

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a submission in respect of the **PROPOSED WAIKATO DISTRICT PLAN** by **AMBURY PROPERTIES LIMITED** pursuant to Clause 6 of Schedule 1 of the Act to rezone 178ha of land at Ohinewai

STATEMENT OF REBUTTAL EVIDENCE OF CAMERON BESWICK INDER

1. INTRODUCTION

- 1.1 My name is Cameron Beswick Inder. I am a transportation engineer and the Transportation Engineering Manager at Bloxam Burnett & Olliver ("BBO"), a firm of consulting engineers, planners and surveyors based in Hamilton.
- 1.2 I outlined my qualifications, experience, and commitment to comply with the Environment Court Expert Witness Code of Conduct in my evidence in chief ("EIC").

Purpose and scope of rebuttal evidence

- 1.3 I have read the statements of evidence of the following expert witnesses that are relevant to my area of expertise:
 - (a) Mr Robert Swears for Waka Kotahi NZ Transport Agency ("Waka Kotahi");
 - (b) Mr Vincent Kuo for Waikato Regional Council ("WRC");
 - (c) Ms Sarah Loynes for Waka Kotahi; and
 - (d) Mr Ian Mayhew for Waka Kotahi and WRC.

1.4 The purpose of this statement of rebuttal evidence is to address the traffic and transportation- related issues raised in the evidence of those witnesses.

1.5 Specifically, I address the following:

- (a) The removal of the Discount Factory Outlet (“DFO”) component from the Ohinewai Structure Plan (“OSP”) and the associated transportation implications of that (Section 2);
- (b) Mr Swears’ concerns with the assessed existing transport network characteristics¹ (Section 3);
- (c) Mr Swears’ opinions in relation to the proposed active mode transport provision external to the site², specifically, the travel distance of the proposed pedestrian and cyclist shared path and overbridge connecting the site to the school, and likely use and benefit of a walking and cycling path between the Site and Huntly (Section 4);
- (d) Mr Swears’ commentary in relation to the appropriateness of the proposed mitigation of the present road safety issue at the existing intersection of the Ohinewai Interchange southbound off-ramp with Tahuna Road³) (Section 5);
- (e) Mr Swears’ views in relation to the rail siding access and certainty regarding its provision⁴) (Section 6);
- (f) Mr Swears’ views on the appropriateness of the site access proposals (Swears EIC, paragraphs),⁵ in particular with regards to the proposed left-in, left-out intersection forms and the appropriateness of the proposed pedestrian crossing facility on Tahuna Road (Section 7);
- (g) Mr Swears’ commentary in relation to the Waikato Regional Transportation Model (WRTM) based trip generation rates⁶ (Section 8);

1 Statement of evidence of Robert Swears, paragraphs 6.7 - 6.9 and 6.11.

2 *Ibid* paragraphs 6.15-6.18, 6.35-6.38, 6.60-6.65.

3 *Ibid* paragraphs 6.19 - 6.21.

4 *Ibid* paragraphs 6.24 - 6.26.

5 *Ibid* paragraphs 6.27 - 6.35 and 6.42 - 6.43.

6 *Ibid* paragraphs 6.40 - 6.41 and 6.45 - 6.49.

- (h) Commentary by Mr Swears⁷, Mr Mayhew⁸, and Ms Loynes⁹ in relation to strategic transportation effects of the proposal on the expressway function (Section 9);
- (i) Mr Swears' commentary concerning the effects assessment and proposed mitigation measures related to the SH 1 Ohinewai Interchange¹⁰ (Section 10);
- (j) Mr Kuo's evidence and Mr Swears' commentary in relation to public transport provision for the Proposal¹¹ (Section 11);
- (k) Mr Swears' commentary in relation to the key outstanding matters arising from the Joint Witness Statement¹² (Section 12).
- (l) I then provide my conclusion (Section 13).

1.6 I consider that all other issues raised by the witnesses in their evidence have either been discussed and agreed during the transportation joint witness conferencing, or have already been sufficiently addressed in my evidence, the ITA report, and the memorandum that was circulated to the parties on 7 August 2020 setting out Ambury Properties Limited ("APL")'s decision to remove the DFO from the proposal (discussed below) and is attached as **Attachment A**.

2. **IMPLICATIONS OF REMOVING THE DFO FROM THE PROPOSAL**

2.1 Subsequent to the completion and submission of my EIC on 9 July 2020, APL decided to remove the DFO component from the OSP and replace it with an equivalent land area of industrial zoning. I prepared a memorandum, dated 7 August 2020,¹³ which outlines the key transportation-related implications of this change. This was distributed to other parties who are interested in transport-related matters on 7 August 2020. I provide a brief overview of the identified implications below.

Revised Trip Generation with the removal of the DFO

7 *Ibid* paragraph 6.55.

8 Statement of evidence of Ian Mayhew, paragraphs 7.20 – 7.25.

9 Statement of evidence of Sarah Loynes, paragraphs 8.1 – 8.7.

10 Statement of evidence of Robert Swears, paragraphs 6.56 to 6.59.

11 *Ibid* paragraph 6.13.

12 *Ibid* section 7.

13 Transportation-related implications of removing the Discount Factory Outlet (DFO) from the Ohinewai Structure Plan area, 7 August 2020.

- 2.2 Overall, the removal of the DFO removes approximately 320 business/commercial activity jobs. The replacement industrial activity is anticipated to provide approximately 150 additional jobs. Therefore, the net reduction is approximately 170 jobs with this change to the Proposal.
- 2.3 Replacing the DFO with industrial activity is therefore expected to reduce the AM and PM peak hour trips by 12.5% and 20% respectively. With the WRTM estimating that only about 20-25% of these trips will be internal trips, the OSP area (without the DFO) is now anticipated to generate approximately 1,220 and 1,730 external vehicle trips during the AM and PM peak hours, respectively.

Revised Intersection Performance Assessments

- 2.4 The effects of the OSP traffic on the local road network are considered to be insignificant from a capacity perspective. The Ohinewai Interchange and the Tahuna Road / Lumsden Road intersection are expected to operate at high levels of service (LOS A and B), and LOS C for Lumsden Road during the PM Peak with the addition of the OSP traffic with no DFO.
- 2.5 Sensitivity testing of higher trip generation rate figures (>20% higher than published trip rate figures for the general industrial, commercial, and residential activities) demonstrates the following:
- (a) The existing Interchange configuration (roundabout at the western ramp intersection and a compulsory stop intersection on the southbound off-ramp) remain suitable and sufficiently robust in terms of capacity to accommodate the traffic associated with the Proposal.
 - (b) The existing Tahuna Road / Lumsden Road roundabout configuration remains appropriate for the expected traffic generation; however, sensitivity testing shows that the capacity upgrades may be triggered (i.e. Lumsden Road approach degrades to LOS E or worse) if the actual trip generation of the industrial activities proves to be significantly higher than those incorporated into the WRTM predictions. In that regard, I reiterate that the WRTM trip generation for industrial activity is consistent with other industrial areas throughout the Hamilton area in the model.
- 2.6 Sensitivity testing of longer critical and follow-up gap acceptance factors for large trucks at the southbound off-ramp confirmed that the existing intersection form remains appropriate for capacity and queue storage even

when factoring in significantly higher delays for large trucks at the southbound off-ramp.

- 2.7 Notwithstanding the above, I consider that the effects of the completed development would be unacceptable if no mitigation is provided to significantly improve the safety and connectivity for active modes trips (walking and cycling) between the east and west sides of the Ohinewai community. On this basis, the safety related infrastructure upgrades proposed in Table 31 of the May 2020 ITA report remain valid.

3. **EXISTING BASELINE TRAFFIC ENVIRONMENT**

- 3.1 Mr Swears' raises a query in relation to the annual average daily traffic (AADT) volumes and average daily traffic (ADT) on Tahuna Road and Lumsden Road.¹⁴

- 3.2 I have sourced traffic count information from the Waikato District Council (WDC) website¹⁵. WDC states on its website that the presented volume data is AADT, although it is unclear whether it was based on data recorded over a 365-day period or over a shorter period of time and factored to an estimated AADT. Also, some AADT information for 2020 is noted as 'estimated' based on data collected from adjacent roads.

- 3.3 According to the most recent traffic count data from WDC:

- (a) The section of Tahuna Road between the rail overbridge and the Lumsden Road roundabout has an AADT volume of 2,469 vehicles per day (vpd) with 7% heavy commercial vehicles (HCV) based on WDC traffic count collected in 2019 (WDC then estimates a 2020 ADT volume of 2,299 vpd for the road based on data collected from adjacent roads). For comparison, our 2019 ADT count was 2250 vpd.
- (b) The section of Lumsden Road between Tahuna Road and Balemi Road has an AADT volume of 511 vpd with 19% HCV based on traffic count data collected in 2016 (WDC estimates a 2020 ADT volume of 511

14 Mr Swears states in his evidence (Swears evidence, paragraph 6.7-6.9) that, while I have provided information on the average daily traffic (ADT) volumes on Tahuna Road and Lumsden Road, I have not included any information related to the annual average daily traffic (AADT) volumes on these roads. He later states that "The difference between the ADT and AADT may not be significant, however, the Applicant has not provided information to clarify the situation."

15 Source: <https://www.waikatodistrict.govt.nz/services-facilities/roads-travel-and-parking/roads-and-transport/our-road-strategy-and-partners/traffic-counts>, accessed on 19 August 2020

vpd for the road based on data collected from adjacent roads). Our 2019 ADT count was 555 vpd.

- 3.4 As shown above, the difference between the ADT information provided in the December 2019/ May 2020 ITA reports and the 'AADT' information provided by WDC is negligible. In my opinion, this level of detail is insignificant and makes no difference to the assessment or conclusions in regard to the transportation effects of the rezoning. More importantly, the effects assessment is based on the WRTM future flow predictions which Mr Swears confirmed he agreed was the appropriate methodology after his review of the first draft (December 2019) ITA report. On this basis, I consider that the conclusions from the traffic effects assessment remain valid.
- 3.5 Mr Swears states¹⁶ that I have not provided information on the exact locations at which the 85th percentile speeds of vehicles were recorded on the Ohinewai Interchange ramps, Tahuna Road, and Lumsden Road. In fact, this information is provided at each of the relevant sections of my evidence (paragraphs 9.40, 9.45, and 9.82).

4. **USE OF THE PROPOSED GRADE SEPARATED ACTIVE MODE TRANSPORT FACILITY**

- 4.1 Mr Swears states his opinion that:¹⁷

"...the key transport engineering issue that cannot readily be resolved is the distance of the Site from the land use activities necessary to support activities on the Site".

- 4.2 Related to this, Mr Swears states:

6.16: *"I do not agree with Mr Inder (EIC, paragraph 4.12) that providing infrastructure for walking and cycling journeys will result in active travel modes being "[...] an attractive and viable option for future workers, residents, school children and recreational use."*

6.17: *"... I consider the distances associated with active mode journeys outside the Site create an obstruction to those journey such that it is unlikely there will be a significant uptake in active mode transport beyond the boundaries of the Site."*

16 Statement of evidence of Robert Swears, paragraph 6.11.

17 *Ibid* paragraph 5.3.

6.18: *"The walking journey from the Site to Ohinewai School (approximately 2.0 km) is considerably further than the average walking journey children or adults will make (0.92 to 1.2 km respectively). Therefore, I do not consider that the shared path overbridge will adequately mitigate the discouragement to active mode use associated with the Site being on the other side of the Expressway from the School".*

- 4.3 Similar related statements are made in paragraphs 6.60 - 6.64 of his evidence, including in relation to the potential shared active modes path from Ohinewai to Huntly that *"...the journey distance (8 to 10 km) is too great for it to be used by many active mode users"*.
- 4.4 My first response is that the average walking distance Mr Swears identifies in paragraph 6.18 is just that, an average. I am aware of children that regularly walk 2 km or more to school, and adults and children cycling 2 - 3 km to school or work is not unusual either. Also, adults and teenagers cycling 10 km is now more achievable than ever with the rapid rise in popularity of e-bikes and e-scooters. E-bike are becoming increasingly common, and I am aware of e-bikers who regularly bike more than 10 km at a time given that they can average speeds of 20-25 km/h with little effort.
- 4.5 I checked the StatsNZ website that the data Mr Swears refers for his average walk distances comes from¹⁸. It is quite old, being from the 2011-2014 Household Travel Survey. In addition, it is not clear what the range of surveyed journey lengths was from which the average distance is derived. However, selecting specific locations instead of just "New Zealand" give a little more idea of the range. For Christchurch the average distance was 1.5 km, Auckland 1.3 km and Wellington 1.4 km. Unfortunately, data for Hamilton, greater Waikato or even Tauranga is not presented. It is quite possible that the data from the main cities is heavily skewed by the majority of surveyed trips being from traditional suburban areas where the density of houses around employment is greater. Therefore, the relevance of this information to this site and location must, in my view be treated with considerable caution. I further demonstrate why below.
- 4.6 Of significant relevance in my opinion, is feedback from existing residents in the vicinity of the site that have children. Understanding what they currently do for school travel and why, and whether they would use the proposed path

18 <http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7432>

and bridge facility if it existed now is the most relevant information that can be currently obtained given the development does not yet exist. I contacted one of the submitters, Mrs Rebekah Holmes, in this regard. Daniel and Rebekah Holmes live at 56 Lumsden Road. Mrs Holmes confirmed they have three children, with the youngest just finished at Ohinewai Primary School at the end of 2019. Mrs Holmes also provided me the contact details of their neighbours with children to seek their feedback as well.

4.7 Those neighbours are:

- (a) Iain and Luressa McDonald, of 58 Lumsden Road;
- (b) Roanne and Roger Lumsden, of 184c Lumsden Road, and
- (c) Gary Randall, of 63 Lumsden Road.

4.8 **Attachment B** of this rebuttal evidence contains the email I sent after phoning each resident, and their email responses to the questions asked. Mr Randall, however, did not wish to receive my email as he “has enough paperwork already” and instead was happy for me to relay his views from our conversation in my evidence.

4.9 My email to the Holmes, McDonalds and Lumsdens included Figure 33 from the ITA report illustrating the proposed walking and cycling path alignment and bridge on the south side of the interchange. I included the above passages from Mr Swears’ evidence and asked for their views on the path and bridge proposal through the following questions:

- (a) What age are your children now?
- (b) What is/was the main method your children use to travel to Ohinewai school, and why?
- (c) Would you and your children use, or have used this new shared walking and cycling path and bridge structure to walk or ride to school if it existed already?
- (d) Would the distance be a discouragement to your school age children using it?
- (e) Do you consider this path and bridge would adequately address your safety concerns (if you have any) for walking and cycling between the east and west sides of Ohinewai, and would you use it for recreation and other purposes?

- (f) Lastly, and related to the above, would a walking and cycling path connection from Ohinewai South Road to Huntly, either on the river stop-bank or next to the old SH1 be used by you for recreation or exercise or any other reasons?
- 4.10 I also asked if they would be happy for me to attach their responses in my rebuttal evidence, to which they all agreed.
- 4.11 As can be seen from the responses, the consistent message from these residents is that the proposed path and bridge south of the existing interchange would be very attractive to them, and the distance to the school is not an issue that would discourage them or their children from biking or walking to the school.
- 4.12 I note below some of the comments that highlight the distance is not a discouragement, contrary to Mr Swears' view that the development is in the wrong location for active mode travel.
- 4.13 Daniel and Rebekah Holmes live 1.61 km from the school and state:
- "To us Lumsden Road is a close walking/cycling distance to Ohinewai School and having the option of being able to walk/cycle there safely would be a welcomed addition to our landscape".*
- "Our children are now 13, 15 and 17, but in the last number of years we have taken the risk to walk and cycle over the current narrow road bridges to the local school".*
- "We ... frequently cycle into Huntly from the old Ohinewai South Road. We would love to see this walk/cycle way developed as we see many walkers on these roads and to have it officially connected to Huntly will make it even more appealing".*
- 4.14 Mrs Holmes also mentioned to me on the phone that her father-in-law lives on a property behind them and is turning 70 years old. He recently bought an e-bike and was not a cyclist before that. He now regularly cycles more than 10 km and often into Huntly and back for recreation now that SH 1 traffic has shifted to the new Expressway section. Mrs Holmes notes in her email that others in the community also do the same for recreation.
- 4.15 Iain and Luressa McDonald live 1.63 km from the school. They said:
- "... when attending Ohinewai school we would have to drop the girls off as we didn't meet the criteria for our girls to catch the*

school bus, as we were considered too close and in walking distance”.

“We mostly definitely would use a shared walking and cycling path and bridge structure to walk or ride to school, had it been available. Also going forward we would use it to go biking or running for ourselves and as a family. One of the main reasons we do not run, bike or walk in our area is because it's unsafe, we put ourselves at risk and others”.

“The school is not that far away from our home so walking is not a problem and we would prefer it, it would have made life a lot easier to get our girls to and from school...”

4.16 Roanne and Roger Lumsden live 2.8 km from the school and said:

“...Our youngest child left Ohinewai School at the end of 2019”.

“While our children were at Ohinewai School we used to drop our children off morning and night by car”.

“Yes if this new structure was in place when our children attended Ohinewai we would certainly have allowed them to bike to school”.

“I do not feel the distance we are would have been an issue at all. We are only about 3km from the school and they would have ridden that more than happily. It would have been great exercise for them and also a great way for children [sic] to learn independence”.

“...over the years we have employed many families that have had children attend and currently attend Ohinewai School, and I am certain that a majority of these families would have loved the option for their children to bike or walk to school ...”.

4.17 Gary Randall lives 1.68 km from the school. He has a 10 year old daughter and has, on occasion, biked with her to school over the existing rail and expressway bridges. However, he is concerned about their safety each time and never allows his daughter to ride across on her own. His key concern is the possibility of a driver on the southbound off-ramp travelling at speed though the intersection without stopping, as has occurred in the past, resulting in crashes (confirmed in the CAS crash records). Mr Randall would, however, let her ride to the school and would feel much more comfortable about it if the proposed path and bridge existed and also connecting to a shared path down Lumsden Road as proposed. He does not consider that the

distance from his home to the school is a source of discouragement for his daughter or himself at all. They would easily bike more than 2 km if it was safe. The lack of safety at present is the only deterrent stopping them from regularly walking and cycling.

- 4.18 I also note the consistent response from these residents that a future path connection back to Huntly would be a great addition and well used in their opinion. Based on this evidence, I disagree with Mr Swears' opinion that he does "... *not consider that the shared path overbridge will adequately mitigate the discouragement to active mode use associated with the Site being on the other side of the Expressway from the School*".

