Appendix H – Transportation Assessment

flow
TRANSPORTATION SPECIALISTS

technical note

PROJECT	**MATAKANA COUNTRY CLUB FAST TRACK APPLICATION**
SUBJECT	**TRANSPORT OVERVIEW**
TO	**NATHAN SANDERSON (SANDERSON PARTNERS LTD)** **KATHRYN DREW (BB0)**
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REVIEWED BY	NERISSA HARRISON (FLOW)
DATE	08 OCTOBER 2025

1 INTRODUCTION TO THE REPORT

Flow Transportation Specialists (Flow) has been commissioned by Sanderson Partners Ltd to assess the transport outcomes for a master planned retirement village for a Referral application under its Fast-track Approvals Act 2024 (FTAA). The project has been named "Matakana Country Club" and is located in Matakana, Auckland.

Our review includes:

- Briefly outlining the site location
- A summary of the transport matters to consider, including consideration current transport constraints and future transport initiatives being considered
- Outlining the projected land use activities of the Fast Track Referral application, including an overview of what the development will possibly generate in terms of vehicle trips and mode requirements.
- The transport infrastructure mitigation likely to be needed to support the proposed development.

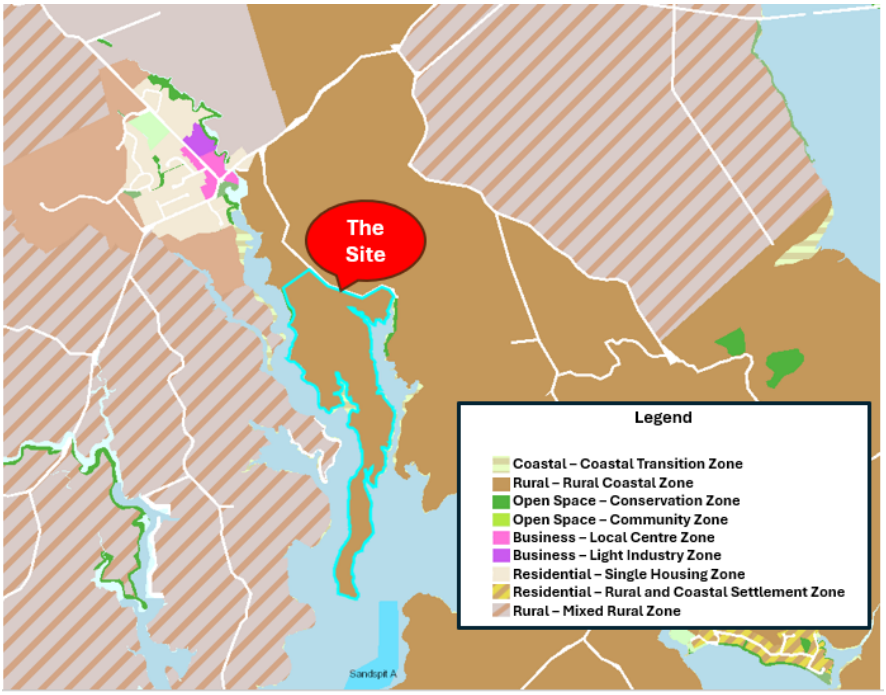
2 SITE LOCATION

The land subject to the Fast Track Referral application (the "subject land") comprises a large rural holding located at 120 Tongue Farm Road, Matakana. Key locations in the vicinity of the proposed site, include:

- Matakana Town Centre, approximately 1.2 km to the north
- Tāwharanui Peninsula, approximately 4 km to the southeast
- Omaha, approximately 5 km to the east
- Warkworth, approximately 7.5 km to the southwest
- The closest state highway is SH1, located at Warkworth.

Under the Auckland Unitary Plan (Operative in Part), the subject land is primarily zoned Rural – Rural Coastal Zone. The land opposite the site, on the eastern side of Tongue Farm Road, is also zoned Rural – Rural Coastal Zone. The zoning pattern is illustrated in Figure 1 below.

