.
<b>Social</b>	No change.	No change.
<b>Economic - General</b>	No change.	No change.
<b>Economic Growth</b>	No change.	No change.
<b>Employment</b>	No change	No change
<b>Cultural</b>	No change	No change

**Table 3: Evaluation of the proposal**

<b>Reasons for the selection of the preferred option.</b>	The application of the Hamilton Urban Area Expansion Overlay is the preferred option as this offers the benefits of: <ul style="list-style-type: none"> <li>Identifying the land as an appropriate area for long term urban development;</li> <li>Protecting the land from fragmentation and inappropriate interim development;</li> <li>Ensuring that the development of the land is appropriately planned and serviced giving certainty for development at an appropriate time.</li> </ul>	
<b>Extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the RMA.</b>	<b>Objective</b>	<b>Evaluation</b>
	1.12.8 Strategic objectives	The matters set out in paragraphs 4.1.1 – 4.1.7 provide the overarching directions for the development of the objectives, policies and other provisions  In summary, the proposed rezoning will give effect to the overarching direction by the following: <ul style="list-style-type: none"> <li>Rezoning will identify the area principally for urban residential</li> </ul>

		<p>within the district plan.</p> <p>In summary, the overarching directions include the following:</p> <ul style="list-style-type: none"> <li>vii. Urban development takes place within areas identified for the purpose in a manner which utilises land and infrastructure most efficiently.</li> <li>viii. Promote safe, compact sustainable, good quality urban environments that respond positively to their local context.</li> <li>ix. Focus urban growth in existing urban communities that have capacity for expansion.</li> <li>x. Plan for mixed-use development in suitable locations.</li> <li>xi. Encourage community collaboration in urban growth decisions.</li> <li>xii. Protect and enhance green open space, outstanding landscapes and areas of cultural, ecological, historic, and environmental significance.</li> </ul>	<p>development, which will be appropriately serviced.</p> <ul style="list-style-type: none"> <li>ii. A safe, compact sustainable, good quality urban environments will be provided.</li> <li>iii. The rezoning focusses on expansion on Hamilton City that has capacity for expansion.</li> <li>iv. Mixed use development can be provided at suitable locations.</li> <li>v. Community collaboration at regional scale has identified the general area as a growth corridor. The District Plan provides a local context for giving effect to this direction.</li> <li>vi. There are no outstanding landscapes and areas of cultural, ecological, historic, and environmental significance located in the subject area. Green open space networks will be provided through a structure plan.</li> </ul>
	<p>2.12 Objective - Whakapapa (connection to nature)</p>	<p>a) Relationships with ancestral lands, water, sites, waahi tapu and other taonga are protected and enhanced</p>	<p>There are no known sites of significance within the land.</p> <p>Future development will provide opportunities to reestablish cultural identity including through the recognising and naming of places and supporting ecological and cultural enhancement of waterways within the Mangaheka catchment consistent with the Waikato River Vision and Strategy.</p>

