DYERS PASS ROAD PROPOSED SPEED LIMIT CHANGE AND NO PASSING LINES – CONSULTATION RESPONSES

Table of contents

1. Guardrails and pull over areas

Can guardrails be installed and existing pull over areas be widened and re sealed?

Council have approximately $1.7 million of funding over the next two years to install new guardrail barriers on Dyers Pass Road. A prioritisation assessment has been undertaken to determine where the greatest benefits are gained. This funding is currently within Council's Long Term Plan.

Further capital works to improve cyclist safety includes approximately $350, 000 of widening works, there is an opportunity to extend seal out to the edge of localised existing shoulders to allow more width for cyclists and for cars to pass without crossing the centreline along some sections of Dyers Pass Road. It is also possible that some of the existing larger pull over areas can be resealed. The scope and delivery programme of this scheme has yet to be confirmed.

If no passing lines are approved, it is planned to install road markings before the above works take place as likely to have immediate impact on road safety and impacts on travel times are considered low.

2. Speed limit issues

Lowering the speed limit will remove freedom to overtake and result in longer travel times.

There are limited opportunities with adequate forward visibility to overtake a vehicle and even at these locations it is not considered safe given the road environment.

Council staff have recorded route travel times in both directions, shown on Attachment A.

- Typically a weekday commuter trip anytime between 7am-9am and 4pm-6pm, takes approximately on average 6 minutes and 39 seconds.
- A trip where a driver travelled at no more than 40km/h takes approximately 9 minutes and 6 seconds.

- A trip where a driver travelled at no more than 60km/h takes approximately 7 minutes and 40 seconds

If a typical commute trip is constrained by a vehicle in front travelling at 40km/h the entire journey, will result in approximately an extra 2.5 minutes travel time. The difference between a typical commute trip and driving no more than 60km/h is about 1 minute.

It is noted that there are locations on Dyers Pass Road where a vehicle can pull over and allow traffic to pass. A number of these areas require re-sealing and are being considered as part of planned capital works along Dyers Pass Road. These works also include guardrails and seal widenings. Once scope and delivery are confirmed, the below signage is proposed to promote pulling over and allowing traffic to pass. These signs are typical in the Central Otago and Queenstown Lakes District.

In summary, removing the freedom to overtake vehicles, results in a small increase to overall travel time. The increase in travel time is conservative as it is unlikely that faster vehicles will be constrained along the entire route.

60km/h is too slow for the majority of the road

The majority of Dyers Pass Road has a winding alignment and self regulates a speed of 60km/h

Attachment G shows measured speeds on a portion of road that is relatively straight where it is expected that speeds are highest. The speed counter reports and average speed of 63km/h and 85% speed of 75km/h (15% of vehicle recorded travelling faster than 75km/h). The average speed of 63km/h aligns well with a proposed posted speed limit of 60km/h.

Why not a 70km/h limit on the entire route?

The current posted speed limit on the city side is 70km/h. This portion of road has a reported high accident risk. A further reduction in speed is required to help reduce this accident risk.

The NZTA Speed Management Guidelines does not recommend 70km/h speed limits. At higher speeds people have trouble differentiating between speed limit differences of just 10km/h. Fewer and more recognisable categories are easier for people to understand and recall.

Accidents occur on bends that already have speeds signed, changing speed limit will have no effect on these accidents

A reduction in the approach speed to a signed bend, allows drivers to slow quicker to an appropriate speed for the corner, if they miss read the bend or miss the signage.

It is noted that some speed advisory curves require an upgrade of signage, this work is planned to be completed

3. No Passing lines

Proposed no passing lines removes ability to overtake heavy vehicles.

There are currently limited opportunities to pass a heavy vehicle. Heavy vehicle volumes are relatively low on this route. Traffic will be delayed by slower heavy vehicles, until it can safely pull over and let vehicles pass.

Why can't we install no passing lines on critical corners and leave white centre line where it is safer to pass

Installing no passing lines and leaving gaps was discounted because of the inconsistent message it creates. If there are gaps this could indicate it is safe to pass and potentially encourage passing in these areas without due care and therefore this is not recommended from a safety perspective.

No passing lines will not prevent vehicles wandering across the centre line, use rumble strips to stop this.

Rumble strips are not as effective on windy roads because lane departures are less likely to be inadvertent as motorists more are likely to intentionally cut curves.

The proposed double yellow lines provide a clear message that it is not safe to overtake on Dyers Pass Road and aims to reduce the number of overtaking accidents.

If the proposal is approved, wear on the new lines will be monitored and a trial for localised rumble strips could be considered.

4. Being able to pass cyclists

No passing lines, means we can't pass cyclists.

The road user rule and traffic control devices rule permits a motor vehicle to cross no passing lines to pass a cyclist.

No passing lines still allow motorists to pass cyclists in places where they are marked. Without these exemptions there would be an obvious potential for no-passing lines to cause motorists to be unreasonably obstructed. For more on the rules, see below:

"The Traffic Control Devices Rule 7.3(1) states: A road controlling authority may mark a no-passing line on a section of roadway if the road controlling authority considers that there is a risk to safety from vehicles that, when passing other vehicles (other than stationary vehicles or cycles) that are moving in the same direction, intrude into a lane that is being used by traffic travelling in the opposite direction.

The Road User Rule 2.9 states: Passing where roadway marked with no-passing line (2) The driver must not pass or attempt to pass a motor vehicle or an animal-drawn vehicle moving in the same direction within the length of roadway on which the no-passing line is marked until the driver reaches the further end of the no-passing line, unless throughout the passing movement the driver keeps the vehicle wholly to the left of the no-passing line."

Not all motorists are aware that you can pass a cyclist, creating queues of traffic behind a cyclist causing driver frustration and dangerous passing.

Signage showing a cyclist and a vehicle passing has been added to the revised scheme drawings shown on attachment B. This will help educate motorists on the ability to pass a cyclist safely.

It is likely that no passing lines will improve awareness of the centreline and vehicles will make considered decisions before crossing to overtake a cyclist.

It is noted that there are locations on Dyers Pass Road where a cyclist can keep further left to allow traffic to pass without crossing the centreline. A number of these areas require re-sealing and are being considered as part of planned capital works along Dyers Pass Road. Scope of work and delivery timeframes have yet to be confirmed.

5. Boy Racers

The Bulk of accidents are boy racers, and locals of the inner harbour basin account for a small portion of accidents.

