

**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 seeking the rezoning of land at Ohinewai

### **SUMMARY STATEMENT OF CAMERON BESWICK INDER**

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. I have been employed by BBO since 2004. I prepared a statement of evidence dated 9 July 2020, and a statement of rebuttal evidence dated 24 August 2020. The purpose of this document is to summarise those statements.
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").

#### **Background to the rezoning proposal**

3. The site is located east of the State Highway 1 Waikato Expressway ("Expressway"), between Balemi Road, Lumsden Road and Tahuna Road and adjacent to the North Island Main Trunk Railway (NIMT). Balemi Road, Lumsden Road and Tahuna Road are all presently rural district roads. Traffic will access the Site primarily from State Highway 1 through the existing grade separated interchange at Ohinewai ("Interchange"). Traffic volumes are very low with 920 vehicle per day ("vpd") and 15% heavy commercial vehicles ("HCV") on the southbound off-ramp and 445 vpd with 9% HCV on the northbound off-ramp.
4. Existing public transport provision consists of two services, each with very limited frequency per day. Walking and cycling infrastructure is non-existent on the Interchange and the district roads.

#### **Proposed rezoning trip generation predictions**

5. The proposed land use zoning includes a mix of industrial, business and residential activities. A new rail siding is proposed to connect to the existing NIMT railway located between Lumsden Road and the Expressway. KiwiRail are supportive of the new rail siding and necessary new level-crossing on Lumsden Road.
6. The overall predicted trip generation of the completed APL development has been modelled using the Waikato Regional Transportation Model ("WRTM") and separate SIDRA intersection models. The WRTM predicts 75-80% of total trip generation will be external to the Site, with peak hour trip totals of 1,420

and 2,190 during the AM and PM peak hours respectively. This is before deletion of the Discount Factory Outlets (DFO).

7. Subsequent to my EIC, 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,<sup>1</sup> which outlines the key transportation-related implications of this change, including a net reduction of approximately 170 jobs, and an associated reduction in external peak hour trips to approximately 1,220 vph and 1,730 vph in the AM and PM peak hours respectively. The Ohinewai Interchange is expected to operate well, at LOS A and B (west and east intersections respectively) with full build out of the OSP and no DFO. Similarly, the Tahuna Road / Lumsden Road roundabout is expected to perform well at LOS C during the critical PM Peak such that no capacity upgrades are likely to be needed.
8. The WRTM predicts the split of external traffic to be approximately 40% north and 60% south, which reflects the attraction due to the size and relatively close distances of Huntly and Hamilton over Auckland. There is no rail, public transport or walking and cycling components in the WRTM, so all predicted volumes are assumed to be traffic related trips. This creates a somewhat conservative prediction of the traffic generation on the network.

### **Proposed key transport infrastructure**

9. The following key transport infrastructure components are proposed to facilitate transport amenity and safety for the rezoning proposal:
  - (a) Rail siding – The new rail siding connection to the NIMT, including a localised realignment of Lumsden Road for safety at the level crossing, will enable significant volumes of freight to be transported to and from the Site without generating traffic trips on the adjacent road network.
  - (b) Four new access intersections are proposed for the Site, two on Tahuna Road and two on Lumsden Road together with associated speed limit reductions to 60km/h from the existing 100km/h, in line with the safe and appropriate speed for the road type.
  - (c) The internal road network consists of different road cross-sections for the industrial, business and the residential precincts. Speed management, safety and ensuring the appropriate use (whether it is predominantly access or movement based) is at the core of the network layout and cross-section designs.
  - (d) A high level of amenity and safety is provided for walking and cycling with on and off-road paths internally throughout the Site connecting the residential and employment areas. Additionally, a new separate shared path bridge over the NIMT and Expressway is proposed to safely connect the community to Ohinewai Primary School and to Huntly. This serves the predominant travel desire-lines. Safe walking and cycling paths cannot feasibly be added to the existing Interchange or rail overbridge. Statements of support by existing residents for the location of the new path and structure and its attractiveness for use are included in my rebuttal evidence.

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<sup>1</sup> Transportation-related implications of removing the Discount Factory Outlet (DFO) from the Ohinewai Structure Plan area, 7 August 2020.

