Auranga B2

Proposed private plan change

Additional modelling assumptions

7 July 2021

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1 INTRODUCTION AND PURPOSE

Commute Transportation Consultants (Commute) has been engaged to provide transport advice on a proposed Plan Change in Drury, Auckland. The proposal intends to rezone approximately 33.65Ha of land (known as Auranga B2), located directly south of the Drury 1 Precinct, from 'Future Urban Zone ("FUZ") to a mixture of Residential and Business zonings.

Following expert witness conferencing on 2 July 2021, it was agreed that additional modelling and an updated ITA was required. This includes the updated assumptions and trip generation assessment.

2 PLAN CHANGE DETAILS

The site is zoned 'Future Urban Zone' under the Auckland Unitary Plan – Operative in Part (Unitary Plan) and it is proposed to re-zone the land as follows:

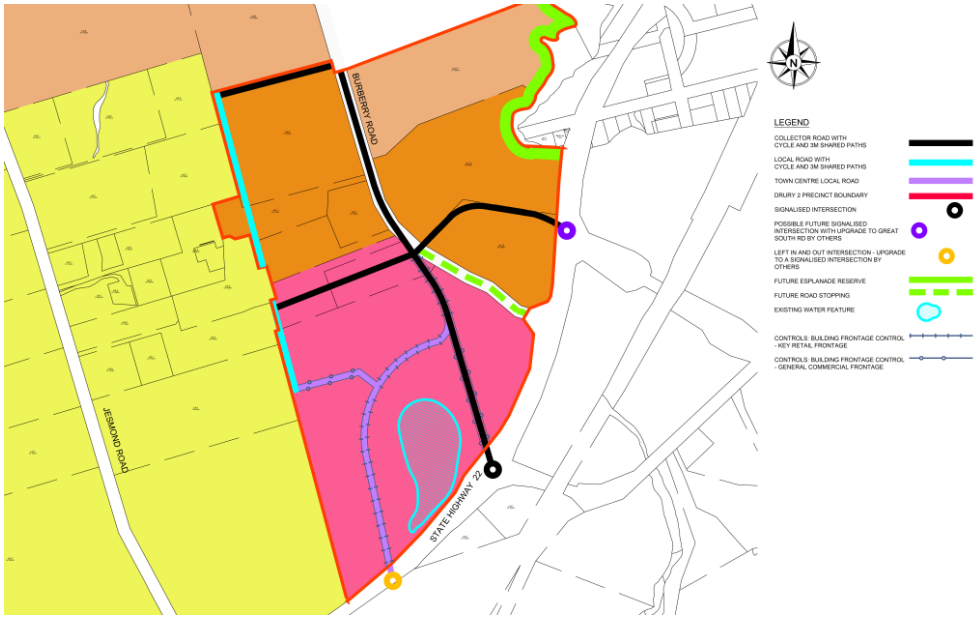
- Residential Mixed Housing Urban – 4.61 ha
- Residential Terrace Housing and Apartment Building zone – 13.75 ha
- Business Town centre zone – 15.29 ha

The ITA assesses the likely number of households and jobs within both the Auranga B2 PPC area and the remaining land in the wider area based on some high-level rates. As the rates adopted are high level and take into account loss to developable area as a result of small centres (such as the neighbourhood centre) and parks, these areas have been assessed as residential land as opposed to split out and considered separately. Figure 2-1 outlines the assumed dwellings and jobs in each area for zone 561 (part of Drury west).

Table 2-1: Summary of number of households and jobs predicted with Zone 561

Zone 561 areas	Number of households	Number of jobs
Drury 1 Precinct	2650	502 jobs
Auranga B2	921	667 jobs
Other land	870	460 jobs
Total	4,441 households	1629 jobs
Existing Scenario i11.5 model (2048+)	**3,819 households**	**840 jobs**

Figure 2-1: Proposed layout (indicative)



3 ASSUMPTIONS

3.1 TIMING OF DEVELOPMENT AND LAND USE DETAILS

The Auranga B2 development is anticipated to be developed over time. Table 3-1 sets out the anticipated schedule of development for both the business and residential land. The table represents a likely development schedule anticipated by the client based on market feedback.

Table 3-1: Anticipated Land use development schedule

Activity	Units	2028	2038 (cumulative)	2048 (cumulative)
Residential - Apartments	Dwellings	50	250	500
Residential - MHU	Dwellings	100	350	400
Retail / food beverage	GFA	3500	7000	8000
Discount Department store	GFA	0	3500	3500
Commercial services	GFA	1500	3000	3500
Office	GFA	0	2000	6000
Medical	GFA	500	1500	2000
Supermarket	GFA	3500	3500	6000

3.2 TRIP RATES

Trip rates for the various activities onsite have been determined through consideration of trip rate literature and consideration of the structure plan modelling in this area. Table 3-2 sets out a comparison of trip rates for the activities onsite with adopted rates for the purpose of this assessment.

