

**BEFORE AN INDEPENDENT HEARING COMMISSIONER
APPOINTED BY THE WAIPĀ DISTRICT COUNCIL**

IN THE MATTER of the Resource Management Act 1991 (the **Act**)

AND

IN THE MATTER of Private Plan Change 35: Te Awamutu Large Format
Retail Centre to the Waipā District Plan (**PPC 35**)

**STATEMENT OF EVIDENCE OF KEITH SHANE BELL ON BEHALF OF 638
LIMITED**

(TRAFFIC AND TRANSPORTATION)

Dated: 27 July 2026

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LAWYERS

1. SUMMARY OF EVIDENCE

- 1.1 My full name is Keith Shane Bell. I am a Senior Associate at Traffic Engineering & Management Limited (**TEAM**), where I have been employed for 18 years. My evidence is given on behalf of 638 Limited (the **Applicant**), which seeks Private Plan Change 35: Te Awamutu Large Format Retail Centre to the Waipā District Plan (**PPC 35**). My evidence addresses the traffic and transportation matters arising from PPC 35.
- 1.2 In my opinion, installation of traffic signals at the Cambridge Road / Access 1 intersection remains the preferred transport outcome for PPC 35. Traffic modelling indicates that a traffic signal-controlled intersection is the most appropriate intervention to serve the proposed new Mitre 10 store in Area B. The traffic signal-controlled intersection will include a dedicated left-turn lane on Cambridge Road and pedestrian crossing facilities across Cambridge Road and Access 1.
- 1.3 The modelling shows that the existing 'Give Way' controlled access to Area A will continue to operate satisfactorily and that there will be no queuing interaction between the two intersections.
- 1.4 From a traffic engineering perspective, I consider that a traffic signal-controlled intersection, including the dedicated westbound left-turn lane from Cambridge Road into Access 1 can be accommodated safely at this location. In my opinion, it is technically feasible to construct these works within the legal boundaries of Cambridge Road and Access 1.
- 1.5 I respond later in my evidence to the specific matters raised in the Gray Matter Transportation Analysis. As a general observation from a traffic engineering perspective, the information available at the plan change stage is sufficient to determine whether the anticipated traffic can be safely and efficiently accommodated and whether the necessary external transport upgrades are technically feasible. Final resource consent design matters, including internal parking, loading and circulation, signal phasing, lane tapers and construction arrangements, can appropriately be addressed once the detailed development proposal and engineering information are available.
- 1.6 I do not support the proposed fixed requirement for 20m separation between every Area A and Area B entranceway. That separation cannot be achieved for all of the proposed northern Area B entranceways. In my opinion, the Area

B service entrance should be aligned with the existing Area A service entrance, while the Area B customer entrances should be positioned to provide as much separation from the Area A entrances as is physically practicable. I have also considered each of the specific amendments to the concept plan recommended in the Gray Matter report, and address these individually at paragraph 11.34 below.

- 1.7 The concern raised by NZ Transport Agency Waka Kotahi (**NZTA**) regarding effects on the nearby State Highway 3 roundabout has been resolved following further assessment. I also understand that the amendments agreed with Foodstuffs North Island Limited (**Foodstuffs**) resolve its transport concerns, subject to the final plans and provisions reflecting those agreed outcomes.
- 1.8 Overall, in my opinion, there are no traffic or transportation effects or constraints that would prevent PPC 35 from being approved, subject to the amended plan provisions recommended by Rachelle Hui.

2. INTRODUCTION

- 2.1 My evidence addresses the traffic and transportation issues related to PPC 35.
- 2.2 I am familiar with the PPC 35 area and the surrounding transport network. My most recent site visit was on 25 July 2026.
- 2.3 My evidence should be read in conjunction with the expert planning evidence of Ms Hui.

3. QUALIFICATIONS AND EXPERIENCE

- 3.1 I have a New Zealand Certificate of Engineering (Civil) and a Certificate of Transportation, Management and Control from the University of New South Wales.
- 3.2 I have worked in traffic engineering for more than 41 years and have previously worked at the Ministry of Transport (7 years). I have also held a number of roles at Auckland City (9 years), including the senior positions of 'Traffic Safety Manager' and 'Major Events Coordinator'.
- 3.3 My recent experience while working at TEAM includes the design, assessment and/or review of a considerable number of projects, including

sporting, recreational, commercial, educational, industrial and residential projects.