## **Recommended transportation infrastructure improvements to support the rezoning**

10. My assessment finds that the overall transportation effects of the APL rezoning on the adjoining road network are likely to be moderate to significant without any transport mitigation measures, due to the limited infrastructure that presently exists.
11. However, with the following recommended infrastructure upgrades relating to amenity, safety, connectivity and accessibility for all anticipated vehicle and active travel modes, I consider that the transportation effects of the rezoning will be sufficiently mitigated to an acceptable level, which is generally no more than minor.
12. The following are the recommended infrastructure upgrades and triggers for staged implementation as development occurs:
13. Tahuna Road:
  - (a) Reduction to 60km/h posted speed limit from Ohinewai South Road to east of Access 1, then 80km/h from this point to the eastern extent of the development. It is also recommended that WDC investigates reducing the speed limit of Tahuna Road east of the Site to 80km/h.
  - (b) Tahuna Road should be upgraded in general accordance with the semi-urban Cross Sections A-A, B-B and C-C in Appendix B, and Figure 17 of the ITA.
  - (c) Provision of a 2.5m wide shared walking and cycling path with street lighting should be provided along the northern berm of Tahuna Road, from Lumsden Road to a point approximately 150m east of Access 1, to connect to the path into the Site adjacent to the business zone.
  - (d) The timing of these upgrades corresponds to Stages 2A, 2C and 2D in the staging plan (Table 31 of the ITA).
  - (e) Widening of the Tahuna Road Rail Overbridge is not feasible due to the type (Super 'Tee' structure) and age of the bridge. This has been confirmed following inspection by Mr Jamie Langley (Structures Site Engineer for BBO). The cost to replace the bridge with a new bridge meeting modern standards is not considered to be justified for the following reasons:
    - (i) The knock-on effects and cost of providing a new bridge are significant. A new bridge would need to be higher and wider than existing to meet KiwiRail requirements for envelope clearance and electrification. This will impact on sightlines from the southbound off-ramp, requiring significant alteration of the on and off ramp levels.
    - (ii) A new wider rail overbridge would encourage cyclists to use Tahuna Road overbridge instead of using the proposed separate bridge facility, increasing the potential for safety issues at the Interchange on and off- ramps and on the bridge over the expressway. The narrow rail bridge currently deters use by all but confident cyclists.
    - (iii) The lack of any poor safety record owing to the narrow width and occasional encroachment of the centre line by large trucks turning from the southbound off-ramp.

- (iv) I observe that drivers of very large trucks on the southbound off-ramp regularly wait at the stop line if an eastbound car is travelling over the rail bridge before commencing turning and encroaching over the centre-line. Sensitivity testing of intersection capacity with OSP traffic added and longer wait times for trucks to allow for this behaviour does not result in the queue length extending beyond the safe available storage length on the off-ramp.

14. Lumsden Road:

- (a) Reduction to 60km/h from the existing 100km/h speed limit, from Tahuna Road to 280m north of Balemi Road. It is also recommended that WDC investigates reducing the speed limit along the "rural" section of the road to 80km/h.
- (b) Upgrade in general accordance with the semi-urban Cross Sections D-D, E-E and F-F in Appendix B, and Figure 17 of the ITA.
- (c) Provision of a 2.5m wide shared walking and cycling path with street lighting should be provided along the eastern berm of Lumsden Road, from Tahuna Road to Access intersection 4.
- (d) Timing of this upgrade corresponds to Subdivision Stage 2B (Table 31 of the ITA, first stage of industrial subdivision).

15. Balemi Road:

- (a) Reduction to 60km/h from the existing 100km/h speed limit (over full length) in line with the identified safe and appropriate speed.
- (b) Upgrade to semi-urban design in general accordance with Cross Sections G-G, in Appendix B and Figure 17, to the easternmost access of the Site.
- (c) Timing of this upgrade corresponds to Factory Stage F3 plus the construction of the proposed rail siding (Table 31 of the ITA report).

16. Lumsden Road Rail Crossing:

- (a) Localised road alignment changes to Lumsden Road in general accordance with Drawings 145860-06-1200-B to 145860-06-1203-B in Appendix B of the ITA, and subject to design stage road safety audit and KiwiRail safety and operations audits.
- (b) In addition, warning signs, bells and flashing lights in accordance with KiwiRail level crossing design requirements. The installation of barrier arms is to be confirmed at detail design stage.
- (c) The timing of these upgrade works corresponds with installation of the rail siding and level crossing construction works.

17. Ohinewai Interchange Safety Improvements (these works are to be part of Stage 1 development on site):

- (a) Remove all vegetation that is obstructing sight lines at the top of the southbound off-ramp.
- (b) Relocate the Stop Line on the southbound off-ramp 0.5 m towards the edge line on Tahuna Road.

