

Transportation Impact Report

Tahimana Development

Stagecoach Road

Tasman

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1 EXECUTIVE SUMMARY

The project is to subdivide and develop land for the purpose of establishing a residential and rural lifestyle development on approximately 70 hectares of land off Stagecoach Road, Tasman, in the Tasman District. The project will include works within the Stagecoach Road, Dicker Road and Williams Road reserves.

The project will include:

- a) subdivision to create approximately 145 allotments, including 4 allotments for reserve, roading and services, and enable construction of approximately 141 residential units across a range of densities
- b) development of an open space network including a public reserve and walkways, and upgrades to shared pathways
- c) landscape planting and restoration and enhancement of waterways and wetlands
- d) associated infrastructure, including for three waters services and transport (including external road upgrade works).

This report provides an analysis and assessment of the transportation environment and considers the impacts of a proposed subdivision at the end of Stagecoach Road. The analysis has considered the existing issues with the road network and taken a gap assessment approach to identify potential effects of the proposed development.

The change of Government in 2023 has changed central governments land transport priorities with the 2024 Government Policy Statement on Land Transport (GPS) having the strategic priority of economic growth and productivity with support by three equally weighted priorities of increased maintenance and resilience, safety and value for money. This is a shift from the previous GPS which had a greater focus on other transport modes such as public transport, cycling and walking. The GPS 2024 did not remove the vision of providing for walking and cycling, but the focus from the GPS 2021 has been reduced in preference to economic growth, maintenance and housing. However, the focus was within the cities and reducing congestion and improving safety. The Te Taihū Regional Land Transport Plan reflects this change in direction from the GPS 2024.

The proposed subdivision has a total land area of around 70 hectares which is located on rolling land with small ridges, low valleys and areas of wetlands. 2.78ha of land is owned by the crown that forms part of the development site and will be used as part of the Wastewater Disposal Field under a Licence to Occupy. These features have informed an

iterative design process, with many changes in the final design to fit the site's environmental constraints and opportunities, manage effects, and provide positive sustainable outcomes.

The proposed development is relatively close to the Tasman Village and Mapua Settlement. There are a number of existing walking and cycle connections adjacent to the development site. There is a new bus service that connects Motueka to Richmond and runs through Tasman and Mapua which also provides opportunities for increased usage and connectivity. Mapua is ideally located for travel and work choices of Richmond and Motueka.

There will be a variety of section types which will allow a cross section of the community to live and play in the proposed development and the wider community. The development of the land will be completed over several stages and will result in around 141 lots.

Access to the development will be via Stagecoach Road which is connected to the wider road network via Seaton Valley Road and State Highway 60. Stagecoach Road is a road that has a number of different levels of service from a wide sealed road down to a dirt track. As part of the proposed subdivision investigations, a design has been carried out to understand the constraints and costs to seal Stagecoach Road from the start of the gravel section to the development.

The analysis has identified a small number of specific network deficiencies that currently exist as well as parts of the road network where future works may be needed to manage the growth of the development and other likely subdivisions in the Rural 3 zone. The key projects to address existing deficiencies and provide for future growth were identified. These included the sealing of Stagecoach Road and improving/upgrading various walk cycle links.

In summary the proposed subdivision is located to take advantage of space capacity in the adjacent road network and encourage alternative transport modes. The proposed subdivision is positioned to provide a connected development area that will enable walking, cycling and bus services to work and other services, being ideally located midway between Motueka and Richmond.

2 INTRODUCTION

This report has been prepared as supporting material for an application for resource consent for a proposed subdivision and development at the end of Stagecoach Road in Upper Moutere in the Tasman District. The purpose of this report is to provide a traffic and transportation assessment to assist in the planning analysis of the environmental risks, opportunities and benefits of the development. At the end of this report is a concluding analysis of the anticipated transportation effects of the proposed subdivision and development.

It is considered the transportation analysis provides an accurate statement of the anticipated effects relevant to the environmental effects addressed in this report.

The report author has read and agrees to and comply with the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This report is within the author's area of expertise, except where the report states that the author relies upon the reports of other experts. The author has not omitted to consider any material facts known to them that might alter or detract from the conclusions reached.

The proposed subdivision and development have a total land area of around 70.8 hectares. The proposed subdivision area is located in the coastal Tasman area which is mostly zoned as Rural 3. The zoning envisages clusters of Residential and rural residential type of development and is relatively close to Tasman Village and Mapua. The site is able to take advantage of various transport connections which include State Highway 60 which is located on its western boundary which provides easy access for vehicular traffic from the development site. Even though primary transport choice will be vehicular, there are several cycle and walking connections to the wider community including schools, shops and services located in Tasman Village, Mapua and Mahana. There are also public transport services that link Motueka with Richmond and Nelson that use Aporo Road to the north of the development site.

The proposed development seeks to have a combination of large and smaller allotments to provide a variety of housing options for potential homeowners. As noted in the Application this will also provide a more diverse community by enabling different people to buy and live in the area. The development will also allow for some affordable home options in a more balanced overall development.

Once the development is completed there will be around 141 lots with 139 lots ranging from 600m² to 20,000m², along with two large Rural Conservation Lots, being Lot 140 of 11.4 ha and Lot 141 of 5.68ha. New residents will be able to access the development from Stagecoach Road by vehicle and the wider road network. Alternative transport options are

available via Dicker Road, Williams Road and Awa Awa Road, all of which connect to the Tasman Great Taste Trail.

3 DEVELOPMENT SITE LOCATION AND DESCRIPTION

The site is located at the end of Stagecoach Road in Upper Moutere which is in the Tasman District.

Figure 1 shows the development site (yellow outline).

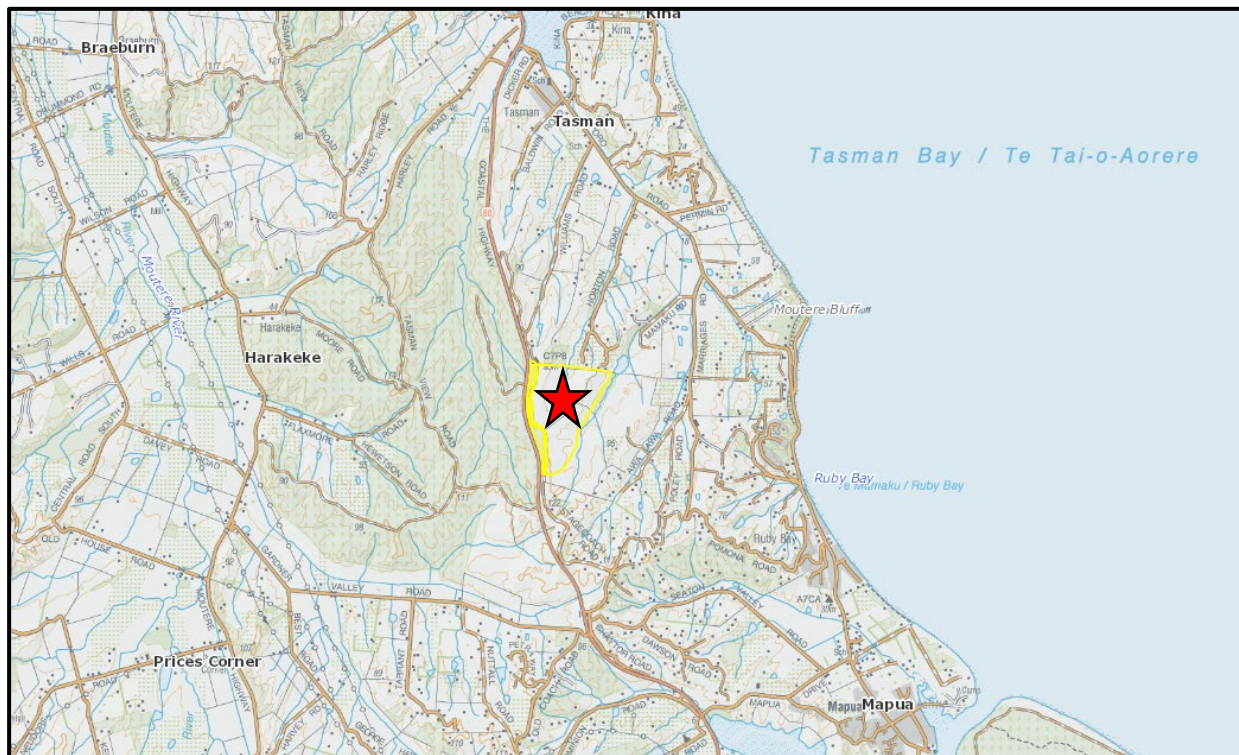


Figure 1: Development Site. Source (Top of the South Maps)

The village of Tasman is located to the north of the development site with the Mapua settlement located to the southeast. State Highway 60 runs along the western boundary, and the site has road connections to Stagecoach Road to the south and Dicker Road (unformed). There are other paper road connections to the north including Williams Road along with formal and informal links to Westmere Drive and Horton Road.

The development site has a land area of around 70 hectares that is primarily located on eastern sloping rolling land. There are a number of small spurs within the development which separate wetland areas and low slopes for housing. Part of the development site is located on the western side of Stagecoach Road and is west facing overlooking State Highway 60. This part of the site will be used for wastewater management, with no dwellings being located in this area.

Vehicle access to the development site will be from Stagecoach Road. There are also walk and cycle connections to the development site from Dicker Road, Williams Road, and Westmere Drive.

4 TRANSPORT ENVIRONMENT

This section provides information about the existing road network. As noted above the development site provides a number of transport options to access the wider community which includes the following:

- Vehicular access from Stagecoach Road and SH60 which provides access to the wider region. This will be the primary transport mode. However, there are proposed improvements to the walking and cycling connections to nearby service
- Cycle access via Williams Road, Dicker Road, Stagecoach Road and Westmere Drive and the wider community via the Tasman Great Taste Trail on Aporo Road and Marriages Road.
- Walking access via Williams Road, Dicker Road, Stagecoach Road and Westmere Drive and the wider community via the Tasman Great Taste Trail on Aporo Road and Marriages Road.
- Bus Services along Aporo Road connecting to Motueka, Mapua, Richmond and Nelson.

These various transport routes are discussed in more detail below.

4.1 State Highway 60

The development is accessed from the wider road network via State Highway 60 and its intersection with Stagecoach Road. State Highway 60 connects Tasman (Richmond) with Golden Bay and provides a strategic link connecting Motueka and other coastal communities including Mapua, Tasman Valley, Upper and Lower Moutere and Riwaka.

State Highway 60 has a posted speed limit of 100km/h which reflects the high standard this relatively new road has been built to. The estimated traffic flows along the section of State Highway 60 near Stagecoach Road are around 7,200 vehicles per day. Around 6% of the traffic flow are heavy vehicles.

The intersection of State Highway 60 and Stagecoach Road forms a tee intersection that was opened in 2012. The intersection is well designed with a wide right turn bay with lead-in tapers. The sight lines are excellent, and all movements are able to see and interact with each other safely. The intersection was designed to account for the future increased development expected within the Tasman Resource Management Plan zoning in this area including rural-residential, Rural 3 and residential development.

