

Hearing 15C - Rezoning General - Urban and Rural

Transport review of rebuttal evidence

Prepared for	Far North District Council
Project number	FNDC-J014
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Prepared by	Mat Collins, Associate Transportation Engineer

1. Introduction

My full name is Mathew (Mat) Ross Collins. I am an Associate Transport Planner at Abley Limited. I have been in this position since September 2023. I hold a Bachelor of Engineering (Hons) from the University of Auckland and have a post-graduate certificate in transportation and land use planning from Simon Fraser University in Vancouver, Canada.

I have ten years of experience as a transportation planner and engineer in public and private sector land development projects, which includes experience preparing assessments and reviewing transport aspects for master plans, District Plan Reviews, Plan Changes, large scale land use and subdivision resource consents, Notices of Requirement, and Outline Plans of Work.

I have been working with the Far North District Council (**Council**) on the Proposed District Plan (**PDP**) since September 2024, and Hearing 15C since March 2025.

I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Independent Hearings Panel. I confirm that my evidence is within my area of expertise except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my evidence.

I prepared a technical note *Hearing 15C - Rezoning General - Urban and Rural: Transport Review (Transport Review)* dated 29 August 2025, which details my review of submitter evidence for Hearing 15C.

The purpose of this technical note is to provide my review of transport matters contained in rebuttal evidence for:

- Gray Gilrairie Holdings Ltd (Submitter 295)
- Meridian Farm Ltd (Submitter 403)
- Musson Family Trust (Submitter 404)
- Lucklaw Farms Limited (Submitter 551).

2. Gray Gilraine Holdings Ltd (Submitter 295)

The submission seeks to rezone approximately 100 ha to Rural Residential Zone along Shepherds Road and Okura Drive, Kerikeri, with a potential yield of 175–350 lots¹. The site is shown in Figure 2.1.

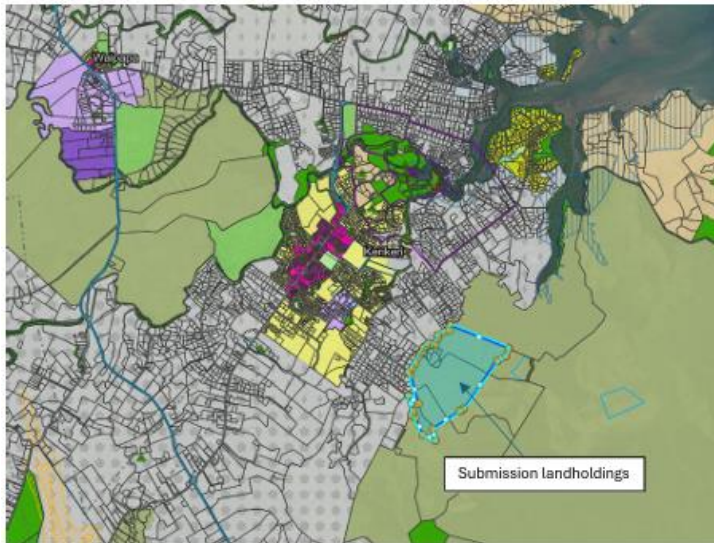


Figure 2.1 S295 Gray Gilraine Holdings Ltd site (Source: Statement of Evidence of Andrew McPhee)

I have reviewed the following:

- Statement of Rebuttal Evidence of Andrew McPhee (Planning), dated 15 September 2025 (transport matters only).

In my Transport Review, I identified the following information gaps:

- no meaningful assessment of potential safety and efficiency effects on the transport network
- no assessment of how the submission may rely on or accelerate the need for transport improvements identified in Council's Te Pātukurea – Kerikeri Waipapa Spatial Plan (**Spatial Plan**).

In rebuttal, Mr McPhee (paraphrased) states:

- his primary evidence noted a possible road connection from the site to State Highway 10 (**SH10**), shown in the 2007 Structure Plan, which could reduce pressure on Kerikeri Road and the Heritage Bypass
- the submission does not directly affect the Heritage Bypass or SH10/Waipapa roundabout as access to Kerikeri Township and schools does not rely on these connections
- transport upgrades required to support growth in the Spatial Plan are a matter of timing and funding, including developer contributions, which can be addressed at the development stage.

I respond as follows.

2.1 Alternative connection to SH10

I consider this matter is not relevant to the submission because:

- the 2007 Structure Plan has been superseded by the Spatial Plan, which does not anticipate this connection
- even if Council intended to pursue the connection, the submitter's site would enable only a short section, leaving a 3.5 km gap with no designation in place and no known intention by Council to designate the balance of the route.

¹ Statement of Evidence of Andrew McPhee, dated 9 June 2025, [www.fndc.govt.nz/ data/assets/pdf_file/0019/41356/Gray-Gilraine-Holdings-Limited,-S295-A-McPhee,-Planning-evidence.pdf](http://www.fndc.govt.nz/data/assets/pdf_file/0019/41356/Gray-Gilraine-Holdings-Limited,-S295-A-McPhee,-Planning-evidence.pdf)

2.2 Effects on Heritage Bypass and SH10/Waipapa roundabout

I disagree with Mr McPhee that rezoning the site would have no effect beyond the Kerikeri town centre. Census 2023 data for Kerikeri South (the location of the site) shows a significant share of trips travel beyond Kerikeri:

- 45% of travel to work, as shown in Figure 2.2
- 34% of travel to education, as shown in Figure 2.3.

These trips will add to volumes on Kerikeri Road and/or the Heritage Bypass, contributing to congestion.

