

Rippon Holdings Ltd & Rippon Investments Ltd

Proposed Mixed Use Development Cromwell

High-Level Transportation Assessment



CARRIAGEWAY
CONSULTING

traffic engineering | transport planning



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1. Introduction

- 1.1. Rippon Holdings Limited and Rippon Investments Limited are seeking referral under the Fast-Track Approvals Act 2024 for approvals associated with a residential and commercial extension to the Shannon Farm development, in Cromwell. Known as Shannon Farm Residential and Commercial Extension (**the site**), it will comprise of residential development, light industrial, retail / commercial activities, and supporting infrastructure.
- 1.2. This Transportation Assessment sets out at a high-level, the key transportation issues associated with the proposal, including changes in travel patterns that are likely to arise from development of the site. Where potential adverse effects are identified, ways in which these can be addressed are set out.
- 1.3. This report is cognisant of the guidance specified in the New Zealand Transport Agency's '*Integrated Transport Assessment Guidelines*' and although travel by private motor vehicle is addressed within this report, in accordance with best practice the importance of other transport modes is also recognised. Consequently, travel by walking, cycling and public transport is also considered.

2. Site Overview

2.1. Location

- 2.1.1. The site is located to the west of the State Highway 6 / Ripponvale Road intersection, just west of Cromwell. The site is currently zoned as Rural Resource Area (with a small area located within the Rural Residential Notation subzone) in the Central Otago District Plan (**District Plan**) and is currently used for rural activities.
- 2.1.2. The location of the site in the context of the local area is shown in Figure 1 and in more detail in Figure 2.

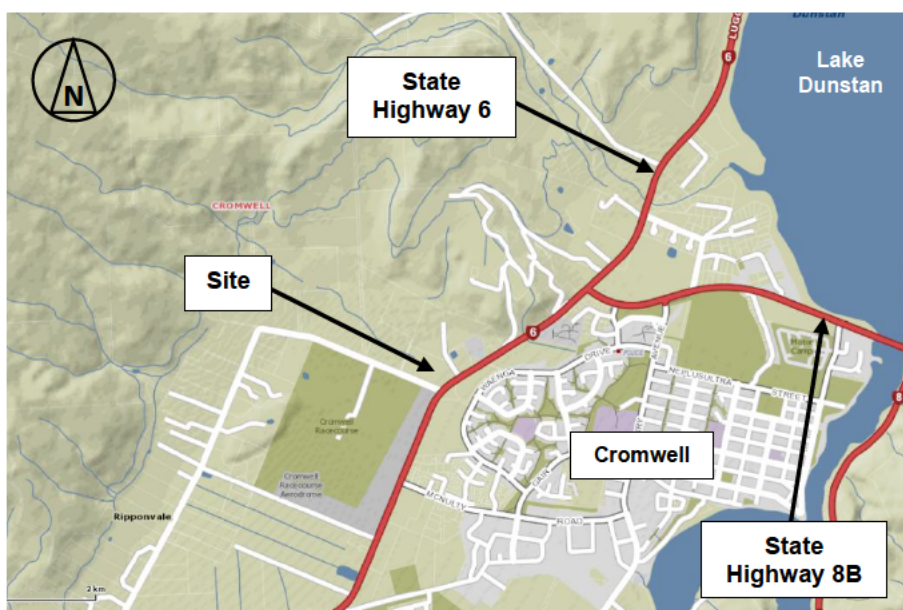


Figure 1: General Location of Development Site



Figure 2: Aerial Photograph of Development Site and Environs



2.2. *Roading Classification*

- 2.2.1. The District Plan classifies State Highway 6 towards the east of the site as a Rural State Highway. Ripponvale Road is classified as a Rural Collector Road.
- 2.2.2. On this basis, it is reasonable to conclude that the primary role of the highway is to carry through traffic, with Ripponvale Road providing for local journeys and property access.



3. Current Transportation Networks

3.1. *Roading Network*

- 3.1.1. In the vicinity of the site, Ripponvale Road is characterised by having two very straight sections of carriageway connected by a sharp, 90-degree curve which has a chevron board to direct drivers around the curve. One section of road has a broadly north-south orientation and connects to State Highway 6 at its southern end, and the other section has a broadly east-west orientation, and also connects to State Highway 6.
- 3.1.2. Ripponvale Road generally serves rural residential properties and agricultural uses, but is also the only access route to the Shannon Farm rural lifestyle subdivision (adjoining the western boundary of the site), which has a consented 160 residential lots and consent applications lodged for a further 44 lots (discussed further below). The road is subject to a speed limit of 80km/h and has swales on both sides within wide grassed verges. On the east-west section of road, the carriageway seal width is 6.8m, with a centreline but no edgeline markings. The legal width is 20m.



Photograph 1: Ripponvale Road Looking North, Site on Right

- 3.1.3. The access to the Shannon Farm subdivision lies approximately 350m to the east of the sharp curve in Ripponvale Road. At the time of a site visit this was still under construction, but was generally formed as a priority 'give-way' intersection with seal widening on the opposite side. Sight distances in each direction at the access are excellent.



Photograph 2: Ripponvale Road / Shannon Farm Access Looking North

- 3.1.4. At its eastern extremity, Ripponvale Road meets State Highway 6 at a priority ('give-way') controlled intersection. The intersection has an auxiliary left-turn lane which is around 75m long and 3.5m wide. It also has an auxiliary right-turn lane of 3.5m width, which is 20m long with an extended taper. Sight distances at the intersection are excellent, and in excess of 350m in each direction.