The Stagecoach Road exit provides a single lane approach which is wide enough for left and right turning vehicles to wait side by side. Traffic on Stagecoach Road is controlled by give way signs. Immediately up Stagecoach Road is the intersection of Chaytor Road and Stagecoach Road.

Figure 2 shows the Stagecoach Road approach to State Highway 60.



Figure2: Stagecoach Road

A review of the crash history for this intersection shows no reported crashes since its construction which supports the view that the intersection is well designed.

4.2 Stagecoach Road

Stagecoach Road formed part of the Old Coach Road that provided a link from Richmond to Motueka before the construction of the Coastal Highway. Old Coach Road was split into several different roads following the completion of the Ruby Bay Bypass. The split roads include Tasman View Road and Stagecoach Road.

The posted speed limit for Stagecoach Road is 80 km/h. The estimated traffic flows along Stagecoach Road are around 240 vehicles per day. It should be noted that the flows decrease quickly as you travel further from State Highway 60.

Stagecoach Road has a number of different formations as it moves further from the highway. Generally, the land development in the area is rural residential with a combination

of small and large allotments. The different formations of Stagecoach Road from the highway to the development site include the following:

- The first section is a 6500mm sealed road with sealed shoulders.
- The next section is a continuation of the 6500mm sealed width but with no shoulders provided. An informal dirt track provides an off-road cycle and pedestrian path. The first two sections of Stagecoach Road have a curvilinear alignment that provides a good level of service.



- At around 66 Stagecoach Road the formation changes to an unsealed road with a variable width up to 5000mm. At this point, the road geometry also significantly changes with a number of sharp vertical crest curves and tight horizontal curves. There are some existing vehicle crossings with difficult sight lines and forward sight distances along Stagecoach Road. The existing formation is also sometimes not within the legal road corridor and traverses onto private property.

The photograph below is south of 150 Stagecoach Road



- At around 208 Stagecoach Road the unsealed gravel formation makes way to a dirt track with no gravel running course. Geometrically it has a better formation than the unsealed previous section. There are a number of deep holes along its length which is a sign of the lack of stormwater control and low maintenance. It is understood Council does not maintain this section of Stagecoach Road. Generally, the road follows the road corridor all the way to the development site.



State Highway 60 can be seen on the left-hand side of the photograph with a cycle/walk connection to Westmere Drive shown on the right-hand side of Stagecoach Road. In the distance the continuation of Stagecoach Road can be seen and the development site.

The unsealed section of Stagecoach Road serves around 24 properties with Lacebark Lane being on the sealed section immediately south of the change road surface. The unsealed section of Stagecoach Road is estimated to carry around 150 vehicles per day. Stagecoach Road is a popular walking and cycling route.

4.3 Walk/Cycle Connections

The development site is located on the upper slopes of the Tasman Coastal area with a number of existing and potential walk/cycle links to the wider area via existing legal road connections. These legal road connections are generally unformed paper roads and include Dicker Road, Williams Road, Horton Road and Westmere Drive.

Stagecoach Road will form the vehicular link to the development site and will also provide a cycle/walk connection from the development to State Highway. This link will also enable cyclists and pedestrians to connect through to Tasman Village via Dicker Road.

Figure 3 shows the various existing cycle connections in the wider area.

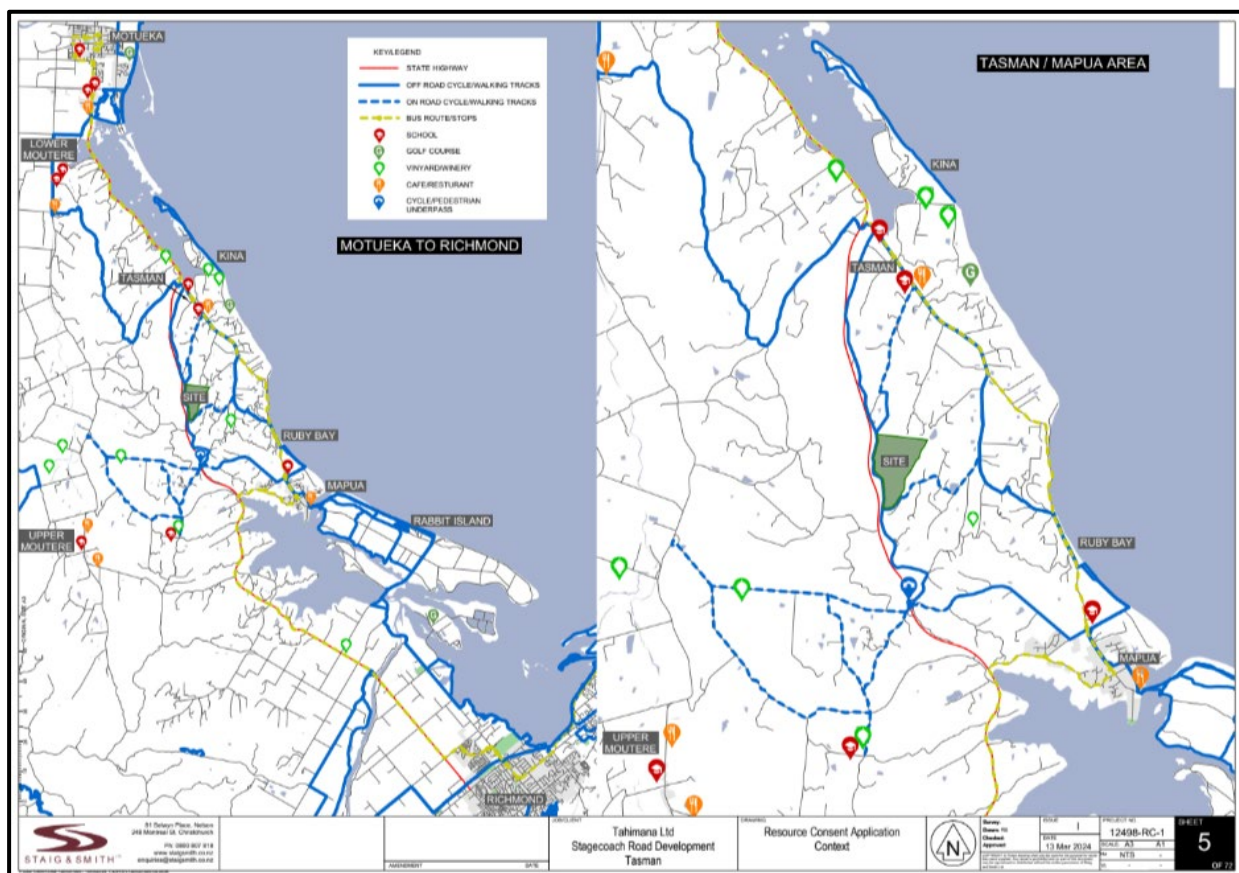


Figure 3: Cycle/Pedestrian links. (Source: Staig & Smith Plan 12498-RC-1 Drawing 5)

Larger scaled plans are available in the Resource Consent application. The blue lines represent cycle and walking connections with the yellow and blue lines also forming part of the wider network.

Of particular note is the existing connections to Tasman Village which has a local store. Also within Tasman Village are two schools. The existing connections along unformed roads such as Williams Road and Dicker Road allow people including school children to access these facilities without needing to go via State Highway 60. The walk/cycle distance from the northern part of the development site to Tasman Village/Tasman School is around 3.4 kms and around 2.5 kms to Tasman Bay School. The travel distance via SH60 is around 11kms.

The Tasman Great Taste Trail provides off road connections to the wider area including Mapua and Motueka.

Figure 4 shows a section of the Dicker Road path that has not been improved.



Figure 4: Dicker Road Path

The path is well formed with most of it being wider and to a higher standard than shown in this photograph.

As part of a major planting and revegetation project along the eastern side of SH60 the previous path along the ridge has been significantly improved with only a very small section left as the formation (around 900 metres) shown above.

Figure 5 and 6 show parts of the upgraded sections.



Figure 5: Dicker Road



Figure 6: Dicker Road

These changes have significantly improved this popular walk/cycle trail which will be used by future residents.

5 CRASH HISTORY

5.1 General

This section provides details of the crash history for the key roads related to the proposed subdivision. The search has included the roads that can be used by pedestrians and cyclists. A detailed search of the NZ Transport Agency crash database was carried out for the five-year period from 2021 to 2025. The part year of 2026 was also reviewed and considered as part of the crash analysis. The Traffic Crash Reports (TCR) can take up to three months to be coded in the crash database. The roads that were included in the search are as follows:

- Stagecoach Road,
- Intersection of Stagecoach Road and State Highway 60,
- Williams Road,
- Dicker Road,
- Horton Road,
- Aporo Drive.

The crash history for these roads is provided below.

Table 1 provides the details of the reported crashes.

Road	Location	Date	Collision Reference	Date	Accident Description	Severity
Aporo Drive	20 metres west of Dicker Road	26/08/2022	2022233657		Motorcyclist heading east on Aporo Drive has lost control of their bike when cornering.	Minor
	120 metres west of Dicker Road	09/08/2025	2025343165		Driver heading west has lost control and gone off the road. Unsupervised intoxicated driver who just got licence	Non-injury

	At Baldwin Road	18/09/2023	2023269873	Young supervised driver has made a right turn from the left-hand side of the road heading west and has been hit by a vehicle heading east.	Non-injury
		06/12/2025	2025357309	A motorcyclist has passed a right turning vehicle when heading east on Aporo Road.	Serious
	At Williams Road	17/02/2022	2022213610	Inexperienced motorcyclist heading east on Aporo Drive has gone to overtake a truck turning right into Williams Road. Motorcyclist has swerved to avoid truck and lost control on the left-hand side of the road.	Minor
	At 260 Aporo Drive	30/06/2019	201972809	A driver heading east on Aporo Drive has crashed into the rear end of a vehicle turning right into a private access.	Non-injury
	180 metres east of Marriages Road	25/03/2021	2021182602	An intoxicated driver heading east on Aporo Road has lost control and crashed into a ditch.	Minor
	650 metres west of Marriages Road	21/04/2021	2021185277	A driver turning left to head west has fallen off the road into the ditch on the side of the road.	Non-injury

	1000 metres from Marriages Road	09/12/2024	2024313519	Driver heading west on Aporo Road has got distracted and lost control of their vehicle and flipped car into the nearby paddock.	Non-injury
Stagecoach Road	Outside 154	04/06/2022	2022225111	Driver avoiding police chase has lost control on a curve on a gravel road and gone into a bank.	Non-injury

Table 1: Reported Crashes 2021 to 2026 (Source: NZ Transport Agency)

There are only ten reported crashes in the search area. There were no reported cycle crashes. There were no reported crashes at the Stagecoach Road/State Highway 60 intersection. Four of the crashes involved inexperienced or intoxicated drivers and one crash being a driver fleeing the police.