From the reported accident data it is difficult to determine what vehicles are engaging in anti-social behaviour.

Assuming anti-social behaviour typically occurs in the evening from 10pm to 6am, accident data shows that:

- 65% of accidents were recorded from 6am to 10pm during the busiest traffic period
- 35% of accidents were recorded between 10pm and 6am.

It is unreasonable to assume that all traffic from 10pm to 6am is involved in antisocial road use.

It is noted that some people may continue to engage in antisocial behaviour and drive at unsafe speeds. The proposed changes to posted speed limit will act as a deterrent, due to heavier penalties for greater breaches of the posted speed limit if caught by the Police. Overall a reduction in speed to the majority of traffic will reduce the chance of a death or serious injury accident.

6. Cyclists

Cyclists are the main problem and cause accidents.

A review of all the written traffic crash reports by the attending police officer revealed that 14 (7.8%) of the total 178 accidents recorded over the analysis period, included a cyclist at the crash site. These accidents are described below:

- Six accidents - vehicle overtaking a cyclist travelling uphill
- One accident - vehicle overtaking a cyclist downhill
- Two accidents - cyclist crossing centre line travelling downhill
- Five - miscellaneous accidents involving a cyclist

Accidents involving cyclists account for a minor portion of the total accidents.

Cyclists should be banned from Dyers Pass Road.

Dyers Pass Road is a public road that provides access to popular road cycling and mountain bike routes in the region.

Can Council build an alternative cycle route through Victoria Park?

It is possible to construct a sealed route continuing on from Victoria Park Road and roughly following an existing four wheel drive vehicle route up to the carpark on Summit Road.

A small portion of accidents involve a cyclist and a vehicle. Constructing an alternative cycle route would not address the majority of accidents reported on Dyers Pass Road. There is no guarantee that cyclists would choose an alternative route if available.

Constructing a new cycle route is outside the scope of this project and would have to be considered separately as an item in Councils Long Term Plan.

Why doesn't Council widen Dyers Pass Road to provide a cycle lane?

Due to the topography along Dyers Pass Road, any additional widening will involve cutting into the existing slope on the uphill side or constructing retaining walls to widen on the downhill side. Both of these widening options require extensive civil works.

A small portion of overtaking accidents involve vehicles and a cyclist, widening the road to allow for cyclists would remove the risk of these accidents, however does little to reduce risk of other recorded accidents. Given the relatively high cost and lower safety benefits, this option has been discounted.

There are some shoulder areas at various locations that require re-sealing to allow more room for cyclists and in some cases room for a slow vehicle to pull over and allow traffic through. As mentioned above, Council have funding for guardrail works and seal widenings. The scope and delivery timeframe of these works has yet to be confirmed.

No passing lines will make the route less safe for cyclists

Lower speeds will reduce the road safety risk for all road users. It is expected that drivers will take more care passing cyclists, due to the improved centreline delineation. Signage has been added to the scheme to reiterate that cars can pass cyclists and provide sufficient room.

7. Enforcement

Will Police enforce the new speed limit?

Issues regarding enforcement have been passed onto the Police. It is reasonable to expect that the level of practical enforcement will remain the same as the current level of enforcement.

8. Driver behaviour

If people do not drive to the conditions, lowering the speed limit is not going to stop an accident.

Lowering the posted speed limit and installing no passing lines improves driver ability to read the road and drive to the conditions, and is expected to have a positive effect on the speeds people travel at.

A reduction in speed allows vehicles to stop over a shorter distance, reducing the chance of a crash. Accidents will still happen, however, if a crash is at a lower speed the chance of a serious injury or death is reduced.

A reduced speed limit will encourage impatient drivers to pass more often than they do.

The mean measured speed on Dyers Pass Road is 63km/h, and the route is short and takes no more than 10 minutes to travel. Due to this short length, it is unlikely to create frustration to the point of impaired decision making. The difference between typical commute times and driving at 60km/h the

entire route is about one minute. The extra travel time is low compared to the risk of overtaking on a road that provides little opportunity to do so.

Competency of drivers is the problem.

Even the most skilled drivers make mistakes. The proposed speed limit change and no passing lines give drivers cues for the safe and appropriate speed for the road they are on, and helps drivers read the road.

9. Maintenance

Can Council trim vegetation back further?

Restricted visibility due to vegetation also restricts the potential for unsafe overtaking manoeuvres. If vegetation was cut back to nothing it is likely that more vehicles would attempt passing manoeuvres on sections of road where they are still considered unsafe.

Grit accumulating on road shoulders, grit not being swept properly, damaged and incorrect edge markers, vegetation obscuring road signs and water sheeting across carriageway.

A number of road maintenance issues have been raised by submitters. These have been noted and referred to Traffic Operations who are working with the maintenance team to identify the scope of work and carry out the maintenance required.

10. Heavy Vehicles

Restrict heavy trucks on Dyers Pass Road

Dyers Pass Road has a low volume of heavy vehicles. Approximately 4.5% of daily traffic is classified as a heavy vehicle with two or more axles. This equates to about 135 vehicles per day.

Dyers Pass Road is a key access point to the Peninsula and is classified as a minor arterial. It is not suitable to restrict heavy vehicles on a minor arterial road.

The alternatives for heavy vehicles is along the State Highway through the Lyttelton Tunnel or over Gebbies Pass.

11. Issues at Summit Road Intersection

Groups of pedestrians taking photos around sign of the Kiwi dangerously cross the road.

Noted - In addition to the proposed speed limit change and no passing lines. It is worth investigating feasibility of isolated options at this intersection to improve safety. As suggested by a submitter one option includes provision of variable speed signage on Dyers Pass approaches when pedestrians and vehicles are present on the Summit Road approaches to the intersection. This recommendation has been included in board report.

12. Speed change point on Cashmere side

Can the existing change point on the Cashmere side be the starting point?

The plan has been amended so that the existing change point is the same rather than near the intersection near the Sign of the Takahe.

13. Additional information

How does the accident record on Dyers Pass Rd compare to other roads?

Attachment C1 and C2 shows the calculated road safety risk of Dyers Pass Road compared to all other roads within Christchurch City Councils control. As shown the measured personal risk is high and the collective risk is medium high. Dyers Pass Road has the highest risk rating compared to other rural roads controlled by Council in Banks Peninsula. Road safety risk and accident data clearly show there is a road safety problem on Dyers Pass Road.