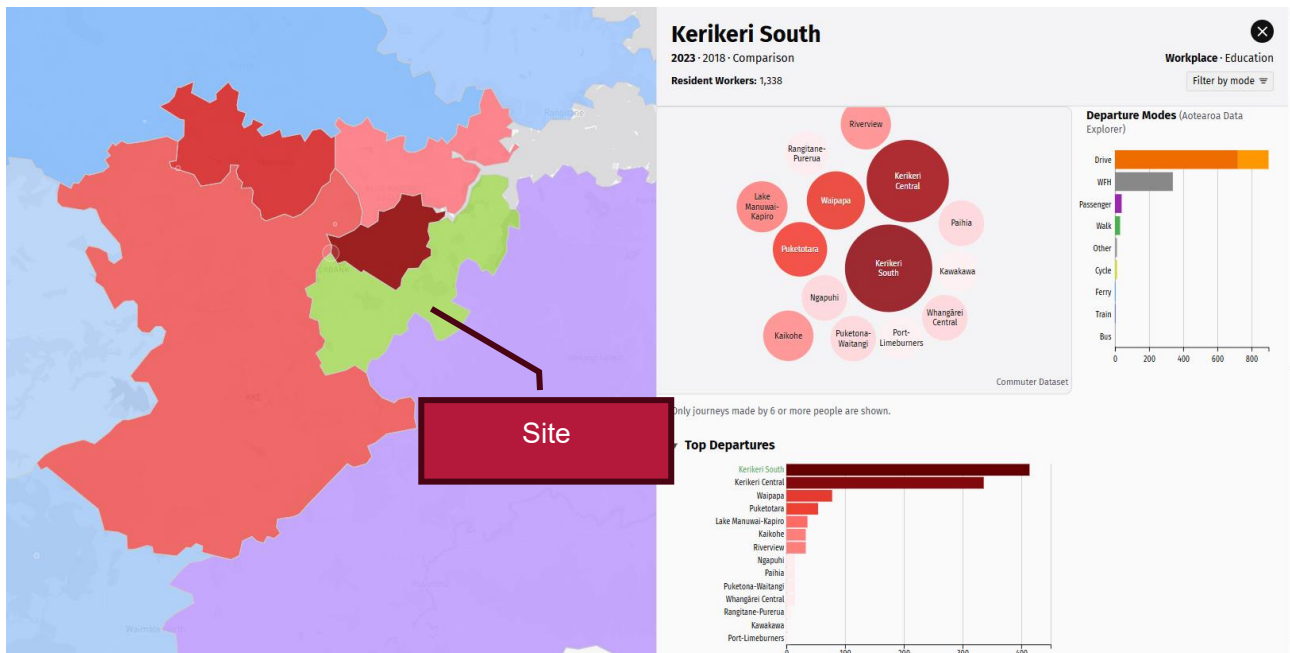


Figure 2.2 2023 Census Kerikeri South departure for work

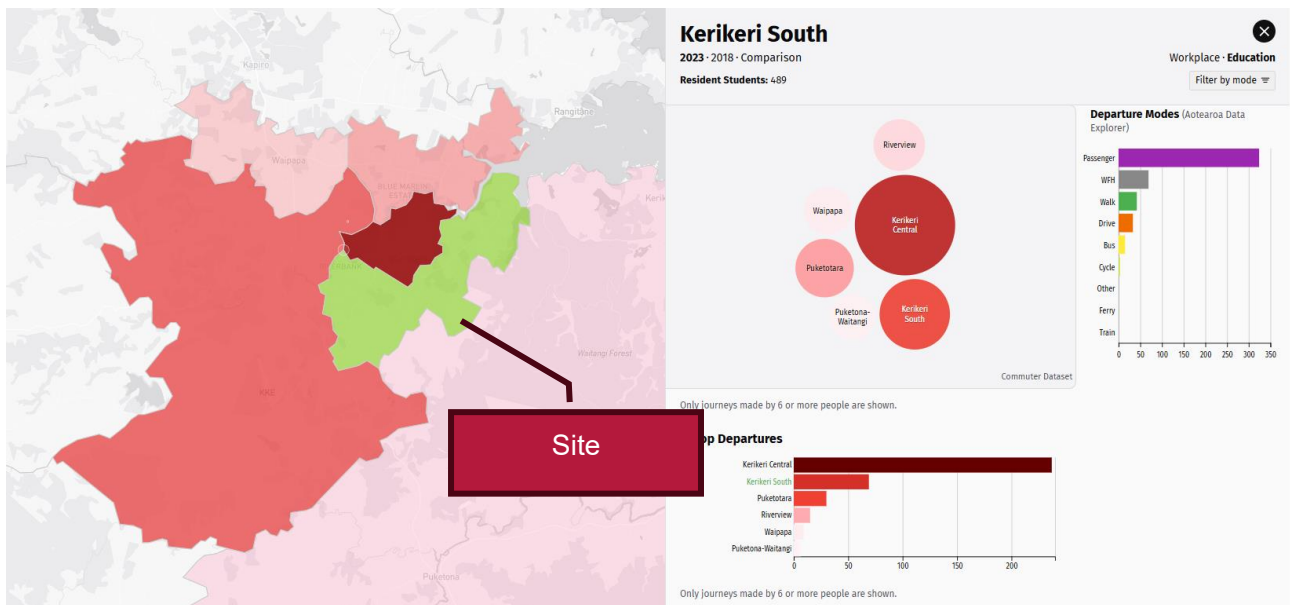


Figure 2.3 2023 Census Kerikeri South departure for education

2.3 Funding and delivery of transport infrastructure to support wider growth in Kerikeri - Waipapa

I agree with Mr McPhee that, if the site was rezoned, any improvements to the wider transport (which may benefit multiple landowners) become a matter of timing and funding. However, I disagree with Mr McPhee that this can be addressed as part of resource consent applications.

As discussed in my technical report supporting Hearing 11 – Transport², addressing cumulative effects on transport infrastructure is a complex issue. Mitigating cumulative effects often requires a combination of developer funded and Council-funded infrastructure improvements benefiting multiple parties. Given this complexity, bulk transport infrastructure needs should be addressed before rezoning occurs. In my extensive experience working for Councils and Developers throughout New Zealand using a large number of different Unitary and District Plans, **TRAN-R5 Trip Generation** is not a reliable mechanism to ensure bulk transport infrastructure is funded and delivered during resource consent applications.

2.4 Summary - Gray Gilrairie Holdings Ltd

Mr McPhee's rebuttal evidence does not provide new information that addresses the concerns identified in my Transport Review. Potential effects on the transport network remain uncertain and, in my view, may not be adequately addressed at resource consent stage if rezoning were approved.

² FNDC Proposed District Plan, Submission review – Transport Chapter, Abley, dated 24 March 2025, Section 2.6
https://www.fndc.govt.nz/data/assets/pdf_file/0026/39194/Appendix-3-Abley-Report.pdf

3. Meridian Farm Ltd (Submitter 403)

The submission seeks to rezone approximately 50.3ha to Rural Lifestyle zone at 119 Redcliffs Road Kerikeri. Mr Henehan states that the zoning sought would result in an additional 12 – 25 lots. The site is shown in Figure 3.1.

