
To: Chloe Trenouth / Emily Buckingham

Copy:

From: Naomi McMinn

Date: 3/9/2020

Job Number: 17_144



SUBJECT: Ohinewai Structure Plan: Proposed District Plan Submission: Ambury Properties Limited Update

1. SUMMARY OF KEY ISSUES

Purpose and basis of this memo

The purpose of this memo is to identify the key transportation issues relating to the Ambury Properties Limited (APL) Ohinewai Structure Plan (OSP) submission to the Proposed District Plan.

This memo does not provide a detailed review of the Statement of Evidence (SOE) of Cameron Inder, dated 9 July 2020 nor the Statement of Rebuttal Evidence (SRE) of Cameron Inder, dated 24 August 2020. I have focused on identifying the key issues relating to transport that remain with the current proposal. As instructed I have not reviewed the Statements of Evidence of Robert Swears or Vincent Kuo. The transportation issues are outlined in Table 1 below. I have also commented on planning provisions in Table 2. Aspects that have been added since my memo dated 20/8/2020 are shaded grey in the tables.

Recent change to proposal

The submitter, Ambury Properties Limited (APL) has recently changed the proposal to replace the Discount Factory Outlet (DFO) with Industrial Zone. The change to the proposal is outlined in:

- = Memo to Waikato District Council and Ohinewai Rezoning parties, dated 27 July 2020 from John Olliver, BBO, subject "Ambury Properties Ltd Submission; removal of DFO"; and
- = Memo to Waikato District Council and Ohinewai Rezoning parties, dated 7 August 2020 from Cameron Inder / Rhulani Baloyi, BBO, subject "Transportation-related implication of removing the Discount Factory Outlet (DFO) from the Ohinewai Structure Plan area".

The BBO (7 August 2020) memo states that the removal of the DFO removes 318 business/commercial activity jobs and the replacement industrial activity adds 149 jobs (a net reduction of 169 jobs). The memo concludes:

"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."

Key Transportation Issues:

	Issue	Reason for Concern	Likely Intervention
1	Custom cross-sections for road network upgrades (Tahuna, Lumsden, Balemi)	Road upgrades are described in the Proposed Planning Provisions Upgrade Tables ¹ and do not cover all aspects. Cross-sections and drawings recommended by the ITA are not included in the planning provisions.	Include cross-section diagrams in the planning provisions.
		Amendments to the cross-sections required to provide adequate shoulders consistent with the PDP and to allow for cyclists on-road.	Refer to Attachment A for changes to cross-sections.
2	Internal road cross-section: Figure 14.12.5.22 Commercial/Industrial Road 3	The current cross-section with 3m lanes means there is limited manoeuvring space for the 90 degree spaces ² . Paragraph 5.31 of Cameron's SOE states that two 3.5m lanes should be incorporated instead of 3m lanes. This is not reflected in the planning provisions proposed cross-section.	Update the cross-section in the planning provisions (Figure 14.12.5.22 Commercial/Industrial Road 3) to show two 3.5m lanes.
3	Sightline protection at Balemi Road	The planning provisions do not include protection of the sightlines. ³ The Balemi Road/Lumsden Road intersection realignment Safety Audit identified that the safe intersection sight distance lines cross private property. ⁴	Additional planning provision in the upgrade table ⁵ for item k) Lumsden Road realignment: <i>"iv) complying safe intersection sight distances (SISD) at the relocated Lumsden Road/Balemi Road intersection"</i>
4	Trips by car	The lack of a safe and direct walking and cycling link across the NIMT and SH1 between the existing Ohinewai west and the proposed OSP is likely to make short trips by walking and cycling unattractive. The proposed walking and cycling bridge and path connections to the south of the site between the OSP and the Ohinewai School will provide a safe route for trips to school and further south but the route is not likely to cater for all short trips where the desire line is along Tahuna Road. The OSP site is not located conveniently to existing services (schools, health, supermarket etc) being more than 7km to Huntly and the lack of alternatives for travel is likely to result in a high proportion of travel by private vehicle. The lack of services in Ohinewai and the limited public transport is likely to result in reliance on private vehicles.	This is primarily related to the site's location. Widening Tahuna Road and the NIMT overbridges to arterial road cross section will allow cyclists to use the shoulder. Alternatively a separate structure next to Tahuna Road to provide for walking and cycling. Refer to items 7,8 and 14 below.

¹ Tables 16.6.5.1, 17.6.5.1, 20.6.4.1 of the Proposed Planning Provisions

² Refer to 20.4 of JWS. I suggested that vehicle tracking should be completed to confirm that vehicles can manoeuvre in and out the 90 degree spaces without crossing the centreline.

³ Supported in Cameron's SOE paragraph 5.11.

⁴ Refer Safety Audit and drawing 145860-06-1200-B to 145860-06-1203-B in App B of ITA.

