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Project/File: 310206601

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Reference: Costco Christchurch Project – Fast Track Referral Transport Assessment

1 Introduction

1.1 Purpose

This memorandum has been prepared on behalf of the Costco Christchurch Project in support of a Fast Track Approval referral application relating to land at Memorial Avenue, Christchurch.

The purpose of this memorandum is to provide a high-level assessment of transportation matters associated with the proposal and to identify whether any strategic transportation constraints exist that would preclude consideration of the proposal through the Fast Track process. The assessment considers the proposed Costco warehouse, member fuel facility, complementary large format retail and associated subdivision and infrastructure works as an integrated development.

The memorandum builds upon the substantial body of transport assessment, design and consenting work previously undertaken for the site and considers the extent to which the previously assessed and approved transport framework can accommodate the proposed Costco-led development.

1.2 Assessment Approach

This memorandum provides a strategic transportation assessment only. Detailed transport assessment, including traffic modelling, traffic generation assessment, intersection analysis, road safety assessment and traffic engineering design will be undertaken for the substantive application to follow.

The assessment has been informed by:

- The Memorial Business Park rezoning process;
- The approved Outline Development Plan;
- The subdivision consent process;
- Previous transport assessments prepared for the site;
- Road safety audit work undertaken as part of the subdivision consent process; and
- Preliminary transport investigations and high-level traffic generation estimates associated with the current Costco-led proposal.

Reference: Costco Christchurch Project Referral Transport Assessment

The purpose of the referral-stage assessment is therefore not to resolve matters of detailed operational performance, but to determine whether there is any strategic transportation impediment to the proposed development proceeding to substantive assessment.

2 Site Context

2.1 Site Location

The site is located between Memorial Avenue and Avonhead Road, to the east of State Highway 1 (Russley Road, SH1), within north-west Christchurch. The site's proximity to SH1, Memorial Avenue, Christchurch International Airport and the wider arterial network places it in a strategically well-connected location for a destination development serving a broad Christchurch, Canterbury and South Island catchment.

SH1 forms the principal north-south route along the western side of Christchurch and connects with a number of the city's key arterial routes, including Memorial Avenue. The site's proximity to SH1 provides convenient access to the wider Christchurch urban area and regional transport network.