	<p>4.1.1 Objective – Strategic</p>	<p>(a) Livable, thriving and connected communities that are sustainable, efficient and coordinated.</p> <p>(b) National Policy Statement on</p> <p>The minimum targets for sufficient, feasible development capacity for housing in the Waikato District area are met, in accordance with the requirements of the National Policy Statement on Urban Development Capacity 2016.</p>	<p>Rezoning will enable development that will build on existing growth patterns, achieving a more compact and concentrated urban form over time.</p> <p>This potential of this area appears to have been overlooked in the assessment of suitable areas for urban expansion. It more strongly supports urban consolidation objectives than some other options that are being considered.</p> <p>The subject land is wholly within the Northern corridor identified in the Metropolitan Spatial Plan.</p>  <p>The land can contribute to meeting the longer-term Urban Development Capacity Minimum Targets.</p>
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		The potential of the land to contribute to meeting future capacity needs will be put at risk if the land is not identified and protected from fragmentation and inappropriate development.
4.1.2 Objective – Urban growth and development	a) Future settlement pattern is consolidated in and around existing towns and villages in the district.	<p>The land will consolidate urban development in a logical location adjacent to current growth areas, making efficient use of existing and planned infrastructure and urban services.</p> <p>This will be achieved by</p> <ul style="list-style-type: none"> <li>• Being centered on the Te Rapa Metropolitan Centre with its retail, employment, recreational, and civic functions.</li> <li>• Supporting the existing and planned multi-modal rapid and frequent transport network.</li> <li>• Being located within minutes of current and future employment areas at Te Rapa Spine and Horotiu Freight Hub.</li> <li>• Being located away from valued natural areas, environmental constraints, hazards and risks, now and in the future.</li> <li>• Providing ample space for water sensitive systems and ecological and cultural enhancement of the Mangaheka catchment.</li> </ul>
4.1.7 Objective – Character of towns	Development in the Residential, Village, Industrial and Business zones is attractive, connected and reflects the existing character of towns.	Development will be attractive and connected. The area is contiguous with a growth area where urban character is yet to be fully established.
5.1.1 Objective – The rural environment	<p>Objective 5.1.1 is the strategic objective for the rural environment and has primacy over all other objectives in Chapter 5.</p> <p>(a) Subdivision, use and development within the rural environment where:</p> <p>(i) high class soils are protected for productive rural activities;</p> <p>(ii) productive rural activities are supported, while maintaining or</p>	<p>The land does not comprise high class soils.</p> <p>Productive rural uses can continue in a well-managed transition to urban use.</p> <p>Given the location of the subject land, it is unrealistic to assume the land will remain in rural use in the long term.</p>

	enhancing the rural environment; (iii) urban subdivision, use and development in the rural environment is avoided.	
	<p>5.2 Productive Versatility of Rural Resources</p> <p>5.2.1 Objective - Rural resources</p> <p>(a) Maintain or enhance the:</p> <p>(i) Inherent life-supporting capacity and versatility of soils, in particular high class soils;</p> <p>(ii) The health and wellbeing of rural land and natural ecosystems;</p> <p>(iii) The quality of surface fresh water and ground water, including their catchments and connections;</p> <p>(iv) Life-supporting and intrinsic natural characteristics of water bodies and coastal waters and the catchments between them.</p>	<p>This is highly modified working rural environment where the natural characteristics of ecosystems have been significantly degraded.</p> <p>Well designed and managed development offers the potential to recover the health and wellbeing of natural ecosystems through restoration and enhancement of the Waikato River tributaries and gullies (Mangaheka Stream) to improve water quality and riparian ecosystems.</p>
6.1.1 Objective – Development, operation and maintenance of infrastructure	Infrastructure is to benefit the social, economic, cultural and environmental well-being of the district.	Appropriate infrastructure will be developed, operated and maintained. Infrastructure networks are located near to the site providing for efficient delivery.
6.1.6 Objective – Reverse sensitivity	Infrastructure is protected from reverse sensitivity effects, and infrastructure (including the National Grid) is not compromised.	No reverse sensitivity effects are likely. The development interface with the State Highway can be provided with setbacks, barriers and other conventional measures to mitigate noise, light and visual reverse sensitivity effects.
6.1.8 Objective – Infrastructure in the community and	Infrastructure takes into account the qualities and characteristics of surrounding environments and	Infrastructure will be provided in a manner that protects the surrounding environment and community wellbeing.