Christchurch City Council uses software that calculates road safety risk on their network based on a methodology developed by NZTA (KiwiRap). The software uses existing reported death or serious injury accidents and also factors in the probabilities of a recorded minor injury accident resulting in a death or serious injury. This software allows Council to compare the road safety risk of all roads within Council's control.

KiwiRap looks at two different measures of risk, Personal and Collective. The key differences are:

- Collective Risk, is the number of accidents per kilometre
- Personal Risk, is the number of accidents that have happened per 100 million vehicle kilometres of travel on the section of road.

Personal risk is the danger to each individual using the road. If two roads of the same length have the same number of accidents, Personal Risk is higher for the road with the lowest traffic volume.

Dyers Pass Road has a high Personal Risk and a medium high number of accidents per kilometre of road (Collective Risk).

Accidents are localised and account for a high portion of the accidents.

Attachment D shows the location of accidents along the route. Accidents that occurred within 50m of each other have been grouped together as one location. The map shows a relatively even distribution of accidents across the entire route. Some locations have a higher concentration of recorded accidents but do not form a significant portion of the total. It is also noted that reporting of crash location is reliant on a reported distance from a nearby intersection. Given there are few intersections along Dyers Pass Road the accuracy of reporting is unreliable and it is reasonable that some of the reported locations could be out by hundreds of metres.

The types of crash trends identified are typical across the route and therefore an area wide treatment has been considered.

The lower section of Dyers Pass Road on the Governors Bay side has a lower level of reported accidents compared to balance of the route. However, the accidents along this section are considered high relative to other roads in Christchurch and given the similar nature of this section of Dyers Pass, an area wide treatment is also applicable here.

Can you provide further information on accident trends and data?

The NZTA crash data base reports 178 accidents on Dyers Pass Road from Sign of the Takahe to Governors Bay from 2007-2016.

There were 76 accidents resulting in 104 injuries over the analysis period. Of these, 14 were serious injuries, 89 had minor injuries and one fatality. The below trends were noted:

- Vehicles losing control while cornering accounted for 75% of reported accidents
- Head on, vehicles overtaking and changing lanes accounted for 20% of reported accidents
- Inappropriate speed entering a curve accounted for 37% of accidents reported
- Fourteen death or serious injury accidents recorded
- Head on, vehicles overtaking and changing lanes accounted for approximately 30% of reported death or serious injury accidents
- Vehicles losing control while cornering accounted for 50% of reported death or serious injury accidents
- Over 50% of accidents occurred at night in the dark
- 72% of accidents were reported dry road conditions. The balance of accidents occurred in wet or icy conditions

Attachment E illustrates these trends.

What time of day do accidents occur?

Some submitters asked what portion of accidents occurred during the evening when anti-social behaviour is more likely to occur.

NZTA crash database reports the date and time of a crash. Table 2 below summarises traffic volumes and portion of accidents at certain times.

Table 2 – Dyers Pass Road Crash Numbers, Time of Day

Time	Total Traffic	% Traffic	Number Accidents	% Accidents
Weekday 6am – 10pm	17,713	70.7%	74	41.6%
Weekday 10pm -6am	523	2.1%	23	12.9%
Weekend 6am – 10pm	6,343	25.3%	40	22.5%
Weekend 10pm -6am	474	1.9%	41	23%
TOTAL			178	

Table 2 Notes: 1) Weekend from 10pm Friday to 12am Monday

Approximately 65% of accidents were recorded from 6am to 10pm during the busiest traffic period, the balance of accidents were recorded between 10pm and 6am.

What age were drivers involved in a crash?

Attachment F shows recorded driver age and portion of accidents involved in, taken from the NZTA crash database. Accidents from Dyers Pass Road (178 recorded), over the 2007-2016 period have been assessed and compared to all recorded Christchurch accidents in 2016.

The graph shows a similar trend, the largest difference is the relatively high portion of drivers aged between 15 and 20 involved in a crash on Dyers Pass Road.

Accident data containing driver age details was available for 98 of the recorded accidents.

Can you please provide further information on recorded speeds and traffic volumes?

Speed counts and traffic data were continuously collected using pneumatic tubes over a week long period at the locations shown on Attachment G.

The first tube location near the intersection with Summit Road, recorded lower speeds due to vehicles slowing down for the intersection, and the level of pedestrian and cyclist activity in this area.

The second tube was located closer to Governors Bay Road on a section of road where vehicle speeds were expected to be higher.

Attachment H, shows the distribution of hourly traffic volumes, key features are:

- Morning weekday peak from 7am-9am of around 300 vehicles per hour
- Afternoon weekday peak from 4pm-6pm of around 300-325 vehicles per hour
- Weekend peak from 10am to 5pm of around 250-350 vehicles per hour

The weekday peaks are over a shorter period that coincides with peak commuter traffic compared to the weekend peak that is over a longer period. Traffic volumes are significantly less from about 10pm to 6am the following day.

Dyers Pass Road has an average daily traffic volume of 3000 and 3600 vehicles per day (vpd) on the Governors Bay side and city side respectively and is classified as a minor arterial within the Christchurch road network hierarchy. For comparison other routes in the immediate area have volumes of:

- Dyers Pass Road south of Cashmere Road – 8,000 vpd (2008)
- Hackthorne Road south of Cashmere Road – 4500 vpd (2009)
- Cashmere Road east of Hackthorne Road – 16,000 vpd (2010)
- Colombo Street south of Tennyson Street – 16,500 vpd (2010)

Attachment I shows the distribution of collected speed data. Overall a mean speed of 63 km/h and an 85% speed of 73 km/h were recorded.