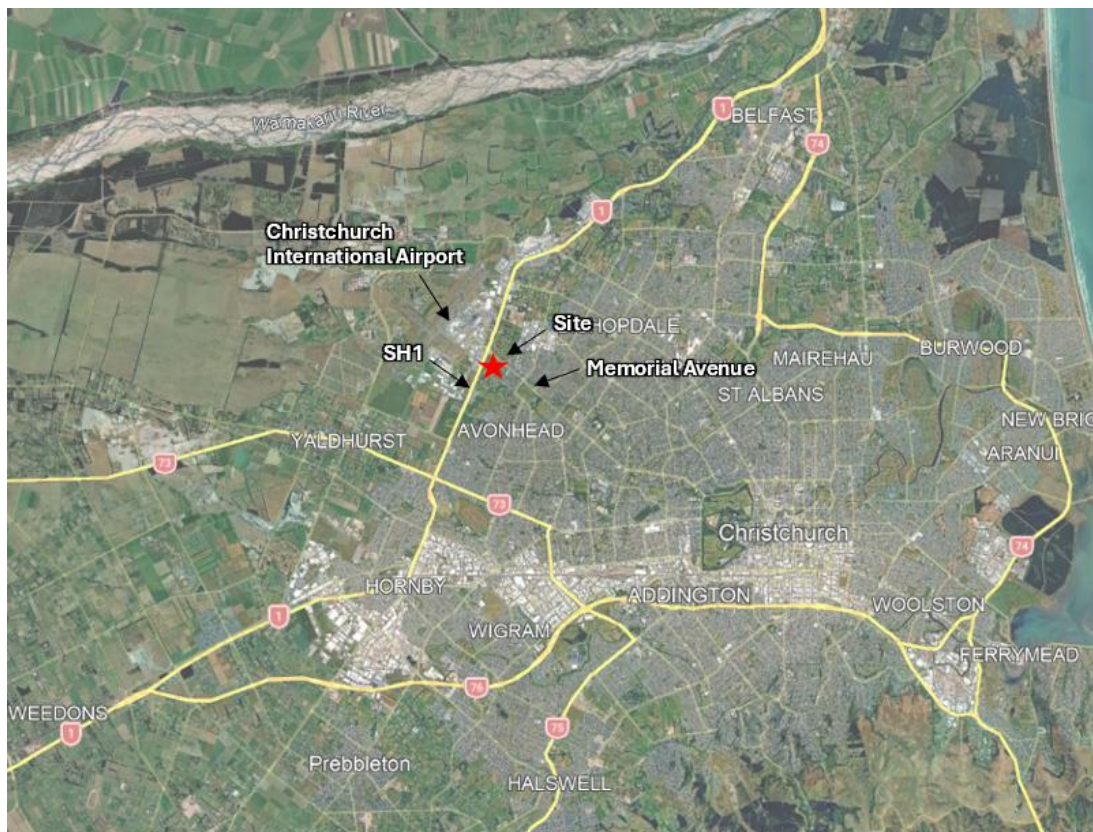


Figure 2-1: Site location wider context

Reference: Costco Christchurch Project Referral Transport Assessment

Figure 2-2 illustrates the local context surrounding the site, including Christchurch International Airport. The site sits within an established commercial, airport and strategic transportation environment and is not an isolated greenfield location.



Figure 2-2: Site location local context

Figure 2-3 illustrates the site's relationship to the surrounding road hierarchy. The site benefits from direct connections to both the strategic transport network via Memorial Avenue and SH1, and the

Reference: Costco Christchurch Project Referral Transport Assessment

collector road network via Avonhead Road and Withells Road. This provides multiple access opportunities and a high level of connectivity to the surrounding transport network.

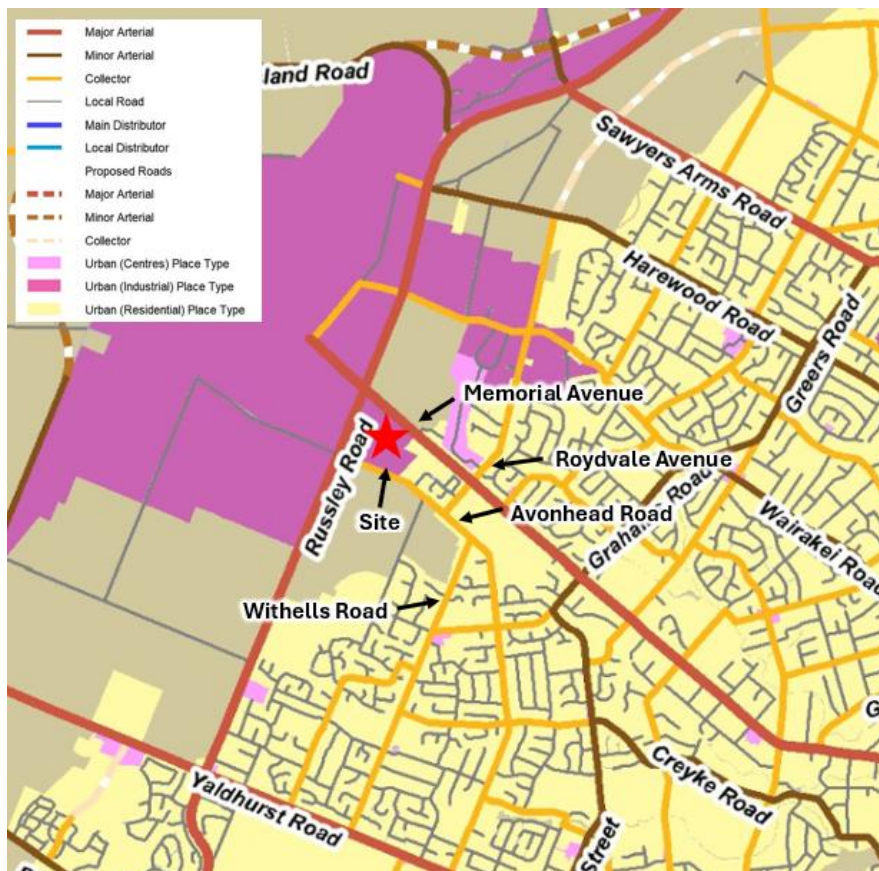


Figure 2-3: Site location road hierarchy and place type context

2.2 Existing Road Network

SH1 is located immediately west of the site. Adjacent to the site, the route comprises a divided four-lane carriageway, with cycle lanes, and is connected to Memorial Avenue via a signalised interchange. It is a Limited Access Road and no site access is proposed to or from it.

