

Environmental Protection Authority
Expert Consenting Panel
Drury Metropolitan Centre Consolidated Stages 1 and 2

21 October 2025

Dear Panel

DRURY METROPOLITAN CENTRE CONSOLIDATED STAGES 1 AND 2 –TRAFFIC PEER REVIEW

Further to your recent instruction, I have reviewed the traffic / transport engineering aspects of the Drury Metropolitan Centre Consolidated Stages 1 and 2 (the Project) relating to the Fast-track Approvals Act 2024. I note this review provides an update to our previous preliminary review.

1 INTRODUCTION

As noted above I have undertaken a traffic / transportation review of the Drury Metropolitan Centre Consolidated Stages 1 and 2 (the application). I have reviewed the application material including:

- Appendix 16: Integrated transport assessment and design (ITA) as part of the substantive application;
- the Auckland Council (including Auckland Transport) and New Zealand Transport Agency Waka Kotahi (NZTA) comments received;
- the applicant's response to these comments;
- the response to Panel questions especially Attachment 4 - Traffic Response; and
- further responses following expert caucusing.

I also attended the expert conferencing held on 3 October 2025 for the topic of Transportation and was part author of the Joint Witness Statement (JWS) also dated 3 October 2025.

I have not repeated details of the application but rather concentrated on the key issues and in particular any outstanding issues / matters of contention in the JWS. For simplicity I have ordered the issues in the same way as the JWS.

2 PROPOSAL

The development will consist of the construction of various dwellings, retail stores, commercial buildings, visitor accommodation and community activities with ancillary car parking; bulk earthworks; the construction of and roading infrastructure to service the project.

As part of the original three plan changes, a 'Threshold for Subdivision and Development' table ("trigger table") was included in the respective precinct provisions outlining the specific transport upgrades required to support the different activities.

Although the proposed development timing will align with the Development / Infrastructure Sequencing Table (in terms of traffic generation), it will not align with the Thresholds for Development and Subdivision Table (Table I450.6.2.1) within the precinct provisions. As such, departing from Rows (a) to (c) of the Thresholds for Development and Subdivision table represents a non-complying consent.

From our review the key changes include:

- Changes in mix of land-use
- Changes to reflect the ultimate Waihoehoe Ultimate Upgrade is now expected to commence construction in late 2025 / early 2026 and is to be undertaken by Auckland Transport. This removes the need for the interim upgrade of this project
- NZTA six-laning project and Drury rail station is currently under construction
- Delaying the construction of the SH1 direct connection (SH1DC) from being required at 2,000 vph to the 3,800 vph threshold.

3 KEY ISSUES

3.1 WAIHOEHOE ROAD / GREAT SOUTH ROAD INTERSECTION DESIGN

As noted in the JWS, it has become apparent through the application process that there is a new design for the Waihoehoe Road / Great South Road (GSR) intersection being designed by AT / NZTA (AT/NZTA design). This intersection is less efficient / has less capacity than that in Council's transport model for the purpose of Plan Change 48 and the Waihoehoe Road / GSR roading designations (Plan Change design), and thus the current application original modelling.

There is some disagreement regarding which design should be used in the subsequent modelling in the current application. Essentially the applicant considers the Plan Change design should be used while AT considers the AT/NZTA design should be used.

As noted in the JWS (3.1.6) this disagreement has now become redundant as the applicant has suggested a proposed solution to introduce a new condition requiring the NZTA/AT intersection to be upgraded to include additional and longer approach lanes in accordance with the JWS diagram (Attachment A – pp. 35 - 36) which will essentially match the Plan Change design after an additional threshold has been met.

While I consider it is unfortunate that a lesser / lower capacity design is now being proposed, in my opinion the AT/NZTA design is the most appropriate intersection treatment to assess. This is due to it now being relatively certain this will be constructed (I understand it has or is about to be let for construction). As I noted above this is largely irrelevant as the applicant is proposing a trigger to when this intersection requires upgrading.