5. **MITIGATION OF THE PRESENT ROAD SAFETY ISSUE AT THE OHINEWAI INTERCHANGE**

- 5.1 While I agree with Mr Swears' point¹⁹ that the development of the OSP will result in an increase in traffic volumes on the southbound off-ramp²⁰, I do not consider that "particularly significant mitigation"²¹ is warranted as there are cost efficient treatments that can be implemented to improve the visibility of the existing Stop-controlled intersection from the southbound approach, and provide drivers more warning of the intersection ahead.
- 5.2 Table 6-1 in the *NZTA High-risk Intersection Guide* (HRIG) provides a number of potential measures that could be employed where a rural T intersection approach suffers from too little visibility. These include providing more prominent signs on the approach to raise awareness and managing speeds such that the risk of fatal or serious injury is less likely. As already discussed in my evidence²², the recent provision of enhanced warning signs is proving to be effective by significantly reducing the number of crashes recorded in the past five-year period.
- 5.3 The NZTA Safer Journeys Risk Assessment Tool (known as Megamaps) identifies the safe and appropriate speed (SAAS) for the southbound on- and off-ramps as 60 km/h (this is illustrated in Figure 1) - the speed limit on the Interchange ramps is currently 100 km/h. In my opinion:

19 At paragraph 6.20 of his evidence.

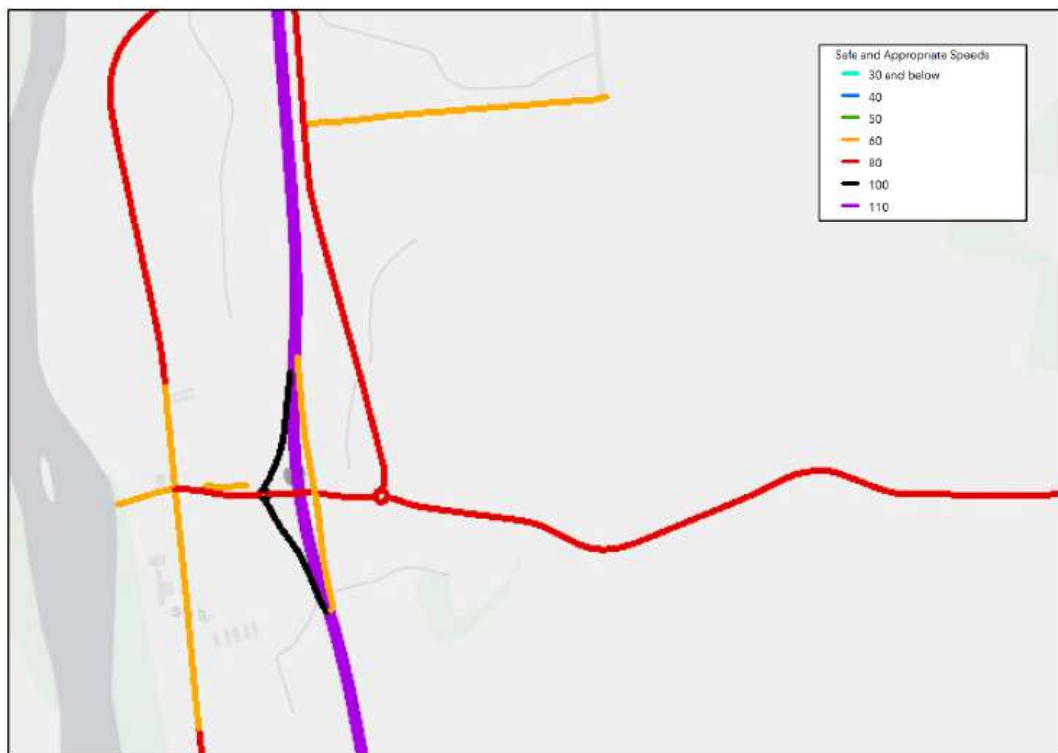
20 The AM and PM peak hour traffic volumes are anticipated to increase by approximately 200 and 275 vph respectively with full development of the OSP site. Given the nature of the proposed land use activities within the OSP area, I anticipate that a significant portion of these additional trips will be familiar drivers (driving to/ from work or home).

21 Ibid paragraph 6.21.

22 Inder EIC, paragraphs 4.17 to 4.19.

- (a) Waka Kotahi identified a SAAS of 60 km/h as a countermeasure to mitigate the historic safety risks²³ associated with the Stop-controlled intersection.
- (b) Lowering the speed limit (and as a result, vehicle operating speeds) will help to mitigate the present safety risk of drivers not seeing the intersection. Reducing the operating speed means the approach sight distance that a driver requires is significantly less²⁴ to perceive and react to the presence of the intersection.

Figure 1: NZTA Safe and Appropriate Speeds (Source: Megamaps)



5.4 Changing speed limits requires a legal process involving community consultation, and can take considerable time. In the interim period before the SAAS is put in place, I consider that the following safer intersection countermeasures / treatments would be appropriate on the southbound approach to manage driver speeds (and thus improve visibility to the stop-controlled intersection):

23 Section 6.5.2 in the NZTA High-risk Intersection Guide states that “The NZTA recognises that there is some merit in applying a safer operating speed limit or speed zones for roads on which the standard rural speed limit is inappropriate. This also applies to intersections.”

24 At a 60 km/h design speed, a minimum approach sight distance of 73 m is required (on the basis of a 2 second reaction time), while a minimum approach sight distance of 165 m is required for a 100 km/h design speed (Table 3.1 in Part 4A of the Austroads Guide to Road Design).

- (a) Provision of an electronic warning sign on the southbound approach. Similar to Rural Intersection Activated Warning Signs (RIAWS – refer to Figure 2), the electronic warning sign is activated by an approaching vehicle travelling above a specific speed. The sign lights up to alert the driver to the presence of the intersection, with text similar to STOP AHEAD, REDUCE SPEED. The minimum speed at which the sign lights up would be based on the distance and reduced time available to safely decelerate to a stop at the stop line. According to the Table 6-1 in the HRIG, the implementation of a RIAWS type system could result in a 35% reduction in injury crashes.

Figure 2: Rural Intersection Activated Warning Signs (RIAWS)



- (b) The installation of rumble strips perpendicular to the traffic flow prior to the advanced warning signs would contribute to lowering speeds and raising awareness of the intersection. Given the location of the Interchange, the noise associated with the use of the rumble strips is unlikely to be an issue. According to the Table 6-1 in the HRIG, the implementation of rumble strips could result in a 24%-54% reduction in crashes (and a 33% reduction in injury crashes).

5.5 In my opinion, implementation of either of these treatments would result in further reducing the likelihood of fatal and injury crashes at the ramp intersection. I recommend that these safety improvement works be further investigated and considered in consultation with NZTA at the same time as the proposed sightline improvement works to the southbound off-ramp (i.e. concurrently with Item 12 in Table 31 of the ITA).

6. **CERTAINTY OVER THE PROVISION OF THE RAIL SIDING ACCESS**

6.1 Mr Swears states in his evidence²⁵ that:

"The Applicant has not relied on the rail siding being constructed as mitigation for adverse effects associated with on road traffic. However, given the uncertainty with trip generation [...] it may be that the rail siding is required for mitigation, but there is uncertainty at this stage".

6.2 I address his statement in relation to the uncertainty with trip generation in paragraphs 8.1 to 8.4 of this rebuttal evidence.

6.3 Mr Swears then states in paragraph 6.26 (d):

"While I accept that the Applicant has analysed adverse effects based on the rail siding not existing, some of those adverse effects (such as turning movements from the southbound off-ramp) will be partially mitigated if there is a significant reduction in the volume of heavy vehicles associated with the Proposal."

6.4 Mr Swears correctly points out that the original effects assessment did not assume the existence of the rail siding. However, I consider that this is of no consequence on the basis that:

- (a) The effects of the OSP traffic on the local road network are considered to be no more than minor from a capacity perspective (even with no reduction in road trips due to rail freight trips) (paragraphs 2.4 to 2.7 of this statement); and
- (b) The road safety effects associated with road-based freight trips can and will be sufficiently mitigated (my EIC paragraphs 9.13 to 9.22, and section 5 of this statement).

6.5 Mr Swears' states that:²⁶

"If the Applicant is relying on the potential benefits of providing the rail siding then I consider the rezoning provisions should clearly define when the rail siding must be provided..."

25 Statement of evidence of Robert Swears, paragraph 6.24.

26 *Ibid* paragraph 6.26.

- 6.6 Given that APL's submission does not rely on the rail siding being constructed as a mitigation measure (on the basis of capacity, efficiency or safety), I consider that it is not necessary for the OSP provisions to define when the rail siding shall be provided.
- 6.7 In relation to Mr Swears' concerns about the safety of the Lumsden Road / Balemi Road intersection²⁷ design, an independent Road Safety Audit²⁸ found no serious or significant safety issues with the design, and therefore I consider the concept is appropriate. In my opinion, the level of detail requested by Mr Swears at this rezoning stage of the planning process is not necessary, bearing in mind that the final design details of the intersection will be confirmed in future subject to normal approval processes. These include WDC review likely requiring a further Road Safety Audit for the detailed design, and KiwiRail safety reviews.
- 6.8 I do, however, agree with Mr Swears' point that plan provisions should ensure that the sight distances at the Lumsden Road / Balemi Road intersection are protected.²⁹
- 6.9 With regards to Mr Swears' commentary³⁰ in relation to certainty from KiwiRail regarding the rail siding and level crossing, I refer to paragraph 5.3 of my evidence. APL has subsequently obtained a further letter of support from KiwiRail, this time from the Chief Operating Officer, Mr Todd Moyle (refer email attached as **Attachment C** of this statement). In his letter, Mr Moyle states:
- "... KiwiRail is more than happy to work alongside and in support of the Comfort Group's application to proceed with this exciting development."*
- 6.10 Furthermore, we have received confirmation (refer to email in **Attachment F**) from Mr Russell Herbert, KiwiRail Senior Project Manager for the rail siding project, that the level crossing concept design of a new level at this location is acceptable subject to:
- (a) A LCSIA (Level Crossing Safety Impact Assessment) giving a satisfactory assessment of safety protection needs, and

27 *Ibid* paragraphs 6.26(b) and (c).

28 Lumsden Road Re-Alignment, Ohinewai, Road Safety Audit – Concept Design Stage, 5 May 2020, Traffessionals, Taupo

29 Statement of evidence of Robert Swears, paragraph 6.26(a).

30 *Ibid* paragraph 6.26(d).

- (b) A detailed signal design based on the proposed road and rail alignment drawings.

6.11 In his letter, Mr Herbert confirms that:

"There is no reason to believe that either of these conditions would prevent acceptance of a new level crossing and KiwiRail are 100% supportive of this project."

6.12 I acknowledge Mr Swears' concerns that rail will not provide a viable alternative to road transport unless access to the rail siding is attractive and relatively easy.³¹

6.13 In that regard APL anticipates that formal arrangements/agreements will be made to enable the use of the rail siding by parties in the industrial area of the site other than The Comfort Group (TCG). I also consider that the matter of specific vehicle access arrangements and design to the rail siding can be addressed at resource consent stage.

7. APPROPRIATENESS OF THE SITE ACCESS PROPOSALS, SPECIFICALLY ACCESS A AND INTERSECTIONS 1 AND 3

Access A

7.1 With regards to Access A as referred to by Mr Swears, this issue was discussed, and an outcome agreed in the Transport Joint Witness Statement of 26 June 2020 (JWS) as follows:³²

"It is agreed by the experts that there is a need for the Service Centre accesses to be assessed and confirmed at resource consent stage

...

All agree that vehicle crossings for direct vehicle movements between Tahuna Road and private properties should not be allowed apart from the Service Centre one, which is to be assessed on its merits (provision to this effect is currently in Residential provisions, not in Business provisions)".

7.2 Thus although Mr Swears states in his evidence that he does not support the provision of any access from Tahuna Road to the proposed Service Centre,

³¹ *Ibid* paragraph 6.32.

³² Transport Joint Witness Statement, 26 June 2020, paragraphs 21.4 and 21.10

he agreed with Ms McMinn and I in the JWS that it was appropriate to assess this access on its merits at resource consent stage.

- 7.3 On this basis, I do not see that this access affects whether the OSP is appropriate or not. However, if rezoning is approved, it is important that the Proposed District Plan (PDP) rules trigger a resource consent and an ITA for the Service Centre. It was therefore agreed that the words "Need for and Location to be assessed at Resource Consent stage" should be included on the Business Area Structure Plan in relation to the Service Centre accesses that are identified. This note is now included in the latest revision of the Business Area Structure Plan.

Intersection 1

- 7.4 Concerning proposed Intersection 1 on Tahuna Road (Left In / Left Out only), the JWS records in paragraph 19.10 that:

"Robert suggests left in only with exit movements on to Lumsden Road. If left turn out to Tahuna Road is permitted, the roundabout to the east on Tahuna Road is likely to be too far away for it to be used for U-turn manoeuvres".

- 7.5 Further, Mr Swears states in his evidence that:³³

"While I accept that many road users will comply with signage, some road users will not comply and consideration needs to be given to the implications of road users not complying with that signage".

- 7.6 Then in paragraph 6.42, and 6.43 of his evidence Mr Swears states:

"While I consider that many of these unfamiliar visitors will be able to navigate from the Site using the signage, I am concerned that some of these unfamiliar visitors will seek to exit at Intersection 1

...

"Such movements may resemble a left turn out from Intersection 1, followed by a U-turn on Tahuna Road... I consider that such manoeuvres would be undesirable, therefore, Intersection 1 should either not be provided or, if

33 Statement of evidence of Robert Swears, paragraph 6.28.

the intersection is necessary, it should be constructed as a roundabout”.

- 7.7 In my opinion, linking the potential for unlikely but possible undesirable movements is not a sufficiently compelling reason for not supporting a form of intersection. Although Mr Swears includes examples of people performing “creative” movements where they should not (Appendix A of his evidence), Mr Swears does not provide any actual evidence of the effects at relevant intersection layouts to this Intersection 1 proposal. The images show examples of bad driving, but not how often that occurs at intersections like the one proposed, or the proven consequences (effects). In my view, that does not provide sufficient justification to seek to avoid such effects by not allowing the intersection to be formed.
- 7.8 Mr Swears does include one example of a crash caused by someone that appears to not have been in their right mind, driving the wrong way down a long high speed off-ramp and on to an expressway travelling at 100 km/h or more in the wrong direction until the head-on crash occurred.
- 7.9 In my opinion, this example of unacceptable driving behaviour is not relevant to this site or intersection design proposal. Following Mr Swears’ logic, it would be fair to conclude that his solution to prevent potential bad driving of the type that caused this head-on crash, is for the off-ramp to not have been there (and by extension, that it should be closed). But that solution is neither sensible nor practical when extrapolated across the roading network.
- 7.10 The reality is there is always a balance between practicality for access, feasibility of alternatives and safety. This balance is why we do not see wire rope median barriers rolled out on every section of State Highway in a 100 km/h speed limit zone in New Zealand, despite this being the obvious and proven preventative measure for fatal and serious injury head-on crashes.
- 7.11 In my opinion, the proposed Left In / Left out concept design for Intersection 1 with a solid central median is entirely appropriate for the location, proposed lower speed environment and future traffic volumes. It will operate as one of the safest forms of intersection available when driven by the vast majority of drivers that are law abiding and sensible, while allowing practical access for the site. There are many examples where this form of intersection exists, including on higher order roads with much more traffic and higher speeds than Tahuna Road will have in future if this development occurs.
- 7.12 To demonstrate the safety of this form of intersection I have researched the previous five year (2015 to 2020 inclusive) crash records from the NZTA CAS

database and daily traffic volumes of six restricted movement (mostly Left In / Left out) intersection examples in Hamilton. All of these sites are located on high order roads with high traffic volumes, and in speed limit zones ranging from 50 km/h to 80 km/h.

- 7.13 The polygon search area used for each site in CAS and the corresponding CAS crash outputs for 2015 to 2020 inclusive are included in **Attachment D**.
- 7.14 The combined crash records demonstrate that not one crash resulted in death or serious injury in relation to a driver performing an unacceptable movement at any of the sites. In fact, only one crash (at the Wendy's restaurant access on Greenwood Street, 60 km/h zone) involved a driver performing a banned right turn in to a left in only access. However, there is no physical centre island preventing the turn whereas our concept design includes a physical centre island to discourage such behaviour.
- 7.15 On the basis of this crash evidence presented, I reconfirm my opinion that the proposed Intersection 1 as a Left In / Left Out layout will operate safely and provides an appropriate balance of safety with access practicality for the site. I see no reason from the evidence to restrict Intersection 1 to just Left in movements only.

Intersection 3

- 7.16 In regards to Intersection 3, Mr Swears states³⁴ that clarification regarding the "*... measures that will be put in place to limit the potential for development on the Site to obstruct the sight distance to the north along Lumsden Road from Intersection 3...*" is required.
- 7.17 I note that the proposed rezoning provisions deal with this for the Industrial zone by specify a 15 m building set back from the road boundary on Lumsden Road.
- 7.18 Furthermore, a 6 m wide berm will be provided on the eastern side of the Lumsden Road as part of the proposed upgrade works to urbanise the road. I have assessed the achievable sight distances against the minimum required safe intersection sight distance ("SISD") requirements³⁵ on the basis of the existing and proposed safer speed environment speed limits. On that basis,

34 Statement of evidence of Robert Swears, paragraph 6.34.

35 Provided in Table 3.2 in Part 4A of the Austroads Guide to Road Design document.

I consider that the achievable sight lines looking north will easily comply with the requirements.

- 7.19 In addition, I note that the design of any new intersection or access would need to comply with the provisions in the PDP (Section 14.12 Transportation) / Operative District Plan (ODP) (Appendix A) which refers to the Austroads Guide to Road Design document minimum SISD requirements. On this basis, specific planning provisions for the protection of sight lines at Intersection 3 are not necessary or appropriate.

Tahuna Road zebra crossing

- 7.20 With regard to the identified raised zebra crossing proposal on Tahuna Road, I do not agree with Mr Swears' opinion³⁶ that the concept zebra crossing design is not appropriate due to high approach vehicle speeds, as the speeds will be low and appropriate due to the presence of the roundabout. I also do not consider that focussing on design detail of this nature is necessary when considering the suitability of the proposed rezoning. The key point being (as identified by Mr Swears in Table 1 Item 22 of his evidence) that there are solutions for safe connectivity across Tahuna Road to connect to the shared path. The exact form and design details will be confirmed subject to safety audits and design standards at the time.
- 7.21 Notwithstanding the above, I note that the independent Road Safety Audit of the roundabout concept design, which Mr Swears requested (JWS paragraph 22.3), did not identify any serious or significant issues with the raised platform zebra crossing included in the concept design.

8. WRTM TRIP GENERATION RATES

- 8.1 Mr Swears states that:³⁷

"At this rezoning stage we do not have certainty regarding the nature of the General Light Industrial activities, therefore, we do not have certainty regarding the trip generation of the Proposal."

- 8.2 While I accept that we do not have certainty regarding the nature of the industrial land use activities, I do not consider that there is uncertainty regarding the trip generation of the Proposal.

36 Statement of evidence of Robert Swears, paragraphs 6.35-6.38.

37 Ibid paragraph 6.47.

8.3 As outlined in Section 7.1 of the ITA report, the adopted trip generation rates for the general industrial activities are consistent with other industrial land uses within the WRTM, including the recently consented Ruakura Plan Change project in Hamilton. Furthermore, as I have highlighted in paragraph 6.7 of my evidence, the WRTM was shown to predict higher trip rate figures for the key land use components (manufacturing, industrial and business) compared to widely adopted trip generation manuals and related reports.

8.4 Concerning Mr Swears' commentary³⁸ in relation to the employment densities for the TCG factory vs the General Industrial activities, Section 6.1.2 of the May 2020 ITA report outlines the basis for the adopted figures. I consider that the employment density adopted for the general industrial area (27 employees per hectare) is appropriate given that it is consistent with densities applied in recent plan change projects with industrial zoning (such as the consent Ruakura Plan Change project in Hamilton and the consented Drury South Structure Plan in Auckland) as well as employee count data provided in the *Upper North Island Industrial Land Demand report* (UNIILID) which was sourced from *Statistics New Zealand*.

