

Appendix 4: Transportation Assessment





TRANSPORTATION ASSESSMENT REPORT

Private Plan Change Request 193 Creyke Road, Darfield

July 2016

Prepared By: Barry Hayes, Traffic Engineer

barry@avanzar.co.nz

www.avanzar.co.nz



Table of Contents

1.	ı	introduction	2
2.	E	Existing Transport Infrastructure	3
	2.1	Site Location	3
	2.2	Site Description	4
	2.3	Roading Network	4
	T	Telegraph Road	4
	C	Creyke Road	6
	2.4	Public Transport	7
	2.5	Footpaths and cycle routes	7
3.	T	Travel Patterns	9
	3.1	Traffic Volumes	9
	3.2	Cyclists and Pedestrians	. 10
	3.3	Parking	. 10
4.	F	Road Safety	. 11
5.	E	Existing Levels of Service	. 12
	5.1	Road Capacity	. 12
	5.2	Public Transport	. 12
	5.3	Walking and Cycling	. 12
6.	F	Proposed Plan Change	. 13
	6.1	Description	. 13
	6.2	2 Access	. 14
7.		District Plan Provisions	. 15
	7.1	Assessment against District Plan rules	. 15
	7.2	Speed Limit	.16
8.	T	Traffic Generation and Distribution	. 18
	8.1	Expected Traffic Generation	. 18
	8.2	Praffic distribution	. 18
	8.3	Future Year Traffic	. 20
	8.4	Internal Roading Network	.21
9	c	Conclusions	22



Executive Summary

Mrs Judith Pascoe proposes a Private Plan Change to the Selwyn District Plan to facilitate residential development on the south eastern edge of Darfield. The Plan Change proposes to rezone 13.5ha from Living 2A deferred to a Living 2 zone.

This transportation assessment report includes a description of the transportation networks in the vicinity of the Plan Change area and provides an assessment of the likely transportation effects in that area.

The Outline Development Plan (ODP) that accompanies the Plan Change request has been assessed against the transportation related rules of the Selwyn District Plan and it is considered that the proposed road network within the Plan Change area will be fully compliant with those rules.

The analysis of the expected traffic effects associated with the proposed Plan Change request has also determined that the existing road network has sufficient capacity to accommodate the expected traffic volumes to be generated by the proposed rural residential development.

It is therefore considered that the proposed Plan Change can be safely and efficiently accommodated within the local transportation environment.

Consequently, there are considered to be no transportation related issues that would prevent approval of the proposed Plan Change.



1. Introduction

Mrs Judith Pascoe proposes a Private Plan Change to the Selwyn District Plan to facilitate rural residential development on the south eastern fringe of Darfield. The proposed Plan Change's objective is to rezone 13.5ha from Living 2A deferred to a Living 2 zone.

This transportation assessment report documents and summarises an assessment of the transport related issues associated with the development facilitated by the proposed Plan Change. The assessment undertaken considers the existing transport environment in the area, the expected traffic generation associated with the proposed development and provides an assessment of the potential transport related effects.



2. Existing Transport Infrastructure

2.1 Site Location

The proposed Plan Change area (hereafter referred to as the site) lies on the south eastern fringe of Darfield, as shown in Figure 1.

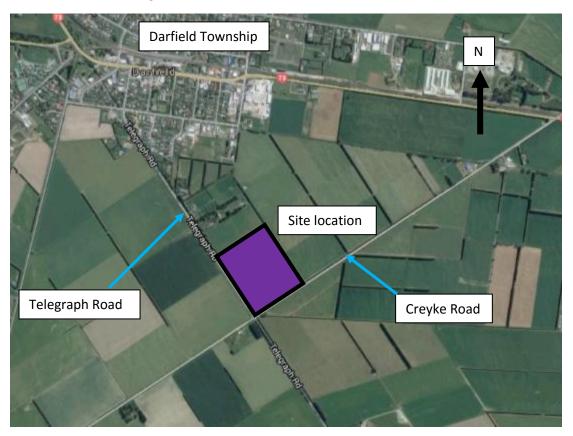


Figure 1: site location

The site has frontage to both Telegraph Road and Creyke Road. Telegraph Road forms the south western boundary of the site and is classified as an arterial road in the District Plan. Creyke Road forms the south-eastern boundary of the site and is classified as a local road.

