Southern Link Inland Port

Integrated Transport Assessment

Prepared for:
Southern Link Property Limited

Prepared by:
Stantec NZ

Date:
13 February 2026

Project/File:
310206157

Stantec New Zealand

Revision	Description	Author	Date	Quality Check	Date	Independent Review	Date
A	Draft for client review	SJ	14/08/24	CR	14/08/24	AAM	16/08/24
B	Draft for client review	CR	30/10/24	AAM	30/10/24	AAM	30/10/24
C	Draft for client review	CR	19/12/25				
D	Draft for client review	CR	16/01/26	AAM	20/01/26	AAM	20/01/26
1	Issue 1	CR	13/02/26	AAM	13/02/26	AAM	13/02/26

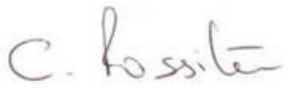
Disclaimer

The conclusions in the Report titled Southern Link Inland Port are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from Southern Link Property Limited (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided by the Client to applicable authorities having jurisdiction and to other third parties in connection with the project, Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any third party, and will not be liable to such third party for any damages or losses of any kind that may result.

Prepared by



Signature

Chris Rossiter

Printed Name

Reviewed by

Signature

Andrew Metherell

Printed Name

Approved by

Signature

Sarah Lloyd

Printed Name

Author

Christopher Rossiter is a Principal Transportation Engineer at Stantec New Zealand Limited (**Stantec**). He has held this position since 2013 and been employed at Stantec (and TDG prior to its incorporation with Stantec) since 2006. Prior to joining TDG (now part of Stantec), he was employed as a Principal Systems Engineer and Technical Manager with BAE Systems in England.

Chris holds the academic qualifications of Bachelor of Science from the University of Exeter and Bachelor of Arts (Open) from the Open University, England.

Chris is registered as a Chartered Professional Engineer with Engineering New Zealand. He has 40 years' engineering experience including 19 years' transportation engineering in New Zealand on a wide range of projects involving transportation engineering design, road safety audits, transportation planning and assessment.

Chris' role at Stantec includes preparing transportation assessment reports for resource consent applications and also providing transportation engineering services for many councils.[1] He has prepared expert transport evidence on behalf of councils and also for private developers in relation to a variety of land-use resource consent hearings and plan changes. His experience includes providing transportation engineering advice and assessment for a wide variety of land development projects across the South Island including large industrial sites such as the Southern Link Inland Port.

This report has been prepared in compliance with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 as if it was expert evidence presented in proceedings before the Environment Court. Unless stated otherwise, this report is within Chris' area of expertise and does not omit consideration of material facts known to him that might alter or detract from the opinions expressed in this report.

[1] Hastings, Central Hawke's Bay, Gisborne, Palmerston North, Whanganui, Carterton, Upper Hutt, Tasman, Nelson, Buller, Waimakariri, Christchurch, Ashburton, Timaru, Clutha, Queenstown Lakes, Invercargill.

Table of Contents

List of Tables

List of Figures

List of Photographs

List of Appendices

Executive Summary

Dynes Transport and Icon Logistics (Dynes / Icon) together operate multiple freight handling sites across the Dunedin District between Mosgiel and Port Chalmers. These sites are not linked to the railway network which results in freight being moved by road. Southern Link Property Limited proposes to establish an Inland Port via consents sought under the Fast-track Approvals Act 2024 ("FTAA") on approximately 40 ha of rural zoned land spanning three lots beside Dukes Road North in Mosgiel (the "Site"). Dukes Road North forms part of the strategic road network and provides the primary access route to the industrial zoned land north of Mosgiel from the state highway network. The Site is located adjacent to the existing industrial zone and beside the Taieri Branch railway line.

The proposed Inland Port would enable Dynes / Icon to consolidate their freight handling onto one site which has direct access to a railway line. Access to the railway line will enable more freight to be moved by rail which will reduce heavy vehicle movement volumes on State Highway 1 ("SH1") between Mosgiel and Dunedin and on SH88 between Port Chalmers and Dunedin. The site layout has been designed to allow staged development to support expansion of freight handling capacity of Dynes / Icon initially and other freight operators in the medium to long term.

Three development stages have been identified with the first stage focused on consolidation / establishment of the Dynes / Icon activity at the site. This first stage will reduce the total volume of truck movements through Mosgiel on Gordon Road (part of State Highway 87 ("SH87")). However, as the subsequent stages of the Inland Port progress, including the provision of a container Servicing depot to replace the existing KiwiRail container depot at Strathallan, this will lead to a gradual increase in truck volumes on Gordon Road. Following full development of the Inland Port, which is expected to take about ten years, there could be an additional 150 truck movements per day on Gordon Road.

The operation of the additional rail services to service the Inland Port is proposed to comprise two train movements per day, one to Port Chalmers and one from Port Chalmers. These additional services mean that there will be a small increase in the number of road users that will have to wait as trains traverse the level crossings. However, since the change in the number of train movements is low, this will result in a negligible effect for individual road users.

Road access to the Inland Port is proposed via a new road intersection on Dukes Road North approximately 400 m east of Stedman Road. The intersection has been designed to operate as an intersection with Dukes Road North with a right turn bay on Dukes Road North so that turning vehicles can stop within the carriageway clear of through traffic.

It is anticipated that domestic travel to and from the site via alternative modes of transport will be very low. However, Dunedin City Council has identified there may be value in constructing a footpath from Stedman Road to the site entrance on Dukes Road North. SLPL is committed to working collaboratively with the Dunedin City Council to ensure appropriate provisions are provided for the domestic travel needs of the Inland Port.

In summary, it has been concluded that the proposed Inland Port will contribute to area wide benefits to the transport network by reducing the need for freight to be transported by road to or from Port Chalmers as a result of the Inland Port's direct connection to the railway network. One of the primary

benefits will be a reduction in truck movements on SH88 and on roads, including SH1, within central Dunedin. However, the Inland Port will contribute to some increase in truck movements on SH87 when it is fully developed. The forecast increase in truck movement volumes represents about 1% of the existing traffic volume on Gordon Road.

Abbreviations

Acronym / Abbreviation	Full Name
AADT	Annual Average Daily Traffic Volume
DCC	Dunedin City Council
HCV	Heavy Commercial Vehicle
HCV2	Heavy Commercial Vehicle – Class 2
MSL	Main South Line
NZTA Waka Kotahi	NZ Transport Agency Waka Kotahi
vpd	Vehicle movements per day
vph	Vehicle movements per hour

1 Introduction

Southern Link Property Limited proposes to establish an Inland Port (the "Site") on approximately 40 ha of land beside Dukes Road North in Mosgiel. The Site is located in the northeast section of Mosgiel and adjacent to the Taieri Branch railway line. The Site will accommodate freight handling facilities associated with packing containers for export and unpacking of import containers for distribution. The location of the Site in the context of the surrounding transport environment is detailed in Figure 1-1.

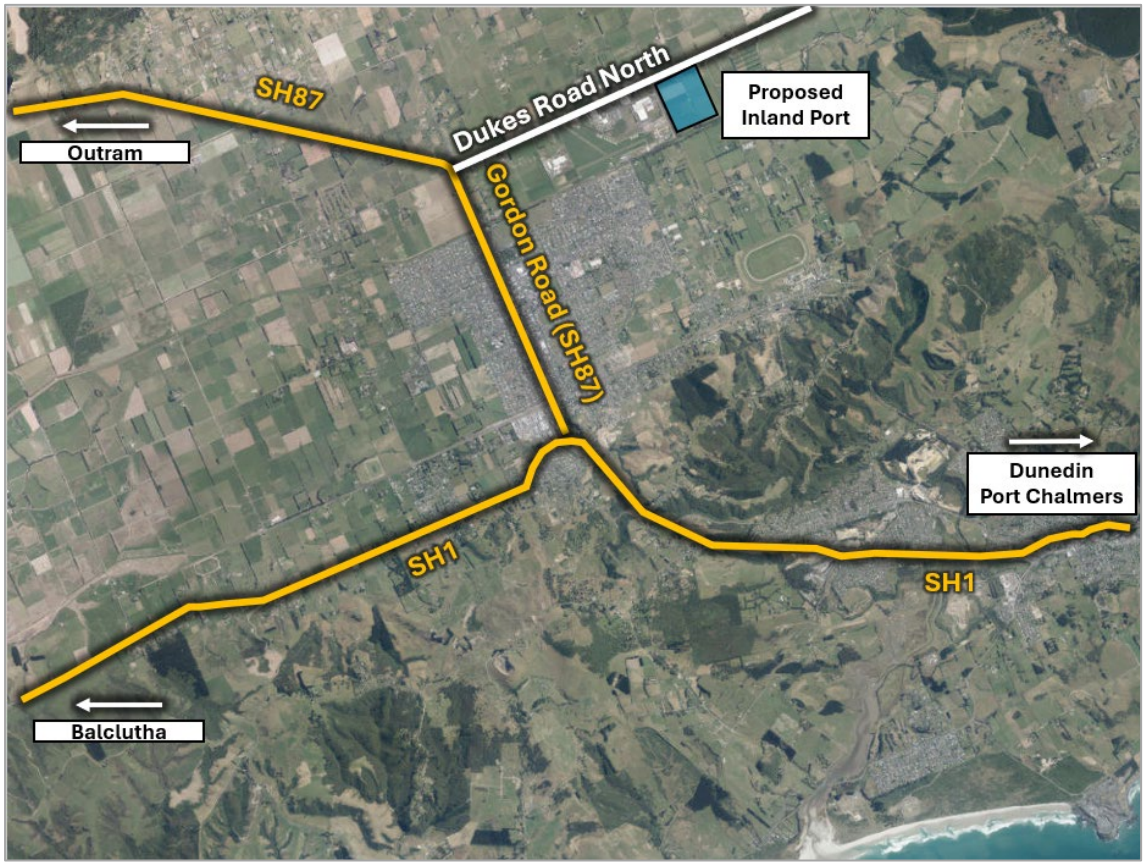


Figure 1-1: Site location and transport network (DCC GIS Maps)

The Inland Port will represent a high traffic generating activity and this report has been prepared to provide an assessment of the associated transportation effects taking into account feedback already provided by Dunedin City Council (DCC).

The report has been structured in accordance with the NZTA guidance for the content of an Integrated Transport Assessment (ITA) and also the content requirements set out for an ITA in the Dunedin City District Plan. The ITA comprises:

- Description of Site context and existing transport infrastructure;
- Description of existing travel patterns and road safety;
- Description of the Inland Port operation, traffic generation and movement patterns;

- Assessment of transportation effects of the Inland Port;
- Assessment of road safety from a Safe Systems perspective; and,
- Assessment of compliance with the Dunedin City District Plan.

As the Inland Port has a planned strategic function within the wider transport network, contributing to overall efficiencies in road-based travel and supporting increased use of rail, a wide area assessment is provided addressing transport routes connecting to the Port.

A separate report (Transportation, Geometrics, Grading and Earthworks) has been prepared by Stantec to provide details of the transport related infrastructure design for the Inland Port.

2 Site Context

Figure 2-1 shows the location of the proposed Inland Port in the context of the wider transport network. The Site is located south of Dukes Road North and east of the Taieri Branch Line which runs parallel to Stedman Road.

Dukes Road North provides access to existing industrial activities on the northern side of Mosgiel from SH87. Gordon Road forms part of SH87 and runs through central Mosgiel to meet SH1 at a grade separated interchange.

The Taieri Branch Line runs along the western boundary of the site and links to the Main South Line which provides a rail connection to Dunedin and Port Chalmers.

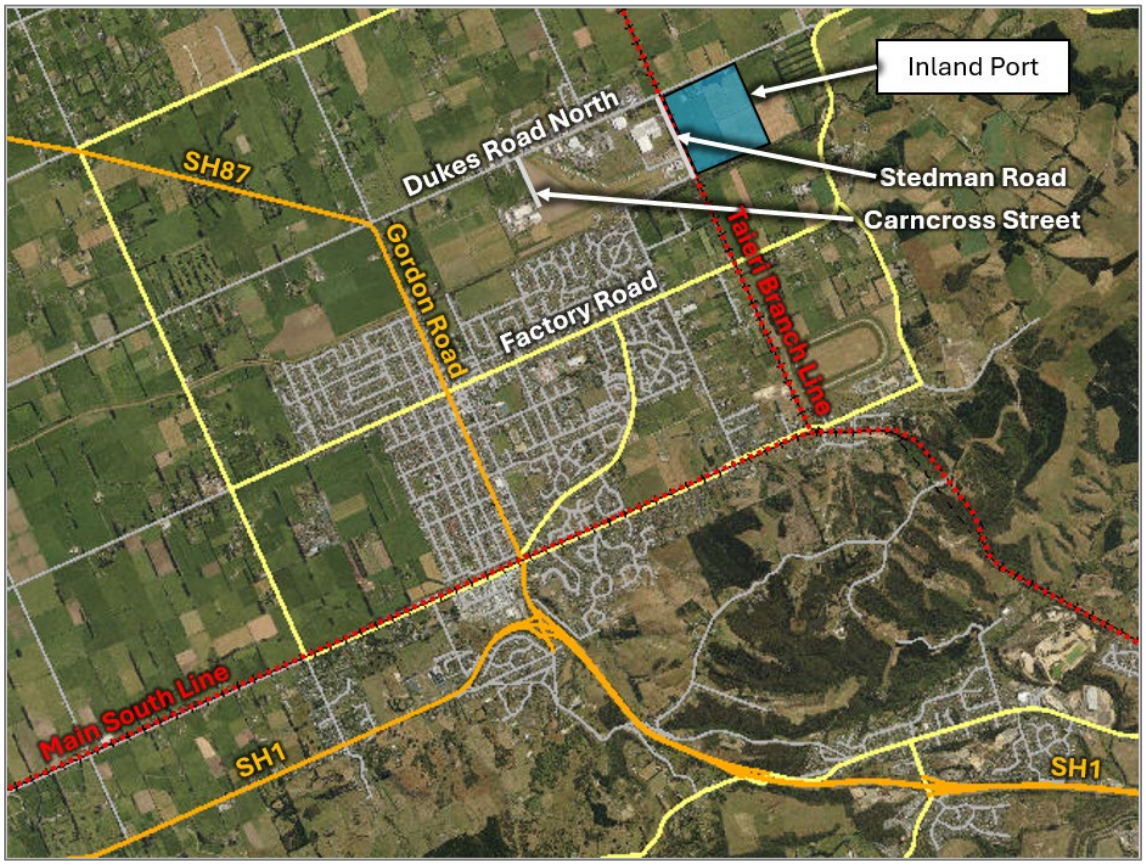


Figure 2-1: Inland Port Wide Area Site Context

Figure 2-2 shows the local area context for the Site. Fonterra operates a distribution centre on the western side of Stedman Road. The Distribution Centre has its own railway sidings off the Taieri Branch Line and there are two level crossings on Stedman Road which connect to the sidings within the Fonterra site.

Lineage Logistics has a large site on the south side of Dukes Road North and west of the Fonterra Plant. Dynes Transport provides freight haulage to a logistics hub on Carncross Streete (represented in Figure 2-2 by the white star) and also to the Fonterra site when required.

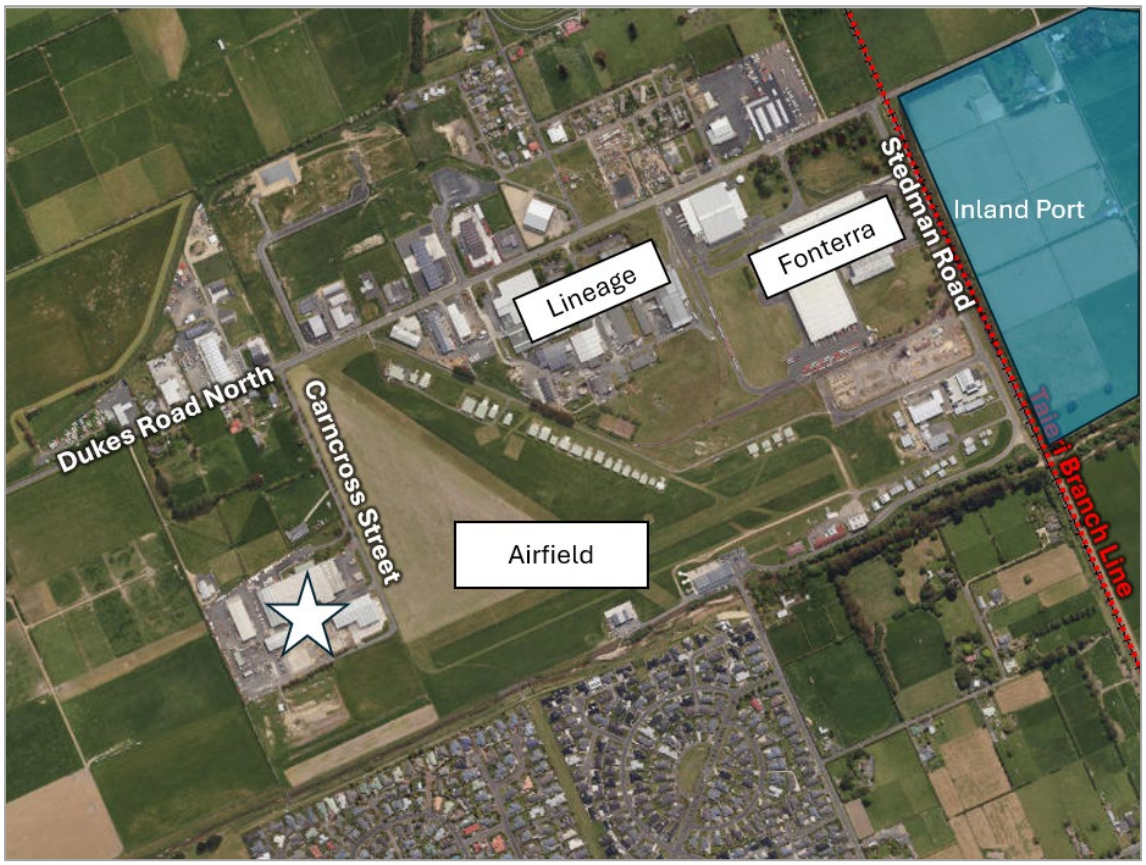


Figure 2-2: Inland Port Local Area Site Context

3 Transport Environment

3.1 Strategic Road Network

Figure 3-1 shows the state highway network in the Mosgiel area which will service the Inland Port. SH1 represents the primary strategic road link for the South Island and links all the major cities and towns along the east coast. SH87 meets SH1 south of Mosgiel and provides the connection to Middlemarch and the Maniototo within Central Otago.

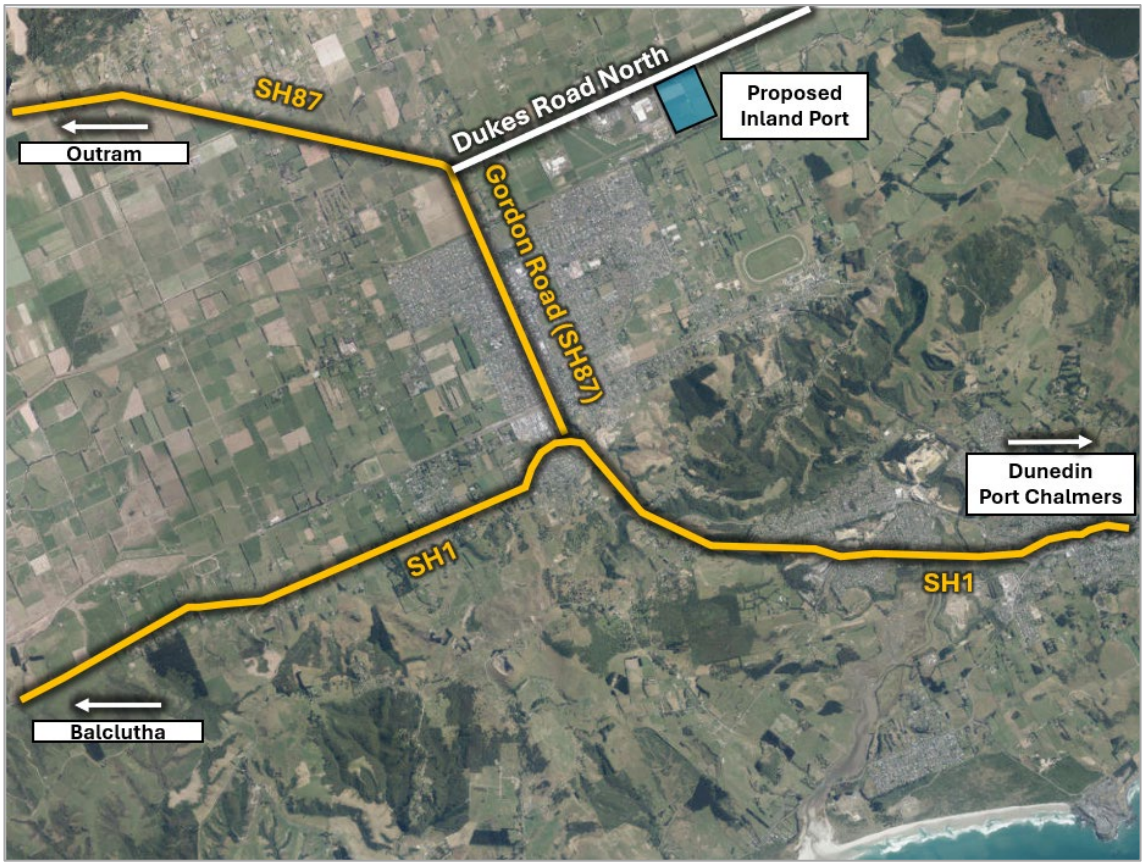
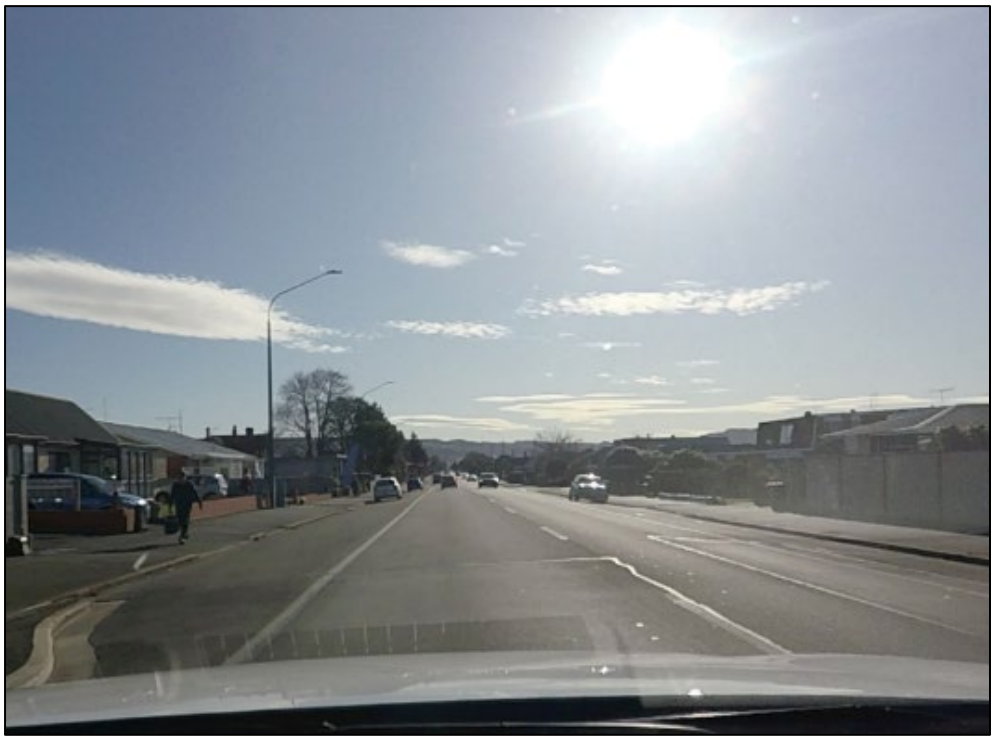


Figure 3-1. Strategic road network (DCC GIS Maps)

3.1.1 State Highway 87

SH87 is located approximately 3 km to the west of the Site and runs north-south through Mosgiel and forms a connection with the Dunedin Southern Motorway (SH1) to the south. The sections of SH87 west of Mosgiel run east-west towards Outram and forms a strategic route linking Mosgiel to Central Otago.

Gordon Road forms the section of SH87 through Mosgiel and has been generally formed as a two-lane road with wide shoulders to allow for parking on each side of the road as shown in Photograph 3-1. Right turn lanes have been provided at local road intersections.



Photograph 3-1: Gordon Road south of town centre

Photograph 3-2: Right turn bay on Gordon Road

Within central Mosgiel, Gordon Road has signals at the Inglis Street, Factory Road and Eden Street intersections. The Gordon Road / Inglis Street intersection incorporates a fourth leg to provide access

to the Countdown supermarket. The Eden Street signals have been configured in a similar manner to provide access to the recreational facilities.

There are multiple zebra crossings and signalised crossings along Gordon Road to assist pedestrians with crossing the road.

Photograph 3-3: Gordon Road pedestrian crossing

Gordon Road becomes more rural in nature north of Eden Street. The road has been formed as a two-lane highway with narrow sealed shoulders. The urban speed limit boundary is about 150 metres north of Eden Street. North of the urban boundary, the speed limit is 80 km/h. This increases to 100 km/h north of the Dukes Road North intersection (Figure 3-2).

At its southern limit, Gordon Road continues as Quarry Road south of the Main South Line (MSL) railway crossing which is located between the signalised intersections with Hagart-Alexander Drive and Gladstone Road.

