

**BEFORE HEARINGS COMMISSIONERS  
FOR THE HURUNUI DISTRICT COUNCIL**

**RC220060 & RC220072**

**UNDER THE**

Resource Management Act 1991 ("**Act**")

**IN THE MATTER OF**

an application for consent under section 88 of the Act for subdivision and land use consent for Stages 3-6 of a multi-staged residential development known as 'The Clearing' located at 64 Amberley Beach Road and 187 Carters Road, Amberley

**BETWEEN**

**UWC LIMITED**

Applicant

**AND**

**HURUNUI DISTRICT COUNCIL**

Consent authority

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**SUPPLEMENTARY STATEMENT OF EVIDENCE  
OF WAYNE ANDERSON GALLOT  
ON BEHALF OF THE APPLICANT, UWC LIMITED**

**14 JUNE 2023**

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## **INTRODUCTION, QUALIFICATIONS AND EXPERIENCE**

1. My full name is Wayne Anderson Gallot. I currently hold the position of Senior Transport Engineer with Novo Group Limited (**Novo Group**), a Christchurch based resource management and traffic engineering consulting company. My experience and qualifications are as set out in my original Statement of Evidence presented at the hearing on 29 May 2023.
2. This Supplementary Statement of Evidence responds to Item 6 (first bullet point) and Item 7(i) of Minute 3 issued by the hearing Commissioners on 31 May 2023.

### **Code of Conduct**

3. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with it in preparing this evidence and I agree to comply with it in presenting evidence at this hearing. The evidence that I give is within my area of expertise except where I state that my evidence is given in reliance on another person's evidence. I have considered all material facts that are known to me that might alter or detract from the opinions that I express in this evidence.

### **ITEM 6 (DATE OF TRAFFIC SURVEY)**

4. Traffic modelling and assessment of the Carters Road (SH1) / Amberley Beach Road intersection during the PM peak period as presented in evidence at the hearing, as well as contained within the Integrated Transportation Assessment submitted with the resource consent application, was based on previous PM peak traffic surveys undertaken by other Novo Group staff on Thursday 25 June 2020.
5. According to information available on the 'Unite Against Covid 19' website<sup>1</sup>, all areas of New Zealand moved to Alert Level 1 on 8 June 2020 and remained at that level until 12 August 2020. Alert Level 1 (the lowest of the four levels) is described on the website as permitting all businesses, facilities, schools, education providers and workplaces to open, and having no restrictions on personal movement or gatherings.

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<sup>1</sup> <https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/>

6. On this basis, it is considered that the intersection and surrounding road network would have been operating under normal conditions at the time of the June 2020 traffic surveys.

#### ITEM 7 (AM PEAK INTERSECTION ASSESSMENT)

7. Item 7(i) of the Commissioners' Minute 3 requested the Applicant to consider an assessment of the Carters Road (SH1) / Amberley Beach Road intersection in the morning peak period.
8. To inform this assessment, base traffic volumes were manually recorded on the morning of Thursday 8 June 2023 between 7:30am and 9:30am. Weather conditions were fine and clear. There were road cones present on the sides of Carters Road (SH1) south of the intersection, however these appeared to be associated with work being conducted within the eastern shoulder and did not affect normal operation of the intersection or the approach traffic lanes. The intersection of Carters Road (SH1) and Banks Street to the south was also not affected by works being undertaken in the Carters Road (SH1) shoulder opposite. Thus, it is considered that the intersection and surrounding road network were operating under normal conditions during the survey.
9. Analysis of the survey data revealed that the peak 1-hour period during the 2-hour survey was 7:45am – 8:45am. The recorded intersection traffic volumes for this period are summarised in **Table 1**. For comparison, the June 2020 PM peak period traffic volumes are also provided.

Table 1: Carters Road SH1 / Amberley Beach Road - Surveyed AM Peak and PM Peak Volumes

Date / Time		Carters Rd SH1 (north)		Amberley Beach Rd (east)		Carters Rd SH1 (south)		Intersection All
		Lt	Th	Lt	Rt	Th	Rt	
PM Peak	Light Veh	47	438	71	40	260	74	930
Thursday 25 Jun 2020	Heavy Veh	1	60	2	2	28	1	94
4:20-5:20pm	Combined	48	498	73	42	288	75	1024
	Heavy Veh %	2.1%	12.0%	2.7%	4.8%	9.7%	1.3%	9.2%
AM Peak	Light Veh	22	163	37	37	324	55	638
Thursday 8 Jun 2023	Heavy Veh	4	40	3	1	39	5	92
7:45-8:45pm	Combined	26	203	40	38	363	60	730
	Heavy Veh %	15.4%	19.7%	7.5%	2.6%	10.7%	8.3%	12.6%

10. The recorded AM peak traffic volumes were modelled in SIDRA using default settings. The results indicated minimal average delays (less than 10 seconds) and corresponding Level of Service A (LoS A) on most approaches and movements, except for the right turn movement from Amberley Beach Road to Carters Road (SH1) north which indicated an average delay of 10.7 seconds and corresponding LoS B. While actual delays were not recorded during the survey, the SIDRA results accord well with general observations. On this basis, it is considered that calibration of the base model is not required.
11. A future year (2033) base model was developed by adjusting the recorded traffic volumes as follows:
  - (a) Through vehicle volumes on Carters Road were increased by 26.2% (representing 10-years growth at 2.62% non-compounding as has been adopted in previous transport assessments for the current Stage 3-6 proposal as well as the now consented Stages 1-2 and the retirement village development).
  - (b) The heavy vehicle component of the Carters Road (SH1) through movement flows at the intersection were set at 15.2% (being the average of the recorded values in each direction).
  - (c) A notional 80 light vehicles were added to movements into and out of Amberley Beach Road on the basis of 100 retirement village villas accessed via Amberley Beach Road and Teviotview Place (at an 85th percentile generation rate of 0.3 vehicle movements per villa per hour) and around 55 additional dwellings within the Oakfields development and other subdivision developments to the east (at an 85th percentile generation rate of 0.9 vehicle movements per dwelling per hour). This additional traffic was apportioned generally in accordance with the surveyed turning movement splits.
  - (d) It was observed during the survey that some of the heavy vehicle movements into and out of Amberley Beach Road appeared to be civil construction traffic associated with The Clearing Stage 1-2 development as well as other trucks carrying residential building supplies associated with on-going development within Oakfields and other subdivisions in the area. Thus, it is considered that the