The surrounding road uses are typically rural residential to the west, south and east of the site and rural to the immediate north. The area to the north was approved in 2013 to be designated for residential uses (a mix of Living 1 and Living 2A zones), which is set out as Plan Change 24 Silver Stream¹, within the Selwyn District Plan. A traffic assessment was prepared by the Traffic Design Group (TDG) for Plan Change 24 and is referred to within this report.

The township centre of Darfield is located approximately 1.5km north west of the site.

¹ https://www.selwyn.govt.nz/services/planning/district-plan/plan-changes/plan-change-24-silverstream www.avanzar.co.nz 193 Creyke Road Darfield



2.2 Site Description

The site is held in three ownerships and overall is a rectangular shape, containing three dwellings and associated curtilages associated with the separate ownerships. The remainder of the site is predominantly made up of grazing paddocks and an orchard located on one block.

There are tall cedar trees along the site's boundary with Telegraph Road, except where there is a single vehicle access serving one block, and also near the corner with Creyke Road. A Selwyn District Council main water race runs within the property boundaries, but on the western side of the boundary hedging along Telegraph Road. A bridge over this provides access to one block on Telegraph Road.

2.3 Roading Network

The existing roading network of relevance to the site is Telegraph Road and Creyke Road. The Road Controlling Authority for both of these roads is Selwyn District Council.

Telegraph Road

Telegraph Road along the frontage of the site is a sealed two lane, two way rural road. Traffic lanes are typically 3.5 metres wide with 0.5 metre wide sealed shoulders. No footpath is provided.

Reflective road studs are installed along the road centre line and a street light is provided as part of a power pole, at the intersection with Creyke Road. Figure 2 shows Telegraph Road looking south east towards Creyke Road, with the site located to the left of the image.



Figure 2: Telegraph Road/Creyke Road intersection

The road is flat and straight with excellent forward visibility in both directions anywhere along the frontage of the applicant's site. Figures 3 and 4 show the sight lines from Creyke Road, based on a



3.5m set back to the north and south respectively. The speed limit past the applicant's site is currently 100 km/hr.



Figure 3: Sight line from Creyke Road looking north west on Telegraph Road



Figure 4: Sight line from Creyke Road looking south east on Telegraph Road

The approved Outline Development Plan for Plan Change 24² shows a new primary access on Telegraph Road between this site and the existing edge the current urban area. It is also possible that some residential sections both within PC24 and this proposal may have access directly onto Telegraph Road.

5

https://www.selwyn.govt.nz/__data/assets/pdf_file/0004/109237/PC24-ODP-13-04-15.pdf www.avanzar.co.nz
193 Creyke Road Darfield



On this section of Telegraph Road, the first gated property access to no. 1878 is located 300m north of Creyke Road followed by access to no. 1906 located 500m north of Creyke Road.

Creyke Road

Creyke Road is also a two lane, two way road. The 300m section adjacent to the Judith Pascoe property is sealed and 6m wide. Figure 5 shows the approach towards the Telegraph Road intersection, with the Pascoe property access shown on the right. The striped, reflective marker posts denote the presence of the water race.



Figure 5: Creyke Road looking west towards Telegraph Road

As can be seen, Creyke Road is controlled by a "Stop" control sign at the Telegraph Road crossroad intersection and has appropriate signs and road markings.

The remainder of Creyke Road to the east of the site is unsealed and connects with SH73 at another "Stop" controlled intersection – the last 50m of Creyke Road is sealed at this location. Creyke Road is straight and flat with excellent forward visibility from any point along the applicant's frontage. No footpath is available, though a flat grass verge of approximately 3m width is provided.