⁵ Tables 16.6.5.1, 17.6.5.1, 20.6.4.1 of the Proposed Planning Provisions

	Issue	Reason for Concern	Likely Intervention
5	Trip generation	<p>I consider that the trip generation of the Sleepyhead factory part of the proposal is well understood and is based on 67 worker/ha.</p> <p>A lower employee density of 28 workers/ ha is applied to the remaining Industrial Zone. This is equivalent to 1 worker per 185 m² GFA⁶.</p> <p>The Industrial Zone allows for a range of activities and if the employee density were higher, the trip generation would be higher.⁷</p> <p>There is potential for the service centre to generate more trips than the assessment considers.⁸</p>	<p>Allow for some development and require a review of the traffic environment and confirmation of adequacy of mitigation prior to further development.</p> <p>This could be a rule requiring reassessment of the whole OSP area after Stage 2 is fully developed, tenanted and operational to confirm actual traffic effects and adequacy of mitigation.</p>
6	Traffic modelling: uncertainty with timing and need for infrastructure.	<p>Various modelling scenarios have been included in the ITAs, SOE and more in the update memo.</p> <p>The BBO memo (7 August 2020) now considers that no capacity related upgrades are required.</p> <p>However, some modelling scenarios result in LOS E or F, indicating mitigation would be needed if the scenario eventuated.</p> <p>There is a degree of uncertainty in the trip generation of the Industrial Zone and upgrades may be required.</p>	<p>As above (item 5): A rule requiring reassessment of the whole OSP area after Stage 2 is fully developed, tenanted and operational to confirm trip generation, modelling and reassess need and likely timing for upgrades.</p>

⁶ Based on 160,150m GFA of General Industrial (Refer Table 4 of the BBO Memo, 7 August 2020).

⁷ For further discussion, refer 3.2.2 of Ohinewai Rezoning Requests, Transportation Review of Submissions, Waikato District Council, Gray Matter Ltd, 9 March 2020 and Paragraphs 3.1-3.9 of the JWS.

⁸ Additional explanation is included in paragraph 13 of Summary Position Statement of Naomi McMin, 17 June 2020 and Section 3.3.2 of Ohinewai Rezoning Requests, Transportation Review of Submissions, Waikato District Council, Gray Matter Ltd, 9 March 2020.

	Issue	Reason for Concern	Likely Intervention
7	Existing safety deficiency because left turning large trucks at the SH1 southbound off-ramp track over the centreline into the oncoming lane.	<p>During conferencing we discussed tracking for left turning trucks at the southbound off-ramp stop intersection.</p> <p>There is an existing safety deficiency because the tracking curve for a design vehicle (17.9m semi-trailer with for clearances⁹) crosses into the oncoming lane. Paragraph 9.19 and Figure 23 of Cameron’s SOE shows a truck and trailer HPMV tracking over the centreline of Tahuna Road.</p> <p>BBO provided video records of heavy vehicles turning left at the SH1 southbound off-ramp stop intersection to Tahuna Road. The video shows most of the truck and trailer configurations tracking slight over the centreline. Although the view does not show the full lane at the NIMT overbridge, it identifies that it is a pinch point.</p> <p>Tube count survey data¹⁰ provided by BBO indicates 95 heavy vehicles per day (around 10% of current daily traffic) on the southbound off-ramp. More than half of the heavy vehicles are 17m or longer. In the absence of expected truck numbers/sizes provided by APL (the submitter), applying the existing ratio to the trucks generated by the industrial activity¹¹ could mean 29 additional large trucks during the PM peak hour turning left at the southbound off-ramp on to Tahuna Road¹². That is around one large truck every two to 2 ½ minutes that crosses the centreline.</p> <p>The proposal adds significant traffic¹³, including trucks. With additional traffic on Tahuna Road there is an increased risk of a truck meeting an oncoming vehicle. There is no shoulder on the NIMT overbridge for cyclists and a collision between a truck and a cyclist is likely to result in death or serious injury. Ideally the bridge should be widened to accommodate 3.5m lanes, 1.5m shoulders as well as widening at the SH1 southbound off-ramp to accommodate the left turning swept paths. Providing a separate link/structure for walking and cycling next to Tahuna Road would remove the need for trucks and cyclists to mix on Tahuna Road. This would address the risk to vulnerable cyclists but without widening there would still be the risk of a truck tracking over the centreline meeting an oncoming vehicle.</p> <p>With the proposed walking/cycling path to the south there may still be some cyclists using Tahuna Road and providing appropriate lane and shoulder widths would accommodate vehicle traffic and cyclists on-road.</p>	<p>Widen the overbridge and Tahuna Road cross section to provide for the increase in traffic and change in nature.</p> <p>A 10m carriageway (3.5m lanes, 1.5m shoulders) would be appropriate for the function of Tahuna Road, an arterial road between industrial/ employment and housing areas, in general accordance with the relevant PDP¹⁴ requirements.</p> <p>This would be aligned with the PDP Objectives and policies for transport, particularly <i>Objective 6.5.1 for a land transport network where all transport modes are accessible, safe and efficient and Policy 6.5.2 – Promote the construction and operation of an efficient, effective, integrated, safe, resilient and sustainable land transport network through:</i></p> <p><i>i) Corridor, carriageway and intersection design which is appropriate to the road function as specified in the road hierarchy and in accordance with relevant guidelines; and</i></p> <p><i>(iv) Provision for pedestrians and cyclists that addresses accessibility, including off-road facilities and connections.</i></p>

⁹ RTS18 recommended minimum clearance of 0.5m to each side.

¹⁰ Refer Cameron Inter SOE paragraph 9.17 and data provided via email (7/8/20) by BBO “HCV Composition_SB Off-ramp.pdf”

¹¹ ITA Section 7.1 and 7.6 expects that 14% of the total peak period industrial trip generation would be heavy vehicles

¹² Total of 173 trucks per hour, 59% are large trucks (>17m) = 102 large trucks per hour. Applying inbound/outbound, northbound/southbound distributions during PM peak (Table 13 and 20 of the ITA) = 29 additional large trucks on SH1 SB off-ramp during the PM peak hour.