- (c) Install static cyclist warning signs on the approaches to the Expressway and Rail overbridges on Tahuna Road, and the off ramps of the interchange.
  - (d) Install an electronic flashing cycle warning sign (solar powered) at the southbound off-ramp intersection with Tahuna Road, with activation by appropriate detector systems when cyclists are present at the top of the off-ramp or cycling over either of the overbridges.
  - (e) Install electronic signs warning of STOP control ahead, with transverse rubble strips on the southbound off-ramp.
  - (f) The above works require appropriate consultation and design approvals from NZTA before any implementation on site.
18. Local Road Intersection Upgrades and Access to the Site:
- (a) Tahuna Road and Lumsden Road intersection capacity improvement in general accordance with Drawing 145860-08-0219-C in Appendix B of the ITA, if Lumsden Road approach degrades to LOS E or worse.
  - (b) This upgrade is unlikely to be required given the DFO removal, unless the trip generation of the Industrial zone is significantly greater than is normal and allowed for in the WRTM..
  - (c) Balemi Road and Lumsden Road intersection upgrade in accordance with Drawing 145860-06-1200-B to 145860-06-1203-B in Appendix B of the ITA. Sightline splays to achieve Austroads Safe Intersection Stopping Distance requirements should be protected by easement over adjacent properties.
  - (d) The rural intersection should be formed in line with the requirements set out in the District Plan and the Regional Infrastructure Technical Specifications ("RITS"). This upgrade will be triggered by the construction of the proposed rail siding.
  - (e) A new left turn slip lane connection from Great South Road (north of Huntly) to Ohinewai South Road in accordance with the concept design Drawings 145860-08-1200-B to 145860-08-1203-B in Appendix B of the ITA.
  - (f) Timing of this connection corresponds to Factory Stage F3 plus Subdivision Stage 5A.
  - (g) The four access intersections to the site, one property access to the TCG Factory site on Lumsden Road, two property accesses to the service centre on Lumsden Road and Tahuna Road, and two property accesses on Balemi Road shall be in general accordance with the form and location described in the ITA (as identified in Figure 18, Table 11 and Drawings 145860-08-0219-C to 0221-C, and 0222-B to 0224-B in Appendix B of the ITA). Locations and layout details shall be subject to confirmation through further design as part of future resource consents for the staged development, and all designs shall obtain WDC engineering approval before being constructed.
  - (h) The timing for implementation of each access is associated with the Stage of development as set out in Table 31 of the ITA.

19. Walking and Cycling Infrastructure

- (a) Provide the extensive internal network of footpaths and shared paths in general accordance with the OSP, illustrative Masterplan and typical road cross sections. This includes the shared paths on Lumsden Road and Tahuna Road in accordance with the typical cross sections in Appendix B and Table 10 of the ITA. Timing of the staged implementation of the walking and cycling paths relates to development stages as set out in Table 31 of the ITA.
- (b) Provide a separate purpose-built shared walking and cycling bridge spanning the NIMT and SH1 Expressway, at a location approximately 315m south of the SH1 Ohinewai Interchange, together with shared path connections to Tahuna Road and Ohinewai South Road to connect the Site to the existing Ohinewai Village, school and ultimately through to Huntly for walking and cycling. The location and alignment of the path and bridge should be in general accordance with "Option 2B" as illustrated in Figure 33 of the ITA. The timing of construction commencement for the shared path from the south side of Tahuna Road to Ohinewai South Road, including the pedestrian and cyclist overbridge, corresponds with completion of the first 100 dwellings in the rezoned Site.
- (c) Provide a segregated shared walking and cycling path on Ohinewai South Road to connect to the future path on the Waikato River stop bank, in general accordance with the concept design Drawings 14586-08-1200 to 14586-08-1203-B in Appendix B of the ITA.
- (d) Connect the shared path facility on Ohinewai South Road to a shared walking and cycling path on top of the eastern stop-bank of the Waikato River, through to Huntly. This is already shown in the Waikato Blueprint as an ambition of WDC for the district.

20. Public Transport Infrastructure:

- (a) Long Term: enable the efficient running of Public Transport ("PT") services to the site by WRC through the design of the road network and access intersections to accommodate the bus stop facility adjacent to the proposed business precinct, in general accordance with the OSP network and Illustrative Masterplan.
- (b) In the interim period until the long-term PT facility is required, a basic bus stop facility adjacent to the westbound lane of Tahuna Road, between the interchange and Lumsden Road, shall be enabled through provision of the safe crossing facility for pedestrians across Tahuna Road together with the shared paths on either side, in general accordance with Drawing 145860-08-0221-C in Appendix B of the ITA. The staged timing of this is associated with the upgrade of the Tahuna Road cross-section to the urban / industrial standard in accordance with cross section A-A in Appendix B of the ITA.

**Cameron Inder  
9 September 2020**