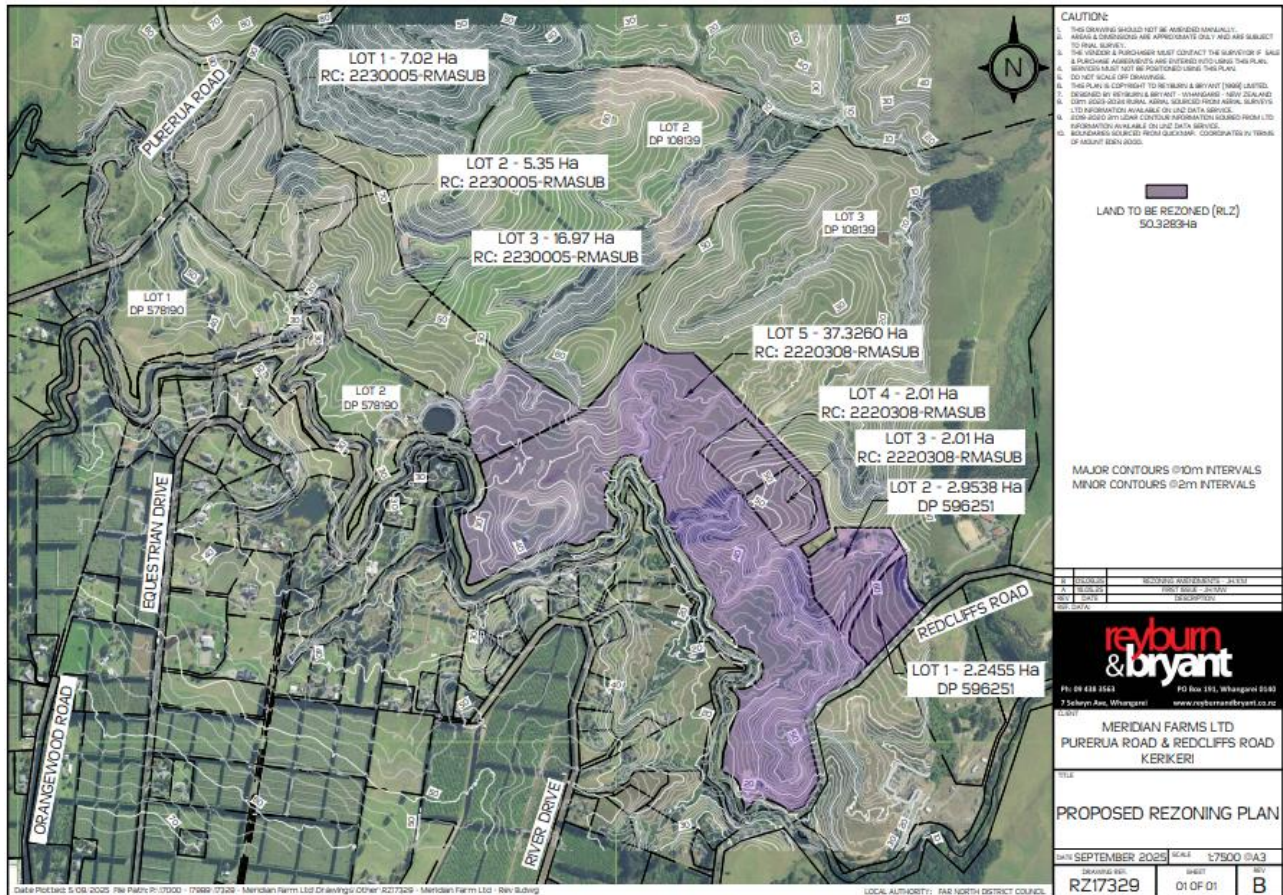


Figure 3.1 Meridian Farms site (Source: Rebuttal Evidence of Joseph Henehan)

I have reviewed the following:

- Statement of Rebuttal Evidence of Joseph Henehan (Planning), dated 15 September 2025 (transport matters only).

In my Transport Review, I identified the following information gaps:

- no meaningful assessment of transport safety and efficiency effects
- no assessment of how the submission may rely on or accelerate transport improvements identified in the Spatial Plan.

In his rebuttal evidence Mr Henehan responds (my paraphrasing):

- the rezoning area has been reduced (from 68 ha to 50 ha)
- the rezoning will not generate significant traffic effects on key corridors, and any upgrades would result from cumulative growth across the wider area, not solely this site
- any residual effects can be assessed and mitigated at resource consent stage.

I agree that rezoning of this site in isolation would not have a significant effect on the wider network. The proposal would generate approximately 16–33 veh/hr and 147–307 veh/day³, which I consider to be relatively modest.

³ Using trip rates discussed in Section 2 of my Transport Review technical note: 1.31 veh/hr/dwelling and 12.28 veh/day/dwelling

However, as stated in my Transport Review technical note, lifestyle dwellings generate around 40–50% more vehicle movements than suburban dwellings, and trips are typically longer. This increases vehicle kilometres travelled (VKT), greenhouse gas emissions, and vehicle-related pollutants.

I understand Council considers the PDP already provides sufficient housing capacity in Kerikeri–Waipapa, located closer to employment, retail, and education. On this basis, I consider rezoning would not achieve:

- an efficient pattern of land use (TRAN-O3), as development would be more remote from key destinations
- a reduction in greenhouse gas emissions (TRAN-O6), as development would be more car dependent.

While the transport effects of the rezoning would be of a scale that could likely be managed through the resource consent process, peripheral growth is likely to result in higher VKT, greenhouse gas emissions, and car dependence compared with more central locations enabled by the PDP.

4. Musson Family Trust (Submitter 404)

The submission seeks to rezone 21 lots totalling approximately 25ha to Settlement zone at Houhora Heads Road, Pukenui. Mr Henahan does not provide a yield estimate, however the Settlement Zone permits 3,000m² lots, and lots of 1,500m² can be sought as a Discretionary Activity. Based on the permitted density, I assume that a total of around 83 lots could be developed. The site is shown in Figure 4.1.