¹⁴ PDP Tables 14.12.5.14 and 15– Access and road conditions

	Issue	Reason for Concern	Likely Intervention
8	Cyclists on the NIMT overbridge	<p>Paragraphs 9.27-9.31 of Cameron's SOE discuss options for alerting drivers to the presence of cyclists on the overbridge.</p> <p>This is not included in planning provisions so unclear how it would be implemented or triggered.</p> <p>As above, the presence of trucks mixing with cyclists on the narrow overbridge is a safety concern.</p>	The proposed cyclist alert system is not included in planning provisions so it is unclear how this would be implemented.
9	Sight distance and existing crash history at the southbound stop control	<p>The existing sight distance is restricted to the west due to the barrier of the SH1 overbridge¹⁵. The crash history shows a trend of vehicles not stopping at the stop control. In addition, paragraph 9.47 of Cameron's SOE states that his observations of driver behaviour is that drivers position closer than 3m¹⁶ to the continuity line to maximise the visibility before turning.</p> <p>There is a risk that vehicles will encroach in the through lane or collide with an eastbound cyclist on Tahuna Road.</p>	Improve sight distance at the intersection, improve visibility of the stop control.
10	NIMT overbridge existing barrier	<p>The existing tombstone bridge barrier is not an accepted barrier in the current standard (NZTA M/23) and there is a risk of an errant vehicle to passing through the barrier.</p> <p>The proposal increases traffic including trucks and therefore increases the risk of a collision. An errant vehicle passing through the barrier would likely result in death or serious injury.</p>	It may be possible to replace the bridge barrier. Would be addressed by widening the overbridge.
11	Level rail crossing: Lumsden Road	<p>There is no planning provision requiring the rail siding. Introducing a level crossing on Lumsden Road introduces a new safety risk to road users and is not consistent with the Objectives and Policies of the PDP: <i>Policy 6.5.2a) Promote the construction and operation of an efficient, effective, integrated, safe, resilient and sustainable land transport network through: (viii) Discouraging the installation of new at grade road and pedestrian rail level crossings:</i></p> <p><i>A. Controlling the location of buildings and other visual obstructions within the sightline areas of rail level crossings; and B. Railway crossing design in accordance with the requirements of the rail operator.</i></p> <p>Cameron's SOE paragraph 5.8 states that barrier arms may not be necessary due to the low traffic volumes using Lumsden Road.</p> <p>A new level crossing is not aligned with the Safe System principles which accepts that people make mistakes and we should design so that they don't die. A mistake with a train is likely to result in death or serious injury.</p> <p>The Kiwirail website states that "<i>when a new crossing is requested or required, KiwiRail's preference is for it to be grade separated (above or below the level of the rail network, such as a bridge or tunnel)</i>".</p>	Planning provisions requiring grade separation unless at-grade crossing supported by Kiwirail Safety Engineer.

¹⁴ PDP Tables 14.12.5.14 and 15– Access and road conditions

¹⁵ Cameron's SOE paragraph 9.41 relating to sight distance to the west states that minimum SISD (safe intersection sight distance) of 104m is required for 52.6 km/h (85th percentile speed). He states the absolute minimum is 96m (based on reduced reaction time 1.5s). Paragraph 9.37 states that 95m is available.

¹⁶ relates to the position for measuring the SISD (7m (5m minimum) back along the side road from the conflict point) refer Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections

	Issue	Reason for Concern	Likely Intervention
12	Proposed Access to initial stages	<p>Intersection 1 Tahuna Road is proposed as a left in, left out intersection and there is a risk of unsafe turning manoeuvres.</p> <p>Any drivers who do not head out of the site using Lumsden Road Access 3 will need to turn left on to Tahuna Road (eastbound) and most vehicles will be wanting to travel towards the west increasing the risk of U-turns.</p> <p>The Intersection 2 Tahuna Road roundabout will provide an opportunity to safely turn around, however is not proposed until Stage 4/ year 5) and there is no guarantee that it will be constructed.</p> <p>A roundabout is a safer form of intersection and allows all movements.</p>	Construct Intersection 2 Tahuna Road roundabout as initial access to the OSP area (year 3, stage 2) or construct Intersection 1 Tahuna Road as a roundabout.
13	Implications of Removing the DFO from the proposal (CI SRE item 2)	<p>Refer to item 6 above.</p> <p>In addition, if the rail siding does not go ahead, the land could be used for Industrial Zone activity and could generate trips to the road network, further adding to the uncertainty with timing and need for upgrades.</p>	Refer items 5 and 6 above.
14	Proposed Grade Separated Walking and Cycling Link (CI SRE item 4)	<p>Cameron's SRE Attachment F provides responses from existing Lumsden Road residents who are in support of the proposed walking and cycling link to the school.</p> <p>I support the link, but consider that it is not likely to be attractive for all short trips since the WRC bus does not travel to both sides¹⁷. In addition there may be people who live on the west wanting to work in the OSP and traveling an extra 700m to use the path may not be used.</p> <p>The information Cameron has gathered is from local residents whose children are no longer at the primary school. While it may be acceptable to the existing residents in the low traffic and rural area with older children to travel 2km to school walking/cycling, the proposed OSP area will be urban in nature. I agree with Mr Swears that the distance of 2km is further than most primary school aged children are likely to walk. Refer paragraph 26 of my Summary Position Statement (17/6/20)¹⁸.</p>	<p>Widening Tahuna Road and the NIMT overbridges to arterial road cross section will allow cyclists to use the shoulder.</p> <p>Alternatively a separate structure next to Tahuna Road to provide for walking and cycling.</p>