Of note, AT have plans to upgrade both Great South Road and Norrie Road which would also upgrade the intersection. This is part of the Dury Infrastructure Funding and Financing (DIFF) programme which includes these upgrades at around 2031-2033 and the designations have a 10 and 15 year lapse period (Great South Road 1851 and Norrie Road 1840 respectively).

I note the applicant has provided a post JWS note regarding the "threshold". This has concluded that the SIDRA results for the "pass" condition with and without the SH1 Direct Connection (SH1DC) actually occurred at 2,883vph rather than the 2700vph provided in the expert Caucusing.

In this regard I have reviewed this additional analysis and agree with the applicant that the threshold requiring the AT/ NZTA design to be constructed of the Waihoehoe Road / Great South Road needs to occur at 2883vph. From a review of the additional analysis this equates to 2,196 residential dwellings and 45,000sqm GFA retail. In this regard I note the revised conditions do refer to the 45,000sqm GFA, however they refer to a much lower number of dwellings (400), presumably to allow for other existing consents / other sites in the Precinct.

3.2 LAND-USE MIX AND INTERNALISATION

There have been concerns expressed in comments as to whether the early predominance of retail may reduce assumed internal trip capture versus the Plan Change modelling basis (AT, Council,

NZTA). Further, increasing the ratio of commercial to residential may result in some increase in the proportion of vehicles leaving the Drury Metro Precinct in the PM peak.

From my review, I consider that while the traffic generation “triggers” have been largely retained (apart from the SH1DC), the changes in land-use could change directional split in traffic (eg with more commercial and less residential there might be less vehicles entering the site in the critical PM peak). Information subsequently provided by the applicant in response to the Panels questions, have shown that the directional change as a result of the application will be minimal.

As such, while I agree with AT / NZTA that the application will likely result in some increase in the proportion of vehicles leaving the site in the PM peak, this change / increase will likely be minimal and not noticeably alter the overall result of the modelling.

3.3 STATE HIGHWAY 1 DIRECT CONNECTION ('SH1DC') TIMING

3.3.1 GENERAL

In terms of the transport precinct triggers, the key change proposed is to “move” the State Highway 1 Direct connection (SH1DC) from 2,000vph to 3,800vph trigger (row c to d). This connection essentially allows drivers from the north to enter the subject site directly from the SH1 southbound off ramp (connection leaves the SH1 off-ramp travels over Great South Road and the rail into the site). This connection then potentially removes traffic from both the Drury interchange and the Waihoehoe Road / Great South Road (GSR) intersection.

The following items relate the effect of moving this piece of infrastructure.

3.3.2 NORRIE ROAD ONE-WAY

It has become apparent that in both the original Plan Change modelling and this application, the modelling has assumed the Norrie Road one-way bridge has been replaced with a new two-way road (designation 1840).

I initially questioned this assumption. Subsequently sensitivity testing via manual reassignment has been undertaken by the applicant and this has resulted in negligible effects in terms of assessing the delay / queue length at the Waihoehoe Road / Great South Road. This is primarily due to the reassignment essentially removing traffic from one arm and adding to another arm of the intersection.

AT have questioned this in the JWS as, while they consider the manual reassignment is an appropriate method, the updated sensitivity model may not reflect the real situation because it still has more traffic crossing the Norrie Road one-lane bridge than the bridge has capacity for. While I do partly agree with this comment, in my opinion this will make little difference to the modelling outcome especially in relation to the Waihoehoe Road / Great South Road intersection.

3.3.3 NETWORK PERFORMANCE “CRITERIA”

The modelling and network performance criteria using in assessing “acceptability” of intersection performance has been based on average queue at peak hours should not extend beyond the available storage length to an adjacent intersection. Of note there are more standard criteria for the interpeak periods and public transport on key corridors.

I specifically requested 95th queue lengths of intersections for comparison.

While I consider it unusual to use average queues as a method of determining acceptability of intersection performance, I accept that this was used in all previous Plan Change assessments and these are the appropriate measure in this case.

3.3.4 WAIHOEHOE ROAD / GREAT SOUTH ROAD FORM

I can confirm that the different intersections layouts that have been used in the modelling of the Waihoehoe Road / Great South Road intersection have been resolved with the inclusion of the additional “trigger”; in Section 2.1 above.