Memorial Avenue forms the northern frontage of the site and has a posted speed limit of 60 km/h. The road comprises two traffic lanes and a parking lane in each direction separated by a central median and includes footpaths on both sides of the corridor.

Avonhead Road forms the southern boundary of the site. The road generally comprises a two-lane carriageway with an 11.5 m formed width toward the eastern end of the site, transitioning to a narrower carriageway and more semi-rural character toward the west. A footpath is provided along the southern side of the road adjacent to existing residential development. Avonhead Road terminates at a turning head west of the site, from where a cycle path connection is provided to SH1.

Reference: Costco Christchurch Project Referral Transport Assessment

Roydvale Avenue is located to the east of the site and extends north-south between Avonhead Road and the commercial and industrial areas located north of Memorial Avenue. The road provides access to a range of surrounding activities and forms part of the area's established road network. Roydvale Avenue intersects with Memorial Avenue at a signalised intersection.

Daily traffic volumes on the surrounding road network are summarised in Table 2-1. The traffic volumes are consistent with the function of the surrounding road network, with SH1 and Memorial Avenue carrying the highest traffic volumes and lower volumes on the surrounding collector roads.

Table 2-1: Daily traffic volumes (Source: Mobile Road)

Road	Daily Traffic Volume
SH1 south of Memorial Avenue	42,000 vpd
Memorial Avenue east of SH1	21,600 vpd
Roydvale Avenue south of Memorial Avenue	9,800 vpd
Avonhead Road west of Roydvale Avenue	1,200 vpd

2.3 Public Transport

Bus services currently operate along Memorial Avenue adjacent to the site. Route 3 provides higher-frequency connections between Christchurch Airport and Sumner via Roydvale Avenue, while Routes 29 and 125 also operate along Memorial Avenue. Bus stops serving all three routes are located close to the site, as shown in Figure 2-4.

The presence of established bus services and nearby stops provides an existing public transport connection to the site, with opportunities to improve pedestrian connections between the development and those services through detailed design.