¹⁷ Currently the bus stop is located on the western side. This could be relocated to the eastern side as part of the OSP but I understand the WRC bus would stop on one side of SH1 only)

¹⁸ For primary school aged children, the distance to school may be not be attractive for walking as it is more than 1.3km . Children living within 1.3km are the most likely to walk to school and this reduces by a third where the distance to school is 1.3-2.3km. (source: Built environment associates of active school travel in New Zealand children and youth: A systematic meta-analysis using individual participant data. <https://www.sciencedirect.com/science/article/pii/S2214140518300240?via%3Dihub>)

	Issue	Reason for Concern	Likely Intervention
15	Mitigation of the present road safety issue at the Ohinewai Interchange (CI SRE item 5)	<p>Related to item 9 above.</p> <p>Cameron's SRE paragraphs 5.1-5.5 includes options for improving the visibility of the existing Stop-controlled intersection on the southbound off-ramp.</p> <p>Changing the speed limits bylaw would be completed by NZTA/WDC through a separate process (not through a plan change/RMA process).</p> <p>The OSP development changes the nature and volume of traffic on the surrounding roads (including the SH1 southbound off-ramp) and speed limits will need to be reviewed by the Road Controlling Authorities (RCAs).</p> <p>I agree with Cameron (SRE 5.4a, b)) that the installation of an electronic warning sign "STOP AHEAD, REDUCE SPEED" with supporting line marking warning (transverse or rumble strips) could lower approach speeds to the Stop sign and improve driver awareness of the approaching intersection.</p> <p>This needs to be agreed with NZTA.</p>	Not included in the planning provisions so it is unclear how this would be implemented.
16	Certainty over the provision of the rail siding (CI SRE item 6)	<p>Related to item 11 above.</p> <p>Cameron's SRE paragraphs 6.9-6.10 and Attachment F includes email confirmation from Kiwirail Project Manager that <i>" a level crossing is acceptable to KR at this location subject to firstly, a Level Crossing Safety Impact Assessment (LCSIA) giving a satisfactory assessment of safety protection needs and secondly, subject to detailed sign design based on the proposed road and rail alignment drawings."</i></p> <p>I agree with Cameron's SRE paragraph 6.13 that the design of the rail siding can be addressed at resource consent stage. There are no planning provisions requiring the level crossing. The LCSIA and detailed design have not been completed so there is no certainty that the rail siding will go ahead.</p>	Prefer a grade separated crossing which would be consistent with PDP Objectives and Policies. However, if the level crossing is accepted it should be subject to: KiwiRail safety engineer acceptance of detailed design and the LCSIA and detailed design Road Safety Audit.

	Issue	Reason for Concern	Likely Intervention
17	Appropriateness of the site access proposals, specifically access A and intersections 1 and 3 (CI SRE item 7)	<p>I agree that the Business Area Structure Plan legend stating that the “need for and location to be assessed at resource consent stage” is appropriate for the indicative accesses to the service centre.</p> <p>Intersection 1 (left in, left out): Refer to item 12 above. The planning provisions include this intersection as the single point of access to the OSP area for the initial development. This means that there will be no means of turning right out of the OSP area.</p> <p>There is a risk that Intersection 2 Tahuna Road roundabout will be too far away to be utilised for U-turns. Contrary to Table 31 of the ITA (May 2020), the planning provisions include Access 3 to Lumsden Road at Stage 3B/Year 4.</p> <p>If Intersection 2 Tahuna Road is constructed as a left in, left out intersection then all traffic leaving the OSP will need to U-turn to head west on Tahuna Road. Constructing a roundabout as the initial form of access to the business/ industrial and residential areas (year 3, stage 2) would allow all movements to be safely accommodated.</p>	<p>Ensuring the planning provisions trigger an ITA for the service centre and assessment criteria require consideration of the safe and appropriate location of access.</p> <p>Construct Intersection 2 Tahuna Road roundabout as initial access to the OSP area (year 3, stage 2) or construct Access 1 Tahuna Road as a roundabout.</p>

Table 1: Key Transportation Issues

Updates, changes or additional planning provisions or Structure Plan details:

Item/Reference	Description	Action
1. Custom road cross-sections (inconsistency in references) Structure Plan (Revision J)	<p>Structure Plan refers to road types 1-6 and the key refers to the “Road Cross Section Diagram (Type 6 Roads Not Shown)”. I’m not aware of the “Road Cross Section Diagram” but note that the proposed planning provisions Figure 14.12.5.22 refers to cross-sections for Commercial/Industrial Roads 1, 2 and 3 and Figure 14.12.5.23 has cross-sections for Residential Roads 1, 2 and 3.</p> <p>There is no reference in the planning provisions to Road types 1-6.</p>	Consistent reference to road cross-sections in the planning provisions and Structure Plan required.
2. Speed limits in Table 14.12.5.14 (30-80km/h (max))	<p>The ITA expects internal road speeds between 30 and 60 km/hr.</p> <p>80km/hr is not proposed internally and is not a safe and appropriate speed for any road inside the OSP area</p>	Modify speeds in Table 14.12.5.14 to 30-60 km/h (max) to align with what is proposed inside the OSP area

