

**Before a Panel of Hearing Commissioners
Appointed by the Timaru District Council**

Under the Resource Management Act 1991 (the **RMA**)

In the matter of Submissions on the Proposed District Plan

Between **Timaru District Council**
Local Authority

And **NZ Transport Agency**
Submitter & Further Submitter 143

**Statement of evidence of Terry Phillip Church (Traffic) on
behalf of New Zealand Transport Agency**

Dated 16 April 2025

1 SUMMARY OF EVIDENCE

- 1.1 My full name is Terry Philip Church and I am a Director of Flow Transportation Specialists Limited (**Flow**). I am presenting this transportation engineering and transportation planning evidence on behalf of the NZ Transport Agency Waka Kotahi (**NZTA**).
- 1.2 I have 25 years' experience as a specialist traffic and transport engineer. I hold a Bachelor of Engineering Technology degree (2004, completed while working full time) and a New Zealand Certificate in Civil Engineering (1999), both obtained from Unitec in Auckland. I am a Chartered Member of Engineering New Zealand and a Chartered Professional Engineer of New Zealand. I am also a member of the Engineering New Zealand Transportation Group.
- 1.3 I am actively involved as a transport expert to a range of clients, including National and Local Government authorities and private developers. I manage and review applications for designations, plan changes, sub-divisions and land use resource consent projects.
- 1.4 I provide expert traffic engineering advice to NZTA on Digital Billboard applications, with recent applications including proposals in Wellington, New Plymouth and Nelson. I also provide expert traffic engineering advice to Auckland Council. Across NZTA and Auckland Council, I currently manage the review of 5 to 10 digital billboard resource consent applications a month.
- 1.5 My evidence relates to NZTA's submission on matters associated with the proposed changes in the Signs chapter of the Timaru Proposed District Plan (**PDP**).

2 CODE OF CONDUCT

- 2.1 I have read the Environment Court's Practice Note 2023 Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above.
- 2.2 I confirm that the issues addressed in this brief of evidence are within my areas of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

3 SCOPE OF EVIDENCE

3.1 My evidence relates to the Signs chapter of the PDP and focusses on the following matters:

- (a) Overview of Timaru's roading network;
- (b) Current industry guidelines used in New Zealand when assessing advertising signs;
- (c) Overview of Digital Billboards;
- (d) Overview of Council's response to NZTA's submissions;
- (e) Recommendations to Standard SIGN-S1;
- (f) Recommendations to Standard SIGN-S2; and
- (g) Conclusion.

3.2 In preparing my evidence, I have considered the following:

- (a) NZTA's submission to Timaru's PDP, dated 15 December 2022 (Submitter 143);
- (b) NZTA's Further Submission to Timaru's PDP, dated 4 August 2023;
- (c) Council's Section 42A Hearings Report (**Council Planning Report**) prepared by Rachel Willox, dated 24 March 2025, including Appendix 1 which sets out the proposed changes to the PDP and Appendix 3, being and the transport advice provided by Abley (Council's traffic advisor);
- (d) Industry guidelines used in New Zealand to assess the safety of Digital Billboards, which include:
 - (i) NZTA Traffic Control Devices Manual, Part 3 Advertising Signs (**TCD Manual**); and
 - (ii) NZTA Planning and Policy Manual, Third party signs on and visible from the state highway corridor (**PPM**).

3.3 I have relied on the planning evidence of Stuart Pearson in understanding scope in relation to NZTA's submission and further submission.