The reported crashes show no inherent deficiencies in the road network, noting that there are no reported crashes on Stagecoach Road or at its intersection with SH60 that have involved deficiencies with the road.

6 CONSULTATION AND ENGAGEMENT

Early engagement with Tasman District Council and NZTA has been carried out on the proposed development, pre the lodgement of the initial Resource Consent Application with Tasman District Council in 2024. There was some initial consultation with the NZTA prior to the pre application meeting with the council. Following the pre application meeting the council further consultation/discussion with NZTA were held. NZTA gave their written approval to the Resource Consent Application lodged with Tasman District Council, which was for the same level of development as the current Application to be lodged under the Fast-track Approvals Act 2024...

The initial meeting with Council set out what was proposed noting that there have been modifications to the proposal as a result of this meeting and other matters that needed to be addressed. Notes from the meeting dated 27 April 2023 provide the key aspects which the development needs to consider for traffic. These included the following.

- The sealing of the full length of Stagecoach Road.
- A Road Safety Audit will be required as part of the application.
- Design issues around road boundaries for Stagecoach Road.
- Connections to other roads for emergency vehicles etc.
- Other shared paths.
- Subdivision design with cul de sacs.
- The assumption that there will be no streetlights.
- Written Approval from NZTA.
- Concerns about increased private vehicle use and Vehicle Kilometre Travelled Reduction Policy.

These matters will be addressed in the assessments below with most already forming part of the application that is being submitted.

The meetings with NZTA raised the following matters which need to be considered. Generally, NZTA representatives saw the issues being able to be managed.

- Site connectivity to the wider road network
- Resilience and the connection to SH60. This included a second resilience link to SH60 to be used only if Stagecoach Road was closed for an emergency some other event.

- Wider planning framework such as the Regional Land Transport Plan.

As with the Council's commentary the NZTA's feedback is also addressed in the assessment below.

The NZTA did not raise concerns with the safety, capacity or operational issues with the highway network and as noted above have given their written approval.

As part of the Resource Management Act Resource Consent process the applicant has engaged with the council staff about matters relating to walkways and cycleways. The Engineering Section of the council has suggested that the Transport Assessment has discounted the trip rate due to the development having walking and cycle connections. This is not the case, and the Transport Assessment makes it clear how the trip rates have been assessed.

In the email from the council consultant planner dated 15 September 2025, she noted the following comments from Engineering.

Their specific comments on the proposed metalled shared paths are:

- *They are not acceptable from a maintenance point of view*
- *They will **not mitigate the transport issues** or provide the level of connectivity for pedestrians and cyclists outlined in the transport assessment. **(Emphasis added)***
- *Due to cuts to the transport maintenance funds, metalled paths such as these are a low priority for maintenance and more often than not degrade to a state that is below the level of serviced required.*

Their specific feedback on the lighting is:

- *The CTASDDG has one guideline on street lighting:*
"Minimise the use of street lighting so that it is in keeping with rural expectations, whilst maintaining minimum standards for personal and road safety."
- *The guideline requires that minimum standards for personal and road safety are maintained. Due to the density proposed, the minimum standards are above what you might consider typical of a rural setting. A P3 standard as per AS/ NZS 1158 is considered to be the minimum standard here.*

*They have advised that the additional information does not change the accessibility issues and concerns they have. They consider there will be a **heavy reliance on cars in this development due to its isolation and distance** from the nearest town centres. This, combined with the development density, **will result in high trip generation**. As such, they do not support the proposal. I do not think that any further information the applicant provides will change this view. **(Emphasis added)**.*

It is proposed to provide no streetlighting for the development apart from a flag light at the new Stagecoach Road/Road 1 intersection. Further discussion on streetlighting is provided later in this assessment.

The development is located within the Rural 3 Zone which specifically provides for residential development on unproductive land. Any development on Rural 3 land in the Coastal Tasman will have a reliance on vehicles due to its location. However, this does not automatically translate to high trip generation and based on surveys the opposite is the case. As shown below the typical trip rates for suburban areas range from around seven trips to ten movements per dwelling per day. Rural residential areas included a subdivision adjacent to this site are showing trips rates between four and five movements per dwelling per day.

As noted throughout the assessment below there are no transport issues on this part of the Tasman or NZTA road network. Stagecoach Road and its intersection with SH60 easily have the capacity to accommodate the flows and NZTA have given their written approval. There are no safety issues, and this development will improve the safety of vulnerable road users who already use Stagecoach Road.

Furthermore, the development while not being as convenient as in a suburban area, does provide walking and cycling connections to the wider road network, some services and the Tasman Great Taste Trail.

7 THE PROPOSED DEVELOPMENT

The proposed subdivision seeks to provide around 141 lots over 70 hectares of Rural 3 zoned land. The development consists of small and large lots ranging from 600m² to 20,000m², with 2 Rural Conservation Lots each with a BLA. The subdivision is located at the end of Stagecoach Road.

7.1 Development Layout

Figure 7 shows the proposed subdivision. Note that larger scale and more detailed plans are provided in the consent application.

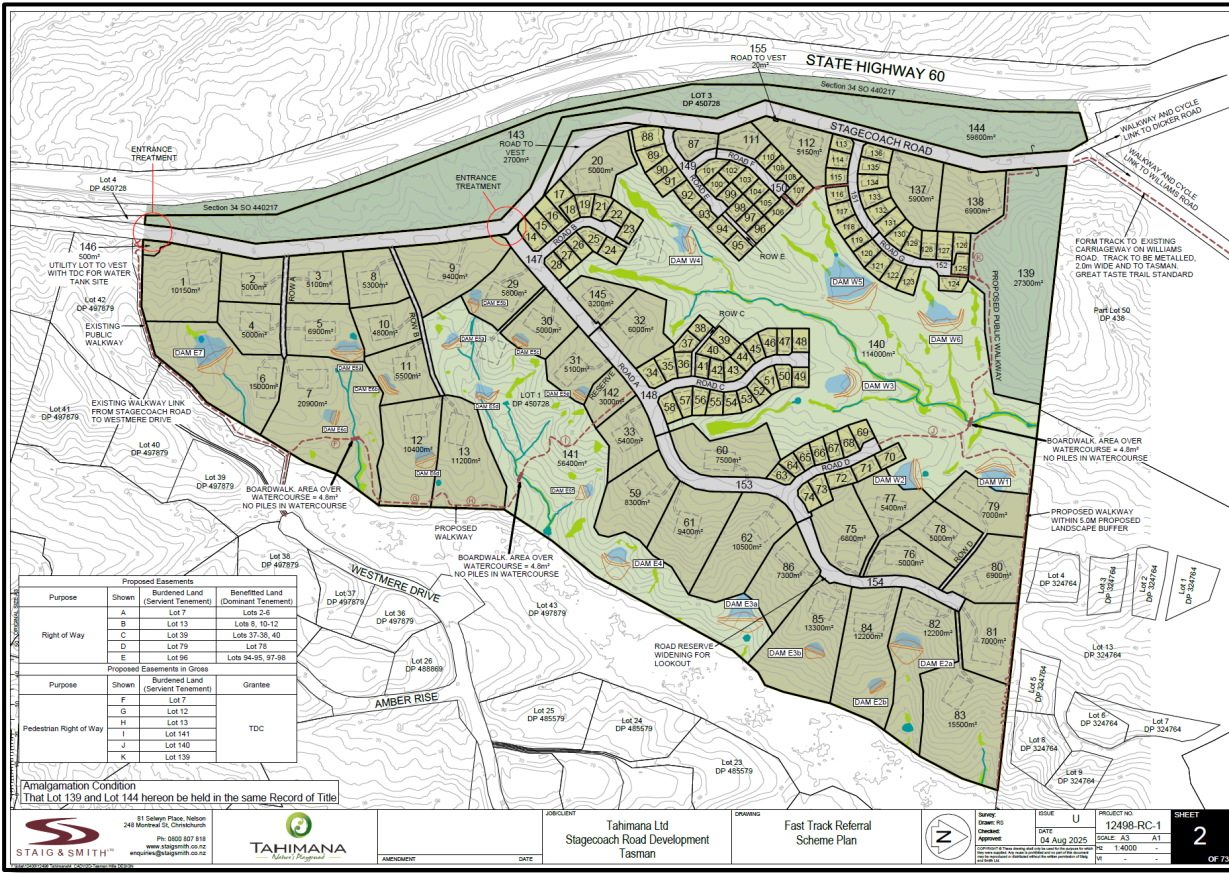


Figure 7: Scheme Layout. (Source: Staig & Smith Plan 12498-RC1 Sheet 2)

As shown the existing Stagecoach Road is to the south of the development site and provides the connection to the wider vehicular network via SH60. All the new roads come off the ridge line and head to the east off Stagecoach Road. A turning head will be constructed at the end of the upgraded Stagecoach Road which is shown on plan RC 12498-RC-1 Sheet 3. Larger lots are planned to the south and end of Road 1 with more dense development to the north of Road 1. The roads have been typically designed to traverse along the spurs within

the development site. This is to avoid streams and wetlands within the gullies of the development site.

As noted on the plan there are various cycle and walking connections from the development to the north via Dicker Road and Williams Road and to the east via Road 1 and Westmere Drive. These connections also link to the Great Taste Tasman Trail, Mapua and Motueka. Stagecoach Road also provides a connection to the south and Seaton Valley Road, SH60 and Mahana.

The proposed development includes a significant upgrade and the sealing of around 3kms the Stagecoach Road. It is also proposed to construct a separate 2.5-metre-wide shared path from the development to Chaytor Road on Stagecoach Road as well as provide a 2.5-metre-wide gravel path on the unformed legal road from Stagecoach Road/Dicker Road to Williams Road.

7.2 Cycle and Walk Connections

As part of the development, it is proposed to enable/enhance the connections that this site has with the wider network including the Great Taste Tasman Trail.

As part of upgrading Stagecoach Road, the existing informal dirt track that is sometimes used by walkers and cyclists will be improved to a 2.5 metre wide compacted basecourse path. The first section of Stagecoach Road from SH60 to the unsealed section of Stagecoach Road does not have a formed shared path and the applicant has offered to construct a 2.5-metre-wide gravel path similar to the Tasman Great Taste Trail. The proposed shared path will connect Chaytor Road (and the underpass across SH60) to improvements to the unsealed section of Stagecoach Road.

Dicker Road is a well-used walk/cycle path that provides a connection to the north, Tasman Village and the Great Taste Tasman Trail. It is mostly well formed with seal in some places and wide gravel formation in others.

The unformed section of legal road that connects into Williams Road is mostly an informal dirt track with the applicant agreeing to form a 2.5-metre-wide gravel shared path from Stagecoach Road on the unformed section of Williams Road (around 880 metres in length).

There is also a path from Stagecoach Road that connects to Westmere Drive, Suncrest Drive and Awa Awa Road. Access to the Tasman Great Taste Trail is available at the end of Awa Awa Road which conveniently links to Ruby Bay and Mapua.