8.5 Furthermore, I provide in paragraph 2.5 of this statement of rebuttal evidence findings from the sensitivity testing³⁹ of significantly higher trip generation figures than those incorporated into the WRTM predictions for the general light industrial area that showed that the existing intersections remain suitable and sufficiently robust in terms of capacity to accommodate the traffic associated with the OSP.

8.6 Mr Swears states in his evidence that:⁴⁰

"... unless there are planning provisions that require the housing (or at least substantial portions of the housing) to be occupied by workers on the Site, there are limited transportation benefits in having housing on the Site."

8.7 He goes on to say in the same paragraph that:

"In my opinion, even if there are relatively high levels of Site worker occupancy, the transportation disbenefits associated with on-site housing are likely to outweigh the benefits."

38 Ibid paragraphs 6.46 and 6.48.

39 It was agreed by traffic experts during expert conferencing (JWS, paragraph 3.7) that uncertainty related to the appropriate mitigation measures could be adequately reduced by undertaking sensitivity testing on the updated WRTM and sensitivity scenario.

40 Statement of evidence of Robert Swears paragraph 6.53.

- 8.8 I do not agree with Mr Swears' view for the following reasons:
- (a) He has not quantified what he considers are the disbenefits associated with providing housing on site, or shown the effects/ consequences of these disbenefits.
 - (b) The effects assessment, which was conducted on the basis that 80% of trips will be external to the OSP area⁴¹ (which I consider to be conservatively high⁴²), does not demonstrate there being any significant adverse transportation effects (disbenefits) associated with providing housing within the OSP area, apart from those that have already been assessed and mitigated through the implementation of the proposed transport infrastructure upgrades.
- 8.9 On this basis, I do not consider it to be necessary for the proposed planning provisions to require housing (or a portion of it) to be occupied by workers within the OSP area.
- 8.10 I accept Mr Swears' point⁴³ that "... *locating housing remote from many other services ... will result in local trips being made on the Expressway.*" However, referring back to my earlier point in paragraph 8.8, I consider that the following components of the Proposal will provide adequate mitigation for "local trips":
- (a) The inclusion of the Neighbourhood Centre component within the Site which will serve the local residential community for everyday convenience items so that short trips to Huntly and back are not needed every day.
 - (b) The provision of the shared active path overbridge over the Expressway to Ohinewai West, Ohinewai School and Huntly which will enable safe and attractive connectivity for active mode travel.
 - (c) The implementation of the proposed left-slip access from Great South Road/ State Highway 1 to Ohinewai South Road which will provide an alternative to using the Expressway for northbound "local" trips from Huntly to Ohinewai.

41 Mr Swears also acknowledges this in paragraph 6.53 of his evidence.

42 As stated in paragraphs 6.6(a) to (e) of my EIC.

43 At paragraph 6.52 of his evidence.

- (d) The provision of a shared active mode path along Ohinewai South Road and the river stop bank that will promote active mode travel and recreation opportunities between the Site and Huntly.
- (e) The provision of an interim bus stop facility near the site on Tahuna Road, and the permanent future facility within the proposed business precinct to enable future access to public transport.

9. **STRATEGIC TRANSPORTATION EFFECTS**

- 9.1 The following relates to the issue of likely effects of this proposed rezoning development on the strategic function of the expressway, as raised in the evidence of Mr Swears⁴⁴, Mr Mayhew⁴⁵, and Ms Loynes.⁴⁶
- 9.2 Mr Mayhew and Mr Swears' concern in relation to the strategic transport function of the Expressway is that the "local trips" between Ohinewai and Huntly associated with the OSP, "have the potential" to cause adverse effects on the safety and efficiency of the Expressway.
- 9.3 However, neither Mr Swears nor Ms Loynes (as relied upon by Mr Mayhew) have quantified the level of these potentially adverse safety and efficiency effects that they claim may occur on the Expressway due to this development, to demonstrate that local trips should indeed be prevented.
- 9.4 The important point to note is that the Expressway already carries trips of many purposes, including "local trips", which I interpret as including travel for work and accessing essential services.
- 9.5 Te Kauwhata is a relevant case in point. The population of Te Kauwhata has rapidly increased in recent years, and will continue to do so until it reaches approximately 7000 people. This was enabled by the rezoning by WDC of rural land to residential in the early 2010s. However, very little land could be rezoned for employment due to land suitability issues. It was anticipated that jobs in Auckland, Hamilton, Huntly and Hampton Downs would service Te Kauwhata. It is well known that people live in Te Kauwhata commute to Auckland or Hamilton for work. A new diamond interchange has recently been completed on the SH1 expressway to support the growth of Te Kauwhata, despite the local trips component.

44 Paragraph 6.55.

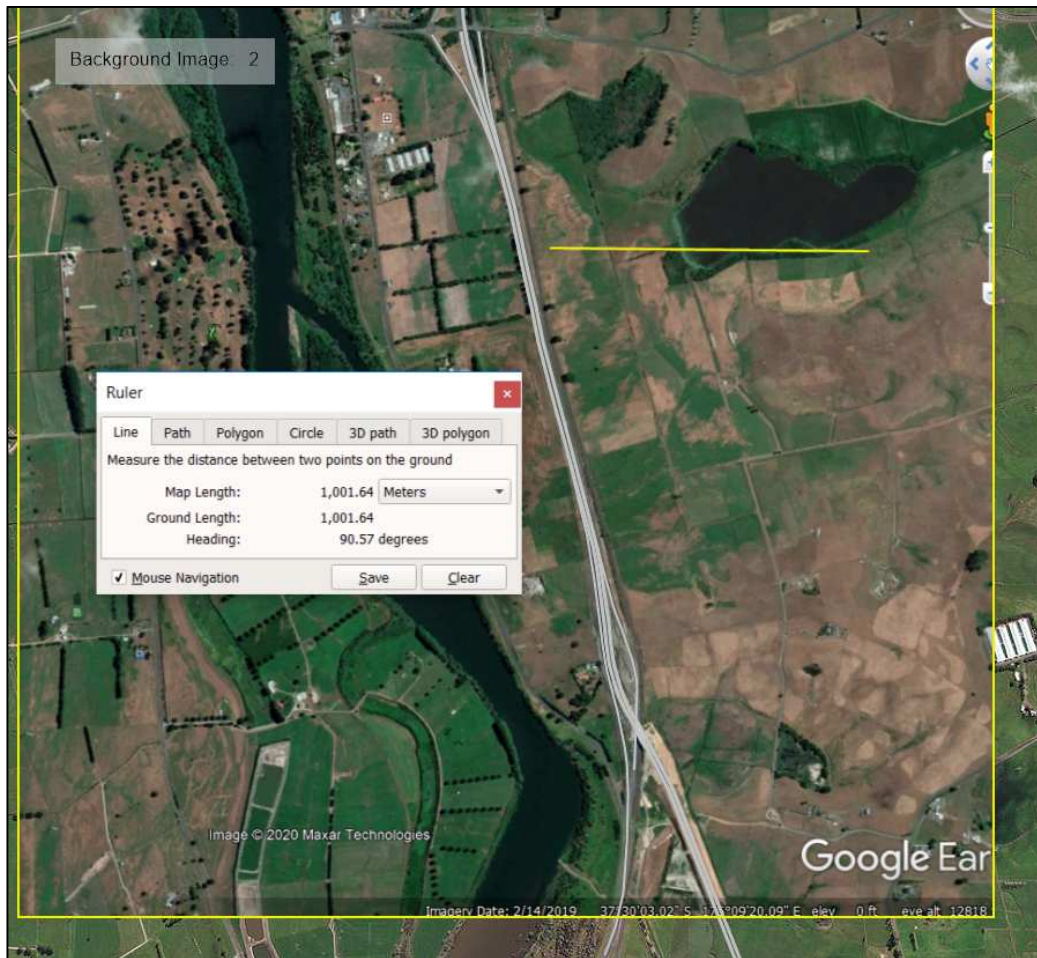
45 Paragraphs 7.20-7.25.

46 Paragraphs 8.1-8.7.

- 9.6 The same applies to Pokeno, which has rapidly grown in population over the last 10 years. Many of Pokeno's population work in Auckland. This involves travelling on the SH1 expressway and then on to the even higher order road, the SH 1 Southern Motorway. I consider these to be "local" trips.
- 9.7 It seems to me there is a lack of consistency by NZTA applying the strategic objectives as an argument to protect the Expressway from being undermined by "local trips" despite, as discussed further in Section 11, the rezoning proposal for Ohinewai includes the integration of large amounts of employment, residential and commercial land-use to reduce the need for private car-based "local trips".
- 9.8 In my opinion, the strategic objectives alone are not a sufficiently compelling reason to reject the proposed rezoning based on traffic / transportation effects. In my view, the transport effects of such economic development is critical to understand whether the strategic function of the expressway will in fact, be eroded by "local trips".
- 9.9 Ms Loynes states at paragraph 6.2 of her evidence that the Ohinewai interchange has not been designed to cater for the volume of traffic movements that would be associated with the OSP.
- 9.10 While that may be correct, neither was Pokeno Interchange, which was built before Ohinewai Interchange. But, much like the work I have undertaken, the effects assessments for the rezoning of Pokeno demonstrated that it is capable of accommodating the proposed future traffic growth with little improvement or upgrade required. I consider that this outcome applies equally to the Ohinewai interchange, based on the comprehensive assessment evidence.
- 9.11 In section 4 of his evidence, Mr Swears raises concerns in relation to the "less-than-desirable" separation distance between the Ohinewai Interchange and the recently completed Huntly North Interchange ramps. I do not dispute the separation distances are much less than the 5 – 8 km distance identified as desirable. However, Mr Swears relies on the Austroads statement as key evidence that the Ohinewai rezoning traffic is likely to result in adverse effects on the expressway.
- 9.12 However, the wording in the Austroads text is actually less definitive. It uses the terms:
- (a) "can result," in relation to issues associated with the overlapping or insufficient separation of entry ramps and exit ramps; and

- (b) "may result" in relation to problems associated with traffic weaving between ramps.
- 9.13 The wording is deliberately not definitive in relation to potential effects because every situation is different. It depends on the overall volume of traffic on the expressway and the volume of weaving traffic as factors that need to be considered. Mr Swears has quoted guidance documents but has not undertaken an effects assessment to demonstrate why the spacing is inadequate.
- 9.14 As identified in paragraph 7.2 of the JWS, just 15% of the rezoning traffic travelling on the expressway south of Ohinewai when the development is complete, is predicted (in the WRTM) to be to and from Huntly.
- 9.15 This is equivalent to 75 vph and 70 vph of development traffic on the northbound off-ramp at Ohinewai in the 2041 AM and PM peak hours, respectively.
- 9.16 For the southbound on-ramp it is equivalent to 65 vph and 120 vph of development traffic in the 2041 AM and PM peak hours, respectively.
- 9.17 It is also important to note that this development related traffic is likely to stay in the left lane after entering the Expressway, whether north or south bound, in order to depart the Expressway again at the following interchange off-ramp.
- 9.18 I consider those Huntly related volumes to be relatively low compare to the volume of traffic predicted for 2041 in each direction on the expressway between the two interchanges. The WRTM shows northbound AM Peak is at approximately 1300 vph, while southbound is 1690 vph. Northbound PM Peak on the expressway is 2180 vph and southbound 1770 vph.
- 9.19 To test the effects of weaving on capacity and operating speed over the less-than-desirable separation distance, I built a micro-simulation traffic model to scale for both peak periods (AM and PM). I input the 2041 peak hour flow demands for the Expressway and Huntly South Road (ex-SH1), and set HCV percentage at 10% for all traffic compositions. A screen shot of the model is shown below. Only half of the Ohinewai interchange is included as this test was only interested in the weaving effects between the interchange ramps. The model's study area is depicted in Figure 3.

Figure 3: Micro-simulation Traffic Model - Study area



9.20 A particular benefit of a micro-simulation model is that each individual vehicle movement is simulated with difference driver behaviour attributes and vehicle performance attributes. The model visually displays the movement of the vehicles and the effects of queuing and lane changing. Figure 4 and Figure 5 below illustrates two snapshots, the first is of the 2041 AM peak hour while the second is of the PM peak Hour.

Figure 4: Micro-simulation traffic model output - 2041 AM Peak Hour



Figure 5: Micro-simulation traffic model output - 2041 PM Peak Hour



- 9.21 Both images show no flow interruption in either direction at the off ramp or on ramp. (Flow interruption would be depicted by bunching/queuing vehicles and vehicles in the lane closest to the central median trying to late lane-change to the outer lane before the off-ramp diverge. For the on-ramp; vehicles bunching together traveling slowly trying to find a gap to enter the main flow of traffic).
- 9.22 Both the AM and PM models demonstrate there to be no discernible reduction in capacity or average vehicle speed over the weave zones between the interchanges, with and without the development traffic scenarios.
- 9.23 This confirms my expectations that weaving and efficiency effects on the expressway will be negligible despite the less-than-desirable separation distance. This is essentially due to the future flow rates not being high enough for weaving to materially affect the expressway efficiency. If weaving effects on capacity is not an issue, then it is likely that the safety effects of lane changing will also be negligible.
- 9.24 Notwithstanding the above, an opportunity exists to upgrade and reopen a connection at relatively low cost, of the old Ohinewai South Road to Great South Road (ex-SH 1) for northbound traffic travelling from Huntly to the Ohinewai community. This enables northbound trips between Huntly and Ohinewai to be undertaken without having to travel the short section on the expressway. The potential volume of traffic that would use this is only 75 vehicles or so per hour and, while this is not a lot of traffic, I consider the benefit is more in providing alternative route choice for the community and overcoming the perceived separation of Ohinewai and Huntly due to the Expressway. I expect it will be attractive for use by people that work in Huntly and pick up children from school on the way home to Ohinewai, and it will be used for local work-based trips to the OSP site.
- 9.25 However, even without this proposed connection, the evidence I have produced in the ITA report, together with my EIC and this statement of rebuttal evidence, demonstrate that the efficiency and safety effects on the expressway and interchange performance will not be significant, and with the implementation of the recommended mitigation measures, the strategic function and benefit of the expressway and interchange for economic growth and mobility of the region will not be lost at all with the expected level of development traffic added.

10. **LOCAL TRANSPORTATION EFFECTS ASSESSMENT AND PROPOSED MITIGATION MEASURES**

- 10.1 At paragraph 6.57 of his evidence, Mr Swears quotes a statement from the memorandum I prepared in relation to the removal of the DFO from the proposal⁴⁷ related to the expected levels of service at the eastern ramp intersection. The statement that he quotes relates to the findings from the sensitivity testing assessment of significantly higher trip generation figures than the expected/typical trip generation incorporated into the WRTM predictions. The relevant findings from the 2031/ 2041 intersection performance assessments are provided in Sections 4.1 and 4.2 of the memorandum.
- 10.2 Therefore, Mr Swears interpretation is incorrect. The memorandum concluded that the 2041 AM and PM performance results show that both Ohinewai Interchange ramp intersections, and the existing Tahuna Road/ Lumsden Road roundabout already have sufficient capacity to continue operating efficiently (LOS A and B, and only Lumsden Road at LOS C in the PM Peak⁴⁸), with the site fully developed and excluding the DFO. The memo demonstrates that the Interchange (including critical movements at the ramp intersections) performs at very good levels of service (LOS A and B in the 2041 assessment year) and not at low levels of service as suggested by Mr Swears in paragraph 6.58(a) of his evidence.
- 10.3 Mr Swears is particularly concerned that nothing is proposed to improve the levels of service and reduce the incremental road safety effects that "*may arise*" as a result of the proposal. Also, that the WRTM modelling that I have relied on "*may not be sufficiently robust to support those conclusions*".
- 10.4 As I noted in paragraph 10.2, the two ramp intersections at the Interchange are anticipated to operate at high levels of service. The effects assessment further demonstrates that the average delay to vehicles is not expected to exceed 15 seconds while the 95th percentile queues on the off-ramps is not expected to exceed 30 m. I do not consider that this demonstrates the Interchange capacity needs to be improved. It demonstrates that the inherent capacity of the Interchange, despite not originally being built with the development in mind, is sufficient to accommodate the rezoning traffic

47 Transportation-related implications of removing the Discount Factory Outlet (DFO) from the Ohinewai Structure Plan area, 7 August 2020.

48 Table No. 7, DFO removal memo

in addition to the anticipated background traffic growth without causing significant adverse effects.

- 10.5 As I have demonstrated in paragraphs 2.5 and 2.6 of this statement, the sensitivity assessment that was undertaken as part of the revised effects assessment demonstrates that no related capacity upgrades will be triggered, and that the existing compulsory Stop controlled intersection form remains sufficient in terms of capacity even when factoring in significantly higher delays for large trucks at the southbound off-ramp.
- 10.6 I note that Mr Swears has not provided any detailed assessment of transport capacity or safety effects to the contrary in his evidence.

11. PUBLIC TRANSPORT PROVISION

- 11.1 In response to Mr Kuo and Mr Swears' evidence concerning public transport provision at Ohinewai,⁴⁹ I acknowledge that the existing PT service stops on the western side of the Expressway, at the Ohinewai Community Hall. Also, for efficiency reasons there would only be one stop location in future, which I consider should be on the eastern side of the expressway where the majority of demand will come from based on the rezoning.
- 11.2 Mr Swears considers that this would mean passengers from the western side of Ohinewai would likely just cross the Expressway via the existing Interchange overbridge and rail overbridge because, in his opinion, the distance is too far to use the proposed new walking and cycling overbridge. However, I consider some context is important in understanding the likely effects here.
- 11.3 In my discussions with Mrs Holmes (resident of 56 Lumsden Road), she informed me that the Northern Connector bus service is mostly used by residents on the east side of Ohinewai in any case. On weekday mornings there are usually 11-12 high school children⁵⁰ from the eastern side that get dropped off by car to the hall on the west side, to catch the bus into Hamilton.
- 11.4 By comparison, she is aware of only one person from the western side who also uses that service. The fact that the bus stops there at all was due to her and two other residents (Roanne Lumsden and Hayley Nikau) on the eastern side of Ohinewai petitioning the WRC in February 2019 for a stop at Ohinewai. I understand from Mrs Holmes that upon learning that the

49 Statement of evidence of Robert Swears, paragraph 6.13.

50 Refer Mrs Holmes email to WRC, in Attachment E.

Northern Connector service had commenced operating between Hamilton and Te Kauwhata, they wrote letters to WRC requesting that a stop be added at Ohinewai. WRC asked them where the safest efficient location would be for a stop. The local community hall was suggested. Mrs Holmes said she and the other residents did not offer a location on the eastern side because they did not think an informal stop on the side of the road would be likely to get support from WRC.