From 6am to 10pm the mean speed is 63 km/h and the 85% speed is approximately 75 km/h

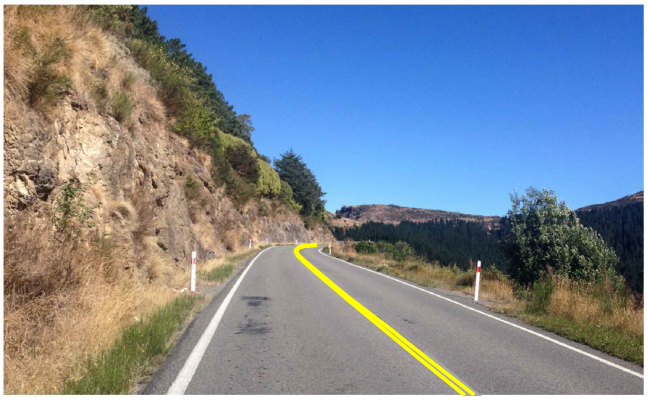
From 10pm to 6am the mean speed is 66 km/h and the 85% speed is approximately 75 km/h

ATTACHMENT A

Dyers Pass Road Journey times				
From the 50k zone in Governors Bay to 50k zone on town side				
Date	**Time of day**	**Direction**	**Time (hr:min:sec)**	**Average Speed (km/h)**
Driving no more than 40km/h				
20/19/2017	21:00	N	0:09:09	39.67
20/19/2017	21:00	S	0:09:03	40.11
AVERAGE			**0:09:06**	**39.89**
Driving no more than 60km/h				
18/12/2017	21:30	S	0:07:33	48.08
18/12/2017	21:37	N	0:07:44	46.94
25/01/2018	11:35	S	0:07:44	46.94
25/01/2018	11:45	N	0:07:39	47.45
AVERAGE			**0:07:40**	**47.35**
Commuting				
19/12/2017	8:15	N	0:07:07	51.01
19/12/2017	17:05	S	0:07:16	49.95
20/19/2017	8:05	N	0:06:21	57.17
20/12/2017	16:00	S	0:06:07	59.35
21/12/2017	8:00	N	0:06:57	52.23
21/12/2017	17:30	S	0:07:11	50.53
22/12/2017	8:20	N	0:05:36	64.82
AVERAGE			**0:06:39**	**55.01**