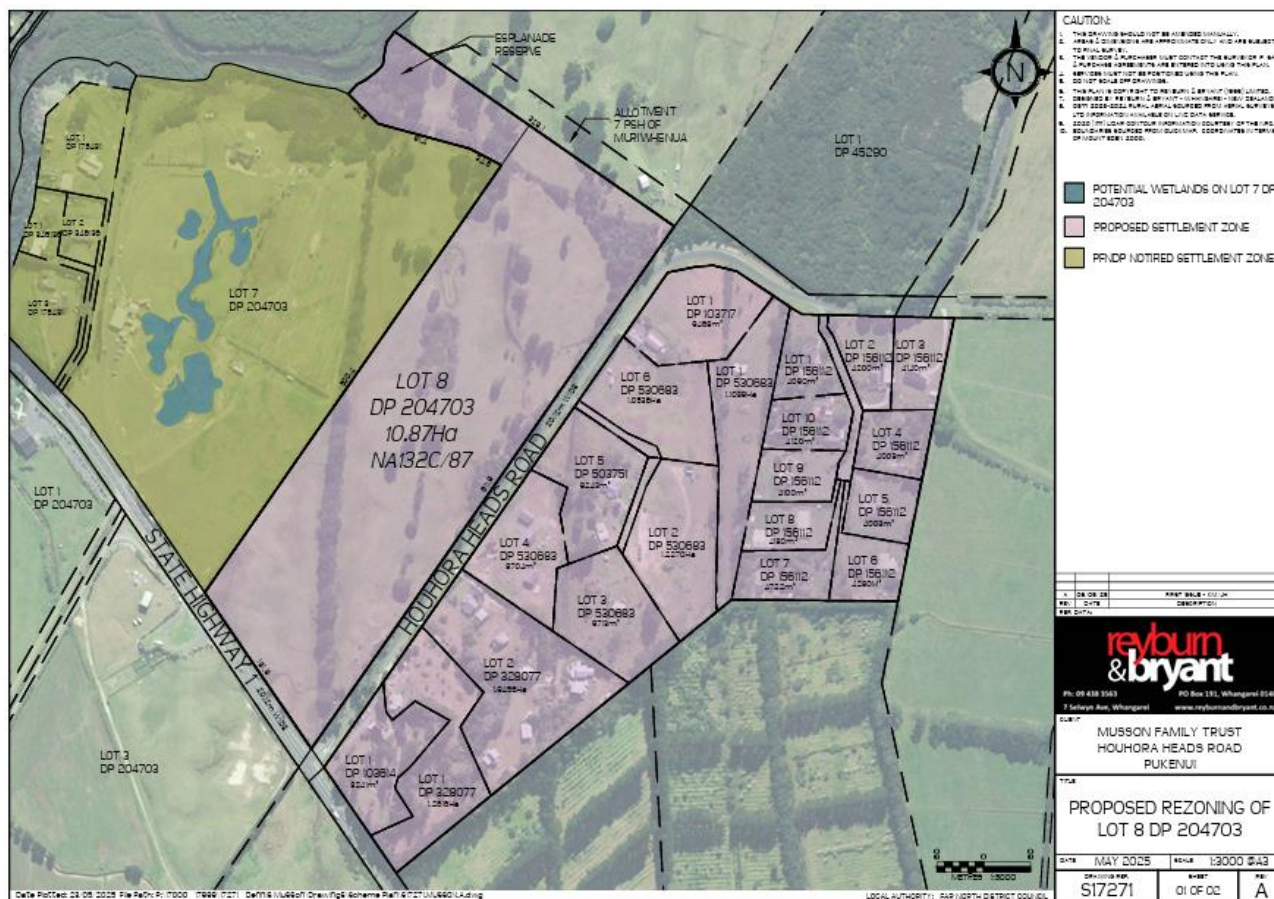


Figure 4.1 S404 Musson Family Trust site (Source: Statement of Evidence, Joseph Henehan)

I have reviewed the following:

- Statement of Rebuttal Evidence of Joseph Henehan (Planning), dated 15 September 2025 (transport matters only).

In his evidence, Mr Henahan acknowledged that the SH1 / Houhora Heads Road intersection may require turn treatments. In my Transport Review, I agreed but expressed concern that cumulative effects are difficult to address at consent stage.

In his rebuttal evidence Mr Henahan (paraphrased) notes:

- RSZ-O3 and RSZ-P5 require consideration of transport impacts from subdivision
- an additional matter of control is proposed for SUB-R3 to require assessment of safety, efficiency, and capacity of nearby state highway intersections.

Mr Henehan's rebuttal evidence does not address my primary concern; being that cumulative transport effects are challenging to address at resource consent stage, particularly where there are multiple beneficiaries of necessary transport improvements. Furthermore, I am cautious about adding specific reference to State Highways into SUB-R3, as this may be interpreted as meaning effects on local road intersections do not need to be considered.

I have undertaken a high-level, desktop based, assessment to gauge the likelihood that rezoning will trigger the need for turning treatments at the SH1/Houhora Heads Road. I have assumed that:

- Existing hourly traffic volumes on SH10 are approximately 150 veh/hr⁴, assumed to be 75 veh/hr in each direction
- Existing hourly traffic volumes on Houhora Heads Road are approximately 25 veh/hr⁵, of which 10 will turn right and 10 would turn left into Houhora Heads Road during the PM peak hour
- Rezoning would enable 80 dwellings, generating around 1.31 veh/hr/dwelling, and 100 veh/hr
- Rezoning would result in an additional 40 turn rights and 40 left turns into Houhora Heads Road during the PM peak hour.

Using this data, I have assessed the requirement for turning treatments using Austroads Guide to Traffic Management Part 6 Figure 3.25, reproduced below in Figure 4.2. Based on my assumptions a right turn treatment would be required. My assumptions indicate that a left turn treatment may not be required, however I stress that this is not intended to be an accurate assessment.

Figure 3.25: Warrants for turn treatments on major roads at unsignalised intersections

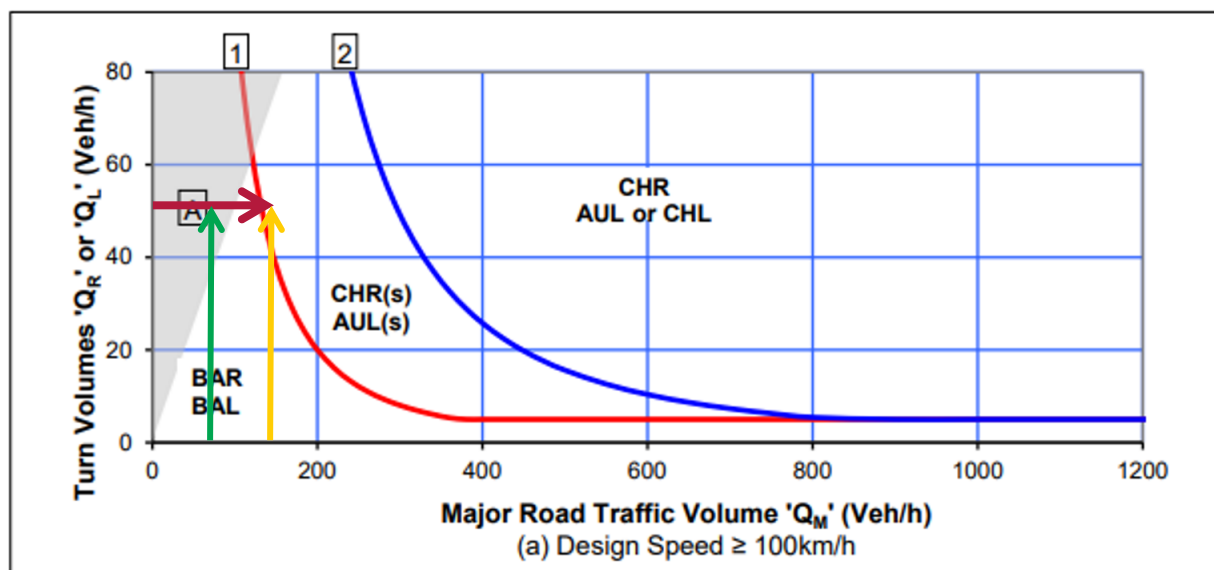


Figure 4.2 Austroads turning treatment assessment (left turn assessment in green, right turn assessment in yellow)

Given the multiple lots and landowners, I consider it highly unlikely that comprehensive development of the site would occur. I consider it more likely that development would occur in a piecemeal fashion, with individual landowners lodging small scale subdivision consent applications.

It is difficult to argue that individual small-scale subdivision would create such an effect at the SH1/Houhora Heads Road intersection that would reasonably warrant the applicant to undertake an upgrade of the intersection. However, the cumulative effect of multiple small scale subdivisions are likely to trigger the requirement for, at a minimum, a right turn bay. This would either go unaddressed or would require NZTA to fund the upgrade.

I therefore remain of the view that the upgrade SH1/Houhora Heads Road intersection will be difficult to secure without an overarching mechanism to ensure timely delivery and fair cost allocation.

⁴ 10% of AADT, sourced from NZTA traffic count site 01N00067 https://experience.arcgis.com/experience/a09cd3ec9bdd4068b45c818a69601775/#data_s=id%3AdataSource_1-192bc3bd297-layer-84%3A45

⁵ 10% of AADT, sourced from Mobile Roads <https://mobileroad.org/desktop.html>

5. Lucklaw Farm Ltd (Submitter 551)

The submission, amended through rebuttal evidence, seeks:

- Area A: Mixed Use and General Residential Zone, with an estimated yield of around 120 dwellings plus commercial activities.
- Area B: Rural Lifestyle Zone, with an estimated yield of 16–32 dwellings depending on consent pathway
- Area C: Rural Production Zone, which is anticipated to include tourism activities, but details on the type and scale of activity are not confirmed
- Inclusion of the PWK – Pūwheke Development Area into the District Plan.