- 11.5 As a result, the Northern Collector service now stops once in the morning and once in the evening at the Ohinewai Community Hall. Mrs Holmes and the other east side residents have been driving their high school children across to the hall each morning since early 2019. She notes that is far better than the trip the families all used to do to Huntly each morning to catch the bus to Hamilton.
- 11.6 It is apparent that the significant majority of existing passengers using the Ohinewai bus service already live on the eastern side of Ohinewai. The demand would only increase if the OSP is approved and new jobs and housing is established. In my opinion, there would already be real benefit in relocating the Ohinewai bus stop to the eastern side and formalising the proposed interim stop location (on Tahuna Road), now. The benefit and attractiveness of that stop location is only likely to increase if the OSP area is developed.
- 11.7 The information provided suggests there are very few people that would be inconvenienced by locating the bus stop on the east side. And although it may be considered inconvenient for these few people, I do not agree that it is too far to walk, scooter or cycle to catch the bus via the proposed shared path and new over-bridge. It would add approximately 910 m to their journey. If however the one or two people on the west side stopped using the service as a result, it is my opinion that the transport effects of this are still less than that which presently exists, and would increase in future, with a much greater number of people driving across to the west side to use the bus.
- 11.8 Mr Kuo also raises two other issues that I wish to address. He refers to the strategic priorities and objectives set out in the RPS, RLTP and RPTP. In particular, in paragraph 6.9 of his evidence he states that the RPS includes provisions relevant to public transport, including five development principles that alternative land release proposals should have regard to.
- 11.9 Of specific relevance to my area of expertise are principles II, III, IV and V. I consider that these have been addressed for the APL development in

relation to transportation design. I briefly explain how these have been addressed below.

11.10 Principle II:

"Minimise the need for private car use".

11.11 I consider that the master planned integration of the proposed land-use activities absolutely enables and promotes the minimisation of private car use. The inclusion of residential housing adjacent to the proposed employment, together with a neighbourhood commercial area providing retail convenience needs, means that most of the typical day to day short trips people make to work and school can be made within the site as walking and cycling trips, or for high-school or work trips to Huntly and Hamilton, by bus. In my opinion, deleting any one of the three proposed land-use activities from the OSP would only serve to increase private car use. This view aligns with Principle V below.

11.12 Principle III:

"...support...public transport by encouraging employment activities in locations that are or can in the future be served efficiently by public transport".

11.13 I have underlined a key part of the phrase that I consider has been made possible through the proposed master-plan layout of the development and walking and cycling, and PT infrastructure provisions. We have purposely located the Interim proposed bus stop and long-term bus hub in highly accessible locations, convenient to safe walking and cycling infrastructure, convenient to the Ohinewai Interchange, and within a walkable distance.

11.14 Principle IV:

"Encourage walking, cycling and multi-modal transport connections;

11.15 Principle V:

"maximise opportunities for people to live, work and play within their local area".

11.16 As identified for Principle II, the integrated land-use proposal and associated supporting infrastructure maximises opportunities for people to live, work and play within their local area. In addition, the potential to create a safe shared walking and cycling path connection with Huntly, plus the many paths

internally within the site will create valuable “play” areas for exercise and recreational cycling and walking. The feedback from residents’ (discussed at paragraphs 4.13 to 4.16), clearly supports my opinion on this matter.

11.17 Although Principle I: “minimise energy and carbon use” is not my area of expertise, I do know that this is “given regard to” if the land use is well planned with safe and accessible walking, cycling and multi-modal transport connections. I consider that these aspects have been appropriately demonstrated for the rezoning.

11.18 Further, in regards to paragraph 6.15 of his evidence, Mr Kuo does not provide any actual evidence demonstrating that the OSP will not assist in delivering the RLTP’s outcomes to support his suggestion that it is impossible to service the site cost efficiently and effectively with public transport.

11.19 WRC has clearly made the decision to provide PT services to Te Kauwhata from Hamilton, which includes stops at Ngaruawahia, Taupiri and Huntly. If this is not cost effective and efficient then WRC has not had regard to its own objectives and policies. Ngaruawahia, Taupiri and Te Kauwhata each contain very little employment to support the residential population that exists. Without the bus service those townships truly are reliant on private vehicle trips for the significant majority of work related trips, if not other essential trips. The OSP has significantly better land-use integration and contrasts quite clearly to these townships, in my opinion, yet Mr Kuo has suggested it would not be cost effective or efficient to service a stop at Ohinewai.

11.20 In paragraph 8.4 of his evidence, Mr Kuo states in relation to the Te Kauwhata PT service:

“It is important to note that these existing services are very limited in their utility ... and ...only provide limited values in terms of providing attractive transport choices and reducing car dependency”.

11.21 If that is the case, it is not clear what the reasoning is for WRC funding and operating the service. There must be some benefit. I consider it is likely to provide travel mode-choice for these communities in order to reduce dependence on private car trips; i.e. to ‘start somewhere’ in terms of changing our culture in terms of public transport use. I consider the same approach is applicable to support the OSP.

11.22 Even so, the reality is, where there is significantly greater PT connectivity and service frequency than Ohinewai has now, people still predominantly choose private car use for essential trips (including work) and non-essential

trips before choosing public transport. That is my experience and observations in Hamilton, at least. People prefer the flexibility, convenience and comfort of their cars. Since we do not really have congestion in Hamilton, public transport gets used when people are faced with competing demands for car travel, or other constraints such as travel distance combined with expensive or no car-parking at work. So I do not believe there is a practical need for a highly frequent and efficient PT service for Ohinewai if the OSP is approved. As identified by Mrs Holmes, the once-a-morning service already provides significant benefit to existing residents by removing their need to travel to Huntly for school-related trips.

11.23 This supports my opinion that providing PT as an alternative to car travel during the weekday peak periods is what will generate the greatest use of PT, and therefore benefit to Ohinewai including reduced reliance on car travel at such times, if the OSP is approved. WRC's current PT service shows this is achievable. Mr Kuo does not demonstrate why a PT solution such as increasing the existing service frequency in peak periods as the OSP develops, will be uneconomic and/or inefficient.

11.24 Lastly, the costs of PT servicing options, including possible extra-over costs of increasing the frequency of the Te Kauwhata service, have been requested from WRC⁵¹ following a meeting I had with them after the expert conferencing session. APL has advised WRC and WDC that it is willing in principle to subsidise PT costs to facilitate a service to the site. At the time of writing this rebuttal evidence, APL is awaiting details of options and costs from WRC to work towards developing an agreed funding mechanism.

12. **TRANSPORTATION ENGINEERING JOINT WITNESS STATEMENT**

12.1 Mr Swears' states:⁵²

"In my opinion, the rezoning should not go ahead unless there are confirmed practicable solutions for the potential issues that may arise and appropriate rules to ensure that mitigation is implemented where necessary."

12.2 In response, I consider that I have demonstrated that practical solutions to the realistically probable effects do exist for the likely level of transport demand of this proposal, and that these solutions are also sufficiently robust for the reasonably possible variations to the trip generation as demonstrated

51 Refer to emails between myself and Vincent Kuo, and Andrew Wilson of WRC in **Attachment G**.

52 Statement of evidence of Robert Swears, paragraph 7.1.

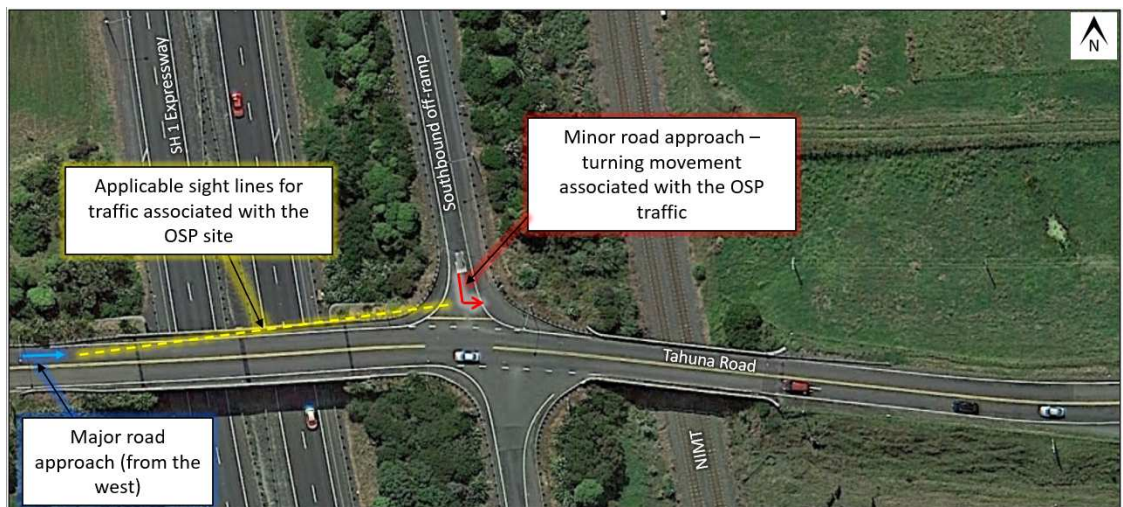
through the sensitivity testing assessment. I do not agree that "potential issues that may arise" require solutions to be confirmed at rezoning. That implies all potential issues, which includes the highly improbable.

- 12.3 In my opinion, it is not necessary to confirm the design detail of these solutions at rezoning stage as long as it is clear that traffic management measures to address the likely and foreseeable effects are available. As stated in paragraph 9.2 of my evidence and paragraph 3.7 of the JWS, the design details of mitigation and timing will be refined and confirmed as part of future resource consent applications for developing the various stages of the OSP area.
- 12.4 At paragraph 7.1 of his evidence, Mr Swears' interprets this to mean that I "*recognise there may be issues in the future associated with the Proposal...*". That is incorrect. My statement in the JWS refers to an effects assessment for confirming the "details of mitigation and timing", not solutions for new issues. I note that Mr Swears has not highlighted any new issues that have not been previously identified and/or assessed.
- 12.5 In the paragraphs below I provide my responses to the commentary provided by Mr Swears' in relation to the matters arising from the Joint Witness Statement:⁵³
- (a) Issue 1 – Agreement by all experts during expert conferencing (at paragraphs 2.1 to 2.3 of the JWS) other than the matter of whether the WRTM predictions are conservative. Ultimately, this does not matter.
 - (b) Issue 2 – This issue is addressed in paragraphs 9.3 to 9.9 of my EIC, and paragraphs 8.1-8.5 of this statement.
 - (c) Issue 6 – This issue is addressed in paragraphs 9.10 to 9.31 of my EIC.
 - (d) Issue 8 - This issue is addressed in paragraphs 9.32 to 9.35 of my EIC, and paragraphs 10.1-10.5 of this statement.
 - (e) Issue 9 - This issue is addressed in paragraphs 9.36 to 9.50 of my EIC. However, I would add that the sight distance most relevant to the OSP are the sight lines looking west from the southbound off ramp. As shown in Figure 6, development of the OSP increases traffic

53 Statement of evidence of Robert Swears, paragraph 7.2.

almost exclusively in relation to the left-turn from that off-ramp together with the eastbound through movement comprising of traffic arriving from the south. Left-turning vehicles on the southbound off-ramp Stop for eastbound vehicles coming over the Expressway overbridge on Tahuna Road). As set out at paragraphs 9.36-9.43 of my EIC, the achievable sight distance looking west complies with the minimum SISD requirements. Sight lines looking east from the southbound off-ramp (which Mr Swears is most concerned about) relate to westbound traffic, which traffic turning left from the southbound off-ramp is not required to yield to. Westbound traffic is primarily of interest to right turning traffic on the southbound off-ramp (not increased by the OSP) and some large trucks turning left from the southbound off-ramp that might encroach on the centreline or into the opposing traffic lane while turning. However, given the eye height of drivers of large trucks and the available sight-distance measured for car driver eye height, I consider that those truck drivers have sufficient clear sight lines looking to the east to facilitate their decision to commence turning or not.

Figure 6: Most relevant sight line associated with traffic increase of the Proposal



- (f) Issue 21 - This issue is addressed in section 2 of this statement. The revised intersection performance assessment and sensitivity testing confirms that capacity related upgrades at the Tahuna Road / Lumsden Road roundabout will no longer be required with the site fully developed. I consider that issues related to the concept design of the roundabout are no longer pertinent.
- (g) Issue 22 – This issue is addressed in paragraphs 10.2 to 10.3 of my EIC.

(h) Issue 23 – This issue is addressed in paragraph 10.4 of my EIC.

13. **CONCLUSION**

- 13.1 I have reviewed the evidence of the transport and planning witnesses on behalf of Waka Kotahi, WRC and Future Proof. My opinion remains that the OSP can be supported from a traffic and transportation perspective provided that the proposed transportation infrastructure associated with the OSP and the identified mitigation measures are implemented. I consider that a number of the issues that have been raised by the witnesses are matters that are most appropriately addressed at resource consent and detailed design stage.
- 13.2 In my opinion, the evidence of the Waka Kotahi and WRC witnesses has not demonstrated that the OSP is likely to cause unacceptable traffic and transportation effects that cannot be mitigated and therefore is not appropriate for rezoning.

Cameron Inder

24 August 2020

ATTACHMENT A

**MEMORANDUM RELATING TO TRANSPORTATION-RELATED IMPLICATIONS OF
REMOVING THE DISCOUNT FACTORY OUTLET (DFO) FROM THE OHINEWAI
STRUCTURE PLAN AREA, 7 AUGUST 2020**



BLOXAM BURNETT & OLLIVER

Level 4, 18 London Street
PO Box 9041, Hamilton 3240
New Zealand

+64 7 838 0144
consultants@bbo.co.nz
www.bbo.co.nz

Memo

To Waikato District Council and Ohinewai Rezoning parties
CC David Gaze; John Olliver, BBO; Stuart Penfold, BBO
From Cameron Inder / Rhulani Baloyi
Date 7 August 2020
Job No. 145860.16
Job name Proposed Ohinewai Rezoning and Structure Plan
Subject **Transportation-related implications of removing the Discount Factory Outlet (DFO) from the Ohinewai Structure Plan area**

1 Introduction

Subsequent to the completion of the expert conferencing in June 2020, Ambury Properties Ltd (APL) has decided to remove the Discount Factory Outlet (DFO) from the project and replace it with additional land for industrial purposes. The area allocated to the DFO was 5.5ha, so that 5.5ha will be allocated to industrial use with an Industrial zoning. To accommodate this change, the following amendments have been made to the illustrative Masterplan, the two Structure Plans and Zoning Plan (the amended plans are provided in Appendix A, while the two Structure Plans are shown in Figure No. 1 and Figure No. 2):

- The neighbourhood centre has been relocated slightly so that it straddles the main road (“Road Type 3”) with shops now provided on both sides of the street. This maximises the active frontages and allows the backs of the southern shops to back onto industrial land. The location of the neighbourhood centre at the interface between the residential and industrial areas means it provides a land use transition between the two and is also centrally located to both the residential and employment catchments. There is no change to the GFA cap of 2,500m².
- The east-west road connecting the neighbourhood centre to the service station / public transport centre will remain as an important pedestrian/cycle connection, albeit through a light industrial area. The road cross-section will include off-street cycling via shared walking and cycling paths on both sides of the road. The alternative pedestrian/cycle connection through the open space and along Tahuna Road to connect to the path through Ohinewai Reserve and onwards to the school will remain.
- The north-south road immediately to the east of the new industrial area is now reclassified as Type 2 instead of Type 3 as it will be an industrial access road instead of commercial.

This memorandum outlines the traffic and transportation related implications of the change.

Summary Conclusion of this Assessment:

By removing the DFO and replacing it with Industrial Zoning, this assessment finds that the existing road network can readily accommodate the additional traffic associated with the whole APL’s rezoning proposal. That is, no capacity-related upgrades at the Ohinewai Interchange and the Tahuna Road/ Lumsden Road intersection are likely to be required to accommodate APL rezoning traffic through to the assessment horizon year, 2041. This finding is attributed to the reduced trip generation during the peak periods, and particularly the PM peak, resulting from the removal of the DFO retail activities. Further sensitivity testing confirms that



the existing intersection layouts can accommodate higher trip rate figures (10-20% higher) than estimated by the Waikato Regional Transportation Model's (WRTM) assessment for the Ohinewai rezoning, but that capacity related upgrades may likely be triggered at the Tahuna Road/ Lumsden Road roundabout should the trip rates assessed by the WRTM be significantly higher (i.e. greater than 20%) than published surveyed trip rates.

Figure No. 1: Proposed Revised Ohinewai Structure Plan



Figure No. 2: Proposed Business Area Structure Plan



2 Proposed Land Use Zoning – without the DFO

A summary of the indicative development areas within the amended Structure Plan (as illustrated in Figure No. 1 and Figure No. 2) is provided in Table No. 1.

Table No. 1

Proposed Sleepyhead Estate Zone Areas (without the DFO)						
APL Structure Plan Area	Masterplan Area	Gross Structure Plan Area ¹ (ha)	Net Masterplan Area ² (ha)	Share of Net Masterplan Area (%)	Net Developable Area (ha)	Share of Net Developable Area (%)
Industrial	TCG Factory	66.5 ha	22.4 ha	14%	62.0 ha	63%
	Rail Siding/ Freight Storage Area		7.6 ha	5%		
	General Industrial		32.0 ha	20%		
Business/ Commercial	Service Centre	4.5 ha	2.2 ha	1%	3.1 ha	3%
	Neighbourhood Centre		0.8 ha	1%		
	Corner Shop		0.1 ha	0%		
Residential	General Density	52 ha	15.9 ha	10%	32.7 ha	33%
	Medium Density		16.8 ha	11%		
Open Space	Public Open Space	55 ha	59.8 ha ³	38%	-	-
Total		178 ha	157.6ha	100%	97.8 ha	100%

As shown in Table No. 1, with the removal of the DFO within the business/ commercial area, the net developable area for business/commercial is 3% (3.1 ha), down from 9% (8.6 ha) previously. The industrial area increases from 58% (56.5 ha) to 63% (62 ha) of the net developable area.

The resulting development yield (in terms of GFA, dwelling units and number of jobs) is provided in Table No. 2. This shows:

- The removal of the DFO removes approximately 318 business/commercial activity jobs. While the replacement industrial activity is anticipated to provide approximately 149 additional jobs. Therefore, the net reduction is approximately 169 jobs with this change to the OSP.
- The remaining business/commercial activities are anticipated to employ approximately 64 workers at full development of the OSP area.

¹ Inclusive of road reserves.

² Excludes 20.8ha of road reserve areas (between 15% and 20% of the structure plan area has been allocated for road reserves and related infrastructure).

³ Includes private pocket parks within the residential and business areas.



Table No. 2

Estimated Development Yield					
Structure Plan Area	Masterplan Area	Net Developable (ha)	Estimated GFA ⁴ / dwelling units	Estimated Employment Yield	
				Employment Density	Jobs (no. of workers)
Industrial	TCG Factory	22.4 ha	100,000m ² GFA	67 workers/ha	1,500
	General Industrial ⁵	32.0 ha	160,150m ² GFA	27 workers/ha	865
Business/ Commercial	Service Centre	2.2 ha	Up to 1,500m ² GFA	58 workers/ha	10 ⁶
	Neighbourhood Centre	0.8 ha	Up to 2,500m ² GFA		48
	Corner Shop	0.1 ha	Up to 500m ² GFA		6
Residential	General Density	15.9 ha	419 dwellings	-	-
	Medium Density	16.8 ha	673 dwellings	-	-

3 Predicted Trip Generation – without the DFO

3.1 Trip Generation

The predicted trip generation for the Ohinewai rezoning has been revised to reflect the changes to the net developable area within the OSP area (refer to Table No. 2).