Photograph 3: Aerial Photograph of State Highway 6 / Ripponvale Road Intersection (Legal Highway Boundaries Shown)



Photographs 4 and 5: Sight Distances to the Left and Right at State Highway 6 / Ripponvale Road Intersection

- 3.1.5. State Highway 6 provides one traffic lane in each direction, and has a flat vertical profile and curvilinear horizontal alignment. The highway has a rural formation with shoulder and swale on either side. The posted speed limit is 100km/h, which reduces to 80km/h approximately 1km north of Ripponvale Road.
- 3.1.6. Approximately 0.3km north of the change in speed limit, State Highway 6 meets State Highway 8B at a single-lane roundabout.



Photograph 6: State Highway 6 / State Highway 8B Roundabout Looking South

- 3.1.7. State Highway 8B provides a roading connection into Cromwell, and then to State Highway 8 and locations throughout the South Island. State Highway 6 also passes close to Wānaka before turning westwards towards the West Coast
- 3.1.8. At its very western end, Ripponvale Road narrows, crosses a culvert and meets State Highway 6 at a four-arm priority intersection (around 3.2km from the plan change area), with Pearson Road forming the fourth (southernmost) arm. The intersection is give-way controlled, with traffic on the highway retaining priority. These are auxiliary lanes for the right-turn and left-turn movement from the highway.



Photograph 7: Aerial View of the State Highway 6 / Ripponvale Road / Pearson Road Intersection

3.1.9. Further south, the highway provides access to Frankton, Queenstown and further south to settlements at the bottom of the South Island.

3.2. Non-Car Infrastructure

3.2.1. At the time of writing, there is limited infrastructure provided for walking and cycling in the immediate area, although the current low traffic flows on the road means that cyclists can safely share the carriageway with motorised vehicles and there are wide grassed berms that can be used by pedestrians. However this situation is changing due to resource consents in the area, as discussed further below.

3.3. Future Changes

3.3.1. The development of Shannon Farm, as enabled by Plan Change 14 and subsequent resource consents, means that changes are being made to Ripponvale Road and the transport environs of the site. There are three key changes in this regard (addressed through District Plan 4.7.2(ii)(a)(vi) L to N) which set out that:

- Ripponvale Road is to be improved such that it provides a 7.0m wide seal plus 0.25m metalled shoulders. This will mean that the formation of the road achieves the standard under the Council's Land Development and Subdivision Engineering Code of Practice for a Collector Road serving more than 500 lots.
- A shared walking and cycling route of 2.0m is required along Ripponvale Road between Shannon Farm and the state highway.
- This is complemented by the construction of an underpass of the highway which will ensure that pedestrians and cyclists do not need to cross the highway (which has a speed limit of 100km/h) at-grade but instead are physically separated from the moving traffic. On its eastern side, the underpass will connect to the local roading network of Cromwell, where roads have footpaths, carry lighter traffic flows, and have lower speed limits, making them more suitable for use by non-car modes. On the western side, the underpass will connect to the shared walking and cycling route.



- 3.3.2. The net outcome of this is that residents of Shannon Farm will be able to travel the full length of Ripponvale Road on a separated walking and cycling route, then cross beneath the highway, and then gain access to the remainder of the Cromwell urban area using slower, quieter roads.
- 3.3.3. One further roading matter relates to the State Highway 6 / State Highway 8B roundabout which as noted above is presently constructed with a single circulating lane. Through Plan Change 21, a provision was added to the District Plan that no more than 286 residential lots can be constructed within the Parkburn area (approximately 8.5km north of the State Highway 6 / State Highway 8B roundabout) until the roundabout is upgraded with a second circulating lane, plus associated revisions to approaches. This provision was added because the analysis for the plan change showed that additional capacity was required at the roundabout.
- 3.3.4. There are no additional known changes to the roading environment in the immediate area that are set out in any overarching strategies or guides.



4. Current Transportation Patterns

4.1. Traffic Flows

4.1.1. The New Zealand Transport Agency (“NZTA”) carries out regular traffic counts on the state highway network. The closest count site on the state highway is site 00600947 which is located to the south of the southern State Highway 6 / Ripponvale Road intersection. The most recent Annual Average Daily Traffic (AADT) shows that the highway in this location carries 5,915 vehicles (two-way).

4.1.2. The survey station counts data continuously, and the following graph shows a breakdown of the daily flows for the past 12 months:

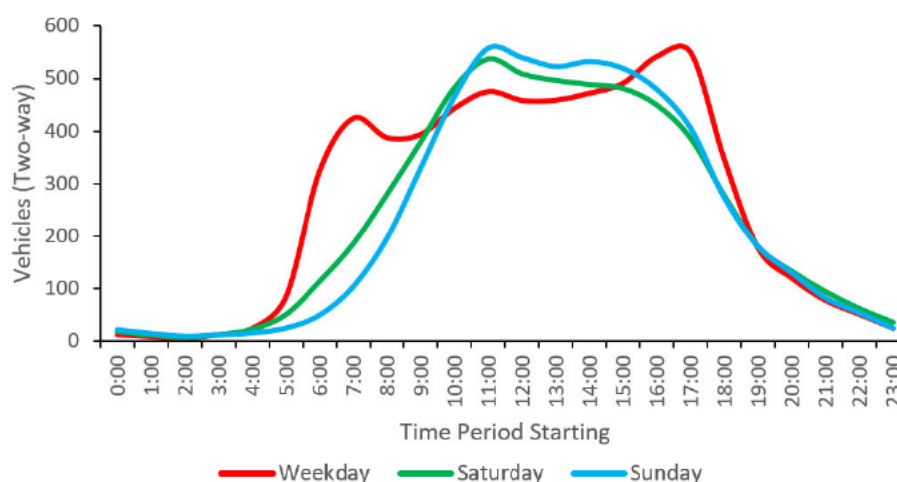


Figure 3: Traffic Flows on State Highway 6

4.1.3. As shown above, the weekday traffic flows display a morning and evening peak hour. The average recorded traffic flows were:

- Morning peak hour, 7am to 8am: 321 vehicles southbound, 104 vehicles northbound; and
- Evening peak hour, 5pm to 6pm: 195 vehicles southbound, 356 vehicles northbound.