Table 3-2: Trip rate comparison with adopted rates

	Typical trip rates							
Activity	**RTA trip rate**		**NZTA 453 report**		**TDB trip rates**		**AM adopted trip rate**	**PM adopted trip rate**
Residential – Apartments - TCZ	0.45	0.4-0.5 trips per dwelling in peak hour	0.8	0.8 trips per dwelling in peak hour for medium density dwellings			0.45	0.45
Residential – MHU / THAB	0.63	0.5-0.65 trips per 100 sqm in the peak hour	0.8	0.8 trips per dwelling in peak hour for medium density dwellings			0.63	0.63
Retail	12.5	16 trips per 100 sqm in peak hour	18.9*	18.9 trips per 100 sqm in peak hour	15.5	15.5 trips per 100 sqm in peak hour	8	13
Discount Department Store	12.5	16 trips per 100 sqm in peak hour	17.2*	17.2 trips per 100 sqm in peak hour	15.5	15.5 trips per 100 sqm in peak hour	8	13
Commercial Service / office	2	2 trips per 100 sqm in peak hour	2.5	2.5 trips per 100 sqm in peak hour	1.6	1.6 trips per 100 sqm in peak hour (excluding banks)	2	2
Medical	15	15 trips per 100 sqm in peak hour	14.2	14.2 trips per 100 sqm in peak hour	9.3	9.3 trips per 100 sqm in peak hour	15	15
Supermarket	16.3	16.3 trips per 100 sqm in peak hour	17.9	17.9 trips per 100 sqm in peak hour	14.6	14.6 trips per 100 sqm in peak hour	8	15

*-Based on 85% percentiles values.

3.3 REDUCTIONS

These single land use trip estimates tend to overestimate the trip generation behaviour for mixed-use developments. Given the nature of the site, scale of the area, proximity to the strategic network and variety of activities provided onsite, reductions in the trips generated by the individual activities have been applied based on the following:

- **Internal trips** – Trips which originate and end within the development site which do not access the external road network. i.e. A trip between a residential unit and super market
- **Multipurpose trips** - These are people that visit more than one unit / entity within the site without getting in their car and travelling back onto SH22.
- **Pass by trips** - traffic already travelling on SH22 which diverts into the site. This is not calculated as an overall reduction in trips for the land use, rather a reduction in additional SH22 traffic either side of the development.
- **Public transport reduction –** Typical trip rates from the RTA and alike consider a nominal amount of Public Transport use within a trip rate. In the case of Auranga, a higher proportion of PT use is expected given network conditions and the proximity of the site to the strategic PT network.

Reductions for the above factors have been applied to trip rates in both AM and PM peak periods at varying levels depending on the nature of the activity. In addition, rates assumed are considered to vary over time (i.e., higher PT mode share in 2038).

Assumed reductions are included in Table 3-3, Table 3-4 and below.

Table 3-3: Assumed trip rates and reductions for 2028

								AM		PM	
Activity	GFA / Number of dwellings	AM Adopted trip rate	PM Adopted trip rate	Mode share reduction	Internal capture	Multipurpose trip reduction	Pass by	Trips inbound	Trips outbound	Trips inbound	Trips outbound
Residential - Apartments	50	0.45	0.45	20%	20%	0%	0%	20%	80%	80%	20%
Residential - MHU	100	0.63	0.63	10%	20%	0%	0%	20%	80%	80%	20%
Retail	3500	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Discount Department	0	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Commercial S	3000	2	2	20%	30%	0%	5%	90%	10%	10%	90%
Office	0	2	2	20%	30%	0%	5%	90%	10%	10%	90%
Medical	500	15	15	5%	5%	0%	0%	65%	35%	50%	50%
Supermarket	3500	8	15	10%	40%	10%	30%	55%	45%	50%	50%

Table 3-4: Assumed trip rates and reductions for 2038

								AM		PM	
Activity	GFA / Number of dwellings	AM Adopted trip rate	PM Adopted trip rate	Mode share reduction	Internal capture	Multipurpose trip reduction	Pass by	Trips inbound	Trips outbound	Trips inbound	Trips outbound
Residential - Apartments	250	0.45	0.45	30%	20%	0%	0%	20%	80%	80%	20%
Residential - MHU	350	0.63	0.63	20%	20%	0%	0%	20%	80%	80%	20%
Retail	7000	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Discount Departm	3500	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Commercial S	3000	2	2	30%	30%	0%	5%	90%	10%	10%	90%
Office	2000	2	2	30%	30%	0%	5%	90%	10%	10%	90%
Medical	1500	15	15	10%	5%	0%	0%	65%	35%	50%	50%
Supermarket	3500	8	15	10%	40%	10%	30%	55%	45%	50%	50%