3.3.5 2,000VPH AND 3,800VPH TRIGGER LEVELS / SH1DC TIMING

As noted above I consider there to be two potential effects in relation to moving the SH1DC from the 2,000vph to the 3,800vph trigger level. This is the Drury interchange (especially the southbound off-ramp) and the Waihoehoe Road / Great South Road intersection.

In terms of the Drury interchange, I confirm the modelling of the interchange (additionally provided in the JWS) shows that with or without the SH1DC, the queueing (shown to be 95%ile of 260-360m) is well within the storage length of the off-ramp, which from discussions with NZTA, will be approximately 1km in length. This addresses the key issue of concern I had relating to potential queueing / safety from queuing on the off-ramp backing into a free-flowing motorway. NZTA agree with this conclusion.

In terms of the Waihoehoe Road / Great South Road intersection, Section 2.1 above provides commentary and in particular notes the additional trigger now proposed.

AT noted (JWS 3.6.5), that the applicant’s expert has only modelled the Waihoehoe Road / GSR intersection with the Plan Change layout and not with the NZTA/AT layout with the full 3,800vph threshold. While this is correct, this statement is now largely redundant as the applicant has proposed an additional trigger which requires the upgrade of the intersection. As such the NZTA/AT layout will not “occur” above the trigger level of traffic (and therefore does not in my opinion need to be modelled). I note the applicant has provided further commentary that the trigger should be 2,883vph which I agree with.

3.4 PRIVATE ROADS / JOAL DESIGN, VESTING AND ACCESS MANAGEMENT

3.4.1 FLANAGAN ROAD / ROAD 3 PROPOSED ROUNDABOUT

From my initial review, I requested commentary on the Flanagan Road / Road 3 proposed roundabout in relation to pedestrian provision. The applicant has subsequently changed the design of this roundabout in their response on 19 September 2025, which essentially includes a pedestrian refuge with revised tracking. I can confirm I agree with this change.

3.5 WORKING FROM HOME (WFH) ADJUSTMENTS

The application is primarily a commercial development with limited residential activity proposed the adjustments to trip rates for WFH are unlikely to significantly alter the level of traffic generated in this case. I have reviewed the information provided and the further explanation, together with my own investigation, and I find that the reduction in traffic as a result from WFH to be reasonable.

I note in the JWS that AT / NZTA disagree with the extent of the WFH adjustments to the household trip rates, however they have noted that this is not consequential for this application given the small scale of residential development.

3.6 "HIGH TRIP-ATTRACTOR"

Comments from NZTA / AT showed concerns regarding a potential "high trip attractor" retail tenant would affect trip rates and resulting trigger thresholds. The applicant subsequently demonstrated that a high attractor has already been taken into account within the trip rate calculations within the ITA. I agree.

3.7 INTER-PEAK AND PUBLIC TRANSPORT DELAY CONCERNS

Initial concerns have been expressed regarding inter-peak operation and public transport. In this regard I consider the inter-peak periods are not considered critical for the development and Bus lane provisions safeguard PT reliability. I also note there is interpeak assessment achieves appropriate levels of performance

3.8 WEEKEND TESTING

Weekend periods are not generally considered critical for developments in the context of a higher background traffic level. This was also agreed in previous Plan Change.

I did however query this in relation to the southbound-off ramp in particular. The applicant provided information showing that there is a "shallower" and "reduced" Saturday peak in comparison to a PM weekday peak at the SH1 southbound offramp. I consider that this demonstrates it is unlikely that the Saturday peak is critical in this location.

I note there is some disagreement from AT in this regard as outlined in the JWS. In this regard:

- I consider most of the traffic in the area on Saturday to be discretionary (eg shopping) and thus if congestion increases shoppers in particular may change their travel mode / time etc;
- The information provided by the applicant shows the background traffic in the area to be much lower on a Saturday vs PM peak (eg off-ramp being 1,500 vph on a Weekday PM peak vs 1,000 vph on Saturday).
- Typical shopping trip rates are higher on Saturday (15-20%) than a PM peak. However, I consider this will be off-set by the lower levels of background traffic.