For ease of reference, Table No. 3 provides a summary of the WRTM’s predicted trip generation rates for APL’s rezoning proposal; given that the WRTM is an employment-based model, the predicted trip generation was based on the anticipated number of workers that are typically employed within industrial and commercial areas.

Table No. 3

WRTM Based Trip Rates							
Structure Plan Area	Masterplan Area	AM Peak Hour (trips per job/dwelling unit)			PM Peak Hour (trips per job/dwelling unit)		
		In	Out	Total	In	Out	Total
Industrial	TCG Factory	0.19	0.05	0.24	0.11	0.26	0.38
	General Industrial	0.39	0.11	0.49	0.24	0.54	0.77
Business	Service Centre	1.88	0.30	2.19	1.14	3.75	4.89
	Discount Factory Outlets	0.71	0.22	0.93	0.63	1.44	2.07
	Neighbourhood Centre	1.88	0.30	2.19	1.14	3.75	4.89
	Corner Shop	1.88	0.30	2.19	1.14	3.75	4.89
Residential	General Density	0.16	0.51	0.67	0.51	0.16	0.67
	Medium Density	0.11	0.40	0.51	0.42	0.13	0.54

⁴ To estimate GFA, a conservative figure of 50% was applied for building coverage across the industrial and business zone.

⁵ Excludes rail siding cargo/ freight storage area.

⁶ Based on a developable area of 0.2ha (excluding truck stop and other parking).



Table No. 4 provides a summary of the revised predicted trip generation associated with APL's rezoning proposal. The table provides the overall predicted trip generation for all three zone areas, as well as the anticipated number of internal⁷ and external trips.

Table No. 4

Revised Predicted Trip Generation								
Masterplan Area/ Land Use Activity	Estimated GFA/ Dwelling units	Estimated Yield (Jobs/ Dwelling Units)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Industrial Area								
TCG Factory	100,000m ² GFA	1,500	284	79	363	172	394	565
General Industrial	160,150m ² GFA	865	333	93	427	205	466	671
Total Trip Generation (vph)			617	172	790	377	860	1,236
Internal trips (vph)			123	34	158	93	175	268
External trips (vph)			494	138	632	283	685	968
Business/ Commercial Area								
Service Centre	Up to 1,500m ² GFA	10	19	3	22	11	38	49
Neighbourhood Centre	Up to 2,500m ² GFA	48	91	15	106	55	181	236
Corner Shop	Up to 500m ² GFA	6	11	2	13	7	23	29
Total Trip Generation (vph)			121	20	141	73	241	314
Internal trips (vph)			24	4	28	16	53	69
External trips (vph)			97	16	112	57	188	245
Residential Area								
General Density	419 dwellings	419 dwellings	66	215	282	212	68	280
Medium Density	673 dwellings	673 dwellings	72	269	341	281	85	367
Total Trip Generation - Residential (vph)			138	484	622	493	153	647
Internal trips (vph)			42	106	148	102	31	133
External trips (vph)			97	378	474	391	122	514
Total for APL Development								
Total Trip Generation (vph)			877	676	1,553	943	1,254	2,197
Internal trips (vph)			189	145	334	211	259	470
External trips (vph)			688	531	1,219	732	995	1,727

⁷ As explained in Section 7 of the May 2020 ITA report, the WRTM estimates that between 20% and 25% of all trips generated by the land use activities within the OSP area will be internal trips (i.e. these trips will remain within the OSP area).



Table No. 4 demonstrates that the proposed development is anticipated to generate approximately 1,555 and 2,200 vehicle trips during the AM and PM peak hours respectively.

Previously, with the DFO, the overall trip generation per peak hour was 1,775 vph and 2,740 vph for the AM and PM peak periods respectively.

Replacing the DFO with industrial is therefore expected to reduce AM and PM peak hour trips by approximately 220 and 540 trips respectively. This equates to a 12.5% and 20% reduction in trips during the AM and PM peak hour trips respectively.

As discussed in the May 2020 ITA report, the WRTM predicts that only about 20-25% of these trips will be internal trips, resulting in an external volume of approximately 1,220 and 1,730 vehicle trips during the AM and PM peak hours respectively (this is reduced from 1,400 and 2,150 vehicle trips during the AM and PM peak hours respectively with the inclusion of the DFO).

3.2 External Trip Distribution

For ease of reference, Table No. 5 provides a summary from the May 2020 ITA report of the WRTM’s predicted trip distribution and assignment with the proposed APL development.

Table No. 5

WRTM - Predicted Trip Distribution for the proposed APL Development			
Direction		Trip Distribution	
		AM Peak	PM Peak
Inbound (%)	North (Te Kauwhata, Rangiriri, etc.)	29%	39%
	South (Huntly, Hamilton, etc.)	62%	53%
	East (Waihi, Tauranga, Rotorua)	9%	8%
Outbound (%)	North (Te Kauwhata, Rangiriri, etc.)	28%	32%
	South (Huntly, Hamilton, etc.)	65%	65%
	East (Waihi, Tauranga, Rotorua)	7%	3%

The predicted 2031 and 2041 external road traffic volumes (combined baseline and APL), derived using the percentages in Table No. 5 are attached for reference in Appendix B.

4 Revised Intersection Effects Assessment – without the DFO

This section of the memo outlines the revised traffic effects assessment for the proposed Ohinewai rezoning. The reduction in peak hour trips is expected to primarily affect the previously assessed performance of the following key intersections:

- SH1 Ohinewai interchange western ramp intersection (single-lane roundabout);
- SH1 Ohinewai interchange eastern ramp intersection (stop-controlled intersection), and
- Tahuna Road and Lumsden Road intersection (single-lane roundabout).

The intersections have been modelled in a consistent manner to that in the December 2019 and May 2020 ITA reports, using Sidra Intersection 8.0 and the same input parameters except traffic volumes.

The 2031 and 2041 AM and PM “with APL” traffic scenarios have been remodelled for this assessment to determine whether any previously recommended capacity improvement measures are still warranted with the removal of the DFO traffic. Note: Both the 2031 and 2041 scenarios assume full development of the OSP area. The only difference is the amount of background traffic growth on the network.



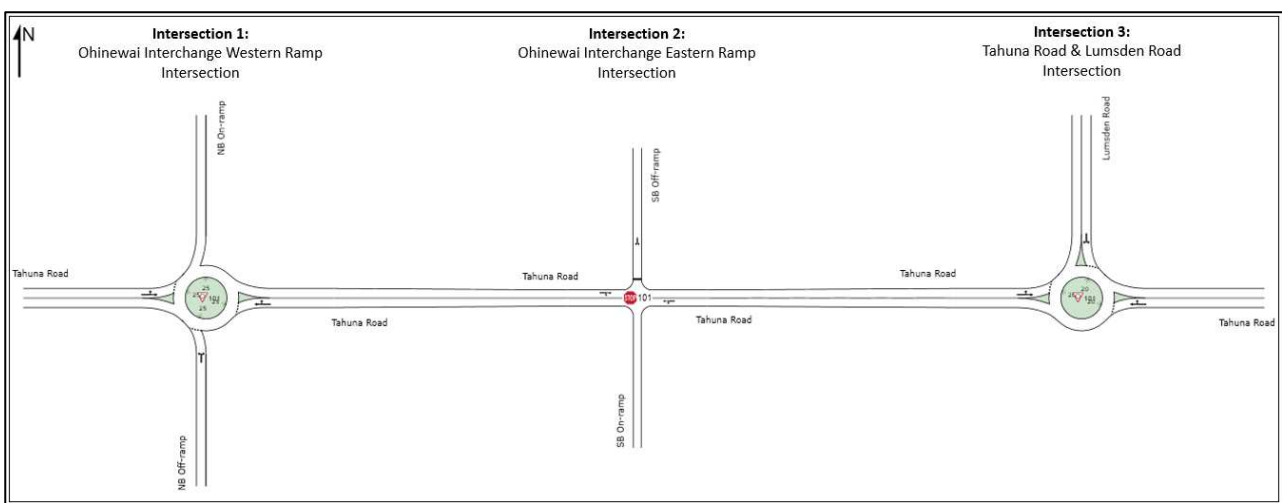
In addition, we have checked the expected change in the maximum queue length on the southbound off-ramp of the Ohinewai Interchange as this was a critical performance and safety consideration raised by Mr Swears during expert witness conferencing.

The length of the southbound off-ramp is 312 m from the stop line at the top to the nose of the gore area at the start of the ramp. The required deceleration distance (comfortable rate of deceleration) from 110 km/h to a stop is 185 m (as per Table 5.2 in the Austroads Guide to Road Design Manual Part 4A). On this basis, as identified by BBO at the conferencing, the 95th percentile queue length on the southbound off-ramp should not exceed 127 m.

4.1 Capacity Analysis - 2031 Baseline with the APL Rezoning (Scenario 1)

This performance assessment is based on the existing (2020) road network configuration as illustrated by Figure No. 3. The Sidra Intersection movement summaries for this scenario are provided in Appendix C.

Figure No. 3: Local road network - existing (2020) intersection configuration



The capacity assessment results for Scenario 1 (2031 with APL traffic) are summarised in Table No. 6.

Table No. 6

Scenario 1 (2031 Baseline + APL Traffic) – Movement Summary							
Intersection	Approach	AM Peak Hour			PM Peak Hour		
		Ave Delay (sec)	95 th Queue (m)	LOS	Ave Delay (sec)	95 th Queue (m)	LOS
Intersection 1: Ohinewai Interchange Western Ramp Intersection (Roundabout)	South: Off-ramp	8.6	19.5	A	10.4	21.8	B
	East: Tahuna Rd	6.9	0.0	A	6.9	0.0	A
	West: Tahuna Rd	5.8	2.6	A	7.3	2.8	A
	Intersection	7.9	19.5	A	8.6	21.8	A
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection (Stop Control)	East: Tahuna Rd	3.9	0.0	-	3.7	0.0	-
	North: Off-ramp	12.4	13.1	B	12.9	20.2	B
	West: Tahuna Rd	1.1	3.7	-	1.8	5.1	-
	Intersection	4.5	13.1	-	5.0	20.2	-
Intersection 3: Tahuna Road and Lumsden Road (Roundabout)	East: Tahuna Rd	4.7	19.3	A	11.1	26.3	B
	North: Lumsden Rd	8.1	7.6	A	22.8	145.3	C
	West: Tahuna Rd	3.2	30.1	A	3.0	37.8	A
	Intersection	4.5	30.1	A	13.1	145.3	B



These results demonstrate the following:

- Both the eastern and western ramp intersections (i.e. Intersections 1 and 2) are expected to operate at acceptable levels of service (LOS B and better - including all interchange movements) during both the 2031 AM and PM peak periods with the addition of the APL rezoning traffic to the 2031 baseline. Furthermore, the 95th percentile queue on the southbound off-ramp is not expected to exceed 20 m during both peak hours. This confirms that no capacity upgrades are expected to be required by 2031 at the Ohinewai Interchange.
- The Tahuna Road/ Lumsden Road intersection (i.e. Intersection 3) lanes are expected to operate at level of service A during the 2031 AM peak hour and LOS B and C during the PM peak period with the addition of the APL traffic. It is worth noting that although the 95th percentile queue of 19 vehicles (or 145 m) is expected on the Lumsden Road approach of the intersection during the PM peak period, the average delay per vehicle on this approach is fairly low at 23 seconds. Furthermore, the 145 m queue is not anticipated to impact on the safety or operations at Access 3 to the site, which is located approximately 220 m from the roundabout on Lumsden Road. Based on these findings, the existing roundabout has sufficient capacity to operate at an efficient level if the DFO traffic is removed from the network. Therefore, it will not require upgrading to increase its capacity as concluded in the May 2020 ITA report.

Notwithstanding the above findings, there is still the need to provide a safe and convenient connection across Tahuna Road and the SH1 expressway for pedestrians and cyclists. As discussed in Section 8.6 of the May 2020 ITA report, the preferred solution option remains:

- The provision of a pedestrian and cyclist crossing facility on the eastern side of the Tahuna Road/ Lumsden Road roundabout as a raised platform zebra crossing with a two-stage crossing arrangement.
- The provision of a new purpose built shared walking and cycling path bridge spanning the North Island Main Truck railway line (NIMT) and the State Highway 1 Expressway south of the Interchange, together with shared path connections to Tahuna Road and Ohinewai South Road to connect the OSP site to the existing Ohinewai Village, school and ultimately through to Huntly.

4.2 Capacity Analysis - 2041 Baseline with the APL Rezoning (Scenario 2)

The performance results for the 2041 with APL traffic scenario are summarised in Table No. 7. The Sidra Intersection movement summaries for this scenario are provided in Appendix C. Similar to Scenario 1, this performance assessment was based on the existing road network configuration as illustrated by Figure No. 3.

Table No. 7

Scenario 2 (2041 Baseline + APL Traffic) – Movement Summary							
Intersection	Approach	AM Peak Hour			PM Peak Hour		
		Ave Delay (sec)	95 th Queue (m)	LOS	Ave Delay (sec)	95 th Queue (m)	LOS
Intersection 1: Ohinewai Interchange Western Ramp Intersection (Roundabout)	South: Off-ramp	10.1	19.1	B	12.5	24.1	B
	East: Tahuna Rd	8.4	0.0	A	8.5	0.0	A
	West: Tahuna Rd	7.1	2.5	A	9.3	3.0	A
	Intersection	9.4	19.1	A	10.4	24.1	B
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection (Stop Control)	East: Tahuna Rd	4.0	0.0	-	3.5	0.0	-
	North: Off-ramp	13.8	18.2	B	14.8	26.7	B
	West: Tahuna Rd	0.3	0.9	-	2.1	5.9	-
	Intersection	4.8	18.2	-	5.3	26.7	-



Scenario 2 (2041 Baseline + APL Traffic) – Movement Summary							
Intersection	Approach	AM Peak Hour			PM Peak Hour		
		Ave Delay (sec)	95 th Queue (m)	LOS	Ave Delay (sec)	95 th Queue (m)	LOS
Intersection 3: Tahuna Road and Lumsden Road (Roundabout)	East: Tahuna Rd	4.6	18.6	A	12.7	33.8	B
	North: Lumsden Rd	8.2	8.1	A	23.5	148.1	C
	West: Tahuna Rd	3.2	31.8	A	3.0	38.9	A
	Intersection	4.5	31.8	A	13.5	148.1	B

As shown in Table No. 7, the 2041 AM and PM performance results for each of the three key intersections are only marginally worse than the 2031 AM and PM scenarios.

The 2041 results show that both the Ohinewai Interchange ramp intersections and the existing Tahuna Road/Lumsden Road roundabout all have sufficient capacity to continue operating efficiently, (LOS A and B, and only Lumsden Road at LOS C in the PM Peak), with the site fully developed but excluding DFO traffic.

Therefore, in contrast to the conclusions of the May 2020 ITA report, no capacity upgrades are proven to be required to accommodate the full APL development without the DFO.

4.3 Sensitivity Testing

4.3.1 Sensitivity Test A - WRTM's Trip Generation Rates

Further sensitivity testing⁸ has been conducted for the 2041 baseline + APL traffic scenario (Scenario 2) as part of the revised intersection effects assessment in order to determine the effect of higher trip rates (higher than those estimated from the WRTM-based assessment for APL's rezoning proposal) for the general light industrial⁹, business and residential areas on the performance and efficiency of the existing intersection forms.

Table No. 8 provides a summary of the scenarios that were analysed, while Table No. 9 provides a summary of the key outputs¹⁰ for the evaluated scenarios.

Table No. 8

Sensitivity Testing - Higher Trip Generation Rate Figures	
Test No.	Description
Test A0	WRTM-based trip generation rates
Test A1	Trip rates for General Industrial and Business/ Commercial increased by 10%
Test A2	Trip rates for Residential increased by 10%
Test A3	Trip rates for General Industrial, Business/ Commercial and Residential increased by 10%
Test A4	Trip rates for General Industrial and Business/ Commercial increased by 20%
Test A5	Trip rates for Residential increased by 20%
Test A6	Trip rates for General Industrial, Business/ Commercial and Residential increased by 20%

⁸ One of the key concerns raised during expert conferencing by the Waikato District Council and Waka Kotahi NZ Transport Agency traffic experts was related to the appropriateness of the trip generation rates adopted in the May 2020 ITA from the WRTM. The experts considered that further sensitivity testing could reduce the uncertainty of the appropriateness of the proposed mitigation measures.

⁹ The assessment excluded sensitivity testing for the TCG manufacturing factory component given that the WDC traffic expert considers that "the trip generation for the TCG factory component is well understood by the ITA".

¹⁰ Results are provided for critical intersection movements only. The Sidra Intersection default gap acceptance parameters for large trucks were applied for heavy vehicles at the southbound off-ramp.



Table No. 9

Summary of Findings - Sensitivity Testing Higher Trip Generation Rate Figures											
Critical Movement				Test A0	Test A1	Test A2	Test A3	Test A4	Test A5	Test A6	
Intersection	Approach	Movement	Sidra Output								
AM Peak Hour											
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection	North: Southbound Off-ramp	Left Turn	Vol (vph)	266	275	268	278	284	272	289	
			LOS	LOS B	LOS B	LOS B	LOS B	LOS B	LOS B	LOS C	
			95th Q (m)	17.8	19.4	18.3	20.1	21.4	18.9	22.8	
			Ave Delay (s)	13.5	14.0	13.7	14.2	14.7	13.9	15.1	
	West: Tahuna Road	Right Turn	Vol (vph)	15	15	15	15	15	15	15	
			LOS	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C	
			95th Q (m)	17.8	19.4	18.3	20.1	21.7	18.9	22.8	
			Ave Delay (s)	16.3	17.1	16.7	17.6	18.0	17.2	19.1	
	Intersection 3: Tahuna Road and Lumsden Road	North: Lumsden Road	Right Turn	Vol (vph)	7	7	7	7	7	7	7
				LOS	LOS A	LOS A	LOS A	LOS A	LOS A	LOS B	LOS B
				95th Q (m)	0.9	0.9	1.0	1.0	1.0	1.0	1.1
				Ave Delay (s)	9.5	9.6	9.9	10.1	9.8	10.4	10.8
PM Peak Hour											
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection	North: Southbound Off-ramp	Left Turn	Vol (vph)	205	213	205	213	220	205	220	
			LOS	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	
			95th Q (m)	8.0	8.4	8.1	8.5	8.8	8.1	9.0	
			Ave Delay (s)	8.4	8.4	8.4	8.5	8.4	8.5	8.5	
	West: Tahuna Road	Right Turn	Vol (vph)	342	349	359	365	357	375	388	
			LOS	LOS B	LOS B	LOS C	LOS C	LOS C	LOS C	LOS C	
			95th Q (m)	26	27.7	29.8	31.6	29.4	34.2	38.8	
			Ave Delay (s)	14.5	14.9	15.4	15.8	15.3	16.5	17.6	
	North: Lumsden Road	Right Turn	Vol (vph)	6	6	6	6	6	6	6	
			LOS	LOS C	LOS C	LOS D	LOS D	LOS D	LOS D	LOS D	
			95th Q (m)	26	27.7	29.8	31.6	29.4	34.2	38.8	
			Ave Delay (s)	23.4	24.6	25.1	26.4	25.8	27.1	29.9	
Intersection 3: Tahuna Road and Lumsden Road	West: Tahuna Road	Right Turn	Vol (vph)	15	15	15	15	15	15	15	
			LOS	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C	
			95th Q (m)	5.4	6.4	5.8	6.9	7.7	6.2	8.2	
			Ave Delay (s)	18.2	20.2	18.9	21	22.4	19.6	23.2	
Intersection 3: Tahuna Road and Lumsden Road	North: Lumsden Road	Right Turn	Vol (vph)	795	838	795	838	880	795	880	
			LOS	LOS C	LOS C	LOS C	LOS C	LOS D	LOS C	LOS E	
			95th Q (m)	127	166	150	206	230	183	385	
			Ave Delay (s)	22.4	27.1	26.6	34.4	35.8	32.7	69.8	



The following was concluded based on the results outlined in Table No. 9:

SH1 Ohinewai Interchange – Eastern Ramp Intersection:

All critical movements at the intersection are expected to operate at acceptable levels of service (LOS D and better) during the peak periods for Test A1 to A6 with minimal delays and queueing. The worst performing sensitivity test is Test A6 (where the WRTM-based trip rates were to all increase by 20%), causing a 95th percentile queue of approximately 40 m on the southbound off-ramp during the PM peak. There is ample reserve storage (87 m) to the back of the worst-case sensitivity test queue length.