	identified areas	community well-being.	
	10.2.1 Objective – Contaminated land	The subdivision, use and development of contaminated land is managed to protect human health and the environment.	This is a technical matter that can be addressed as part of the detailed investigation at structure plan or consent stage.
	Objective 15.2.1 - Resilience to natural hazard risk	Stage 2 Content A resilient community where the risks from natural hazards on people, property, infrastructure and the environment from subdivision, use and development of land are avoided or appropriately mitigated.	The are no identified natural hazard areas. Site specific issues will be addressed through detailed assessment, including geotechnical investigation.
<b>Assessment of the risk of acting or not acting if there is uncertain information about the subject matter of the provisions.</b>	The risk of not acting is that the potential of the land to contribute to meeting future capacity needs will be put at risk if the land is not identified and protected from fragmentation and inappropriate development. The land will not be factored into capacity assessments and strategic decision on infrastructure.		
<b>Conclusion</b>	<p>The most appropriate way to achieve the purpose of the RMA is to maintain the Rural Zone with a Hamilton Urban Expansion Area overlay. This would be followed by a future rezoning at an appropriate time to Residential or other urban zoning, subject to consideration of other land in the locale, completion of a Structure Plan, geotechnical investigations, cross boundary servicing agreements, and gaining appropriate stormwater discharge consents.</p> <p>This option is within the scope of the submission, being a lesser scope than the relief sought.</p> <p>The risk of not acting is that the potential of the land to contribute to meeting future capacity needs will be put at risk if the land is not identified and protected from fragmentation and inappropriate development. The land will not be factored into capacity assessments and strategic decision on infrastructure.</p>		

**Our Ref: B18009**

3 March 2021

Mr GD Jones  
Hounsell Holdings Ltd

via email: [GD@kilroygroup.co.nz](mailto:GD@kilroygroup.co.nz)

Dear GD

### **30 Mathers Road, Horotiu**

We understand that you now have an interest in the above site and that you wish to make a submission to the Waikato District Plan review. The submission will be to request rezoning of the 140ha site to Residential, or Future Urban. The following is a desk top review of traffic and transportation matters to assist with that submission.

#### **Site Location and Surrounding Environment**

The site encompasses the land show in red on Figure 1 and includes the titles 831324, 831324 and SA/770/125:



**Figure 1: Site Location Plan**

The overall site has frontage to:

- Onion Road
- Mathers Road
- State Highway 1 (Waikato Expressway) (SH1)
- State Highway 39 (Te Kowhai Road) (SH39)

Mathers Road is a local road under the Waikato Operative District Plan (ODP) and Proposed District Plan (PDP). It is a no exit road and based on Google imagery, is assumed to operate under a 100km/hr speed limit. It has a two-way carriageway marked with a centre line but without edgelines or formed shoulders. Traffic volumes on Mathers Road would be associated with 2 properties only and are assessed as being less than 50 vehicles per day (vpd).

Onion Road is also classed as a local road under the ODP and PDP and is assessed as operating under a 100km/hr speed limit. It provides connection to Horotiu Road in the west and Ruffell Road to the southeast. It has two-way carriageway marked with a centre line and no overtaking lines in places. It has edgelines to both sides and in places, formed shoulders. These are intermittent. Onion Road provides connection to SH1, SH39 and the wider Hamilton urban area. Traffic volumes on Onion Road are assessed as being around 500vpd - 650vpd.

The function of both Mathers Road and Onion Road is to provide for property access. They meet at a priority T-intersection, with Mathers Road connecting on the outside of a large radius bend. No site visit has been undertaken to verify visibility, however from Google imagery visibility to the west along Onion Road is likely to exceed the 285m requirement of Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections, Table 3.2 Safe Intersection Sight Distance (Austroads Part 4A). Visibility to the east is assessed as being approximately 250m and is likely to be below the requirements.

Onion Road forms a priority T- intersection with Holmes Road east of SH1, before continuing to the south and intersecting with Ruffell Road. This intersection has recently undergone some changes by Hamilton City Council in traffic management to manage right turns and avoid the potential for vehicles to queue onto the immediately adjacent level crossing.

SH39 is classified as a regional arterial road under the ODP and PODP. It has the primary function of carrying through traffic and forms part of the strategic route network at a regionally important level. It has a marked two-way carriageway with edge lines, centrelines and formed shoulders. It has an 80km/hr speed limit in the vicinity of the site. It carries around 2,500vpd and has experienced approximately 25% growth over a 3 year period. This reflects the increase in residential development to the west of Hamilton in recent years.

SH1 is classified as a national route under the ODP and PODP. It carries approximately 7,300vpd and has experienced around approximately a 21% increase in traffic demand over 4 years. It is a four lane, median divided road built to modern expressway standards.