3.9 UNCOMMITTED / UNFUNDED UPGRADES

There have been concerns expressed that the latter stages of the application rely on currently uncommitted and unfunded infrastructure. I consider that apart from the SH1DC the same thresholds used in the plan-change modelling remain intact and only the land-use mix under those caps have been updated. I do however note the discussion re the AT/NZTA design of Waihoehoe Road / Great South Road in Section 3.1. This has however been resolved with the proposed additional threshold condition.

3.10 VEHICLE CROSSINGS AND THE FOURTH-LEG CONNECTION AT THE ROAD 6 / ROAD 25 SIGNALISED INTERSECTION

There are two outstanding issues regarding this topic being:

- Design of driveways accommodating larger trucks. Auckland Council engineer considers the revised design partly addresses his concerns however the mountable kerb proposed for the wide vehicle crossings should be reduced to provide for mountable kerbs only where the trucks track across and not in the area needed for light vehicle tracking. I agree, however I consider this would likely be addressed at detailed design / EPA approval.

- AT consider the Road 6 stub should be vested as a public road as it is shown as a collector road on the Precinct plan and will need to be extended through adjacent private land in future. The applicant considers this can be dealt with whilst retaining private ownership of the stub road. I do not consider this strictly to be a traffic engineering issue, however in my experience stub roads are typically vested to avoid issues with future development.

3.11 ADDITIONAL PEDESTRIAN CROSSING ROAD 6

Initial concerns were raised regarding a pedestrian crossing on Road 6. This has subsequently been added to the plans in the applicant's response and is considered appropriate.

3.12 LED SCREENS

There has been some discussion regarding the position / operation of the three LCD screens proposed. I note the applicant has updated the conditions relating to the LCD screen following a review of conditions from NZTA and AT.

I note NZTA consider there is no concern with the LCD sign however prefer that it be controlled using the standard NZTA set of conditions.

Overall, I have no major concerns with the signage.

3.13 WASTE MANAGEMENT AND COLLECTION

There is concern regarding the detail of storage areas / waste management. The applicant has advised that the level of detail in terms of waste storage has not been finalised at this stage, and it is proposed to be addressed through conditions.

I (together with Auckland Council) consider a condition(s) be expanded to provide a waste management and loading management plan. From a traffic engineering point of view this should detail all aspects of the waste storage facility and then show vehicle tracking for waste management and heavy vehicles. This has been included in the revised conditions.

An issue regarding tracking for articulated truck movements at Road 25 / Road 13 has been resolved.

3.14 EXTENDING ROAD 6 FURTHER EAST

See item 3.10 above

3.15 ROAD CONNECTION BETWEEN THE FLANAGAN RD / ROAD 3 INTERSECTION TO THE DRURY TRAIN STATION

There has been some discussion regarding the upgrade of Flanagan Road north of Road 3 roundabout linking to the Drury train station.

It appears on the information provided by Kiwi Property that a portion of the road will be upgraded but only upgraded on one side. From the information available from Kiwirail relating to the Drury Centre train station it appears that the proposed carriageway extents meet. These designs are shown in Figure 1 and 2 below.

Figure 1: Flanagan Road upgrade (Kiwi property – s67 response)