ATTACHMENT B

N



Typical Example of Proposed No Overtaking Lines

Sign of the Takahe

Victoria Park

60 Proposed 60km/hr Speed Limit

Proposed Double Yellow No Overtaking Lines

60 Proposed 60km/hr Speed Limit

Sign of the Kiwi

60 Proposed 60km/hr Speed Limit

Governors Bay

DYERS PASS ROAD

SUMMIT ROAD

GOVERNORS BAY ROAD

MAIN RD

KEY

50

60

70

PASS SAFELY

Christchurch City Council

Dyers Pass Road

Proposed Safety Improvements
For Board and Council Approval

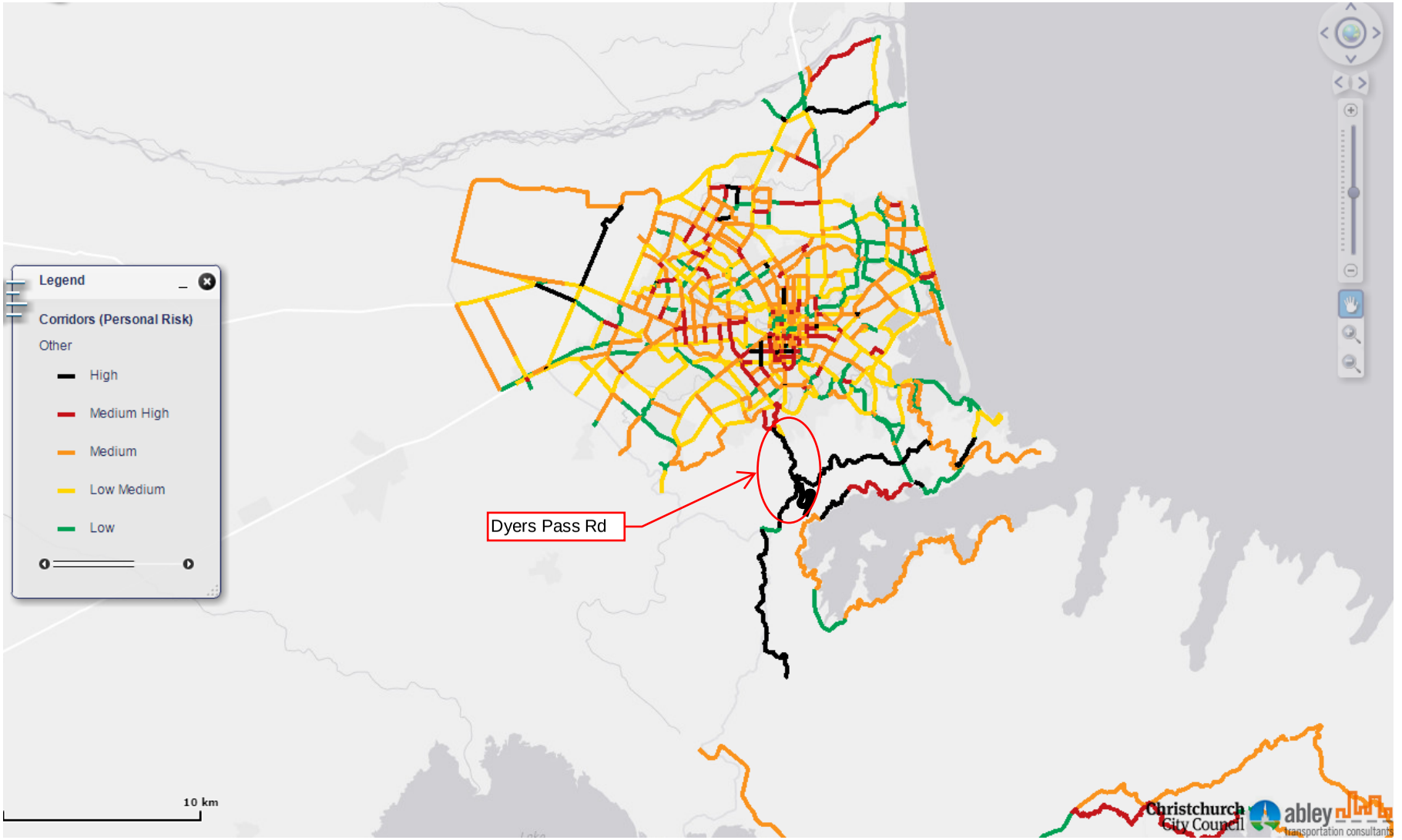
Original Plan Size: A4

ISSUE. 1 09/02/2018

TG131601 MJR

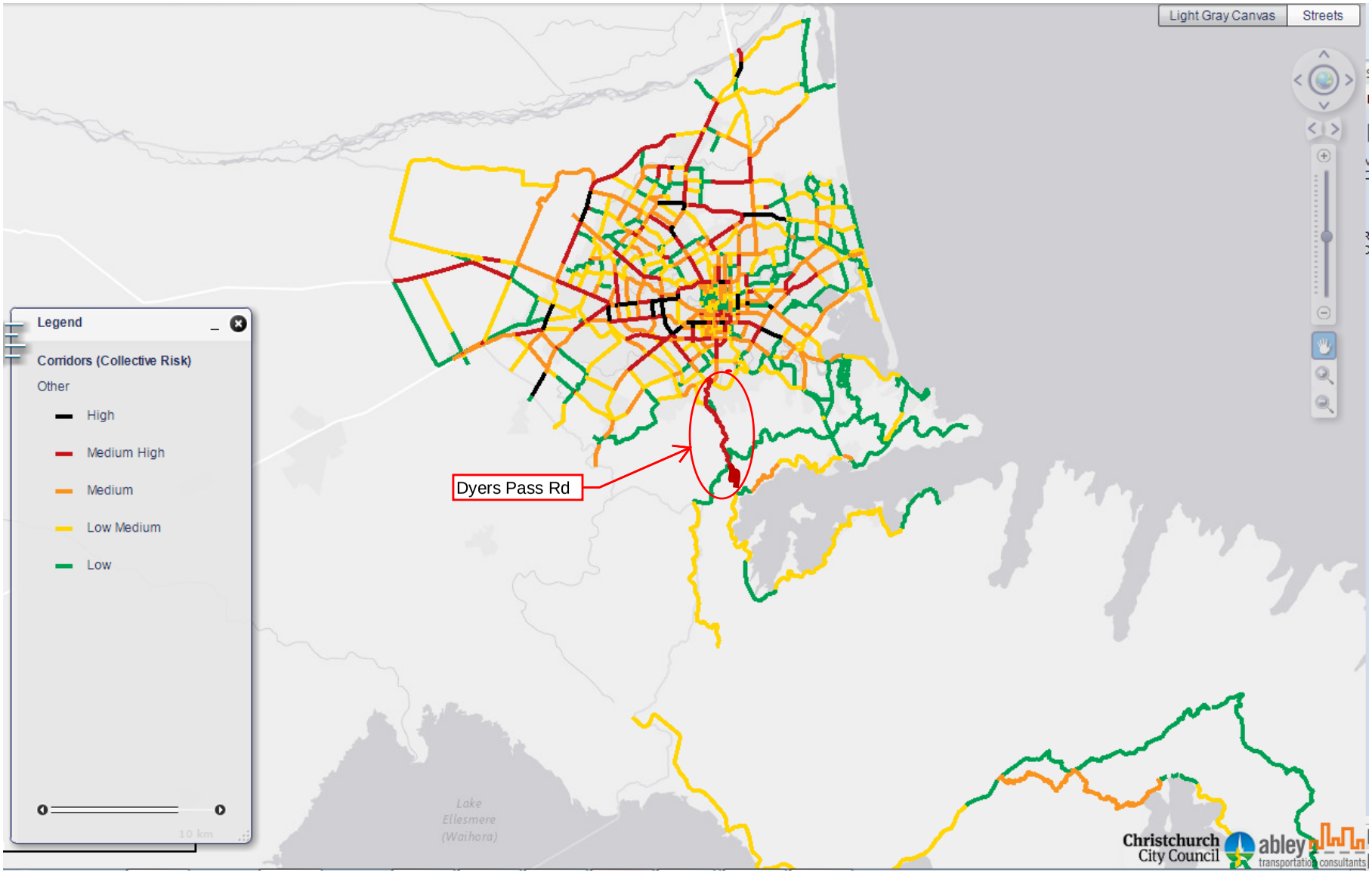
ATTACHMENT C1

ROAD SAFETY RISK (PERSONAL)