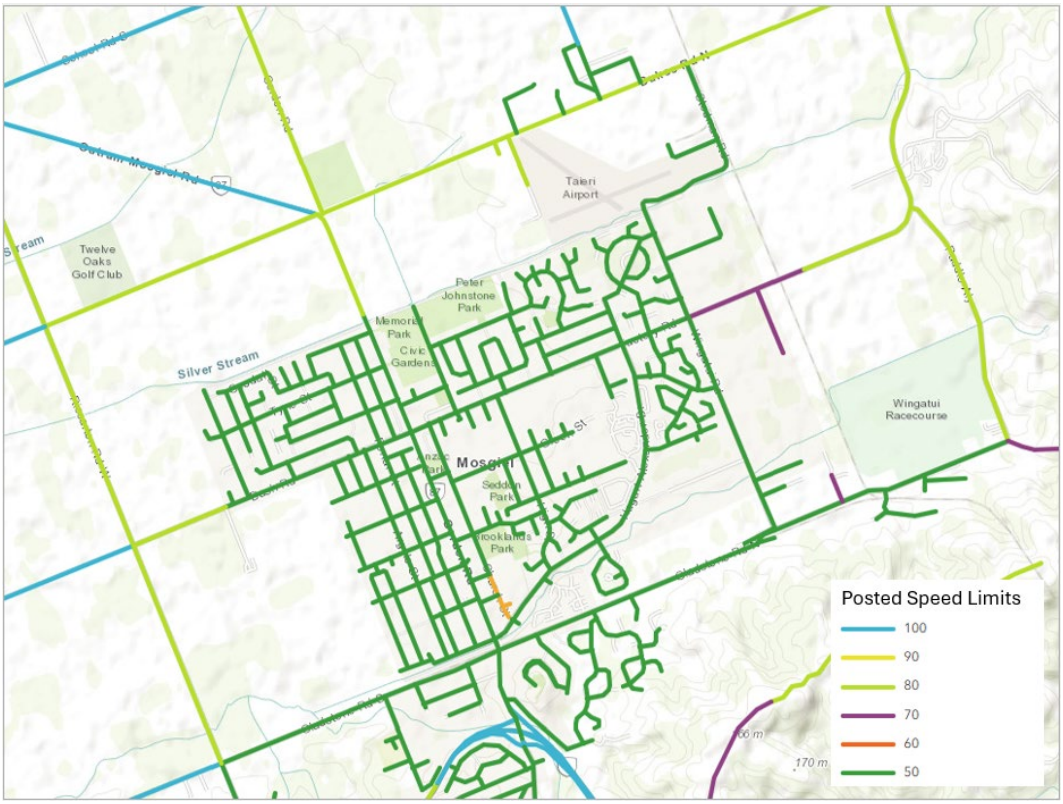


Figure 3-2: Signposted Speed Limits (NZTA)

3.1.2 State Highway 1

The Dunedin Southern Motorway forms part of SH1 to the east of Mosgiel and is the primary road connection between Mosgiel and central Dunedin. SH87 meets the Southern Motorway at a grade separated interchange to the south of Mosgiel as shown in Figure 3-2.

Figure 3-3: Dunedin Southern Motorway (SH1) / SH87 interchange (DCC GIS Maps)

East of the interchange, the Southern Motorway is typically formed as a four-lane median barrier divided road, including edge barrier treatments and full corridor road markings. There are several on- and off-ramps along this section of SH1 which provide access to the surrounding areas. The posted speed limit is 100 km/h. Within Dunedin, SH88 branches off SH1 to the east to connect to Port Chalmers.

West of the interchange, Main South Road SH1 has been formed as a two-lane road with an approximately 10m wide carriageway, 0.5-1.0 m wide sealed shoulders, and centre and edge line marking. The posted speed limit is 100 km/h with an 80 km/h threshold located at Braeside. A further 700 m west along Main South Road the speed limit reduces from 80 km/h to 60 km/h heading into East Taieri.

3.2 Mosgiel Road Network

Dukes Road North, east of Gordon Road, has been formed as a two-lane road with a 7m wide carriageway as shown in Photograph 3-4. The corridor includes centre line and edge line markings with an unsealed shoulder. The posted speed limit is 80 km/h.

Photograph 3-4: Dukes Road North east of Gordon Road

Between Carncross Street and Hazlett Road, Dukes Road North continues along the same alignment and is formed with an 11.5 m wide carriageway with kerb and channel on both sides of the road. The corridor includes centre line and intermittent edge line markings, with a footpath on the northern side of the road. To the east of Hazlett Road up to Stedman Road, Dukes Road North continues with the same carriageway formation but has no footpath.

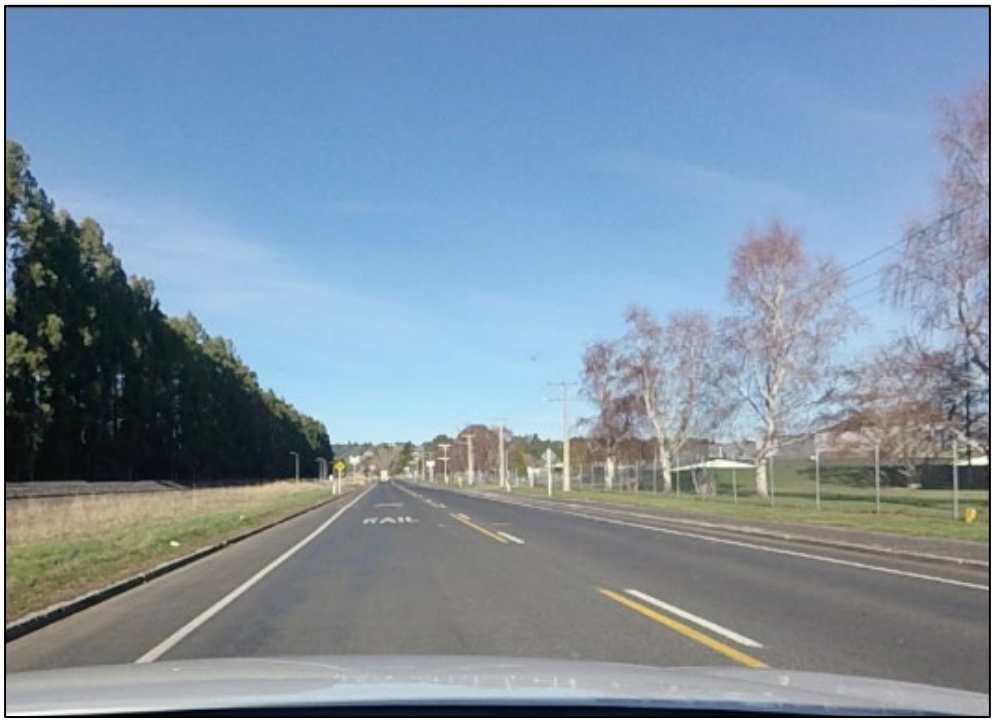
Photograph 3-5:. Dukes Road North between Carncross Street and Hazlett Road

Dukes Road North crosses the Taieri Branch Line at a level crossing east of Stedman Road (Photograph 3-6). The level crossing is controlled with signs and bells but does not have barriers. The road has a more rural formation east of the railway crossing as shown in Photograph 3-7. There are power lines along the northern side of the road with a shallow drainage swale.

Photograph 3-6: Dukes Road North Railway Crossing

Photograph 3-7: Dukes Road North east of Stedman Road

Stedman Road has been formed as an urban road with kerb and channel on each side as shown in Photograph 3-8. The carriageway is about 10 metres wide and has centre line and edge line markings.



Photograph 3-8: Stedman Road south of Dukes Road North

3.3 Intersections

Dukes Road crosses SH87 at a priority-controlled crossroads intersection with SH87 having priority. SH87 has a curved alignment through the intersection with Dukes Road North meeting at the apex of the curve as shown in Figure 3-3. Beyond the intersection, all roads have straight and level alignments. Dukes Road South is subject to a stop control because of the restricted visibility on that approach whilst Dukes Road North is give-way controlled. The sightline for a driver stopped at the limit line on Dukes Road South looking north along SH87 is restricted by the adjacent landscaping and the angle at which Dukes Road South meets SH87.

The northern section of Gordon Road meets Dukes Road North approximately 15m east of the intersection and is stop-controlled. A right-turn bay is located on SH87 for Dukes Road North and is supplemented by a short left-turn lane in the opposite direction. Single arrow chevron signs are located intermittently along the outside of the curve, with a chevron board opposite Dukes Road South. Chevron boards with supplementary 65 km/h recommended speeds are located at the intersection facing both northbound and southbound traffic along SH87.

Figure 3-4: SH87 / Dukes Road North / Dukes Road South intersection (DCC GIS Maps)

Stedman Road meets Dukes Road North at a stop controlled T-intersection as shown in Figure 3-4.

Figure 3-5: Dukes Road North / Stedman Road intersection

3.4 Pedestrian Network

Figure 3-5 shows the existing pedestrian facilities within the Dukes Road industrial area. There are sections of footpath on the northern side of Dukes Road North broadly from the Carncross Road intersection to just north of Tarakihana Drive. There is also a footpath around the Fonterra site on Dukes Road North, Stedman Road and Odlins Place. Pedestrians are expected to use unformed berm areas between the formed sections of footpath. There are no provisions on Stedman Road south of Odlins Place and the northern limit of Wingatui Road.

Since the pedestrian network does not provide connections to the wider network and only supports movement between businesses, existing usage levels are very low as the primary activity is industrial which typically involves vehicles due to the nature of products being handled.

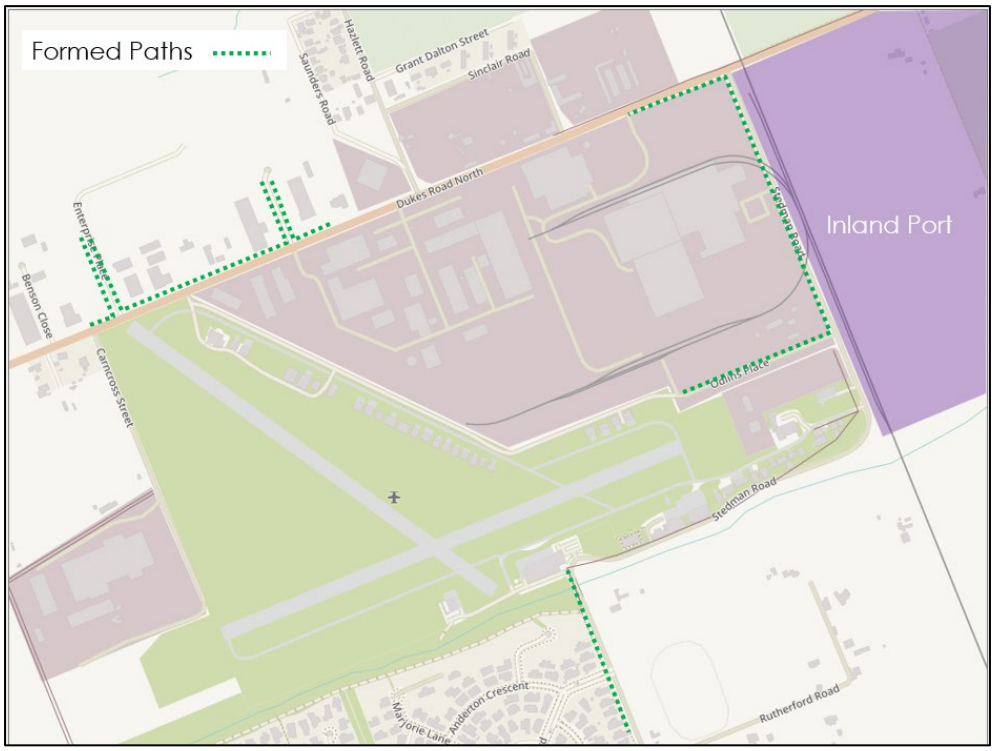


Figure 3-6: Existing Pedestrian Network

3.5 Railway Network

The Main South Line (MSL) runs from Christchurch to Invercargill and passes south of Mosgiel in an east-west alignment. The Taieri Branch extends from the MSL to the north, towards the proposed Inland Port (yellow star) as shown in Figure 3-6. In relation to the Site, the MSL forms a critical connection between Port Chalmers and the proposed Inland Port.

The MSL crosses Gordon Road between the signalised intersection with Gladstone Road and the signalised intersection with Hagart-Alexander Drive as shown in Figure 3-7. The crossing is controlled by boom gates and bells with flashing lights facing all approaches including side roads with mounted WX6 ‘railway crossing’ signs. Yellow hatching spans across the tracks with limit line markings set back from the crossing. The northern approach includes a raised median island.

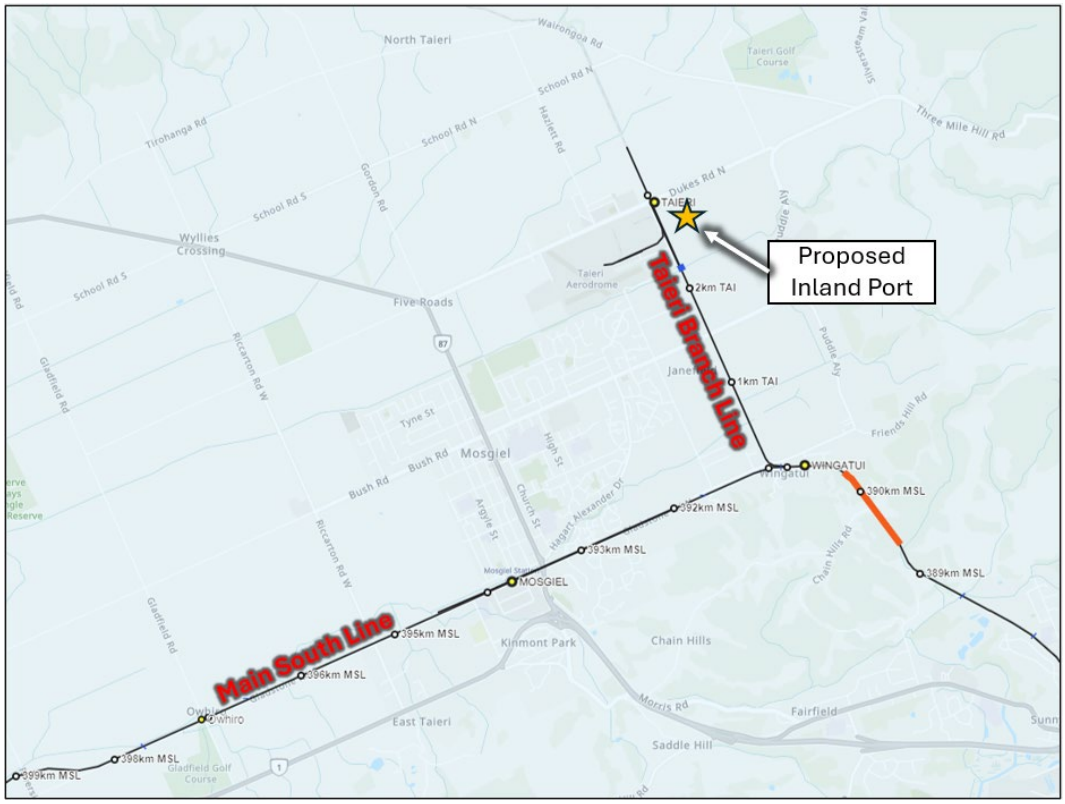


Figure 3-7. Rail network and location of rail level crossings (KiwiRail Network Map)

Figure 3-8: Gordon Road / Main South Line Railway Crossing

The Taieri Branch Line crosses Dukes Road North east of the Stedman Road intersection as shown in Figure 3-4. The level crossing is controlled by a set of primary flashing lights on both sides of the road on each approach, with mounted WX6 ‘railway crossings’ signs. Give-way limit lines are marked on both sides of the crossing. The level of the tracks is raised slightly above the road level.

Photograph 3-9: Dukes Road North rail level crossing

4 Existing Travel Patterns

4.1 State Highway 1

4.1.1 All Vehicles

Traffic volume data along SH1 was obtained from NZTA Waka Kotahi's 'Traffic Monitoring System' (TMS) to understand the pattern of movements on the highway. The closest relevant count sites are on Saddle Hill (01S10719 and 01S20719) approximately 1.5 km east of the Dunedin Southern Motorway (SH1) interchange with SH87. Figure 4-1 shows the weekday and weekend daily vehicle volumes across the weekday recorded in 2025.

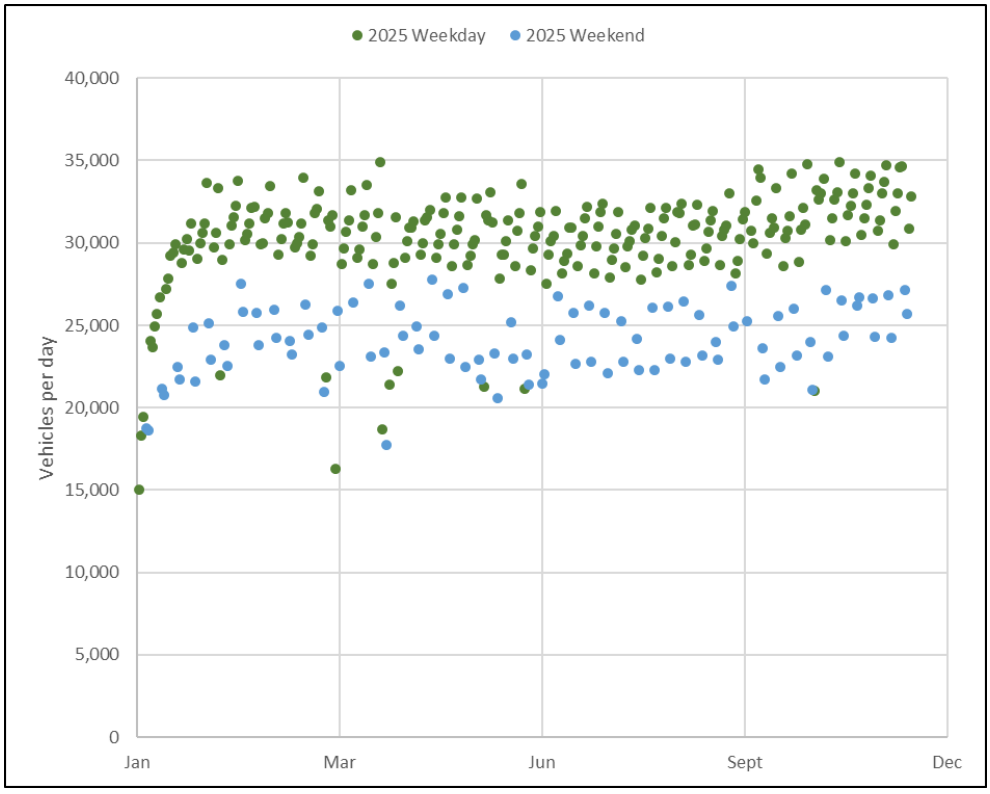


Figure 4-1: Weekday and weekend daily traffic volumes 2025 (NZTA TMS)

The average weekday volume of traffic on SH1 at Saddle Hill is about 30,000 vehicles per day (vpd). This reduces to about 24,000 vpd at the weekend. There are no strong seasonal changes in weekday traffic volumes across the year but there are wide daily variations with volumes ranging from about 28,000 vpd to about 35,000 vpd.

The variation in hourly traffic volumes across a typical weekday is shown in Figure 4-2.

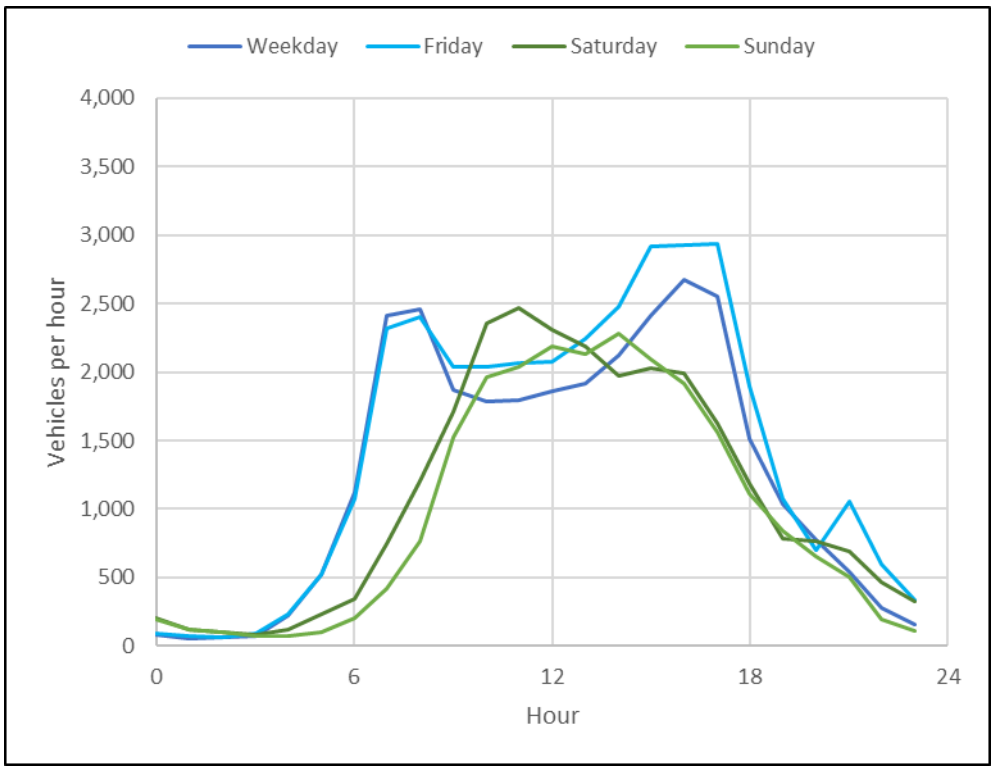


Figure 4-2: Hourly traffic volumes across week starting 13th October 2025 (NZTA TMS)

Figure 4-2 indicates that traffic volumes reach nearly 2,500 vph during the weekday morning (7:00am to 8:00am) and over 2,500 vph during the evening (3:30pm to 4:30pm) peak periods. The observed Friday hourly traffic volumes are similar to the weekday. The Saturday traffic volumes show a peak of about 2,200 vph during the late morning, 10:30am to 11:30am. The Sunday volumes shown a similar peak volume of about 2,200 vph during the afternoon between 2:30pm to 3:30pm.

4.1.2 Heavy Vehicles

Figure 4-3 indicates that there are clear seasonal variations in heavy vehicle traffic volumes. During the winter, heavy vehicle traffic is noticeably lower at approximately 1,700 vpd compared with over 2,000 vpd in December.

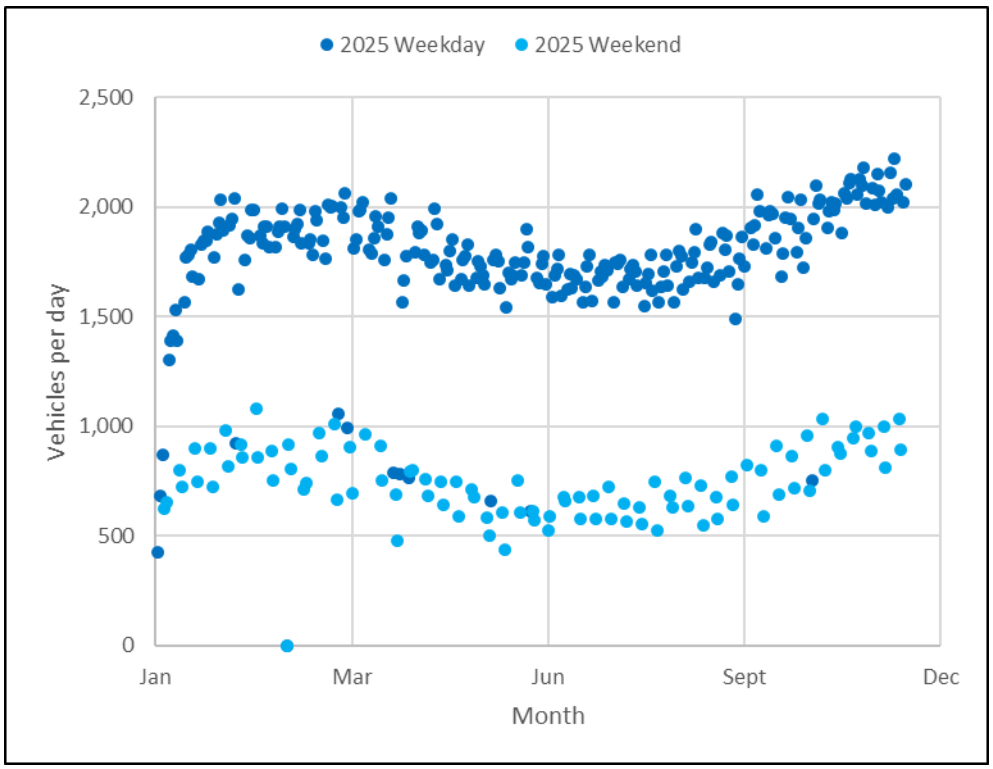


Figure 4-3. Weekday daily heavy vehicle traffic volumes 2025 (NZTA TMS)

More detailed analysis of the heavy vehicle volumes has been undertaken to separate out the Heavy Commercial Vehicle – Class 2 (HCV2) class vehicles which include articulated trucks, truck and trailer, A-train and B-train vehicles with at least five axles. The daily HCV2 volumes have a strong seasonal variation with daily volumes of about 300 vpd in the winter and 500 vpd in the summer. The data indicates that the HCV2 vehicles represent 20-25% of all heavy vehicles. The daily HCV2 volume graphs are included in Appendix A.

Figure 4-4 shows that the heavy vehicle volumes rise rapidly from about 6:00am to a broad peak through the day and fall from about 4:00pm. At the weekend, heavy vehicle volumes are typically less than 30% of the weekday volumes.