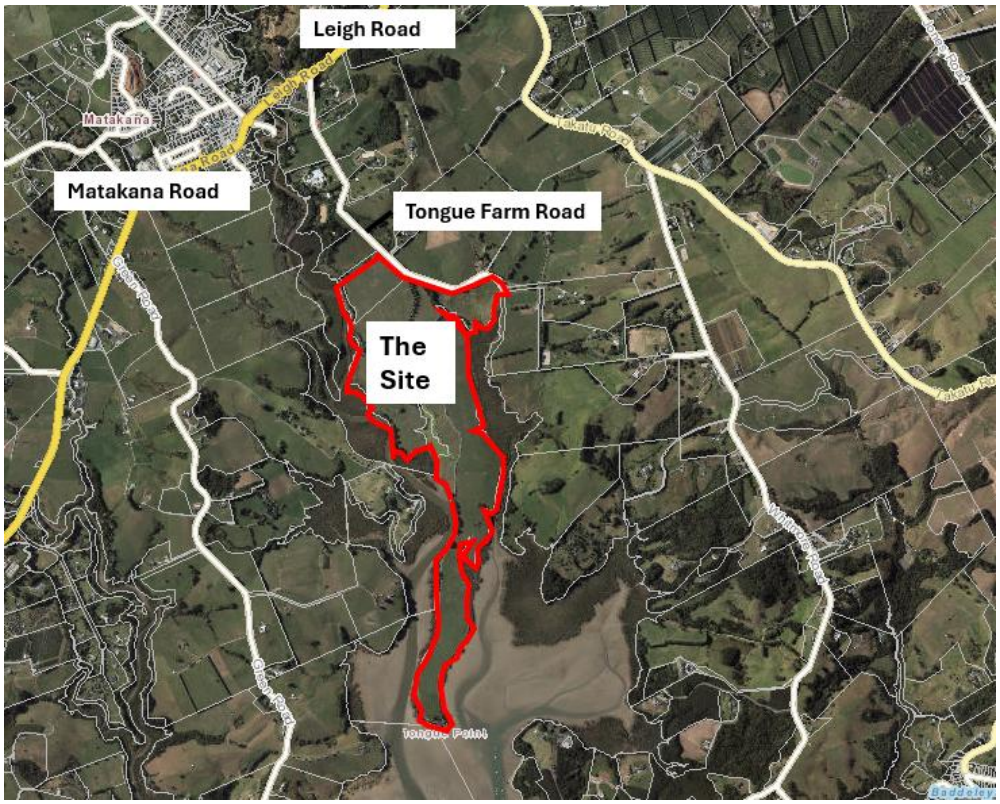
Figure 1: Site Zoning



2.1 Surrounding Network

As shown in Figure 2 below, the subject land has frontage to Tongue Farm Road. The site is located approximately 1.0 km north of the Leigh Road / Tongue Farm Road intersection, which functions as the primary and the only connection for motorists between the site and key surrounding destinations.

Figure 2: Site Boundary



2.1.1 Tongue Farm Road

Tongue Farm Road has the following features

- Carriageway width of approximately 6.0–7.3 metres
- Classified as a Minor Rural Road under the Auckland Unitary Plan
- No footpaths are provided on either side of the road
- Functions as a no-exit road, terminating in a cul-de-sac
- Approximately the first 600 metres from Leigh Road are sealed; the remainder is formed as a gravel surface
- Posted speed limit is 60 km/h.

Figure 3: Tongue Farm Road Cross section

2.1.2 Leigh Road

Leigh Road provides the primary connection between Tongue Farm Road, Matakana Town Centre to the west, and Omaha to the east. Key characteristics are as follows:

- Classified as a Rural Arterial Road under the Auckland Unitary Plan.
- No footpaths are provided on either side of the road.
- The carriageway width is approximately 10 metres adjacent to Tongue Farm Road.
- The posted speed limit is 80 km/h east of Tongue Farm Road and 50 km/h west of Tongue Farm Road.
- The intersection of Leigh Road and Tongue Farm Road is a priority-controlled T-intersection, with Leigh Road operating as the major road and Tongue Farm Road as the minor approach. A dedicated right-turn bay is provided on Leigh Road for vehicles turning into Tongue Farm Road.