The Tahimana development includes a proposed new walkway /cycleway to be formed through the Subdivision as detailed on the Subdivision Plan in Figure 5 denoted by the dashed red line. This proposed new walkway /cycleway will connect to Stagecoach Road at the north providing from there a connection to the Dicker Road walkway /cycleway together

with connection to the proposed walkway/cycleway through to Williams Road. To the southeast of the Tahimana property the new internal walkway /cycleway will connect to the walkway /cycleway at Westmere drive that also connects back up to Stagecoach Road.

7.3 Road Design

The development is located within the Rural 3 zone. The nature of the development seeks to have smaller lots in some areas of the site and in line with that increased density the road designers are proposing to construct new roads generally to a residential standard.

It is proposed to upgrade Stagecoach Road generally to meet the NTLDM requirements. Discussions have been held with Council officers to understand Council's requirements. Council staff have confirmed that they want a six-metre-wide sealed carriageway with 500mm wide gravel shoulders on each side of the road. There was some discussion around the cycle/walk path width and need. The plans are showing a 2.5-metre-wide gravel path largely separated from the road formation of Stagecoach Road.

There are some sections of Stagecoach Road that are not within road reserve and traverse into private land. The design has realigned the road to have all the public road formation within road reserve. This has led to some minor modifications to the typical layout to provide a design that can meet the needs of the increased traffic and local residents. It was noted to Council that the upgrade of Stagecoach Road had some noticeable wider public benefits and will potentially make it easier for other Rural 3 land in this area to be developed.

Figure 8 shows the typical cross section of three road types within the development and the upgrading of Stagecoach Road. Larger scaled plans are provided within the consent application.

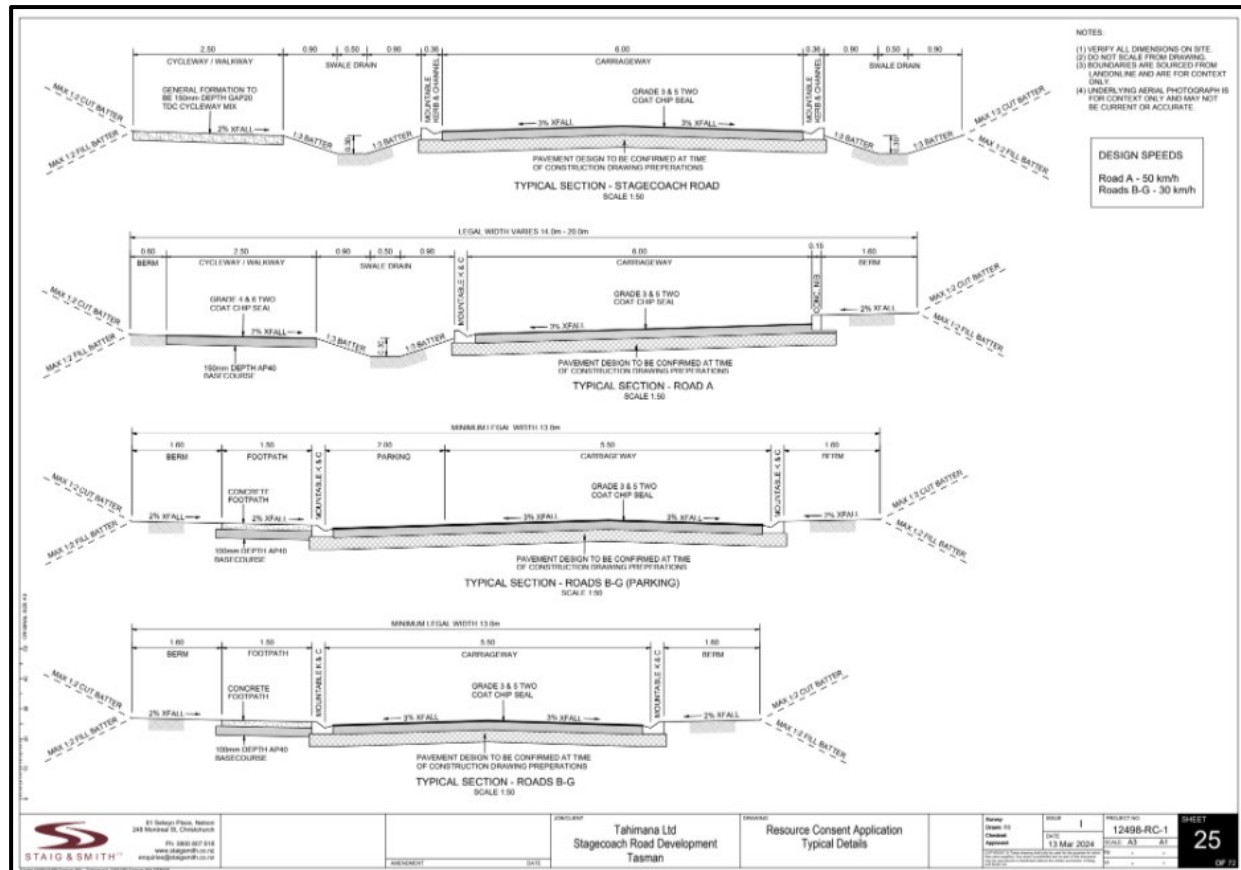


Figure 8: Typical Road Cross sections. (Source: Staig & Smith Plan 12498-RC1 Sheet 25)

As the number of lots decrease on the individual roads the formation standard also reduces in line with Table 4-7 of the NTLDM.

The right of ways have also been designed to the requirements of the NTLDM.

8 TRANSPORTATION PLANNING FRAMEWORK

8.1 General

This analysis is an audit of the design of the development road and traffic matters and its compliance with the requirements of the Tasman Resource Management Plan (TRMP) as well as the Nelson Tasman Land Development Manual (NTLDM).

It is important to note that design and layout of the development have been independently commissioned and carried out by Staig & Smith. Traffic Concepts staff have been independently commissioned to consider the transportation matters and the potential positive and adverse effects on the wider road network. The analysis includes an assessment and evaluation of any non-compliance with the TRMP. Separately Traffic Concepts have also been commissioned to complete a Safe System/Road Safety Audit of the preliminary design. Traffic Concepts staff have not been involved in the design of the development. A second Auditor, independent of Traffic Concepts was also used to complete the Safe System Audit.

8.2 National and Regional Significance

The development is located on the upper slopes of Tasman with the Tasman Great Taste Trail connecting Mapua with Motueka via Aporo Road and Harley Road. The Tasman Great Taste Trail is one of the 23 Ngā Haerenga Great Rides of New Zealand across the country.

During the planning of this trail, it was proposed to connect Mapua with Motueka across the ridgeline via Chaytor Road, next to SH60 and then onto Tasman View Road. Due to difficulties around land ownership on Chaytor Road and the grade the trail was located along Ruby Bay and through Tasman.

The construction of an off-road shared path along Stagecoach Road provides the council/government the opportunity to provide an alternative connection from Tasman Village, along Dicker Road and Stagecoach Road to the underpass on Chaytor Road. The trail could be extended to run on a bench that was created for the trail below SH60 and then on to Tasman View Road. Tasman View Road is currently being reshaped and will include a 3.0-metre-wide shared path that will link up to Harley Road. This would then go on the existing trail.

This would create a significant improvement to the current route on Harley Road will wide sweeping views of the Kahurangi Ranges and Tasman Bay towards Kaiteriteri.

8.3 Te Taihu Regional Land Transport Strategy/Plan (RLTP)

The change of Government in 2023 has changed central governments land transport priorities with the 2024 Government Policy Statement on Land Transport (GPS) having the strategic priority of economic growth and productivity with support by three equally weighted priorities of increased maintenance and resilience, safety and value for money. This is a shift from the previous GPS which had a greater focus on other transport modes such as public transport, cycling and walking. The GPS did not remove the vision of providing for walking and cycling. However, the focus was within the cities and reducing congestion and improving safety.

Notably the GPS 2024 on Land Transport states the following:

As part of GPS 2024, we are embarking on a significant programme of new and improved land transport infrastructure. Core to this is the re-introduction of the successful Roads of National Significance programme, which was started under the previous National Government in 2009. A programme of Roads of Regional Significance is also included in GPS 2024 to direct investment towards vital transport links across the regions.

These investments will ensure that key connections are provided so that Kiwis can get to where they need to go, quickly and safely. These investments will also reduce congestion on our roads, provide low-emission transport options in our main cities, and create a more productive and resilient transport network, driving economic growth, and unlocking land for thousands of new houses.

This GPS reintroduces a focus on increasing economic growth and productivity as a priority for land transport expenditure. Including economic growth and productivity as the overarching strategic priority in this GPS will help to ensure we meet our full potential as a nation. Moving people and freight as efficiently, quickly, and safely as possible is critical to achieving these priorities. GPS 2024 brings about a significant change in focus, realigning transport expenditure to better support economic growth, and to ensure all New Zealanders are provided with a well maintained and reliable transport network.

The focus of the GPS 2021 has now changed with less emphasis on transport choices and more focus on productive and resilience networks. Notably the goal is to reduce congestion, provide low-emission transport options for cities and unlock land for new homes. The proposed development meets these national directions.

The Nelson Tasman Regional Land Transport Plan (RLTP), called “Connecting Te Taihu (Top of the South)” is a critical document that underpins the region’s road network and transportation planning. Within this document there are a number of guiding objectives and policies that align with the GPS. It should be noted that the 2024 GPS has a different transport direction to the 2021 GPS as a result of the change in Government.

The development site is able to meet high-level objectives and policies with connections to cycle and walking being provided and linkages to public transport. The upgrading of Stagecoach Road will improve resilience and safety. NZTA have also approved an

emergency route to State Highway 60 should Stagecoach Road be closed. This could provide for the existing residents and the future residents on Stagecoach Road depending on where any closure maybe.

The RLTP is aligned with the GPS noting the following for the RLTP noting the extracts for Cycling and Walking.

Past investment programmes have built key routes in parts of Nelson - Tasman which forms the base structure of an integrated network to provide for and encourage an even greater proportion of the population to cycle as their main mode of transportation. Urban cycle facilities, including on-road and share path facilities, often do not join up to create a cohesive network and require cyclists to use roads with no facilities to complete journeys.

The Nelson Tasman Cycle Trails Trust have proposed the Te Taihu cycle highways concept with support from the Golden Bay Cycle and Walkways Society. This would consist of an extensive network of rural cycling facilities connecting urban and tourist locations within the Nelson Tasman region, and beyond to Marlborough. These trails or routes are aimed primarily at recreational cycle users but can also double as commuter routes. This concept is supported in principle, but no funding is allocated in the next 10 years.

Most urban areas have pedestrian footpaths along both sides of a road. Footpaths in central business districts tend to be of a higher standard than in residential areas. Rural areas generally do not have any walking facilities and pedestrians have to share the road, often in high speed environments. Intersections and driveways can make walking challenging for vulnerable users.

The development will improve the safety and reduce maintenance on an existing unsealed road. The improvements to the local network also include new shared paths that will remove vulnerable road users from the road and with separate facilities. As noted above the development will include a route to the highway should Stagecoach Road be closed.