- 3.4 From a traffic planning and management perspective, my project experience, which I consider particularly relevant to this application, includes Involvement in the transport assessment of multiple Mitre 10 stores in the North Island, including consideration of trip generation, customer parking and circulation, servicing, loading and access arrangements for large-format building improvement centres. Examples include Silverdale, Gisborne, Waiuku and Drury

4. CODE OF CONDUCT

- 4.1 I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Practice Note 2023 (**Code**) and have complied with it in preparing this evidence. I also agree to follow the Code when presenting evidence at the Independent Commissioner Hearing. I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses. I also confirm that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

5. SCOPE OF EVIDENCE

- 5.1 This statement of evidence covers the following:
- (a) A summary of my evidence (see **Section 1** above);
 - (b) **Section 6:** My involvement in this project;
 - (c) **Section 7:** Existing transport environment;
 - (d) **Section 8:** Assessment of traffic generation, distribution, and modelling;
 - (e) **Section 9:** Road improvement options, including recommended option;
 - (f) **Section 10:** Matters raised in submissions;
 - (g) **Section 11:** Matters raised in the section 42A report and Gray Matter peer review; and

(h) **Section 12:** Conclusion.

6. MY INVOLVEMENT IN THIS PROJECT

6.1 I prepared the following documents lodged in support of PPC 35:

- (a) Transportation Assessment for the Applicant dated September 2025;¹ and
- (b) Plan Change – 638 Cambridge Road, Te Awamutu – Response to Traffic Items”, Attachment C to the Applicant’s response to Waipā District Council’s Further Information Request (PC/0002/25), 18 September 2025.²

6.2 I confirm the content of those reports, subject to the matters raised in this statement of evidence.

7. EXISTING TRANSPORT ENVIRONMENT

7.1 The existing transport environment is addressed in section 3 of the Transportation Assessment.

7.2 Cambridge Road is an arterial route with a posted speed limit of 50 km/h. The reviewed crash history does not disclose a significant existing crash issue in the vicinity of the PPC35 area. Gray Matter agrees with that conclusion.³

7.3 The traffic surveys undertaken for the Transportation Assessment provide a reliable record of the existing traffic environment. Gray Matter reviewed the TEAM and Council counts and accepted that the TEAM survey data were appropriate for assessment purposes.⁴

7.4 Consideration has been given to the vehicle, pedestrian and cyclist connections to the PPC 35 area including the management of the existing and proposed vehicle connections to Cambridge Road and the pedestrian connections at these intersections, both across Cambridge Road and between the two parts of the PPC 35 area.

¹ [Appendix K to the Private Plan Change Request – Transportation Assessment dated September 2025.](#)

² [Traffic Engineering & Management Ltd, “Plan Change – 638 Cambridge Road, Te Awamutu – Response to Traffic Items”, Attachment C to the Applicant’s response to Waipā District Council’s Further Information Request \(PC/0002/25\), 18 September 2025.](#)

³ Gray Matter Transportation Analysis, section 4.2.1.

⁴ Gray Matter Transportation Analysis, section 4.2.2.

- 7.5 Area A currently consists of a number of commercial/retail tenancies, including the existing Mitre 10 store. Area B is vacant land, and PPC 35 seeks to establish a new Mitre 10 Mega store on Area B.
- 7.6 The existing Mitre 10 store located in Area A will remain available for retail activities within the limits proposed to be established by the amended PPC35 provisions.

8. ASSESSMENT OF TRAFFIC GENERATION, DISTRIBUTION AND MODELLING

- 8.1 The anticipated traffic generation of the proposed Mitre 10 store was calculated by referring to traffic generation rates that are based on surveys of the Warkworth Mitre 10 Mega that were undertaken during the week prior to and the Saturday of Labour Weekend 2022.
- 8.2 The Warkworth store was chosen as it is a popular store that serves a significant urban and rural catchment in North Auckland, which is considered to be representative of the catchment for the new store. My experience with other Mitre 10 developments also indicates that its operational and customer characteristics provide an appropriate comparator for the proposed activity.
- 8.3 The week prior to Labour Weekend and the Saturday of Labour Weekend were chosen as this is known as a particularly busy period for home improvement stores. The use of that period therefore provides a conservative basis for estimating the proposed store's traffic generation.
- 8.4 The traffic generation rates were applied to the area of the proposed store for the peak periods for Cambridge Road identified for the AM and PM weekday and the Saturday peak period.
- 8.5 The anticipated traffic generation for these peak periods was then distributed to turning movements at the Cambridge Road intersection, with the assignment of movements based on those occurring at the Cambridge Road access to the existing commercial area (Area A). These additional traffic movements were added to the movements currently occurring at the intersection.
- 8.6 Both intersections were originally modelled as a connected network for the three identified peak periods.