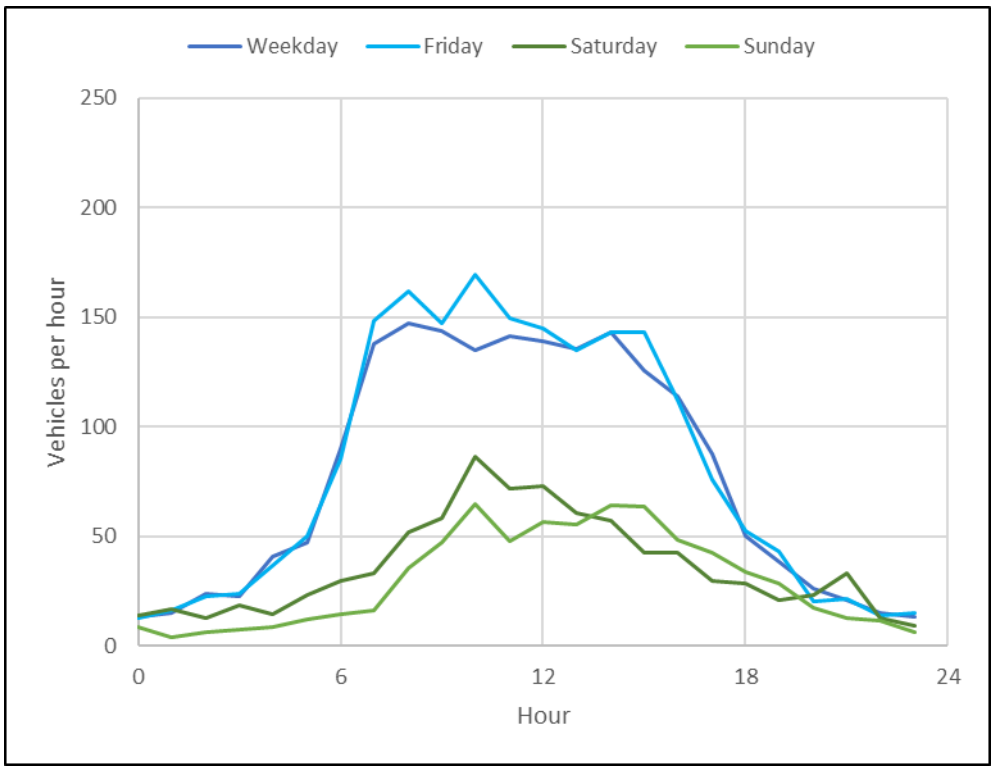


Figure 4-4: Hourly heavy vehicle traffic volumes, week starting 13th October 2025 (NZTA TMS)

4.2 State Highway 87

4.2.1 All Vehicles

Traffic volume data on SH87 was obtained from the TMS database for two count sites, 0870001 and 08700015. Count site 08700001 is located approximately 50 m north of the Gordon Road (SH87) / Burns Street / Hagart-Alexander Drive intersection. Count site 08700015 is about 2.5 km west of Outram. Figure 4-5 shows the daily vehicle volumes across the weekday for count site ID 08700001 recorded in 2025.

The count site on Gordon Road recorded typical volumes of approximately 15,000vpd. There are no significant changes in traffic volumes across the year and the data does not indicate any seasonal variations in volumes along SH87. Based on analysis of the annual traffic volumes over the most recent five year period, the average daily traffic volume has been increasing by about 100 vpd per annum which represents less than 1% of the daily volume in 2025.

Figure 4-6 shows the variation in hourly traffic volumes in October 2025. Traffic volumes reached approximately 1,300 vph and 1,400 vph during the weekday morning (7:30am and 8:30am) and evening (3:30pm to 4:30pm) peak periods, respectively. The Friday traffic volumes are similar in magnitude to the observed weekday data with peaks occurring at the same times. The Saturday traffic volumes show a peak of about 1,400 vph during the late morning. The Sunday volumes were slightly lower at about 1,300 vph and peaked in the early afternoon.

Compared to the volumes observed along SH87 within Mosgiel, the volumes fall rapidly north of Factory Road to less than 5,000 vpd, and west of Outram are significantly lower. The typical volume of daily traffic to the east of Outram along SH87 is approximately 1,000 vpd.

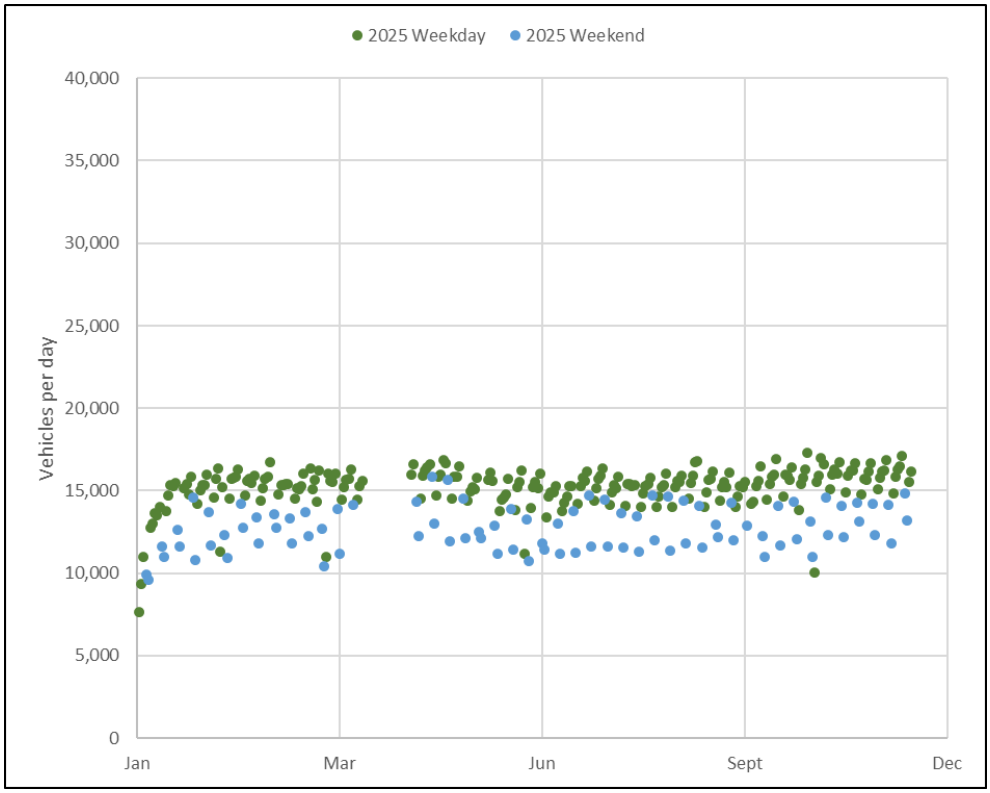


Figure 4-5: Weekday daily traffic volumes for count site ID 08700001, 2025 (NZTA TMS)

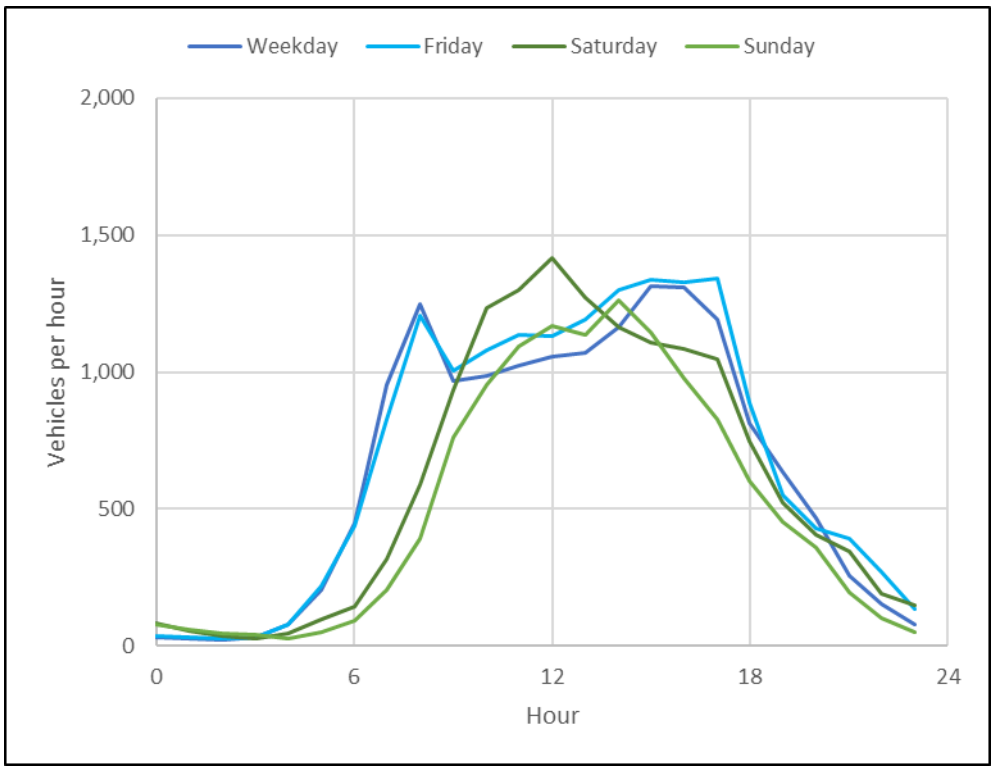


Figure 4-6. Hourly traffic volumes on Gordon Road October 2025 (NZTA TMS)

4.2.2 Heavy Vehicles

Figure 4-7 shows that typical weekday volume of heavy vehicle traffic along SH87 through Mosgiel in 2025 was 500 to 600 vpd[2]. At the weekend, daily heavy volumes are in the range 200 to 300 vpd.

[2] It is unclear what factors contributed to the high heavy vehicle counts in April but this appears to be a temporary effect only. A comparison with counts from 2024 indicates that volumes of 500 to 600 vpd are typical for that time of year.

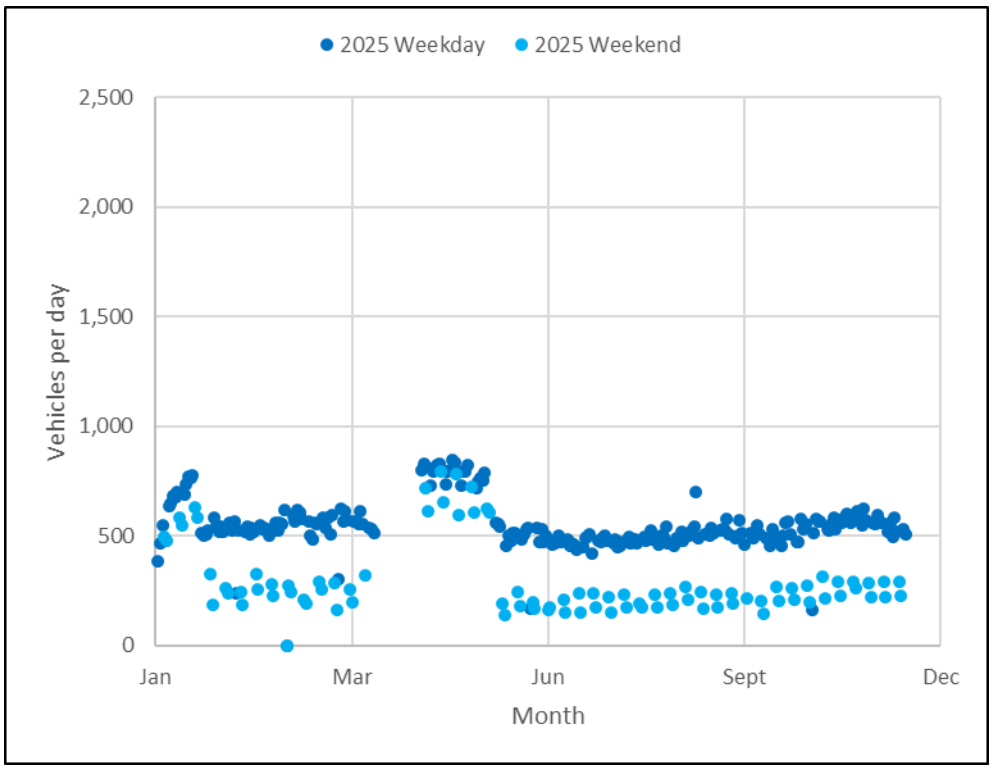


Figure 4-7: Weekday daily heavy vehicle traffic volumes, 08700001, 2025 (NZTA TMS)

Figure 4-8 shows the variation in heavy vehicle volumes across a typical week. It indicates that the heavy vehicle volumes reach approximately 50 vph during the weekday morning peak (7:30am to 8:30am) and about 40 vpd during the afternoon peak period (3:30pm to 4:30pm). The Friday exhibits a similar morning peak period where the afternoon peak (3:30pm to 4:30pm) is higher with 60 vph observed. The weekend periods show lower volumes than on weekdays with peaks of 20 to 30 vpd.

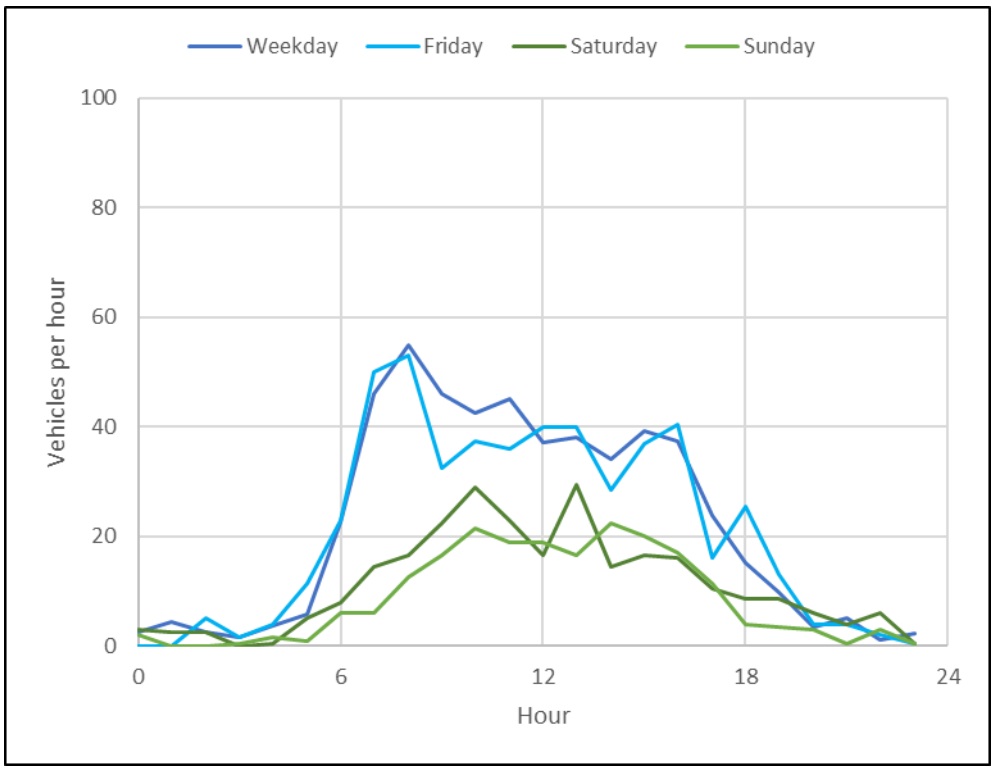


Figure 4-8: Hourly heavy vehicle traffic volumes on Gordon Road, October 2025 (NZTA TMS)

4.3 Council Roads

Traffic count data provided by DCC for the Mosgiel internal road network is summarised in Table 4-1.

Table 4-1. Summary of traffic count data provided by DCC

Site ID	Location	ADT	%HCV	%HCV2	Peak Hour	Peak Hour Volume
Dukes Rd – North (Tai)	300m east of Stedman Rd	1,358	1.9%	0.2%	4pm	150vph
Dukes Rd – North (Tai)	200m west of Hazlett Rd	1,845	5.4%	3.1%	4pm	180vph
Dukes Rd – North (Tai)	440m west of Benson Cl	2,935	6.6%	3.4%	4pm	270vph
Gordon Rd SH87 (MSI)	160m north of Factory Rd	4,688	3.9%	1.9%	4pm	450vph

The count data shows that the traffic volumes along Dukes Road North increase going towards the SH87 intersection. The count site closest to the SH87 intersection exhibits an Average Daily Traffic (ADT) volume of approximately 2,900 vpd whereas the count site east of Stedman Road exhibits a lower volume of about 1,360 vpd heading out towards North Taieri. This reflects the location of the count sites in relation to the trip generating industrial areas along Dukes Road North and the need to access the strategic road network.

The volumes within Mosgiel, to the north of the township's primary east-west collector route of Factory Road and Bush Road, are reported to be about 4,700 vpd with about 4% being heavy vehicles. This is

significantly lower than indicated by the NZTA counts at the southern end of the town which reflects the influence of the town on movement volumes.

The count data indicates that about 2% are large articulated vehicles. It is considered likely that this reflects the location of the industrial activities that are located on Dukes Road. The volumes of heavy vehicles on Gordon Road are not unexpected given that this forms part of the state highway network which has a function of supporting freight movement.

5 Freight Movement Patterns

5.1 Existing Operations

The future freight handling characteristics of the Inland Port will be influenced by transfer of freight handling from other sites within Dunedin and Mosgiel. To assist with forecasting future transport patterns at Mosgiel, and strategic changes in patterns in Dunedin, the existing operations have been investigated.

Import and export operations at Port Chalmers are reliant on products being transported to and from the port via road or rail. Since a large proportion of the exported and imported products are transported in containers, there are multiple freight operators located within the Dunedin area that manage imports and exports in conjunction with Port Otago. Although Port Otago is primarily an export port, there is a significant inflow of empty containers to the Port in addition to the imports that need to be transported to various locations in the region for packing before being delivered back to Port. The Port is connected to Dunedin City by State Highway 88 (SH88).

The Dynes / Icon operations comprises a complex logistics operation that is distributed across five sites within the Dunedin / Mosgiel area for this purpose, which are shown on Figure 5-1:

- Carncross Street, Mosgiel
- T-Shed, Fryatt Street, Dunedin
- 88 Parry Street, Dunedin
- 95 Parry Street, Dunedin
- Sawyers Bay

Figure 5-1: Dynes / Icon Operating Sites - Dunedin

Another key part of the overall logistic operations is the KiwiRail container depot in Strathallan, Southern Dunedin where maintenance and refurbishment of containers is undertaken.

5.2 State Highway 88 Transport Environment

Anzac Avenue (SH88) branches off SH1 within central Dunedin before becoming Ravensbourne Road (SH88) shortly after. The corridor generally has an east-west alignment. SH88 has generally been formed as a two-lane road with an approximately 10m wide carriageway, with centre and edge line marking. The posted speed limit is 70 km/h between Frederick Street and Tekapo Street, where this changes to 50 km/h to the east of Tekapo Street. The road corridor follows the harbour edge to Port Chalmers.

The weekday traffic volumes along SH88 are typically around 6,500 vpd with some variation across the year.

Figure 5-2 shows the daily heavy vehicle volumes recorded on SH88 in 2025. Daily volumes vary widely from day to day and are typically between 500 vpd and 700 vph on weekdays, with some

higher volumes earlier in the year. The range of volumes appears to reduce during the middle of the year which suggests some seasonal variation is present[3].

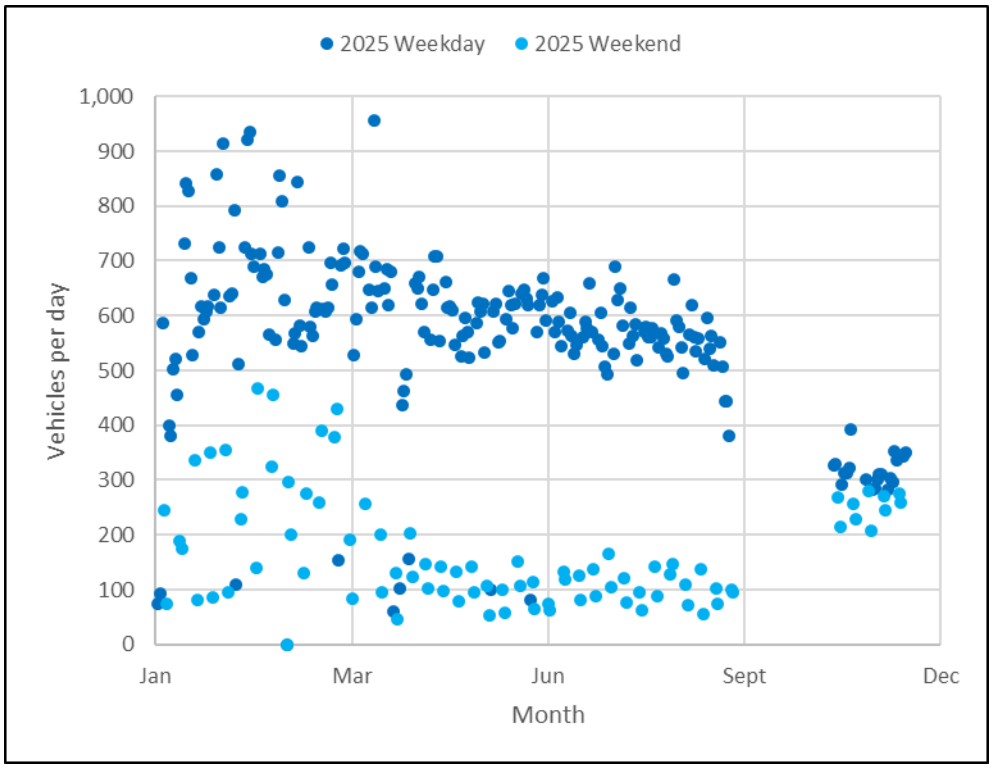


Figure 5-2: Weekday daily heavy vehicle traffic volumes -08800009, 2025 (NZTA TMS)

Analysis of the HCV2 volumes suggests that they account for up to 50% of all heavy vehicle movements on SH88. The HCV2 hourly volumes are typically in the range 20 to 30 vph during the day.

5.3 Dynes / Icon Freight Movement Patterns

Figure 5-3 provides a schematic to show the general pattern of truck and container movements that are managed by Dynes / Icon. The highest volumes of truck movements are generated on SH88 between Dunedin and Port Chalmers. Annually, the freight operations create about 5,500 truck movements on the highway. That represents approximately 20 heavy vpd which is about 10% of the total HCV2 volumes on SH88.

Within Mosgiel, the Carncross Street operation generates about 1,900 truck movements per year on SH87. This represents less than 10 vpd on average compared with the 500 vpd recorded on SH87.

Figure 5-3 does not show container movements for other freight operators at the port or for movements arriving or departing by rail. Currently, over 30,000 containers arrive at the port by rail for

[3] The heavy vehicle volumes recorded from September to December appear to be very low when compared with the similar period in 2024. This suggests that the counts for 2025 for that period may not reflect actual movement volumes.

export each year. The port also receives about 9,000 import containers each year with less than 20% of these leaving the port by rail. This means that the imports could generate over 14,000 truck movements per annum on SH88.

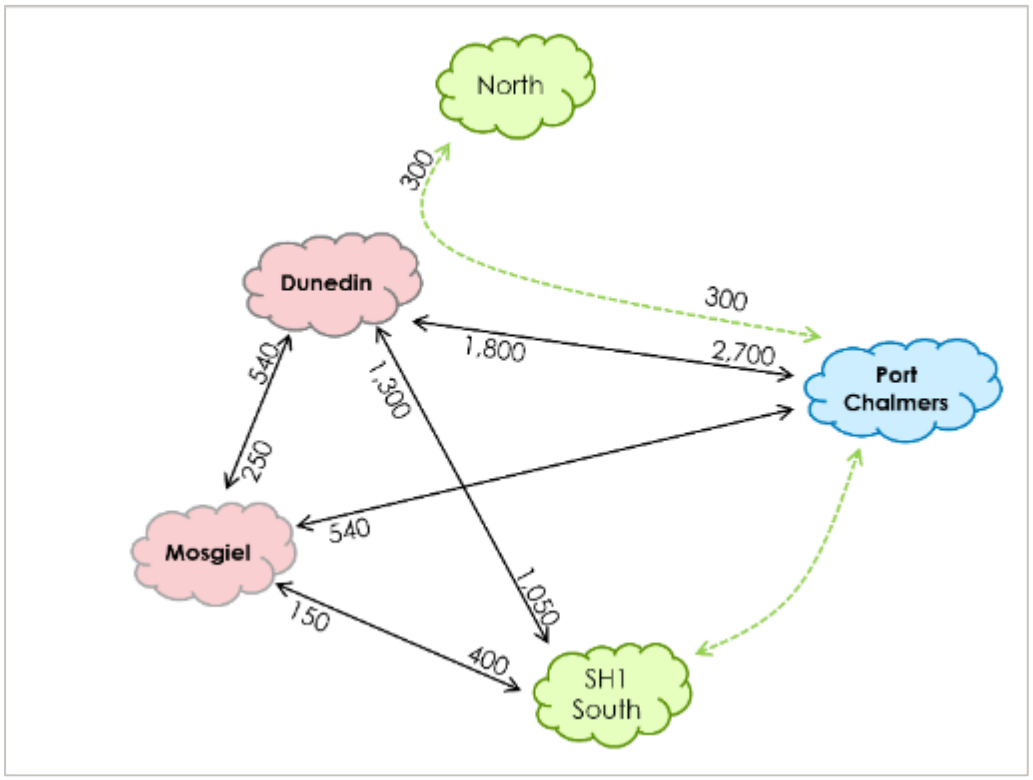


Figure 5-3: Indicative pattern of Icon truck / container movements by road (per annum)

The following series of diagrams have been prepared to provide an indication of truck and container movements managed by Dynes / Icon between their various sites. For simplicity, the diagrams do not distinguish between curtain sided trucks and container truck movements. Laden truck volumes are shown as shaded figures with unladen trucks being unshaded.