4 EXISTING TRANSPORT ENVIRONMENT

- 4.1 In the context of Timaru, it is important that the Timaru PDP considers the form and function of Timaru's roading layout when determining future policy and standards. Importantly, State Highway 1 provides a central spine route that generally separates the residential activities of Timaru (west of State Highway 1) and the commercial activities and Port of Timaru (east of State Highway 1). As a result, there is a lot of crossing and turning traffic and crossing of vulnerable road users.
- 4.2 A number of local east-west routes cross State Highway 1, with the intersection control ranging from traffic signals, priority controlled (Give Way and Stop controlled) intersections. There are currently no roundabouts on State Highway 1 through Timaru, but in the lifespan of the District Plan, there may well be in the future.
- 4.3 The speed limit on State Highway 1 ranges between 100km/h (fringe/rural), 70 km/h (industrial) and 50 km/h (centre). To the north, the speed limit is 100 km/hr, reducing down to 70km/hr through Washdyke, to the northern side of Jellicoe Road. From Jellicoe Road in the north, to the southern urban boundary, the speed limit is 50km/h, where the speed limit then increases back to 100 km/h.
- 4.4 Importantly, there are a number of priority controlled intersections on State Highway 1, all of which experience traffic volumes greater than 12,500 vehicles per day and up to 20,500 vehicles per day on the state highway alone, as shown in **Appendix A**. These volumes exclude crossing traffic volumes, with demand for those who walk and cycle also being excluded.
- 4.5 In addition to conventional intersection layouts, Timaru also includes a section of State Highway 1 where a central landscape strip separates the northbound and southbound traffic lanes and requires a series of staged give way movements as traffic turns, crosses or makes U-turns through the intersection. An example is shown in Figure 1, being the intersection of State Highway 1/Queen Street/College Road.

Figure 1: Complex give-way or stop controlled staged intersection



4.6 These wide priority controlled intersections are very complex in that they;

- (a) provide internal stacking for vehicles crossing, turning or undertaking a U-turn;
- (b) provide pedestrian crossings (sometimes through marked zebra crossings) to assist vulnerable road users, noting that several are located outside or adjacent to schools;
- (c) have marked on-road cycle lanes;
- (d) include on-street parking on the outsides of the intersection in some instances; and
- (e) cater for a number of large trucks, with a heavy vehicle percentage of 8% to 10% through the Centre, increasing to 14% to 16%¹ north (north of Port Loop Road) and south (south of King Street) of the Centre.

4.7 Due to the high traffic volumes passing through all of Timaru's state highway intersections, whether priority controlled, stop controlled or signal controlled, the need for drivers to concentrate on the driving task is paramount, given the presence of pedestrians, cyclists, turning traffic, heavy vehicles and parked vehicles.

¹ Heavy Vehicle Percentage sourced from Mobile Roads

5 OVERVIEW OF INDUSTRY GUIDELINES FOR ADVERTISING SIGNS

- 5.1 Industry guidelines used in New Zealand to assess the safety of advertising signs include:
- (a) NZTA Traffic Control Devices Manual, Part 3 Advertising Signs (**TCD Manual**); and
 - (b) NZTA Planning and Policy Manual, Third party signs on and visible from the state highway corridor (**PPM**).
- 5.2 It is important to note that the TCD Manual is a guideline and is to promote best practice on the use of advertising signs to the transport industry, territorial authorities, practitioners and private operators. It is therefore important, in my view, that industry guidance is considered and reflected in District Plans when determining when discretion is needed.
- 5.3 The TCD Manual sets out a range of guiding criteria on the placement of advertising signs, including criteria for visibility, positioning, location, design and layout. I summarise the key criteria related to advertising signs, being signs not directly associated with adjacent businesses. The criteria relate to the safety of all road users as set out below.

Visibility of Signs (TCD Manual 5.3)

- 5.4 The visibility of signs covers; the driver's field of vision (which reduces as speed increases); sight distance (ensuring the sign can be seen by an approaching motorist for different speeds; obstructions (ensuring signs do not obstruct or interfere with the visibility of a road hazard, oncoming vehicles, vehicles entering the roadway and people). All modes need to be considered.
- 5.5 Maintaining safe intersection sight distance refer to Austroads², with the minimum standard for a 50 km/h posted speed limit being 96 m. This criterion increases when the posted speed limit increases.

Sign Positioning (TCD Manual 5.4)

- 5.6 Position of signs covers the lateral position of signs (ensuring separation between footpaths and protection of pedestrians); height (ensuring the

² Guide to Road Design Part 4A, Unsignalised and Signalised Intersections, Austroads Ltd 2023, Section 3.2

sign is of a sufficient height not to obstruct pedestrians and impair visibility); spacing (to reduce sign clutter).

- 5.7 The distance between adjacent roadside advertising signs in a 50 km/h posted speed limit 50 m (minimum) and 80 m (desirable). These criteria increase when the posted speed limit increases, with separation increasing to 80 m (minimum) for a 100 km/h posted speed limit.