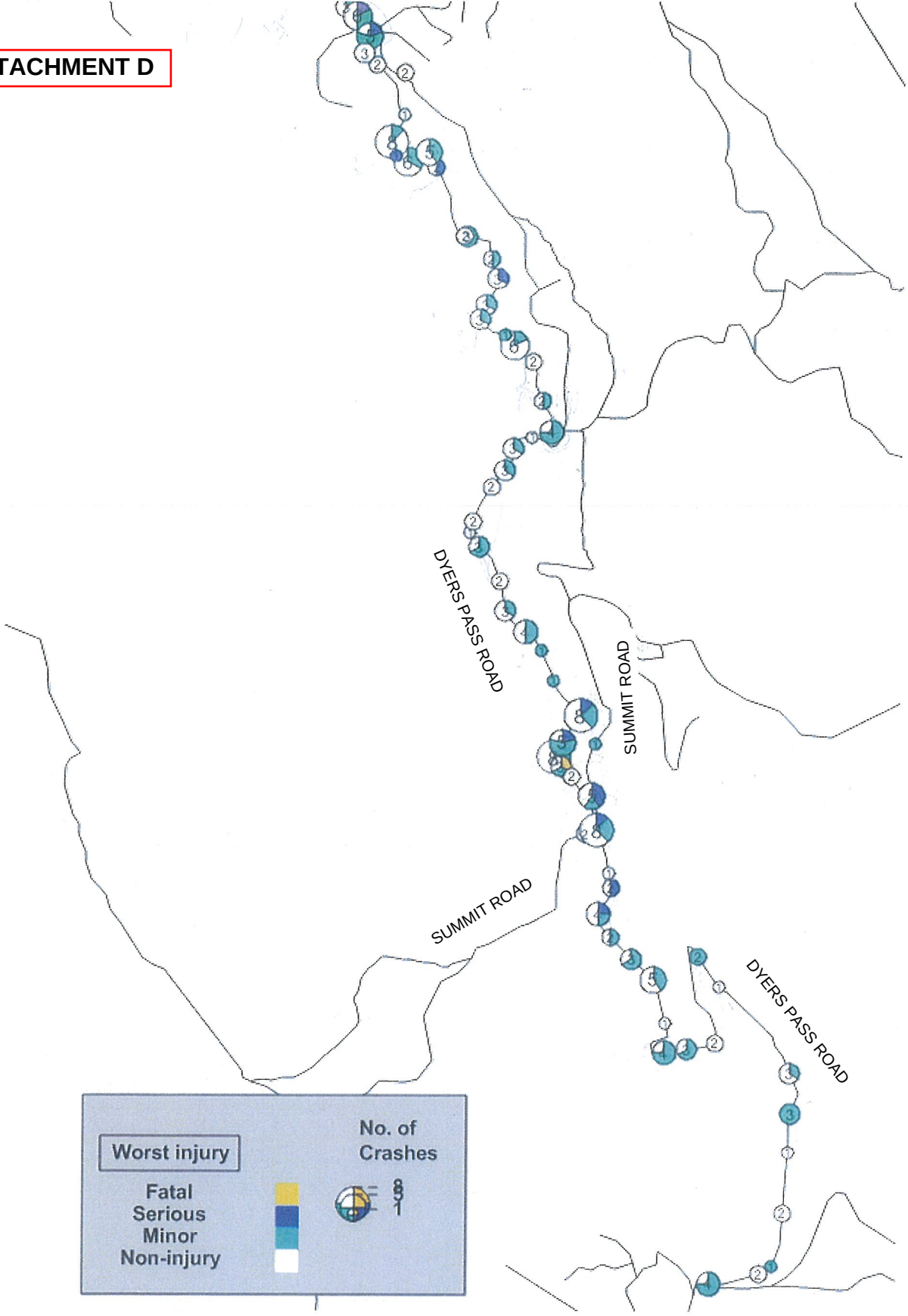


ATTACHMENT C2

ROAD SAFETY RISK (COLLECTIVE)