The development will give people choices to where they live and play. With the development site ideally located between Richmond and Motueka, future residents have convenient choices for work and other services. The development is accessed from SH60 which conveniently links to the wider road network. All these elements are consistent with both the GPS and the RLTP.

8.4 Tasman Resource Management Plan (TRMP)

The development is located within the Rural 3 zone as listed within the TRMP (Map 87). As such, the development parking, loading and access is considered against Chapter 16, Section 16.2 Transport. Consideration of Section 16.3 (Subdivision) and Section 18.8 (Road Area) has also been provided.

It should be noted that residential development is provided under the TRMP for this site and with development there is an expectation that it will be primarily focus on vehicle use. Rural 3 land is located in areas where the land is less productive and usually not near urban areas.

Section 16.2 provides the rules and standards for the access, parking and traffic requirements for developments. The TRMP also references the Nelson Tasman Land Development Manual for engineering standards applicable under the TRMP.

Section 16.3 provides rules and standards around subdivisions with an assessment provided below.

Section 18.8 provides rules and standards for new roads to be vested with Council.

There is no specific Rule requiring a Road Safety Audit in the TRMP, however Table 4-2 of the NTLDM sets out audit stages for developments. Based on Table 4-2 a Road Safety Audit is required to be provided prior or with a Resource Consent application. A Safe System Audit of the proposed sealing of Stagecoach Road and a Road Safety Audit of the proposed development will be provided separately as part of the resource consent process.

Table 2 below provides a statement of compliance against the relevant requirements set out in Section 16.2.

RULE	REQUIREMENT	DISCUSSION	COMPLIANCE
16.2.2.1	Permitted Activities (Land Use – Vehicle Access Considerations) Any land use is a permitted activity that may be undertaken without a resource consent, if it complies with the following conditions:		
16.2.2.1 - Access and Vehicle Crossings			
(a)	<i>The site of the activity is provided with an access and crossing, laid out and constructed in accordance with the matters listed in Figure 16.2A.</i> <i>Note that Figure 16.2A now refers to the NTLDM 2019.</i>	Figure 16A refers to the NTLDM 2019 and the following: General 4.10.2.1 (a) – (e), 4.10.2.3 and 4.10.2.4 – 4.10.2.8 Higher speed environments 4.10.2.2 Grade and gradient design 4.10.3.2 – 4.10.3.4 Spacing 4.10.2.3 and 4.10.7 Tracking and turning 4.10.6 Sight distances 4.10.4	Refer to the NTLDM Table (Table 2)
(b)	<i>Visibility from the access and crossing complies with 4.10.4.1 and 4.10.4.2 of the Nelson Tasman Land Development Manual 2019.</i>		Refer to the NTLDM Table (Table 2)
(c)	<i>The design of the access and crossing complies with Figure 4-10 of the Nelson Tasman Land</i>	Figure 4-10 refers to treatments associated with footpaths.	Complies

	<i>Development Manual 2019 for a Rural 3 zone.</i>	The road design will meet the requirements of the NTLDM and for a residential area.	
(j)	<i>On-site manoeuvring space is provided on any site for the largest class of vehicle likely to need access to the site on a regular, frequent or predictable basis, so that a vehicle does not need to reverse to or from any road; except that this requirement does not apply to a site containing only a single dwelling that has access from a collector, access road or access place.</i>	The roads within the development are Access Roads so there is no requirement to provide on-site manoeuvring.	N/A

16.2.2.2 – Frontage to Unformed Legal Roads

(b)	<i>Vehicular access to the site of any activity is by formed legal road, or by an existing right-of-way or other legally enduring instrument over another property.</i>	All access will be from a formed legal road or Right of Way.	Complies
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16.2.2.3 - Provision for Parking and Loading

Size of Parking Spaces

(b)	<i>The activity does not use parking spaces on another site, except where the title of the site of the activity and the title of the site on which the parking for that activity is provided, are amalgamated or otherwise encumbered so that one site cannot be disposed of independently of the other.</i>	Parking is provided on the individual allotments and will not be on other titles.	Complies
(f)	<i>Any residential car park is 5 metres x 3 metres, but where two car parks are side-by-side, the combined area may be 5 metres x 5 metres.</i>	All parking spaces can easily comply with the design vehicle and manoeuvring requirements of the TRMP.	Can comply
(j)	<i>Cycle parking laid out in accordance with Schedule 16.2B is provided</i>	This rule appears to relate to non-residential activities. The individual lots have sufficient on-site land area to meet this requirement.	Complies
(k)	<i>A carparking area must be included for people with disabilities. The dimensions of</i>	This rule appears to relate to non-residential activities.	Complies

	spaces for disabled people are detailed in Figure 16.2D. Note: In accordance with provision D1.3.6 of the Building Act Code, vehicle spaces for use by people with disabilities shall be provided in sufficient numbers.	The individual lots have sufficient on-site land area to meet this requirement.	
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Table 2: Tasman Resource Management Plan Standards Compliance Table

As shown, the design completed by Staig & Smith shows there are no areas of non-compliance, noting that the NTLDM assessment is provided below.

It should be noted that some non-compliances may present themselves as detailed design is carried out and in some cases as houses are being constructed. These non-compliances should be addressed at Engineering Plan approval stage or as part of the building consent process for the new homes.

Table 3 below provides a statement of compliance against the relevant requirements referenced in the TRMP Section 16.2 that are set out in the NTLDM. The TRMP specifically references the following sections of the NTLDM.

- Sections 4.10.2.1 (a) to (e)
- Section 4.10.2.3
- Sections 4.10.3.2 to 4.10.3.4
- Section 4.10.4
- Section 4.10.6
- Section 4.10.7

These sections are set out in the table below, along with discussion and compliance. It should be noted that these requirements will typically be considered at the time of the Building Consent, as the subdivision does not generally have sufficient detail to assess these compliances. The assessment below reviews the preliminary design plans to see if compliance can be achieved based on the detail provided.

Table 3 provides the assessment of the accesses against the NTLDM.

RULE	REQUIREMENT	DISCUSSION	COMPLIANCE
Private Access - Section 4.10.2			
Section 4.10.2.1	a) Be designed in accordance with the minimum specifications in Table 4-13.	All accesses and right of ways within the development are designed to the NTLDM requirements.	Complies
	b) Only serve up to six units.	All RoW's have less than six users.	Complies

	c) Give access to the lower ranked road in the Hierarchy if the site has frontage to more than on road.	New roads within the subdivision will be Local roads.	N/A
	d) Not create a shorter through-route alternative for vehicles, cycles and pedestrians than the road network.	The individual accesses for homes will not create a shorter through route.	Complies
	e) Intersect with the carriageway between 75 and 105 degrees on classified roads.	All new vehicle crossings for the development will connect at 90 degrees to the legal road.	Complies
Section 4.10.2.3	Not more than one crossing is provided per site.	The new lots will have one vehicle crossing.	Complies
Section 4.10.3.2	The maximum gradient of an access ramp for the first 6m from the property boundary line will be 1-in-20 (5%).	The gradients for the new accesses can be designed to meet this requirement.	Complies
Section 4.10.3.3	On roads where the footpath is located against or close to the kerb and where the target speed environment is 40km/h or lower, vehicle crossings will be designed with a mountable kerb.	The proposed footpaths on vested roads are not located against the kerb. A grass berm is provided.	Complies
4.10.4	The minimum sight distance that must be available from any vehicle access point along the frontage road is shown in Table 4-14.	The new vehicle crossings will meet this requirement noting the lower operating speeds around intersections and certain sections of roadway. The sight distance required for an operating speed of 30 km/h is 23 metres.	Complies
4.10.5.1	For all vehicle access points, a minimum visibility splay with the dimensions shown in Figure 4-10 must be provided. Items may be located within the visibility splay provided they do not obstruct visibility to pedestrians. Generally, this means avoiding objects and vegetation with a height of more than 0.9m.	The footpaths are located away from the adjacent property boundary which provides the pedestrian splay. No objects over 900mm will be within the required pedestrian splay.	Complies

4.10.6	Section 4.10.6.2 <i>Tracking paths and turning circles on private land will be provided in accordance with AS/NZS 2890.1 “off-street carparking” 2004.</i>	The individual parking spaces will meet the tracking path requirements. Note there is no requirement to provide on-site turning as noted in Rule 16.2.2.1 (j).	Complies
	Section 4.10.6.3 <i>Vehicle access points must be located so that no part of the access, nor tracking path crosses any part of another site except where there is a right of way or other similar legal easement over those parts of the other site see Figure 4-12.</i>	None of the accesses cross over adjacent properties without appropriate RoW’s in place.	Complies
4.10.7	<i>No part of a vehicle crossing shall be closer to a road intersection than the distances permitted in Table 4-15.</i>	The vehicle crossings are located more than 10 metres from the nearest road intersections.	Complies

Table 3: NTLDM 2020 TRMP Reference Compliance Table

As shown the development can meet all of the referenced requirements from the TRMP to the NTLDM.

Table 4 sets out the various rules from Section 16.3 that relate to subdivisions. These rules are more relevant for assessment at the resource consent stage than the above tables as they set out requirements around road design and subdivision layout rather than detailed design. Based on material provided by the designers it is understood the proposed layout of the cluster housing has been designed to a residential standard rather than a Rural 3 standard due to the type and density of the proposal.

RULE	REQUIREMENT		COMPLIANCE
16.3.7	Rural Zone		
(h)	<i>(h) The subdivision complies with the transport conditions in Schedule 16.3B.</i>	This rule is for a Controlled Activity. The proposed subdivision is not a controlled activity. The rules set out below have been used as an assessment tool.	See Below

Schedule 16.3B	Transport Conditions		
Roads, Access and Parking	(a) All roads, including indicative and connecting road, are laid out, constructed and vested in the Council in accordance with the road construction conditions specified in Section 18.8 for the relevant Road Class in the road Hierarchy shown on the planning maps.	Section 18.8 has been modified to now reference the NTLDM 2019. It should be noted that the NTLDM has been updated in 2020. The planning framework still requires NTLDM 2019 to be used. All roads have been designed to meet the NTLDM noting the exceptions relating to the proposed “Residential Lane” road standard which is not provided for in the Rural zone. The footpaths on Roads B to G are not 2.5 metres as required by the NTLDM.	Does not comply. Roads B – G not to rural zone standard Road B to G footpath is not 2.5 metres wide.
	(b) Every allotment has vehicle access to a formed legal road other than a limited access road. Access to allotments is constructed in accordance with conditions specified in section 16.2.	All new lots will have access to a formed legal road or RoW and constructed to the requirements in Section 16.2.	Complies
	(c) Where subdivision creates or alters title boundaries of developed sites, every allotment created (including any balance title) has vehicle parking provided and constructed in accordance with the conditions specified in section 16.2.	All parking areas will be constructed in accordance with Section 16.2.	Complies
Linking Subdivision Roads to Existing Roads	(e) Where any land to be subdivided is subject to a notation on the planning maps as an “Indicative Road”, a road is laid out and constructed on the general alignment of the indicative road.	There are no indicative roads through the site. The new roads to be vested meet the requirements.	N/A
	(f) Where any land to be subdivided is subject to a notation on the planning maps indicating that a “Connecting Road” is required through the land, the road is to be laid out, constructed and vested in the Council at the time of the subdivision.	The planning maps do not indicate connecting roads for the development site. However, where possible a link has been provided.	N/A
	(g) Where any new road extends or completes an existing road, the road is constructed at the developer’s cost to the relevant conditions specified in section 18.8.	Stagecoach Road will be extended as part of the development.	Complies See Assessment