Neither SH1 nor SH39 is a limited access road (LAR) and the road controlling authority for both is Waka Kotahi NZTA.

### **Road Safety**

A review of the Waka Kotahi NZTA CAS database over the last 10 years has identified the following crashes:

- no crashes on Mathers Road;
- 2 non-injury crashes on Onion Road within 500m of the Mathers Road intersection (1 loss of control and 1 turn across);
- 1 non-injury crash at the Holmes Road / Onion Road intersection (1 rear end);
- 3 non-injury crashes on SH39 within 500m of the site frontage (2 loss of control, 1 animal strike); and
- 1 serious injury crash involving simultaneous entry and exiting from the same vehicle crossing.

Overall, the road safety record is considered to be good with little commonality of crash type.

### **Sustainable Travel Modes**

As is typical for a rural area, there are no specific pedestrian facilities on the frontage or connecting roads.

Holmes Road and the onward section of Onion Road to Ruffell Road form an on-street section of the Waikato Expressway cycle route. The shoulders of SH39 are available for cycle use but are not specifically designated as cycle lanes, except at the SH39 / Burbush Road roundabout and north to SH1. There is also the potential to connect to the Waikato Expressway off-road path via this roundabout and Te Kowhai Road.

There is no direct public transport provision to site at present and none of the regional bus routes currently pass site. The nearest bus services will be in the Te Rapa area of Hamilton.

### **Proposed Rezoning and Traffic Generation**

The proposed rezoning to either live Residential or Future Urban Zone would allow for residential development of the site either immediately or at some point in future, depending on the eventual zoning. It is understood that some 2,400 houses is the target for the overall site.

Based on an average trip rate for rural housing of 8.5 trip per day/dwelling from Table C1 of Waka Kotahi NZTA Research Report 453: 'Trips and parking related to land use' would suggest a daily traffic demand of around 20,000vpd - 21,000vpd arising from the development. In terms of peak hour demands, this would equate to around 2,600 vehicles per hour (vph) - 2,700vph.

## **Traffic Effects**

It is likely that SH39 and SH1 and the associated Burbush Road roundabout interchange would be able to accommodate a significant proportion of this traffic as these routes were upgraded as part of the Waikato expressway delivery and will have been designed and sized to accommodate a degree of future traffic growth.

It is considered likely that Mathers Road and Onion Road would need some upgrading to accommodate this volume of traffic. Both are currently low volume local roads and carrying significant volumes of traffic has not previously been envisaged for them.

## **Means of Access and On-Site Roading**

For the scale of development which could occur, at least two points of connection to the existing road network would be needed, not only from a capacity perspective but also to ensure that there is suitable network resilience, locally and within the wider Hamilton surrounds.

A staging plan will need to be developed and linked to provision of access and will also need to consider where is the best focus for future traffic demands. This will need to be developed in consultation with Waka Kotahi NZTA and Waikato District Council. At this stage, we envisage the following represent feasible options and requirements based on our high level desk top review:

- Northern access:
  - realign Mathers Road to create appropriate approach sight distance (ASD) to intersection with Onion Road as per Austroads Part 4A;
  - upgrade Mathers Road to PDP arterial / collector road standard
  - create right turn lane on Onion Road into Mathers Road. Given the shape of site, this may become the predominant point of access to site; and
  - ensure that the Mathers Road / Onion Road intersection meets Austroads Part 4A SISD standards.
- Southern access:
  - identify suitable location based on existing 80km/hr speed limit and visibility requirements. The desk top assessment considers that the Austroads Part 4A SISD can be most likely be met; and
  - consider intersection options, including right turn bay for early stages of development, and potentially a roundabout for later stages of development. Consultation with Waka Kotahi NZTA will be needed and the speed environment may need to be reviewed.
- On-site roading:
  - create arterial / collector road connection through site compliant with Waikato District Council road reserve requirements as per the PDP;
  - provide a supporting network of collector / local roads compliant with PDP road reserve standards;

- provide a network of on and off street cycle and walking routes connecting with the wider road network, key facilities within site and open spaces; and
- ensure road network allows for provision of future public transport services.