Item/Reference	Description	Action
3.Sightline protection at Balemi Road	Include provision in the Rules for ensuring sightlines are achieved.	Additional planning provision in the upgrade table ¹⁹ for item k) Lumsden Road realignment: <i>“iv) complying safe intersection sight distances (SISD) at the relocated Lumsden Road/Balemi Road intersection”</i>
4. Restricted Discretionary ITA requirement 20.6.2 RD6 17.6.3 RD5	The proposed planning provisions require ITAs for all developments. It’s not clear what a “development” is and there is a risk of cumulative effects requiring mitigation that is out of proportion to the incremental effects of a particular development. Prefer that the OSP be reviewed and the actual and real traffic effects are measured and mitigation confirmed. Note there are no matters of discretion included.	If the need for ITA is removed for all developments then a new rule 20.6.2 RD8 to require sufficient parking on-site. Recommend a mechanism in the planning provisions that requires the full OSP area to be reassessed to determine actual traffic effects, confirm upgrades needed and timing. Matters of discretion are needed.
5.Infrastructure Upgrade tables ²⁰ Items c) Tahuna Road upgrade, e) Balemi Road upgrade and f) Lumsden Road upgrade	Should refer the applicable cross-section drawing because some of the detail is not captured in the word descriptions.	Recommend adding reference to the applicable cross-sections and extents for the cross-sections (refer Attachment A) Note that the infrastructure upgrade table includes a description for Lumsden Road upgrade (from Tahuna Road to Access 4). This does not include the cross-sections in the ITA for north of Access 4. These should be referenced in the planning provisions. (refer Attachment A)

¹⁹ Tables 16.6.5.1, 17.6.5.1, 20.6.4.1 of the Proposed Planning Provisions

²⁰ Table 17.6.5.1, 16.6.5.1 and 20.6.4.1 of the proposed planning provisions

Item/Reference	Description	Action
6. Staging Plan – there was a missing internal road connection to Stage 2 residential development identified during conferencing ²¹ .	<p>The recent change to increased Industrial Zone has included what was a pedestrian only link as a road which also provides internal access to the Stage 2A housing area.</p> <p>The staging plan (Rev 1 dated 11/8/20) includes road staging table and on the drawing includes a coloured line resembling road hierarchy/types. However there is no key to understand which cross-section (refer item 1. above).</p>	<p>It would be helpful if the staging plan showed the underlying road hierarchy and access labels (Access 1, 2 etc) and included access, road upgrades and other infrastructure (paths etc) in the staging plan.</p> <p>The references and naming conventions for roads should be consistent with the Structure Plan and PDP cross-sections.</p> <p>Recommend a review of the lengths of the roads per stage in the Summary (roading) table on the Staging Plan (Rev 1 dated 11/8/20). Alternatively remove the table as the road extents for each stage are shown on the plan.</p>
7. Shared path network on new business area structure plan	<p>The shared path indicated on the Structure Plan to the north of the Neighbourhood Centre is not shown on the Business Area Structure Plan (27/7/2020). For consistency and to avoid any features being missed later on, the network should be consistently shown on the plans.</p>	<p>Consistent detail on the plans.</p>
8. Table 31 of ITA (May 2020)	<p>Table 31 of ITA (May 2020) Item 7 construction of access 3 on Lumsden Road (year 3/stage 2B) – shown as year 4/stage 3B in the Tables 16.6.5.1, 17.6.5.1, 20.6.4.1 of the Proposed Planning Provisions</p> <p>Note that item 1 of Table 31 Construction of rail siding is not included in the proposed planning provisions.</p>	<p>The consequence of delaying the access 3 upgrade is that Access2 to Tahuna Road will need to provide for all movements.</p>
9. Table 31 of ITA (May 2020) Item 11	<p>Item 11 Tahuna Road and Lumsden Road roundabout upgrade is triggered in the Table 31 by 1000vph.</p> <p>This is not included in the planning provisions.</p>	<p>Given the uncertainty with the trip generation and need for upgrades, (refer Table 1 items 5-6 above) the need for the roundabout upgrade could be addressed by requiring reassessment of the whole OSP area after Stage 2 is fully developed, tenanted and operational to confirm trip generation, modelling and reassess need and likely timing for upgrades.</p>

Table 2: Updates, changes or additional planning provisions or Structure Plan details

²¹ Paragraph 19.4 of the JWS

Conclusion

The location of the site, distance to Huntly and the lack of alternatives for travel is likely to result in a high proportion of private vehicle trips to access employment and services. In my view, this is not well aligned with relevant transport policy of the RPS.

Without mitigation at the southbound off-ramp intersection and the NIMT overbridge the increased traffic associated with the proposal including trucks is likely to increase the safety risk due to factors including the crash history, the absolute minimum sight distance available, the behaviour of drivers at the stop control, trucks tracking over the centreline and the lack of space for cyclists. The NIMT and SH1 overbridges are constraints to the provision of improved infrastructure on Tahuna Road and the SH1 southbound off-ramp.

The proposal includes pedestrian and cyclists connections and a new overbridge for walking and cycling over the NIMT and SH1 but this is located south of the OSP area and is not a direct route between Ohinewai east and west. The use of the active modes link is not likely to be as well utilised as it would if it were a direct route. Some cyclists may use Tahuna Road which is undesirable from a safety perspective given the lack of shoulder and the additional traffic (including trucks) that will increase the risk to cyclists.