		New roads will be built as part of the subdivision by the developer.	
	(h) Except in the Rural 3 Zone and Services Contribution Area, and in the Lower Queen Street and McShane Road in the Richmond West Development Area, where any land to be subdivided has frontage to any existing road that is not constructed to the conditions set out in section 18.8 for the relevant level of the existing road in the Road Hierarchy, the road along the frontage adjoining the land to be subdivided is formed and upgraded by the developer to the conditions of road widths, kerb and channelling and associated drainage attributable to the subdivision, berm, footpath, crossings and street lighting specified in section 18.8.	The proposed development is within the Rural 3 Zone and therefore no upgrade is required. The road frontage for the proposed subdivision will be constructed to the requirements of Section 18.8.	N/A
	(i) Where any land to be subdivided has a frontage to an existing council road which has inadequate road reserve width to meet the condition in the Plan, adequate land to meet the condition is vested in the Council at the time of subdivision, at no cost to the Council.	The road widths allow for the construction of new roads.	Complies
	(j) The subdivision provides a safe and efficient road, cycleway and pedestrian access connection to adjoining roads, cycleways and pedestrian accessways.	Roads, cycleways and pedestrian accessways will be provided as part of the development.	Complies

Table 4: Compliance Table for Section 16.3 of the TRMP

As set out in the table above, the development can meet the TRMP requirements set out in Schedule 16.3B except for the use of a residential lane in the rural area and the 1.5-metre-wide footpath which is one metre less than the required standard for a rural road.

For the purpose of the analysis of the requirements of Section 18.8 the new roading for the development is considered to be Local Roads.

There are seven new vested roads within the development along with five right of ways. The proposed development includes the upgrading and sealing of Stagecoach Road.

It should be noted that the upgrading of the unsealed Stagecoach Road will be to the requirements that Council officers have requested. These requirements were a six-metre-wide road, 500mm wide gravel shoulders, 1.6-metre-wide service berms (where possible)

and a 2.5 metre wide gravel path. As this has been agreed the upgrade of Stagecoach Road is considered to meet Council's requirements. For this reason, Stagecoach Road has not been assessed in the table below. It is also proposed to provide a gravel 2.5-metre-wide shared path from Stagecoach Road on the unformed legal road to Williams Road.

The design of the subdivision roads is a hybrid of the rural road standard and the residential road standard. The designer's philosophy is to provide a rural road to the development and for areas where the level of density for subdivision is similar to a rural residential area. Within the cluster areas a higher level of infrastructure has been provided to meet the demands of these areas. The higher level of infrastructure includes on-street parking. The rural roads for the subdivision (Stagecoach Road Extension and Road A) have been designed to meet the NTLDM 2020 requirements.

Table 5 sets out the requirements of Section 18.8 of the TRMP for the cluster housing roads. As noted above the road designers have used the requirements of a residential road for new roads within the proposed development as opposed to a rural road design.

RULE	REQUIREMENT	DISCUSSION	COMPLIANCE
18.8.3.1	Road Construction		
(b) The activity meets the standards set out in the following sections of the Nelson Tasman Land Development Manual 2019: (assumed NTLDM 2020)			
(i) Section 4.6.1.1: road design cross section	A Local Road (residential) road requires the following parameters.		
	A 5500mm wide sealed moving lane.	The internal roads will be constructed to more than this standard.	Complies
	1 carpark/2 dwellings Or 2 x 2.0	Individual lots are able to provide at least one off-street car park. The road widths will allow this requirement to be met.	Complies
	Berm - Min 0.3m, Max 6.0m Area ≥ 3.0m ² /lm averaged over 50m or 2 x 1.5	Berms are provided within the service strip.	Complies
	Footpaths - 2 x 1.5 – Local Road (all). Local Road (<20 dwellings) 1 x 1.5	A footpath is provided along one side of all of the new roads and is consistent for roads servicing less than 20 lots. Road A has one 2500mm wide path. It only provides a path along one side of the	Complies Road A meets rural standard for a local road.

		road which does not meet the NTLDM for a local road in a residential area. However, it does meet the Local Road rural standard which is appropriate based on the road environment.	
	Service Berms- 2 x 1.6	Service berms will be provided.	Complies
	A legal road reserve width of 13 metres.	All new subdivision roads meet the requirements of Table 4-7 for a Residential Road or Residential Lane.	Complies
(ii) Section 4.9.2: intersection spacing	<i>This section refers to Safe Intersection Sight Distances (SISD) and not intersection spacing. There would appear to be no minimum spacings for new intersections for roads with a posted limit of 50 km/h.</i>	The new intersections within the development are able to meet the minimum SISD as set out in Table 4-11.	Complies
(iii) Section 4.8.5: road alignment safe stopping distances	<i>This section sets out the Safe Stopping Distance (SSD) requirements for new intersections.</i>	The new roads within the development will meet this requirement.	Complies
(iv) Section 4.6.4.2: cul de sac turning circles	<i>The minimum radius of the turning circle of a cul-de-sac will be 7m in residential zones,</i>	The new cul de sacs within the development will meet the requirement turning head radius.	Complies

Table 5: Compliance Table for Section 18.8 of the TRMP

As shown in the table above the proposed subdivision along with the new roads is able to meet the requirements of the NTLDM, except for the legal widths.

The next section of this report considers the areas of non-compliance, along with other transportation matters that require further consideration. The next section also provides an assessment of effects.

9 TRANSPORTATION IMPACTS

9.1 General

This section looks at the development and provides an analysis of the road network. The assessment of the potential positive and other effects, shortfalls in the adjacent road network and mitigation measures are provided below.

The key aspects of the development will be the traffic generated from the site, the connections to the wider road network and the cycle and pedestrian linkages.

9.2 Traffic Generation

The development site is located in the Rural 3 zone. This zone anticipates a level of residential development and due to where it sits within the wider context the primary transport mode will be through the use of a vehicle. As typically Rural 3 zones are not near the urban areas there is limited opportunity to use other transport modes such as public transport, cycling and walking. That said while not as convenient as in urban areas, the applicant is proposing to provide walking and cycle linkages to surrounding roads and areas. While the focus will be on the use of a vehicle, due to the site location there will be a greater number of trips that will be multi-purpose and thus an overall fewer number of trips when compared to more suburban areas. This different pattern of trip generation is set out below.

The calculation of trip generation for developments are usually based on research undertaken by NZTA and is set out in Road Research Report 453 (RRR453) from 2011. While this document has not been updated recently to reflect changes in travel choice that have occurred for a number of reasons, it provides a very conservative assessment tool for calculating the trip generation that could occur at the upper limits. The document RRR453 provides figures of 10.7 trips per dwelling per day or around 1.3 trips per home in the peak hour.

This document (RRR453) is based on old research and survey work that was carried out before the year 2000. This survey material was provided in Transfund Research Report 209 and 210 and at the time was helpful in understanding trips rates of different activities. In 2011 a further project (RRR453) was commissioned by the now NZ Transport Agency to review this old information and update it. Very little new survey data was provided for RRR453 and most of the work considered changes in vehicle ownership as a proxy for increases in the number of trips. Importantly RRR453 relied heavily on survey data that predated the year 2000. There have been significant changes in vehicle use since 2000 and even more so in the last five years, with working from home, fuel costs and other changes in how people travel.

The document RRR453 provides figures of 10.7 per dwelling per day or around 1.3 trips per home in the peak hour. This is an 85th percentile which is not well explained in RRR453 to its origin and why it is used when other research on trip generation uses average rates. RRR453 does note that the difference between average and the 85th percentile figures is a multiplier between 1.05 and 1.15, depending on the land use.

However, it does not explain why there would be the same seasonal changes in trips when comparing shopping to work journeys. There is clear evidence for using 85th percentile for non-residential land uses that account for such things as Christmas shopping. It is more appropriate to use actual daily data for trip calculations for residential activities rather than applying adjustment factors.

RRR453 notes that lower trip rates have been observed for rural subdivisions. These trip rates for this activity fall between six and eight trips per day per dwelling (Page 53, RRR453). These rates appear to be 85th percentile figures. Also, notably the paragraph above within RRR453 “.... the 85th percentile figure of 10.4 vpd (in + out) per household is recommended as an appropriate figure for design and assessment purposes when considered the full range of households within a **city**.” (emphasis added). The development site is not within a city and the use of a trip rate of ten is not appropriate.

More recent traffic count data that has been carried out shows that the trip generation rates being around six trips per dwelling per day. The same traffic count data also showed peak flows of around 0.6 trips per dwelling per hour. This is noticeably less than the older research carried out by the NZ Transport Agency for urban areas.

One particular analysis of traffic count data provided by the Council for Awa Awa Road was carried out. This data was used to calculate the expected trip rates for this development. It should be noted that the Awa Awa Road catchment adjoins the western boundary of the development site and is within very close to the development site.

Figure 9 shows the daily traffic patterns.

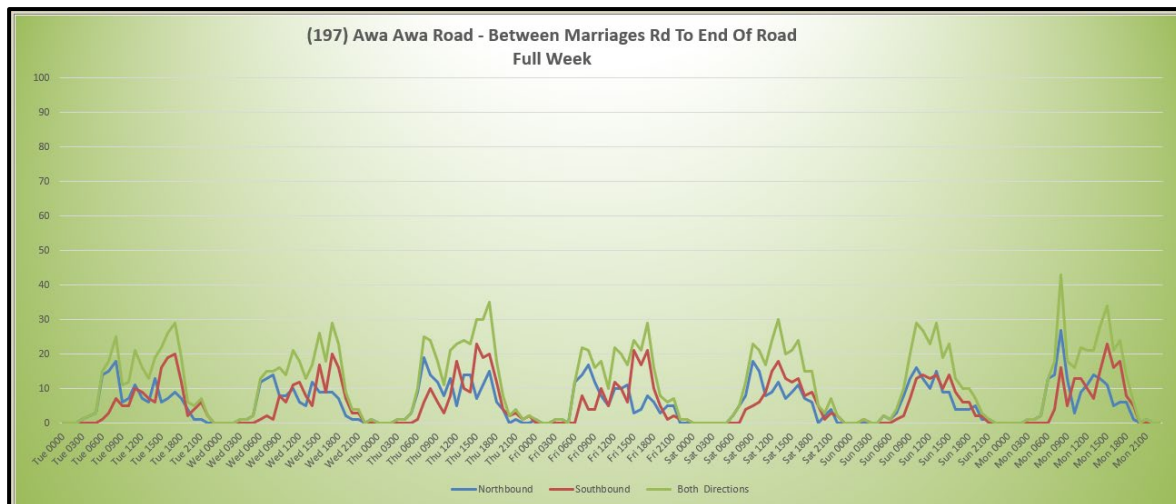


Figure 9: Daily traffic patterns. (Source: Tasman District Council)

This data showed flows between 246 and 314 vehicles per day over a week with the lowest flows on a Saturday and the highest flow on a Thursday. It is important to note that these are not averages or 85th percentiles, but the actual daily flows (i.e. all the traffic was recorded).