Reference: Costco Christchurch Project Referral Transport Assessment

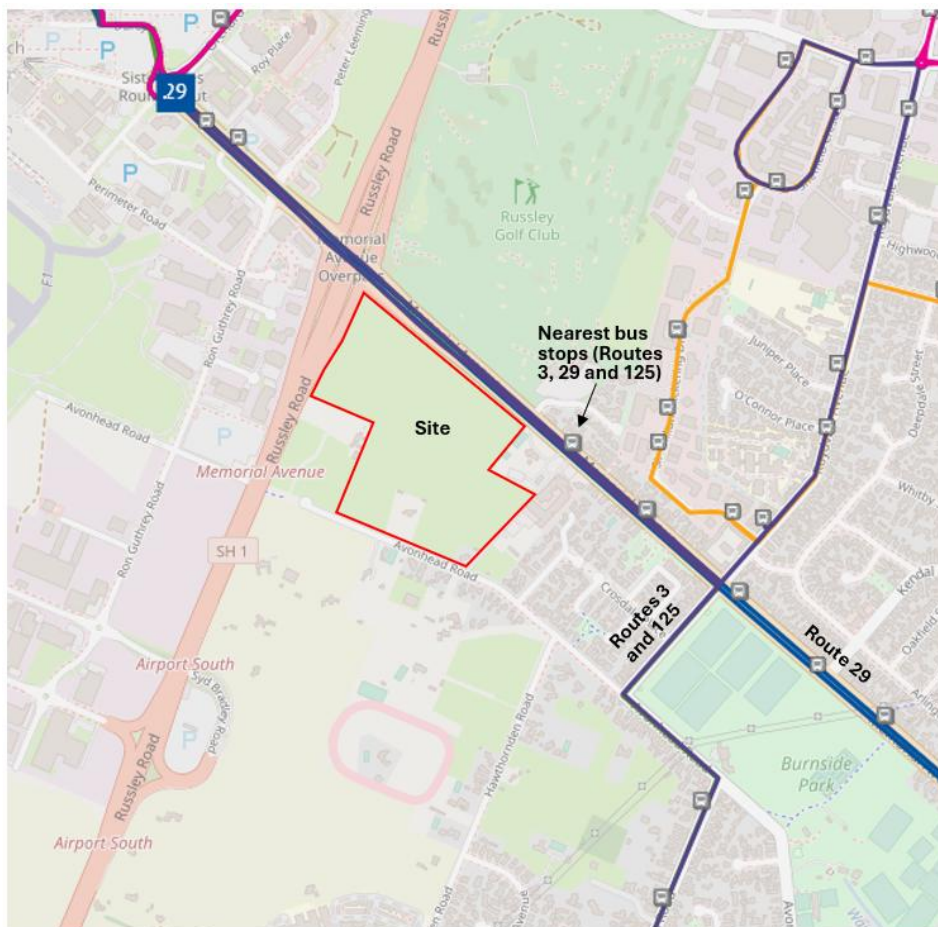


Figure 2-4: Bus routes passing the site

3 Planning and Transport History

3.1 Memorial Avenue Industrial Park Rezoning

The site has been the subject of planning and transport assessment processes for more than a decade.

The site was originally identified within the Canterbury planning framework as suitable for future business development and was subsequently rezoned through the Memorial Avenue Industrial Park plan change process.

A detailed Transportation Assessment was prepared in support of the rezoning and Outline Development Plan (ODP). That assessment anticipated a substantial business park development and demonstrates that the transportation implications of developing the site have already been the subject of detailed investigations.

Reference: Costco Christchurch Project Referral Transport Assessment

The rezoning process established an Outline Development Plan (Figure 3-1) and the principal transport framework for the site, including:

- A signalised access to Memorial Avenue;
- A secondary left-in / left-out access to Memorial Avenue; and
- A collector road connection to Avonhead Road.

These previously established access arrangements form the basis of the transport framework proposed to serve the Costco Christchurch Project, subject to the detailed operational assessment to be undertaken at the substantive stage.

Accordingly, the project does not require the creation of an entirely new strategic access framework; rather, it utilises and develops a transport structure already established through the statutory planning process.

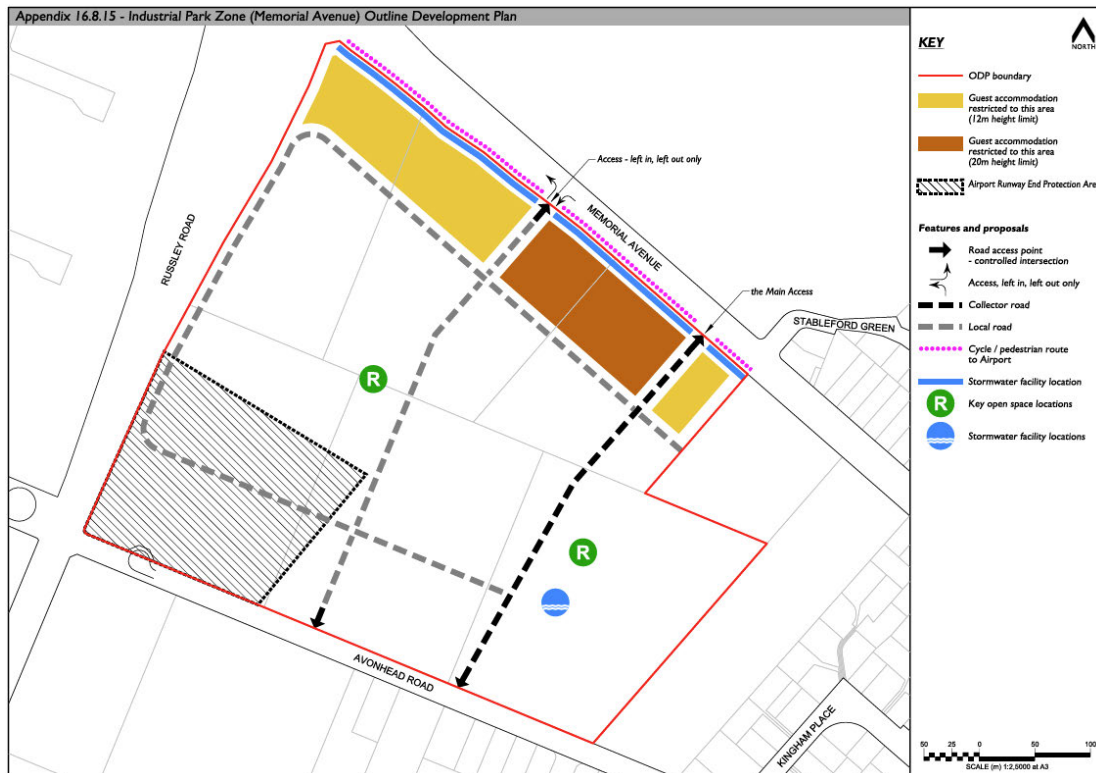


Figure 3-1: Industrial Park Zone (Memorial Avenue) Outline Development Plan

3.2 Subdivision Consent and Access Assessment

Following rezoning, subdivision consent was sought to facilitate development of the site and establish the first stages of the internal transport network. Figure 3-2 illustrates the approved subdivision layout. The subdivision consent established Lots 1, 2 and 3 together with the primary and secondary Memorial Avenue access arrangements, and the first section of the internal collector road. Future Lot 4 was also