Table 3-5: Assumed trip rates and reductions for 2048

								AM		PM	
Activity	GFA / Number of dwellings	AM Adopted trip rate	PM Adopted trip rate	Mode share reduction	Internal capture	Multipurpose trip reduction	Pass by	Trips inbound	Trips outbound	Trips inbound	Trips outbound
Residential - Apartments	500	0.45	0.45	30%	20%	0%	0%	20%	80%	80%	20%
Residential - MHU	400	0.63	0.63	20%	20%	0%	0%	20%	80%	80%	20%
Retail	8000	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Discount Departmer	3500	8	12.5	10%	40%	10%	30%	65%	35%	50%	50%
Commercial S	3500	2	2	30%	30%	0%	5%	90%	10%	10%	90%
Office	6000	2	2	30%	30%	0%	5%	90%	10%	10%	90%
Medical	2000	15	15	10%	5%	0%	0%	65%	35%	50%	50%
Supermarket	6000	8	15	10%	40%	10%	30%	55%	45%	50%	50%

3.4 TRIP DISTRIBUTION

The assumed trip generation for the development onsite is set out in The trip distribution assumes a connection of Burberry Road to the North (through Auranga A) but does not assume a connection to the west to Jesmond Road as this is outside the control of the client and represents a worst case scenario.

In 2028, only the McPherson Road connection and the left in left out connection to SH22 at the centre is anticipated as shown in Figure 3-2. In 2038 and 2048, connection is anticipated to both Gt South Road, McPherson and the town centre road.

Figure 3-1: Trip distribution 2028

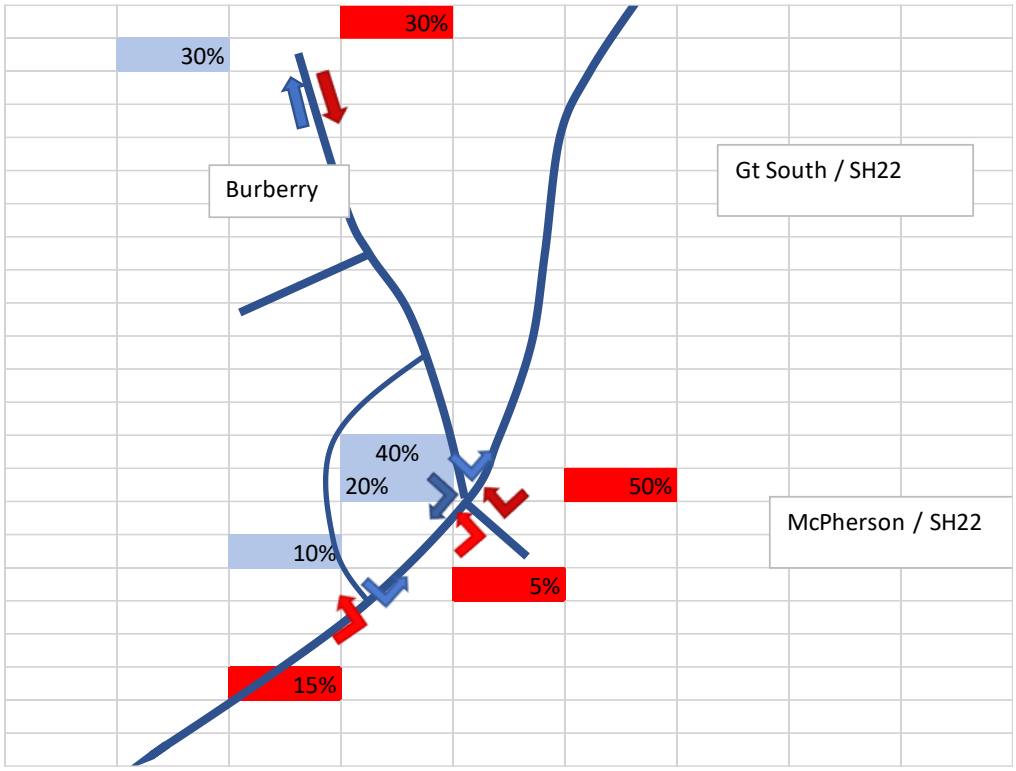
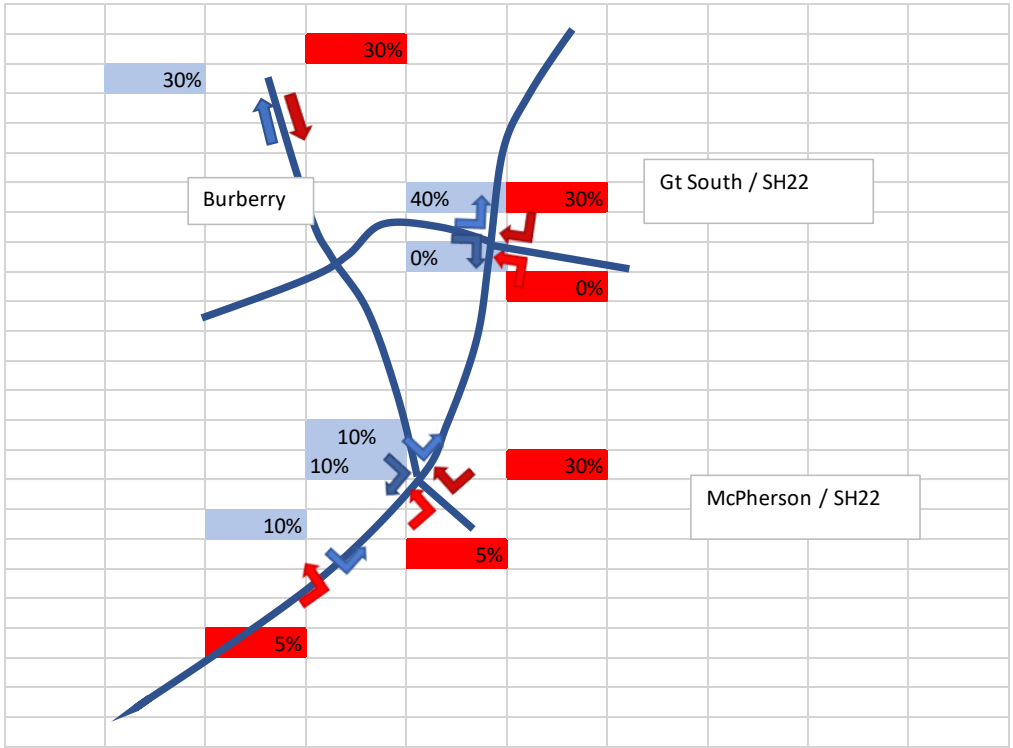