The recorded peak hourly flows average over the five days (working week) were 26 vehicles per hour (between 15 and 43) for the AM peak and 29 vehicles per hour (between 24 and 35) for the PM peak.

The Awa Awa Road catchment provided access for 61 homes when the traffic count was taken in 2022. A simple analysis shows that the daily trip rate falls between 4.0 to 5.1 trips per day per dwelling. This figure is not an average, but the actual daily trip rate generated by the homes. The peak hourly trip rate has a little more variability as some of the counts appear to be outliers and particularly for the AM peak. However, generally the AM peak rate is 0.43 trips per hour per dwelling, and the PM peak rate is 0.48 trips per hour per dwelling.

It should be noted that traffic count data for Suncrest Drive and Ridgeview Road were also analysed with similar trip rates being generated.

These measured trip rates are significantly different from the outdated material provided in RRR453. These calculated rates are similar to other survey information collected for these types of residential activity in a rural area as part of other subdivisions that has been carried out.

The location of the development site is not as close to an urban area, employment zones and services. There are likely to be some multi-purpose trips (trips with different destinations combined) which would lower the number of vehicle movements. This typically happens with rural residential development as noted in the surveys above, which would be similar to this site. Assessing trip numbers is complicated by likelihood that some future

residents may use public transport and different transport choices including walking, cycling and various forms of e-transport. While the availability of amenities directly nearby to the development is limited, it is more likely that more multi-purpose trip will be carried out which will lead to an overall lower trip rate and vehicle use. This is demonstrated by the survey data provided above showing trip rates around 4.5 movements per Dwelling per day.

The assessment of the trip rate is not discounted for public transport or other transport modes. While the bus services along Aporo Road are outside the normal walk distance to public transport, some future residents may use this service. Equally the transport modes such as walking or cycling will also be probably low. However, importantly the links are available for these users to access the wider network.

However, it is important to note that the calculation of the number of vehicle movements generated by the development is conservative. The trip rate of seven movements per dwelling per day is much higher than surveyed trips from the adjacent existing development with access off Awa Awa Road which were between four and five movements per dwelling per day.

Based on these assumptions above, a very conservative trip generation rate of seven vehicles per day per dwelling has been used. Based on 141 homes the expected traffic movements associated with the completed subdivision would be around 990 vehicles per day or 100 vehicles in the peak hour.

This trip rate is not discounted for other transport choices, and it should be noted that surveys show rates between four and five movements per dwelling per day. Due to the location of the development, there will be more multi-purpose trips which will reduce overall vehicle use when compared to a typical urban suburb. The expected number of trips based on survey data will be closer to 650 vehicles per day or around 70 vehicles in the peak hour.

The new trips from the development can easily be accommodated safely and efficiently within the surrounding road network, noting that NZTA have given written approval and that the Stagecoach Road/SH60 intersection can accommodate the increased traffic safely and efficiently.

9.3 Trip Distribution

As shown above, the site is large and will be connected to the wider road network via Stagecoach Road. All vehicular traffic will use Stagecoach Road for access which conveniently links to Seaton Valley Road and Mapua or State Highway 60 to Richmond and Motueka.

Most of the traffic will head out of the development site in the morning and return in the evening. Typically, residential type developments have an 80/20 split for the outward and

inward movements which is reversed in the evening. Accordingly, around 80 vehicles will exit via Stagecoach Road with 20 vehicles coming into the development in the morning peak which is reversed in the evening peak. It should be noted that the evening peak is usually spread over a longer period than the morning peak due to the different trips and finishing times when people return from work.

It is difficult to assess the likely trip distribution at the intersection of Stagecoach Road and State Highway 60 due to the good employment zones, shops and services in Motueka and Richmond. Mapua and the wider coastal Tasman area also provides destinations for future residents to work and play.

For assessment purposes it is assumed that there is a 65/35 split with most traffic going to Richmond and the rest to Motueka. No split is provided for Mapua or Coastal Tasman as they would most likely be equally split with the above. Some vehicular traffic may use Seaton Valley Road to access the Mapua area. This has been ignored as it is expected to be a relatively small portion.

Table 6 shows the assumed trip distribution for traffic using the Stagecoach Road/State Highway 60 intersection.

		AM Peak	PM Peak
Stagecoach Road	L	52	13
	R	28	7
SH60	Right in	13	52
	Left in	7	28

Table 6: Trip Distribution

As shown the flows are fairly low with around one vehicle making a left out of Stagecoach in the morning and right turn into Stagecoach Road in the evening every minute. As noted above the existing traffic flows on Stagecoach Road are very low at around 240 vehicles per day or around 24 in the peak hour.

The flows from the completed development along with the existing movements can be accommodated easily within the well-designed intersection.

9.4 Road Capacity

The available capacity of Stagecoach Road has been assessed using the Austroads suite of guidelines to determine link capacity of the roads. A number of factors affect road capacity

which include road width, traffic composition, vehicle speeds and road geometry. The other important element of capacity is the target operating Level of Service (LoS) which the roads are expected to function at.

There are six different LoS ranging from A through to F. LoS A is a condition of free-flowing stable traffic stream with LoS F being unstable with long delays and queues. Typically, arterial roads have a target LoS service being no worse than LoS D.

Under ideal conditions the number of movements per hour can be as high as 2,200 vehicles per lane. Flows have been recorded at this level for urban motorways in peak conditions. However, the peak operational capacity of a two lane, two-way road (one lane in each direction) is more practically around 2,800 vehicles per hour. This operational flow is for a road with traffic lanes with a width of 3.7 metres and shoulders of 2.0 metres (parking lane). It should be noted that the capacity of a road that has 2.7-metre-wide lanes with no parking lane is around 1,400 vehicles per hour or 14,000 vehicles per day.

Putting this into context, the current flows on Stagecoach Road are around 240 vehicles per day.

The completed subdivision is expected to increase the number of movements using the wider road network by around 990 vehicles per day. This is still well below the operational capacity of Stagecoach Road and other surrounding roads with the total flows being around 1,200 vehicles per day upon completion of the development.

There are no traffic capacity constraints along Stagecoach Road with the road expected to operate around 10 to 20% of its practical operating capacity.

As traffic moves further away from the development site, the density of the new traffic will be dispersed over the wider network. Accordingly, any effects of the increase in traffic will be diminished across the wider network with no discernible difference on other road users.

There are no capacity constraints on other parts of the road network in the vicinity of the development site. All intersections near the development site are operating at a Level of Service (LoS) A.

9.5 Stagecoach Road Design

As noted above there are three distinct parts to Stagecoach Road. The first section which is sealed, the second section which is not sealed and the last section which is a dirt track. The applicant will be carrying some works to address potential effects of the increased use of Stagecoach Road. The discussion below provides information about the existing use and the wider benefits of the proposed development.

The first section of Stagecoach Road is sealed and formed to a standard that can accommodate the existing flows and the increased use that will come from the

development. The applicant proposes to provide a 2.5-metre-wide gravel shared path to the Stagecoach Road/Chaytor Road intersection.

The second section of Stagecoach Road will be upgraded to accommodate the increased use arising from the development. The preliminary road design plans show a six-metre-wide road with a 2.5-metre-wide off-road shared path. This improvement will also improve the level of service to the existing properties being around 24 properties and the public using this section of Stagecoach. The road improvements will also enable the existing properties to subdivide as the impediment of current unsealed roading will be removed.

The remaining third section is a complete road construction project which will include new basecourse and sealed surfaces to accommodate the new traffic to and from the proposed development. This will include the construction of an off-road shared path for existing and future users.

9.6 Transport Choices

As noted above the development site is well located to make use of the nearby existing walking and cycle connections to the wider road network. More recently a new public transport bus service has been commissioned that links between Motueka and Richmond that goes via Tasman Village and Mapua.

While the development is not located directly on the bus route, it is a short drive or bike ride to the bus stop where future public transport users can park should they want to use these services. Equally while not close, the walking and cycling routes to Tasman are convenient and pleasant to use.

There are schools and services within the Tasman Village which can be accessed from the development site through existing and in the case of Williams Road improved cycleway/walkway links.

Figure 10 shows the nearby cycle and walking connections from the development site.

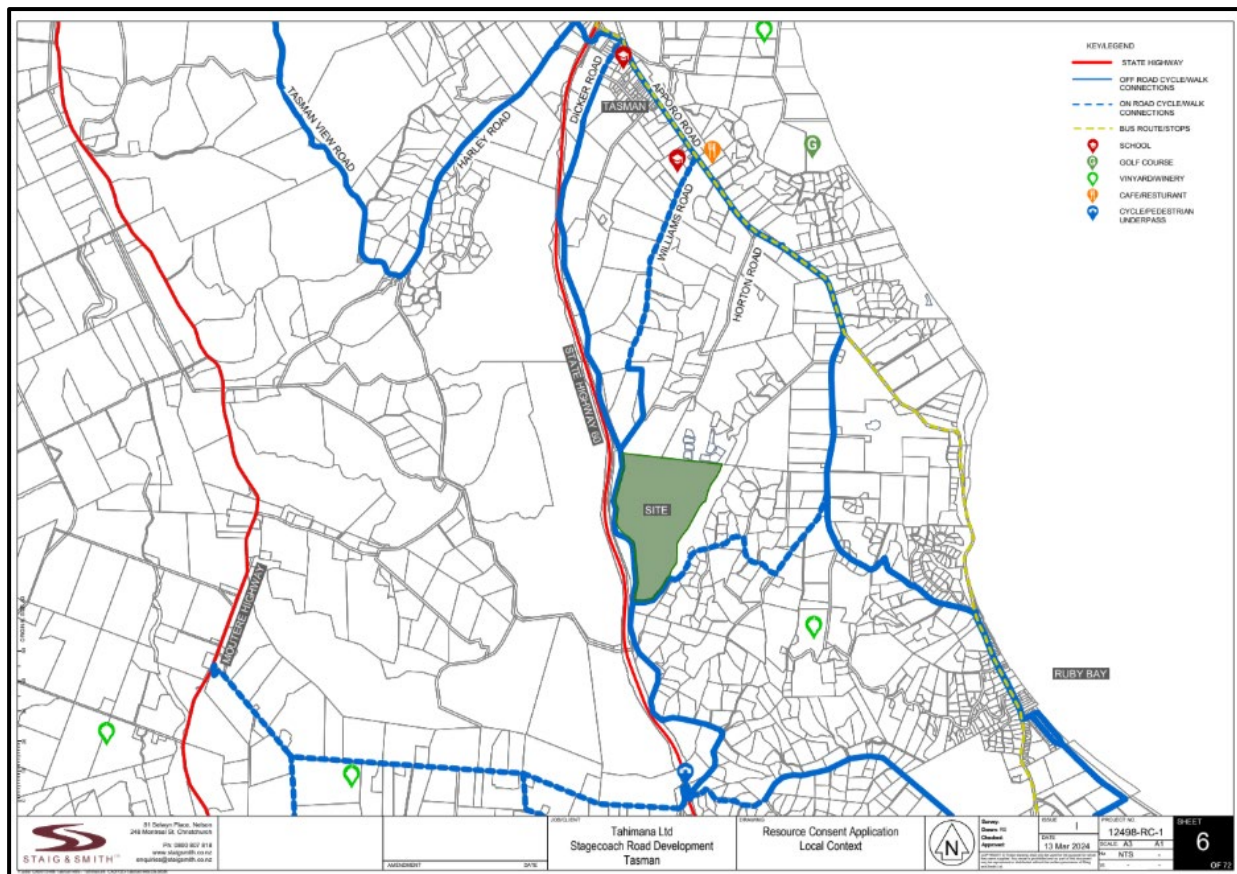


Figure 10: Walking and Cycle Connections. (Source: Staig & Smith Plan 12498-RC1 Sheet 6)

The walk and cycle links from the development site also connect to the Tasman Great Taste Trail. The Tasman Great Taste Trail provides off road links to Motueka and Mapua. It is also possible to cycle to Richmond via Rabbit Island and the Mapua Ferry.