Sign Location (TCD Manual 5.5)

- 5.8 The TCD Manual recommends that on routes defined by the road controlling authority and territorial authorities as being major roads, the installation of advertising signs should generally be a discretionary activity.
- 5.9 To manage the demands placed on a driver's attention and help avoid safety issues, advertising signs should not be located within 100m (urban) and 200m (rural) of intersections; permanent regulatory or warning signs; curves or pedestrian crossings.
- 5.10 As per the TCD Manual, I support the position that signs located along major roads should be a discretionary activity and that the setback requirement should be for all intersections.

Sign Design (TCD Manual 6.0)

- 5.11 Sign Design considers the sign's legibility and ability of the motorist to read and comprehend the message being displayed. These criteria cover legibility (how clear is the content, covering colour, lettering size and format); the sign's message (ensuring the details do not imitate traffic control devices or signs, give instructions or compete with directional signs); style (covering graphics with a focus on colour and shape, in particular the use of green, orange and red which, being those used to control traffic) and illuminance (the signs brightness, such that it does not impair the vision of drivers).
- 5.12 Importantly, the TCD Manual speaks to animation, flashing and variable message signs, noting that stringent controls are needed on the use of these signs.

Sign Layout (TCD Manual 6.4)

- 5.13 Sign layout covers the message content, including letter size, letter style, letter hierarchy, background colour and contrast between the message and the background.
- 5.14 The above guidance is centred around safety for all road users and provides guidance to practitioners on what needs to be considered when assessing installations or proposed installations.
- 5.15 I acknowledge that the current TCD Manual does not contain adequate criteria around digital billboards, and because of this, inconsistent criteria are being introduced into District Plans around the country. While criteria on dissolve times and minimal display times are not clearly documented in current NZ guidance, all other criteria (as outlined above) remain relevant in most circumstances, albeit it is becoming increasingly difficult to achieve the guidelines in urban areas.
- 5.16 Industry practitioners that regularly assess new digital billboard applications and I, as a reviewer, have generally landed on dwell time and dissolve time criteria for digital billboards through resource consent applications, with display times being adjusted to mitigate on-site factors. I have supported display times for digital billboards ranging between 8 seconds (where considered safe to do so) and 30 seconds (for a complex intersection).

6 OVERVIEW OF DIGITAL BILLBOARDS

- 6.1 I have reviewed a number of digital billboard applications and while their purpose is to advertise and to attract the eye of the public, including motorists, I consider their placement about the network can be achieved safely, provided sufficient controls are implemented where warranted.
- 6.2 Considering the above, it is critical that each advertising sign application is reviewed on its own merits, as each site is very different, due to intersection complexity, volume of traffic, number of conflicts between road users, the volume of and priority afforded to pedestrians and cyclists, the local environment and the context in which the sign is to be located.
- 6.3 I appreciate that more and more advertising signs, in particular digital billboards, are being introduced about the network. I do want to highlight

that the consenting of these signs has generally assessed the appropriateness of the sign and if required applied mitigating measures on the consent to address any safety concerns. It is therefore important that any District Plan has suitable standards that allow for a review of an application and assessment against industry standards by a suitably qualified traffic engineer.

7 OVERVIEW OF COUNCILS RESPONSE TO NZ TRANSPORT AGENCY'S SUBMISSIONS

- 7.1 I agree with NZTA's submission which seeks to retain the ability to assess each application, consistent with the guidance of the TCD Manual. In order to achieve this outcome, the standards set out in the PDP need to ensure that the installation of advertising signs have been sufficiently assessed and that they consider the safety all road users.
- 7.2 It is my view that the current PDP standards and views of the Council team are too heavily weighted towards traffic and have not given sufficient regard to all road users, including those who walk and cycle.
- 7.3 SIGN-O1(3) speaks to maintaining public safety and SIGN-P2 speaks to not compromising the safe use of any road by motorists, pedestrians and other road users. However in my view, the standards do not give sufficient regard to all road users, which may lead to impacts on some road users being overlooked when assessing applications for resource consent.
- 7.4 Working through NZTA's submission to the PDP, I have outlined where I understand submission points are addressed or remain outstanding:
- (a) SIGN-S1. NZTA supported in part with an amendment to SIGN-S1(3). I support Council's amendment included in Appendix 1 of the Planning Report.
 - (b) SIGN-S2. NZTA supported in part. NZTA supported SIGN-S2(8) which states "No digital sign is to be located adjoining a State Highway" and sought an additional matter of discretion that required any adverse effects on traffic safety to be included should the standard not be met. Council has amended this standard (now SIGN-S2(9)) and has significantly altered the outcome of the standard as it applies to Timaru and NZTA's submission, with the