Figure 5-4 shows the indicative pattern of annual truck movements at the Carncross Street site. About 540 containers of imports are transferred to Carncross Street by road from Port Chalmers for unpacking. After unpacking, the containers are typically taken to the Strathallan Depot for maintenance. Unladen trucks will travel to the site from the South and the Sawyers Bay facility for loading and distribution of the imported products.

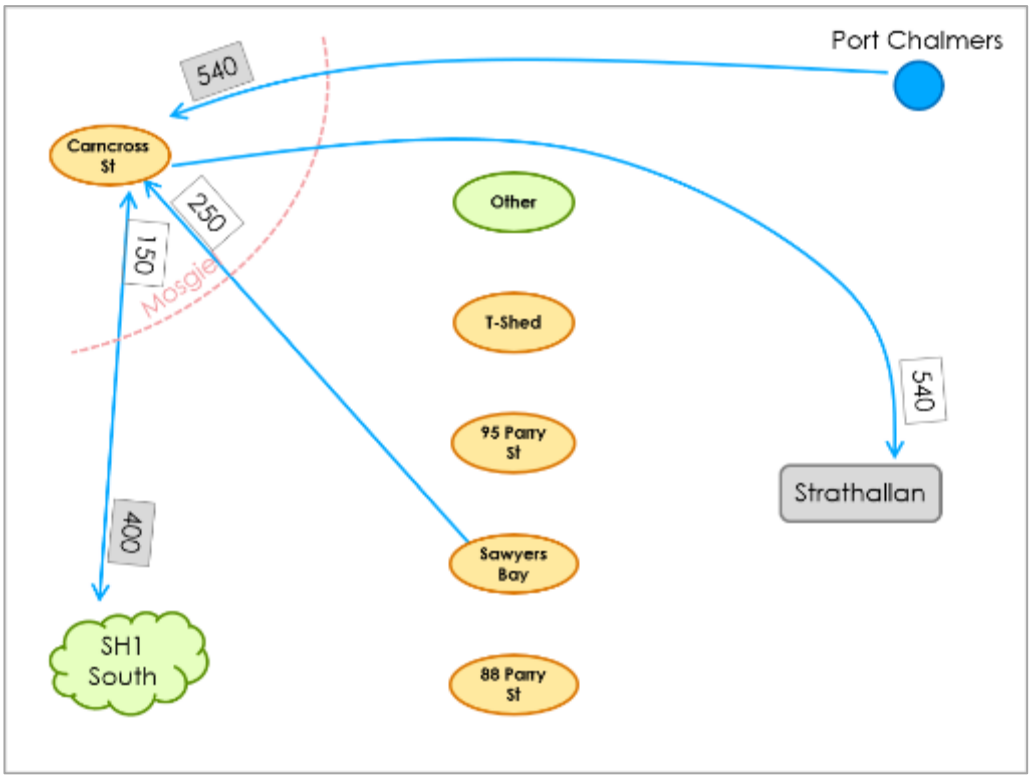


Figure 5-4: Carncross Street – Indicative Annual Container / Truck Movements

The general movement patterns for trucks at the T-Shed is shown in Figure 5-5. Milk powder is brought to the T-Shed from the south on curtain-sided trucks and then moved again to Sawyers Bay for export as T Shed is not certified for export packing. The unloaded trucks will either return south or travel to another site. The export product is then moved to Sawyers Bay for storage and packing before transporting to Port Chalmers for export. Unladen trucks will return from Port Chalmers to collect their next load.

Sawyers Bay is a packaging facility for dairy powder. As shown in Figure 5-6, it receives about 370 truckloads of product in curtain sided trucks each year which is packed into containers for transport to the port. The unladen trucks will travel back to the south or Carncross Street to collect further loads. Empty containers are collected from the port and returned to Sawyers Bay for re-use.

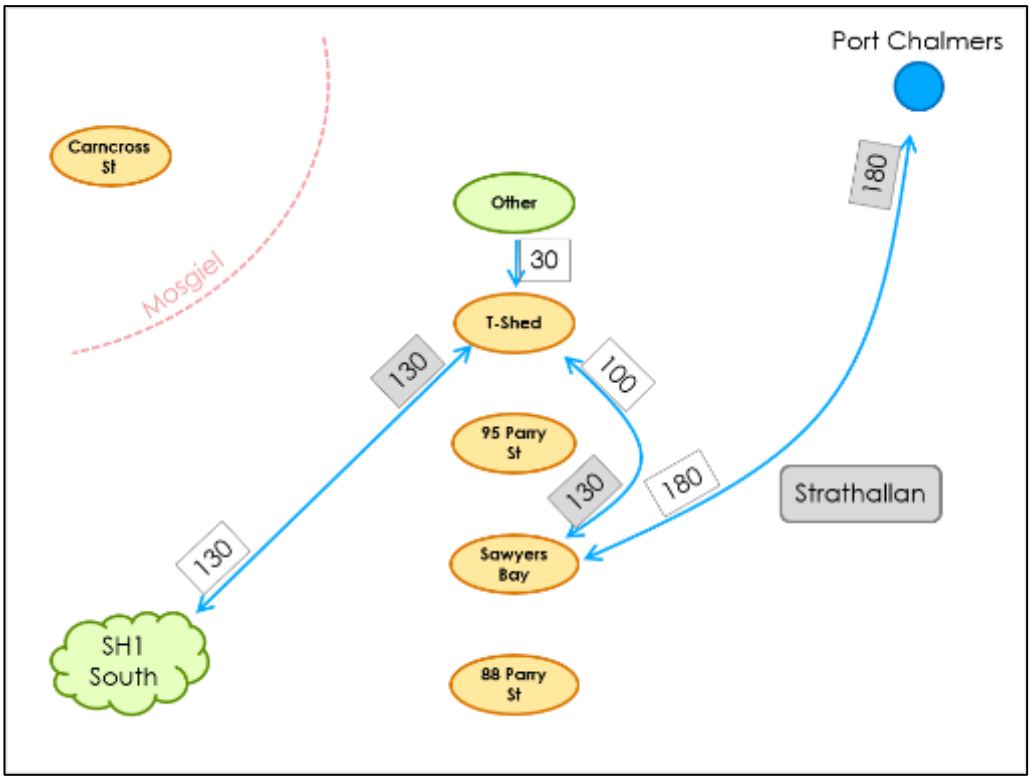


Figure 5-5: T-Shed - Indicative Annual Truck / Container Movements

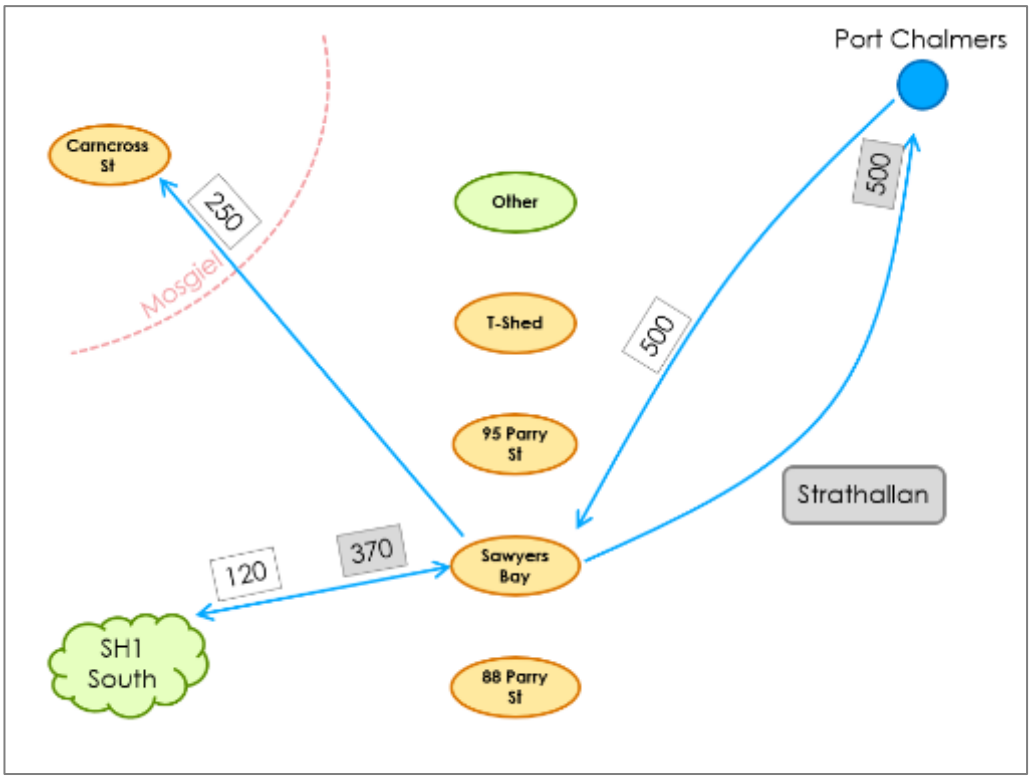


Figure 5-6: Sawyers Bay - Indicative Annual truck / container movements

Although the sites on Parry Street are co-located, they operate largely independently. Figure 5-7 shows the indicative movement patterns at 88 Parry Street with Figure 5-8 showing indicative movements for 95 Parry Street.

Imports are primarily handled at 88 Parry Street. Containers are transported by truck to the site for unpacking and distribution. Empty containers are generally taken to the Strathallan depot. The imported product is distributed by truck from the site to the south and locally.

Curtain sided trucks bring export product to 95 Parry Street for packing in containers which are then transported to the port. Imports are brought into the site for unpacking and distribution by curtain-sided trucks. Empty containers will be transported to and from the Strathallan depot.

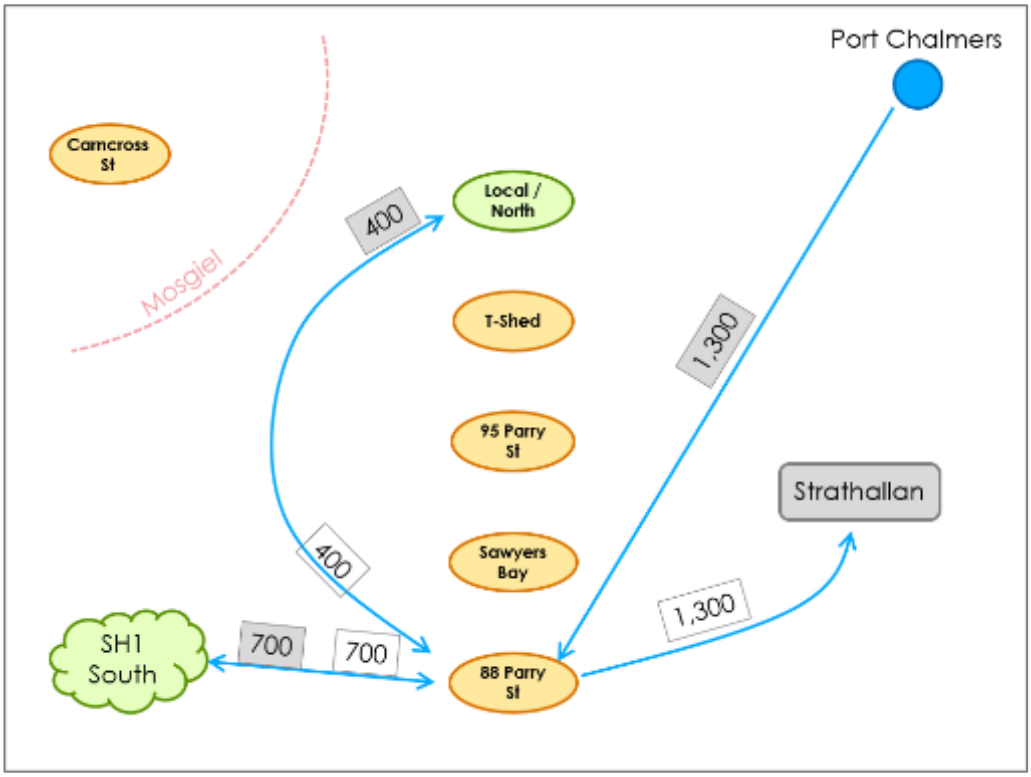


Figure 5-7: 88 Parry Street - Indicative Annual Truck / Container Movements

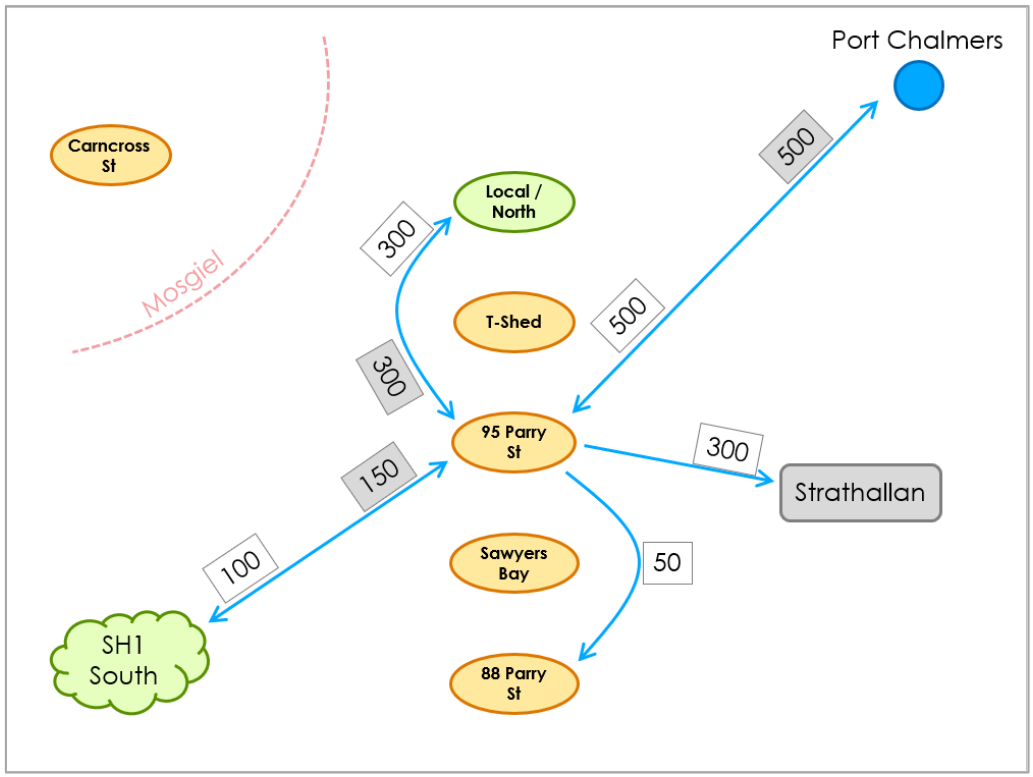


Figure 5-8: 95 Parry Street - Indicative Annual Truck / Container Movements

6 Road Safety

6.1 Crash History

The NZTA Waka Kotahi 'Crash Analysis System' (CAS) database has been used to review crash reports for five year period 2020 to 2024 on the access route between SH1 and the Dukes Road industrial area. The search area and crash locations are illustrated in Figure 6-1 and includes Duke Street North to east of Stedman Road and SH87 south of Dukes Road North. A summary and analysis of crash types is included in Appendix B.

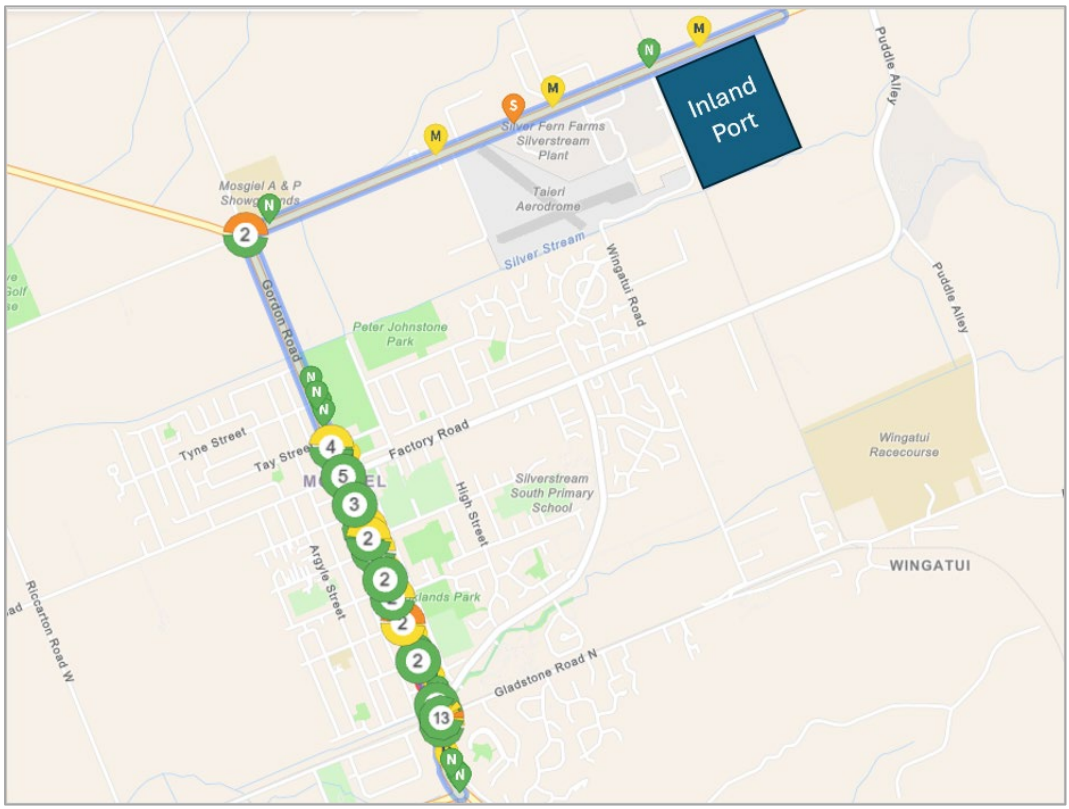


Figure 6-1: Crash locations and severity (NZTA Waka Kotahi CAS)

The database includes reports for 83 crashes over the five year period that has been examined. Four crashes caused serious injury and 21 crashes resulted in minor injuries. Three of the minor injury crashes and one serious injury crash were reported on Dukes Road North. One serious injury crash occurred at the SH87 / Dukes Road intersection. The majority of crashes (75) were reported along Gordon Road in central Mosgiel. Two of these crashes caused serious injury.

The serious injury crash on Dukes Road North involved a cyclist who rode into the rear of a parked vehicle. The cyclist required treatment at hospital for deep lacerations. None of the minor injury crashes on Dukes Road North involved heavy vehicles associated with the surrounding industrial activity.

One serious injury crash was reported at the Gordon Road / Dukes Road North intersection. This involved a single vehicle only and was the result of a southbound vehicle on Gordon Road travelling across Dukes Road onto a grass bank causing the vehicle to roll onto its roof.

Two serious injury crashes have been reported on SH87, one at the Gladstone Road intersection when a driver has turned across the path of a cyclist and one at the Inglis Street signals when a car driver has hit a pedestrian.

Five crashes have been reported along Gordon Road that involved trucks since 2021 with none of these causing injury. Three of these occurred at or between the Gladstone Road and Burns Street intersections. The crash reports suggest that the truck driver was not at fault in two of these crashes. Two crashes were reported close to the Factory Road / Bush Road intersection and involved collisions with parked vehicles.

The majority of crashes within central Mosgiel were at intersections or involved rear-end type collisions causing property damage only. The crashes were widely distributed along Gordon Road. The number of crashes reflects the high volume of traffic using Gordon Road and the level of adjacent activity associated with the high street environment.

Photograph 6-1: Gordon Road Pedestrian Crossing

6.2 Personal and Collective Risk

Personal and Collective Risk maps were obtained from the NZTA Waka Kotahi's 'MegaMaps' database. Personal Risk is defined as the measure of danger to each individual using the road, taking into account the traffic volumes on that stretch of road. Collective Risk is defined as the measure of the total number of fatal and serious injury crashes per kilometre over a section of road. The Personal and Collective Risk maps are shown in Figure 6-2 and Figure 6-3, respectively.

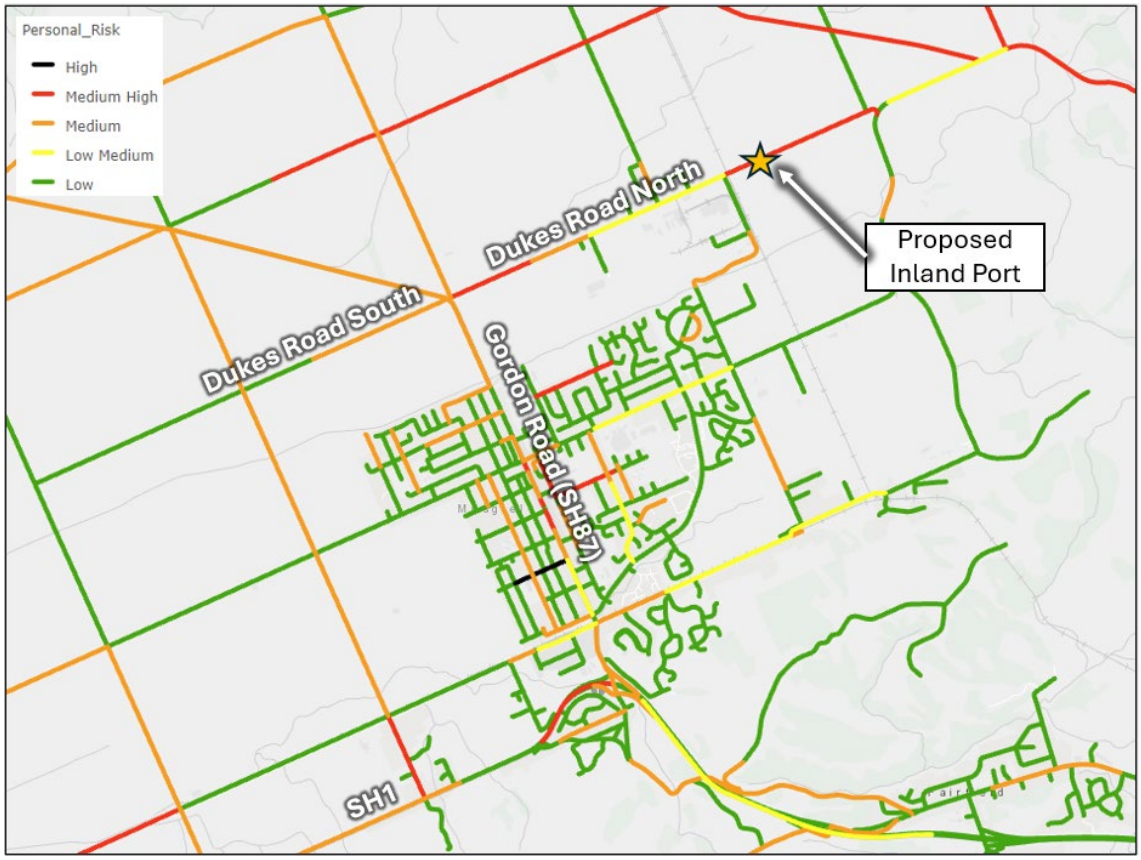


Figure 6-2: Personal Risk classification of roads around Mosgiel (NZTA MegaMaps)

The Personal Risk map shows that SH1 has a Medium risk leading up to the interchange, decreasing to Low and then increasing again to Medium-High at the interchange itself. This indicates that a driver is more likely be involved in a crash nearer to the interchange. Through Mosgiel along Gordon Road (SH87), there are sections where the risk is showing as Medium-High, notably on the approach to side road intersections. On the approach to the interchange to the south, as well as the Outram-Mosgiel (SH87) / Dukes Road North / Dukes Road South / Gordon Road (SH87) intersection to the north, the risk is Medium. Dukes Road North shows Medium-High risk approaching the intersection to the west and decreases gradually to the east approaching the industrial area, where it reaches a Low-Medium classification. To the east of Stedman Road, along the site frontage, the Personal Risk increases to Medium-High, which could be attributed to the more rural formation of the corridor (e.g. narrow sealed or unsealed shoulders, less built-up environment encouraging higher operating speeds).