4.1.4. This indicates a tidal flow on the highway, towards the direction of Queenstown in the morning and away from Queenstown in the evening. Other surveys in the area have indicated a similar direction of travel.

4.1.5. The data also shows that the traffic flows during the weekend are relatively high, and approach that of the weekday evening peak. This pattern of traffic flows is typical of a highway carrying recreational traffic. Further evidence of recreational traffic is shown in the seasonality of the highway. The average daily traffic volume during the summer months (December, January and February) was 7,021 vehicles (two-way), compared to 5,449 vehicles (two-way) during June, July and August, some 29% lower.

4.1.6. Traffic growth over the past few years has been influenced by restrictions on travel, particularly due to the limitation on overseas tourists during 2020 and 2021, and as a result traffic growth on the highway did not arise (in fact volumes reduced). This makes it difficult to reliably assess annual growth, as including these years would tend to show a lower growth rate than would otherwise have occurred.



- 4.1.7. For the purposes of this assessment, the traffic data for 2020 and 2021 has been disregarded, and taking into account the volumes recorded since 2015, and annual growth rate of 4.9% has been observed, as a percentage of the observed 2025 volume¹.
- 4.1.8. Although the location of the traffic counter is approximately 4km southwest of the site, a traffic count carried out in 2019 at the State Highway 6 / Ripponvale Road intersection showed that there was little turning traffic at the intersection but rather, the bulk of traffic was associated with the 'straight ahead' movement. Accordingly, the data from this counter has been used to inform this assessment. Therefore, applying the ambient traffic growth for the next ten years, the volumes on the highway in the design year of 2036 will be:
- Morning peak hour, 7am to 8am: 478 vehicles southbound, 155 vehicles northbound; and
 - Evening peak hour, 5pm to 6pm: 291 vehicles southbound, 530 vehicles northbound.
- 4.1.9. Traffic volumes at the State Highway 6 / Ripponvale Road intersection are presently influenced by the partially-complete Shannon Farm subdivision, which was enabled through Plan Change 14. As such, it is not viable to undertake any new traffic counts at the intersection because observed volumes will include construction traffic and will not reflect the traffic volumes that will be present due to residences that are already consented. However, as Shannon Farm has progressed, an additional resource consent (RM250155) has been sought for 44 additional lots. As part of this application, an assessment was undertaken of the expected traffic flows at the State Highway 6 / Ripponvale Road intersection, showing the total traffic flow expected passing through the intersection.
- 4.1.10. With regard to the distributions for the generated traffic, an initial assessment was carried out for Plan Change 14 but comments were subsequently received from the Council which proposed a different distribution. The distributions are:
- As per Plan Change 14 Transportation Assessment:
 - 25%: towards Cromwell and local facilities; and
 - 15%: north towards Wanaka and Alexandra
 - 60%: south in the direction of Queenstown.
 - As per Council Alternative:
 - 75% to/from Cromwell;
 - 10% to/from Queenstown;
 - 5% to/from Wanaka; and
 - 10% to/from Alexandra/Omarama direction.
- 4.1.11. The allocations of traffic under each of these distributions are shown below, for the full extent of the 160-lot consented Shannon Farm development, plus the additional 44 lots that are presently being sought (the latter in order to present a robust assessment)

¹ For comparison, including the data for 2020 and 2021 (which traffic flows reduced) would indicate an annual growth rate of 3.8%

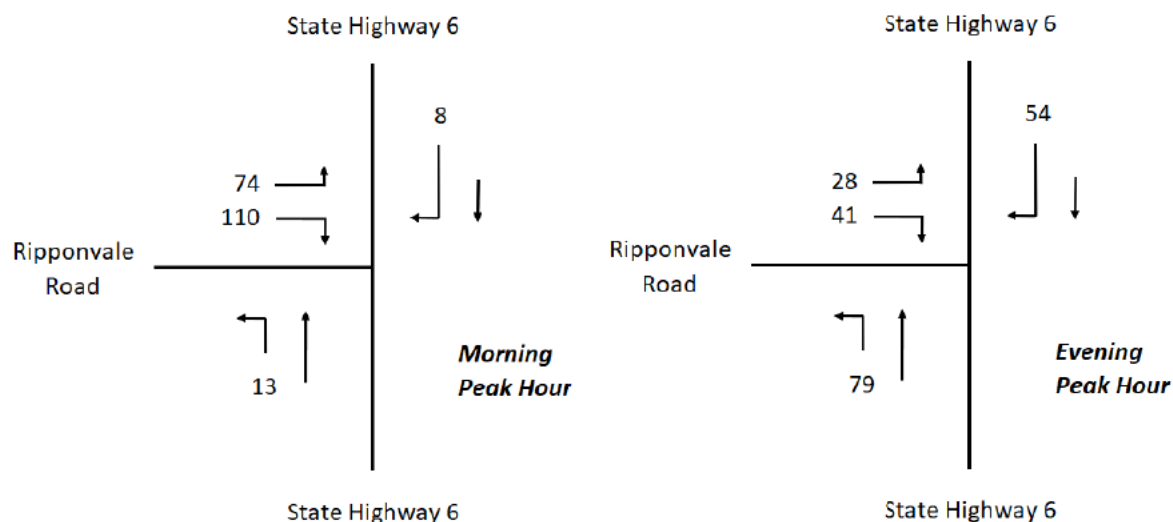


Figure 4: Consented Weekday Peak Hour Traffic Flows at the State Highway 6 / Ripponvale Road Intersection Generated by the Shannon Farm Development, Distribution as per Plan Change 14 Transportation Assessment