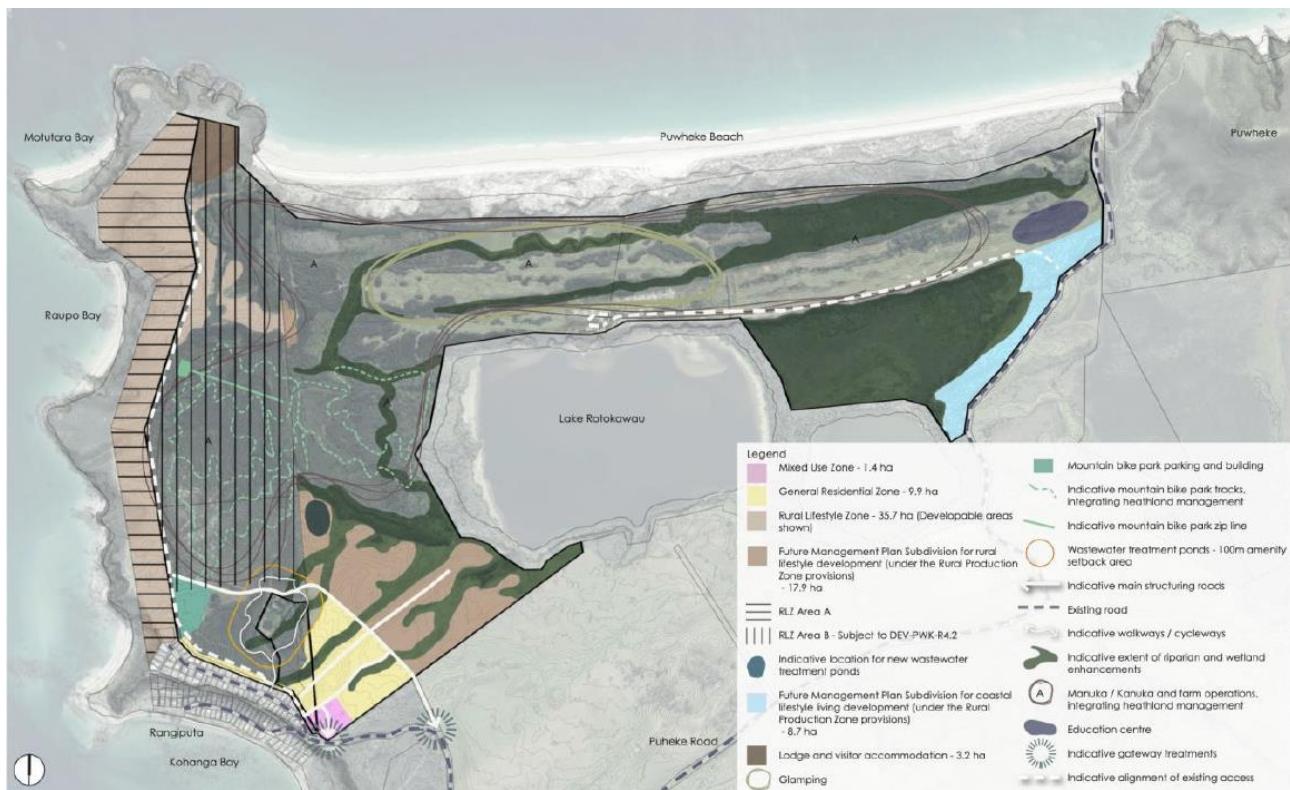


Figure 5.1 Pūwheke Development Area Plan (Source: Statement of Rebuttal Evidence of Marcus Langman)

I have reviewed the following:

- Statement of Rebuttal Evidence of Marcus Langman (Planning), dated 15 September 2025 (transport matters only)
- Statement of Primary Evidence of Dean Scanlen (Transport), dated 15 September 2025.

In my Transport Review technical note, I identified the following information gaps:

- traffic generation, particularly during holiday periods
- the need to assess the proposed access points on Rangiputa Road before rezoning
- the need and provision for supporting transport infrastructure.

I discuss these matters below.

5.1 Traffic generation

Mr Scanlen summarises his approach to trip generation in paragraphs 21–22 of his evidence but has not provided the underlying analysis. In paragraphs 24–27, he estimates:

- less than 2 veh/day/dwelling in normal periods, up to 4 veh/day/dwelling in holiday periods

- 145 dwellings generating 500–600 veh/day in holiday periods
- approximately 300 veh/day for other site activities in holiday periods.

I have reviewed Census 2024 data for Karikari Peninsula:

- Work trips: 54 inbound, 315 outbound, 255 internal
- Education trips: 51 inbound, 120 outbound, 78 internal⁶
- Housing: 1,263 dwellings, 648 occupied⁷, 1,686 usual residents⁸

Using 1,684 veh/day on Inland Road⁹ and 648 occupied dwellings gives an observed trip rate of 2.6 veh/day/dwelling. Holiday period counts are not available, but I consider Mr Scanlen's assumption of a 50% uplift reasonable.

On this basis I estimate:

- 2.6 veh/day/dwelling - 3.9 veh/day/dwelling for 150 dwellings, resulting in 390 - 585 veh/day for normal and holiday periods respectively
- 100 - 300 veh/day for commercial activities for normal and holiday periods respectively.
- Total of 490 – 885 veh/day for normal and holiday periods respectively.

5.2 Proposed intersections with Rangiputa Road

The masterplan identifies two site accesses, shown indicatively in Figure 5.1:

- Access 1: Rangiputa Road / Motutara Drive
- Access 2: Rangiputa Road paper road, ~400 m east of Motutara Drive.

⁶ <https://commuter.waka.app/#>

⁷

[https://explore.data.stats.govt.nz/vis?fs\[0\]=2023%20Census%20%7CTotals%20by%20topic%23CAT_TOTALS_BY_TOPIC%23&pg=0&fc=Variable%20codes&bp=true&snb=9&df\[ds\]=ds-nsiws-disseminate&df\[id\]=CEN23_TBT_005&df\[ag\]=STATSNZ&df\[vs\]=1.0&dq=doTotal%2Bdo1.100400.2023&ly\[rw\]=CEN23_TBT_DWD_003&to\[TIME\]=false](https://explore.data.stats.govt.nz/vis?fs[0]=2023%20Census%20%7CTotals%20by%20topic%23CAT_TOTALS_BY_TOPIC%23&pg=0&fc=Variable%20codes&bp=true&snb=9&df[ds]=ds-nsiws-disseminate&df[id]=CEN23_TBT_005&df[ag]=STATSNZ&df[vs]=1.0&dq=doTotal%2Bdo1.100400.2023&ly[rw]=CEN23_TBT_DWD_003&to[TIME]=false)