- 8.7 The surveyed movements at the access to the existing commercial area (Area A) were used for modelling of this intersection as the GFA and type of activity will remain unchanged.
- 8.8 Through discussions with Waipā District Council, a 40% growth rate was applied to the through traffic volumes on Cambridge Road to represent 20 years of growth. Following Council's further information request, the 40% growth factor was then applied to all turning movements at Accesses 1 and 2.
- 8.9 The application of the 40% uplift to all turning movements was undertaken as an additional sensitivity assessment requested by Council. In my view, it provides a conservative test of the performance of the proposed access arrangements, particularly given that the Access 1 demand was already derived from a fully operational comparator store during a busy trading period. I therefore regard the 40% scenario as a useful robustness check against broader catchment growth and potential changes in traffic associated with Area A, rather than as a forecast of the most likely future demand.
- 8.10 The results of that modelling demonstrated that Access 2 performs well during all assessed peak periods under the future growth scenario. Access 1 also performs well when signalised. However, without a dedicated left-turn lane, the modelled westbound queue on the eastern Cambridge Road approach extends past Access 2 under the 140% turning-movement scenario (ie. the base turning movements with the 40% uplift applied).⁵
- 8.11 TEAM therefore modelled a dedicated left-turn lane from Cambridge Road into Access 1. That assessment demonstrated that the additional lane reduces the westbound queue on the eastern approach. The September 2025 concept provided a 30m left-turn lane, which TEAM considered sufficient to accommodate the longest modelled left-turn queue under the 140% turning-movement scenario.
- 8.12 Again, the 40% sensitivity test applies a substantial uplift to all turning movements at both Access 1 and Access 2. In my opinion it provides a conservative sensitivity allowance for plan change assessment purposes.

⁵ [Traffic Engineering & Management Ltd, "Plan Change – 638 Cambridge Road, Te Awamutu – Response to Traffic Items", Attachment C to the Applicant's response to Waipā District Council's Further Information Request \(PC/0002/25\), 18 September 2025.](#)

9. ROAD IMPROVEMENT OPTIONS, INCLUDING RECOMMENDED OPTION

- 9.1 The modelling indicated that a traffic signal-controlled intersection is the most appropriate intervention at the Cambridge Road intersection to serve the proposed new Mitre 10 store (Area B). The proposed traffic signal-controlled intersection includes a dedicated left-turn lane on Cambridge Road and pedestrian crossing facilities across Cambridge Road and Access 1.
- 9.2 A roundabout controlled intersection was considered. However, this option was discounted as it would not provide suitable pedestrian facilities across either Cambridge Road or Access 1.
- 9.3 Signalisation of Access 1 would enable controlled pedestrian crossing facilities to be provided across Cambridge Road and Access 1. This is one of the reasons I prefer the signalised intersection option to the roundabout option.
- 9.4 The modelling also showed that the existing 'Give Way' controlled access to Area A will continue to operate satisfactorily and that there will be no queuing interaction between the two intersections.
- 9.5 The September 2025 concept design included a 30m dedicated left-turn lane from Cambridge Road into Access 1. I considered that length sufficient to accommodate the longest modelled left-turn queue under the scenario applying 40% growth to all turning movements.
- 9.6 In my opinion, as noted in the September 2025 RFI response, a signalised intersection incorporating a dedicated left-turn lane is technically feasible wholly within the legal road reserve at this location. A preliminary intersection design is provided as an attachment to this evidence (**Annexure A**). I address the detailed design matters subsequently raised by Gray Matter later in my evidence.

10. MATTERS RAISED IN SUBMISSIONS

- 10.1 There were three traffic-related submissions, which were received from NZTA, Foodstuffs and Waipā District Council.
- 10.2 NZTA was previously concerned about the potential effects that the additional PPC 35 traffic may have on the operation of the State Highway

3/Cambridge Road roundabout located to the west of the site. Surveying and modelling subsequently undertaken demonstrated that there would not be any significant adverse effects on the operation of the roundabout. On this basis, I understand that NZTA has advised that it considers the effects on the state highway network to be acceptable and that it no longer wishes to be heard.

- 10.3 Foodstuffs had a number of concerns with the main issues being related to parking overflow, traffic modelling and the ability to provide the traffic signal-controlled intersection within the existing road reserve.
- 10.4 Modelling and amended provisions and plans were shared with Foodstuffs. One of the items confirmed was the ability for Area B to be able to provide its anticipated customer parking, loading, servicing and manoeuvring requirements without relying on parking or circulation areas controlled by the supermarket.
- 10.5 I understand that Foodstuffs subsequently advised that its concerns would be resolved if the agreed amendments were adopted as part of PPC 35. I rely on Ms Hui's evidence in relation to the nature and final form of those amendments.
- 10.6 Waipā District Council's submission sought transport upgrades before activities commence in Area B, including a safe and efficient intersection arrangement, provision for a dedicated left-turn lane, heavy-vehicle tracking and appropriate pedestrian and cycling facilities. The signalised intersection option addressed in section 9 responds to those matters.