No direct property access to SH39 is supported, and careful consideration should be given to limiting direct property access to the Onion Road frontage.

No direct property access or development access to SH1 is supported.

### **Other Mitigations**

The proximity of a potentially significant housing development to Hamilton City means that it is likely that the majority of traffic demand will be to and from this major urban area. It is considered likely that additional mitigations may be needed on the Hamilton City Council road network, particularly in relation to the Onion Road / Ruffell Road intersection. This has already been identified by Hamilton City Council and Kiwirail as a matter of concern and it is understood that there is a longer term project to upgrade the intersection and level crossing (potentially relocating or grade separating it). It is reasonable to conclude that the proposed rezoning would bring that need forward significantly. As such, it is reasonable to expect that any development of the proposed rezoned land should be either contributing to its delivery or should not be permitted to go ahead until this infrastructure is in place.

Connecting to site to Hamilton for cycling modes will also be required. Options considered feasible at this stage include:

- provision of off-road cycle path on SH39 between site and Burbush Road roundabout
- consider reducing speed limit at roundabout and increasing existing provision to off-road paths around the intersection to make cycle access easier and safer.
- mark Te Kowhai Road with sharrows and reduce speed limit to promote connection to the SH1 off-road path
- widen shoulders or create off-road cycle path along Onion Road from site to Ruffell Road to support cycle access, and provide on-road route to connect to Te Rapa Road and Arthur Porter Drive.
- connection to the north and Horotiu is possible via Holmes Road and the existing Expressway paths. Increasing provision along Onion Road between site and Homes Road will provide connectivity to the north.

Walking connections are unlikely to be required given the distance to the urban area

### **Next Actions**

All suggested infrastructure provision options are subject to confirmation through:

- Strategic level modelling to consider the wider network effects of the proposed rezoning supported by detailed intersection modelling to inform the scale and form of new intersections and the scale and form of off-site mitigations;
- Structure planning to identify the on-site roading network;
- Consideration of development staging to assist with infrastructure planning;
- Consultation with Waka Kotahi NZTA and Waikato District Council as road controlling authorities and Hamilton City Council and Kiwirail as affected parties in relation to the provision of wider network mitigations and timing thereof;
- Site visit to confirm assumptions made as part of the desk top review; and
- Provision of an appropriately scaled and detailed Integrated Transportation Assessment to confirm effects and identify suitable responses. This will need to include a clear identification of infrastructure requirements and timing of provision linked to scale of development on site.

## **Conclusions**

This initial high level desk top assessment has identified a range of road network and infrastructure provision considered likely to be necessary to support a potential future residential use of the subject site. The site is considered to be of a scale to be able to deliver this level of infrastructure, however, it is noted that frontages to SH39 and Onion Road are relatively short for a site of this scale.

It is assessed that there is no reason why future residential development on site cannot meet the road corridor requirements as set out in the PDP, or that any future subdivision of the land should not be able to predominantly comply with the relevant rules of the PDP. Some non-compliances may occur as is typical, however, the effects of any such can be assessed at the subdivision consenting stage once a site layout is known.

The extent of development on site will need to be linked to access provision through Structure Planning and staging rules governing any new zone covering the site. This will also need to address what other mitigating infrastructure is needed and at what point it must be provided in order to support development of the scale envisaged.

In terms of potential Zone rules, we recommend the following:

- any form of development access to SH1 should be precluded;
- direct property access for individual dwellings to SH39 should be precluded; and
- a clear outline of infrastructure provision linked to scale of development should be outlined, once an appropriately scaled and detailed Integrated Transportation Assessment has been prepared and consultation with Waikato District Council, Waka Kotahi NZTA, Hamilton City Council and Kiwirail has been undertaken.

We trust the above provide all the information you require but should you have any questions or if we can be of further assistance, please don't hesitate to get in touch.

Yours sincerely

**CKL Planning | Surveying | Engineering | Environmental**

A handwritten signature in black ink, appearing to read 'Judith Makinson', written in a cursive style.

**Judith Makinson**

**Transportation Engineering Manager | Associate**