Overall, it is expected that the existing intersection configuration (compulsory stop on the southbound off-ramp) will have sufficient capacity to accommodate the traffic associated with APL's rezoning proposal; the sensitivity assessment shows that no capacity upgrades will be triggered should the trip rates assessed by the WRTM for the general industrial, commercial, and residential trip rates increase by 10-20%.

Tahuna Road & Lumsden Road Roundabout:

The sensitivity testing indicates that, with the removal of the DFO, the existing intersection form (single circulating lane roundabout) will have sufficient capacity to accommodate the additional traffic associated with APL's rezoning proposal should the trip rates assessed by the WRTM for the general industrial, commercial, and residential trip rates increase by 10% (i.e. Test A1 to A3).

The worst performing test (Test A6) produces a 385 m 95th percentile queue southbound on Lumsden Road with average delays of approximately 70 seconds; this is due to over 880 vph giving way to approximately 520 vph travelling eastbound. These sensitivity test volumes are significant, and the resulting queue length on Lumsden Road is very large. This assessment considers that this volume of traffic is highly unlikely given it would require all of the trips rates to be significantly higher (more than 20%) than published surveyed trip rate figures indicate.

Notwithstanding the above, the sensitivity tests demonstrate that the existing intersection configuration is appropriate, but that capacity upgrades may likely be triggered should the trip rates assessed by the WRTM for the industrial, commercial, and residential activities be significantly higher than published surveyed trip rate figures (i.e. by 20% and more).

4.3.2 Sensitivity testing – Gap Acceptance

Additional sensitivity testing was carried out as part of this assessment to test the effect of higher gap acceptance factors (i.e. higher delay in turning factors for large trucks) within Sidra Intersection specifically for left turning heavy vehicles at the southbound off-ramp¹¹.

Table No. 10 provides a summary of the scenarios that were analysed, while Table No. 11 to follow provides a summary of the key outputs¹² for the evaluated scenarios.

¹¹ During expert conferencing, the Waka Kotahi NZ Transport Agency traffic expert questioned the effect on the Sidra Intersection modelling if turning high productivity motor vehicles (HPMV's) need to wait for both lanes to clear.

¹² Results are provided for critical intersection movements only. The Sidra Intersection default gap acceptance parameters for large trucks were applied for heavy vehicles at the southbound off-ramp.



Table No. 10

Sensitivity Testing - Higher Gap Acceptance Figures	
Test No.	Description
Test B0	Gap acceptance and opposing vehicle factor of 1.5 (SIDRA default value for heavy vehicles) and a design vehicle length of 10 m.
Test B1	Gap acceptance and opposing vehicle factor of 2.5 (SIDRA default value for large trucks) and a design vehicle length of 19.5 m.
Test B2	Gap acceptance and opposing vehicle factor of 3.0 (Highway Capacity Manual (HCM) default value for large trucks) and a design vehicle length of 19.5 m.
Test B3	Gap acceptance and opposing vehicle factor of 4.0 and a design vehicle length of 19.5 m.

Table No. 11

Summary of Findings - Sensitivity Testing Higher Gap Acceptance Figures							
Critical Movement				Test B0	Test B2	Test B2	Test B3
Intersection	Approach	Movement	Sidra Output				
AM Peak Hour							
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection	North: Southbound Off-ramp	Left Turn	Vol (vph)	266	266	266	266
			LOS	LOS B	LOS B	LOS B	LOS C
			95th Q (m)	14.3	17.8	19.7	24.1
			Ave Delay (s)	12.2	13.5	14.3	16.1
		Right Turn	Vol (vph)	15	15	15	15
			LOS	LOS C	LOS C	LOS C	LOS C
	95th Q (m)		14.3	17.8	19.7	24.1	
	West: Tahuna Road	Right Turn	Vol (vph)	7	7	7	7
			LOS	LOS A	LOS A	LOS A	LOS A
			95th Q (m)	0.9	0.9	0.9	0.9
			Ave Delay (s)	9.5	9.5	9.5	9.5
	PM Peak Hour						
Intersection 2: Ohinewai Interchange Eastern Ramp Intersection	North: Southbound Off-ramp	Left Turn	Vol (vph)	342	342	342	342
			LOS	LOS B	LOS B	LOS C	LOS C
			95th Q (m)	20.5	26.0	29.3	37.1
			Ave Delay (s)	12.9	14.5	15.5	18.1
		Right Turn	Vol (vph)	6	6	6	6
			LOS	LOS C	LOS C	LOS C	LOS D
	95th Q (m)		20.5	26.0	29.3	37.1	
	West: Tahuna Road	Right Turn	Vol (vph)	15	15	15	15
			LOS	LOS C	LOS C	LOS C	LOS C
			95th Q (m)	5.4	5.4	5.4	5.4
			Ave Delay (s)	18.2	18.2	18.2	18.2



As shown in Table No. 11, the worst performing sensitivity test is Test B3 (longest turning delay), causing a 95th percentile queue of 37 m (equivalent to 5 cars) on the southbound off-ramp. As previously mentioned, the required deceleration distance (comfortable deceleration) from 110 km/h to a stop is 185 m. On this basis, the 95th percentile queue length on the southbound off-ramp should not exceed 127 m. There is clearly ample reserve storage (90 m) to the back of the worst-case sensitivity test queue length.

The sensitivity testing confirms that the existing intersection form remains appropriate even when factoring in significantly higher delays for large trucks at the southbound off-ramp.

5 Conclusions

The following is concluded on the basis of removing the DFO from the OSP area, and the revised intersection performance assessments:

APL Rezoning Proposal – Revised Trip Generation with the removal of the DFO

Overall, the removal of the DFO removes approximately 318 business/commercial activity jobs. While the replacement industrial activity is anticipated to provide approximately 149 additional jobs. Therefore, the net reduction is approximately 169 jobs with this change to the OSP. The remaining business/commercial zone is anticipated to employ approximately 64 workers at full development of the OSP area.

Previously, with the DFO, the overall trip generation per peak hour was 1,775 vph and 2,740 vph for the AM and PM peak periods respectively. The proposed development is now anticipated to generate approximately 1,555 and 2,200 vehicle trips during the AM and PM peak hours respectively. Replacing the DFO with industrial is therefore expected to reduce AM and PM peak hour trips by approximately 220 and 540 trips respectively. This equates to a 12.5% and 20% reduction in trips during the AM and PM peak hour trips respectively.

With the WRTM estimating that only about 20-25% of these trips will be internal trips, the APL rezoning proposal (without the DFO) is anticipated to generate approximately 1,220 and 1,730 external vehicle trips during the AM and PM peak hours, respectively.

Revised Intersection Performance Assessments

The intersection performance assessments were revised to reflect the changes to the net developable area within the OSP area.

- The effects of the proposed APL rezoning traffic on the local road network are considered to be no more than minor from a capacity perspective. The Ohinewai Interchange and the Tahuna Road/ Lumsden Road intersection are expected to operate at acceptable levels for service during both the AM and PM peak periods with the addition of the APL rezoning traffic to the 2031/ 2041 baselines.
- Sensitivity testing of higher trip rates figures (10-20% higher than published trip rate figures) demonstrate that:
 - Ohinewai Interchange: the existing interchange configuration (roundabout at the northbound on/off-ramp and a compulsory stop on the southbound off-ramp) is appropriate, robust and will have sufficient capacity to accommodate the traffic associated with APL's proposal should the trip rates assessed by the WRTM for the general industrial, commercial, and residential trip rates increase by 10-20%.
 - Tahuna Road/ Lumsden Road intersection: the existing intersection configuration (single circulating lane roundabout) is appropriate, but that capacity upgrades may likely be triggered should the trip rates assessed by the WRTM for the industrial, commercial, and residential activities be significantly higher than published surveyed trip rate.

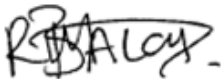


- Sensitivity testing higher gap acceptance factors for large trucks at the southbound off-ramp confirmed that the existing intersection form remains appropriate even when factoring in significantly higher delays for large trucks at the southbound off-ramp.

Notwithstanding the above, the effects of the proposed APL rezoning traffic are considered to be more than minor if no mitigation is provided in terms of safety and for walking and cycling trips. On this basis, the safety related infrastructure upgrades proposed in Table 31 of the May 2020 ITA remain valid.

Yours sincerely

Bloxam Burnett & Olliver



Rhulani Baloyi
Senior Transportation Engineer
+64 7 838 5746
rbaloyi@bbo.co.nz



Cameron Inder
Transportation Engineering Manager
+64 7 838 8518
cinder@bbo.co.nz

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ATTACHMENT B
SURVEY - WALKING AND CYCLING PROVISION

Cameron Inder

From: Cameron Inder
Sent: Wednesday, August 19, 2020 11:55 AM
To: luessamac@gmail.com
Subject: Sleepyhead development - Walking and Cycling proposal query
Attachments: 145860-08-0219 -B.pdf

Hi Luessa,

Thank you for taking my call yesterday in regards to the proposed APL rezoning at Ohinewai.

I have contacted you as I understand you have, or recently had, school age children that attended Ohinewai Primary School. I wish to ask you a question about the proposed shared walking and cycling path and bridge over the expressway, specifically whether you would now or would have used it for taking your children to school.

The background as I mentioned; I am a transportation engineer involved in the rezoning project for APL. I am responsible for assessing the transportation/traffic related effects of the proposal and my colleague, Rhulani Baloyi, and I have written the Integrated Transport Assessment report that is appended to the rezoning application.

Waka Kotahi New Zealand Transport Agency (NZTA) is a submitter strongly opposed to the proposed APL rezoning.

Their consultant traffic engineer (Mr Robert Swears) has submitted his evidence to Council with his opinion that ***"...the key transport engineering issue that cannot readily be resolved is the distance of the Site from the land use activities necessary to support activities on the Site"*** (Paragraph 5.3 of Mr Swears' evidence).

In relation to this, Mr Swears considers that the proposed walking and cycling path from the site to the school including the proposed new bridge over the railway and expressway, will not be attractive for use because the distance is too great.

He states in para 6.16 of his evidence ***"I do not agree with Mr Inder (EIC, paragraph 4.12) that providing infrastructure for walking and cycling journeys will result in active travel modes being "[...] an attractive and viable option for future workers, residents, school children and recreational use."***

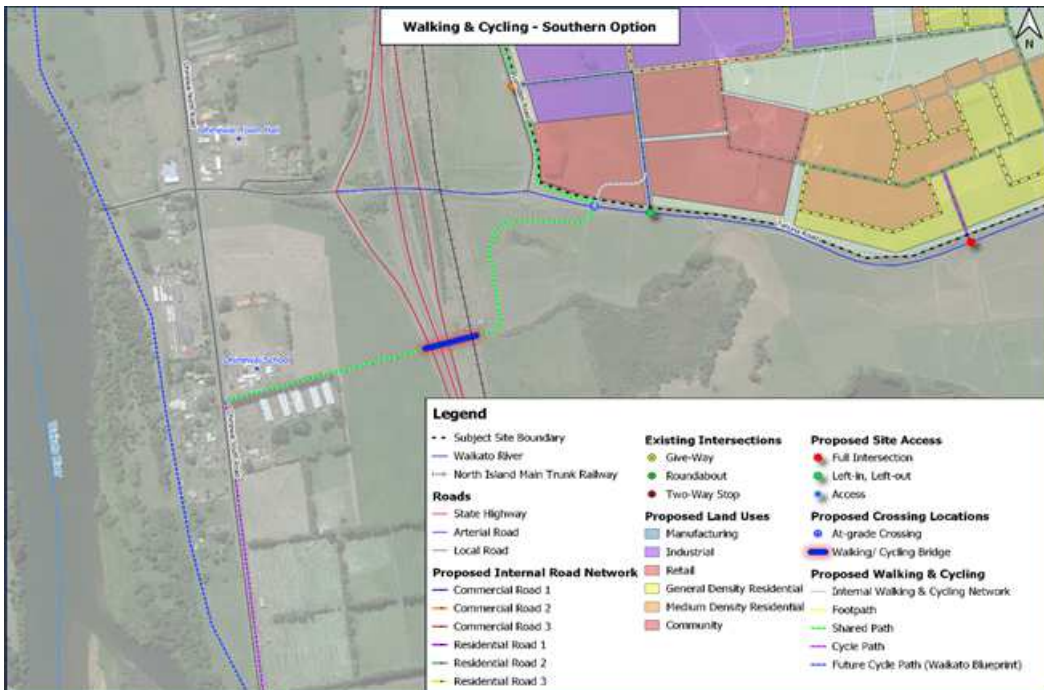
Then in para 6.17 ***"As noted in my summary statement for the expert conferencing (Swears, paragraph 5.8), I consider the distances associated with active mode journeys outside the Site create an obstruction to those journey such that it is unlikely there will be a significant uptake in active mode transport beyond the boundaries of the Site"***.

Then in para 6.18 ***"The walking journey from the Site to Ohinewai School (approximately 2.0 km) is considerably further than the average walking journey children or adults will make (0.92 to 1.2 km respectively). Therefore, I do not consider that the shared path overbridge will adequately mitigate the discouragement to active mode use associated with the Site being on the other side of the Expressway from the School"***.

I can send you Mr Swears evidence in full if you would like to see it.

I am now writing my Rebuttal Evidence on issues Mr Swears raises that I do not agree with. I disagree with what he has said above as I believe the proposed path and bridge structure over the expressway will offer an attractive solution that is safe and convenient for all age users including future primary school children. I disagree that the distance of approximately 2 km to the school is too far to walk or bike for school children, but I am interested in your views on the matter please since you are existing residents on the east side with children that attend or attended that school.

Below is a plan from the ITA report showing the proposed path and bridge route in case you are not overly familiar with it. Also a plan attached showing the proposed pedestrian crossing over Tahuna Road to connect to the path.



It would be helpful if you could provide information on the following, if you are willing please:

- What age are your children now?
- What is/was the main method your children use to travel to Ohinewai school, and why?
- Would you and your children use, or have used this new shared walking and cycling path and bridge structure to walk or ride to school if it existed already?
- Would the distance be a discouragement to your school age children using it?
- Do you consider this path and bridge would adequately address your safety concerns (if you have any) for walking and cycling between the east and west sides of Ohinewai, and would you use it for recreation and other purposes?
- Lastly, and related to the above, would a walking and cycling path connection from Ohinewai South Road to Huntly, either on the river stop-bank or next to the old SH1 be used by you for recreation or exercise or any other reasons?

Also, would you be happy for me to attach your response and refer to it in my evidence?

I am happy for you to call me if you would like clarification on anything I have stated or asked. My number is 021 715 377.

Thanks very much,



Cameron Inder TRANSPORTATION ENGINEERING MANAGER
 BE(Civil), CPEng, CMEngNZ
 Level 4, 18 London Street, PO Box 9041, Hamilton 3240
 R +64 7 838 0144 D +64 7 834 8518 M +64 21 715 377
 E cinder@bbo.co.nz W www.bbo.co.nz

If you wish to send us a large file, please click the following link: <https://www.sendthisfile.com>

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Cameron Inder

From: Luessa Macdonald <luessamac@gmail.com>
Sent: Thursday, August 20, 2020 9:10 AM
To: Cameron Inder
Subject: Re: Sleepyhead development - Walking and Cycling proposal query

Hi Cameron,

Yes, we are happy for you to attach our response and refer to it in your evidence?

Currently our children are 14 and 12 years old, when attending Ohinewai school we would have to drop the girls off as we didnt meet the criteria for our girls to catch the school bus, as we were considered to close and in walking distance.

However it wasn't often safe to walk or bike due to the volume of trucks from the saw mill and also all the school traffic. We did walk or bike sometimes in the summertime, but mostly we drove because it was unsafe to let the girls walk alone.

We mostly definitely would use a shared walking and cycling path and bridge structure to walk or ride to school, had it been available. Also going forward we would use it to go biking or running for ourselves and as a family. One of the main reasons we don't run, bike or walk in our area is because it's unsafe, we put ourselves at risk and others.

The school is not that far away from our home so walking is not a problem and we would prefer it, it would have made life a lot easier to get our girls to and from school! The fact that the school bus considers us in walking distance and wouldn't let our girls use the bus suggests it was expected that we should be able to walk to school safely.

We would love to have a shared walking and cycling path and bridge structure to walk or ride to school and just to have access to get out and about for recreational use and feel safe and actually have access would be fantastic. Its definitely something the area is missing.

More and more areas are adding cycleways and walking paths to their areas, this encourages people to get out and about and gives options to do so.

There have already been a few crashes on the bridge, we are just lucky that no children have been hurt. Having a bridge and walkway available will reduce the congestion for the school as well which already causes issues in the area.

Having a walkway/ cycleway will provide access to Huntly connecting the communities and giving locals something to do :) while getting to take in the beautiful scenic river views.

We are all for adding anything to the community that will allow people to get out and about safely and enjoy recreational activities :)

Thanks
Iain and Luessa

On Wed, 19 Aug 2020 at 11:55, Cameron Inder <cinder@bbo.co.nz> wrote:

Hi Luessa,

Cameron Inder

From: bekholmes7@gmail.com
Sent: Thursday, August 20, 2020 9:03 AM
To: Cameron Inder
Subject: RE: Sleepyhead development - Walking and Cycling proposal query

Hello Cameron,

Thank you for contacting us about this new walk/cycle overbridge for our local area.

This overbridge will be a Great help to many families in our area.

To us Lumsden Road is a close walking/cycling distance to Ohinewai School and having the option of being able to walk/cycle there safely would be a welcomed addition to our landscape. We believe walking/cycling should be encouraged, especially as the kids are being educated that exercise is a part of their everyday lives.

Our children are now 13, 15 and 17, but in the last number of years we have taken the risk to walk and cycle over the current narrow road bridges to the local school. In actual fact Daniel used to walk it even when he was a boy, and that was over 30 years ago, so we have been crossing this bridge for many years.

Even though our children have now finished their schooling at Ohinewai Primary School, we still cross the train/road bridge regularly for exercise. We cycle, walk and run the Ohinewai North and South Roads, and frequently cycle into Huntly from the old Ohinewai South Road. We would love to see this walk/cycle way developed as we see many walkers on these roads and to have it officially connected to Huntly will make it even more appealing.