11. MATTERS RAISED IN THE SECTION 42A REPORT AND GRAY MATTER PEER REVIEW

- 11.1 I have reviewed the section 42A report and the Gray Matter Transportation Analysis dated 7 July 2026. I respond below to the principal transportation matters raised in that review.

Area A traffic generation

- 11.2 Gray Matter raises a concern that the existing Mitre 10 premises in Area A could be occupied by a different retail activity with a higher trip-generation rate, notwithstanding that the overall gross floor area of Area A is

constrained. Gray Matter considers that reliance on the existing movements at Access 2 may therefore underestimate future traffic generated by Area A.⁶

- 11.3 Gray Matter's concern should be considered in the context that PPC 35 does not enable additional gross floor area within Area A beyond the proposed amended limits. Although the existing Mitre 10 premises may be occupied by a different retail activity, the September 2025 sensitivity assessment applied 40% growth to all turning movements at Access 2 to allow for potential future traffic growth.
- 11.4 In response to Council's further-information request, TEAM applied 40% growth to all turning movements at Accesses 1 and 2. The September 2025 RFI response stated that this assessment also addressed the potential increase in traffic associated with the repurposing of the existing Mitre 10 premises.
- 11.5 The 40% sensitivity test is not an activity-specific assessment of every possible future use within Area A, nor was it intended to predict the most likely future traffic demand. It applies a substantial uplift to all turning movements at both accesses and, in my opinion, provides a conservative test of whether the proposed access and intersection arrangements remain capable of accommodating materially higher traffic volumes.
- 11.6 Gray Matter applies a general-retail rate of 17.2 trips per 100 m² and compares that with the Mitre 10 rate of 4.5 trips per 100 m²: section 4.3 and Table 2. I do not consider the use of this data to be appropriate as it has not been considered in relation to the analysis undertaken. The data is based on NZ Transport Agency research report 453 (**RR453**), *Trips and Parking related to Land Use*, which is 15 years old and is not specific to the subject site.⁷ The rate is for a 'medium shopping centre' whereas a 'large shopping centre' has a much lower rate of 9.9 trips per 100m². There is no guidance related to what constitutes a medium or large shopping centre or where Area A sits in this description. The rates provided in RR453 are for the peak hour of the activity, not for the peak hours of the road network that have been considered by the assessments. The proposed plan provision limits the number of small tenancies (which are already existing) and requires that all other tenancies have a gross leasable floor area of between 400m² and

⁶ This is addressed in section 4.3 and Table 2 of the Gray Matter report.

⁷ RR453 was published in November 2011:

<https://www.nzta.govt.nz/assets/resources/research/reports/453/docs/453.pdf>.

2000m². Larger tenancies typically generate significantly less traffic than smaller tenancies. For the above reasons, the rates proposed by Gray Matter have not been considered appropriately and I consider that the 40% growth applied to the existing turning movements will allow for any increases that could potentially occur as a result of any activity change.

Warkworth trip generation data

- 11.7 Gray Matter questions whether the Warkworth Mitre 10 Mega survey provides an appropriate basis for estimating traffic generation for the proposed Te Awamutu store. It notes that the Warkworth survey was undertaken around Labour Weekend and that the resulting trip generation rate was not validated against the existing Te Awamutu store.⁸
- 11.8 The week preceding Labour Weekend is one of the busiest weeks for home improvement and garden stores. For this reason, the use of survey data for the period is considered to provide a robust basis for assessment.
- 11.9 It is not possible to validate the Warkworth Mitre 10 data directly against the existing Te Awamutu Store as the Te Awamutu store is located within a wider commercial area with shared accesses, with no ability to separate Mitre 10 traffic from traffic associated with other activities. The surveyed access movements cannot reliably be separated between Mitre 10 customers and customers of the other activities.
- 11.10 As discussed earlier, I consider the use of the store specific survey data from the Warkworth Mitre 10 Mega to be appropriate.

Connected network modelling

- 11.11 Gray Matter accepts that the original SIDRA models networked Accesses 1 and 2, but considers that the updated modelling supplied with the further information response appears to have assessed the intersections separately. It recommends that the updated traffic volumes be re-run through the connected network model.⁹
- 11.12 The modelling applying 40% growth to all turning movements was undertaken as two separate intersections. The separation between the limit line at the Access 1 intersection and the Access B intersection is 90 metres.

⁸ These matters are addressed in section 4.3.

⁹ This is addressed in section 4.4.1 and again in the further information review table in section 6.