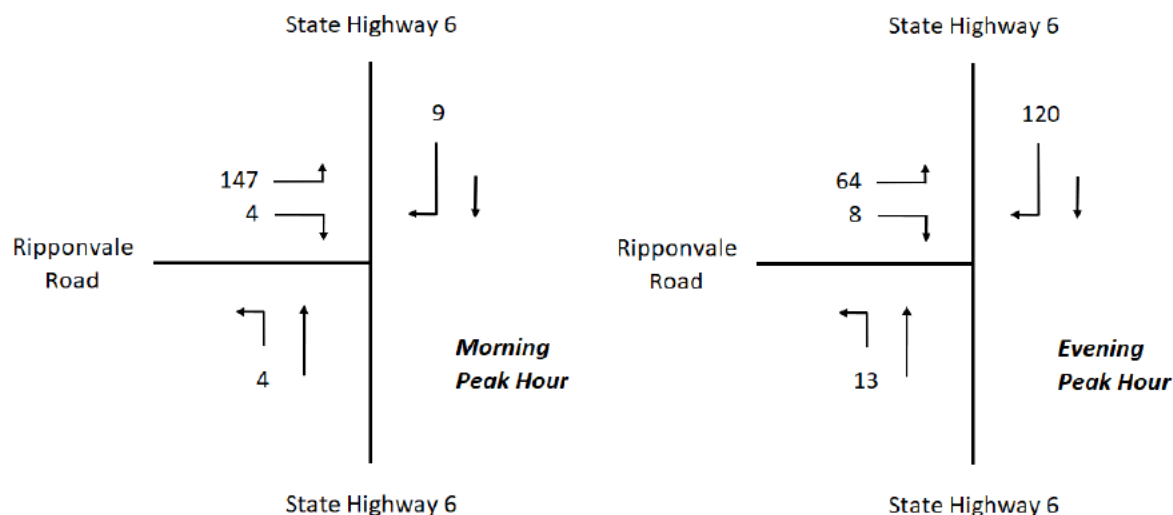


Figure 5: Consented Weekday Peak Hour Traffic Flows at the State Highway 6 / Ripponvale Road Intersection Generated by the Shannon Farm Development, Distribution as per Council Alternative

4.2. Non-Car Modes of Travel

- 4.2.1. The provisions made through Plan Change 14 mean that there will be an excellent level of provision for walking and cycling in the area, with a dedicated off-road route for pedestrians and cyclists.
- 4.2.2. There are no regular bus services that pass the site, and there is no local service available within Cromwell. Although several longer-distance services pass nearby on the highway, there are no bus stops provided within walking distance.

4.3. Road Safety

- 4.3.1. The NZTA Crash Analysis System has been used to establish the location and nature of the recorded traffic crashes in the vicinity of the site. All reported crashes between 2021 and 2025 were identified, plus the partial record for 2026, for Ripponvale Road between State Highway



6 and the Shannon Farm access (around 200m east of the 90-degree curve in Ripponvale Road), plus for a distance of 300m to the north and south along State Highway 6.

4.3.2. This showed that there were six reported crashes in the area:

- Two crashes occurred on Ripponvale Road:
 - One crash occurred around 0.6km west of the highway, when a driver returned to their parked vehicle to find it had been struck by another vehicle in their absence. The crash did not result in any injuries;
 - One crash occurred in the vicinity of the Shannon Farm access, when the suspension broke on a trailer and the trailer overturned. The crash did not result in any injuries;
- Two crashes occurred at the State Highway 6 / Ripponvale Road intersection:
 - Both crashes occurred when a driver turned right into Ripponvale Road and was struck by a northbound vehicle. The police reports in both cases note that the at-fault drivers were overseas nationals, with limited experience of driving in New Zealand. The crashes did not result in any injuries;
- One crash occurred on State Highway 6, south of the State Highway 6 / Ripponvale Road intersection. This occurred around 200m from the intersection when a southbound driver struck a straying sheep. The crash did not result in any (human) injuries
- One crash occurred on State Highway 6, north of the State Highway 6 / Ripponvale Road intersection. This occurred around 100m from the intersection when a northbound driver left the road. The police report notes that the driver was inexperienced and was intoxicated. The crash resulted in serious injuries

4.3.3. The historic pattern of crashes does not indicate any particular safety-related deficiencies on either this section of highway or Ripponvale Road.