Figure 3-2: Trip distribution 2038 onwards



4 MODELLING APPROACH

In order to assess traffic effects of the PPC, future forecasts for the Drury area have been used to assess development traffic on the network.

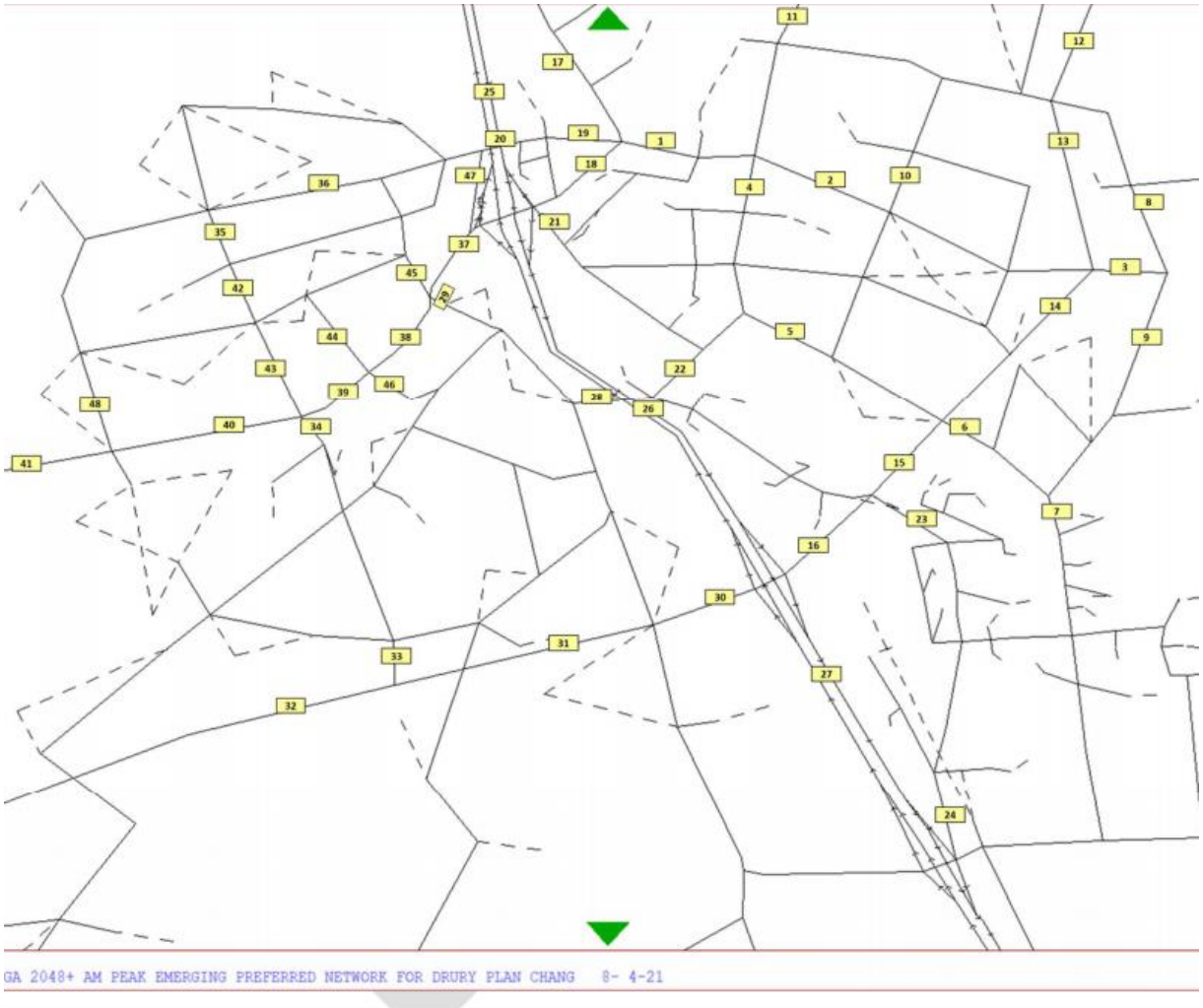
The Drury Infrastructure Funding and Financing (DIFF) work has developed a series of model runs to inform ongoing work in the area related to funding of the transport network. Model runs from this work have been used to inform demands on the surrounding transport network.

SIDRA models will be developed for the following intersection:

- SH22 / Main road
- SH22 / McPherson Road / Burberry realignment
- SH22 / Gt South Road / New Road

The Network of the DIFF model is shown in Figure 4-1.

Figure 4-1: DIFF Saturn model In the Drury area (2048 network)



4.1 DIFF MODELLING SCENARIOS

The DIFF work considered a number of scenarios with various assumptions around infrastructure timing. The DIFF modelling assumes FUZ development in both Drury West (Auranga and Waipupuke) and in Drury East (Kiwi and FH). The following scenarios have been selected to form the basis of this assessment:

- 2028 – Scenario D – Removes the Mill Road project south of Papakura, but includes Maketu-Waihoehoe Road internal collector Roads and Brookfield-Quarry Link (BQL) and Drury-Kiwi ramp access.
- 2038 – Scenario B – Includes Mill Road, P2DS projects, Pukekohe Expressway and all of the above.
- 2048 – Scenario D – Includes Mill Road, P2DS, Pukekohe Expressway, Pukekohe Expressway and all of above.

In the context of the Auranga PPC, the inclusion of Waihoehoe collector roads, BQL and the Kiwi ramp access is considered to reduce rerouting of traffic from Drury East to the West as a result of a congested network from the removal of Mill Road.

flow
TRANSPORTATION SPECIALISTS

technical note

PROJECT	**PPC51: AURANGA B2 PLAN CHANGE**
SUBJECT	**JOINT WITNESS STATEMENT: TRAFFIC MODELLING FEEDBACK**
TO	**JULIE MCKEE (COUNCIL HEARINGS MANAGER)**
FROM	MAT COLLINS
REVIEWED BY	TERRY CHURCH
DATE	12 JULY 2021

Dear Julie

Flow Transportation Specialists Limited (Flow) are acting for Auckland Council (regulator) for Private Plan Change 51 (PPC51).

As part of the recent Joint Witness Statement (dated 2 July 2021), Leo Hills from Commute (acting for the applicant) was tasked with providing updated trip generation assumptions. These assumptions were provided on 7 July 2021 and are attached for reference.

This technical note summarises my feedback to the trip generation assumption (the report).

1 TRIP GENERATION RATES

Section 3.2 of the report identifies trip generation rates for various land use activities.