On this section of Creyke Road, the first gated property access location is located 20m from Telegraph Road, followed by a second gated property access location, 300m east of Telegraph Road, coinciding with the limit of the sealed section of the road, changing to a shingle surface.



2.4 Public Transport

Redbus runs a weekday commuter service between Darfield (at the Railway Station) and Christchurch³ but this does not appear to be an ECAN subsidised service. The journey time between Darfield and Christchurch Central Bus Station is one hour. The morning service leaves Darfield at 7.15am and the afternoon service arrives back in Darfield at 6.30pm.

There are also private bus operators that service the schools in Darfield.

Atomic Shuttles operate a small, long distance bus service between Christchurch and Greymouth which includes a stop in Darfield⁴.

The TranzAlpine rail service operates daily between Greymouth and Christchurch and has a stop in Darfield. However, this is a tourist service and is not considered important as public transport for Darfield.

2.5 Footpaths and cycle routes

There are no designated cycle routes or footpaths adjacent to the site on Telegraph Road or Creyke Road. However, Telegraph Road is considered to be a relatively safe route to use for cycling or walking. Due to the road width and shoulders, cyclists can use the inside of the road and vehicles, having excellent forward sight lines and overall road width can overtake a cyclist safely.

Despite lacking a formal footpath, both Telegraph Road and Creyke Road have wide (>3m) flat grass verge areas as shown in Figures 6 and 7 respectively.



Figure 6: Telegraph Road looking north from Creyke Road

³ http://www.redbus.co.nz/christchurch/darfield-service/

⁴ http://www.atomictravel.co.nz/timetable.aspx





Figure 7: Creyke Road south of the site – grass verge present both sides

Whilst footpaths are not available, the grassed areas are relatively wide, flat and unobstructed. Consequently these provide a reasonable walking route for pedestrians, particularly between the site and the centre of Darfield. On Telegraph Road, this layout is in effect for approximately 1.2km from Creyke Road, then connects with a sealed footpath, as shown in Figure 8, which connects with the Darfield township. The PC24 Outline Development Plan includes provision for footpath connections to the existing network in Darfield and will connect with Mathias Street and Cardale Street at the east side of the township.

The main high street through Darfield is a 1.6km walk (a 10-15 minute walking time) from Creyke Road, which provides many amenities, such as schools, a library, cafes and shops.



Figure 8: Footpath on Telegraph Road, approx.1.2km north of Creyke Road



3. Travel Patterns

3.1 Traffic Volumes

Selwyn District Council has previously undertaken traffic flow counts as part of their Road Assessment and Maintenance Management (RAMM). In the vicinity of the Plan Change site there are two survey locations of relevance, which are:

- Telegraph Rd (North of Creyke Road) at the Speed Restriction (50 / 100)
- Telegraph Rd (South of Creyke Road) between Essendon Rd and Creyke Road

Both surveys were undertaken in April 2015 and the results are summarised in table 1 below.

Survey Location	Average Daily Traffic (ADT) (total vehs in both directions)
Telegraph Rd Nth of Creyke Rd	1733
Telegraph Rd Sth of Creyke Rd	1292

Table 1: Telegraph Road ADT survey results.

Of interest, 16% of the traffic are Heavy Vehicles, much of which are expected to be attributable to Fonterra milk tankers using this route. There are currently no turning counts for the Telegraph Road/Creyke Road intersection. Consequently, for assessment purposes, an estimated traffic distribution has been determined, as shown in Figure 9.

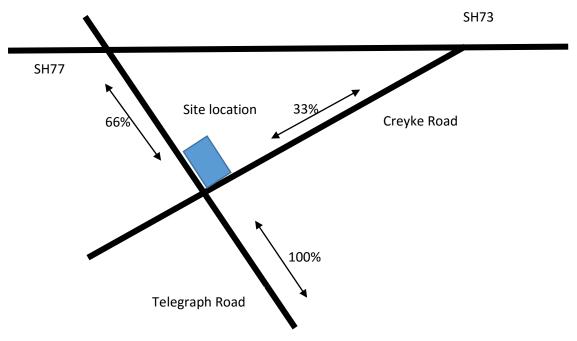


Figure 9: Estimated Traffic Distribution adjacent to the site

Using the traffic volumes from table 1, an estimate of vehicle movements on all roads in the vicinity has been made.