There are many riders/walkers from Lumsden Road and I am sure they will be supportive of your plans, let me know if you would like their details:

- Lumsden Family
- Macdonald Family
- Allan and Bronwyn Murray - They ride regularly and often cycle on Sundays to try and avoid the traffic, I know they would love an extension to Huntly from the Ohinewai Roads for riding, and appreciate a safe over pass.
- Bruce Holmes – Riders regularly and uses a electric bike so his range is further making an extension to Huntly more appealing too.
- Gary Randell and family use the Ohinewai Landing a lot for fishing etc too.
- Marie Billington – is elderly and does not have a drivers licence so to have a pathway for her, allows her to walk around safely.
- We have family that live on the northern end of Huntly and a pathway heading north gives them more options for exercise too. (John and Pauline Holmes – Great South Road)
- Many use the tennis courts so again a safe accessway would be welcome.

We are more than happy for you to use all or part of this letter as evidence.

Cameron Inder

From: Roanne and Roger Lumsden <r.r.lumsden@gmail.com>
Sent: Saturday, August 22, 2020 8:29 PM
To: Cameron Inder
Subject: Re: Sleepyhead development - Walking and Cycling proposal query

Hello Cameron,

What age are your children now?

Our children are now 17 yr 12, 16 yr 11 and 13 yr 9. Our youngest child left Ohinewai School at the end of 2019

- What is/was the main method your children use to travel to Ohinewai school, and why?
- While our children were at Ohinewai School we used to drop our children off morning and night by car. There was no bus coming down Lumsden Road while they attended. It stopped the year our oldest turned 5 and it has just been restarted this year. Although the children were keen to bike to school or walk over the years there was always a huge issue of how narrow Lumsden Road is and the speed the Trucks and Mill workers go up the road as well as the regular fog that this area experiences. The other huge issue of them biking to school was that the bridge over the railway lines and Expressway is very narrow and it is unsafe. There have been multiple accidents at the interchange over the years from vehicles pulling off the expressway at speed and going straight up and over Tahuna Road without stopping. This increases the risks to a biker or walker trying to cross the bridges. So we think the alternative path and bridge route proposed will be significantly safer and attractive to use.

- Would you and your children use, or have used this new shared walking and cycling path and bridge structure to walk or ride to school if it existed already?

Yes if this new structure was in place when our children attended Ohinewai we would certainly have allowed them to bike to school.

- Would the distance be a discouragement to your school age children using it?

I do not feel the distance we are would have been an issue at all. We are only about 3km from the school and they would have ridden that more than happily. It would have been great exercise for them and also a great way for children to learn independence.

- Do you consider this path and bridge would adequately address your safety concerns (if you have any) for walking and cycling between the east and west sides of Ohinewai, and would you use it for recreation and other purposes?

I believe this path would be a great asset to the community and would be a safe way for anyone of any age to bike or walk in the Ohinewai community. I would imagine people would use it for recreation as well.

- Lastly, and related to the above, would a walking and cycling path connection from Ohinewai South Road to Huntly, either on the river stop-bank or next to the old SH1 be used by you for recreation or exercise or any other reasons?

It would be fantastic for the Ohinewai/Huntly community for recreation

We live on a large farm down Lumsden Road, over the years we have employed many families that have had children attend and currently attend Ohinewai School and I am certain that a majority of these families would have loved the option for their children to bike or walk to school and be able to use it over weekends or holidays and safely be able to take young children and families out for some recreation on bikes or walking safely.

If the major housing development was to go ahead on the east of the expressway, then safe access would be vital and well used.

Regards
Roanne & Roger Lumsden

ATTACHMENT C
LETTER FROM KIWIRAIL CHIEF OPERATING OFFICER

9 April 2020

Mr David Gaze
Gaze Holdings Limited
P O Box 758
Shortland Street
Auckland 1140

Dear David,

Our National Manager - IMEX, David Brinsley, has forwarded to me the email you sent on Wednesday April 1st, in relation to the Comfort Group's proposed manufacturing hub and community development at Ohinewai in the Waikato.

It is indeed a significant proposal both in terms of its overall manufacturing capability, and also the Comfort Group's aims to try and meet the social needs of its employees, by providing affordable community housing.

I understand you may be planning to apply to the newly formed Crown Infrastructure Partners group, to seek some support for the above proposed development.

From KiwiRail's perspective, we would be happy to support your application, given the synergies your development has with our business in terms of providing the Group a robust, rail-based supply chain. We see this as being in-step with the draft 2021 Government Policy Statement on Land Transport.

This GPS requires that KiwiRail is one of the core responsible parties and this project firmly aligns itself through a commitment by the Comfort Group to build a rail siding with which to provide it with a rail-based import / export supply chain.

With rail being 67% more fuel efficient than an equivalent road based heavy transport provider, your new venture will ensure significant reductions in carbon emissions within your supply chain.

The development of this project will also greatly assist social and environmental outcomes through a significant reduction in the volume of heavy road transport vehicles from what is already a very busy section of New Zealand's state highway network.

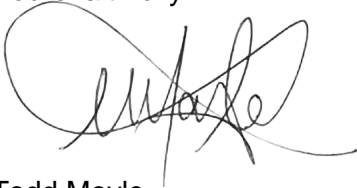
The use of rail as the Group's primary mode of land transport for its import / export supply chain, will also reduce the costs of road maintenance that would otherwise be required and it would assist to lower the accident risk associated with heavy transport on busy highway networks.



For these reasons, KiwiRail is more than happy to work alongside and in support of the Comfort Group's application to proceed with this exciting development.

If you wish to discuss any aspect of this letter with us, please direct your enquiries to David Brinsley in the first instance.

Yours faithfully



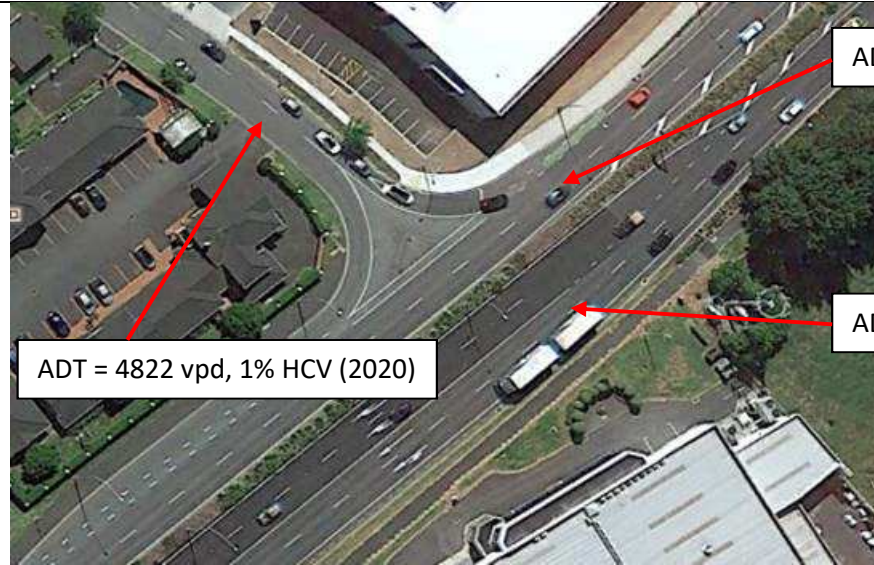
Todd Moyle
Chief Operating Officer
KiwiRail



ATTACHMENT D

CRASH DATA FOR RESTRICTED MOVEMENT INTERSECTIONS

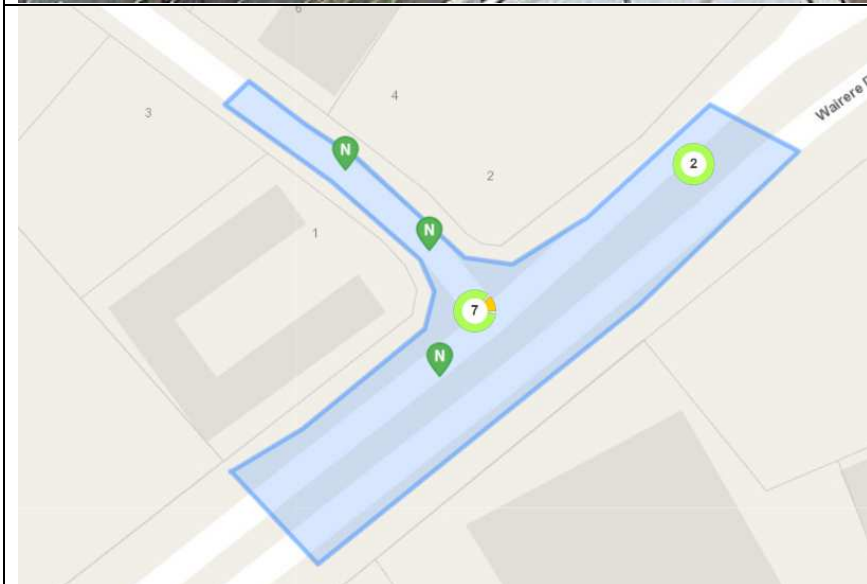
Wairere Drive / Kawera Place
80 kph Speed Limit



ADT = 9009 vpd, 5% HCV (2018)

ADT = 12125 vpd, 4% HCV (2018)

ADT = 4822 vpd, 1% HCV (2020)





Untitled query

- Saved sites
Waiwera Drive / Kawera Place
- Crash severity
Fatal Crash, Minor Crash, Serious Crash, Non-injury Crash
- Crash year
2015 — 2020

Plain English report

12 results from your query.

1-12 of 12

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost \$/m
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797227	5819693	175.238632	-37.748829	2018133941	19/04/2018	Thu	11:30	Car/Wagon1 SDB on Karewa road hit rear of Car/Wagon2 SDB on Karewa road turning right from centre line	CAR/WAGON1, following too closely	Dry	Bright sun	Fine	T Junction	Give way	0	0	1	0.10
KAREWA PLACE	20m	N		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797215	5819709	175.238495	-37.748688	2012372540	11/03/2017	Sat	15:15	SUV1, following too closely rear end of Car/Wagon2 stop/slow for queue	SUV1, following too closely	Dry	Overcast	Null	Nil (Default)	Unknown	0	0	0	0.02
KAREWA PLACE	50m	N		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797193	5819729	175.238235	-37.748512	201746052	22/07/2017	Sat	14:45	Car/Wagon1 SDB on Kawera Place hit rear end of Car/Wagon2 stop/slow for queue	CAR/WAGON1, failed to notice car slowing, stopping/stationary, other attention diverted	Wet	Overcast	Fine	Nil (Default)	Unknown	0	0	0	0.02
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797227	5819693	175.238632	-37.748829	201616815	19/08/2016	Fri	21:19	Car/Wagon1 SDB on KAREWA PLACE hit rear end of Car/Wagon2 stop/slow for cross traffic	CAR/WAGON1, failed to notice car slowing, stopping/stationary	Dry	Dark	Fine	T Junction	Give way	0	0	0	0.02
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797226	5819696	175.238632	-37.748798	201563416	22/01/2019	Tue	16:02	Car/Wagon1 DIRN on KAREWA PLACE hit rear end of Car/Wagon2 stop/slow for cross traffic	CAR/WAGON1, failed to notice car slowing, stopping/stationary	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.02
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797227	5819693	175.238632	-37.748829	201757613	21/12/2017	Thu	14:20	SUV1, SDB on KAREWA PLACE hit rear end of Car/Wagon2 stop/slow for cross traffic	SUV1, other inattentive	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.02
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797227	5819693	175.238632	-37.748829	201577555	08/09/2015	Tue	11:30	Car/Wagon1 EDB on KAREWA PLACE hit rear end of Truck2 stop/slow for cross traffic	TRUCK2, failed to notice car slowing, stopping/stationary	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.03
KAREWA PLACE		I		WAIKAREWA DRIVE	WAIKAREWA DRIVE	1797227	5819693	175.238632	-37.748829	201563709	25/05/2019	Sat	17:30	Car/Wagon1 SDB on KAREWA PLACE hit rear end of Car/Wagon2 stop/slow for cross traffic	CAR/WAGON1, failed to notice car slowing, stopping/stationary, intimidating driving	Dry	Twilight	Fine	T Junction	Give way	0	0	0	0.02
WAIKAREWA PLACE	56m	E		WAIKAREWA PLACE	WAIKAREWA PLACE	1797271	5819726	175.239125	-37.748513	2020159757	27/02/2020	Thu	18:30	Truck1, EDB on WAIKAREWA DRIVE hit rear end of Car/Wagon2 stopped/moving slowly	TRUCK1, failed to notice car slowing, stopping/stationary	Dry	Bright sun	Fine	Nil (Default)	Nil	0	0	0	0.04
WAIKAREWA PLACE	20m	S		WAIKAREWA PLACE	WAIKAREWA PLACE	1797217	5819676	175.238525	-37.748981	201973331	05/07/2019	Fri	03:30	Car/Wagon1 NDB on WAIKAREWA DRIVE lost control turning left, went off road to left, Car/Wagon1 hit light pole	CAR/WAGON1, alcohol test below limit, drugs suspected, misjudged own vehicle	Wet	Dark	Fine	T Junction	Give way	0	0	0	0.04

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost \$/m
WAIRERE DRIVE		I		KAREWA PLACE		1797227	5819693	175.238632	-37.748829	201757063	27/12/2017	Wed	17:00	Car/Wagon1 SDB on Karewa Place, Hamilton hit rear end of Car/Wagon2 stop/slow for cross traffic	CAR/WAGON2, alcohol test below limit CAR/WAGON1, alcohol test below limit, failed to notice car slowing, stopping/stationary, misjudged intentions of another party	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.02
WAIRERE DRIVE	130m	W		PUKETE ROAD		1797294	5819734	175.239380	-37.748444	201655770	17/12/2016	Sat	14:38	Car/Wagon1 WDB on Wairere Dr hit rear end of Car/Wagon2 stop/slow for queue	CAR/WAGON1, failed to notice car slowing, stopping/stationary, overseas/migrant driver fail to adjust to nz roads	Dry	Bright sun	Fine	Nil (Default)	Unknown	0	0	0	0.04

Wairere Drive / Burger King entrance
80 kph speed limit



ADT = 18500 vpd, 6% HCV (2018)

Burger King Left in Slip Lane Entrance



No crash results, 2015 to 2020

Te Rapa Road / BP Horotiu access
80 kph Speed Limit

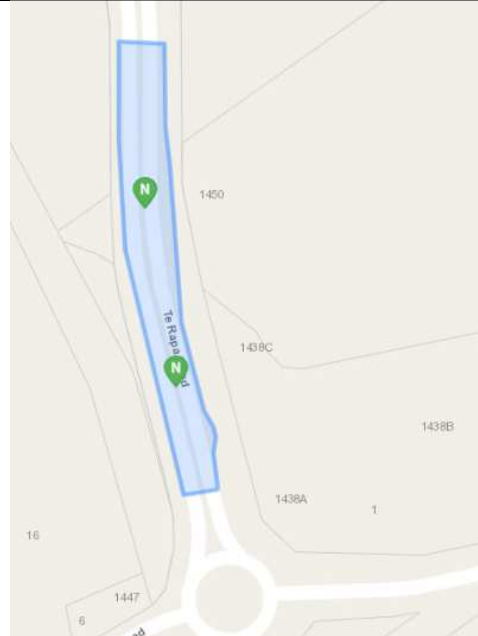


ADT = 6500 vpd NB, 10% HCV

ADT = 5500 vpd SB, 12% HCV

ADT = 600 vpd, 6% HCV

Horotiu Service Centre





Untitled query

- Saved sites
 - Te Rapa Road / BP Horotiu access
- Crash severity
 - Fatal Crash, Minor Crash, Serious Crash, Non-injury Crash
- Crash year
 - 2015 — 2020

Plain English report

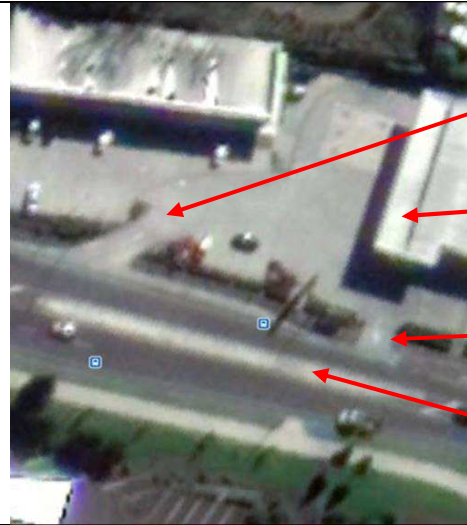
2 results from your query.

1-2 of 2

Crash road	Distance	Direction	Reference station	Route position	Site road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count total	Crash count severe	Crash count minor	Social cost (\$M)
TE RAPA ROAD	100m	N			BERN ROAD	1794740	5823968	175.209274	-37.710857	201738643	14/05/2017	Sun	10:50	Car/Wagon1 NDB on Te Rapa Road lost control; went off road to left, Car/Wagon1 hit non specific tree	Car/WAGON1, attention diverted by food, cigarettes, beverages, too far left	Dry	Bright sun	Fine	Nil (Default)	Unknown	0	0	0	0.04
TE RAPA ROAD	200m	N			HUTCHINSON ROAD	1794722	5824067	175.209045	-37.709969	201738515	27/03/2017	Mon	05:50	Car/Wagon1 SDB on TE RAPA ROAD lost control (turning right)	Car/WAGON1, lost control - road conditions, ENW: road slippery (oil/diesel/fuel)	Wet	Dark	Light rain	Nil (Default)	Unknown	0	0	0	0.04

1-2 of 2

**Kahikatea Drive / Z Energy entrance and exit
60 kph Speed Limit**

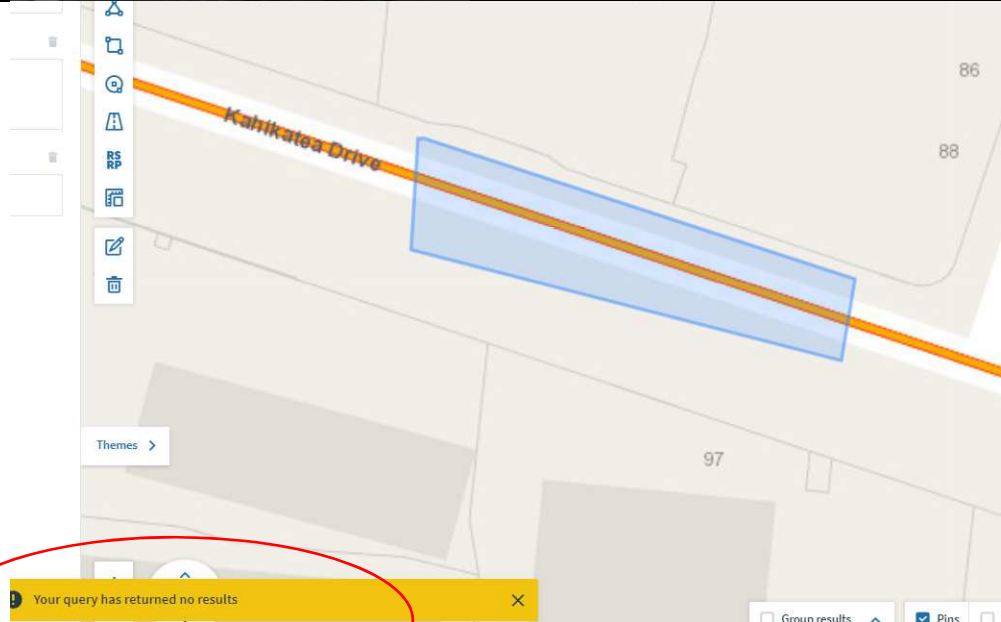


Left In Only

Z Energy Petrol Station on SH 1

Left Out Only

Concrete Median Island
SH1 AADT = 31,177 vpd, 7.35% HCV (2019)

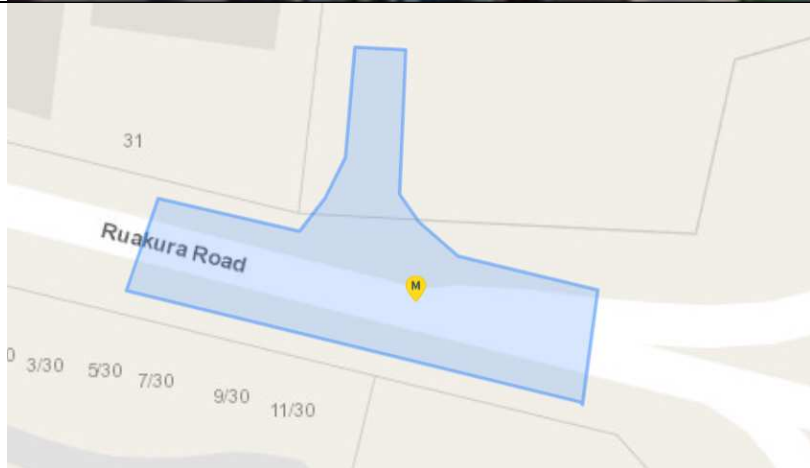


No Crash Results, 2015 to 2020

**Ruakura Road / Mitre 10 access (Left in / Left out)
50 kph Speed Limit**



ADT = 15,827 vpd, 2% HCV (2018)





Untitled query

Saved sites

Ruakura Road / Mitre 10 access

Crash severity

Fatal Crash, Serious Crash, Minor Crash, Non-Injury Crash

Crash year

2015 — 2020

Plain English report

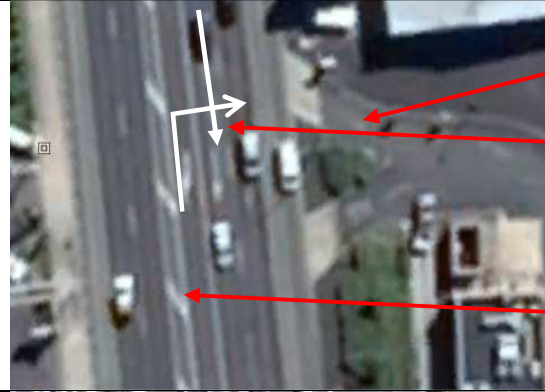
1 results from your query.