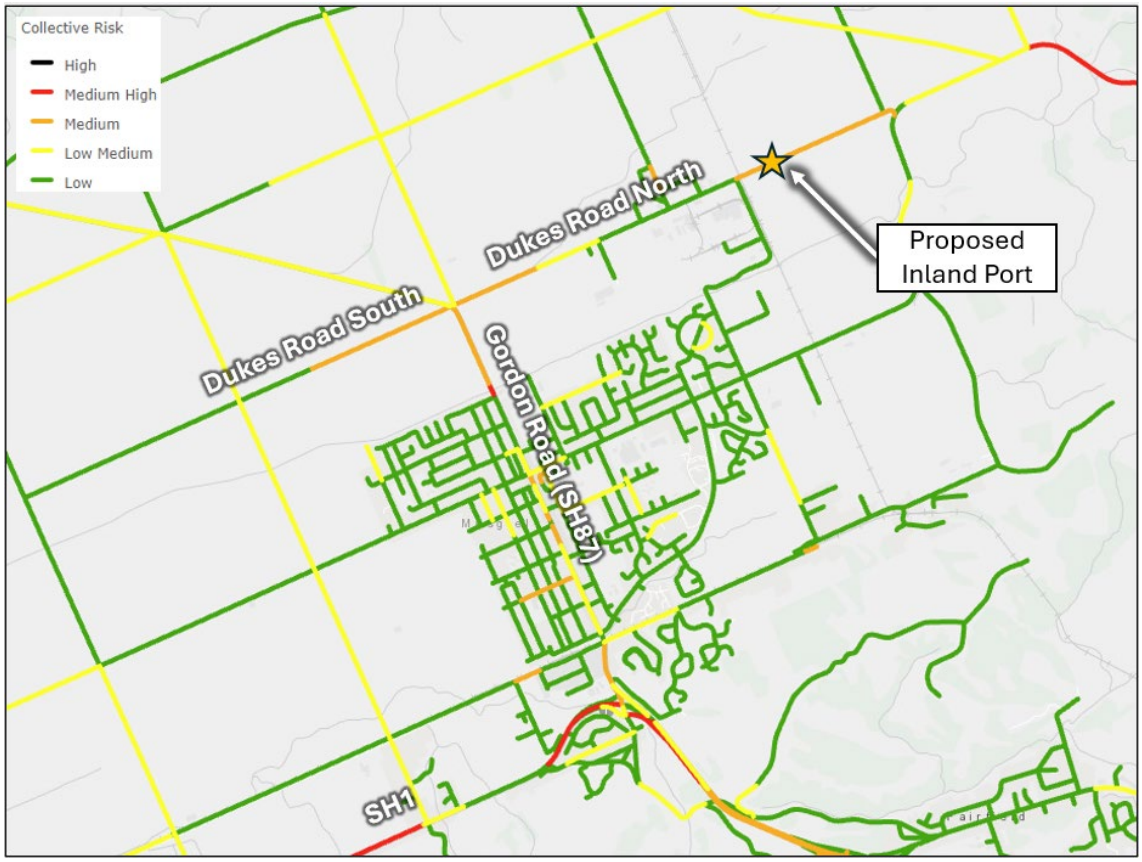


Figure 6-3: Collective Risk classification of roads around Mosgiel (NZTA MegaMaps)

The Collective Risk map shows that SH1 has a Medium-High risk leading up to the interchange, decreasing to Low and then increasing to Medium-High at the interchange itself. This indicates that the crash density is higher at the interchange itself. Through Mosgiel along Gordon Road (SH87), much of the corridor is classified as Low-Medium. On the approach to the interchange to the south, as well as the Outram-Mosgiel (SH87) / Dukes Road North / Dukes Road South / Gordon Road (SH87) intersection to the north, the risk is Medium, coinciding with what is shown on the Personal Risk map. Dukes Road North show Medium risk near its intersection with Gordon Road (SH87) to the west, which gradually decreases to Low through the industrial area. The risk increases again to the east of Stedman Road to Medium, which is a consistent pattern as observed on the Personal Risk map and attributed to the same reasons.

7 Southern Link Inland Port

7.1 Overview

The proposed Inland Port will be located at 270 - 292 Dukes Road North, east of the Fonterra plant. Vehicle access to the Inland Port will be provided via a new priority intersection on Dukes Road North. A new railway siding will be constructed along the western side of the Inland Port. The internal road network will provide access between the railway sidings, storage areas and warehouses. A full set of drawings is included as part of the application.

Figure 7-1 shows the proposed staging for the site development. The Inland Port will be developed in stages broadly as indicated in Table 7-1. The first stage will be focused on consolidation / establishment of the Dynes / Icon freight handling activities at the site and the relocation of the container maintenance depot to the site. The subsequent stages involve expansion of warehouse storage capacity as new buildings are constructed.

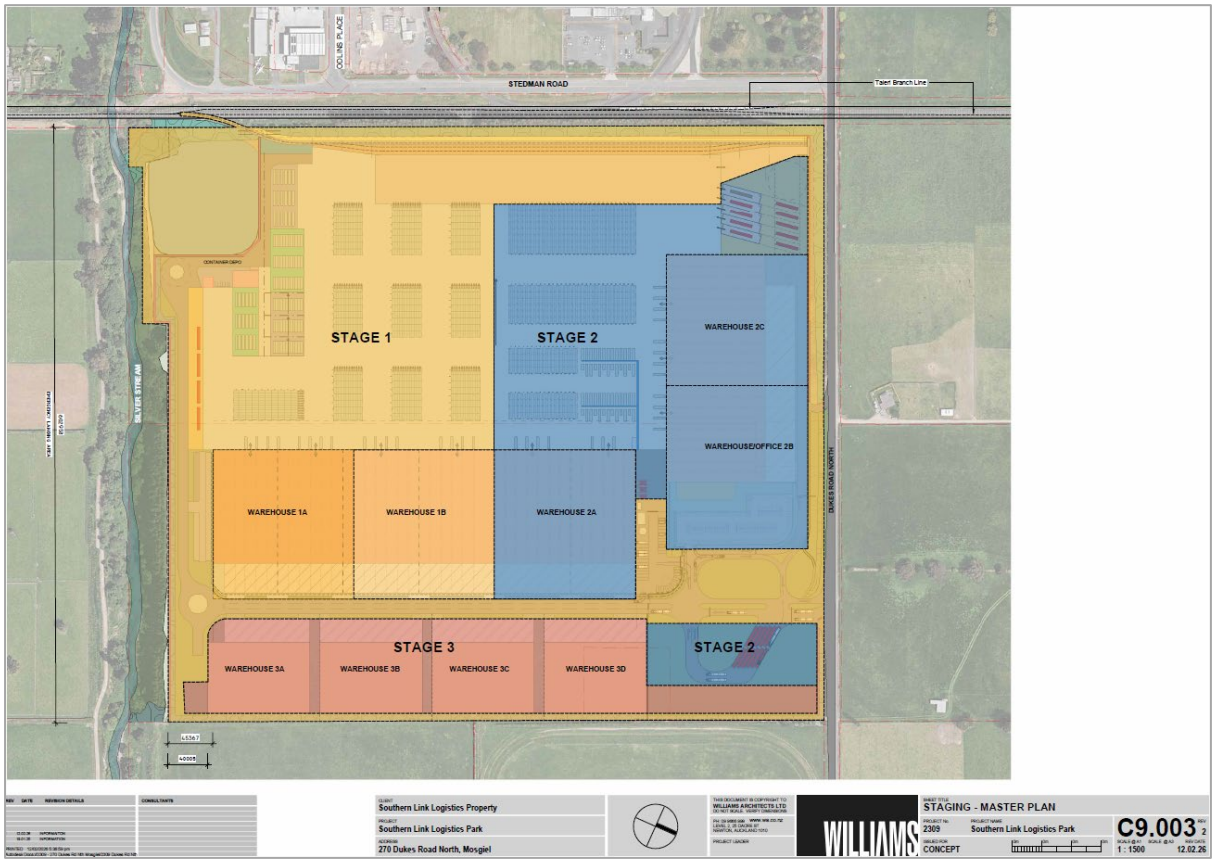


Figure 7-1: Proposed staging for development of the Inland Port

Table 7-1: Anticipated staging and development areas

Stage	Description	Year	Ground Floor Area (m^2)	Staff (FTE)
1	Consolidation of sites	1 - 3	32,750	50
2	Warehouse expansion	3 - 5	72,000	110
3	Warehouse expansion	5 - 10	103,000	155

7.2 Vehicle Movement Patterns

7.2.1 Overview

As part of Stage 1, the existing Dynes / Icon freight operations at the Carncross Street site will transfer to the Inland Port. This would remove about 1,300 truck movements per annum from SH87 because import containers can be transported direct from the port to the park for unloading. The empty containers would be stored on site before being re-used.

The import processing activity at the Icon Logistics site at 88 Parry Street would also be transferred to the Inland Port as part of the Stage 1 works. This would involve all import containers being transported by rail from the port to the park. After unloading and sorting, the imports would leave the park by road and rail.

The Stage 1 works also includes relocation of the Dynes / Icon operations from T-Shed and 88 Parry Street activities to allow for more efficient movement between the operational sites and removes truck movements from central Dunedin. However, as these sites also manage local distribution within the Dunedin area, this could contribute to an increase in truck volumes on SH87 although this would be partially offset by the reduction in movements associated with the Carncross Street site.

The relocation of the Sawyers Bay depot to the Inland Port will involve more container movements by rail between Port Chalmers and the Inland Port (being on average two rail movements per day).

The Inland Port site layout has been designed to accommodate the full transfer of the existing container maintenance facilities at Strathallan Depot as it is understood that the site will be closed before 2030. The closure of the depot will not affect the Icon Logistics truck movement patterns but could contribute to a small increase in truck movements on SH87 because other freight haulage operators would now need to transport containers to and from the new depot.

Table 7-2 shows the indicative changes in truck volumes (with reductions in red parentheses) across the state highway network associated with the consolidation of the Dynes / Icon activity at Mosgiel and also the relocation of the container maintenance depot. The most significant effect is the forecast reduction in truck volumes on SH88. The relocation of the warehouse operations and container depot will result in a small increase in daily truck volumes in Mosgiel.

Table 7-2: Indicative changes in annual truck volumes due to Dynes / Icon Consolidation

Year	SH87 Mosgiel	SH1 South of Mosgiel	SH1 Mosgiel to Dunedin	SH88 Dunedin to Sawyers Bay
2025	1,880	2,950	3,730	5,470
2030	3,410	2,950	1,460	0
Change (annual)	1,530	0	(2,270)	(5,470)
Change (daily)	6	0	(9)	(21)

The subsequent stages of the development involve increasing the capacity of warehousing on the site and enable greater transfer of freight between road and rail. Since the increase in warehousing is intended to provide for other freight operators, this will contribute to changes in truck volumes across the network. Although it is not possible to quantify changes in the absence of the detailed operations of a freight operator, it is likely to result in reduced truck volumes within Dunedin and on SH88.

7.2.2 Light Vehicle Movements

Light vehicle movements will be dominated by staff travel and visitors to the site. Staff related vehicle movements are expected to grow from about 120 vpd at Stage 1 to about 310 vpd at full development based on two movements per day per FTE. Although the pattern of movements will be influenced by working shift times and the numbers of people working on each shift, it is expected that there will be a peak in arrivals early in the morning with the peak in departures occurring during the mid-afternoon period. If 70% of all employees travelled independently by private vehicle and arrived within a one hour period, this would generate a travel demand of about 110 vph. This would primarily be distributed between Stedman Road and Dukes Road North.

Servicing and deliveries will contribute to light vehicle movements during the day but are expected to generate less than 10 vph throughout the day.

7.2.3 Truck Movements

Truck movements at the entrance to site will be associated with three primary activities.

1. Fonterra will transfer containers between their site on Dukes Road North and the new Container Servicing Depot located within the SLIP. This is expected to involve about 9,000 containers per annum which could require up to 18,000 short distance truck movements.
2. Input and export operations are expected to involve about 22,000 truck movements per year.
3. The new warehouses will accommodate the initial consolidation of Dynes / Icon activities onto the site, supplementary growth capacity for Dynes / Icon and utilisation of the site by other freight operators.
4. Vehicle movements associated with the Container Servicing Depot.

Table 7-3 shows the anticipated growth in truck arrival volumes per annum at the site entrance for each development stage.

Table 7-3: Anticipated truck arrival volumes at the Southern Link Inland Port per annum.

Activity	Stage 1	Stage 2	Stage 3
Fonterra / Container Servicing Depot	9,000	9,000	9,000
Container Import / Export	11,000	11,000	11,000
Warehousing Activities	3,000	7,000	10,000
TOTAL	**23,000**	**27,000**	**30,000**

Table 7-4 shows the anticipated weekday average truck volumes[4], estimated peak daily volume and peak hour volumes at the Inland Port site entrance for each stage of the development. Based on existing activity variation across the year, the peak day volumes are likely to be up to 20% higher than the average daily volume. The hourly peak volume is typically about 14% of the daily volume.

Table 7-4: Indicative daily and peak hour truck movement volumes at the Southern Link Inland Port site entrance

Volume	Stage 1	Stage 2	Stage 3
Daily average	177	208	231
Peak day	212	250	277
Peak hour	25	30	33

The changes in truck volumes on Dukes Road North south of Carncross Street and on SH87 will be less than shown in Table 7-4 because the movements between the Fonterra site and depot will not use this part of the network and the relocation of the Carncross Street site will eliminate the need for truck movements to Strathallan and from the port. However, this is offset by the redistribution of movements from Dunedin to the Inland Port. The higher volumes included in Table 7-5 compared with Table 7-2 reflects the increased level of warehouse activity at the Inland Port.

Table 7-5: Expected changes in daily truck movement volumes on the highway network

Location	Stage 1	Stage 2	Stage 3
SH87	98	128	152
SH1 south of Mosgiel	20	26	30
SH1 Mosgiel to Dunedin	78	103	121

7.3 NZTA

SLPL have engaged with NZTA to keep them informed on the SLIP proposal and potential effects on the state highway network. It is understood that:

[4] Based on 260 working days

- NZTA has a proposed project in the current National Land Transport Plan to optimise traffic flow into and out of Mosgiel by making some lower cost improvements to the existing assets. However, funding has not been approved for this work to progress at this stage.
- NZTA do not consider an expansion of the business hub, including the proposed inland port would require NZTA to initiate any further business case work to their Mosgiel optimisation project, given the nature of the development and early analysis of the additional number of heavy vehicles movements per day. NZTA will review this further when the application is progressed, and traffic generation volumes are better defined,

7.4 Train Movements

It is expected that the new Inland Port will begin operating with two train movements per day, one inbound from Port Chalmers and one outbound to Port Chalmers. Each train would typically comprise 25 wagons. This represents a container transport capacity of 7,500 units in each direction based on 300 working days. This exceeds the currently anticipated demand for container movements that would be generated by the Dynes / Icon operations and any other freight haulage operator that establishes in the park.

Whilst not proposed as part of this application, a long term objective of the Inland Port is to facilitate more freight movement by rail to and from the South. If this eventuates, it would provide direct benefits to SH87 and SH1 south of Mosgiel as it would reduce truck movements on these routes.

7.5 Dukes Road North Entrance Design

The Inland Port will have vehicle access to Dukes Road North only. The access will be designed to operate as an intersection with Dukes Road North and configured with a right-turn bay to accommodate vehicles accessing the Inland Port from the west. The right-turn bay has a storage length of 30 m which provides space for one B-train to wait before turning into the site. This design effectively separates freight turning movements from through traffic, thereby minimising delays and enhancing safety for all road users.

The posted speed limit on Dukes Road North is 80 km/h and requires a minimum sight distance of 111 m to be provided. The level gradient and straight alignment of Dukes Road North means that this requirement is met in both directions.

Full design details are included in the Transportation, Geometrics and Earthworks report for the Inland Port.

8 Assessment of Transport Effects

The assessment of transport effects considers:

- Effects on the state highway network
- Effects on the Mosgiel road network
- Effects on road safety

8.1 Effects on State Highway Network

The primary transport effect of establishing the Inland Port on Dukes Road North will be a change to freight movement patterns across the wider state highway network, primarily SH1 within central Dunedin and SH88. The inclusion of a rail siding will allow a higher volume of containers to be transported to and from the Inland Port by rail which will reduce truck volumes on SH88. Based on the analysis of the Dynes / Icon freight movement patterns, the inclusion of a rail siding at the Inland Port could reduce their truck movements on SH88 by 5,000 to 6,000 per annum. Further reductions could be expected as Stage 2 and 3 are developed or if other local freight operators such as Lineage make use of the Inland Port.

Although the Inland Port will contribute to reducing truck movements on SH88, this route will still be utilised for travel to the north of Dunedin. These truck movements are expected to utilise Frederick Street to access the strategic road network to the north. Several vulnerable locations of interest such as, but not limited to, Hayward College, University of Otago School of Surveying, Cumberland College and the Dunedin Hospital have frontage to Frederick Street. Overall though, the transfer of container movements from road to rail will reduce the volume of trucks utilising Frederick Street and other Dunedin roads. This is expected to have safety benefits as the exposure to high heavy vehicle crash forces are reduced, subsequently reducing the risk of greater severity injuries.

The Inland Port will consolidate multiple freight handling facilities on one site which will reduce truck movements from the local road network in central Dunedin but will create an additional demand for truck movements on SH87 to access the Inland Port from SH1.

At full development, the Inland Port is expected to generate about 255 truck movements per day on average at the site entrance and about 150 additional truck movements per day on average on SH87.

8.2 Effects on Mosgiel Road Network

In addition to the changes in heavy vehicle volumes on the strategic road network through Mosgiel, the Inland Port will generate light vehicle movements associated with staff travel. Staff related vehicle movements are expected to grow from about 120 vpd at Stage 1 to about 310 vpd at full development based on two movements per day per FTE. Although the pattern of movements will be influenced by working shift times and the numbers of people working on each shift, it is expected that there will be a peak in arrivals early in the morning with the peak in departures occurring during the mid-afternoon period. If 70% of all employees travelled independently by private vehicle and arrived within a one hour period, this would generate a travel demand of about 110 vph. This would primarily be distributed between Stedman Road and Dukes Road North. This level of travel demand would not

contribute to noticeable effects on the Mosgiel road network because it would not coincide with the commuter peak periods and traffic volumes will remain within the capacity of the roads.

The HCV traffic associated with the Inland Port will access the Site via Dukes Road North, passing Mosgiel's industrial precinct along the way. As the area is currently being used for a variety of industrial activities, Dukes Road North between Gordon Road (SH87) and the northern section of Stedman Road has already been formed to a standard capable of accommodating HCVs.

Following full development of the Inland Port, average daily heavy vehicle volumes on Dukes Road North close to the site entrance could increase by about 230 vpd. Heavy vehicle volumes on Gordon Road through central Mosgiel could increase by about 150 vpd from about 500 vpd currently to about 650 vpd which represents a change of less than 1% of the existing daily volumes.

The section of Dukes Road North between Stedman Road and the Inland Port entrance is currently formed to rural road standard and will need upgrading to accommodate the higher volume of heavy vehicles that will use the road. The concept design for access to the proposed Inland Port included in Appendix C shows road widening to accommodate the creation of a full right-turn bay. This allows for Inland Port related traffic to turn into the site whilst being clear of any through traffic. The localised widening allows for HCVs to turn left out of the Inland Port whilst keeping clear of the proposed right-turn bay. Since Dukes Road North has a generally straight and level alignment, there are no obstructions to the required sight lines which is 203 m for roads with a posted speed limit of 80 km/h under the District Plan. Full design details are included within the Transport infrastructure design report.

The SH87 / Dukes Road North intersection has been configured with a right turn bay so that right turning vehicles can stop clear of through traffic on the highway. No changes to this intersection are considered necessary to support the Inland Port activity. Since Gordon Road and Dukes Road North form part of the strategic road network for Mosgiel and have been designed to support freight movement, the establishment of the Inland Port does not create a need for a change in the road hierarchy.

8.3 Dynes / Icon Site Reuse

The re-use or redevelopment of Dynes / Icon sites across development following consolidation of their activities at the Inland Port does not form part of the consent application. Comment on the potential effects of their re-use has been sought and is included for completeness.

The consolidation and relocation of the Dynes / Icon activities to the Inland Port would allow their sites in Dunedin to be used for other industrial purposes. Any future activities that are established within those sites would be expected to operate in accordance with the underlying industrial land zoning. Since it is not possible to determine the nature of the future activities and their vehicle movement patterns, it is not possible to assess their effects on the wider network. It is reasonable to expect that the volume of vehicle movements on the local roads immediately surrounding each site could be similar to those that currently exist and are anticipated by the land zoning.

8.4 Effects on Road Safety

One of the concerns with the development of the Inland Port is truck movements on Gordon Road (SH87) accessing the Site. The change in truck volumes on Gordon Road is not expected to contribute to any noticeable effects on the efficiency of intersections due to the existing high traffic volumes on the highway within Mosgiel.

Within Mosgiel, SH87 has been formed to an urban standard with on-street parking permitted on each side of the road and wide footpaths. As part of the state highway network and High Productivity Motor Vehicle network, Gordon Road has been designed to provide for freight movement and also represents the only practical route for freight between SH1 and the Mosgiel industrial area on Dukes Road North. The primary safety concern with heavy vehicle movements within an urban centre is the increased risk of a crash involving a vulnerable road user[5] because of the more restricted visibility available to truck drivers. Any crashes involving vulnerable road users have a greater likelihood of causing serious or fatal injuries. There have been no crashes involving pedestrians or cyclists with heavy vehicles in the most recent five year period. All crashes with pedestrians have involved light vehicles turning at side roads.

The road safety records for the most recent five year period have been filtered to isolate the crashes involving HCVs to assess any adverse safety effects the increase in HCV volumes might have. Three crashes involving trucks have been recorded within Mosgiel area along SH87; these are summarised in Table 8-1. It has been noted that more than 35 other crashes were reported on Gordon Road over the same period.

Table 8-1: Summary of HCV related crashes along Gordon Road (SH87) (NZTA CAS)

Location	Crash Type	Crash Severity	Description
Gordon Road (SH87) / Factory Road / Bush Road	Parked vehicle	Non-Injury	Truck driver turning left from Factory Road to Gordon Road (SH87) side-swiped parked vehicle on Gordon Road (SH87)
Gordon Road (SH87) / Park Street	Near centreline	Non-Injury	Driver stopped at centreline rear-ended by truck driver travelling northbound on Gordon Road (SH87). Truck driver inattention.
Gordon Road (SH87) / Hagart-Alexander Drive / Burns Street	Right-turn	Non-Injury	Truck driver turning right from Burns Street to Gordon Road (SH87) hit from right by driver failing to stop for signals

The crashes recorded along Gordon Road (SH87) do not indicate any specific safety concerns within the corridor that can be directly attributed to trucks associated with the industrial zone but are more typically associated with driver error. On that basis, the primary risk arising from a higher volume of truck movements in the long term is that there will a higher exposure to heavy vehicles. Since heavy vehicles associated with the Inland Port will be travelling through Mosgiel rather than turning, there is a reduced risk of these being involved in crashes. Although it is understood that DCC has

[5] Pedestrians, cyclists and motorcyclists

implemented minor alterations to line markings at intersections within the town centre to provide more space for turning trucks, these are not required for Inland Port traffic.

Overall, the combination of clear sight distances at the Inland Port entrance, turning bays for heavy vehicles to access the site and line markings to allow for more space, no additional mitigation is considered necessary to accommodate the Inland Port activity.

8.5 Active Modes

The Inland Port will create a new employment centre for Mosgiel. While the Inland Port is not expected to employ a large number of people, its proximity to the Mosgiel residential areas makes travel to the Site by active modes particularly by cycle a practical option. The most practical route will be via Wingatui Road and the southern end of Stedman Road. New footpaths on Stedman Road and Dukes Road North east of Stedman Road would be required to separate pedestrian movement from vehicle movements. Aa new section of footpath to be formed on Dukes Road North to connect the site entrance with the existing path on Dukes Road North west of Stedman Road. SLPL is committed to working collaboratively with the DCC Transport team to determine and provide facilities at, or adjacent to the site, which are deemed to be necessary to cater to the transport needs of those utilising the SLIP.

8.6 Effects on Rail Network

The operation of the additional rail services to service the Inland Port is expected to involve two train movements per day, one in each direction between Port Chalmers and the site. KiwiRail has indicated that the rail network has ample capacity for this. SLPL has advised that train movements will occur during daytime operating hours.

The increased train movements will have a small and short duration effect on Mosgiel road users on Factory Road and Gladstone Road as trains traverse the level crossings. Since a train movement will involve closing the crossing for about 90 s on average, a train movement could affect six vehicles on Factory Road and three on Gladstone if this occurred during a commuter peak period. Although the delays experienced by an individual vehicle will depend upon the time that they approach the crossing, the average change in delays for all road users due to the increased train movements will be less than one second and does not represent a noticeable effect for road users.

The Inland Port will not increase the number of train movements at the Dukes Road level crossing but there will be a higher volume of traffic using the crossing.

Although the increase in train movements will have a small effect on the risk assessment of all level crossings between Mosgiel and Port Chalmers, it is understood that the changes in the safety rating scores is not sufficient to warrant alterations to the existing level crossing infrastructure.

9 Dunedin City Council District Plan Compliance

9.1 Transport Rules

Appendix D includes a tabulated assessment of compliance for the proposal against the District Plan transport rules. Based on the proposed layout plans for the Inland Port, it is considered that the Inland Port can be developed in general accordance with the relevant transport rules.

The length of the vehicle crossing at the main entrance exceeds the maximum permitted under the District Plan standards because the design reflects the need to accommodate the tracking associated with the anticipated two-way volumes of large articulated vehicles. On that basis, the access to the Inland Port is proposed as a full intersection designed in accordance with DCC standards rather than vehicle crossing. Since there is no footpath on Dukes Road North, the length of the crossing does not affect pedestrian risk. The formation of a right turn bay means that right turning vehicles can stop within the carriageway clear of through traffic and provides a safer intersection configuration than a design with no right turn bay.

If a footpath is constructed along Dukes Road North from Stedman Road towards the main entrance, it would cross the egress-only driveway between the main entrance and railway. Egress movements will be controlled by a security barrier and there will be clear visibility between any path users and vehicle drivers, so the risk of any conflict arising will be negligible.

9.2 Transport Objectives and Policies

Appendix E includes a tabulated assessment of the general accordance of the development with the District Plan transport objectives and policies. Additional discussion is provided in the subsequent sections for a selection of those policies.

9.2.1 Policy 6.2.2.4

Only allow activities that are likely to generate a significant number of trips by walking, cycling or public transport where:

a. for activities likely to generate trips by cycling, there will be safe access for cyclists into and through the site and sufficient secure cycle parking;

b. for activities likely to generate trips by walking, there will be safe access for pedestrians into and through the site; and

c. for activities likely to generate trips by public transportation, the activity will be located a reasonable walking distance from a frequent public transportation route with safe access for pedestrians from a bus stop to the site.