Based on current flows in the area it is estimated that 66% of the vehicles will head towards Darfield on Telegraph Road and 34% will be heading towards Christchurch thus will turn south onto Telegraph Road and the north east onto Creyke Road. The daily traffic (ADT) can be converted to a peak hour



flow (PHF). For a rural area a 15% conversion rate is considered to be typical proportion and with the turning percentages applied are shown in figure 10 as follows.

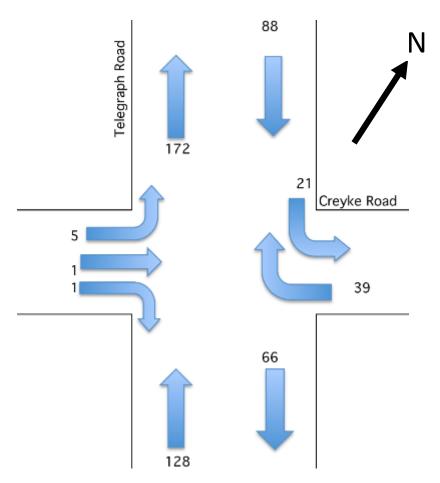


Figure 10: Estimated 2015 Telegraph Road directional flow AM peak hour

3.2 Cyclists and Pedestrians

No formal surveys have been undertaken of the extent of walking and cycling activity in the area however informal observations during site visits and local knowledge indicate the level of walking and cycling activity to be currently low.

3.3 Parking

No formal parking is provided along either Telegraph Road or Creyke Road. No parking demand was observed along the frontage of the applicant's property on either road, which is typical situation for a rural area.



4. Road Safety

A search of the 2011-2015 NZTA crash database (CAS) was undertaken for the roads within a 1km radius of the site. Two crashes were reported within this area, as is shown in Figure 11, with the crash locations highlighted as stars. The results of the search are included in Appendix 1. The CAS mapping includes Pole Road near the intersection, which, further to a site inspection, no longer exists.



Figure 11 – Crash locations in the vicinity of the site

Both crashes occurred on Telegraph road and involved a single losing control. The crash occurring furthest away (1km north) from the intersection with Creyke Road resulted in one serious injury casualty whilst the other crash (200m south of the intersection) resulted in a minor injury casualty.

The first crash was due to an animal or insect inside the vehicle distracting the driver and the second, involved a drunk driver losing control after driving his vehicle too far into the shoulder.

The low number and type of crashes within the vicinity of the applicant's site indicates that there are no underlying safety concerns with the local road network.



5. Existing Levels of Service

5.1 Road Capacity

Using the methods described in the Economic Evaluation Manual, Part 1, section A3.11, the capacity for Telegraph Road and Creyke Road were calculated. Based on this procedure, Telegraph Road has a capacity of 2492 vehicles per hour (assuming, based on the ADT survey results, a 70/30 directional split and 8m roadway width $(7m + 2 \times 0.5m \text{ shoulders})$) and Creyke Road has a capacity of 2044 vehicles per hour (assuming a 50/50 directional split and based on a 5m width).

Since Telegraph Road carries typical flows of 1800 vehicles **per day** and Creyke Road, 400 vehicles **per day**, the existing traffic volumes on both roads are well below these capacities.

5.2 Public Transport

As described previously, there are limited public transport services that stop in Darfield, other than the single peak hour Redbus service to Christchurch and the Atomic shuttle service. Therefore, the existing public transport level of service is considered to be low.

5.3 Walking and Cycling

While no formal surveys have been undertaken of the extent of walking and cycling in the area, informal observations and local knowledge suggest that the activity levels are low.