Reference: Costco Christchurch Project Referral Transport Assessment

established, preserving the opportunity for a future road connection to Avonhead Road as part of subsequent development of the wider site.

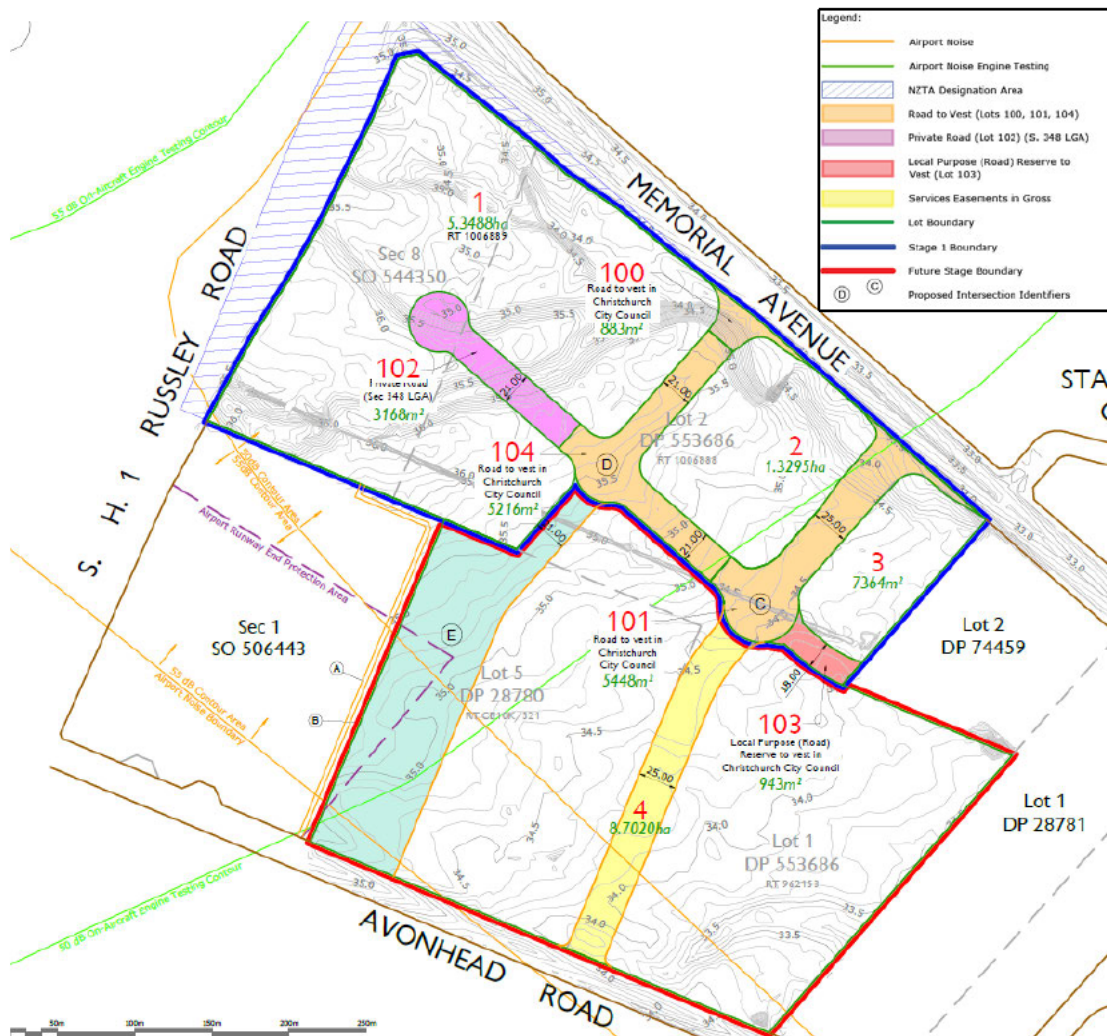


Figure 3-2: Consented subdivision layout

The subdivision application was supported by an Integrated Transport Assessment (ITA) together with supplementary transport memoranda and responses to requests for further information.