5. Proposal

- 5.1. The proposal is known as the 'Shannon Farm Residential and Commercial Extension', and will comprise of the following:
 - Residential development for approximately 755 lots; plus
 - Approximately 5.19 hectares of light industrial land. Based on typical development densities, this will be able to provide 19,425sqm GFA; and
 - Approximately 3.1 hectares of retail / commercial land. Based on typical development densities, this will be able to provide 13,675sqm GFA.
- 5.2. From a transportation perspective it is relevant to note that the site will also have a network of internal transport routes for all types of road users, including green corridors for non-car users.
- 5.3. Vehicular access to the site is proposed to be provided via new intersections onto Ripponvale Road. No direct vehicle access is proposed onto the state highway. Four new intersections are proposed, reflecting the expected activities within the site that they will serve, with the two easternmost intersections largely serving industrial and commercial activities, and the two westernmost intersections serving largely the residential activities.
- 5.4. The existing priority-controlled State Highway 6 / Ripponvale Road intersection will be required to be upgraded to accommodate the additional traffic and given the prevailing transport environment, a roundabout is the appropriate form of intersection. As noted above the highway boundary at the intersection is large, and the roundabout can be sited within this plus an area of land within the site (which will be given over to legal state highway).
- 5.5. An indicative masterplan for the site is shown below.

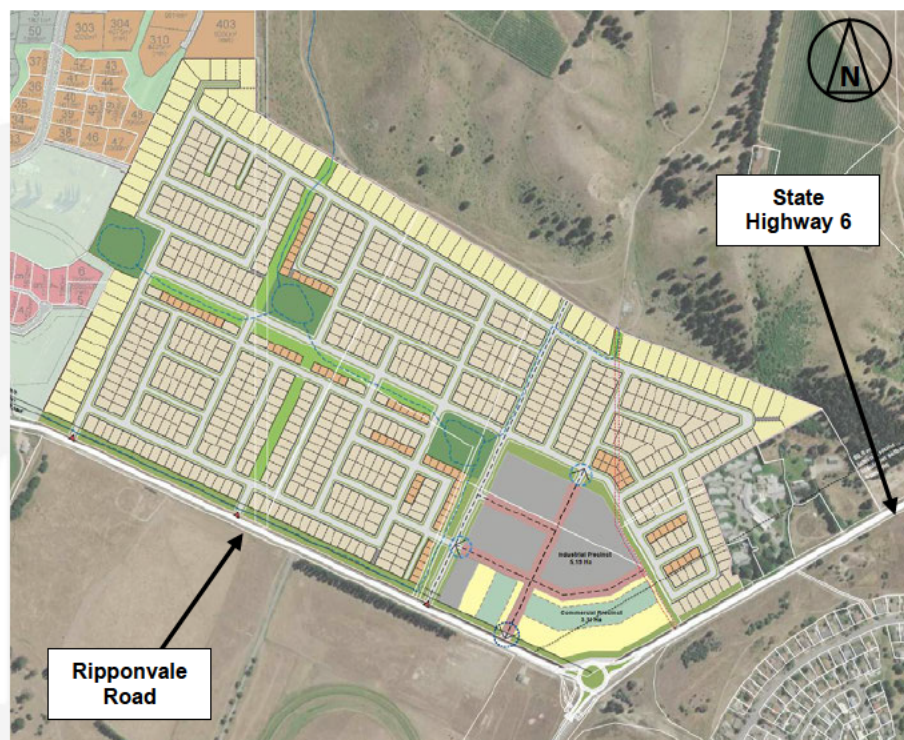


Figure 6: Indicative Masterplan (Extract from RMM Landscape Architects Drawing)

6. Traffic Generation and Distribution

6.1. Traffic Generation

- 6.1.1. Traffic generated by residential developments is known to vary for a variety of reasons, with one such reason being the proximity (or otherwise) to employment and community facilities. Where a dwelling is some distance from these types of facilities, the traffic generation rates tend to be lower than for residences that are closer due to 'trip chaining', that is, the tendency of a resident to carry out multiple visits to different destinations during the same trip away from the dwelling.
- 6.1.2. In this case, the traffic generation of residential development was considered through Plan Change 14 (Shannon Farm), which applied standard rates of 8 vehicle movements per weekday per residence, with this rate being specified in the Council's Code of Practice for all types of residential development. It is therefore appropriate for use in this instance also. With regard to weekday peak hours, Plan Change 14 used a rate of 1 vehicle movement per residence, but in view of the increased density, NZTA Research Report 453 ('Trips and Parking Related to Land Use') (RR453) suggests a rate of 1.1 vehicle movements per unit and this has therefore been used to maintain a consistent approach².
- 6.1.3. The peer review for Plan Change 14 also indicated a directional flow for vehicles associated with residential activity, and this has been used in this instance also. Consequently the direction of traffic expected is:
- Morning weekday peak hour: 80% exiting the site and 20% entering the site; and
 - Evening weekday peak hour: 35% exiting the site and 65% entering the site.
- 6.1.4. In respect of industrial activities, a recent private plan change to the Kaikōura District Plan was approved on the basis of the following, which is consistent with rates adopted for similar activities in Selwyn District:
- Morning weekday peak hour: 2.5 trips per hectare exiting the site and 13.9 trips per hectare entering the site; and
 - Evening weekday peak hour: 12.7 trips per hectare exiting the site and 5.4 trips per hectare entering the site.
- 6.1.5. The nature of the commercial activity is presently not specified but is expected to allow for retail, food+beverage, health/beauty services, professional services, offices and the like. These activities have different trip rates and to some extent, the traffic generation is also tenancy-dependent. However it is common that these activities co-locate within shopping centres, which then means that those tenancies that are higher trip generators are balanced by those that generate lower volumes. Accordingly, in this case a generic rate for shopping centres has been applied to the whole of the GFA for the commercial activities.
- 6.1.6. The size of floor area (13,675sqm GFA) is classified within RR453 as being a 'large' shopping centre with a typical rate of 7.1 vehicle movements per 100sqm GFA in the peak hours, and this is the rate that has been adopted.
- 6.1.7. Not all of these vehicle movements will be newly generated on the network. The traffic generation of retail activity for instance is known to comprise not only of new trips, but also

² Recent surveys suggest that the peak hour rate is likely to be lower than this, but the use of this rate not only ensures alignment with the previous nearby plan change but will ensure a robust analysis.

trips that are already on the road network and divert to the site, and trips that are already passing by the site. A pass-by proportion for supermarkets of 40% is commonly applied but in view of the tenancies not presently being known, a more conservative approach of 30% has been applied.