The queue length extending from or the Access 1 intersection for all peak periods was less than 90 metres and there is no interaction with the Access 2 intersection.

Intersection performance and left-turn lane

- 11.13 Gray Matter raises concern about westbound queuing on Cambridge Road and the potential for queues associated with Access 1 to extend beyond Access 2. Gray Matter considers that a dedicated westbound left-turn lane is required to minimise queuing and to assist the safe and efficient operation of the signalised intersection.¹⁰

- 11.14 The September 2025 modelling showed that Accesses 1 and 2 perform well during the assessed peak periods under the scenario applying 40% growth to all turning movements. However, without a dedicated left-turn lane, the modelled westbound queue on the eastern Cambridge Road approach extends past Access 2.

- 11.15 TEAM therefore modelled a dedicated left-turn lane from Cambridge Road into Access 1. That assessment showed that the additional lane reduces the westbound queue on the eastern approach. The September 2025 concept provided a 30m left-turn lane, which I considered sufficient to accommodate the longest modelled left-turn queue under that scenario.

- 11.16 Gray Matter states that the modelled lane length and queue length were not clear from the information provided. The information provided in the section 92 response is repeated below for convenience, with the relevant queue length being that for Movement ID 5 (the through movement on the eastbound Cambridge Road approach). As can be seen the queue length does not extend as far as the Access 2 intersection (90 metres).

¹⁰ These matters are addressed in section 4.5, the further information review table in section 6, and the effects assessment in section 8.

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Access 1															
1	L2	All MCs	273	7.7	273	7.7	0.363	14.9	LOS B	4.5	33.9	0.71	0.75	0.71	40.6
3	R2	All MCs	40	18.4	40	18.4	* 0.210	28.0	LOS C	1.0	7.8	0.94	0.72	0.94	29.7
Approach			313	9.1	313	9.1	0.363	16.6	LOS B	4.5	33.9	0.74	0.75	0.74	39.4
East: Cambridge Road E															
4	L2	All MCs	88	15.5	88	15.5	0.094	10.2	LOS B	1.0	8.0	0.49	0.66	0.49	39.2
5	T1	All MCs	443	2.4	443	2.4	* 0.721	18.2	LOS B	10.5	74.7	0.94	0.87	1.04	35.5
Approach			532	4.6	532	4.6	0.721	16.9	LOS B	10.5	74.7	0.87	0.84	0.95	36.1
West: Cambridge Road W															
11	T1	All MCs	402	4.5	402	4.5	0.505	11.8	LOS B	7.4	53.8	0.78	0.67	0.78	39.5
12	R2	All MCs	336	6.6	336	6.6	* 0.752	26.3	LOS C	8.6	63.4	0.98	0.92	1.16	36.0
Approach			738	5.4	738	5.4	0.752	18.4	LOS B	8.6	63.4	0.87	0.79	0.95	37.4
All Vehicles			1582	5.9	1582	5.9	0.752	17.5	LOS B	10.5	74.7	0.84	0.80	0.91	37.5

Figure 1: Access 1 (AM Peak) 140% turning movements with LT lane

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Access 1															
1	L2	All MCs	558	0.8	558	0.8	0.577	13.0	LOS B	9.3	65.3	0.72	0.78	0.72	41.6
3	R2	All MCs	224	1.4	224	1.4	* 0.787	31.0	LOS C	6.1	43.5	1.00	0.98	1.32	28.8
Approach			782	0.9	782	0.9	0.787	18.2	LOS B	9.3	65.3	0.80	0.84	0.89	38.2
East: Cambridge Road E															
4	L2	All MCs	113	2.8	113	2.8	0.124	11.8	LOS B	1.5	10.6	0.56	0.68	0.56	38.2
5	T1	All MCs	346	3.3	346	3.3	* 0.825	25.6	LOS C	9.6	69.3	1.00	1.03	1.32	31.7
Approach			459	3.2	459	3.2	0.825	22.3	LOS C	9.6	69.3	0.89	0.95	1.14	33.1
West: Cambridge Road W															
11	T1	All MCs	594	3.5	594	3.5	0.820	20.2	LOS C	15.6	112.5	0.96	1.00	1.18	34.4
12	R2	All MCs	486	1.3	486	1.3	* 0.852	29.4	LOS C	14.0	98.9	1.00	1.02	1.33	35.0
Approach			1080	2.5	1080	2.5	0.852	24.3	LOS C	15.6	112.5	0.98	1.01	1.25	34.7
All Vehicles			2321	2.1	2321	2.1	0.852	21.8	LOS C	15.6	112.5	0.90	0.94	1.10	35.7