⁸

[https://explore.data.stats.govt.nz/vis?fs\[0\]=2023%20Census%20%7CTotals%20by%20topic%23CAT_TOTALS_BY_TOPIC%23&pg=0&fc=Variable%20codes&bp=true&snb=9&df\[ds\]=ds-nsiws-disseminate&df\[id\]=CEN23_TBT_008&df\[ag\]=STATSNZ&df\[vs\]=1.0&dq=hq011%2Bhq010%2Bhq009%2Bhq008%2Bhq007%2Bhq006%2Bhq005%2Bhq004%2Bhq003%2Bhq002%2Bhq001%2Bhq000%2Bws1%2Bsp99%2Bra80%2Bra08%2Bra07%2Bra06%2Bra05%2Bra01%2Bra04%2Bra03%2Bra02%2Bra00%2Brb1%2Bls66%2Bls03%2Bls02%2Bls05%2Bls04%2Bls01%2Beg6%2Beg5%2Beg4%2Beg3%2Beg2%2Beg1%2BbiTotal%2Bbi0%2Bbi1%2BasTotalLG%2Bas4%2Bas3%2Bas2%2Bas1%2Bws4%2Bws3%2Bws2%2Bge3%2Bge2%2Bge1%2Brc%2BasMed%2BegTotal%2BlsTotal%2BgeTotal%2BrbTotal%2BraTotal%2BhgTotal%2BibTotal%2Bibmed%2BwsTotal.100400.2013%2B2018%2B2023&to\[TIME\]=false&ly\[rw\]=CEN23_TBT_IND_003&ly\[cl\]=CEN23_YEAR_001](https://explore.data.stats.govt.nz/vis?fs[0]=2023%20Census%20%7CTotals%20by%20topic%23CAT_TOTALS_BY_TOPIC%23&pg=0&fc=Variable%20codes&bp=true&snb=9&df[ds]=ds-nsiws-disseminate&df[id]=CEN23_TBT_008&df[ag]=STATSNZ&df[vs]=1.0&dq=hq011%2Bhq010%2Bhq009%2Bhq008%2Bhq007%2Bhq006%2Bhq005%2Bhq004%2Bhq003%2Bhq002%2Bhq001%2Bhq000%2Bws1%2Bsp99%2Bra80%2Bra08%2Bra07%2Bra06%2Bra05%2Bra01%2Bra04%2Bra03%2Bra02%2Bra00%2Brb1%2Bls66%2Bls03%2Bls02%2Bls05%2Bls04%2Bls01%2Beg6%2Beg5%2Beg4%2Beg3%2Beg2%2Beg1%2BbiTotal%2Bbi0%2Bbi1%2BasTotalLG%2Bas4%2Bas3%2Bas2%2Bas1%2Bws4%2Bws3%2Bws2%2Bge3%2Bge2%2Bge1%2Brc%2BasMed%2BegTotal%2BlsTotal%2BgeTotal%2BrbTotal%2BraTotal%2BhgTotal%2BibTotal%2Bibmed%2BwsTotal.100400.2013%2B2018%2B2023&to[TIME]=false&ly[rw]=CEN23_TBT_IND_003&ly[cl]=CEN23_YEAR_001)

⁹ MobileRoads estimate, June 2024, <https://mobileroad.org/desktop.html>

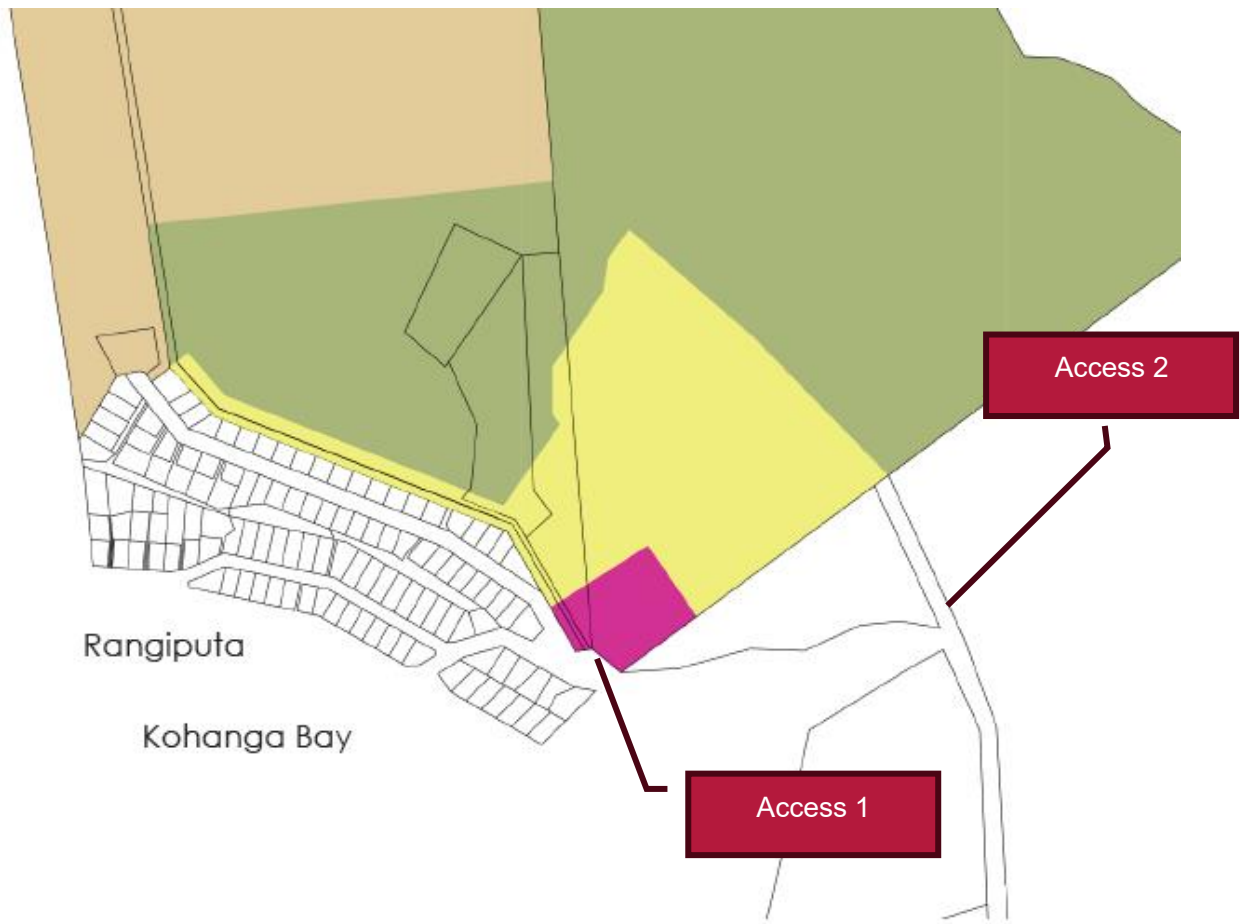


Figure 5.2 Puwheke Development Area access locations (Source: adapted from Statement of Rebuttal Evidence of Marcus Langman)

Access 1 – Rangiputa Road / Motutara Drive

As noted by Mr Scanlan, there are existing sight line issues at the Rangiputa Road/Motutara Drive intersection. To address the sight line shortfall, and facilitate access to the site, Mr Scanlan has recommended the intersection either be upgraded to a roundabout, or Motutara Drive be realigned to intersect with Rangiputa Road further to the east, as shown in Figure 5.3.