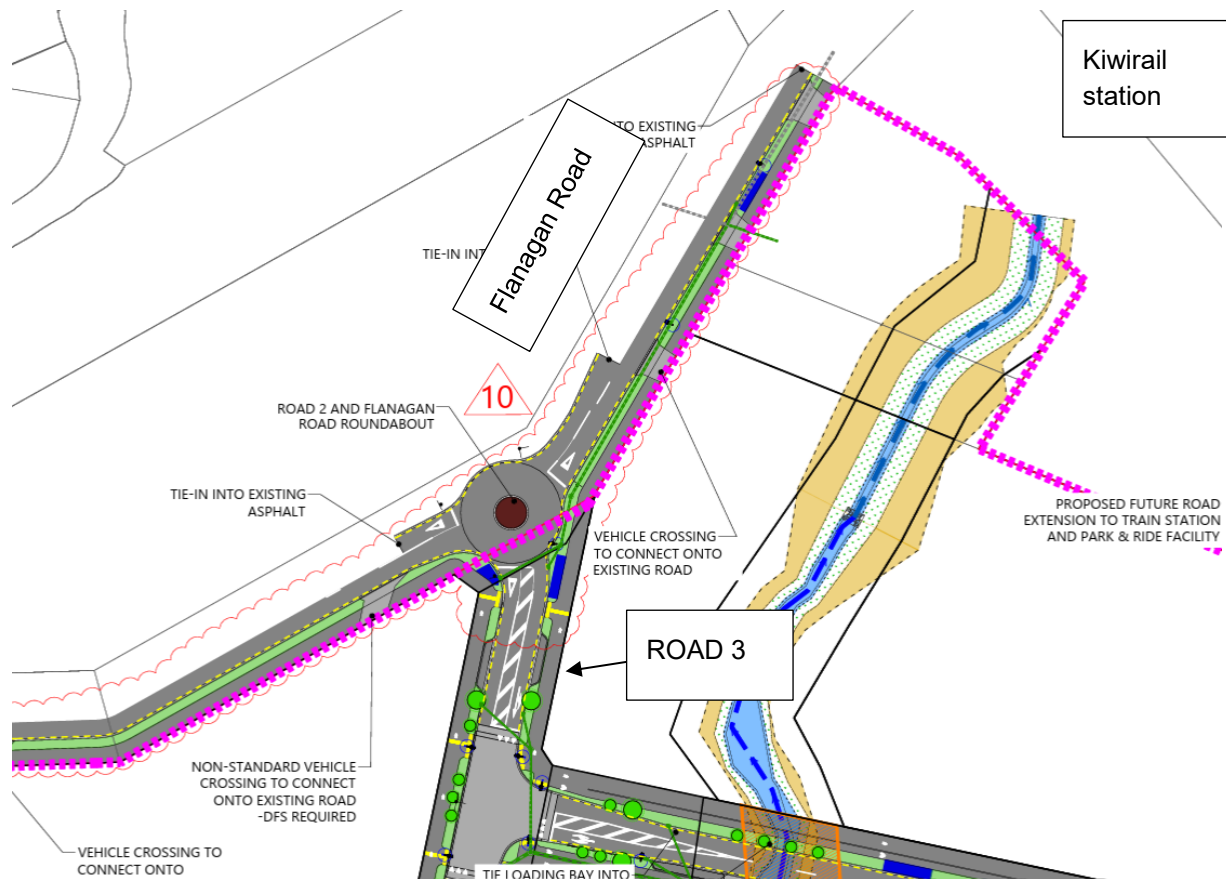
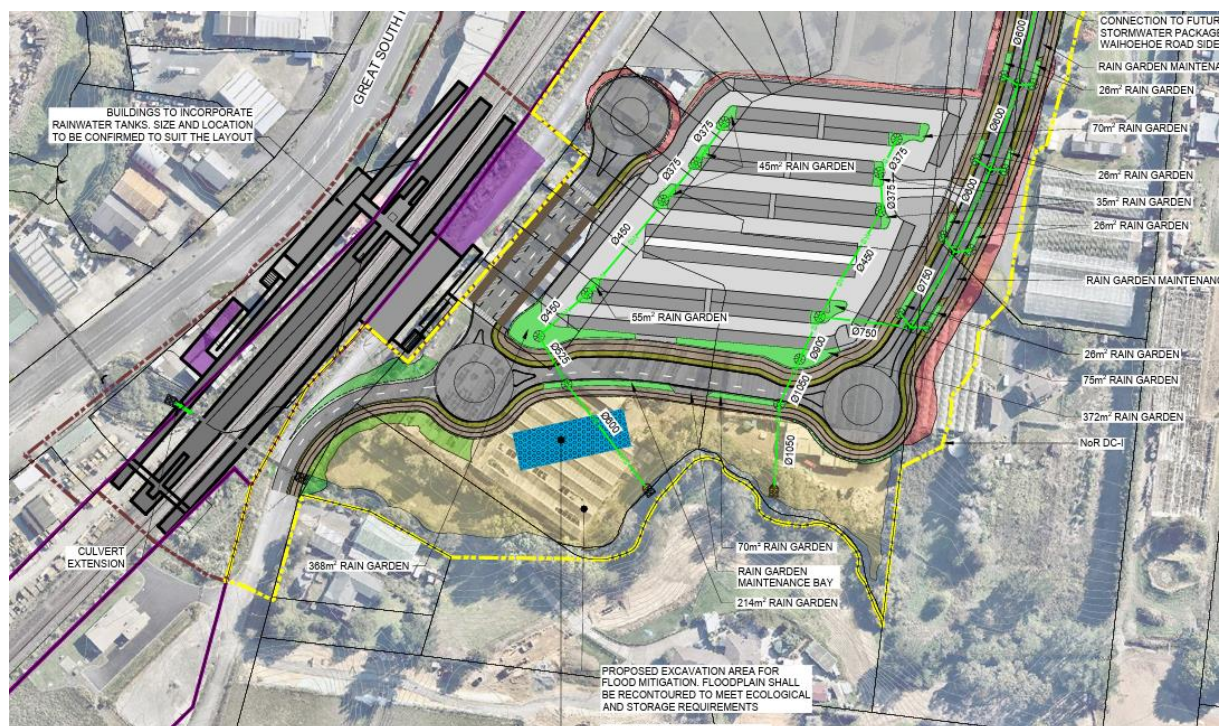