Figure 4: Leigh Road Cross section

2.2 Crash Records

A search of Waka Kotahi NZ Transport Agency's Crash Analysis System (CAS) was undertaken at the intersection of Leigh Road and Tongue Farm Road, and along Tongue Farm Road for the five-year period between August 2020 and August 2025.

Within the search area, only one crash was recorded. This was a serious injury crash involving a driver who lost control of their vehicle, leaving the roadway and colliding with shrubs and trees. Contributing factors were identified as driver fatigue following a long commute, rather than any road-related issues.

Given the isolated nature of the incident, the absence of road-related causal factors, and the low frequency of reported crashes, there are no evident crash trends in the area.

3 TRANSPORT CONSTRAINTS – MATAKANA

We have outlined the transport constraints related to the current area which need to be considered when assessing growth proposed by this application. The latest recorded traffic volume data, obtained from the Auckland transport's traffic count data spreadsheet, is summarised in Table 1. We note that traffic volumes have probably increased on Tongue Farm Road, however, we estimate that the increase is negligible.

Table 1: Traffic volumes

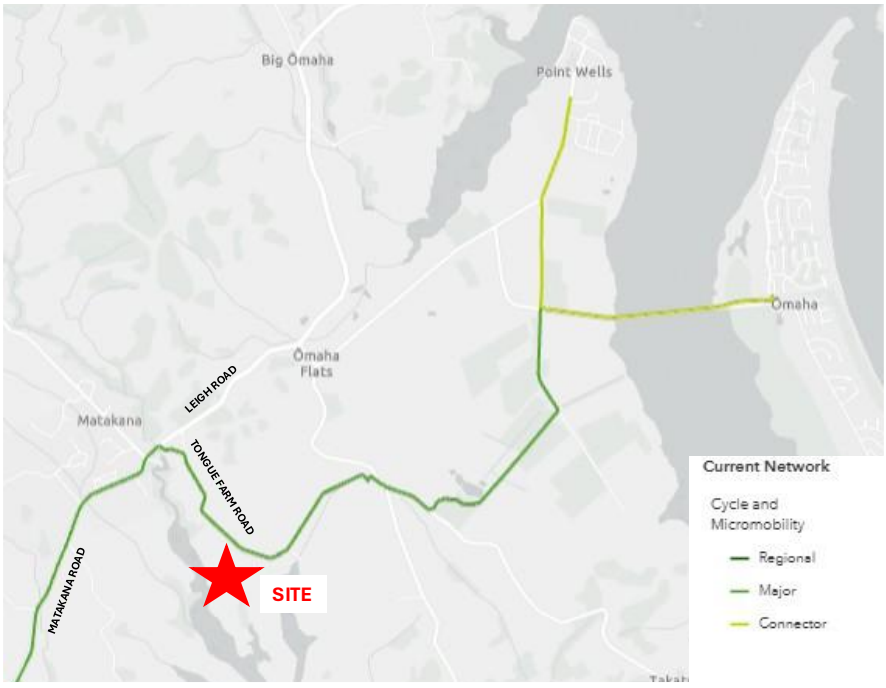
Road	Count Date	Average Daily Traffic (vpd)	Peak Hour Volume (vph)
Tongue Farm Road	25/02/2016	80	21
Leigh Road	12/05/2025	8,852	1,009

Wider connectivity via walking and cycling

Walking connectivity between Matakana Centre, Omaha, and Point Wells is currently constrained, with no dedicated pedestrian or cycle facilities and reliance on sharing the carriageway with vehicular traffic. The posted speed limit is 80 km/h on Leigh Road and 60 km/h on Tongue Farm Road.

Tongue Farm Road also forms part of the regional cycle network connection, commonly referred to as the Matakana Trail. This route comprises a mix of on-road cycle lanes and off-road shared paths. The subject land has frontage to the section of Tongue Farm Road that is identified as an on-road cycle route; however, there is no formally marked cycle lane in place. The cyclists share the general traffic lane on Tongue Farm Road, as it is a cul-de-sac road with a very low traffic volume.