In my view

- The RTA trip rates given for residential land uses are suitable for areas with good access to public transport. Therefore, it is only appropriate to assume these rates for development that occurs after the Drury West Train Station is operational and is well connected to PPC51.
- In my view the following trip rates should be used for residential activities
    - 0.8 to 0.85 veh/hr/dwelling for any residential development that occurs prior to the Drury West Train Station being operational, and being connected to PPC51 with quality walking, cycling and local bus links
    - 0.45 veh/hr/dwelling for apartments and 0.65 veh/hr/dwelling for other residential typologies, after the Drury West Train Station is operational, and is connected to PPC51 with quality walking, cycling and local bus links
- The assumed retail and supermarket trip rates are lower than those indicated in all references provided. I consider that the RTA rates are more appropriate to use in the PM peak.

2 REDUCTIONS

Section 3.3 of the report identifies trip reduction factors for various land use activities.

In my view

- The application of a "mode share reduction" factor is questionable when the trip generation rates that have been adopted already assume a degree of public transport this. This doubles up on any mode share reduction already included as part of the trip generation rates (as discussed in Section 1 above). I consider that this factor should be removed from residential land use activities.
- "Mode share reduction" factor should only be applied to other land use activities after the Drury West Train Station is operational, and is connected to PPC51 with quality walking, cycling and local bus links
- I consider that the "internal capture" factor for residential activities may be overly optimistic. Appling a 20% reduction assumes that 20% of residents will not be commuting outside of PPC51 during peak periods. I suggest that the sensitivity of this assumption is tested
- I consider that the "internal capture" factor for retail and supermarket activity may be overly optimistic. Appling a 40% reduction assumes that 40% of all trips will come from within PPC51. However, there is the potential that a supermarket and retail activities could serve a much wider catchment, for example there are no other supermarkets between PPC51 and Pukekohe. I suggest that the sensitivity of this assumption is tested
- I consider that the "pass by" factor is appropriate, however I emphasise that these trips should not be removed from the network. The "pass by" factor should inform turning movements at intersections within the modelling, but not be used to reduce the number of trips generated by the land use activity.

3 TRIP DISTRIBUTIONS

Section 3.4 of the report identifies trip distributions.

In my view

- The 2028 scenario should include an assessment of affects at the SH22/Great South Road intersection, this is not shown on Figure 3-1
- All scenarios should assume that a proportion of trips will travel to and from the south east via Great South Road.

4 MY RECOMMENDATIONS

I recommend that

- The following trip rates should be used for residential activities
    - 0.8 to 0.85 veh/hr/dwelling for any residential development that occurs prior to the Drury West Train Station being operational, and being connected to PPC51 with quality walking, cycling and local bus links

    - 0.45 veh/hr/dwelling for apartments and 0.65 veh/hr/dwelling for other residential typologies, after the Drury West Train Station is operational, and is connected to PPC51 with quality walking, cycling and local bus links

- RTA rates are used for retail and supermarket activities
- The "mode share reduction" factor should be removed from residential land use activities
- The "mode share reduction" factor should only be applied to other land use activities after the Drury West Train Station is operational, and is connected to PPC51 with quality walking, cycling and local bus links
- The sensitivity of the "internal capture" assumption is tested for residential, retail and supermarket land uses
- The "pass by" factor is used to inform turning movements at intersections within the modelling, but not be used to reduce the number of trips generated by the land use activity
- The 2028 scenario include an assessment of affects at the SH22/Great South Road intersection
- All modelling scenarios assume that a proportion of trips will travel to and from the south east via Great South Road.

My expectation is that any assumptions in regard to public transport uptake will reflected in updated Precinct provisions.

Reference: P:\ACXX\407 Auranga B2 Plan Change\Reporting\T2A210712 - Modelling assumptions feedback.docx - Mat Collins

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14 July 2021

Julie McKee
Hearings manager, Democract and Engagement Department
Auckland Council
Level 25
Te Wharau o Tamaki - Auckland House
135 Albert Street
Auckland

Dear Ms McKee

Plan Change 51 - Transport Conferencing - Additional Modelling Assumptions

Response on behalf of Waka Kotahi

I have reviewed the Additional Modelling Assumptions, prepared by Commute (dated 7th July) intended to inform the future Integrated Transport Assessment (ITA) in support of Plan Change 51, and comment as follows:

Trip Rates

It is requested that additional information is provided to justify some of the assumptions made particularly with regards to:

- Why NZTA 453 rates have not been used for any of the assessment. It is noted that 8 trips per 100sqm are proposed for Retail, Discount Department Store and the Supermarket for the AM Peak, as opposed to the rates set out within the NZTA 453. NZTA 453 sets out that Retail trip rates are either 16 trips per 100sqm (RTA) or 18.9 trips per 100sqm (NZTA 453). For a discount store, 16 trips per 100sqm (RTA) or 17.2 trips per 100sqm (NZTA 453). For a supermarket 16.3 trips per 100sqm (RTA) or 17.9 trips per 100sqm (NZTA 453). It is also noted that the PM peak trips are lower than the recommended RTA / NZTA rates for the same land uses as above.