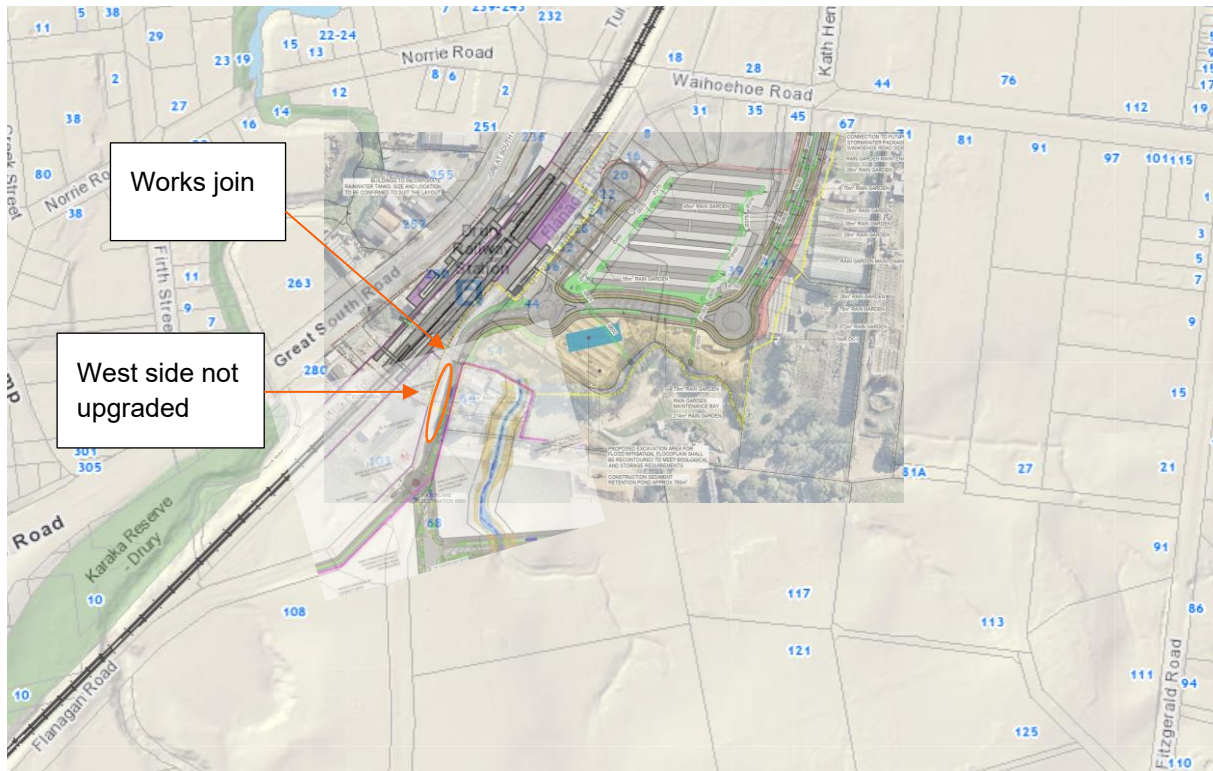