Figure 2: Access 1 (PM Peak) 140% turning movements with LT lane

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Access 1															
1	L2	All MCs	604	2.4	604	2.4	0.569	12.5	LOS B	10.8	77.5	0.65	0.77	0.65	41.8
3	R2	All MCs	196	4.3	196	4.3	* 0.841	39.1	LOS D	6.7	48.5	1.00	1.04	1.43	26.0
Approach			800	2.9	800	2.9	0.841	19.0	LOS B	10.8	77.5	0.74	0.83	0.84	38.0
East: Cambridge Road E															
4	L2	All MCs	184	4.0	184	4.0	0.235	16.3	LOS B	3.4	24.9	0.67	0.73	0.67	35.5
5	T1	All MCs	311	0.7	311	0.7	* 0.800	29.3	LOS C	9.9	69.7	1.00	0.98	1.24	30.2
Approach			495	1.9	495	1.9	0.800	24.5	LOS C	9.9	69.7	0.88	0.89	1.03	32.0
West: Cambridge Road W															
11	T1	All MCs	581	1.8	581	1.8	0.646	13.3	LOS B	13.2	93.6	0.82	0.72	0.82	38.5
12	R2	All MCs	578	2.4	578	2.4	* 0.784	24.4	LOS C	16.5	117.9	0.93	0.91	1.05	36.7
Approach			1159	2.1	1159	2.1	0.784	18.9	LOS B	16.5	117.9	0.87	0.82	0.93	37.4
All Vehicles			2454	2.3	2454	2.3	0.841	20.0	LOS C	16.5	117.9	0.83	0.84	0.92	36.6

Figure 3: Access 1 (Saturday Peak) 140% turning movements with LT lane

Detailed feasibility of the signalised design

11.17 Gray Matter agrees in principle that a signalised intersection is the preferred form of control, subject to provision of a dedicated left-turn lane.¹¹ However,

¹¹ That conclusion is recorded in sections 4.4.2-4.4.4.

Gray Matter also identifies various constraints associated with accommodating the signalised intersection and left-turn lane.¹²

- 11.18 As set out in section 9, it remains my opinion that a signalised intersection incorporating the dedicated left-turn lane is technically feasible wholly within the legal road reserve.
- 11.19 As a general observation, a number of the matters raised in the Gray Matter report are appropriately addressed through detailed design and engineering approval processes, including the final lane and taper dimensions, traffic-signal phasing, service relocations, the location of signal poles, signal equipment and detector loops, footpath and shared-path design, pedestrian crossing facilities, and associated signs and markings.
- 11.20 However, I have listed each constraint referred to by Gray Matter below, together with my initial brief comments on each:

CONSTRAINT REFERRED TO IN GRAY MATTER REPORT	MY RESPONSE
Shared path is located against the boundary which results in safety issues at the Access 2. Visibility splays will need to be protected at Access 2	The shared path already connects with eastern side of Access 2. There are no visibility issues at the access as there are no buildings or structures located near the intersection.
Narrowing / removal of the flush median on Cambridge Road reducing space for vehicles turning right to access the development and properties on the northern side of Cambridge Road	It is not intended to narrow the painted median.
Removal of parking bays on Cambridge Road	It is not intended to remove parking bays on Cambridge Road.
Reduced right turn capacity into Access 2 (shorter length of full width flush median)	It is not intended to narrow or reduce the length of the painted median.
Signal poles located within the footpath, reducing width of footpath.	Signal poles need to be located in the footpath so that pedestrians can activate the call button.
Minimises the berm space on the northern side which reduces flexibility for Council to provide shared path on both sides of Cambridge Road in the future. Reduced separation between driveways and footpath.	It is not intended to reduce the berm space on the northern side of Cambridge Road.
Removal/underground of power poles to ensure signals equipment can be established (higher costs).	If removal of poles is required the cost will be borne by the applicant.

¹² At section 4.5.

- 11.21 The matters identified in section 4.5 of Gray Matter's report do not alter my conclusion that a traffic-signal controlled intersection including a dedicated left-turn lane on Cambridge Road can be constructed within the legal boundaries of Cambridge Road and Access 1.

Access 1 private road

- 11.22 Gray Matter raises concern about the long-term capacity and form of the private Access 1 road. It identifies issues relating to traffic lane width, existing parking, pavement condition, streetlighting, pedestrian facilities and the ability of opposing vehicles to pass where vehicles are parked.¹³
- 11.23 Gray Matter estimates that Access 1 may carry approximately 7,000 vehicles per day and recommends, among other matters, minimum 3.5 m traffic lanes, managed parking, a 2.5 m shared path on one side, a 1.5 m footpath on the other side, streetlighting and a safe pedestrian crossing between Areas A and B. These recommendations are set out in section 5.1 at pages 11–12.