Land Use Assumptions

Confirmation is sought as to how the assumed land uses have been arrived at. In particular:

- What is the net developable area assumed for the Town Centre, and how does this relate to the anticipated activities proposed assumed in the model (which are based on market feedback). In this light it is noted that the 2048 cumulative GFA for office and commercial activities represents a combined developed area of 2.9ha (assuming everything is single-storied). Whilst it is appreciated that the net developable area for the Town Centre Zone will be less than the 15.29ha gross area, 2.9ha is still considered low.
- Do the assumptions include residential units within the Town Centre?
- In relation to both points above, we note that a Height Variation Control of 27m is being sought in the Town Centre. How has this height variation been factored into the anticipated land use assumptions?
- Confirmation is also sought as to how the job numbers in Table 2-1 were arrived at, noting that the total jobs is almost double the existing modelled scenario.

Reduction Factors

Justification is sought as to how the proposed reduction factors have been arrived at, and how these are proposed to be given effect to through planning provisions. It is considered that there may be a period of time where there is no funded walking, cycling and public transport facilitating the Plan Change area and connecting the Plan Change area to surrounding walking, cycling and public transport networks (for example new train stations).

- A 20% internal reduction for residential needs to be confirmed and/or justified as it is considered this reduction is counted within the other land use internal trips.
- Mode share reduction is high and needs justification especially given the lack of PT in the area and the distance to the train station.
- A 30% reduction for pass-by for the discount department and the retail land uses seems high and needs justification.

Distribution

Justification is sought as how to the assumed distributions have been arrived at. In particular:

- The 2028 model has 20% of trips leaving the site and travelling south. This reduces to 10% in 2038 and onwards. Is there a reason why?
- 2028 has 20% of the trips entering from the south and turning left into the development. From 2038 onwards this reduces to 10%.
- 30% of trips are arriving, and departing, to the north. Can justification for this percentage be explained?

Diff Modelling Scenarios

There is no mention of the assessment of the base scenario, which was agreed at conferencing. This would be 2028, 2038 and 2048 with no improvements to the road network, given most of the road schemes are not funded, these scenarios are considered necessary to be included in any assessment.

Yours faithfully

Geoff Prince,
Associate Director

cc: Leo Hills

From: Prosser, Andrew
To: Prince, Geoff; Julie McKee
Subject: Re: PC51 - Transport conferencing - Additional modelling assumptions
Date: Wednesday, 14 July 2021 11:49:41 AM

Hello Julie,

Just to confirm that I (on behalf of Auckland Transport), have worked through these points raised by Waka Kotahi's specialist and can confirm that their response addresses Auckland Transports concerns/ comments also.

Thanking you
Andrew Prosser

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From: Julie McKee <Julie.McKee@aucklandcouncil.govt.nz>
Sent: Wednesday, July 14, 2021 11:27:00 AM
To: Prince, Geoff <Geoff.Prince@aecom.com>
Cc: Prosser, Andrew <Andrew.Prosser@jacobs.com>; Sukhi Singh <sukhi.singh@babbage.co.nz>; Kathy Wilson <Kathy.Wilson@buddlefindlay.com>
Subject: [EXTERNAL] RE: PC51 - Transport conferencing - Additional modelling assumptions

Thank you Geoff

Julie McKee | Hearings Manager
Democracy and Engagement Department
Ph 09 977 6993 | Extn (46) 6993 | Mobile 0274 909 902
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Visit our website: aucklandcouncil.govt.nz

Championing inclusive democracy and the public voice for the diverse communities of Tāmaki Makaurau

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From: Prince, Geoff <Geoff.Prince@aecom.com>
Sent: Wednesday, 14 July 2021 10:20 AM
To: Julie McKee <Julie.McKee@aucklandcouncil.govt.nz>
Cc: Prosser, Andrew <Andrew.Prosser@jacobs.com>; Sukhi Singh <sukhi.singh@babbage.co.nz>; Kathy Wilson <Kathy.Wilson@buddlefindlay.com>
Subject: RE: PC51 - Transport conferencing - Additional modelling assumptions

Good morning Julie

Please find attached my response to the trip generation assessment and assumptions.

Any questions please do not hesitate to contact me.