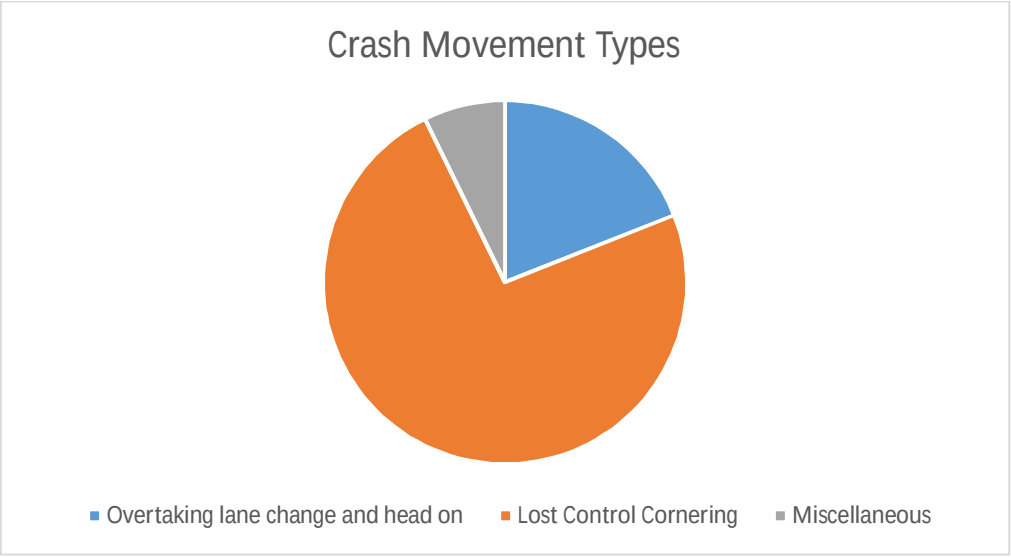


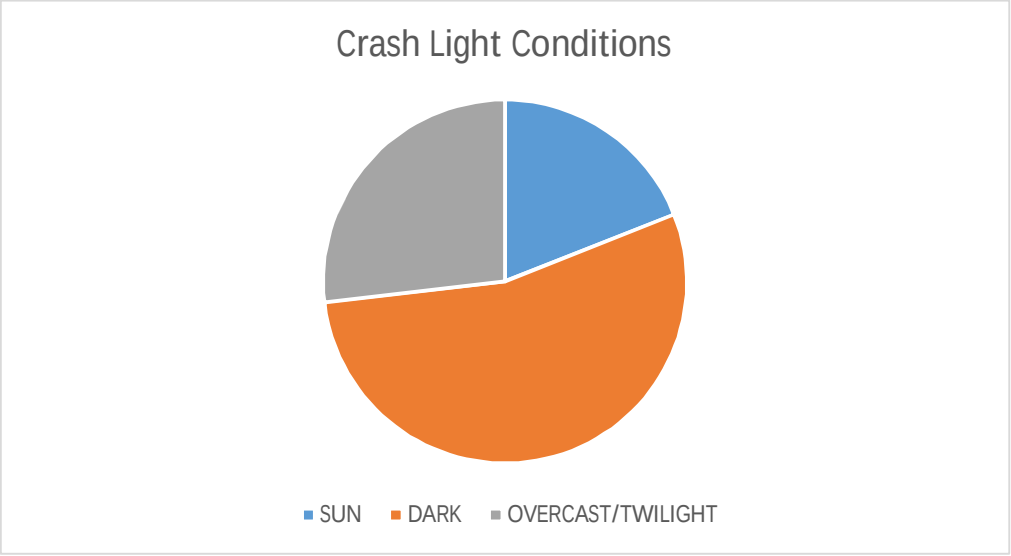
ATTACHMENT D

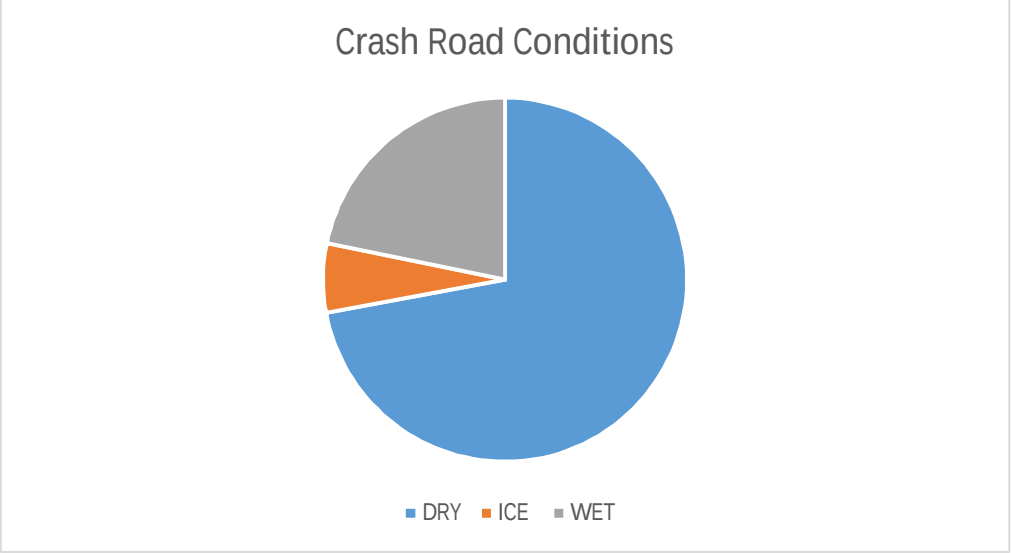


ATTACHMENT E

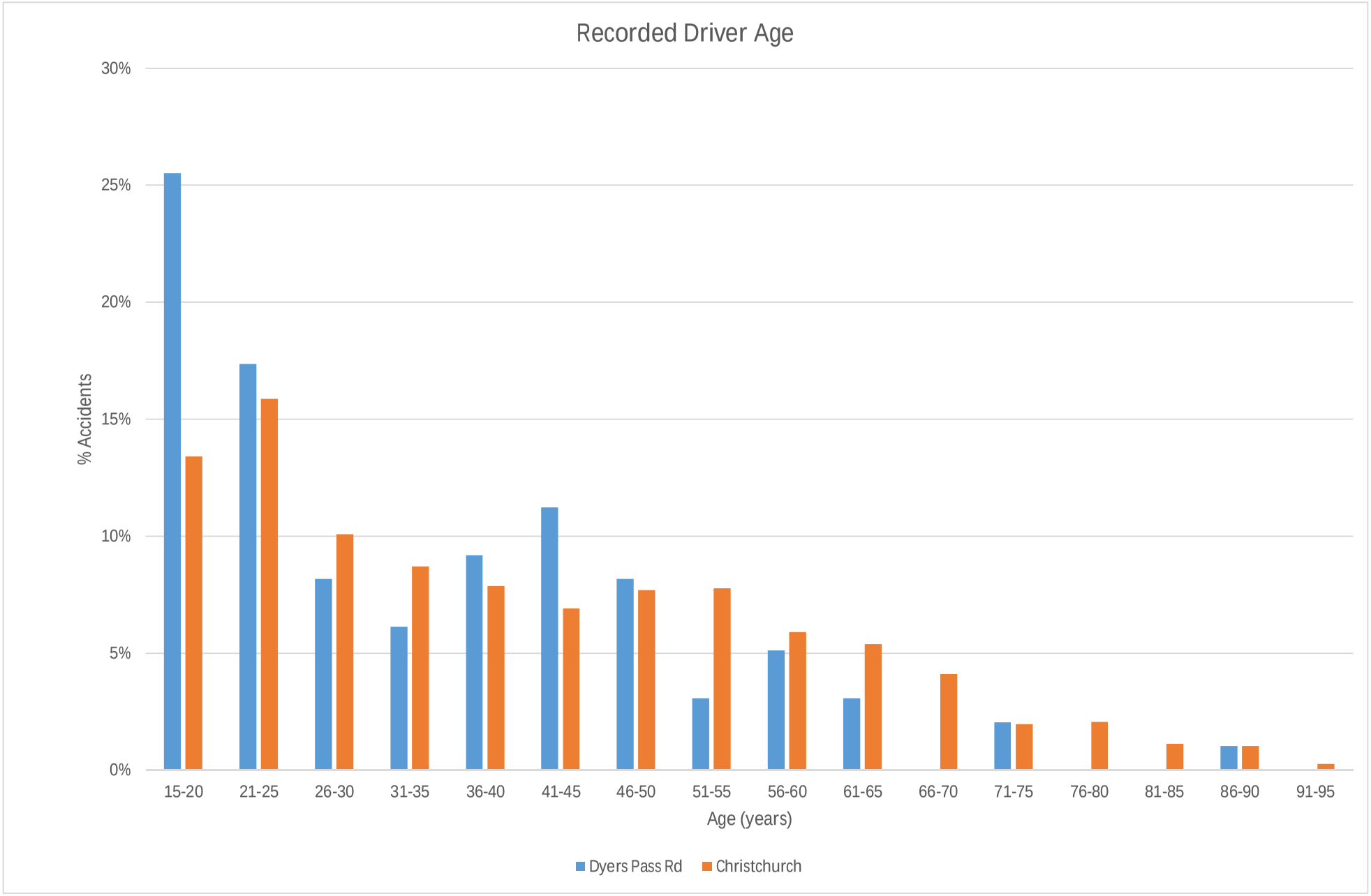
ACCIDENT TRENDS

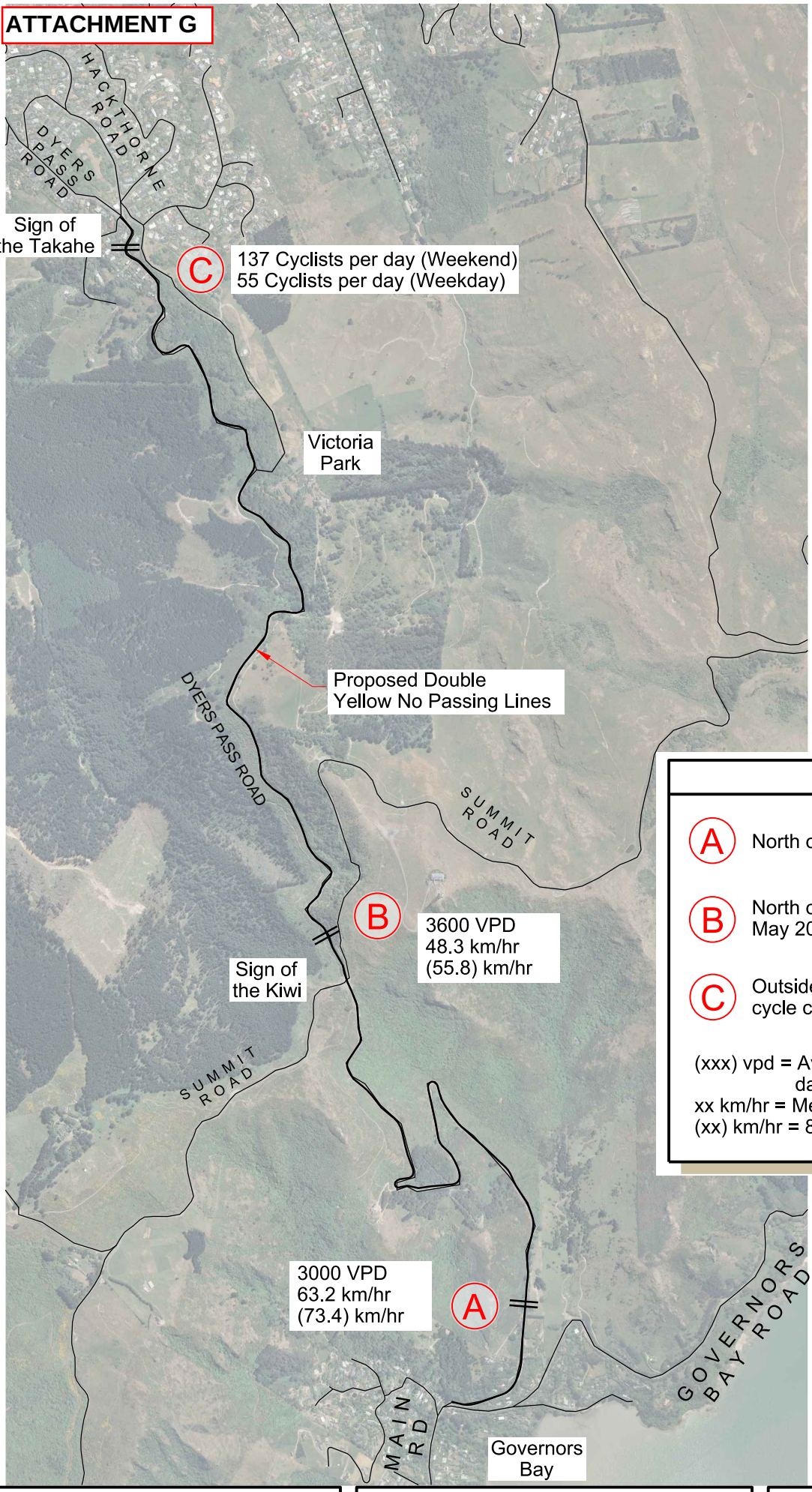