That ITA assessed the proposed transport infrastructure against an assumed full-site development scenario intended to represent the potential long-term development of the wider Industrial Park Zoned land.

The assumed full-site scenario incorporated:

- Dealership activities;
- A service station;
- Food and ancillary retail activities;

Reference: Costco Christchurch Project Referral Transport Assessment

- Trade supplier activities;
- Visitor accommodation; and
- A range of other Industrial Park activities.

Based on these assumptions, the ITA estimated that development could generate approximately 1,500 vehicle movements during the PM peak hour and 960 vehicle movements during the AM peak hour and assessed the operation of the proposed site access arrangements and internal road network on that basis.

The assumed full-site development scenario contemplated a range of activities that would be expected to generate regular servicing, freight and heavy vehicle movements. Accordingly, the subdivision consent process contemplated a development outcome requiring heavy vehicle access to the site, and the approved transport framework was developed and assessed on that basis.

This provides an important benchmark for the referral assessment because the principal access arrangements and internal transport framework have already been tested against a substantial full-site development scenario.

The subdivision consent was subsequently granted, establishing the transport framework that presently applies to the site. The site therefore benefits from a transport framework that has already been assessed, refined and approved through multiple planning and consenting processes, including assessment against a substantial full-site traffic generation scenario.

4 Proposed Development Description

4.1 Overview

The Fast Track proposal seeks approval for:

- Amendments to the previously approved subdivision framework;
- Associated roading and infrastructure works;
- A Costco warehouse;
- A Costco member fuel facility; and
- Approximately 7,900 m² of complementary large format retail activities.

Lots 1 and 2 of the approved subdivision are retained by Miles Premises and do not form part of the land use activities sought through this referral application. A separate land use consent application for automotive dealership, showroom and workshop activities on those lots is currently on hold with Christchurch City Council. However, for the purposes of understanding the likely operation of the wider transport framework, the referral-stage traffic generation context assumes that Lots 1 and 2 may be developed for broadly similar automotive activities to those previously contemplated through the subdivision consent process.

Reference: Costco Christchurch Project Referral Transport Assessment

The Costco warehouse, member fuel facility and complementary large format retail are intended to operate as an integrated destination supported by the common access and internal transport network.

4.2 Proposed Subdivision and Infrastructure Works

The proposal includes amendments to the approved subdivision framework to better align the subdivision layout and transport infrastructure with the proposed development outcomes. Figure 4-1 illustrates the proposed subdivision layout. The amended layout retains the principal transport framework established through the subdivision consent process, including the Memorial Avenue access arrangements and internal collector road, while completing the network through a connection to Avonhead Road. This provides multiple points of access and distributes development traffic between the strategic and collector road networks.