6. Proposed Plan Change

6.1 Description

The Outline Development Plan (ODP) for this proposed plan change is shown in Figure 12 (extract from Survus Consultants drawing number ODP-01 Revision F)



Figure 12: Proposed Outline Development Plan – 193 Creyke Road

It is proposed to change the zoning of the site from its current Living 2A deferred status to a Living 2 zone. This will provide for an average allotment size of 5000m².

The ODP shows the areas where allotments with a minimum area of 2ha and 1ha are to be located. These are generally in the south western corner of the site, closest to the Gun Club and furthest away from the centre of Darfield Township.



6.2 Access

Primary traffic access to the development will be from Telegraph Road. Some properties may have access to Telegraph Road and would be provided with appropriate visibility splays.

The Outline Development Plan (ODP) for the plan change 24 Silver Stream area is shown in Figure 13, with the context of the proposed site shown. The ODP shows the proposed internal road network and hierarchy, including a pedestrian cycle link to the north west. It can be seen that this proposal, as shown in section 5, connects with the planned wider road network, via a 'secondary road'.

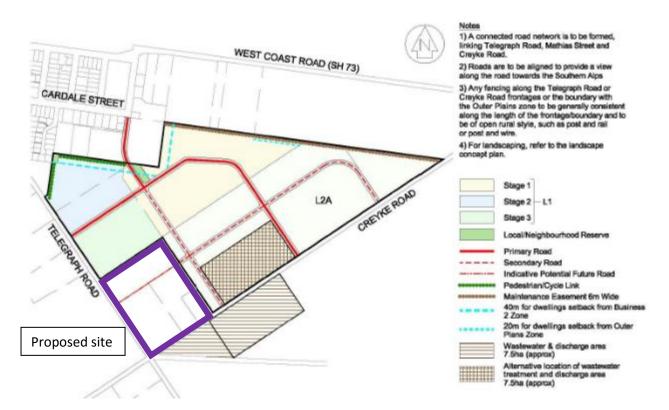


Figure 13: Plan Change 24 Silver Stream ODP and site context

There will be six road access points to the PC24 area from the existing road network. Two accesses will be from Telegraph Road (including one through the Pascoe proposed plan change site), three from Creyke Road and one to Cardale Street. The internal road network for PC24 connecting to Cardale Street is likely to be the main road for residents to access Darfield township.

Whilst the ODP classifies the roads as "primary" and "secondary" for reasons of function and expected design specification, all of the internal roads will carry few traffic movements and will be classified as local roads within the Selwyn District Plan with their primary function being property access.



7. District Plan Provisions

7.1 Assessment against District Plan rules

The Selwyn District Plan provides detailed rules relating to transportation matters. Whilst the Outline Development Plan provides a sound basis for a general assessment of effects, since detailed proposals have yet to be prepared, it is not yet possible to provide a high level of detail to warrant a comprehensive assessment.

Consequently, it is considered appropriate to assess the Plan Change against District Plan rules that relate to the design principles that are expected to be adopted throughout the applicant's site. Once the layout proposals are developed further and designed accordingly, it is the applicant intention to provide a full and robust analysis. It is also possible that the development concept could change when the land is further subdivided.

A summary of the more relevant transport rules for this stage of development is outlined below in Table 2:

Rule	Requirement	Provided	Compliance
13.1	General on-site parking requirements for developed	N/A at	Yes – can be
	sites. Two spaces required on site per residential unit.	this stage	achieved
13.2.1	Private vehicle access requirements	N/A at	Can be assessed
	(e.g. Legal road widths and carriageway widths)	this stage	at subdivision stage
13.2.2	Distance of Vehicle Crossings from Intersections.	N/A at	Yes – can be
	No part of any vehicle crossing shall be located closer to the intersection of any roads than the minimum distances specified in Table E13.5 (In the case of Telegraph Road, an arterial road, more than 100m from the intersection)	this stage	achieved
13.2.3	Sight distance from vehicle crossings ⁵ . Any access to a Living Zone to An arterial road shall have a minimum sight distance of 282m for a 100 km/hr speed limit	N/A	Yes – can be achieved
13.2.4	Vehicle crossing design and siting	N/A	Assessed at building consent stage
13.3	Road standards. Any new road shall be laid out and vested in the Council in accordance with the standards contained in Table E13.8. Local Roads-Living 2 zone only. Minimum legal width=18m Maximum reserve width=20m Carriageway width 6-6.5m Two traffic lanes No parking lanes No specific cycle provision	Reserve width of 18-20 m	Yes