proposed wording of SIGN-S2(9) now only capturing sites adjoining a state highway with a speed limit of 70km/h or more. I do not consider this to be appropriate when considering the state highway through Timaru and the proposed changes associated with other standards, in particular SIGN-S2(2) and SIGN-S2(3). I discuss this suite of standards (SIGN-S2) further below.

- (c) SIGN-S5 and SIGN-S6. NZTA opposed in part. While NZTA supports the standard, NZTA sought an additional matter of discretion that required any adverse effects on traffic safety be included should the standard not be met. Council has accepted this amendment to the standard as included in Appendix 1 of the Planning Report which I support.
- (d) Table 27. NZTA opposed in part and requested that Table 27 reflects the lettering heights specified in Table 6.2 of the TCD Manual. Council has accepted this amendment as included in Appendix 1 of the Planning Report which I support.
- (e) Table 28. NZTA opposed in part and requested that Table 28 reflects the separation distances specified in Table 5.3 of the TCD Manual. Council has deleted SIGN-S1(4) and as such deleted Table 28. I discuss Standards SIGN-S1 (4) further below.

8 STANDARD SIGN-S1 RECOMMENDATIONS

- 8.1 Council has deleted SIGN-S1(4) which relates to the separation of signs and therefore has deleted Table 28 which sets out the separation distance according to the posted speed limit.
- 8.2 I consider SIGN-S1(4) to be confusing in that it discusses sign offsets and separation. I also consider that it is difficult to establish a standard that attempts to capture signs in low speed (urban environments) and high speed (rural environments).
- 8.3 In terms of low speed, urban environments, SIGN-P1(3) speaks to “minimising visual clutter and/or adverse cumulative effects”. I support the wording of this policy and consider it sufficient to address applications in an urban context where it is becoming increasingly difficult to meet distance requirements set out in the TCD Manual, Table 5.3.

- 8.4 In rural, high speed environments however, where speed limits are 70 km/h or more, I am of the view that the separation distance between advertising signs remains very relevant and necessary to ensure drivers are not subjected to visual clutter, have sufficient time to process the information presents, and are not distracted from the driving task in an environment where the consequence of distraction can be fatal. This position accords with the TCD Manual requirements.
- 8.5 I would support retaining SIGN-S1(4), with the standard being reworded, whereby “All signs designed to be read by motorists on a road with a posted speed limit of 70km/h or more must comply with the minimum separation distances in Table 28”. Table 28 should then be based on the TCD Manual, Table 5.3 for speeds of 70km/h or more as included in NZTA’s submission.

9 STANDARD SIGN-S2 RECOMMENDATIONS

- 9.1 A number of changes have been made to SIGN-S2 in response to submissions received. I am concerned with the changes suggested and included in Appendix 1 of the Council Planning Report, in particular SIGN-S2(9).
- 9.2 As discussed above, the current advertising sign guidance in New Zealand does not capture specific measures for digital billboards such as image display times and dissolve times. While District Plans have started to introduce standards that outline when discretion is needed, I consider that there is a significant risk in adopting standards used elsewhere in the country.
- 9.3 In terms of minimum displayed times for digital billboards, I am comfortable with the minimum 10 seconds outlined in Standard SIGN-S2(2), noting that I would be equally supportive of a minimum of 8 seconds which is commonly used in billboard applications. A minimum display time of 8-10 seconds however is dependent on the transport environment and safety of all road users being acceptable.
- 9.4 Higher display times are required where there is a greater need to ensure drivers are not distracted from the driving task for the reasons set out in paragraph 6.2. In accepting a minimum display time, it is critical that other standards in SIGN-S2 capture sites where the safety of all road users may be compromised.