Figure 5: Future connect cycle and micromobility plan

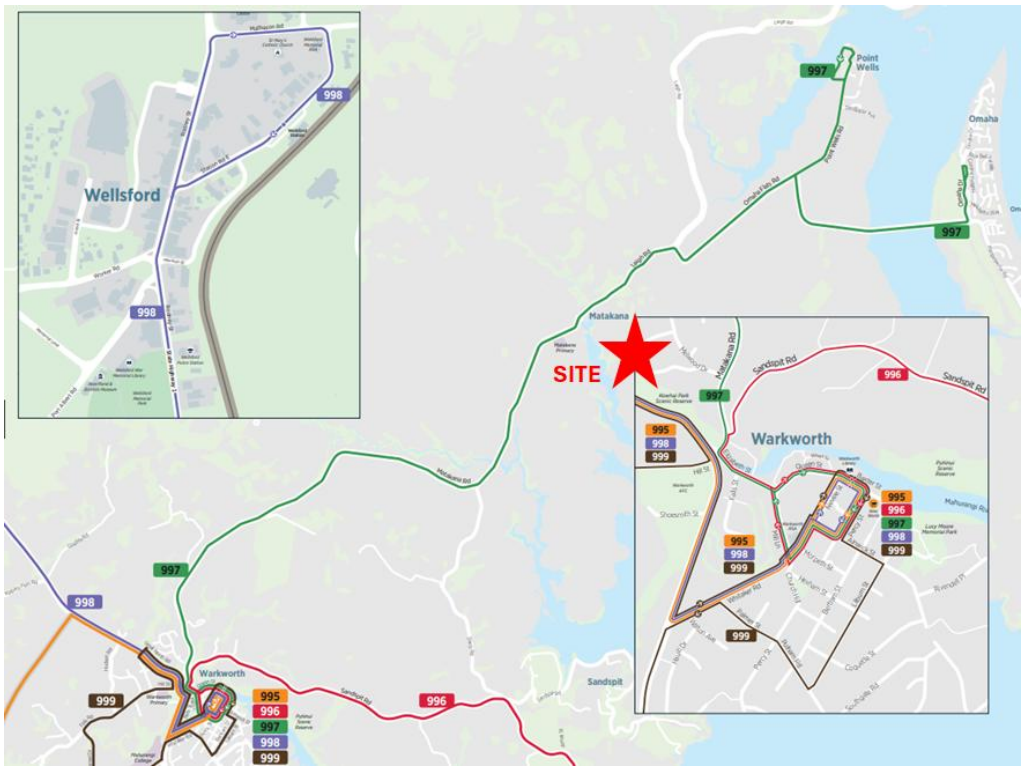


Limited public transport options

Public transport access in Matakana is limited. The only available service is Bus Route 997, which connects Warkworth to Omaha via Matakana Centre. This service operates at a low frequency of approximately every two hours. The public transport network with regards to the proposed site can be seen in Figure 6 below.

In relation to the subject land, the nearest bus stop is located at Matakana Centre, approximately 1.8 km from the site along Tongue Farm Road. Given the limited service frequency and distance to the nearest stop, public transport is unlikely to represent a convenient travel option for most users. As a result, private vehicle travel is expected to remain the predominant mode of transport to and from the site.

Figure 6: Bus connectivity in the vicinity of the Site



4 FAST TRACK REFERRAL PROPOSAL

The proposed development will be primarily residential in nature, with a small supporting retail component. A concept site layout of the development is provided in Figure 8 below.

The proposal at a broad level includes:

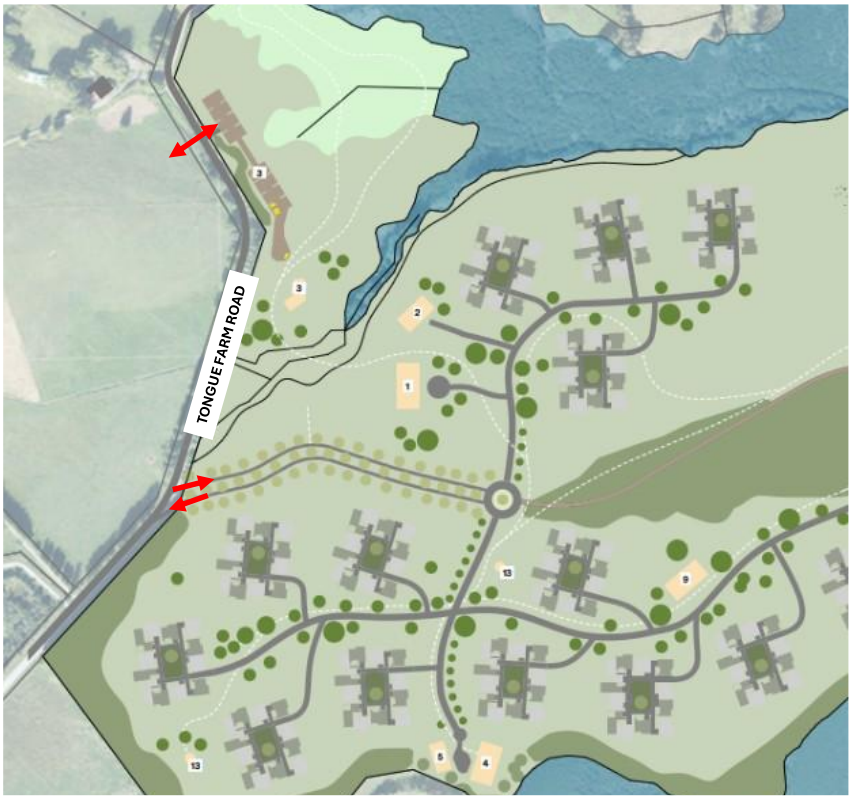
- 16 clusters of independent living units, each comprising 13 units and 30 bed care facility
- A number of communal facilities are provided within the site, including club house, pool, health spa, art centre, workshop, yacht club, tennis/pickleball court, pavilion, and jetty & boat ramp.
- A sea lodge accommodation and a sports hub for equipment storage like kayaks / paddle boards.
- A 350m^2 restaurant / café along with the associated parking spaces

Specific transport-related details include:

- A total of 208 independent living units for retirement housing, a 30 bed care facility, and 10 room sea lodge accommodation
- Approximately 40 staff members as a Full Time Employee (FTE)

- Car parking including for
    - Residential units: parking is expected to be in the form a garage for each unit
    - Café/restaurant: parking located on the eastern side of the site.
    - Visitor parking: while no dedicated visitor parking is currently proposed, it is expected that each housing cluster may include a small number of visitor spaces.
    - Staff: located and designed appropriately for intended FTE
- An internal roading network providing access to each unit and activity on site.
- Three vehicle crossings to serve the site (indicative locations are shown in Figure 7 below):
    - Two one-way crossings serving the retirement village, providing separate entry and exit movements. This arrangement is preferred so that the row of established trees along the access can be maintained.
    - One two-way crossing serving the café/restaurant and associated car parking.
- Walking tracks throughout the site.
- A farm track providing access to the sea lodge, sports hub, and other amenities.