6.1.8. Pass-by trips may also occur at the industrial activity, but as there are no formal surveys available that demonstrate an appropriate proportion, no allowance has been made for this.

6.1.9. It is likely that there will also be linked trips associated with different activities proposed. For example, a resident may call into the retail as part of their trip home in the evening, or an employee at the commercial development may live in the site. These trips will take place wholly within the site and will not appear on the external roading network. There is little data available for this, and in this analysis a conservative approach has been taken of applying a 5% reduction for this.

6.1.10. It is also likely that the location of the site and the excellent non-car connectivity to Cromwell via the shared walking and cycling route and the underpass will mean that there will be a high degree of walking and cycling trips made. However as this cannot be forecast with certainty, no reduction has been made for these.

6.1.11. Overall, it is considered that these assumptions will mean that the analysis is robust.

6.1.12. In summary, the weekday peak hour trip generation of the site is expected to be as follows:

Activity	Size	Morning Peak Hour			Evening Peak Hour		
		Rate	In	Out	Rate	In	Out
Residential	755 Units	1.1	166 (158 external, 8 internal)	664 (631 external, 33 internal)	1.1	540 (513 external, 27 internal)	291 (276 external, 15 internal)
Industrial	5.19 ha	2.5 out 13.9 in	72 (69 external, 4 internal)	13 (12 external, 1 internal)	12.7 out 5.4 in	28 (27 external, 1 internal)	66 (63 external, 3 internal)
Commercial	13,675sqm GFA	1.4	96 (29 pass-by, 62 new external, 5 internal)	96 (29 pass-by, 62 new external, 5 internal)	7.1	485 (146 pass-by, 316 new external, 24 internal)	485 (146 pass-by, 316 new external, 24 internal)
Total	-	-	334 (29 pass-by, 288 new external, 17 internal)	773 (29 pass-by, 706 new external, 39 internal)	-	1,053 (146 pass-by, 855 new external, 52 internal)	842 (146 pass-by, 655 new external, 42 internal)

Table 1: Adjusted Peak Hour Trip Generation of the Proposed Development

6.2. Trip Distribution

6.2.1. Two potential distributions for these vehicles were identified in the previous work in this area (for Plan Change 14). These allowed for:

- As per Plan Change 14 Transportation Assessment:
 - 25%: towards Cromwell and local facilities;
 - 15%: north towards Wanaka and Alexandra; and

- 60%: south in the direction of Queenstown.
- As per Council Alternative:
 - 75% to/from Cromwell;
 - 10% to/from Queenstown;
 - 5% to/from Wanaka; and
 - 10% to/from Alexandra/Omarama direction.

6.2.2. Both distributions have been used within this analysis. This therefore gives rise to the following new traffic generation:

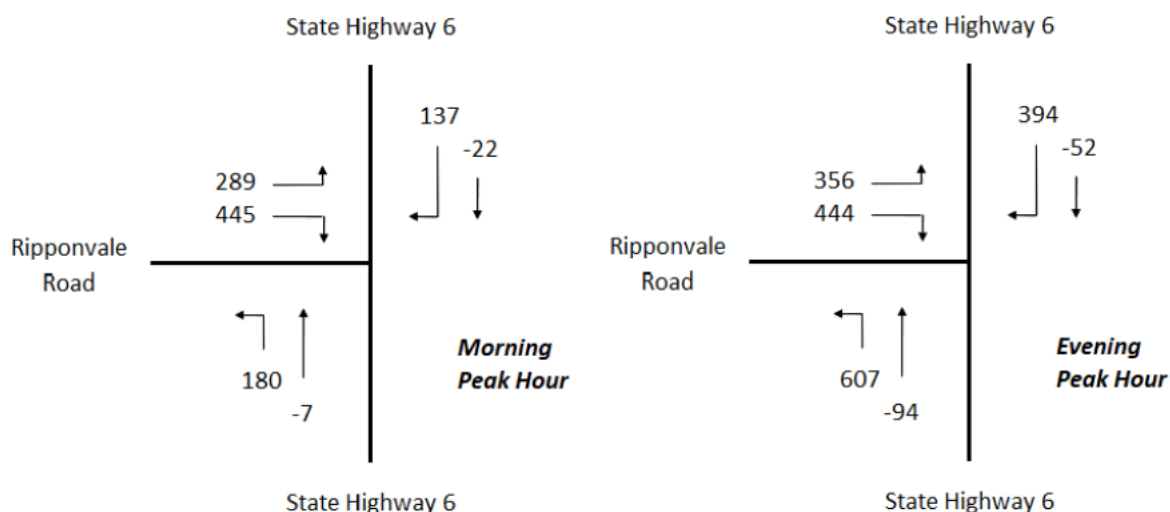


Figure 7: Weekday Peak Hour Traffic Flows at the State Highway 6 / Ripponvale Road Intersection Generated by the Proposed Development, Distribution as per Plan Change 14 Transportation Assessment