relatively high percentages of heavy vehicles on the movements into and out of Amberley Beach Road (2.6% - 15.4%) are likely to reduce as civil construction and building activity in these areas is completed. For that reason, a nominal heavy vehicle component of 3% has been adopted for vehicle movements into and out of Amberley Beach Road in the future base year scenario.

12. **Table 2** summarises the SIDRA results for the surveyed intersection volumes and the adopted future (2033) base year scenario.

Table 2: Carters Road SH1 / Amberley Beach Road – AM Peak SIDRA Results (Current and Future Base Year)

Date / Time		Carters Rd SH1 (north)		Amberley Beach Rd (east)		Carters Rd SH1 (south)	
		Lt	Th	Lt	Rt	Th	Rt
Current Surveyed 8 June 2023	Volume	26	203	40	38	363	60
	Heavy Veh %	15.4%	19.7%	7.5%	2.6%	10.7%	8.3%
	Avg. Delay	4.7	0.0	5.4	10.7	0.1	5.6
	Level of Service	LoS A	LoS A	LoS A	LoS B	LoS A	LoS A
Future (2033) Base Year	Volume	36	256	60	58	458	90
	Heavy Veh %	3.0%	15.2%	3.0%	3.0%	15.2%	3.0%
	Avg. Delay	4.6	0.1	5.6	14.7	0.1	5.8
	Level of Service	LoS A	LoS A	LoS A	LoS B	LoS A	LoS A

13. **Table 2** shows that in the future base (2033) year scenario, there is little change in overall delays and corresponding levels of service other than a slight increase in average delays on the right turn from Amberley Beach Road from 10.7 seconds to 14.7 seconds.
14. Two other scenarios were then tested with the addition traffic associated with The Clearing development as described below:
- All Stage 1-6 development traffic with the planned new Carters Road (SH1) intersection in place. Note that this is essentially the same as consented Stage 1-2 development traffic without the new intersection.
  - All Stage 1-6 development traffic without the planned new intersection in place.

15. **Table 3** summarises the SIDRA results for these two development scenarios.

**Table 3: Carters Road SH1 / Amberley Beach Road – AM Peak SIDRA Results (Development Scenarios)**

Date / Time		Carters Rd SH1 (north)		Amberley Beach Rd (east)		Carters Rd SH1 (south)	
		Lt	Th	Lt	Rt	Th	Rt
Current Surveyed 8 June 2023	Volume	26	203	40	38	363	60
	Heavy Veh %	15.4%	19.7%	7.5%	2.6%	10.7%	8.3%
	Avg. Delay	4.7	0.0	5.4	10.7	0.1	5.6
	Level of Service	LoS A	LoS A	LoS A	LoS B	LoS A	LoS A
Future (2033) Base Year	Volume	36	256	60	58	458	90
	Heavy Veh %	3.0%	15.2%	3.0%	3.0%	15.2%	3.0%
	Avg. Delay	4.6	0.1	5.6	14.7	0.1	5.8
	Level of Service	LoS A	LoS A	LoS A	LoS B	LoS A	LoS A
Stage 1-6 with new Carters Rd (SH1) intersection	Volume	49	272	98	97	505	105
	Heavy Veh %	3.0%	15.2%	3.0%	3.0%	15.2%	3.0%
	Avg. Delay	4.6	0.1	5.7	19.8	0.1	5.9
	Level of Service	LoS A	LoS A	LoS A	LoS C	LoS A	LoS A
Stage 1-6 without new Carters Rd (SH1) intersection	Volume	60	256	186	131	458	132
	Heavy Veh %	3.0%	15.2%	3.0%	3.0%	15.2%	3.0%
	Avg. Delay	4.6	0.1	5.7	20.1	0.1	5.9
	Level of Service	LoS A	LoS A	LoS A	LoS C	LoS A	LoS A

16. As can be seen in **Table 3**, under both future development scenarios, the right turn movement from Amberley Beach Road into Carters Road (SH1) north is expected to operate at level of service LoS C with average delays of around 20 seconds during the AM peak period regardless of whether or not the planned new Carters Road (SH1) link road and intersection is in place. All other movements remain at level of service LoS A with average delays of 5.9 seconds or less.
17. As a further sensitivity test, heavy vehicle percentages on the future development 'without new intersection' scenario were increased to 20% on the Carters Road (SH1) through movements and 5% on all other movements. This resulted in a slight increase in average delays to 21.6

seconds on the right turn movement out of Amberley Beach Road (level of service remained at LoS C) but little change to the other movements.

### **CONCLUSION**

18. Based on the above, and the assessment of the PM peak period as contained in my original Statement of evidence, I am satisfied that the surrounding road network will continue to operate at acceptable levels of service during both the AM Peak and PM peak periods with full development of Stages 1-6 of The Clearing regardless of whether or not the planned new Carters Road (SH1) link road and intersection are in place and operational.

**Wayne Gallot**  
**14 June 2023**