Since the proposed Inland Port will be an employment centre and is located adjacent to the existing industrial zone at Mosgiel, it is expected that there will be demand for active travel to/from the Site for travel to work purposes.

As the Taieri Branch line runs parallel to the western edge of the Site, it is not practical to form a safe pedestrian or cycle access along this boundary. On that basis, there are two potential access route options, either via the southern boundary or via the main entrance on Dukes Road North.

There is an existing unpaved, informal path under the rail line on the western boundary (Figure 9-1 and Figure 9-2) between the stream and southern part of the site. Pedestrian access from the south has been discounted because it would lead directly into operational areas of the Container Servicing Depot which would create a high risk for pedestrian or cycle movement. Therefore, the only practical access option for pedestrians is via the main entrance on Dukes Road North.

Since there are no footpaths on the southern section of Stedman Road, providing for safe pedestrian movements would require a new path to be formed between Odlins Place and Wingatui Road. A connection to the Inland Port would require a new path on Dukes Road North east of Stedman Road. SLPL is committed to working collaboratively with the DCC Transport team to determine and provide facilities at, or adjacent to the site, which are deemed to be necessary to cater to the active transport needs of those utilising the SLIP.

There are no bus services that operate on Dukes Road North and it is understood that no new services are planned. On that basis, it is not considered necessary for the site to accommodate public transport services.

Figure 9-1: Gravel path under Taieri Branch line rail crossing on Stedman Road

Figure 9-2: View of gravel path from Stedman Road

9.2.2 Policy 6.2.3.8 and 6.2.3.9

Policy 6.2.3.8

Only allow high trip generators where they are designed and located to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network.

Policy 6.2.3.9

Only allow land use and development activities or subdivision activities that may lead to land use or development activities, where:

a. *adverse effects on the safety and efficiency of the transport network will be avoided or, if avoidance is not practicable, adequately mitigated; and*
b. *any associated changes to the transportation network will be affordable to the public in the long term.*

The proposed Inland Port represents a high trip generator as the expected trip generation at the site entrance will exceed the threshold of 250 vpd. This report provides an assessment of the effects of development traffic on the operation on the state highway and local road networks.

The proposed Inland Port will contribute to changes to HCV traffic volumes along the state highway network. The largest change will be on SH88 because more freight will be moved between Port Chalmers and the Inland Port by rail. The relocation of freight logistics activity to the Inland Port from Dunedin will reduce heavy vehicle movements on the city road network but will add to movements on the Southern Motorway to Mosgiel. Truck volumes using Gordon Road (SH87) are expected to increase by about 150 per day when the Inland Port is fully developed. While it does not form part of

the Fast Track application, truck volumes on SH87 could reduce if train freight services are established to and from the south in the future.

The change in traffic volumes on Gordon Road is not expected to contribute to any noticeable effects on the operation of the road because it represents less than 1% of the existing total traffic volumes. The change in hourly volumes is less than the typical day to day variation in volumes on Gordon Road.

Access to the proposed Inland Port will be from Dukes Road North on the south side, approximately 400m east of Stedman Road and the Taieri Branch line rail level crossing. The location and design of the Inland Port entry road has been undertaken taking into account safety and efficiency in accommodating the increase in HCV traffic generated by the development. Included in the design is localised widening on the south side of Dukes Road North, supplemented by a full right-turn bay. Further details are included in the Transportation, Geometrics and Earthworks Report.

Any manoeuvring will be accommodated on-site and will not involve any reverse movements either into or from Dukes Road North. Dukes Road North carries approximately 1,350 vpd with about 150 vph during the peak hour of 4 PM. At these volumes, right turn movements into the site are opposed by less than two vehicles per minute which creates ample opportunity for HCVs to turn into the Site safely.

9.3 Rural Rules – Signage

The Inland Port will require signage for safety and directional purposes. Whilst all signage requirements are yet to be confirmed for the site, it is known they will exceed the permitted activity requirements listed in the District Plan. Approval for the breach of signage standards will be sought under the substantive application.

The construction of the new intersection will involve installation of regulatory signage. This will require approval from DCC as part of the Engineering Approval process.

Installation of any directional signage to the Inland Port from SH87 will require approval from NZTA and will be addressed outside of the Fast-track process.

10 Conclusions

Southern Link Property Limited proposes to establish an Inland Port on approximately 40 ha of land spanning three lots beside Dukes Road North in Mosgiel. The Site is located northeast of Mosgiel and adjacent to the Taieri Branch railway line. The Inland Port would enable consolidation of multiple freight handling facilities operated by Dynes / Icon that are geographically dispersed within Dunedin onto one site which has direct access to a railway line. Access to the railway line will enable more freight to be moved by rail which will reduce heavy vehicle movement volumes on SH88 and also on SH1 within central Dunedin. There will be a reduction in heavy vehicle travel distance associated with Dynes / Icon resulting from the gradual transfer from road to rail transport.

Although the initial stage of development at the Inland Port will result in a small reduction in total truck movements through Mosgiel on SH87 Gordon Road, as the Inland Port is developed to accommodate the existing Strathallan container depot activities and other freight operators, there will be a gradual increase in truck volumes on Gordon Road. Based on the anticipated changes in activity on the site, heavy vehicle movement volumes on Gordon Road could increase by about 150 vpd with full development of the Inland Port. Since Gordon Road currently carries over 15,000 vehicles per day and over 500 heavy vehicles per day north of the SH1 interchange, this increase will not contribute to a noticeable effect of the operation of the road network.

Although the Inland Port will add to heavy vehicle movements on Gordon Road through central Mosgiel, since these are travelling through rather than turning at intersections, it is considered that they would not contribute to a noticeable change in the risk of a crash involving a heavy vehicle. The greatest severity injuries within a town centre are typically associated with vulnerable road users. All reported crashes with pedestrians have been at side roads rather than across Gordon Road. As there are a range of crossing facilities on Gordon Road for pedestrians, it is considered unlikely that the change in heavy vehicle volumes will contribute to a higher crash risk with pedestrians.

The operation of the additional rail services to service the Inland Port is expected to require two train movements per day. This will have a small effect on road users on Factory Road and Gladstone Road as trains traverse the level crossings. Since the number of train movements is low and traffic volumes on these roads are low, this will result in some delay for a small number of road users but not contribute to a noticeable effect by individual drivers.

Road access to the Inland Port is proposed via a new road intersection on Dukes Road North east of Stedman Road. It is proposed that Dukes Road North is widened east of Stedman Road to enable a right turn bay to be marked at the new intersection. This will ensure that turning vehicles will not obstruct the movement of through traffic.

While travel to the site by walking or cycling will have a low demand, DCC has indicated a desire for a new section of footpath to be formed along Dukes Road North between Stedman Road and the entrance to ensure that any active travel demand can be met safely and avoids conflict with truck movements.

In summary, the proposed Inland Port will contribute to area wide benefits by reducing the need for freight to be transported by road to or from Port Chalmers as the site will be linked by the railway network. This will reduce heavy vehicle volumes on SH88 and also on SH1 within central Dunedin. Although the Inland Port will contribute to some increase in truck movements on SH87 as the site

develops, the additional volume of trucks represents about 1% of the existing traffic volume on Gordon Road through the Mosgiel town centre. This will not contribute to noticeable operational or road safety effects on the road network.

Appendices

Appendix A Detailed Traffic Count Information

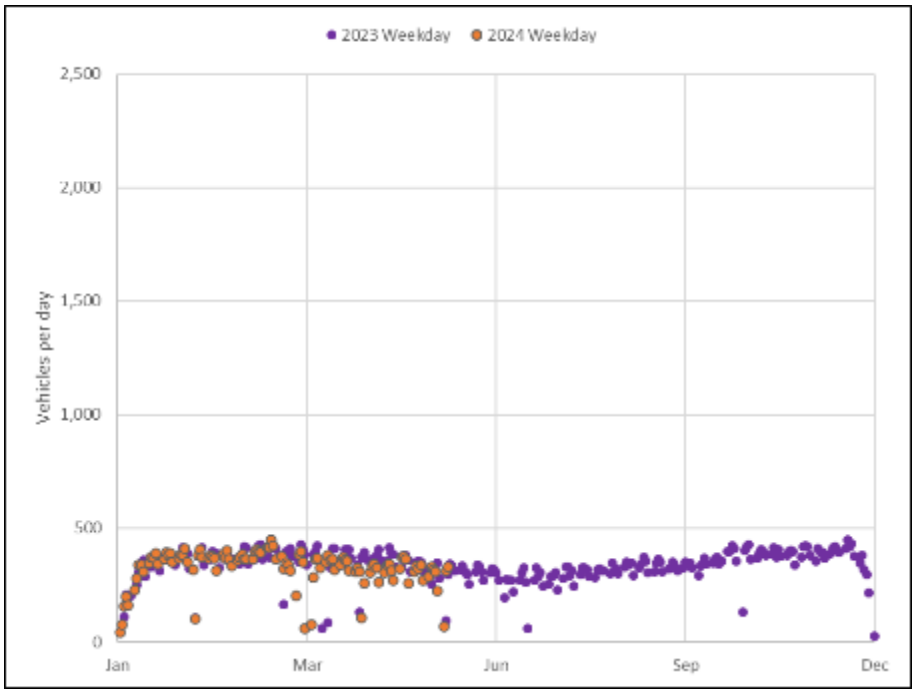


Figure 10-1: Daily counts for HCV2 classed vehicles for count site ID 01S20719 (NZTA TMS)

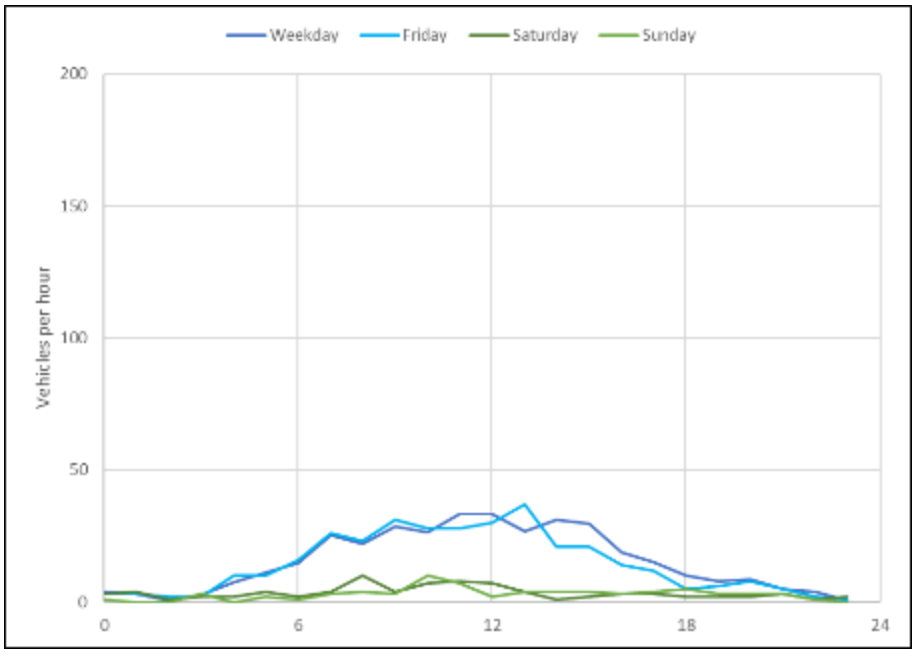


Figure 10-2: Hourly counts for HCV2 classed vehicles for count site ID 01S20719 (NZTA TMS)

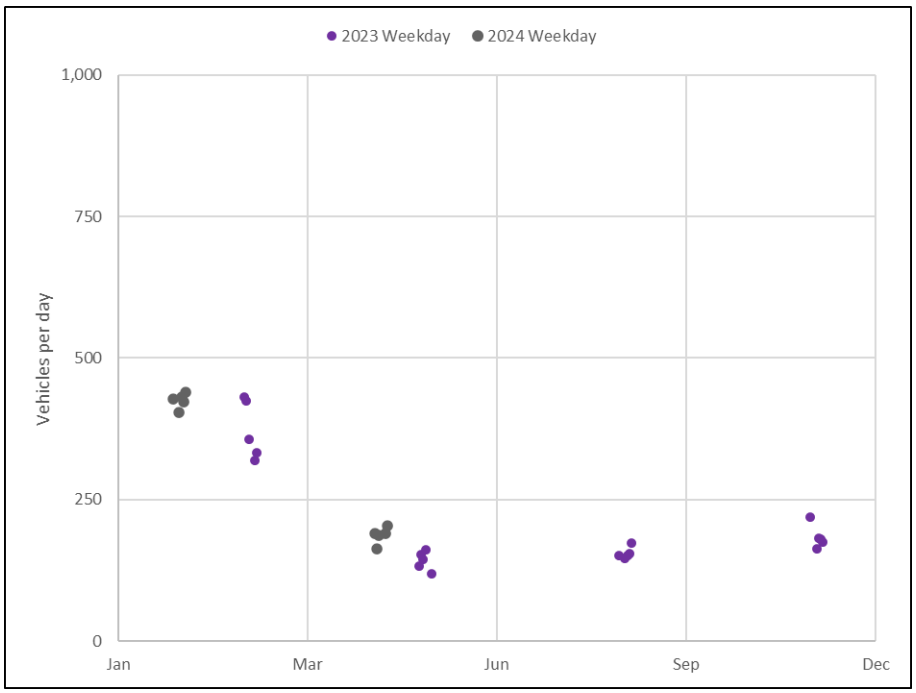


Figure 10-3: Daily counts for HCV2 classed vehicles for count site ID 08700001 (NZTA TMS)

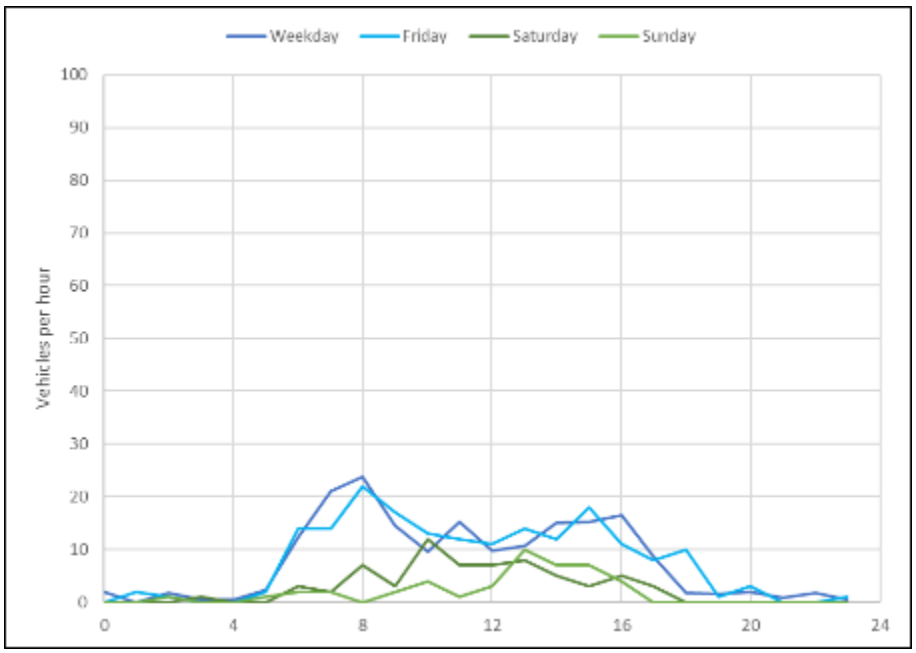


Figure 10-4: Hourly counts for HCV2 classed vehicles for count site ID 08700001 (NZTA TMS)

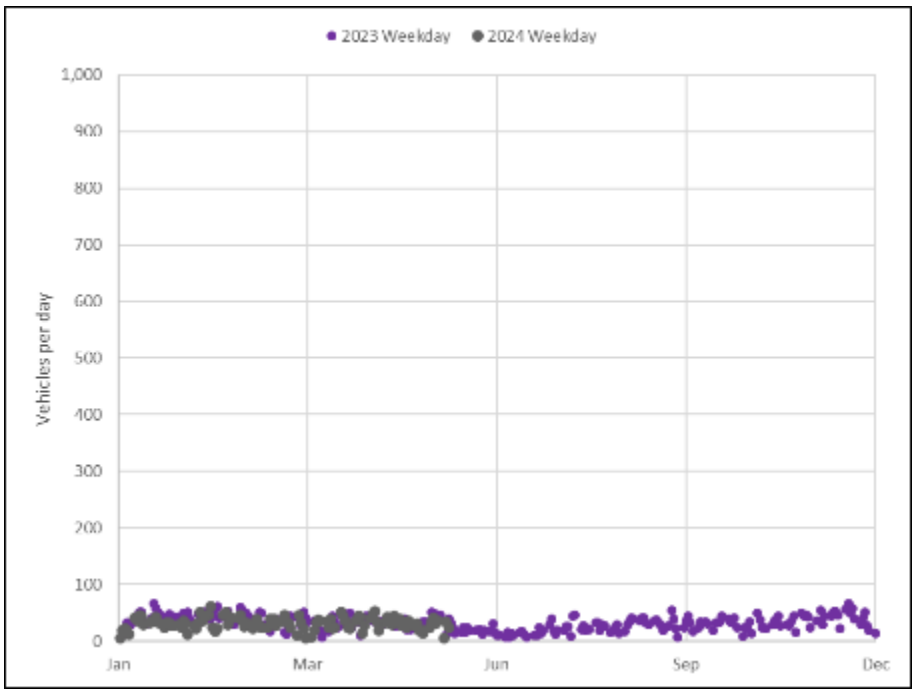


Figure 10-5: Daily counts for HCV2 classed vehicles for count site ID 08700015 (NZTA TMS)

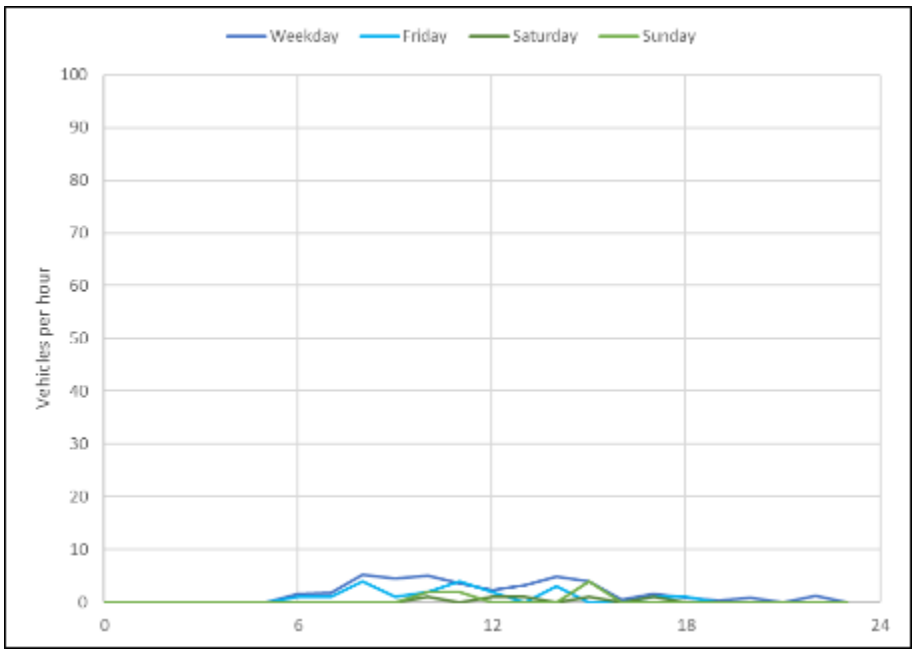


Figure 10-6: Hourly counts for HCV2 classed vehicles for count site ID 08700015 (NZTA TMS)

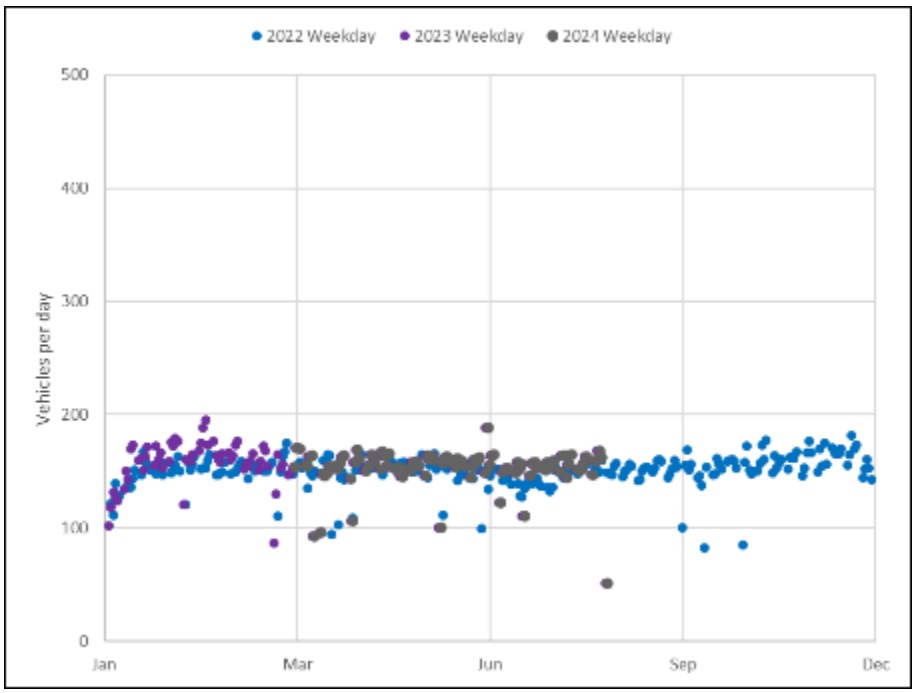


Figure 10-7: Daily counts for HCV2 classed vehicles for count site ID 08800009 (NZTA TMS)

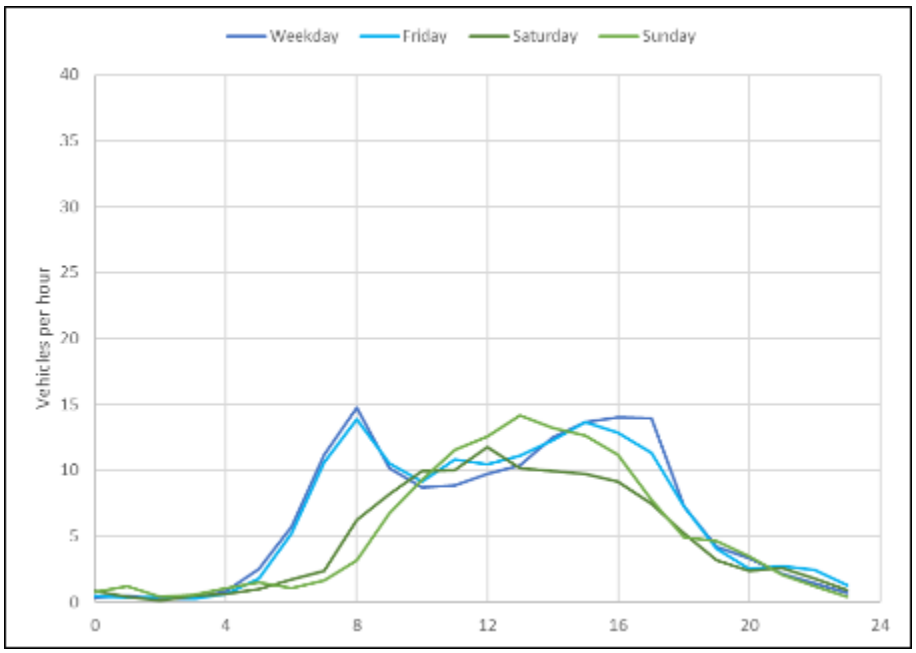


Figure 10-8: Hourly counts for HCV2 classed vehicles for count site ID 08800009 (NZTA TMS)

Appendix B Crash Reports

Standard Advanced

MosgielLogisticsPark

Saved sites

MosgielInlandPortAccess

Crash year

2020 — 2024

Site details report

Fatal crashes: 0 | **Injury crashes:** 25 | **Non-injury crashes:** 58 | **Total crashes:** 83

Overall crash statistics

Crash severity

Crash severity	Number	%	Social cost $(m)
Fatal	0	0.00	0.00
Serious	4	4.82	9.08
Minor-injury	21	25.30	6.42
Non-injury	58	69.88	2.73
TOTAL	83	100.00	18.23

Crash numbers

Year	Fatal	Serious	Minor	Non-injury
2020	0	2	5	11
2021	0	1	3	13
2022	0	0	4	9
2023	0	0	6	10
2024	0	1	3	15
TOTAL	0	4	21	58
Percent	0.00	4.82	25.30	69.88

Crash type and cause statistics

Overall casualty statistics

Injury severity

Injury severity	Number	% all casualties
Fatal	0	0.00
Serious Injured	4	14.29
Minor Injured	24	85.71
TOTAL	28	100.00

Casualty numbers

Year	Fatal	Serious Injured	Minor Injured
2020	0	2	6
2021	0	1	5
2022	0	0	4
2023	0	0	6
2024	0	1	3
TOTAL	0	4	24
Percent	0.00	14.29	85.71

Note: Last 5 years of crashes shown (unless query includes specific date range).

Crash type

Crash type	Crash numbers	% All crashes
Overtaking crashes	4	4.82
Straight road lost control/head on	7	8.43
Bend - lost control/Head on	11	13.25
Rear end/obstruction	36	43.37
Crossing/turning	18	21.69
Pedestrian crashes	7	8.43
Miscellaneous crashes	0	0.00
TOTAL	83	100.00

Casualty types

Casualty types	Fatalities	Serious injuries	Minor injuries
Cyclists	0	2	0
Drivers	0	1	16
Motorcycle pillions	0	0	0
Motorcycle riders	0	0	1
Other	0	0	0
Passengers	0	0	3
Pedestrians	0	1	4
Total	0	4	24

Note:Motorcycle stats include Mopeds.