Thanks

Geoff

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Hearings Manager – Democracy and Engagement Department
Auckland Council,
Level 25, Te Wharau o Tāmaki - Auckland House
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14 July 2021

Attention: Julie McKee

Dear Ms McKee

Plan Change 51 - Additional Modelling Assumptions

As identified in the Joint Witness Statement on Transport matters (2 July 2021) for the proposed Plan Change 51 (PC51), or Auranga B2 development, a 'Additional modelling assumptions' report[1] has been prepared by Commute Transportation Consultants (Commute), on behalf of the applicant.

The following provides feedback from Beca Limited (Beca), who are providing transport advice to Drury South Limited in relation to its submission on PC51, under the identified report headings:

- Assumptions (Section 3), including:
  - Timing of development and land use details
  - Trip rates
  - Reductions
  - Trip distribution
- Modelling Approach (Section 4).

We have no specific comments relating to the Plan change details (Section 2).

Assumptions

Timing and land use

Table 3-1 identifies a cumulative total of 900 dwellings within the Auranga B2 development area occurring by 2048 within the Residential – Apartments and Mixed Housing Urban (MHU) activity areas. This appears to be aligned with the proposed number of households in Table 2-1 (921 households).

It would be useful to confirm that the 29,000m^2 of GFA for the identified retail, commercial and other activities in Table 3-1 corresponds with the proposed number of jobs identified in Table 2-1 (667 jobs). This is to confirm that the subsequent trip generation is representative of the proposed employment activities.

[1] Auranga B2 – Proposed private plan change – Additional modelling assumptions (7 July 2021), prepared by

Trip rates

Table 3-2 identifies the ‘adopted’ trip rates for the proposed activities within the Auranga B2 development. Reductions (or discounts) are subsequently applied to these trips rates, as discussed in the following section of the report (section 3.3).

It is noted that the ‘adopted’ trip generation rates selected for the residential activities (both Apartment and MHU) are at the lower end of the range of the sources of residential trip rates. In particular, for Apartment activities, these rates would be expected to be based on sites already well located to benefit from public transport, most likely in ‘centres’. To substantiate the ‘adopted’ trip rate, it would be useful to provide further information on how the sites that informed that ‘adopted’ trip rates compare to the proposed Auranga B2 development.

It is currently considered that adopting residential trip rates at the lower end of the range, then applying the reductions in section 3.3, will result in an underestimation of the trip generation for these residential activities.

The ‘adopted’ trip rates for other activities in Table 3-2 are considered to be acceptable.

Reductions

Section 3.3 identifies the proposed reductions (or discounts) to the ‘adopted’ trip rates.

It would be useful if the further transport reporting can provide additional explanation regarding the rationale for the mode share reductions applied. This should clarify how these reductions relate to the delivery of public transport (including upgrades to passenger rail including new rail stations) and active mode facilities in the area. This would assist in understanding the initial 2028 reductions and the identified increased reductions over time.

No other comments are provided in relation to the proposed reductions.

Trip distribution

Section 3.4 describes the assumed access points and associated trip distribution for the Auranga B2 development in 2028, 2038 and 2048.

It would be useful if the further transport reporting can provide additional explanation regarding the reasoning for the assignment of 30% of the development traffic along Burberry Road to the north and the 60% of traffic accessing SH22.

It would also be useful to understand how this relates to the distribution for the zone/s representing the Auranga B2 development in the transport (regional Macro Strategic Model) and / or traffic (SATURN) models used for the Structure Plan and by the Supporting Growth Alliance (SGA).

Modelling Approach

Section 4 describes the modelling approach, including the Drury Infrastructure Funding and Financing (DIFF) modelling scenarios to be utilised as part of this assessment.

Typically, it would be expected that the predicted traffic generation for the Auranga B2 development would be applied to the relevant traffic model zones in the SATURN traffic model, which would then assign these trips to the surrounding network. It would be useful if the further transport reporting can confirm the methodology for applying the Auranga B2 development trip generation to the surrounding transport network.

Section 4.1 describes the DIFF modelling scenarios, which includes description of some of the surrounding transport infrastructure. As discussed previously, it would also be useful to understand what public transport (particularly rail upgrades / stations) are assumed in these scenarios. It would also be useful to include maps for each scenario to illustrate these assumed projects or a tabulated summary of the projects identifying if they are included or excluded in the different future year scenarios.

We trust the above matters will be addressed as part of the further transport reporting currently being undertaken by Commute. I can confirm that, Beca would like to continue to be involved in the further review of these technical assessments, when available, on behalf of Drury South Limited.

Yours sincerely

Joe Phillips
Principal - Transportation

on behalf of

Beca Limited

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Copy
Sean Thompson, Drury South Limited