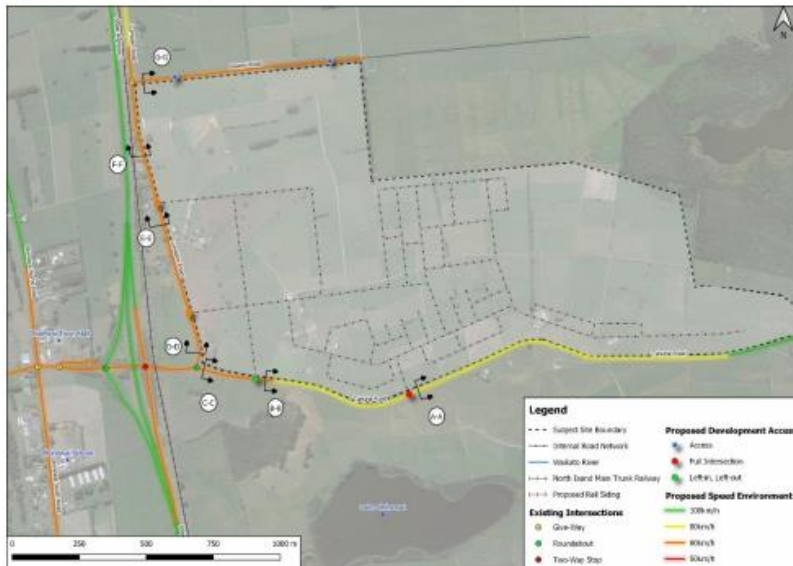
If the submission is accepted, further work on the plan provisions is needed.

Attachment A: ITA Appendix B proposed upgrade cross-sections drawings

Drawings 145860-06-0206 to 145860-08-0212 should be included in the planning provisions. Amendments in red are shown to include wider shoulders that meet PDP and ensure consistency between the proposed documents, (Structure Plan, Business Area Structure Plan etc.)

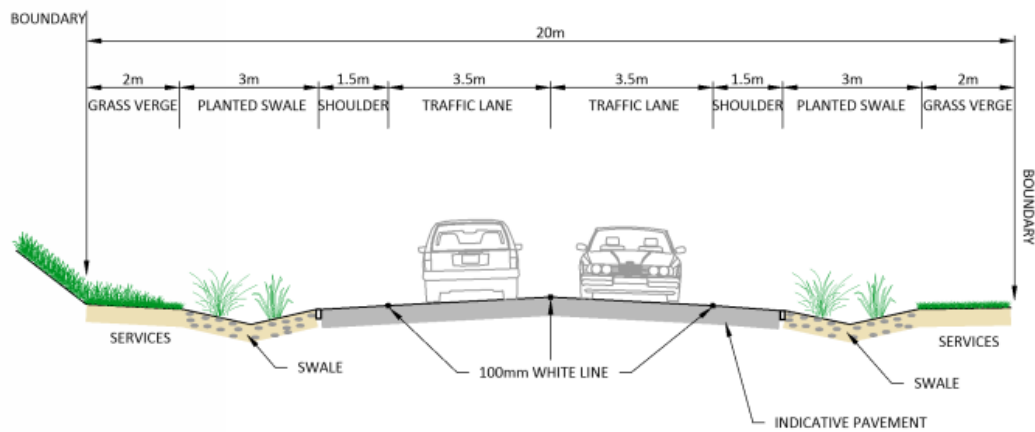
ITA Appendix B proposed upgrade cross-sections drawings 145860-06-0206 to 145860-08-0212 and the extents (as per ITA Figure 17 below). Amendments to shoulder widths are needed on some of the cross-sections and are shown in red text boxes.

Figure No. 17: Proposed Speed Environment

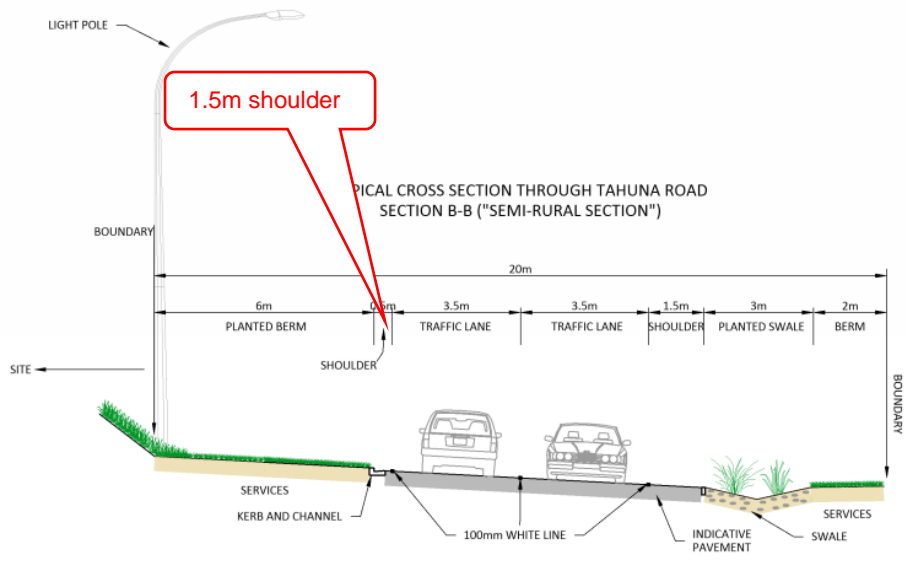


Tahuna Road ("rural section" A-A BBO drawing 145860-08-0206 Rev B) east of the Access 2 (Tahuna roundabout) to the eastern extent of the OSP (no change needed).