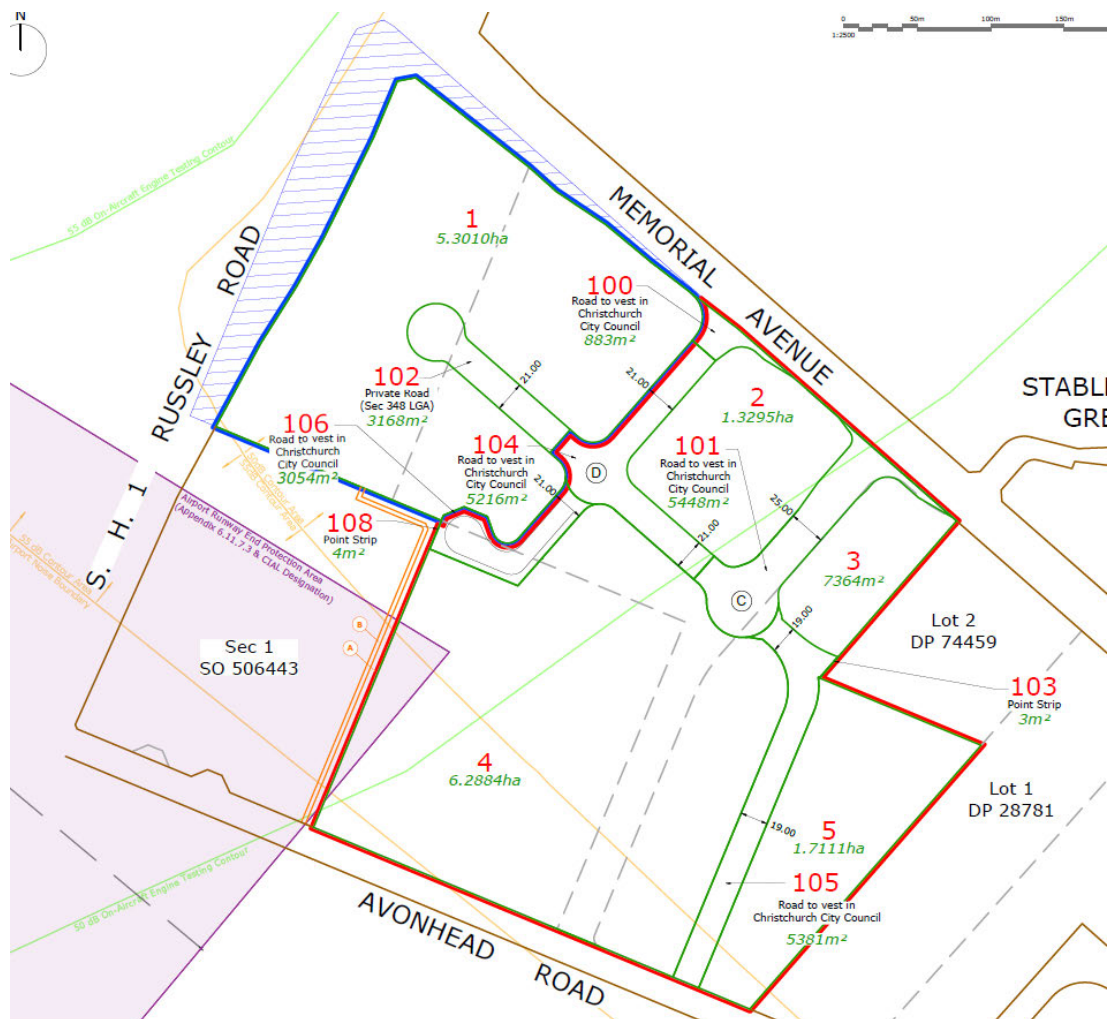


Figure 4-1: Proposed amended subdivision layout

Reference: Costco Christchurch Project Referral Transport Assessment

4.3 Proposed Land Uses

Table 4-1 summarises the primary activities proposed within each lot. The proposal retains automotive dealership, showroom and workshop activities on Lots 1 and 2 (part of a separate land use activity and not this referral application) and establishes an integrated Costco-led destination across the balance of the site, comprising the Costco warehouse, Costco member fuel facility and approximately 7,900 m² of complementary large format retail.

Table 4-1: Proposed development activities

Lot	Activity
Lots 1 and 2	Car dealerships, showrooms and workshops. Subject to a separate consent with CCC and not part of this referral application.
Lot 3	Costco member fuel station
Lot 4	Costco warehouse retailing (approx. 16,090 m ² GFA)
Lot 5	Complementary large format retail (approx. 7,900 m ² GFA)

5 Strategic Transport Fit

5.1 Road Network Integration

The site benefits from direct access to both Christchurch's strategic and collector road networks. Memorial Avenue provides the primary road frontage to the site and connects directly with SH1 via the Memorial Avenue interchange. SH1 provides north-south connectivity along the western side of Christchurch and links with a number of the city's key arterial corridors.

The site's strategic location and connectivity were previously recognised through the rezoning process, which identified the land as suitable for future development and established the principal transport framework for the site.

To the south, Avonhead Road provides access to the surrounding collector road network, including connections toward Withells Road and established residential areas. The proposed Avonhead Road connection would provide an additional point of access to the site and increase connectivity between the development and the surrounding road network.

In transportation terms, the site occupies a strategically well-connected location. It is situated immediately adjacent to SH1 and Memorial Avenue, while also having direct access to the surrounding collector road network via Avonhead Road. This combination of strategic and local connectivity provides a strong transport context for a destination development expected to draw customers from across Christchurch, Canterbury and the wider South Island.

Reference: Costco Christchurch Project Referral Transport Assessment

The provision of more than one access route also provides opportunities to distribute traffic across the surrounding network rather than concentrating all development traffic at a single access point.

5.2 Existing Approved Transport Framework

The proposal builds upon a transport framework already established through the Memorial Avenue Industrial Park rezoning process and subsequent subdivision consent.