- 9.5 My position is consistent with that of Council's Planner. In paragraph 11.6.7 of her report, Ms Willox identifies that higher dwell times can be imposed as a condition of consent to mitigate effects in higher risk environments, including along state highways and intersections.
- 9.6 I do not support the proposed changes included in Standard SIGN-S2(3) which relate to setting parameters on distance from intersections and the type of intersections.
- 9.7 It is essential that the roading network to which the standard will be applied is considered. The Council's Planner and traffic engineer (Abley) has referenced the Christchurch District Plan standards to justify their position on a 50 m setback which applies to signalised intersections only. Christchurch has a significant number of signalised intersections where busy roads (including state highways) intersect. Christchurch's road network presents a very different road network to the likes of smaller towns or cities about New Zealand, including Timaru. Timaru has a state highway passing through the centre of town with busy priority controlled intersections (used by all modes).
- 9.8 Because Christchurch has a well-developed network, where high traffic volumes exist, and a safe active mode network which prioritises all road users through signals (including mid-block signals) at significant intersections, conflicts between vulnerable road users and cars are better managed. This is not the case in smaller towns and cities. In my opinion, it is not suitable to apply what is suitable for Christchurch to Timaru.
- 9.9 Further, because Christchurch City Council specifies signalised intersections in their sign distance standard, the distance from a signalised intersection from which an advertising sign is located can reduce, as the movement of cars, pedestrians and cyclists through the intersection is controlled by traffic signals. Because each mode is given safe priority, it is acceptable to reduce the distance to 50 m.
- 9.10 For other intersections however, including roundabouts or priority controlled intersections (Give-way and Stop control), there is a greater need to be aware of the surroundings, vehicles entering the roadway, pedestrians and cyclists. As such, minimising or managing distractions has greater importance and hence the 100 m distance remains relevant

as a trigger for considering matters of discretion. This aligns with the TCD Manual and safe intersection sight distance requirements.

- 9.11 Should the panel determine that intersection setback distance of 50 m is appropriate, I strongly recommend removing 'signalised' from Standard SIGN-S2(3) as the roading environment in Timaru is not consistent with Christchurch. The Standard needs to apply to all intersections, noting that there are complex and busy priority controlled intersections which have high pedestrian volumes and on-road cycle lanes, with some being fairly complex.
- 9.12 With regard to SIGN-S2(9), I do not support the inclusion of the additional text 'with a speed limit of 70km/h or more'. This text, combined with the other standards of SIGN-S2 as currently proposed essentially permits digital billboards to be located at any intersection along the state highway within Timaru south of Jellicoe Road (to the north) and north of the river (to the south) that is not signalised. This presents a significant risk to users of the safety of the transport network.
- 9.13 As outlined in Section 4, the state highway is used as a local route and strategic route, with complex priority controlled intersections through the 50km/h section. Land uses, including schools sit adjacent to the state highway, creating high pedestrian and cycling demand. Combining all of the above with high crossing traffic and high heavy vehicle percentages has the state highway functioning with multiple roles where safety is paramount.
- 9.14 I therefore do not support the additional text and recommend that SIGN-S2(9) reverts back to the original text, being 'No digital sign is to be located adjoining the state highway'.
- 9.15 I recognise that submitters, including Out of Home Media suggest the deletion of SIGN-S2(8), now SIGN-S2(9). I do not support their position that there is no inherent difference between local road and state highways. As outlined in my evidence, State Highway 1 through Timaru plays multiple functions as outlined in Section 4 and paragraph 9.13.

10 CONCLUSION

- 10.1 I do not support some of the suggested changes put forward by Council in response to submissions on the signs chapter of the Timaru PDP, as outlined in the Council Planning Report.
- 10.2 It is important that the sign standards in the Timaru PDP reflect Timaru's transport network, and consider all road users and all intersection layouts, particularly those located along the higher trafficked routes (specifically State Highway 1). What works for Christchurch is not necessarily relevant for Timaru.
- 10.3 I have recommended changes to the SIGNS chapter that are based on traffic engineering best practice and recommend discretion is required to allow an assessment of future applications that protects the safety of all road users. In my view, each advertising sign, which is predominantly digital in nature needs to be assessed when located adjacent to a busy urban environment.

Terry Church
16 April 2025

ATTACHMENT A: Timaru State Highway Volumes and Heavy Vehicle Percentages