⁵ Table 13.6 Part E of Appendix 13 of the Selwyn District Plan www.avanzar.co.nz 193 Creyke Road Darfield



	Optional pedestrian provision on one side only No kerb and channel		
13.3.2	Road Intersection Spacing Spacing between road intersections shall comply with Table E13.10 (or correctly E13.9)	270m	Will comply once the speed limit is reviewed (see speed limit discussion as follows

Table 2: Selwyn District plan requirements

7.2 Speed Limit

Presently the section of Telegraph Road adjacent to the site is derestricted (a 100 km/h speed limit), which under the District Plan rules, requires a minimum intersection spacing of 800m.

Currently, speed limits are only in effect within the urban area of Darfield, as shown in Figure 14, which is an extract from Speed bylaw Map 7 taken from the Selwyn District Plan. The roads within the area shown in pink are subject to a 50 km/limit.

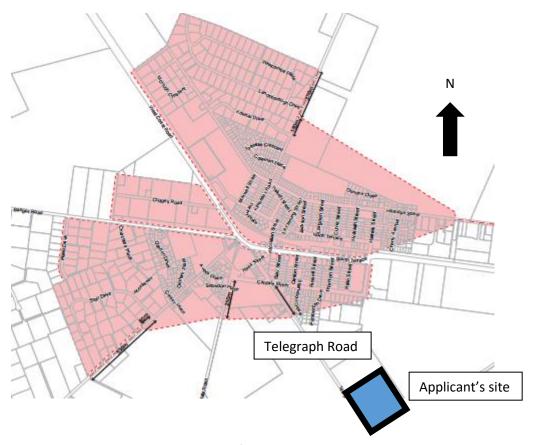


Figure 14: Existing speed limits in Darfield and site context

The Land Transport Rule: Setting of Speed Limits 2003 specifies the legal procedure for establishing speed limits on public roads. The rule incorporates *Speed Limits New Zealand*⁶(SLNZ) as the procedures for calculating the speed limit, to use SLNZ to calculate the speed limit for any public road to ensure

https://www.nzta.govt.nz/resources/speed-limits/speed-limits-nz/speed-limits-nz.html
 www.avanzar.co.nz
 193 Creyke Road Darfield



consistent application of speed limits policy across the public road network.

Section 2.6 states that:

"A speed limit of 70 km/h is appropriate in areas of intermediate roadside development, such as small country towns, urban fringe areas, short sections of road in partly built-up areas within a large urban traffic area or areas of single-sided development. It may also be used as a buffer between a 100-km/h and a 50-km/h section, but only if there is sufficient roadside development to make the speed limit reasonable and safe".

The proposed PC24 Silver Stream residential subdivision will result in a further road access onto Telegraph Road and possibly vehicle crossings at property frontages. Whilst the applicant's site is outside the areas subjected to a 50 km/h limit, the expected new subdivisions in this area as a result of PC24 and the proposed Pascoe plan change are likely to justify a speed limit review for the section of Telegraph Road adjacent to the site.

The industry method⁷ for the setting of speed limits is significantly influenced by the frontage land use types and the frequency of accesses. Consequently it is considered likely that a speed limit of 70 or 80 km/h would be considered more appropriate and introduced on Telegraph Road between Creyke Road and the existing 50 km/h section, close to the site's western boundary.

An 80km/h speed limit requires⁸ a minimum intersection spacing of 214m. Consequently the proposed spacing of 270m would be in excess of this requirement and would be considered appropriate for the expected speed environment. Furthermore, the ODP for PC24 had previously suggested the location for the access road through the Pascoes proposed plan change.