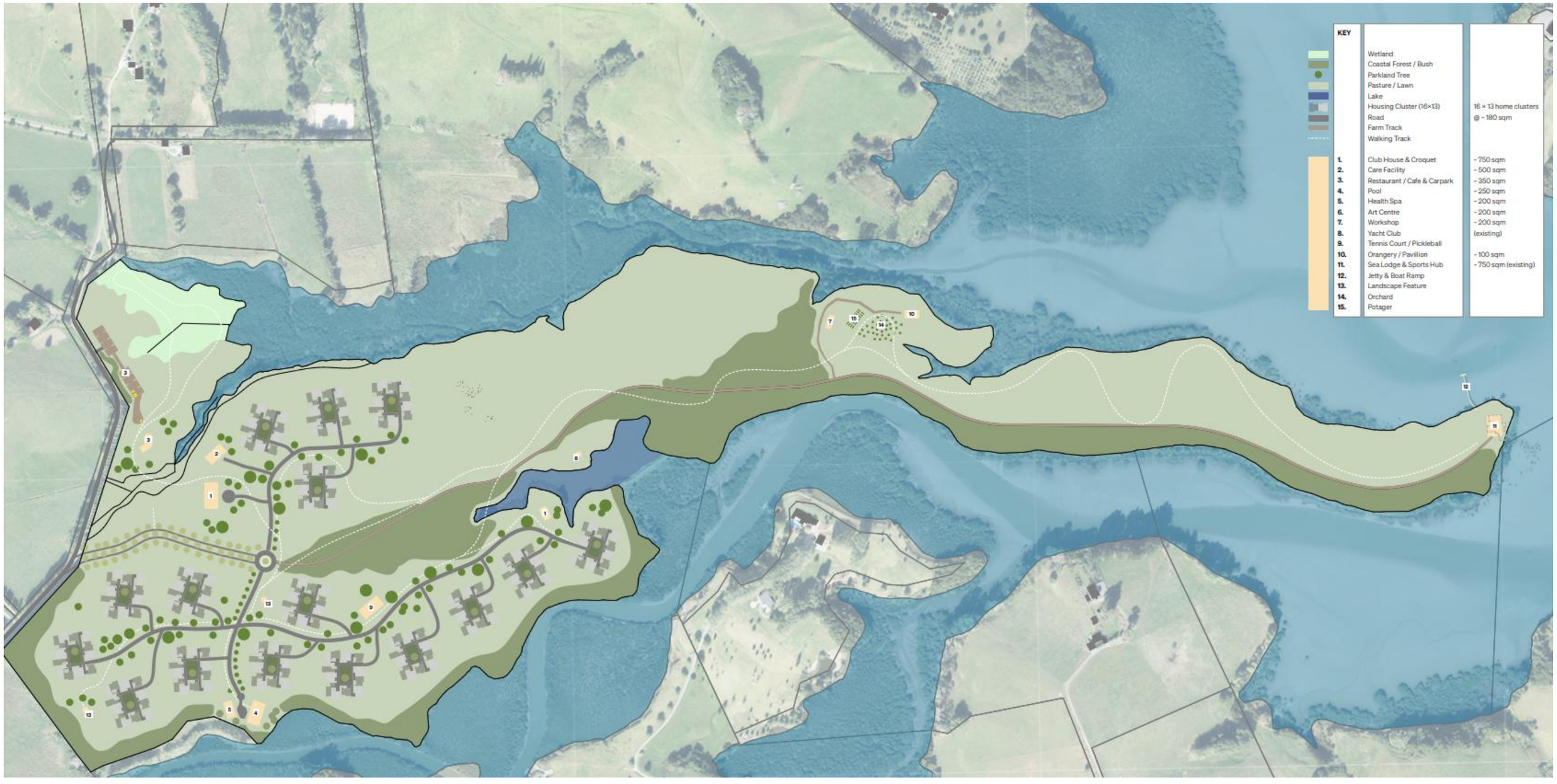
Figure 7: Vehicle crossing locations (in red)



Although not specified at this concept level, it is also expected the Site will include bicycle parking and loading, including consideration of rubbish collection for residential units with adequate space provided for trucks to collect rubbish and safely turn around.

Overall, the site provides sufficient space to accommodate safe transport accessways, loading and parking for both residents and visitors.

Figure 8: Fast Track Referral Concept



5 TRAFFIC EFFECTS FROM THE PROPOSAL

To understand the anticipated effects of the Referral, we have outlined the predicted traffic that will be generated. We note that a full assessment will be set out in a comprehensive Integrated Transport Assessment that supports the substantive application.

With regard to the retirement village, trips associated with the busier trafficked periods are expected to be minimal. In estimating vehicle trip generation associated with the Project, an assessment has been carried out using a "first principles" approach. This assessment is based on a combination of trip generation rate information from the RTA guidelines,[1] the ITE Parking Generation Manual,[2] and the results of trip generation surveys undertaken by Flow at other retirement villages.[3] A trip rate of 0.2 per dwelling is applied[4], being 42 trips in the peak hour.

Table 2: Trip generation of the proposal[5]

	Number	Units	Peak hour trip rate	Peak hour trips
Independent Living Units	208	Units	0.2 per unit	42
Staff members	40	FTE	0.25 per FTE	10
Care facility	30	bed	0.2 per bed	6
Seal lodge accommodation	10	Rooms	0.4 per room	4
Café / restaurant	350	SQM	5 per 100 SQM	18
Total				**79**

Table 2 above shows that 79 peak hour trips is estimated to be generated by the proposal. Below is a list of the source of the trip generation we have used for different activities.