Note:for Cyclist casualty numbers, query Road User Type - Cyclist, not Vehicle Type - Cycle

Driver and vehicle statistics

Drivers at fault or part fault in injury crashes - by age

Age	Male	Female	Unknown	Total	Percentage (%)
0-4	0	0	0	0	0.00
5-9	0	0	0	0	0.00
10-14	0	0	0	0	0.00
15-19	2	0	0	2	8.00
20-24	2	1	0	3	12.00
25-29	0	0	0	0	0.00
30-34	3	2	0	5	20.00
35-39	1	0	0	1	4.00
40-44	0	1	0	1	4.00
45-49	1	1	0	2	8.00
50-54	1	0	0	1	4.00
55-59	0	1	0	1	4.00
60-64	0	2	0	2	8.00
65-69	0	3	0	3	12.00
70-74	1	0	0	1	4.00
75-79	0	0	0	0	0.00
80-84	1	0	0	1	4.00
85-89	0	0	0	0	0.00
90-94	0	0	0	0	0.00
95-99	0	0	0	0	0.00
100+	0	0	0	0	0.00
	0	0	2	2	8.00
TOTAL	12	11	2	25	100.00
Percent	48.00	44.00	8.00	100.00	–

Note: Driver information is not calculated for non-injury crashes.

Crash factors

Crash factors	Crash numbers	% All crashes
#N/A	38	45.78
Alcohol	11	13.25
Disabled, old age or illness	0	0.00
Failed to give way or stop	20	24.10
Fatigue	2	2.41
Incorrect lanes or position	14	16.87
Miscellaneous factors	1	1.20
Overtaking	3	3.61
Pedestrian factors	4	4.82
Poor handling	6	7.23
Poor judgement	9	10.84
Poor observation	40	48.19
Position on Road	3	3.61
Road factors	8	9.64
Travel Speed	1	1.20
Unknown	0	0.00
Vehicle factors	1	1.20
Weather	1	1.20
TOTAL	162	195.18

Crashes with:

Factor groups	Crash numbers	% All crashes
All road user factors	51	61.45
Driver only factors	75	90.36
Pedestrian factors	4	4.82
Vehicle factors	1	1.20
Road factors	8	9.64
Environment factors	1	1.20
No identifiable factors	0	0.00
Retired codes - no future use	0	0.00
TOTAL	140	168.67

Note: Factors are counted once against a crash - i.e. two fatigued drivers count as one fatigue crash factor.

Note: Driver/vehicle factors are not available for non-injury crashes for Northland, Auckland, Waikato and Bay of Plenty before 2007. This will influence numbers and percentages.

Note: % represents the % of crashes in which the cause factor appears.

Drivers at fault or part fault in injury crashes - by licence

Licence	Male	Female	Unknown	Total	Percentage (%)
Full	7	11	0	18	72.00
Learner	0	0	0	0	0.00
Restricted	1	0	0	1	4.00
Overseas	0	0	0	0	0.00
Wrong class	0	0	0	0	0.00
Never Licensed	1	0	0	1	4.00
Unknown	3	0	2	5	20.00
Forbidden	0	0	0	0	0.00
TOTAL	12	11	2	25	100.00
Percent	48.00	44.00	8.00	100.00	–

Note: Driver information is not calculated for non-injury crashes.

Vehicles involved in injury crashes (vehicle count)

Vehicle type	No. of vehicles	% of vehicles in injury crashes
Car/Wagon	30	65.22
SUV	5	10.87
Van	1	2.17
Ute	7	15.22
Truck	0	0.00
Truck HPMV	0	0.00
Bus	0	0.00
Motorcycle	1	2.17
Moped	0	0.00
Train	0	0.00
Cycle	2	4.35
Other	0	0.00
Unknown	0	0.00
50 Max	0	0.00
Left scene	0	0.00
Uncoupled towed vehicle	0	0.00
TOTAL	46	100.00

Number of parties in crash

Party type	All crashes	% All crashes
Single party	14	16.87
Multiple party, including pedestrian	7	8.43
Multiple party, excluding pedestrian	62	74.70
TOTAL	83	100.00

Vulnerable road users

Crash types	Number	Percentage (%)
Cyclist crashes	2	2.41
Pedestrian crashes	7	8.43
Motorcycle crashes	1	1.20
All other crashes	73	87.95
TOTAL	83	100.00

Note: Some crashes involve more than one vulnerable road user type.

Note: Motorcycle stats include Mopeds.

Road environment statistics

Road type

Road type	State highway	Local road	Unknown	N/A	Total	Percentage (%)
Urban	61	15	0	0	76	91.57
Open	0	7	0	0	7	8.43
Unknown	0	0	0	0	0	0.00
TOTAL	61	22	0	0	83	100.00
Percent	73.49	26.51	0.00	0.00	100.00	–

Natural light conditions

Conditions	Injury	Non-injury	Total	%
Light/overcast	17	42	59	71.08
Dark/twilight	8	16	24	28.92
Unknown	0	0	0	0.00
TOTAL	25	58	83	100.00

Conditions

Conditions	Injury	Non-injury	Total	%
Dry	20	44	64	77.11
Ice or Snow	0	1	1	1.20
Wet	5	13	18	21.69
Null	0	0	0	0.00
TOTAL	25	58	83	100.00

Vehicles involved in injury crashes (crash count)

Vehicle type	Injury crashes	% of injury crashes
Car/Wagon	18	72.00
SUV	5	20.00
Van	1	4.00
Ute	7	28.00
Truck	0	0.00
Truck HPMV	0	0.00
Bus	0	0.00
Motorcycle	1	4.00
Moped	0	0.00
Train	0	0.00
Cycle	2	8.00
Other	0	0.00
Unknown	0	0.00
50 Max	0	0.00
Left scene	0	0.00
Uncoupled towed vehicle	0	0.00
TOTAL	34	136.00

Intersection/midblock

Intersection/mid-block	Total	%
Intersection	53	63.86
Midblock	30	36.14
TOTAL	83	100.00

Objects struck

Objects struck	Injury crashes	%	Non-injury crashes	%
Crashes w/obj struck	10	12.05	18	21.69

Object struck	Injury crashes	%	Non-injury crashes	%
Animals	0	0.00	0	0.00
Bridges/Tunnels	0	0.00	0	0.00
Cliffs	2	2.41	1	1.20
Debris	0	0.00	0	0.00
Embankments	0	0.00	0	0.00
Fences	1	1.20	4	4.82
Guide /Guard rails	0	0.00	0	0.00
Houses	0	0.00	0	0.00
Traffic Islands	1	1.20	0	0.00
Street Furniture	0	0.00	0	0.00
Kerbing	0	0.00	1	1.20
Landslips	0	0.00	0	0.00
Parked vehicle	6	7.23	7	8.43
Trains	0	0.00	0	0.00
Sight Rails	0	0.00	0	0.00
Poles	1	1.20	1	1.20
Stationary Vehicle	0	0.00	0	0.00
Roadwork	0	0.00	1	1.20
Traffic Sign	1	1.20	5	6.02
Trees	1	1.20	2	2.41
Drainage Structures	0	0.00	0	0.00
Ditches	1	1.20	0	0.00
Other	0	0.00	0	0.00
Thrown or dropped objects	0	0.00	0	0.00
Water	0	0.00	0	0.00
TOTAL	14	–	22	–

Note: % represents the % of crashes in which the object is struck.

Vehicle usage in injury crashes

Vehicle usage	Fatal Crash	Serious Crash	Minor Crash	Total	Percentage (%)
Private	0	5	35	40	86.96
Attenuator Truck	0	0	0	0	0.00
Agricultural	0	0	0	0	0.00
Ambulance	0	0	0	0	0.00
Campervan	0	0	0	0	0.00
Concrete mixer	0	0	0	0	0.00
Fire	0	0	0	0	0.00
Logging truck	0	0	0	0	0.00
Mobile crane	0	0	0	0	0.00
Police	0	0	0	0	0.00
Rental	0	0	0	0	0.00
Road Working	0	0	0	0	0.00
Scheduled service Bus	0	0	0	0	0.00
School bus	0	0	0	0	0.00
Tanker	0	0	0	0	0.00
Taxi	0	0	0	0	0.00
Tour Bus	0	0	0	0	0.00
Trade person	0	0	0	0	0.00
Work travel	0	0	0	0	0.00
Work vehicle	0	1	5	6	13.04
Other	0	0	0	0	0.00
Null	0	0	0	0	0.00
TOTAL	0	6	40	46	100.00
Percent	0.00	13.04	86.96	100.00	–

Time period statistics

Month by injury/ non-injury crashes

Month	Injury crashes	%	Non-injury crashes	%	Total	%
Jan	1	4.00	4	6.90	5	6.02
Feb	2	8.00	2	3.45	4	4.82
Mar	4	16.00	2	3.45	6	7.23
Apr	1	4.00	4	6.90	5	6.02
May	4	16.00	5	8.62	9	10.84
Jun	2	8.00	7	12.07	9	10.84
Jul	3	12.00	9	15.52	12	14.46
Aug	2	8.00	5	8.62	7	8.43
Sep	0	0.00	3	5.17	3	3.61
Oct	2	8.00	6	10.34	8	9.64
Nov	2	8.00	7	12.07	9	10.84
Dec	2	8.00	4	6.90	6	7.23
TOTAL	25	100.00	58	100.00	83	100.00

Day/period

Day/Period	All crashes	% All crashes
Weekday	61	73.49
Weekend	22	26.51
TOTAL	83	100.00

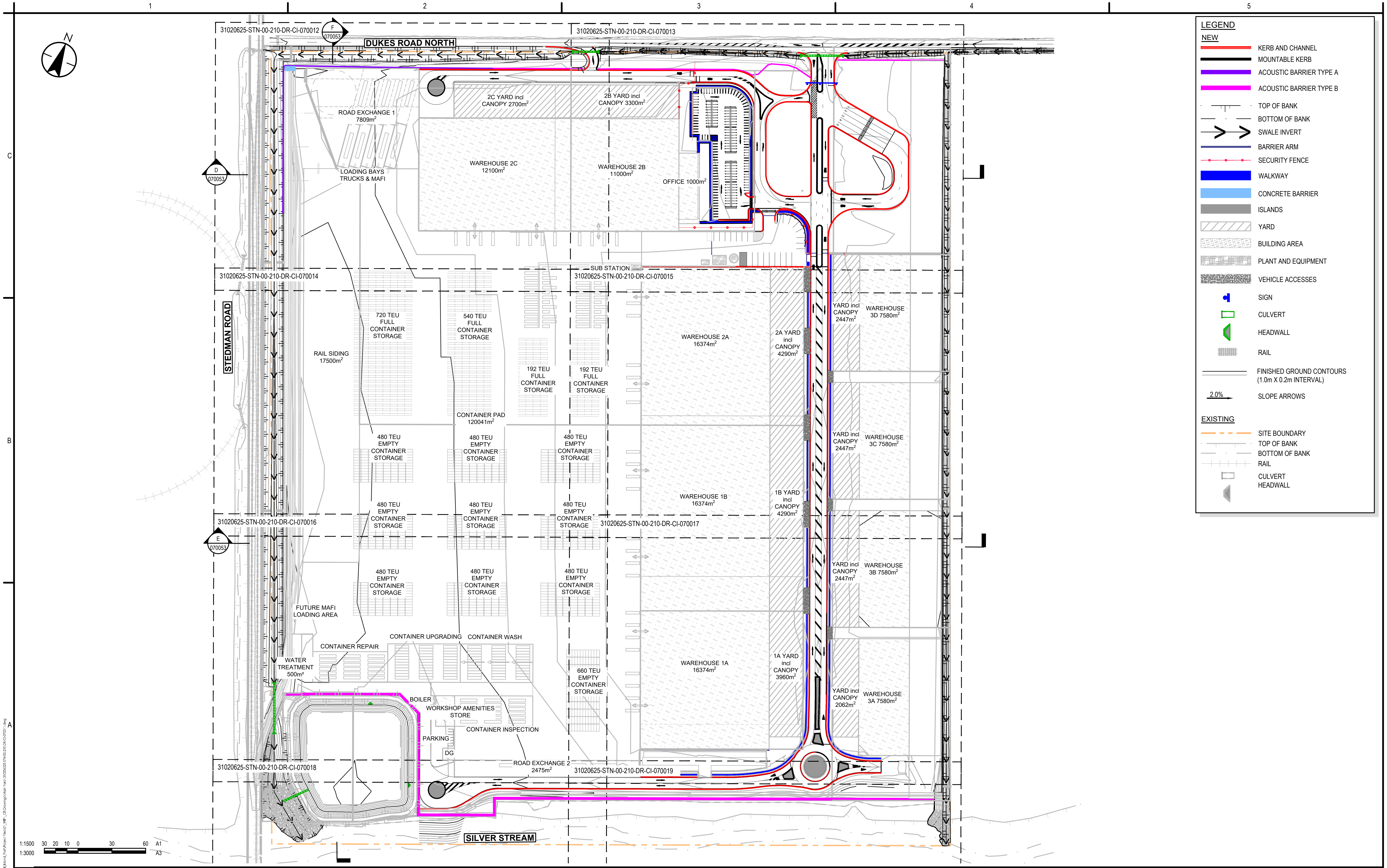
Day/period by hour

Day/Period	00:00 - 02:59	03:00 - 05:59	06:00 - 08:59	09:00 - 11:59	12:00 - 14:59	15:00 - 17:59	18:00 - 20:59	21:00 - 23:59	Total
Weekday	0	1	12	12	14	13	8	1	61
Weekend	2	0	1	3	2	6	6	2	22
TOTAL	2	1	13	15	16	19	14	3	83

Day/period by hour DOW

Day/Period	00:00 - 02:59	03:00 - 05:59	06:00 - 08:59	09:00 - 11:59	12:00 - 14:59	15:00 - 17:59	18:00 - 20:59	21:00 - 23:59	Total
Mon	0	0	4	5	0	1	0	0	10
Tue	0	1	0	2	4	2	3	0	12
Wed	0	0	3	2	3	2	4	0	14
Thu	0	0	5	2	7	5	0	1	20
Fri	0	0	0	1	0	3	5	1	10
Sat	1	0	0	1	2	5	1	1	11
Sun	1	0	1	2	0	1	1	0	6
TOTAL	2	1	13	15	16	19	14	3	83

Appendix C Dukes Road North Intersection Design



C ISSUED FOR CONSENT	BG	SL	26.02.20
B ISSUED FOR CONCEPT DESIGN	BG	SL	26.02.05
A ISSUED FOR CONCEPT DESIGN	MS	FZ	25.12.19
Issued/Revision	By	Appd	YYYY.MM.DD

Issue Status

A1

AUTHORISED FOR CONSENT

This document is suitable only for the purpose noted above. Use of this document for any other purpose is not permitted.

Coordinate System
NZGD North Taieri Circuit 2000
Datum
NZVD 2016

Colour Disclaimer

This drawing has been documented in colour. This drawing is required to be printed in colour. Failure to do so may result in loss of information. Black and white printing may be used if specific black and white documents have been obtained from Stantec.

Stantec

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.

Client/Project Logo

Southern Link LOGISTICS PARK

Client/Project
SOUTHERN LINK PROPERTY Ltd
SOUTHERN LINK INLAND PORT
DEVELOPED CONCEPT DESIGN

Maninder Singh	Reuben Orange	Andrew Quigley	Sarah Lloyd	2026.02.20
Drawn	Designed	Reviewed	Approved	YYYY.MM.DD

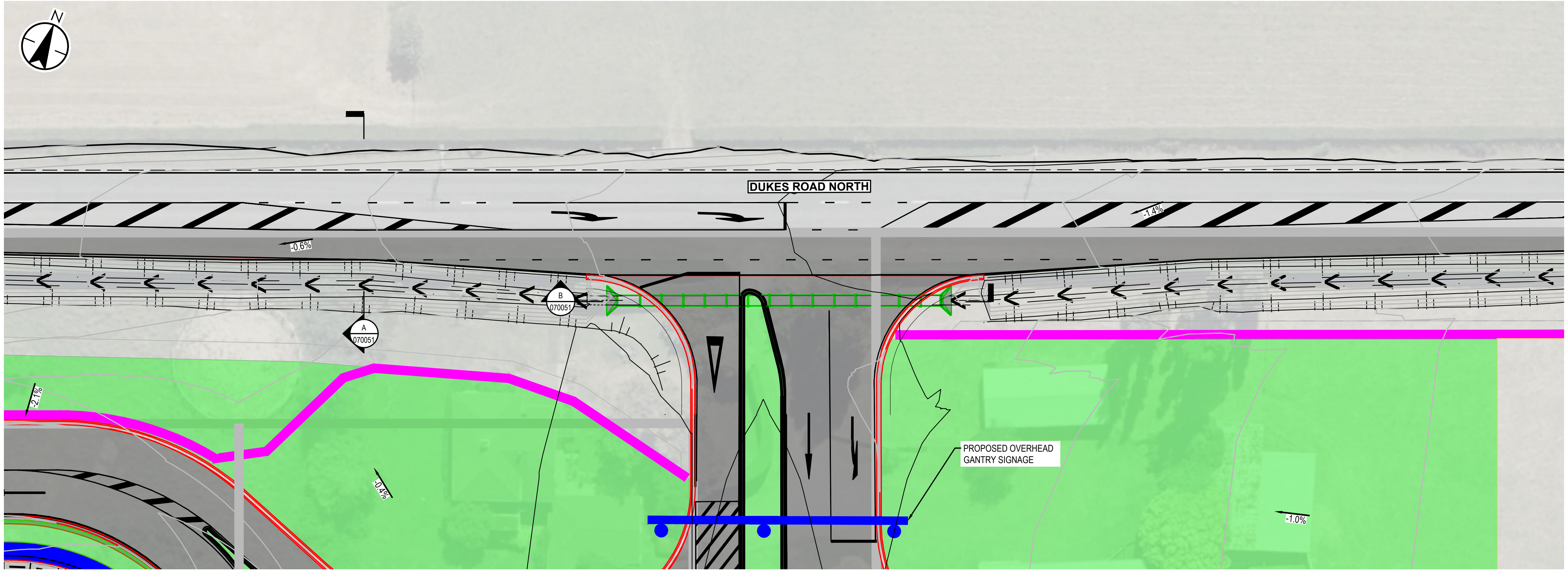
Title ROADING PLAN OVERALL

Project No. 310206525

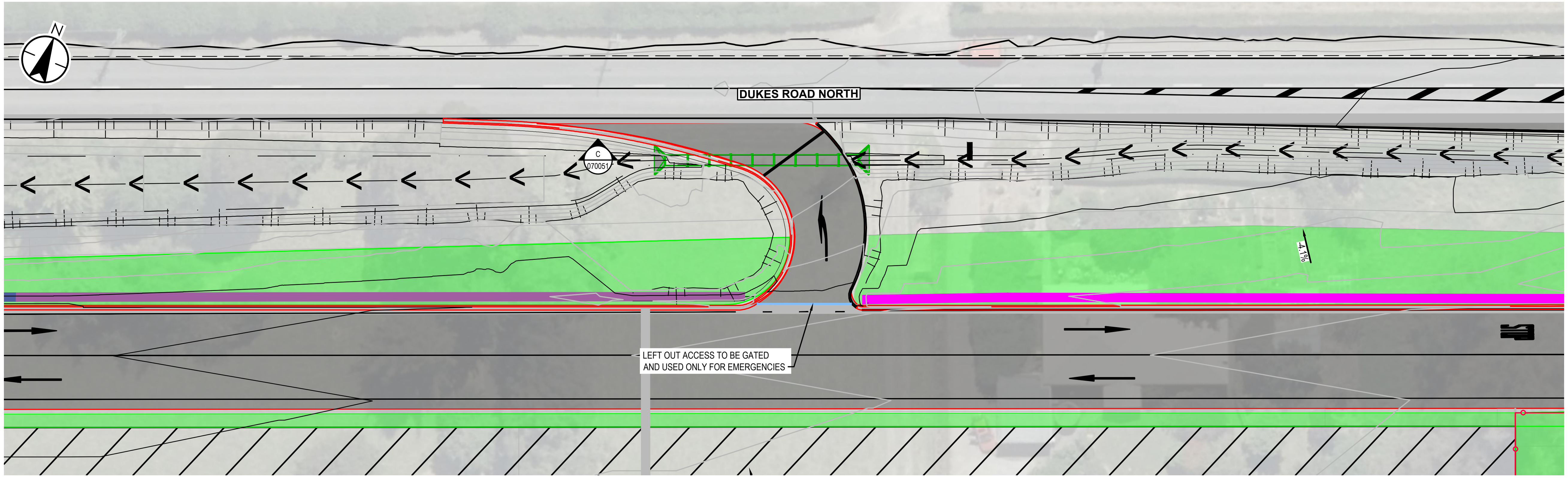
Scale at A1 1:1500

Revision C

Drawing No. **310206525-STN-00-210-DR-CI-070011**



PLAN
SCALE 1 : 250



PLAN
SCALE 1 : 250

1:250 5 0 5 10 A1
1:500 A3

LEGEND

NEW

- KERB AND CHANNEL
- ACOUSTIC BARRIER TYPE A
- ACOUSTIC BARRIER TYPE B
- TOP OF BANK
- INVERT OF SWALE
- CULVERT
- HEADWALL
- SECURITY FENCE
- LANDSCAPING AREA
- WALKWAY
- YARD
- ROAD WIDENING
- SIGN
- GATE

Issued/Revision		By	Appd	YYYY.MM.DD
C	ISSUED FOR CONSENT	BG	SL	26.02.20
B	ISSUED FOR CONCEPT DESIGN	BG	SL	26.02.05
A	ISSUED FOR CONCEPT DESIGN	MS	FZ	25.12.19

Issue Status
A1
AUTHORISED FOR CONSENT

This document is suitable only for the purpose noted above. Use of this document for any other purpose is not permitted.

Coordinate System
NZGD North Taieri Circuit 2000
Datum
NZVD 2016

Colour Disclaimer
This drawing has been documented in colour. This drawing is required to be printed in colour. Failure to do so may result in loss of information. Black and white printing may be used if specific black and white documents have been obtained from Stantec.