⁷ https://www.nzta.govt.nz/resources/rules/setting-speed-limits-2003/#sappendixii

⁸ Based on Table E13.9 of the Roads and Transport Section of Part E Appendix 13 the Selwyn District Plan www.avanzar.co.nz 193 Creyke Road Darfield



8. Traffic Generation and Distribution

8.1 Scale of development

For the purposes of this assessment it is assumed that 445 dwellings will be developed based on the approved Silver Stream Estates Plan Change 24 (PC24). The Pascoes proposed application forms 12.959 hectares of the L2A zoned land, which equates to 1 dwelling per hectare. Based on this allotment size, the Transport Assessment that supported PC24 (TDG), allowed for 13 dwellings in the proposed development area. As 3 are existing and to be retained, 10 new dwellings are anticipated within the site, as part of the Transport Assessment.

This application refers to an allotment size averaging 5,000 sq.m (or 0.5ha) which would equate to 26 dwellings within 12.969 hectares. As 3 are retained existing, this results in 23 new dwellings compared to the 10 proposed in PC24.

8.2 Expected Traffic Generation

In 2010 a Plan Change application (Silver Stream Estates Ltd) to Selwyn District Council considered the traffic generation for households within the L2 zone in Darfield (PC24). The Transportation Assessment report recommended that a traffic generation rate of 6 vehicles per day (vpd) per household should be used for their application. This appears to have been accepted by Council as an appropriate rate.

A recent study by Avanzar Consulting of a mature rural residential development in Waimakariri District assessed the traffic generation of each site as 6.9 vpd per household. Additionally, the Avanzar Consulting Bangor Road Plan Change application supported a rate of 6.9 vpd per household, which was recently granted by the Council.

Consequently an average traffic generation of 6.9 vpd per household will be used since the development is on the urban fringe.

Based on applying this rate to 23 new houses, the development will generate an additional 159 (based on 6.9 x 23) vehicles per day. Using the same assumption used 10 in the approved TDG Traffic assessment, a rate of 1 vehicle movement per dwelling during the peak hour has been assumed, equating to 26 movements per peak hour.

8.3 Traffic distribution

As part of the analysis, to determine individual traffic movements, the total vehicle movements are required to be split into 'In and Out' movements. For a residential zone, a 65:35 ratio is typical for the morning peak and is consistent with the method applied in the Silver Stream ITA report¹¹. This ratio is assumed to be reversed for the evening peak, reflecting its tidality.

⁹ Excluding the area for the new road

¹⁰ Section 9.1.2 paragraph 5

¹¹ Page 22 section 9.2 Traffic Distribution



The majority of the sites are expected to use the new access road which will have an intersection onto Telegraph Road located approximately 270m north of its intersection with Creyke Road. Alternatively they may use the internal roads of PC24 to access Darfield. Two of the properties fronting Telegraph Road may require direct access and up to three on Creyke Road. Until this is formally confirmed, for the purposes of assessment robustness, it is assumed that they are all using the new road onto Telegraph Road.

Based on current flows and the PC24 application it is estimated that 66% of the vehicles will head towards Darfield on Telegraph Road and 34% will be heading towards Christchurch and use Creyke Road.

Figure 15 shows the traffic flows forecasted at the proposed new road which intersects with Telegraph Road during the morning peak hour with the development traffic included.

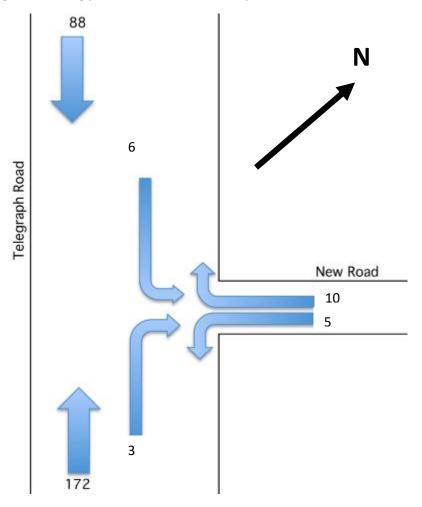


Figure 15: Telegraph Rd at the site access - assumed AM peak traffic volumes - with development

The above figure shows that the peak hour traffic volumes generated by the proposed development are low. For example, the 15 vehicles leaving the site on the new road would equate to, on average, one vehicle every 4 minutes. Consequently, this will have a less than minor effect on the road network.