- We have estimated 0.25 trips per FTE to calculate the trips generated by the staff members and care residents in the peak hour. We believe that this is generous given that there will employees staying within the development too
- The café / restaurant trip rates are taken from the NSW Guide to Transport Impact Assessment version 1.1, trip rates for restaurants

[1] The Road and Traffic Authority of New South Wales (RTA), Guide to Traffic Generating Developments, Version 2.2

[2] Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, September 2017.

[3] Surveys undertaken by Flow Transportation Specialists at Lady Allum, Milford (2008); Trevellyn, Hamilton (2008); Beechworth, Albany (2010); Meadowbank, Meadowbank (2007, 2008 and 2009); Everil Orr, Mt Albert (2012); Selwyn Heights, Hillsborough (2012).Maureen Plowman, Browns Bay (2015); Greengables, Nelson (2016)Gracelands, Hastings (2017); Elmwood and Eden Retirement Villages (2018)

[4] This is a conservative trip rates that will be reviewed as part of the substantive application. Trips rates of 0.14 per unit have been surveyed at other retirement villages.

[5] These are estimates only based on concept design. They will be reviewed as part of the substantive application.

- The trip rates calculated for the sea lodge accommodation is based on the hotel room activity from ITE parking generation manual
- We have estimated the same peak hour trip rate for the bed care facility the same as that of the Independent Living Units.

We note that a small percentage of the trips generated by the café / restaurant is likely to be associated with residents of the proposed retirement village and cyclists using the Matakana to Omaha route. However, for the purpose of this assessment, we have not made any reduction based on the linked trips to the retirement village and assumed that all trips generated by the café / restaurants will be an independent trip.

Based on the directional split for the PM peak specified in the ITE Manual

- 47% entering and 53% exiting for the retirement village, and
- 50% entering / 50% exiting split for the café / restaurant and sea lodge

A total of 38 entering and 41 exiting vehicle trips are estimated during the PM peak hour. The effect of these additional trips about the wider network would be negligible, in relation to performance, noting that very few of these trips would be associated with longer commuter travel because of the activity on site being for a retirement village.

Tongue Farm Road currently carries very low traffic volumes, approximately 100 vehicles per day. The Leigh Road / Tongue Farm Road intersection is a priority-controlled T-intersection with a dedicated right-turn bay on Leigh Road.

The majority of site-generated trips will involve left turns from Tongue Farm Road towards Matakana Centre or right turns from Leigh Road into Tongue Farm Road. Right-turn movements from Tongue Farm Road toward Omaha Beach and Point Wells are expected to be minimal. The café / restaurant and the sea lodge combined may generate a slightly higher proportion of right-turning movements, given that there are residential zones to the east of the Tongue Road/Leigh Road intersection (toward Omaha). However, these activities are estimated to produce only 11 exiting trips from Tongue Farm Road during the PM peak hour. Even if 70% of these vehicles (equivalent to approximately 8 trips) turn right at the intersection, the effect on the performance of the intersection is expected to be negligible.

Overall, the proposed development is anticipated to result in minimal additional traffic on the surrounding road network and will operate safely within the existing local transport environment. Furthermore, retirement villages typically experience their busiest periods during mid-morning and mid-afternoon, which do not coincide with the conventional peak periods on the roading network.[6]

6 ASSESSMENT OF CONSTRUCTION EFFECTS

Construction traffic effects will be assessed as part of the substantive application, including consideration of conditions of consent for any critical matters that will give rise to adverse effects.

[6] The trip generation will be revisited in detail in the substantial Transport assessment for the resource consent application.

7 ASSESSMENT OF SAFETY EFFECTS

7.1 Sightlines from vehicle crossings

Vehicle Crossing – Main Entrance

- The proposed vehicle crossing is located on the southern side of Tongue Farm Road on a horizontal bend, consistent with the location of the existing crossing.
- Being on a horizontal bend, the crossing provides sightlines exceeding 150 m in both directions along Tongue Farm Road. This meets the required minimum Safe Intersection Sight Distance (SISD) for an operating speed of 70 km/h (i.e., 10 km/h above the posted speed limit, reflecting the straight section). However, we note that the actual operating speed is likely to be lower due to the narrow road width and gravel surface.
- While there are separate vehicle access points for entry and exit, each crossing will be designed in accordance with Auckland Transport's Rural Road vehicle crossing standards.