Pedestrian facilities

- 11.24 Gray Matter supports the provision of controlled pedestrian crossing facilities across Cambridge Road and Access 1 and notes the existing pedestrian and cyclist demand at this location: sections 4.2.3, 4.4.3 and 4.4.4. As noted in section 9, the ability to provide those facilities is one of the reasons I prefer the signalised intersection option to the roundabout option.

Entranceway separation

- 11.25 Gray Matter raises concern that the indicative Area B entranceways are located nearly opposite the existing Area A entranceways, creating a crossroads type arrangement and increasing potential conflict points. It recommends a minimum separation of 20m between opposing entranceways.¹⁴
- 11.26 The s42A report accepts that recommendation and proposes that the Centre Plan and associated provisions require a minimum 20m separation between entranceways serving Areas A and B.

¹³ These matters are addressed in section 5.1 and Table 3.

¹⁴ This recommendation is contained in section 5.2.

- 11.27 I have considered that recommendation against the present Area A entranceways and the indicative Area B design. The three northern entranceways serving Area A are separated by approximately 41m and 37m respectively. A 6m wide Area B entranceway requiring 20 m separation from the adjacent Area A entranceways would require approximately 46m of available frontage.
- 11.28 It is therefore physically impossible to locate an Area B parking entranceway within parts of the northern frontage while achieving 20m separation from both adjacent Area A entranceways.
- 11.29 In my opinion, the preferable location for the Area B service entrance is directly opposite the existing Area A service entrance. That arrangement provides a simpler layout and preserves the opportunity for future connectivity between the two service areas. This is a preferred arrangement for the infrequent manoeuvring of articulated trucks and removes any dog leg manoeuvres if connectivity between accesses is required in the future.
- 11.30 The Area B customer parking entranceways should instead be located to provide as much separation from the Area A entranceways as is physically practicable, with their precise locations determined through detailed design.

Scope of the transport assessment

- 11.31 Gray Matter considers that the Transportation Assessment does not address all matters required for a broad Integrated Transport Assessment. It identifies further work concerning internal access, parking, loading and servicing, Access 1 design and updated SIDRA modelling.¹⁵
- 11.32 Gray Matter nevertheless acknowledges that an ITA will be required at resource consent stage to address the detailed internal access, loading, servicing and parking arrangements.¹⁶
- 11.33 I agree that further transport assessment will be required when resource consent is sought for a detailed Area B development. From a traffic engineering perspective, however, the information presently available is sufficient to determine at plan change stage whether the anticipated traffic

¹⁵ This is addressed in section 4.1 and Attachment A.

¹⁶ Section 4.1.

can be accommodated and whether the necessary external transport upgrades are technically feasible.

Gray Matter's recommended amendments to the concept plan

11.34 Figure 9 of the Gray Matter report recommends various changes to the concept plan layout. I comment below on each recommended change:

- (a) *Signalised intersection with left turn lane. Requires boundary adjustment to ensure signals are located within road reserve:*

I agree with the proposed signalised intersection and left-turn lane. While I would not oppose some form of simple annotation to refer to this, I do not consider it is required, as Access 1 is the only legal access to Area B and there is no potential for confusion. I do not agree that a boundary adjustment is required.

- (b) *Provide 2.5m shared path on eastern side of private road:*

My preference is that the existing footpath remains on the eastern side of the road, which is separated from the road and the site boundary by grass berms and landscaping

- (c) *Provide 1.5m footpath on western side of private road:*

It is intended to provide a 2.5 metre wide shared path on the western side of the road.

- (d) *Provide pedestrian crossing facility on private road (e.g. refuge island). Needs to align with existing path outside supermarket:*

As indicated on all plans provided to Council, it is intended to provide a pedestrian facility across the private road that connects Area A and Area B. This will need to connect with a suitable existing pedestrian route within Area A. I do not consider it is necessary to show the pedestrian facility on the Concept Plan, as its location is likely to be influenced by the final placement of the vehicle crossings serving Area B, which (as noted below) will be subject to further design and assessment through the resource consent process.

- (e) *Relocate vehicle crossings to provide minimum 20m separation:*

I do not agree with this recommendation. See paragraph 11.25 onwards above. The vehicle crossings shown for Area B are indicative only and will be subject to further design and assessment through the resource consent process.

- (f) *Install no stopping lines on private road to ensure two 3.5m lanes with minimum 2.1m wide parking bays can be maintained to allow sufficient clearance to parked vehicles and opposing through movements:*

The private road currently accommodates parking on both sides of the road and a generous traffic lane for each direction of travel. I do not agree that any changes are required to the existing configuration of the private road.