8.4 Future Year Traffic

It is expected that the development could take up to 10 years to be completed. Therefore, the effect of the development on the traffic distribution in 10 years' time needs to be considered. The base data for the future year 2026 has been assessed by applying the proposed 2021 traffic from the PC24 report. It is possible that there may be some background traffic growth between 2021 and 2026, though with respect to traffic levels on Telegraph Road and Creyke Road this is assumed to be a negligible amount.

The ODP shows new roads connecting to Telegraph Road, Creyke Road and Cardale Street. Creyke Road will provide a link between the L2A zone and SH73 east of Darfield. It is expected that this road would be used for travel between the L2A zone and Christchurch. However, the TDG report states¹² that in the unlikely event that all trips were to use the intersection of Telegraph Road and Creyke Road, this would equate to a maximum of approximately 100 vehicle trips per hour. Figure 16 illustrates this below.

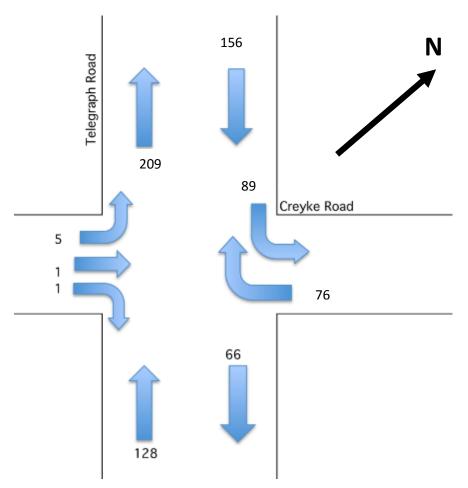


Figure 16: Telegraph Rd intersection with Creyke Road - forecasted AM peak traffic volumes in 2026 with development

The net increase in peak traffic volume to the intersection of Telegraph Road and Creyke Road from what was calculated in the PC24 assessment, even in the highly unusual scenario that the new access

¹² TDG Silver Stream ITA report Page 25 section 10.2



was not used is 69 vehicles a day or 7 per hour. Thus, the transport effects on the intersection as a result of the proposed development will be negligible.

8.5 Internal Roading Network

The ODP shows the main roading network that will service the proposed development including the Pascoes plan change and the PC24 plan change. Other minor roads may be required to gain access to individual properties.

All of the roads shown will have low traffic volumes and all roads within the proposed development will be minor local roads. The road created by the Pascoes plan change will be consistent with the design of the road that it joins to in the PC24 plan change.



9. Conclusions

This Transportation Assessment has considered the potential transportation impacts of the proposed Plan Change request for 193 Creyke Road.

A review of the crash records for the adjoining road network suggests there are no identifiable safety issues with the surrounding road network.

Analysis of the expected traffic effects associated with the development has determined that the existing road network has sufficient capacity to safely and efficiently accommodate the expected traffic volumes generated by the development.

The main access location on Telegraph Road is sited at an optimum location and can be provided with appropriate road geometry and safe visibility splays, in keeping with the anticipated local speed environment. The access location was implied by the PC24 ODP.

The ODP accompanying the Plan Change request has been assessed against the transportation related rules of the Selwyn District Plan and it is considered the proposed network can be fully compliant.

There are considered to be no transportation related issues that would prevent approval of the proposed Plan Change.



Appendix 1

Crash data



TELEGRAPH ROAD
TELEGRAPH ROAD

500S CARDALE ST 200S CREYKE ROAD 201510147 11/01/2015 Sun 0030 CB CS1 104A 125A 134A

201222385 14/08/2012 Tue 1545 CB CS1 354A

T R D DN F N C 100 1
T R W O L C 100 1