Vehicle Crossing – Café

- The crossing must be at least 6.0 m wide at the property boundary to accommodate two-way car movements
- It is located on the southern side of the road, approximately at the midpoint of a straight section of Tongue Farm Road. The available sight distance in both directions is approximately 60–70 m:
    - East: Sightlines are restricted by the horizontal curve and existing trees
    - West: Sightlines are restricted by the uphill crest, which also has a horizontal curve at the top
- We expect the operating speed to be lower than the posted 60 km/h due to the two horizontal curves on either side. The SISD for 40 km/h is 73 m
- To the east, trimming trees within the Site could help achieve the required SISD. To the west, while restricted by the crest, it is not possible to achieve higher sight distance
- We estimate a minimum sight distance of 55 m, which meets the minimum Approach Sight Distance (ASD) for 50 km/h, and is available on either side of the vehicle crossing. This ensures vehicles can stop before the conflict point from either direction
- Tongue Farm Road carries low traffic volumes (approx. 100 vehicles per day)

Overall, we believe that the vehicle crossing locations have adequate sight distances and therefore will not pose any major safety concerns in operation. Some mitigation at the café access may be required subject to design development, such as

- Localised widening, to position turning vehicles in safe locations
- Vegetation trimming or removal
- Sealing the carriageway
- Some embankment regrading may be useful on the northern side of Tongue Farm Road to improve visibility to the west of the café access

7.2 Safety for pedestrians

The proposed development includes a dedicated internal pedestrian walking track that circulates around the site. While the concept plans do not currently show pedestrian paths connecting to the frontage of each unit, provisions will be made to provide such connections, ensuring safe and convenient pedestrian access to all dwellings.

Currently, there are no public footpaths on Tongue Farm Road. There is expected to be low demand for walking along Tongue Farm Road from the Site because:

- The Site has internal walking paths that offer more attractive walking routes for recreation
- There are on-site facilities such as a café and communal activities that reduce demand to leave the site

Furthermore, the topography and existing layout of Tongue Farm Road makes formation of a footpath impractical to implement along parts of the route.

Although a footpath connection between the Site and Matakana would be desirable, it is not practical or necessary given the low demand and low traffic effects anticipated for the site.

7.3 Safety for motorists

Tongue Farm Road is sealed for approximately 600 m from its intersection with Leigh Road but lacks kerb and channel and public footpaths. Beyond this sealed section, extending to the cul-de-sac at the site frontage, the road is gravel, also without kerb, channel, or footpaths.

As part of the proposed development, it is anticipated that Tongue Farm Road will be sealed up to the easternmost proposed vehicle crossing serving the café/restaurant, ensuring that residents and visitors can safely access the site without regularly traversing gravel surfaces.

8 CONCLUSIONS

Our review has identified a range of potential opportunities to manage the adverse traffic effects of the proposed development.

We are of the view that the development will have negligible impact on the existing travel patterns and the anticipated trips generated can be easily accommodated within the surrounding road network.

Key mitigation measures we recommend as part of the development, subject to design development and a full Transport Assessment to support the Substantive Application, include:

- Provision of safe pedestrian connections from the internal walking track to the frontage of all units
- Sealing of the existing gravel section of Tongue Farm Road up to the site accesses, including café / restaurant access
- Mitigation at the café / restaurant access given the constrained visibility, which may include
    - Localised widening, to position turning vehicles in safe locations

- Vegetation trimming or removal
- Sealing the carriageway
- Some embankment regrading on the northern side of Tongue Farm Road to improve visibility to the west of the café / restaurant access

Reference: \\flownz.local\Shares\Projects\SAGL\001 Matakana Retirement Village Fast-Track Referral\4.0 Reporting\T1C251008 Matakana Retirement Fast Track Referral Transport Memo -final.docx - Ronak Gupta