The key strategic elements of that framework are retained, including the signalised Memorial Avenue access, the secondary left-in/left-out Memorial Avenue access and the internal collector road. The current proposal also completes the planned connection through to Avonhead Road.

The proposal therefore represents an evolution of an established and previously approved transport framework rather than the introduction of a new or untested access strategy.

5.3 Traffic Generation Context

As part of the subdivision consent process, the operation of the proposed road network and access arrangements were assessed against a full-site development scenario. That scenario was estimated to generate approximately 1,500 vehicle movements during the weekday evening peak hour and approximately 960 vehicle movements during the morning peak hour.

A preliminary high-level estimate indicates that the weekday PM peak-hour traffic generation associated with the current proposal is likely to be broadly comparable with the full-site development scenario previously assessed. While the proposed mix of activities differs from that assumed for the subdivision consent, the comparison provides useful referral-stage context and indicates that the overall scale of traffic generation is not fundamentally different from that already contemplated in establishing the site's transport framework.

5.4 Site Access and Internal Transport Framework

The proposal retains the primary signalised Memorial Avenue access and the secondary left-in / left-out Memorial Avenue access established through the subdivision consent process. These access arrangements provide direct connectivity to Memorial Avenue and the wider strategic road network via SH1.

The internal road network also generally follows the framework previously assessed and approved through the subdivision consent process.

A key enhancement associated with the current proposal is completion of the road connection to Avonhead Road. This connection extends the internal road network to the south, provides an additional access point to the collector road network and creates greater flexibility in distributing development traffic between Memorial Avenue and Avonhead Road. The approved transport framework includes

Reference: Costco Christchurch Project Referral Transport Assessment

walking and cycling connections through the site. Public transport services also operate along Memorial Avenue adjacent to the site.

The integrated transport framework therefore provides for private vehicles, service vehicles, walking, cycling and access to nearby public transport, with the detailed form of those connections to be refined through the substantive application.

Future design stages provide an opportunity to further consider walking and cycling connections between the development, surrounding residential areas and nearby public transport services.

5.5 Matters for Detailed Assessment at Substantive Stage

The referral assessment is strategic in nature. The following matters relate principally to operational performance, detailed design and mitigation and can appropriately be assessed through the substantive application process. Matters for future assessment include:

- Detailed traffic generation assessment;
- Weekday traffic assessment;
- Weekend traffic assessment, including consideration of Saturday retail demand;
- Updated traffic assignment and network modelling;
- Assessment of traffic distribution between Memorial Avenue and Avonhead Road;
- Intersection performance assessment;
- Consideration of any mitigation required on the surrounding road network;
- Parking supply and parking management;
- Internal vehicle circulation;
- Development servicing and loading arrangements;
- Walking and cycling connectivity;
- Public transport accessibility;
- Future road safety audits; and
- Construction traffic effects.

These matters are conventional operational and detailed-design matters for a development of this scale. Nothing identified through the strategic assessment indicates that they represent a fundamental or strategic transportation constraint to referral of the proposal under the Fast-track Approvals Act 2024.

6 Conclusion

The Memorial Avenue site benefits from a substantial planning and transport assessment history, including the Memorial Avenue Industrial Park rezoning and subsequent subdivision consent processes. Through those processes, the site has been identified for substantial development and a strategic transport framework has already been established, assessed and refined.

Reference: Costco Christchurch Project Referral Transport Assessment

The site occupies a strategically well-connected location, with direct access to Memorial Avenue and SH1 and additional connectivity to the collector road network through Avonhead Road. The current proposal substantially retains the previously approved access and internal roading framework while completing the planned connection through to Avonhead Road.

The Costco warehouse, member fuel facility and complementary large format retail will operate as an integrated destination supported by this common transport framework. The site's combination of strategic road access, multiple access opportunities, nearby public transport and provision for walking and cycling provides a strong transport context for the proposed development.

The previously approved transport framework was assessed against a full-site development scenario generating approximately 1,500 vehicle movements in the PM peak hour. Preliminary assessment indicates that PM peak-hour traffic generation associated with the current proposal is likely to be broadly comparable with the scale previously contemplated for the site.

Detailed traffic generation, assignment, intersection performance, parking, servicing, active-mode connectivity and road-safety assessment will be undertaken at the substantive application stage. These are operational and detailed-design matters rather than strategic impediments to development.

On the basis of this strategic assessment, no transportation constraint has been identified that would preclude referral of the proposed Costco Christchurch development under the Fast-track Approvals Act 2024.