Stantec

Client/Project Logo
Southern Link LOGISTICS PARK

Client/Project
SOUTHERN LINK PROPERTY Ltd
SOUTHERN LINK INLAND PORT
DEVELOPED CONCEPT DESIGN

Maninder Singh	Reuben Orange	Andrew Quigley	Sarah Lloyd	2026.02.20
Drawn	Designed	Reviewed	Approved	YYYY.MM.DD

Title
ROADING & PAVEMENTS LAYOUT PLAN
ENTRANCEWAYS

Project No. 310206525
Scale at A1 1:250
Revision C
Drawing No. 310206525-STN-00-210-DR-CI-070050

Appendix D District Plan Transport Rules

Rules	Comments	Compliance
Rule 6.6.1.1 Minimum Parking Space Dimensions a. Parking spaces provided for residential activities must have the following minimum dimensions, to allow for 85th percentile design motor vehicles	Not a residential activity	Not applicable
b. Parking spaces for all non-residential activities shall comply with minimum dimensions and be suitable for 99th percentile design vehicle	Will comply	Permitted
c. Where parking spaces are bounded by permanent obstructions higher than 150mm, then minimum stall widths shall be increased by 300mm	Will comply	Permitted
d. Blind aisles must be designed so that it is possible for cars to turn around	will comply	Permitted
e. Parking aisles for 90º parking must be designed for two-way movement even though one-way movement may need to be imposed in some instances	Will comply	Permitted
Rule 6.6.1.2: Minimum Manoeuvring Space Dimensions a. Parking areas must provide manoeuvring space that ensures a motor vehicle is not required to reverse onto or off the site in any of the following circumstances i. The site is accessed from a motorway, strategic road, arterial road, high density corridor, commercial street or collector road. ii. The parking area provides for five or more non-residential parking spaces iii. The parking area provides for five or more spaces that share a common access; or, iv. The activity is on a rear site	Will comply	Permitted
b. The manoeuvring space shall be designed for a 99th percentile design vehicle	Manoeuvring will accommodate large heavy vehicles	Permitted
c. The manoeuvring space shall be adequate to avoid the need for: i. A turntable; ii. More than one reverse manoeuvre when manoeuvring into or out of any space	Will comply	Permitted
Rule 6.6.1.3 Minimum Queuing Space for Parking Areas a. A car park with 21-50 spaces requires 13m queuing space	Will comply	Permitted
Rule 6.6.1.4 Gradient of Parking Areas a. The gradient of parking areas for any activity other than standard residential shall not exceed 1 in 20 in any direction	Will comply	Permitted

Rules	Comments	Compliance
Rule 6.6.1.5 Surfacing and Marking of Parking Areas a. Parking areas (including associated access and manoeuvring areas) provided for any activity other than standard residential, must: i. be designed to ensure that water will not pool on the surface of the parking area, and will enter an appropriate stormwater drain effectively; ii. be hard surfaced; iii. have individual parking spaces permanently marked; and iv. where there are five or more parking spaces in total provided in the parking area, mobility parking spaces must be permanently marked to reserve them for the use of people with mobility parking permits.	Will comply	Permitted
Rule 6.6.1.6 Lighting of Parking Areas a. Parking areas must be illuminated to a minimum maintained level of 2 lux with high uniformity during the hours of operation if all of the following circumstances apply: i. The parking areas is provided for any activity other than standard residential ii. The parking area is designed to accommodate 4 or more vehicles; and iii. The parking area will be used at night	Will comply	Permitted
Rule 6.6.1.7 Access to parking areas a. Required parked spaces must be designed to allow vehicles using the spaces to enter and exit the site without the need to move a vehicle occupying any other parking or vehicle loading space on the site; b. Parking areas must be accessed from a clearly defined vehicle crossing and the remainder of the parking area must be designed to be physically separated from and inaccessible from the road.	Will comply	Permitted
Rule 6.6.2.1 Minimum Manoeuvring Space for loading areas a. Sufficient manoeuvring space must be provided to ensure that no vehicle accessing a loading area is required to reverse onto or off a motorway, strategic road, arterial road, urban high-density corridor, commercial centre street or collector road	Will comply	Permitted
Rule 6.6.2.2 Gradient of loading areas b. The gradient of loading areas shall not exceed 1 in 20 in any direction	Will comply	Permitted
Rule 6.6.2.3 Surfacing and marking of loading areas a. Loading areas must be: i. Hard surfaced; ii. Ensure that water will not pool; iii. Be permanently marked	Will comply	Permitted
Rule 6.6.2.4 Lighting of Loading Areas a. Loading areas, including associated access and manoeuvring areas, which are used at night must be illuminated to a minimum maintained level of 2 lux, with high uniformity, during the hours of operation	Will comply	Permitted

Rules	Comments	Compliance
Rule 6.6.2.5 Access to Loading Areas a. Required vehicle loading spaces must be designed to allow vehicles using the spaces to enter and exit the site without the need to move a vehicle occupying any other parking or vehicle loading space on the site. b. New vehicle loading areas must not be accessed across a primary pedestrian street frontage mapped area. c. Loading areas that contravene Rule 6.6.2.5.a are restricted discretionary activities. d. Loading areas that contravene Rule 6.6.2.5.b are non-complying activities	Will comply	Permitted
Rule 6.6.3.1: Maximum number of vehicle crossings a. The maximum number of vehicle crossings permitted on each road frontage of any site is: • 2 for Strategic roads with a frontage of >200m	Frontage is over 200 m long and two vehicle crossings proposed on Dukes Road North	Permitted
b. No new vehicle crossings are permitted onto a commercial centre street except for fire stations.	Not a commercial centre street	Not applicable
c. For fire stations, the maximum number of vehicle crossings on each road frontage is two for all sites, except where three vehicle crossings are otherwise permitted.	Not a fire station	Not applicable
Rule 6.6.3.2: Minimum sight distance from a vehicle access a. The minimum sight distance from a new vehicle access onto any state highway is 203m for an 80 km/h speed limit	No access onto any state highway	Not applicable
b. The minimum sight distance from a new vehicle access onto any road other than a state highway is 111m for an 80 km/h speed limit	Sight distance will exceed 111m	Permitted
c. Except, where a site is unable to conform with the minimum site distances in rules 6.6.3.2.a and 6.6.3.2.b, one vehicle crossing per site is allowed in the position which most nearly complies with rules 6.6.3.4.a or 6.6.3.4.b (minimum distances of new vehicle crossing from intersections)	Site will conform with rules 6.6.3.2.a and 6.6.3.2.b	Not applicable
d. Sight distances are measured from the points shown on Appendix 6B, Figure 6B.13	Will comply	Permitted
e. In the rural and rural residential zones, clear sight triangles must be provided, as shown in Appendix 6B, Figure 6B.13. The clear sight triangle must be on the road side of any gate and visibility must not be obstructed by fences, structures, vegetation or any barrier above a height of 800mm.	Site is located within Rural zone; sight triangles will be provided	Permitted
Rule 6.6.3.3: Maximum width for a vehicle access a. The maximum width for a vehicle access in a non “residential activities” zone is 9m	Crossing width exceeds 9m Crossing will be formed s an intersection	Restricted discretionary
Rule 6.6.3.4: Minimum distances of new vehicle crossing from intersections and level crossings a. The minimum distance of a new vehicle crossing from the intersection of a Strategic and Industrial classified road where the speed limit is less than 70 km/h is 30m		Not applicable
b. The minimum distance of a new vehicle crossing from the intersection of a Strategic and Industrial classified road where the speed limit is 70 – 90 km/h is 100m		No Applicable

Rules	Comments	Compliance
c. Except, one vehicle crossing only may be constructed to provide access to the site, in the position that most nearly complies with rules 6.6.3.4.a or 6.6.3.4.b.		Not applicable
d. The minimum distance of a new vehicle crossing from the intersection of a Strategic and Industrial classified road where the speed limit is greater than 90 km/h is 200m.		Not applicable
e. The minimum distance of a new vehicle crossing from intersections on state highways is		Not applicable
f. Distances will be measured as shown in Appendix 6B, Figure 6B.17.		Not applicable
g. The minimum distance between a new vehicle crossing and a level crossing on the same road is 30m.	Entry road and level crossing are >30m from each other	Permitted
Rule 6.6.3.5 Standard of Vehicle Accesses onto State Highways		Not applicable
Rule 6.6.3.6: Surfacing of driveways a. Driveways that adjoin a legal road that is hard surfaced, must be constructed with a hard surface for a minimum distance of 5 m from the edge of the road (See Appendix 6B, Figure 6B.19).	Will comply	Permitted
b. In all zones other than the rural and rural residential zones, the full length of any driveway that serves 2 or more residential properties must be hard surfaced.		Not applicable
Rule 6.6.3.7: Gradient of driveways a. The maximum change in gradient without transition for driveways is 1 in 8 for summit grade changes or 1 in 6.7 for sag grade changes.	Will comply	Permitted
b. The gradient of the first 5m measured from the road boundary into the site must be no greater than 1 in 8.	Will comply	Permitted
Rule 6.6.3.8 Minimum Distance between Driveways and Dwellings a. Where a driveway serves more than one residential building, the formed section of the driveway must be set back a minimum of 1m from any residential building (See Appendix 6B, figures 6B.4 and 6B.5).		Not applicable
Rule 6.6.3.9: Width of driveways a. The minimum widths of driveways in non-residential zones are: i. Minimum legal width: 6m ii. Minimum formed width: 5m	Will comply	Permitted
Rule 6.6.3.10 Sightlines to Level Crossings a. Driveways, vehicle tracks and roads that cross an operational rail network via a level crossing must maintain clear sightlines within the sight line triangles shown in Appendix 6B, Figure 6B.18.	Will comply, no changes to approaches to adjacent rail level crossing	Permitted
Rule 19.5.6 Minimum Mobility Car Parking a. Land use activities must provide on-site mobility parking spaces as follows: 2 spaces where the total number of spaces is between 21-50 and an additional space for every additional 50.	Internal site will be formed to comply with the rule	Permitted

Rules	Comments	Compliance
Rule 19.5.7 Minimum Vehicle Loading a. Land use activities must provide on-site vehicle loading and manoeuvring as follows for Industry activities: **i.** 1 loading space to accommodate an 8m rigid truck (see Appendix 6B, Figure 6B.10).	On-site loading and manoeuvring will accommodate larger vehicles.	Permitted
Rule 19.7.1 Access Subdivision activities must comply with Rule 6.8.1. a. Every resultant site must have a legal accessway, and where on-site car parking is provided, this must be in the form of a driveway except if the resultant site is: i. An esplanade reserve; ii. A reserve, other than an esplanade reserve, which adjoins a site in the same ownership that has a legal accessway; or iii. the result of a road stopping process which adjoins a site in the same ownership that has a legal accessway.	Inland Port will comply	Permitted
19.7.2 Esplanade Reserves and Strips Subdivision activities must comply with Rule 10.3.1.		Not Applicable
19.7.3 Firefighting Subdivision activities must comply with Rule 9.3.3.	Inland Port will provide for firefighting services in accordance with SNZ/PAS:4509:2008	Permitted
19.7.4 Service Connections Subdivision activities must comply with Rule 9.3.2.	Inland Port will comply	Permitted
19.7.5 Shape a. Each resultant site must be of a size that is large enough to ensure the following performance standards can be met: i. setbacks from boundaries, water bodies, scheduled trees; and ii. esplanade reserves or strips. b. Building platforms must have a slope of 12 (1:4.7 or 21%) or less and must: i. not contain scheduled heritage buildings or scheduled heritage structures; or ii. not contain right-of-way easements. c. For unreticulated areas, resultant sites must provide for a wastewater disposal area to be located at least 50m from any water body and mean high water springs. d. Sites created and used solely for the following purposes are exempt from the shape standard: i. Scheduled ASBV or QEII covenant; ii. reserve; iii. access; iv. network utility; or v. road.	Inland Port will comply	Permitted
19.7.6 Setback from National Grid (Subdivision Activities) Subdivision activities must comply with Rule 5.6.1.X.		Not applicable

Appendix E Transport Objectives and Policies

Objectives and Policies	Comments	Consistency
Objective 6.2.1 **Transportation infrastructure is designed and located to ensure the safety and efficiency of the transport network for all travel modes while:** **a. minimising, as far as practicable, any adverse effects on the amenity and character of the zone; and** **b. meeting the relevant objectives and policies for any overlay zone, scheduled site, or mapped area in which it is located.**		
Policy 6.2.1.1 Enable the operation, repair and maintenance of the roading network and the operation, repair and maintenance of the rail network.	Road widening and full right-turn bay at Site entry. Road network will be operated, repaired, maintained as req.	Consistent
Policy 6.2.1.2 Require road signs to be designed and located to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network for all travel modes.	Proposed Site access will be signed accordingly. Can comply	Consistent
Policy 6.2.1.3 Only allow new roads or additions or alterations to existing roads where: a. the road is designed to provide for the needs of all users and to integrate with surrounding land uses as appropriate for the surrounding environment and road classification hierarchy mapped area; and b. the location and design of the road: i. minimises, as far as practicable, adverse effects on surrounding residential or other sensitive activities, including severance effects, changes to drainage patterns, and vibration, noise, glare and fumes from vehicle movements; and ii. maintains or enhances the safety and efficiency of the overall transport network.	New entry road into Site has been designed to minimise impacts of freight traffic on the operation of Dukes Road North. Proposed design enhances safety and efficiency of freight-related traffic.	Consistent
Policy 6.2.1.4 Only allow passenger transportation hubs where they are located and designed to: a. allow for convenient connections with other travel modes; b. ensure the safety of users; c. maintain or enhance the safety and efficiency of the overall transport network; and d. maintain or enhance the amenity of the surrounding environment.	Development does not propose any passenger transportation hubs	Not applicable
Policy 6.2.1.5 **Only allow heliports where they are located and designed to:** a. ensure the safety of users; b. maintain the amenity of the surrounding environment; and c. maintain or enhance the safety and efficiency of the overall transport network.	Development does not propose any heliports	Not applicable

Objectives and Policies	Comments	Consistency
Objective 6.2.2 **Land use activities are accessible by a range of travel modes.**		
Policy 6.2.2.1 Require land use activities whose mobility parking demand either cannot be met by the public parking supply, or would significantly affect the availability of that supply for surrounding activities, to provide mobility parking either on or near the site at an amount that is adequate to: a. avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the availability of publicly available mobility parking in the vicinity of the site (including on-street parking and off-street facilities); and b. ensure accessibility for residents, visitors, customers, staff and students (as relevant) who have limited mobility, including disabled people, the elderly and people travelling with young children.	Mobility parking can be provided. Can comply.	Consistent
Policy 6.2.2.2 Enable the sharing of parking areas by different land use activities, where adequate accessibility for all users is maintained.	No other land use activities operating within the site	Not applicable
Policy 6.2.2.3 Only allow visitor accommodation and supported living facilities to locate on sites where customers and residents will have convenient walking access to centres, or frequent public transport services; access to other appropriate transport services; and/or an appropriate range of on-site services or facilities.	No visitor accommodation or supported living facilities proposed	Not applicable
Policy 6.2.2.4 Only allow activities that are likely to generate a significant number of trips by walking, cycling or public transport where: a. for activities likely to generate trips by cycling, there will be safe access for cyclists into and through the site and sufficient secure cycle parking; b. for activities likely to generate trips by walking, there will be safe access for pedestrians into and through the site; and c. for activities likely to generate trips by public transportation, the activity will be located a reasonable walking distance from a frequent public transportation route with safe access for pedestrians from a bus stop to the site.	See assessment in Section 9.2.1 above. Can Comply	Consistent
Policy 6.2.2.X Only allow medium density social housing in the General Residential 1 or Township and Settlement zones (except in a no DCC reticulated wastewater mapped area) where it is located where there is convenient walking access to public transport services.	Medium density social housing is not proposed	Not applicable
Objective 6.2.3 **Land use, development and subdivision activities maintain the safety and efficiency of the transport network for all travel modes and its affordability to the public.**		
Policy 6.2.3.1 Require ancillary signs to be located and designed to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network.	Where necessary, ancillary signs can be installed to minimise adverse effects of additional HCV movements on the network. Can comply.	Consistent

Objectives and Policies	Comments	Consistency
Policy 6.2.3.2 Require shelterbelts and small woodlots and forestry to be set back a sufficient distance from: a. roads to avoid or minimise, as far as practicable, road safety hazards caused by shading leading to ice formation; and b. railway lines to avoid or minimise, as far as practicable, the risk of trees falling across railway lines.	No shelterbelts, small woodlots or forestry proposed	Not applicable
Policy 6.2.3.3 Require land use activities to provide adequate vehicle loading and manoeuvring space to support their operations and to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network.	Loading facilities will accommodate large HCVs manoeuvring all within the site envelope. Can comply.	Consistent
Policy 6.2.3.4 Require land use activities to ensure that any overspill parking effects that could adversely affect the safety and efficiency of the transport network are avoided or, if avoidance is not practicable, adequately mitigated.	All parking can be accommodated on-site and no overspill parking is expected Can comply.	Consistent
Policy 6.2.3.5 Only allow domestic animal boarding and breeding, rural ancillary retail and rural tourism to be accessed directly from a state highway with a speed limit of 80kmh or over where any adverse effects on the safety and efficiency of the state highway will be avoided or, if avoidance is not practicable, adequately mitigated.	No animal boarding, breeding, rural ancillary retail, rural tourism proposed	Not applicable
Policy 6.2.3.6 Only allow early childhood education and dairies where adequate short-term parking and dropping off and picking up facilities are available, either on-site or on-street, to: a. allow for people to safely enter or exit vehicles; and b. maintain the safety and efficiency of the frontage road.	No childhood education or dairies proposed	Not applicable
Policy 6.2.3.7 Only allow emergency services where the operational needs of the activity can be met in a way that will maintain the safety and efficiency of the transport network.		Not applicable
Policy 6.2.3.8 Only allow high trip generators where they are designed and located to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network.	Site location is appropriately located to avoid generating adverse effects on the transport network	Consistent
Policy 6.2.3.9 Only allow land use and development activities or subdivision activities that may lead to land use or development activities, where: a. adverse effects on the safety and efficiency of the transport network will be avoided or, if avoidance is not practicable, adequately mitigated; and b. any associated changes to the transportation network will be affordable to the public in the long term.	Site location is appropriately located to void generating adverse effects on the transport network	Consistent

Objectives and Policies	Comments	Consistency
Policy 6.2.3.10 Require garages and carports to be set back an adequate distance from the road boundary to allow pedestrians and cyclists to see vehicles exiting before they cross the footpath, and to minimise, as far as practicable, the risk to pedestrians and cyclists from garage doors opening over the footpath.	No garages or carports proposed	Not applicable
Policy 6.2.3.11 Require public amenities and signs located on or above the footpath to provide for the safe movement of vehicles, pedestrians and cyclists.	No new signs proposed	Not applicable
Policy 6.2.3.12 Only allow subdivision activities where roads, private ways and pedestrian and cycling connections are appropriate to the scale and location of the subdivision and are designed to: a. provide for the safe and efficient movement of vehicles, pedestrians and cyclists within the subdivision; b. provide connections to surrounding areas and the wider transport network, particularly for buses, pedestrians, and cyclists, in a way that maximises opportunities for active mode and public transport connections to existing or planned: i. centres, public open spaces, schools, cycleways, walkways, public transport stops, and community facilities in the surrounding environment; and ii. neighbouring urban land, including by providing appropriate connections to undeveloped land, whether zoned for future urban use or not, unless that land is inappropriate for urban development, based on the presence of overlay zones or mapped areas protecting significant values or indicating significant site constraints such as natural hazards; and c. use materials that provide good urban design outcomes and, where infrastructure is to be vested in Council, provide good value with respect to on-going costs to ratepayers for maintenance.	No subdivision of the site is proposed	Not applicable
Policy 6.2.3.13 Require service stations to be designed to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the transport network and its affordability to the public.	No service stations proposed	Not applicable
Policy 6.2.3.X Require new buildings, new structures, and additions and alterations to be set back an adequate distance from the designated rail corridor to minimise, as far as practicable, the risk of objects or people crossing over or onto the rail corridor as a result of use or maintenance of the building or structure.	New buildings, structures and additions can be set back adequately from the adjacent Taieri Branch line rail corridor. Can comply.	Consistent
Policy 6.2.3.Y Require subdivision activities to provide for new roads where: a. any proposed vehicle accessway will service more than 12 residential sites, or a development with an equivalent amount of vehicle trip demand, unless the location or design of the subdivision makes this inappropriate; b. it is necessary to provide connectivity to potential future urban growth areas in the surrounding environment; or c. it is otherwise necessary to support the safe and efficient operation of the transport network.	No subdivision proposed	Not applicable

Objectives and Policies	Comments	Consistency
Policy 6.2.3.Z Only allow multi-unit development and subdivision activities where the activity is designed to ensure: a. the safe and efficient operation of waste collection vehicles; and b. any on-street solid waste collection will not obstruct footpaths, private accessways or roads.	No multi-unit development or subdivision activities proposed	Not applicable
Objective 6.2.4 **Parking areas, loading areas and vehicle accesses are designed and located to:** **a. provide for the safe and efficient operation of both the parking or loading area and the transport network; and** **b. facilitate the safe and efficient functioning of the transport network and connectivity for all travel modes.**		
Policy 6.2.4.1 Require parking and loading areas, including associated manoeuvring and queuing areas, to be designed to ensure: a. the safety of pedestrians travelling on footpaths and travelling through parking areas; b. that vehicle parking and loading will be carried out safely and efficiently; c. that any adverse effects on the safe and efficient functioning of the transport network are avoided or, if avoidance is not practicable, will be no more than minor; d. the safe and convenient access to and from parking and loading areas for vehicles, emergency vehicles, pedestrians and cyclists; and e. that mud, stone, gravel or other materials are unlikely to be carried onto hard surface public roads or footpaths.	Parking, loading, manoeuvring and queuing areas can expected to be designed to ensure the compliance with policies and objectives Can comply.	Consistent
Policy 6.2.4.2 Require driveways to be designed to ensure that: a. the surfacing and gradient of the driveway allows it to be used safely and efficiently; b. mud, stone, gravel or other materials are unlikely to be carried onto hard surface public roads or footpaths; c. the width of the driveway is sufficient to allow the type and number of vehicles (including emergency vehicles), likely to be using it to do so safely and efficiently; and d. sufficient distance is provided between shared driveways and dwellings.	The proposed access will be designed and formed to the acceptable standards. Can comply.	Consistent
Policy 6.2.4.3 Avoid new loading areas that require access over a primary pedestrian street frontage mapped area, unless any adverse effects on pedestrian safety and ease of movement would be insignificant.	Loading areas do not require access over primary pedestrian street frontages. Can comply.	Consistent
Policy 6.2.4.4 Require vehicle accesses to be limited in number and width, in order to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on: a. pedestrian and cyclist safety and ease of movement; and b. the safety and efficiency of the multi-modal transport network.	Proposed vehicle access will not impact pedestrians or cyclists and not present any adverse effects to the multi-modal transport. Can comply.	Consistent

Objectives and Policies	Comments	Consistency
Policy 6.2.4.5 Require new vehicle accesses to be located a sufficient distance from intersections and level crossings to avoid or, if avoidance is not practicable, adequately mitigate adverse effects on safety and efficiency due to: a. vehicles queuing to enter the crossing hindering the efficient functioning of the intersection or level crossing; and b. confusion over whether indicating vehicles are seeking to turn at the crossing or the intersection.	Vehicle access located >400m from nearest level crossing and intersection Can comply.	Consistent
Policy 6.2.4.6 Require sufficient visibility to be available: a. at vehicle crossings, to minimise, as far as practicable, the likelihood of unsafe vehicle manoeuvres; and b. where a road, driveway or vehicle track crosses an operational rail network via a level crossing, to maintain the safety of the road and rail users.	The visibility requirements can be accommodated at the proposed access Can comply.	Consistent
Policy 6.2.4.7 Require vehicle accesses onto state highways in the rural and rural residential zones to be designed to: a. safely accommodate the type and number of vehicles likely to be using the access; and b. avoid or, if avoidance is not practicable, adequately mitigate adverse effects on the safety and efficiency of the frontage road.	Proposed site access not onto any state highways	Not applicable

Stantec

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

Stantec New Zealand
Level 3, 2 Hazeldean Road
Addington, Christchurch 8024
NEW ZEALAND
Mail to: PO Box 13052, Christchurch 8140
stantec.com

Chris Rossiter

Principal Transportation Engineer

Stantec

Chris is based in the Christchurch office. He has over 40 years' engineering experience including 19 years' transportation engineering across a broad range of projects within New Zealand. He provides transport engineering design advice to both public and private entities and has prepared transportation assessments and expert evidence for plan changes, subdivisions, and land-use resource consents. A common theme for his work is ensuring that new developments provide an appropriate access and parking supply to ensure that they can operate safely and meet the needs of all road users.
Chris's role includes providing transport engineering peer review services for councils and appearing for councils at hearing across New Zealand including Queenstown Lakes, Central Hawke's Bay, Gisborne, Christchurch, Timaru, Selwyn and Nelson. He is also a qualified road safety auditor and has prepared audits for both public and private clients.

EDUCATION AND TRAINING

Bachelor of Science - Applied Mathematics and Physics, University of Exeter, UK,1985

Bachelor of Arts (Open) – Open University, England, December 2005

Engineering New Zealand, Member

Engineering New Zealand, Chartered Professional Engineer, 2010

PROJECT EXPERIENCE

Queenstown Lakes District Council Transport Panel | Queenstown Lakes District Council | Transport Engineer | 2017-Present
Chris was responsible for preparing transport engineering reviews of resource consent applications and attending hearings on behalf of Council. He has also been supporting the Council with evidence for the District Plan Review.

Central Hawke's Bay District Council Transport Panel | Central Hawke's Bay District Council | Transport Engineer | 2020-Present
Chris provides transport engineering reviews of resource consent applications for CHBDC. Where applications have gone to hearings, Chris has prepared and presented expert evidence, e.g. Punawaitai Subdivision, Helios Solar farm.

Buller Plateaux Continuation Project | Bathurst Resources Limited | Transport Engineer | 2023-2026
Chris has investigated the traffic effects of establishing new coal mining areas on the Denniston Plateau. This involved assessing the effects of mine related traffic on Denniston Road to identify necessary mitigation works. Chris has prepared transport assessments for the consent application under the FTAA.

Bendigo Ophir Gold Project | Matakanui Gold Limited | Transport Engineer | 2023-2026
Chris has investigated the traffic effects of establishing new gold mining areas in the Bendigo hills. This involved assessing the effects of mine related traffic on the local road network to identify necessary mitigation works. Chris prepared the transport assessment for the consent application under the FTAA.

Milton Quadrant | Calder Stewart Limited | Transport Engineer | 2025
Chris is leading the transport related inputs required to support the development of an inland port at Milton. This has involved developing designs for state highway access and also new railway sidings.

Awarua Quadrant | Calder Stewart Limited | Transport Engineer | 2025
Chris is leading the transport related inputs required to support the development of a new industrial zone south of Invercargill. This has involved developing designs for state highway access.

Chris Rossiter

Principal Transportation Engineer

North Road Private Plan Change | Tulloch Limited NZ | Transport Engineer | 2024-2025
Chris has provided design advice on site access arrangements to SH6, the overall site masterplan and was responsible for preparation of the transportation assessment report for the private plan change application to rezone the land from rural to industrial.

Southland Wind Farm | Contact Energy | Transport Engineer | 2023-2025
Chris has investigated the construction related traffic effects of establishing a new wind farm in Southland. This has involved assessing access route options and scale of mitigation works required to accommodate over-dimension transporters for the wind farm equipment.

DEMP Cranford Street | Christchurch City Council | Transport Engineer | 2023-2024
Chris was responsible for investigating options for managing Cranford Street south of Innes Road. This included development of the options, overseeing modelling investigations and preparing a report for Council to support the public consultation.

Wairarapa Combined District Plan | Carterton District Council | Transport Engineer | 2022-2024
Chris has been responsible for providing recommendations on alterations and improvements to the transport chapter of the Proposed Combined District Plan for the three Wairarapa district councils.

Transport Engineering Services | Nelson District Council | Transport Engineer | 2022-2024
Chris was responsible for preparing transport peer reviews of resource consent applications.

Scheme Design Safe System Audits | Waimakariri District Council | Transport Engineer | 2023
Chris led the safe system audits for proposed intersection improvements on Tram Road and Fernside Road.

Gisborne Transport Panel | Gisborne District Council | Transport Engineer | 2021-2023
Chris has provided transport engineering reviews of resource consent applications for GDC. Where applications have gone to hearings, Chris has prepared and presented expert evidence e.g. Gisborne Port Expansion.

Ashburton Second Bridge | Ashburton District Council | Transport Engineer | 2020-2021
Chris was responsible for managing the investigation of transport effects and benefits of a second bridge. This included development of options and the multi-criteria assessment tool.

Rangiora West Route Scheme Assessment | Waimakariri District Council | Transport Engineer | 2019-2020
Chris was responsible for leading the scheme assessment and development of an implementation plan for the Rangiora West Route for the Waimakariri District Council.