Mr Scanlan notes that either option would require part of the adjacent Natural Open Space zoned land to be vested as road. He recommends that, if this land cannot be vested as road, then any connection from the site to Motutara Drive should be for walking and cycling only.

I agree and recommend that the PWK chapter include provisions requiring an upgrade of the Rangiputa Road / Motutara Drive intersection if vehicle access is enabled to the site from Motutara Drive.

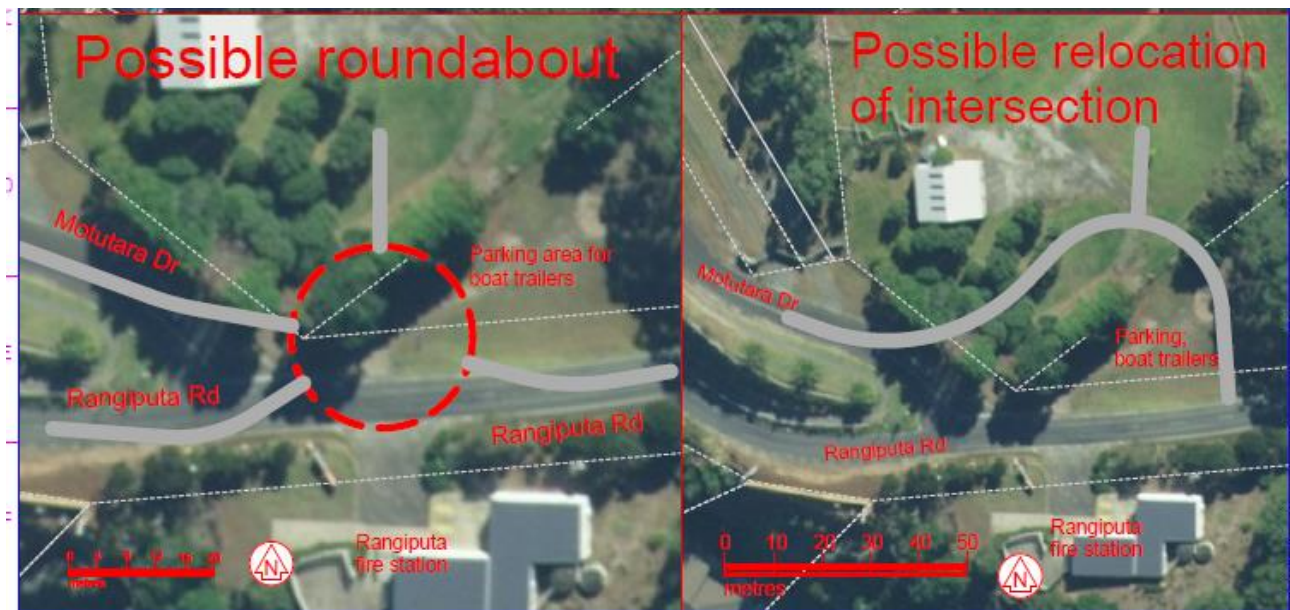


Figure 5.3 Access 1 options (Source: Primary Statement of Evidence of Dean Scanlan)

Rangiputa Road paper road – Access 2

The masterplan proposes to use an existing paper road as an access to the site. As noted by Mr Scanlan, there are sight line issues at where the paper road intersects with Rangiputa Road. Mr Scanlan has recommended that:

- The existing embankment on the southern side of Rangiputa Road is cut back to increase sight distance, based on Mr Scanlan's calculation of Safe Stopping Sight Distance (SSSD)
- A right turn bay is provided.

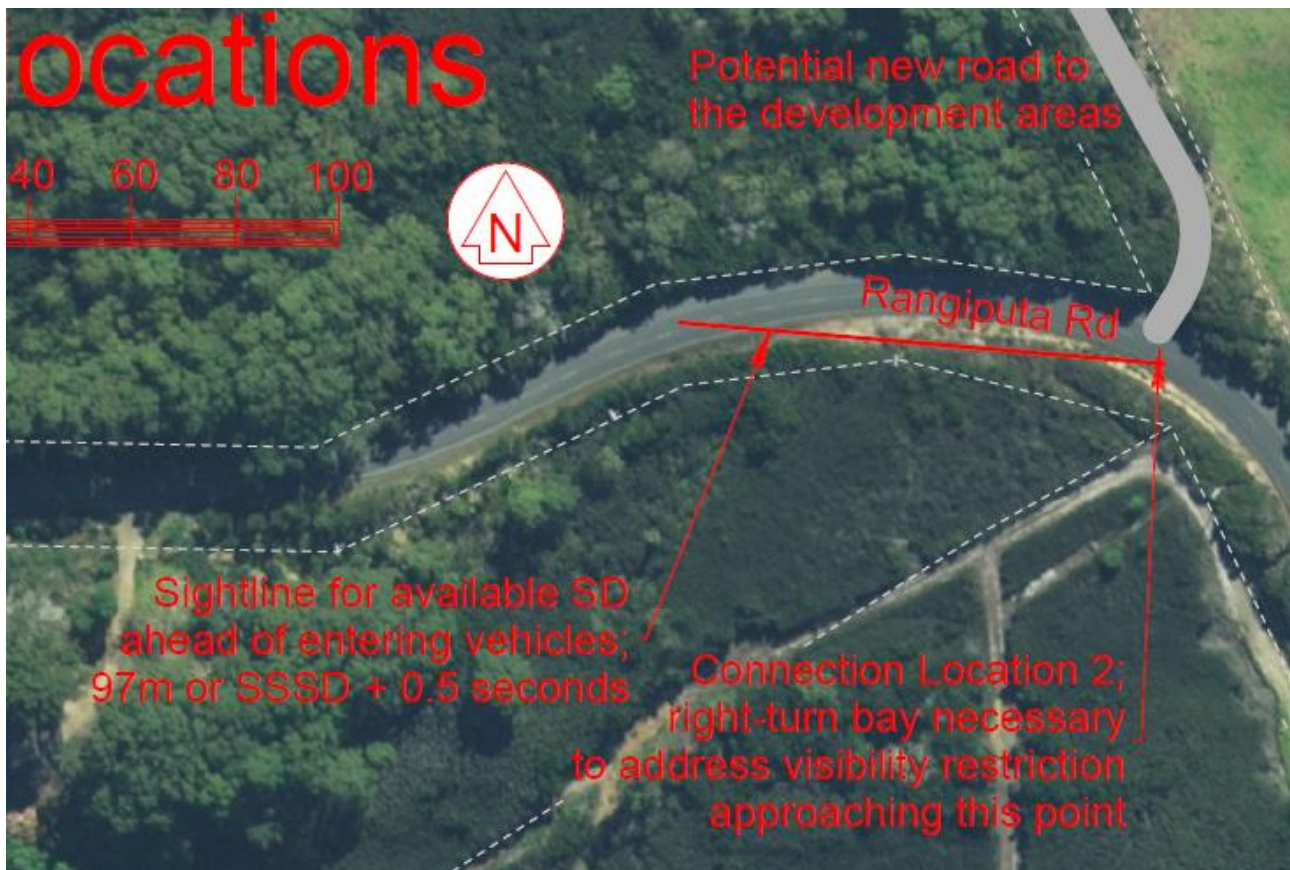


Figure 5.4 Access 2 works (Source: Primary Statement of Evidence of Dean Scanlan)

I consider sight distance should be assessed against Safe Intersection Sight Distance (SISD)¹⁰. NZ Transport Agency Waka Kotahi's (NZTA) MegaMaps indicates a mean operating speed of 59 km/hr¹¹ on Rangipuna Road, adopting 65 km/hr with a 2-second reaction time gives 136 m SISD, which I have shown indicatively in Figure 5.5.