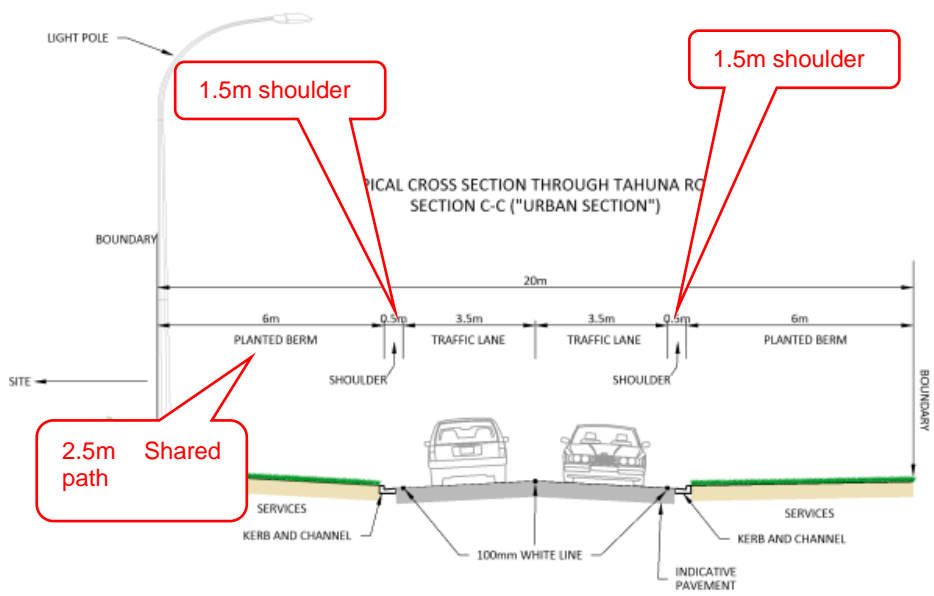
TYPICAL CROSS SECTION THROUGH TAHUNA ROAD SECTION A-A ("RURAL SECTION")



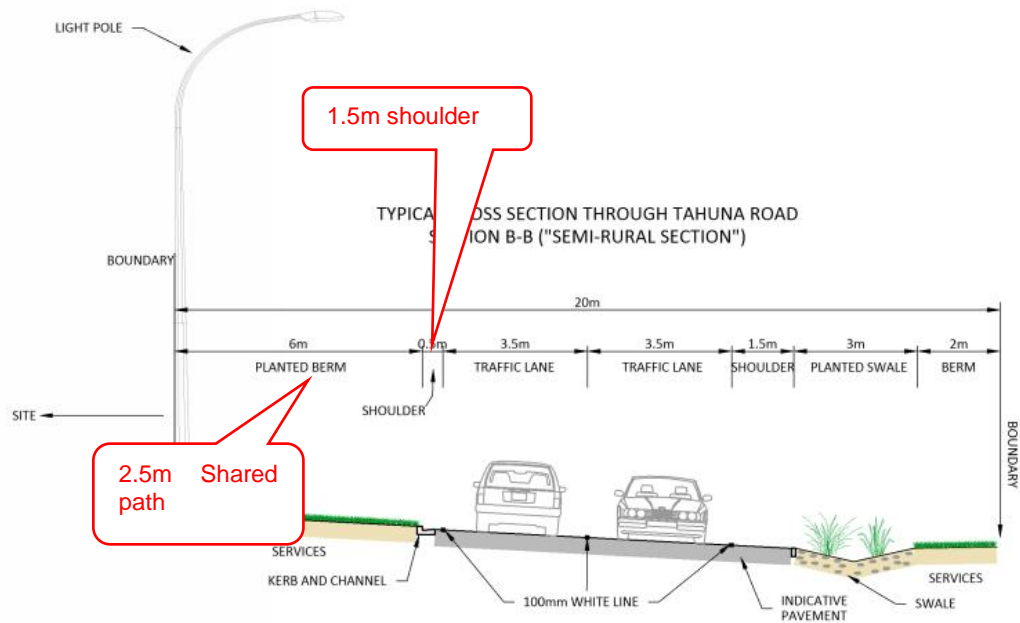
Tahuna Road ("semi-rural section", B-B, BBO Drawing 145860-08-207 Rev B) between Access 1 and Access 2 should include 1.5m shoulders.



Tahuna Road ("urban section" C-C, BBO drawing 145860-08-0208 Rev B) between the Lumsden/Tahuna roundabout and Access 1 should include 1.5m shoulders to facilitate cyclists on-road and a shared path in the northern berm (consistent with extent shown on Business Area Structure Plan).