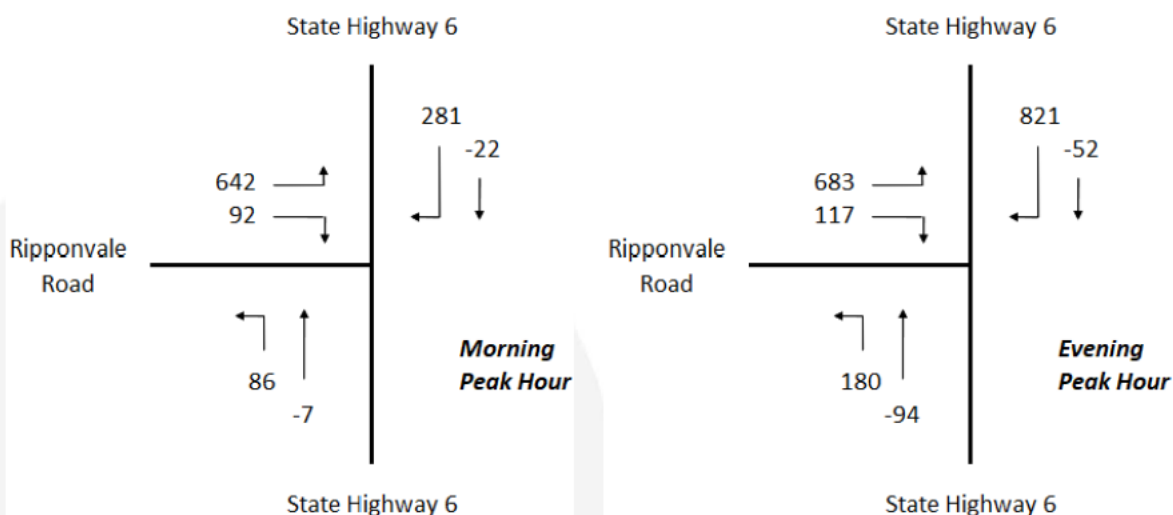


Figure 8: Weekday Peak Hour Traffic Flows at the State Highway 6 / Ripponvale Road Intersection Generated by the Proposed Development, Distribution as per Council Alternative

7. Effects on the Transportation Networks

7.1. Intersection Capacity

- 7.1.1. As set out above, an appropriate treatment for the State Highway 6 / Ripponvale Road intersection is for it to be upgraded to a roundabout. At present no detailed design is available and consequently the approach taken has been to allow for the same design of roundabout as presently in place at the State Highway 6 / State Highway 8B intersection. This was recently constructed by NZTA and can therefore be assumed to meet relevant design standards and criteria.
- 7.1.2. The performance of the State Highway 6 / Ripponvale Road intersection using this design has been modelled using the Sidra Intersection computer software, and the results are summarised below.

Approach	Morning Peak Hour			Evening Peak Hour		
	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service
State Highway 6 (south)	8.2	1.8	A	155.0	118.4	F
State Highway 6 (north)	13.0	7.6	B	16.1	10.5	B
Ripponvale Road	6.1	6.8	A	13.4	15.5	B

Table 2: Performance of State Highway 6 / Ripponvale Road Roundabout with Full Development of Shannon Farm Plus Full Development of Site, Distribution as per Plan Change 14 Transportation Assessment

Approach	Morning Peak Hour			Evening Peak Hour		
	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service
State Highway 6 (south)	10.0	1.2	A	270.5	101.5	F
State Highway 6 (north)	7.7	4.7	A	11.1	15.2	B
Ripponvale Road	2.8	6.5	A	8.7	13.7	A

Table 3: Performance of State Highway 6 / Ripponvale Road Roundabout with Full Development of Shannon Farm Plus Full Development of Site, Distribution as per Council Alternative

- 7.1.3. It can be seen that the roundabout has ample capacity in the morning peak hour, but insufficient capacity in the weekday evening peak hour. As set out above, a conservative approach has been used for the traffic generation, and so it is considered that in practice, the roundabout will offer better levels of performance than modelled. Nevertheless, a further assessment has been carried out by adding a short left-turn lane onto the southern approach so that there are two approaches on this leg, and the intersection remodelled for the scenario about with the greatest delays:

Approach	Weekday Evening Peak Hour					
	Without Left Turn Lane			With Short Left Turn Lane		
	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service	Avg Delay (secs)	95 %ile Queue (veh)	Level of Service
State Highway 6 (south)	270.5	101.5	F	21.1	9.3	C
State Highway 6 (north)	11.1	15.2	B	11.1	15.2	B
Ripponvale Road	8.7	13.7	A	15.3	19.7	B

Table 4: Performance of State Highway 6 / Ripponvale Road Roundabout with Full Development of Shannon Farm Plus Full Development of Site, With/Without Left Turn Lane

- 7.1.4. It can be seen that with this scenario, the roundabout will provide a good level of service in the peak hours.
- 7.1.5. Modelling has also been undertaken for a notional arrangement for the site access. As set out above, the masterplan shows that the site has four separate access but to model a 'worst case' scenario, an allowance has been made for all of the site traffic to use the easternmost access. The greatest delays at any priority intersection always arise at the right-turn out of the minor approach, but the modelling shows that this has delays of less than 35 seconds and Level of Service D in the evening peak hour (the time period where the greatest delays arise).
- 7.1.6. On this basis then, the analysis shows that the development of the site can be accommodated on the adjacent roading network, albeit with improvements (which can be carried out either within the road/highway reserve and/or using land within the site).
- 7.1.7. Intersections within the site will have lower traffic volumes than assessed above. Consequently it can reliably be concluded that these will also operate with good levels of service.