Achieving this may be challenging, even with earthworks and vegetation removal, but further mitigation (e.g. advance warning signage or changing the priority for Rangipuna Road (west) to form the intersection as a standard tee) can be addressed at resource consent and engineering plan approval stage.

I recommend the PWK chapter includes provisions requiring any works necessary to achieve safe sight lines and safe turning movements at the Rangipuna Road/Paper Road intersection, when vehicle access is enabled to the site from the paper road.

¹⁰ Austroads Guide to Road Design Part 4, Section 3.2.2. states "The SISD model should also be applied to the following cases to ensure that adequate visibility is provided between... vehicles turning right from the major road and oncoming major road vehicles at all types of right-turn treatments..."

¹¹ https://spatial.nzta.govt.nz/apps/megamaps/?data_id=dataSource_2-SpeedManagementFramework-MeanOperatingSpeeds-Operating_Speeds%3A67408

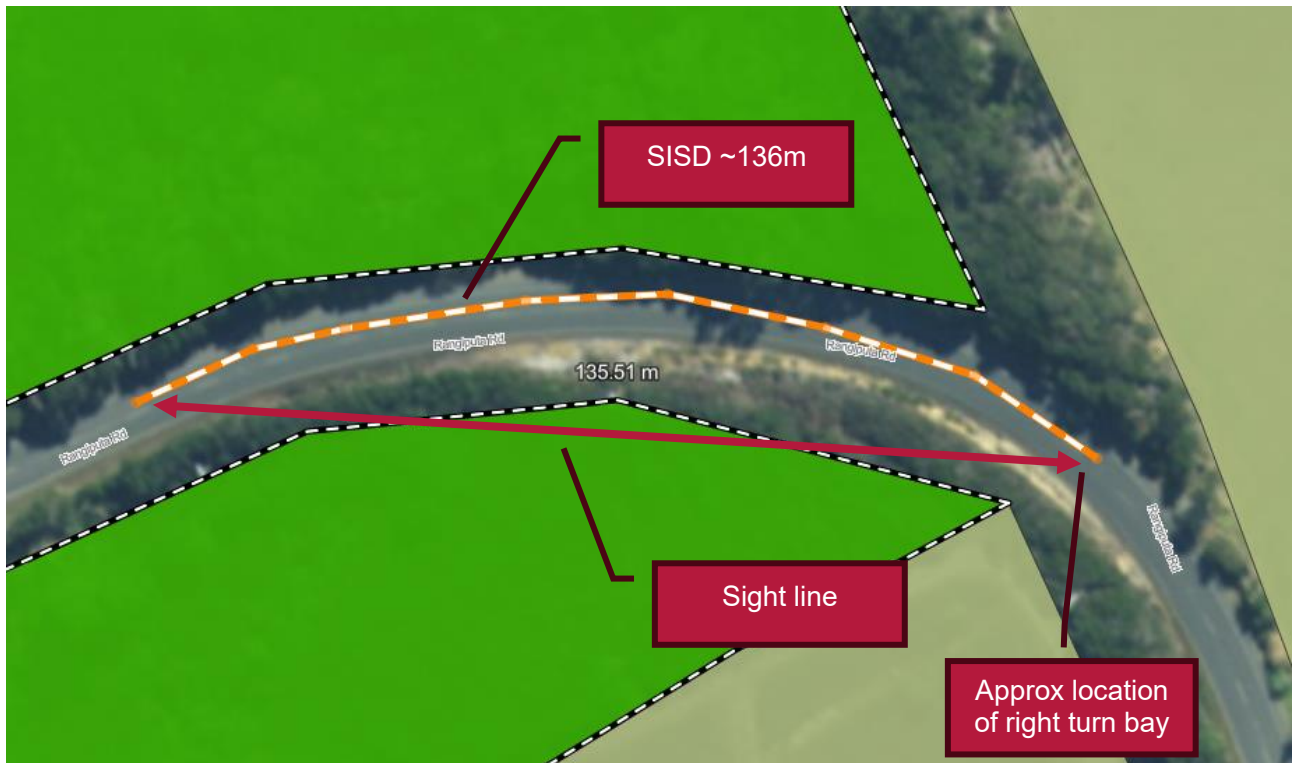


Figure 5.5 SISD requirement, showing the sight line passing outside of the legal road (adapted from Proposed District Plan map)

5.3 Transport infrastructure needed to support development

The existing transport network is described in Mr Scanlan's Primary Evidence. I consider this generally demonstrates that the existing sealed carriageways have sufficient width, and the SH10/Inland Road intersection is appropriately formed, to support development of the site.

Mr Scanlan has noted that the Inland Road/Rangipuna Road intersection has a sightline shortfall to the south, which I have assessed as providing approximately 80m for drivers turning right into Rangipuna Road and approximately 100m for drivers turning right out of Rangipuna Road.

I note that, in the northbound direction on Inland Road, there is a 35 km/hr advisory speed sign on the approach to the intersection. Assuming an operating speed of 50 km/hr, 97m SISD is required.

I have investigated crash records in NZTA's CAS database for the 2010 – 2025 period, shown in Figure 5.6. It records 4 crashes near the Inland Road/Rangipuna Road intersection, single vehicle three of which are loss of control crashes, and the fourth was a two vehicle crash unrelated to sight distance.

I therefore conclude that, while there is an approximate 15 – 20m sight distance shortfall to the south for right turns into Rangipuna Road, the intersection is likely to operate acceptably.



Figure 5.6 NZTA CAS database records for 2010 – 2015

5.4 Summary

Should Council consider that residential growth is appropriate in this location, I consider the transport safety and efficiency effects of the proposed rezoning could be addressed through future resource consent applications if the proposed PWK – Puwheke Development Area chapter is revised to include:

- provisions requiring an upgrade of the Rangiputa Road / Motutara Drive intersection if vehicle access is enabled to the site from Motutara Drive
- provisions requiring any works necessary to achieve safe sight lines and safe turning movements at the Rangipuna Road/Paper Road intersection, when vehicle access is enabled to the site from the paper road.

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