There are also links to Mahana and Upper Moutere via Stagecoach Road and the underpass under the Ruby Bay Bypass (SH60) at Chaytor Road.

The development includes the provision and improvements to the existing walking and cycling connections. These will include the formation of a separate 2.5-metre-wide off-road shared path from Chaytor Road to the northern boundary of the development site and the upgrade of the existing connection on the unformed road (Williams Road) from the northern boundary of the site.

9.7 Vehicle Kilometres Travelled

The site is in the Coastal Tasman area which has been set aside for more development and is well linked via the SH60 connection between Richmond and Motueka. The Rural 3 Zone allows for cluster housing for residential use and it is expected that these areas are likely to have vehicles as their main source of travel.

The development site is positioned roughly centrally between the urban areas of Richmond and Motueka which provides excellent choices for future residents to access employment

services, goods and services. With the availability of two different urban areas to provide for the needs of future residents, it is expected to have a no more than minor effect on total vehicle kilometres travelled. More importantly the road network that residents are likely to use is less congested than the urban network between Nelson and Richmond as well as out to Brightwater. Future residents will access the employment areas of Mapua (identified growth area), Upper Moutere, Motueka and Richmond. This will remove vehicles and congestion from the Nelson – Brightwater road corridor.

The future residents are able to use existing roads to access the wider network via the strategic road network (SH60). Residents are also provided with transport choices with the connecting walking and cycling links and the public bus service.

The development site is well located to take advantage of the state highway network to access employment and service areas with any effects considered to be no more than minor.

9.8 Road Safety

A separate Safe System Audit and Road Safety Audit have been completed. The audit process has been undertaken separately to the road designers of the subdivision.

In general terms the roads will be constructed to the Council requirements and standards. Stagecoach Road will be upgraded to meet the increased traffic flows.

The intersection of Stagecoach Road and SH60 is well designed and is expected to safely accommodate the increase flows from the development. It should be noted that the intersection was designed on the expectation of land use change and growth as part of the construction of the Ruby Bay Bypass.

A Safe System Audit has been completed on the sealing of Stagecoach Road. The existing formation has been assessed against the proposed works for the unsealed section of Stagecoach Road. A separate Road Safety Audit on the concept design has been completed for the subdivision and the new construction of Stagecoach Road. The crash history on the roads near to the development show a very low crash history, as demonstrated in the assessment above. The reported crashes mostly show single vehicle loss of control crashes and inexperienced and intoxicated drivers.

Generally, the road network is well designed and provides a safe environment for all road users. The carriageway is to an appropriate and safe standard with good road markings and signage. Pedestrian and cyclists are provided with off road paths. Notably the development will be provided new shared path on part of the existing road network (Stagecoach Road) that is well used currently by these vulnerable road users. These vulnerable road users currently use the road to walk and ride on.

The effects of the development on levels of service for road safety are less than minor with positive effects from the installation of a new off-road path.

9.9 Streetlighting

As part of the planning process the road designers and landscape architects were wanting to maintain a dark sky approach to the development which the council supports as set out in the NTLDM Section 9.12.

Section 9.12.1.8 shows Local Roads which is the classification of Stagecoach Road and the new roads in a development requiring Category P3. However, none of the rural roads this area has any streetlighting apart from flag lights. These rural roads include Stagecoach Road, Seaton Valley Road, Chaytor Road, Suncrest Drive, Awa Awa Road, Old Coach Road and Gardener Valley Road. Notably the denser residential development in Tasman Village with Dicker Road, Goddard Road, Baldwin Road, Aporo Road also have no streetlighting apart from flag lights at intersections.

The NTLDM is not clear on the expected lighting standards for roads in rural areas. Section 9.12.1.8 sets out the requirements for certain road classifications, but these are for urban areas. This is pragmatic and reasonable as it is expected more pedestrian traffic at night as residents return home from work and use public transport, walk or cycle instead of vehicles. As noted in this assessment and by the council this development will be more vehicle orientated which is also anticipated by its Rural 3 zone.

It is more likely that if residents are walking around at night, they will have their own lighting as the walking loops available in this development will not be lit. These trips are more likely to be recreational.

A road safety audit has been completed for the proposed subdivision and the upgrading of Stagecoach Road. The auditors recommended that a flag light be installed at the new intersection of Stagecoach Road and Road 1 into the subdivision. They did not see need to provide streetlighting within the development as a safety issue. It was noted that this is similar to other rural residential subdivisions.

It is understood that the council want lighting to a minimum P3 standard to address their concerns about safety and the density of some part of the development. They have stated that they will accept bollard lighting. To achieve P3 standard in this rural environment would require bollard lights every 20 metres which would not provide a dark sky. It is also noted that this is inconsistent with other rural developments, regardless of density.

Figure 11 shows a suburban street with only bollard lighting at around 35 metres.



Figure 11: Bollard Lighting (35 metres) Koi Crescent in Tasman.

This level of lighting while still being a little bright does provide adequate lighting of the footpath. The council is seeking almost double the amount of lighting for this development in the Rural 3 zone. While there is part of the development which is more dense than rural residential the likelihood of residents walking around to access shops, services etc during the hours of darkness is unlikely as most movements will be vehicle orientated.

The development is able to provide a safe environment without the need to provide streetlighting. This would protect the night sky which the council support and is consistent with other roads including areas of higher residential density such as the nearby Tasman Village.

Any effects associated with not providing streetlighting are less than minor.

10 CONCLUSION

This report has assessed the transportation effects of the proposed Tahimana Hills subdivision at the end of Stagecoach Road, Upper Moutere, in the Tasman District. The development provides for approximately 141 residential lots over some 70 hectares of Rural 3 zoned land, with lot sizes ranging from 600 m² to 20,000 m², together with two Rural Conservation Lots.

The assessment has examined the existing transport environment, the crash history, trip generation, road capacity, the proposed walking and cycling connections, and compliance with the Tasman Resource Management Plan (TRMP) and the Nelson Tasman Land Development Manual (NTLDM). It has taken a gap-assessment approach, identifying the existing deficiencies in the network and the works required to manage the effects of the development.

The site is well located midway between Motueka and Richmond, with vehicle access via Stagecoach Road and its intersection with State Highway 60. That intersection was designed and constructed in 2012 to accommodate the growth anticipated for the Rural 3 zone, and has recorded no crashes since it opened. The wider road network in the vicinity of the site is operating at Level of Service A, and no capacity constraints have been identified on any of the roads or intersections assessed. NZTA has provided its written approval to the Resource Consent Application that was lodged for the same level of development under the Resource Management Act and has not raised any safety, capacity or operational concerns with the highway network.

Traffic generated by the completed development has been conservatively assessed at approximately 990 vehicle movements per day, using a deliberately higher trip rate of seven movements per dwelling per day. This is well above the rates measured at comparable rural-residential developments nearby, such as the Awa Awa Road catchment, where actual surveyed rates were between four and five movements per dwelling per day. Even on the conservative figure, total flows on Stagecoach Road on completion would be in the order of 1,230 vehicles per day, which is well within the practical operating capacity of the road. The additional traffic represents a minor increase over existing volumes, and both Stagecoach Road and its intersection with SH60 will continue to operate safely and efficiently.

The sealing and upgrading of Stagecoach Road is a key benefit of the development. The currently unsealed section will be upgraded to a six-metre-wide sealed carriageway with 500 mm gravel shoulders and a separate 2.5-metre-wide off-road shared path extending to Chaytor Road. This will improve conditions not only for future residents but also for the approximately 24 existing properties served by the unsealed section, and for the walkers

and cyclists who currently share that unsealed surface. The existing track on the unformed legal section of Williams Road will likewise be upgraded for walking and cycling. Together these works deliver wider public benefits and improve the viability of further subdivision of Rural 3 land in the area.

While vehicle travel will be the primary mode, as is anticipated for the Rural 3 zone, the site is well served by walking and cycling connections via Dicker Road, Williams Road, Westmere Drive and Stagecoach Road itself. These connections give access to Tasman Village, with its school and store, and to the Tasman Great Taste Trail, Mapua and Motueka. A bus service linking Motueka and Richmond via Tasman Village and Mapua is also available a short distance from the site. These travel choices are consistent with the directions of the Government Policy Statement on Land Transport and the Regional Land Transport Plan.

The development substantially complies with the relevant provisions of the TRMP and the NTLDM. The only departures relate to road and footpath widths within the cluster-housing areas, being the use of a residential lane standard and footpath widths narrower than the 2.5-metre-wide rural standard. These departures are appropriate given the density and character of the cluster housing and the road environment in which they sit. Any further matters of detail will be addressed at the Engineering Plan Approval stage and through the building consent process.

A Safe System Audit of the proposed sealing of Stagecoach Road and a Road Safety Audit of the subdivision concept design have been completed independently of the road designers, consistent with the audit stages set out in the NTLDM. The crash history across the study area is low, with only ten reported crashes over the period from 2021 to 2026, and these do not indicate any inherent deficiency in the road network.

In summary, it is my assessment that the proposed Tahimana Hills subdivision is appropriately located and designed to meet the transport needs of future residents while managing the effects of the development on the surrounding road network. The adjacent network has ample capacity to accommodate the traffic generated, and the road and shared-path upgrades proposed as part of the development will deliver tangible benefits for both existing and future road users. Taking these matters together, the overall transportation effects of the development are assessed as less than minor, with a number of positive effects in relation to road safety, resilience and accessibility.