7.2. *Non-Car Modes of Travel*

- 7.2.1. The proposal is likely to result in increased levels of walking and cycling in the immediate area. Roads within the site will make provision for walking and cycling both within the road reserves themselves (in accordance with best practice and relevant guides/standards). For pedestrians, footpaths will be provided within road reserves although on those roads with very low traffic flows and low speeds, shared zones can be constructed where all road users share the same road surface. Walking within the greenways will also occur.
- 7.2.2. Cycling provision is expected to be via use of the movement lanes, with cyclists sharing the lane with motorised vehicles. Given the low traffic speeds and the relatively low volumes, it is not expected that this will give rise to any adverse effects. However there is also the opportunity for off-road routes to be constructed.
- 7.2.3. Externally, the site has the opportunity to link to the shared walking and cycling route within Ripponvale Road (required through Plan Change 14), which in turn links to the state highway underpass and to the local roads within Cromwell. Accordingly, there is already a high level of non-car connectivity provided into which the site can connect.
- 7.2.4. The size of the subdivision is not sufficient that it will give rise to the need for a public transport service.



7.3. Road Safety

- 7.3.1. Based on a review of the road safety records, the proposal is unlikely to result in adverse road safety effects arising as a result of the increase in traffic flows on the external road network.
- 7.3.2. There is sufficient legal width within Ripponvale Road to construct the access intersections, and sufficient land (including a small area within the site) to construct the proposed new roundabout at the state highway. Sight distances in these locations are excellent. Accordingly, it is considered that intersections will be able to be constructed that meet current guides and standards, and therefore will operate safely.
- 7.3.3. No direct access between the site and the state highway network is proposed, rather, the proposal is to ensure that all site-related traffic utilises the proposed roundabout. This approach minimises the number of potential conflict points and thus supports a safe transportation environment.
- 7.3.4. Internally to the site, the transportation networks for all road users will be able to meet relevant guides and standards, and there are therefore no constraints that are likely to result in adverse road safety effects.

7.4. Road Cross-Sections

- 7.4.1. Ripponvale Road is already required to be upgraded to a Collector Road status through Plan Change 14. It is not expected that further upgrades will be required, but if so, the 20m legal width is ample for the seal to be widened. Similarly, the state highway legal width of 20m could accommodate widening if needed. That said, the expected traffic flows are not such that improvement schemes are anticipated.
- 7.4.2. Within the site itself, the local network of roads can be constructed to meet the Council's Code of Practice or other standards as agreed at the time.



8. District Plan and Planning Policy Manual

- 8.1. A preliminary assessment has been carried out of the transport-related provisions of the District Plan. At this stage, no matters have been identified where significant non-compliances are expected.
- 8.2. Late in 2025, NZTA issued new guidance regarding the location of vehicle crossings and intersections on side roads, in relation to intersections on highways ('Access onto the State Highway from Private Property'). This guidance provides a helpful document to evaluate whether the site accesses shown on the masterplan are located appropriately.
- 8.3. It can be expected that the prevailing traffic speed on the highway will be lower than the current posted 100km/h, as drivers will have to slow to negotiate the roundabout geometry. If the operating speed is assumed to be 50km/h, then the NZTA guide indicates that any new access or intersection onto Ripponvale Road should be located at least 75m from the new roundabout.
- 8.4. The manner in which is this measured is not clear within the NZTA guide, and as noted above, the legal highway boundary is expected to change in order to accommodate the roundabout. However, if measured from the closest expected current edge of the circulating carriageway of the roundabout, a distance of 125m is achieved, and if measured to the currently-expected legal edge of the highway³, 100m is achieved. Accordingly, it can be considered that the setback of the closest access intersection from the new roundabout on the state highway will meet NZTA requirements.
- 8.5. The minimum separation distance between intersections onto Ripponvale Road is 150m. This is the minimum distance expected under Standard NZS4404:2010 ('Land Development and Subdivision Infrastructure') for intersections onto Collector Roads.
- 8.6. Overall then, no significant departures from the District Plan provisions or key guides have been identified.

³ This may change as detailed design is progressed



9. Conclusions

- 9.1. This report has identified, evaluated and assessed, at a high-level, the various transport and access elements of a request for referral under the Fast-Track Approvals Act 2024 for approvals associated with a residential and commercial extension to the Shannon Farm development, in Cromwell.
- 9.2. Overall it is considered that the traffic generated by the development of the site can be accommodated on the adjacent roading network without capacity or efficiency issues arising. Provisions made within the application will include upgrading the existing State Highway 6 / Ripponvale Road to a single-lane roundabout, with all site access achieved through this.
- 9.3. The crash history in the vicinity of the site does not indicate that there would be any adverse safety effects from the proposal, and new infrastructure will be able to meet current guides and standards.
- 9.4. The internal roads within the site are likely to be able to comply with the Council's standards, and if any upgrading is required of the external roads, then the legal widths mean that this can be accomplished.
- 9.5. The site provides a high degree of connectivity for non-car modes of transport, connecting to an off-road shared walking and cycling route on Ripponvale Road, and to an underpass of the highway (both of which are required through Plan Change 14).
- 9.6. No non-compliances have been identified with regard to the District Plan or to the NZTA Planning Policy Manual.
- 9.7. On this basis then, it is considered that the site can supported from a traffic and transportation perspective, and there are no transportation reasons why it could not be referred for consideration under the Fast-Track Approvals Act 2024.

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