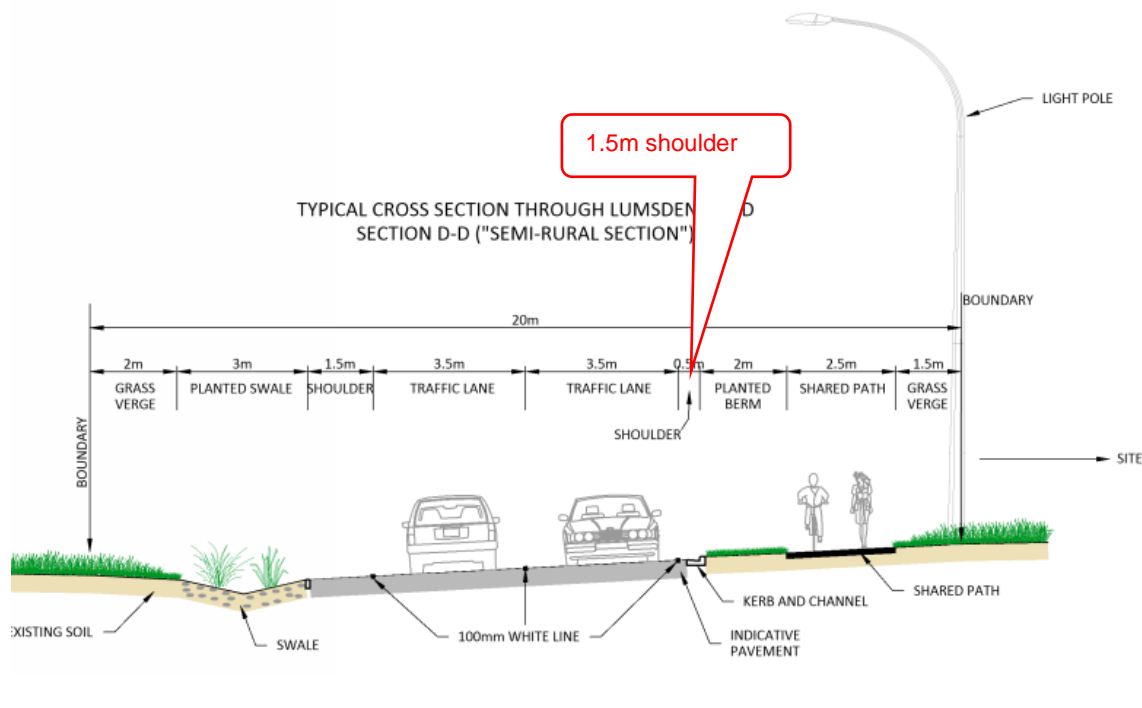


Tahuna Road ("semi-rural" section, B-B, BBO drawing 145860-08-0207 Rev B) between Access 1 and Access 2 should include 1.5m shoulder on northern side to facilitate cyclists on-road with the shared path along the northern berm for around half the length (consistent with extent shown on Business Area Structure Plan).

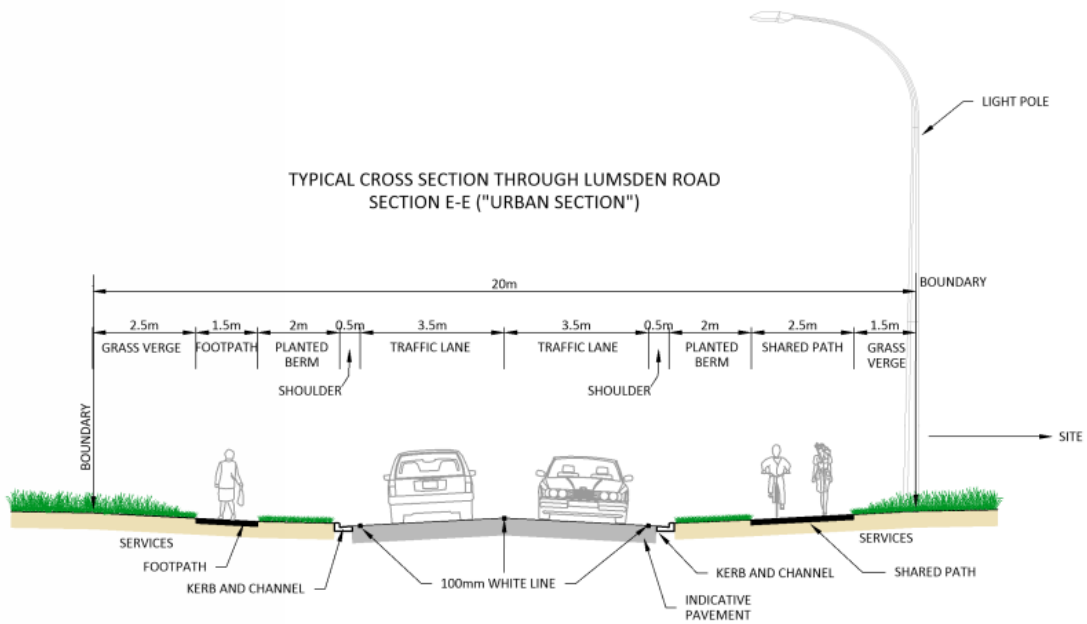


Lumsden Road ("semi-rural" section, D-D, BBO drawing 14580-08-0209 Rev B) between Tahuna Road and Access 4 should include 1.5m shoulder on the eastern side to facilitate cyclists on-road with the shared path along the eastern berm.

There is an existing drain on the western side that may need to be piped and should be considered at detailed design.



Lumsden Road ("urban" section, E-E, BBO drawing 145860-08-0210 Rev B) between Access 4 and the Factory Access A (where there are existing residential properties on the western side) includes footpath on the western side and the shared path along the eastern side should connect to the Factory Access. (No changes needed).



Lumsden Road "rural section", F-F, BBO drawing 145860-08-211 Rev B north of the Factory Access A. (no change needed).