ATTACHMENT F





Christchurch City Council

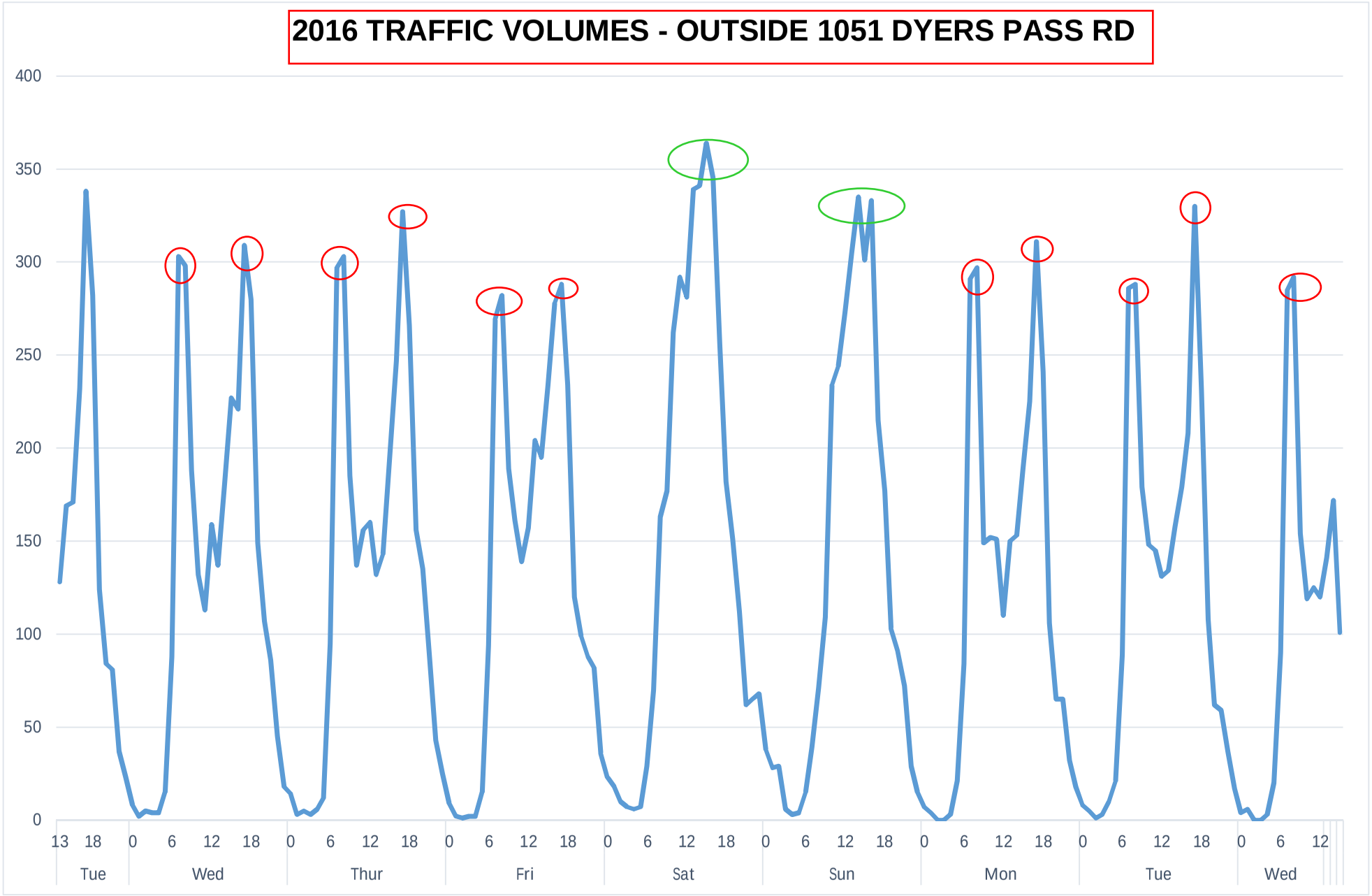
Dyers Pass Road
Measured Speeds & Traffic Volumes

Original Plan Size: A4

ISSUE. 1 17/08/2017

TG131601 MJR

ATTACHMENT H



Weekday AM and PM peak

Weekend peak

ATTACHMENT I