Figure 2: Flanagan Road upgrade (Kiwirail station – fast track application)



I have subsequently attempted to join both drawings together in Figure 3 below. It appears that both works meet each other however as currently proposed there would be a short section (approximately 150m long) where only one side of the road will be upgraded (with the remainder being upgraded both sides).

Figure 3: Flanagan Road upgrade (combined)



From my point of view:

- The applicant is joining the footpath to the Rail station
- The applicant has joined Flanagan Road to the rail station
- Typically, as greenfield development progresses only the subject side of the road frontage is constructed (as proposed), with the adjacent side left to a future developer.
- In this case I consider it unlikely that the western side will be urbanised by another developer given it appears to be a Watercare asset and thus re-development is unlikely.

Overall, it is my opinion that both sides of the road along Flanagan Road should be upgraded by the application. This should only be the carriageway formation (ie not kerb an channel / footpath on the western side). I note the applicant has now proposed a revised condition and provided a revised plan that shows this full upgrade.

3.16 FRONTAGE UPGRADES ON FLANAGAN RD.

See 3.15 above

3.17 STAGING – PROPOSED CONDITION 3

This is not considered a traffic engineering issue

3.18 PRIVATE ROADS AND BUSES

I note AT prefers all collector roads and bus routes to be public roads. However, as a minimum there should be appropriate conditions providing for passenger transport requirements over time. The applicant support using conditions to address this matter so that the landowner can manage the asset.

I consider conditions for to address this matter can be appropriate and the applicant has now provided a condition to this effect (89F).

3.19 ADDITIONAL ITEMS RAISED BY CF

These are not considered a traffic engineering issue

4 CONCLUSION

From a review of the documentation provided including the additional responses and modelling as well as a review of comments received, I consider the proposal is acceptable from a transportation / traffic engineering point of view. The key aspects include:

- i. The proposed development timing will generally align with the Development / Infrastructure Sequencing Table, however it will not align with the Thresholds for Development and Subdivision Table (Table I450.6.2.1) within the precinct provisions;
- ii. The most noticeable change is the delaying the construction of the SH1 direct connection (SH1DC) from being required at 2,000 vph to 3,800 vph threshold;
- iii. The intersection being designed by AT / NZTA for the Waihoehoe Road / Great South Road (GSR) is less efficient / has less capacity than that in Council's transport model (and thus applicants current planning);
- iv. The applicant has now suggested a new condition requiring the NZTA/AT intersection to be upgraded to include additional and longer approach lanes in accordance with the JWS diagram which will essentially match the Plan Change design after the threshold of 2,833vph has been met. I consider this to be appropriate;
- v. The modelling has shown that delaying the SH1DC to the 3,800vph threshold does not materially change the operation of the SH1 southbound off-ramp and will not lead to any safety concerns;
- vi. The majority of the internal design aspects have been agreed between experts.
- vii. There are additional / upgraded conditions that I consider appropriate regarding loading / waste management and LCD screens
- viii. There is a small section of Flanagan Road (Figure 3) that will remain in existing formation when both the Kiwirail and current application construct their sections. This is considered undesirable and should be upgraded as part of the application (carriageway only and not kerb / channel on the western side). This has now been conditioned in the applicant latest condition set.

If you have any queries, please do not hesitate to contact me.

Yours sincerely

Commute Transportation Consultants



Leo Hills

Director

leo@commute.kiwi