12. CONCLUSION

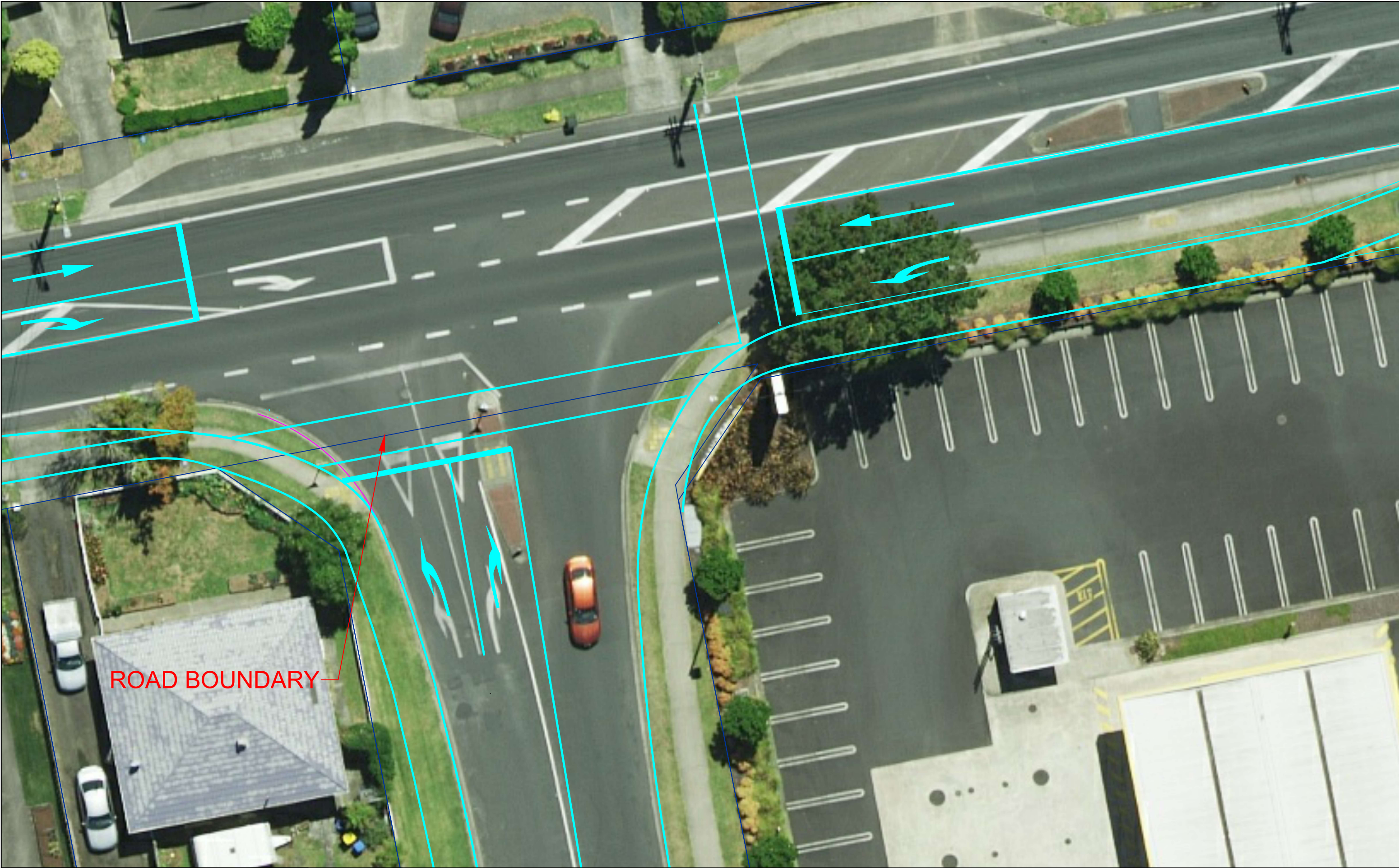
- 12.1 Overall, for the reasons set out in this evidence, I consider that there are no traffic or transportation effects or constraints that would prevent PPC 35 from being approved, subject to the amended transport provisions recommended by Ms Hui.

Keith Bell

Dated 27 July 2026

ANNEXURE A

Preliminary Intersection Design



 Traffic Engineering & Management Ltd. T: +64 9 8363888 Document Set ID: 11741947	NOTES	PROJECT	PROPOSED PLAN CHANGE		STATUS	CONCEPT DESIGN		DATE	24/7/2026					
		DRAWING TITLE	PRELIMINARY INTERSECTION DESIGN - ACCESS 1				PROJECT NO.	233006	SCALE	1:250 A3	SHEET	2	REV	A