1-1 of 1

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost \$ (m)
RUAKURA ROAD	80m	W			WAIRERE DRIVE	1802723	5816019	175.301987	-37.780716	201817107	21/08/2018	Tue	08:20	Cycle1 WDB on Ruakura road hit Car/Wagon2 merging from the left	CAR/WAGON2, did not check/notice another party from other dirn, did not stop at stop sign, new driver/under instruction	Wet	Overcast	Fine	Driveway	Stop	0	0	1	0.10

1-1 of 1

Greenwood Street / Wendys restaurant access
60 kph Speed Limit



Wendys Left In Left Out access

Minor injury crash in 2016

AADT = 25,730 vpd, 12.96% HCV (2018)





Untitled query

Saved sites

Greenwood Street / Wendys restaurant access

Crash severity

Fatal Crash, Serious Crash, Minor Crash, Non-injury Crash

Crash year

2015 — 2020

Plain English report

4 results from your query.

1-4 of 4

Crash road	Distance	Direction	Reference station	Route position	Side road	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural Light	Weather	Junction	Control	Crash count fatal	Crash count severe	Crash count minor	Social cost \$/m
SH 1N	50m	N			KILLARNEY ROAD	1799037	5814579	175.260559	-37.794495	2016115106	22/02/2016	Mon	10:56	Car/Wagon1 SDB on SH 1N hit SUV2 turning right onto AXROAD from the left	SUV2, did not check/notice another party from other dirn, failed to give way when waved through by other dri CAR/WAGON1, speed on straight	Dry	Bright sun	Fine	Driveway	Stop	0	0	2	0.10
SH 1N	90m	N			KILLARNEY ROAD	1799033	5814619	175.260513	-37.794132	2017202403	11/01/2017	Wed	10:27	Car/Wagon1 SDB on Greenwood Street, Hamilton hit Car/Wagon2 turning right onto AXROAD from the left	CAR/WAGON2, did not check/notice another party from other dirn, failed to give way when waved through by other dri	Dry	Bright sun	Fine	Driveway	Nil	0	0	0	0.02
SH 1N	80m	N			KILLARNEY ROAD	1799034	5814609	175.260529	-37.794224	201728514	29/03/2017	Wed	08:55	Car/Wagon1 SDB on SH 1N hit rear end of Car/Wagon2 stopped/moving slowly	CAR/WAGON1, failed to notice car slowing, stopping/stationary	Null	Bright sun	Null	Driveway	Nil	0	0	0	0.02
SH 1N	90m	N			KILLARNEY ROAD	1799033	5814619	175.260513	-37.794132	201837704	03/04/2018	Tue	15:37	Van1 SDB on Greenwood street overtaking hit Car/Wagon2 SDB on Greenwood street turning right	CAR/WAGON2, alcohol test below limit, VAN1, alcohol test below limit, did not check/notice another party from other dirn CAR/WAGON3, alcohol test below limit	Dry	Bright sun	Fine	Nil (Default)	Unknown	0	0	0	0.02

1-4 of 4

ATTACHMENT E
EMAIL FROM MRS HOLMES TO WRC

Cameron Inder

From: bekolmes7@gmail.com
Sent: Monday, August 24, 2020 12:54 PM
To: Cameron Inder
Subject: FW: 21 Northern Connector from Te Kauwhata

Hi Cameron,

Further to our phone discussion about the Ohinewai bus etc, please see below email to Council ...

Regards,
Rebekah Holmes

From: bekolmes7@gmail.com <bekolmes7@gmail.com>
Sent: Friday, 15 February 2019 10:57 AM
To: carol.foothead@waikatoregion.govt.nz
Subject: 21 Northern Connector from Te Kauwhata

Hello Carol,

I hope this finds you well and having a great day.

Hayley Nikau is a friend of mine and she has kindly written to you on behalf of many families here in Ohinewai in regards to the Bus route: 21 Northern Connector from Te Kauwhata. I just thought I would add some more information to her/our request as this may assist with your planning and scheduling....?

Of the current 2019 students that we are aware of, that would utilise the bus service from Ohinewai, they attend the following schools:

HGHS 5
HBHS 7

Many thanks Carol, we all appreciate your time and energy into our request.

Wishing you a great day.

Kindest regards,

Rebekah Holmes
021997175

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ATTACHMENT F
LETTER FROM KIWIRAIL SENIOR PROJECT MANAGER

Rhulani Baloyi

From: Terry Hodder <terry.hodder@vitruvius.co.nz>
Sent: Monday, 24 August 2020 1:53 PM
To: Rhulani Baloyi
Subject: FW: Ohinewai

Hello Rhulani

Please see the email below from KiwiRail.
Russell is the PM for KiwiRail for this project. Hope this will be sufficient for the purposes intended.

Regards

Terry

From: Russell Herbert <Russell.Herbert@kiwirail.co.nz>
Sent: Friday, 21 August 2020 4:15 p.m.
To: Terry Hodder <terry.hodder@vitruvius.co.nz>
Cc: David Brinsley <David.Brinsley@kiwirail.co.nz>
Subject: RE: Ohinewai

Hi Terry,

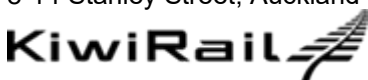
We have discussed the level crossing and can reply:
“that a crossing is acceptable to KR at this location subject to firstly, a LCSIA (Level Crossing Safety Impact Assessment) giving a satisfactory assessment of safety protection needs and secondly, subject to detailed signal design based on the proposed road and rail alignment drawings”.
(There is no reason to believe that either of these conditions would prevent acceptance of a new level crossing and KiwiRail are 100% supportive of this project).

The LCSIA needs to be paid for by Comfort Group. Two consultants able to do this are Stantec and Opus. You can contact Alasdair and Bridget to provide a quotation to complete an LCSIA at this level crossing.(emails below)
Alasdair and Bridget are both KiwiRail certified to complete LCSIAs.
The LCSIA will confirm what control measures are required at this crossing to satisfy KiwiRail’s risk and safety standards.

Alasdair.McGeachie@stantec.com;
Bridget.Feary@opusgroup.com

Regards,

Russell Herbert | **Senior Project Manager Capital Projects & Asset Development**
MOBILE: +64 27 432 0257
8-14 Stanley Street, Auckland 1010 | Private Bag 92138, Auckland 1142, New Zealand



www.kiwirail.co.nz

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From: Terry Hodder <terry.hodder@vitruvius.co.nz>
Sent: Thursday, 20 August 2020 4:45 pm
To: Russell Herbert <Russell.Herbert@kiwirail.co.nz>
Subject: Ohinewai

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Russell

Was there any development of a document to support the rail siding construction at Ohinewai?
This was centred on the construction of a new level crossing

Regards,

Terry Hodder
Rail Project Engineer
Vitruvius

M : 021 420 315
P : 07 218 1220
W : www.vitruvius.co.nz

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ATTACHMENT G
EMAILS WITH WRC REGARDING PT FUNDING MECHANISM

Cameron Inder

From: Cameron Inder
Sent: Monday, August 24, 2020 8:41 AM
To: Vincent Kuo
Cc: John Olliver; Stuart Penfold; Andrew Wilson; Andrew Carnell
Subject: RE: Transport evidence - PT funding mechanism

Good morning Vincent.

Following up on your email below, could you please give me an update in relation to your meeting with WDC and Andy's preliminary work you mentioned? Items highlighted yellow below...

Much appreciated, thanks.



Cameron Inder TRANSPORTATION ENGINEERING MANAGER
BE(Civil), CPEng, CMEngNZ
Level 4, 18 London Street, PO Box 9041, Hamilton 3240
R +64 7 838 0144 D +64 7 834 8518 M +64 21 715 377
E cinder@bbo.co.nz W www.bbo.co.nz

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From: Vincent Kuo [mailto:Vincent.Kuo@waikatoregion.govt.nz]
Sent: Tuesday, August 4, 2020 4:06 PM
To: Cameron Inder <cinder@bbo.co.nz>
Cc: John Olliver <jolliver@bbo.co.nz>; Stuart Penfold <spenfold@bbo.co.nz>; Andrew Wilson <Andrew.Wilson@waikatoregion.govt.nz>; Andrew Carnell <Andrew.Carnell@waikatoregion.govt.nz>
Subject: RE: Transport evidence - PT funding mechanism

Hi Cameron

We have had initial discussion with WDC staff regarding potential funding mechanism for PT, including the targeted rate concept. We agreed to test this further with their legal team and a meeting has been scheduled this week.

With regard to PT options, Andy has done some preliminary work which we could share with you shortly.

I think perhaps we can arrange a meeting next week after our discussion with WDC?

Andy/Andrew - anything you want to add?

Cheers

vince

Vincent Kuo | SENIOR POLICY ADVISOR | Transport and Infrastructure, Science and Strategy
WAIKATO REGIONAL COUNCIL | Te Kaunihera ā Rohe o Waikato
P: +6478590722
F: facebook.com/waikatoregion
Private Bag 3038, Waikato Mail Centre, Hamilton, 3240

Unite against COVID-19

Stay vigilant. If you're experiencing flu-like symptoms,
please get tested. Call Healthline on 0800 358 5453.
For the latest information about COVID-19 and
New Zealand's response, visit covid19.govt.nz.

From: Cameron Inder <cinder@bbo.co.nz>
Sent: Tuesday, 4 August 2020 3:32 pm
To: Vincent Kuo <Vincent.Kuo@waikatoregion.govt.nz>
Cc: John Olliver <jolliver@bbo.co.nz>; Stuart Penfold <spenfold@bbo.co.nz>; Andrew Wilson <Andrew.Wilson@waikatoregion.govt.nz>; Andrew Carnell <Andrew.Carnell@waikatoregion.govt.nz>
Subject: RE: Transport evidence - PT funding mechanism

Hi Vincent,

Just a quick note that I'm still waiting to hear back from you to my email below, and we have not heard anything more from Andrew Wilson in regards to furthering discussions towards an agreement. Can you please advance this at your end and respond so we can meet again with my Client in attendance?

Much appreciated,



Cameron Inder TRANSPORTATION ENGINEERING MANAGER
BE(Civil), CPEng, CMEngNZ
Level 4, 18 London Street, PO Box 9041, Hamilton 3240
R +64 7 838 0144 D +64 7 834 8518 M +64 21 715 377
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From: Cameron Inder
Sent: Tuesday, July 21, 2020 2:30 PM
To: Vincent Kuo <Vincent.Kuo@waikatoregion.govt.nz>
Cc: John Olliver <jolliver@bbo.co.nz>; Stuart Penfold <spenfold@bbo.co.nz>
Subject: RE: Transport evidence - PT funding mechanism

Hi Vincent.

I spoke to John Olliver about the missing statement you've identified in David Gaze's evidence. John checked and confirmed it unfortunately had been missed. It was intended to be addressed, and can be picked up in David's rebuttal evidence due later in August.

In the meantime, to work towards something concrete in place as suggested, can you confirm if Andy has carried out the further cost calculations of the various service options, as discussed at our last meeting?

Also, has WRC managed to seek a legal opinion on implementing such a funding mechanism like targeted rates in Waikato District?

It would be good to meet again soon along with WDC, David Gaze and John Olliver in attendance, to discuss the various option costs and develop an agreed mechanism for the interim and long term service options.

Thanks,



Cameron Inder TRANSPORTATION ENGINEERING MANAGER
 BE(Civil), CPEng, CMEngNZ
 Level 4, 18 London Street, PO Box 9041, Hamilton 3240
 R +64 7 838 0144 D +64 7 834 8518 M +64 21 715 377
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From: Vincent Kuo [<mailto:Vincent.Kuo@waikatoregion.govt.nz>]
Sent: Thursday, July 16, 2020 11:38 AM
To: Cameron Inder <cinder@bbo.co.nz>
Subject: Transport evidence - PT funding mechanism

Hi Cameron

Just wanting to touch base with you about your transport evidence. I had a quick scan through your evidence, and I picked up the comments about 'APL has agreed to work with WRC to enable and confirm funding mechanisms, as set out in the evidence of Mr Gaze'. But I don't seem to be able to find any detail in Mr Gaze's evidence in respect potential funding mechanism for PT.

Just wondering if you point me to the right direction in terms of where this is discussed, or is there anything concrete being proposed i.e. our expectation is to see a clear funding pathway or mechanism that can guarantee the long term viability of PT, and that the mechanism is locked into a planning process or plan provision?

Cheers

vince

Vincent Kuo | SENIOR POLICY ADVISOR | Transport and Infrastructure, Science and Strategy
 WAIKATO REGIONAL COUNCIL | Te Kaunihera ā Rohe o Waikato
 P: +6478590722
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Cameron Inder

From: Andrew Wilson <Andrew.Wilson@waikatoregion.govt.nz>
Sent: Wednesday, July 1, 2020 12:59 PM
To: Cameron Inder; Vincent Kuo; Andrew Carnell
Cc: David Gaze; John Olliver; Stuart Penfold
Subject: RE: Waikato Regional Council - Public Transport update

Thanks Cameron,

Sounds good.

Andy, fyi... please see below. Are you able to pick up on action re PT options and potential costs to help inform further discussion.

We will also touch base with staff at WDC.


Talk soon.

Cheers,

Andrew

Andrew Wilson | MANAGER | Public Transport, Finance Office
WAIKATO REGIONAL COUNCIL | Te Kaunihera ā Rohe o Waikato
P: +6478590908
M: +6421519852
F: facebook.com/BUSITWaikato
Private Bag 3038, Waikato Mail Centre, Hamilton 3240, New Zealand

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New Zealand's response, visit covid19.govt.nz.

From: Cameron Inder <cinder@bbo.co.nz>
Sent: Wednesday, 1 July 2020 11:49 AM
To: Andrew Wilson <Andrew.Wilson@waikatoregion.govt.nz>; Vincent Kuo <Vincent.Kuo@waikatoregion.govt.nz>
Cc: David Gaze <david.gaze@gaze.co.nz>; John Olliver <jolliver@bbo.co.nz>; Stuart Penfold <spenfold@bbo.co.nz>
Subject: FW: Waikato Regional Council - Public Transport update

Hi Andrew and Vincent. (Please also forward to Andy. I didn't get his email address)

Thanks for the meeting yesterday post-conferencing to discuss the Ohinewai plan change in regards to PT servicing.

Please see the email below from our Client, David Gaze, confirming APL is indeed committed to potentially subsidising PT for a period (details to be agreed), and developing a PT funding mechanism for the long term in agreement with WRC and WDC.

On this basis, can you please ask Andy to progress with costing in a little more detail the various options for PT we discussed yesterday, including:

- the interim service during initial stages of development of the site, with the current bus stop shifting to the eastern side near the roundabout.
- the possible long term service passing through option
- the long term Terminus option.

Also, Andy said he would seek that legal opinion on the targeted rate concept in Waikato District. We would see that rate spread across the industrial sites as well given that a number of workers are likely to live in Huntly, Te Kauwhata and even Hamilton.

Once we have a few more figures on the options and a legal opinion it would be good to meet up with David Gaze and John Olliver with someone from WDC to discuss how a funding mechanism might look and be rolled out.

Regards,



Cameron Inder **TRANSPORTATION ENGINEERING MANAGER**
BE(Civil), CPEng, CMEngNZ
Level 4, 18 London Street, PO Box 9041, Hamilton 3240
R +64 7 838 0144 D +64 7 834 8518 M +64 21 715 377
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From: David Gaze [<mailto:david.gaze@gaze.co.nz>]
Sent: Wednesday, July 1, 2020 11:29 AM
To: Cameron Inder <cinder@bbo.co.nz>
Cc: Stuart Penfold <spenfold@bbo.co.nz>; Rhulani Baloyi <rbaloyi@bbo.co.nz>; John Olliver <jolliver@bbo.co.nz>
Subject: RE: Waikato Regional Council - Public Transport update

Hi Cameron,

Thanks for the update on the meeting with WRC yesterday. Confirming, APL are open to exploring a potential subsidy for PT, if necessary for a period of time from an agreed initial stage of development, and agree to explore and facilitate with WRC and WDC an innovative funding mechanism to enable a long term sustainable PT service to the site.

It is appreciated the willingness of all parties trying to seek a positive solution

Thank you

Sleepyhead Estate Development Manager
Ohinewai

David Gaze – Executive Director

Gaze Holdings Limited

P +64 9 306 0110 | D +64 9 306 0122 | M +64 21 908 888

A Level 1, 35 High Street, Auckland 1010 | PA PO Box 758, Shortland Street, Auckland 1140

[Auckland](#) | [Wellington](#) | [Christchurch](#) | [website](#)

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